Traffic Impact Study
Proposed Heinen's Grocery Store
Naperville, Illinois

Prepared For:

Manhard CONSULTING

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

August 1, 2024

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 Heinen's Grocery Store to be located in Naperville, Illinois. The site, which contains a partially occupied retail center, is located on the south side of Chicago Avenue between Pembroke Road and Olesen Drive. As proposed, the existing retail center will be redeveloped with an approximately 50,442 square-foot grocery store with a 227-space surface parking lot. Access to development will be provided via the two existing access drives on Chicago Avenue and via the existing access drive on Olesen Drive. The existing east access drive on Chicago Avenue will be restricted to right-turn only movements.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any additional roadway or access improvements are necessary to accommodate traffic generated by the proposed development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

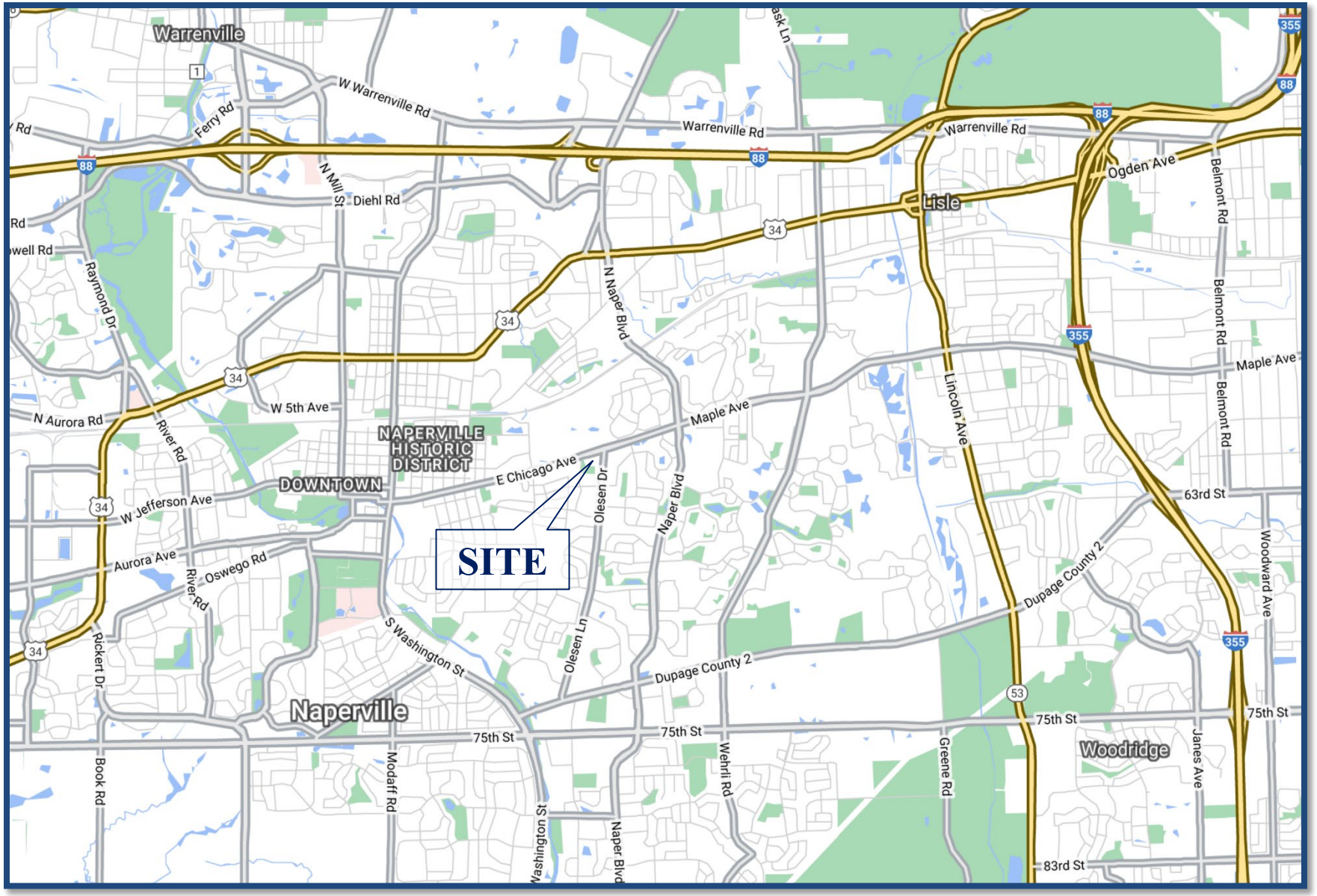
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the grocery store generated traffic
- Vehicle trip generation for the proposed grocery store
- Future traffic conditions including access to the proposed grocery store
- Traffic analyses for the weekday morning, weekday evening, and Saturday midday peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system
- Evaluation of the adequacy of the proposed parking supply

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

1. Existing Traffic Conditions – Analyzes the capacity of the existing roadway system using peak hour traffic volumes from traffic counts conducted in 2023.

2. Year 2029 No-Build Conditions – Analyzes the capacity of the existing roadway system using existing traffic volumes increased by an ambient area growth factor not attributable to any particular development and the traffic estimated to be generated by the other developments in the area.

3. Year 2029 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the Year 2029 no-build volumes and 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

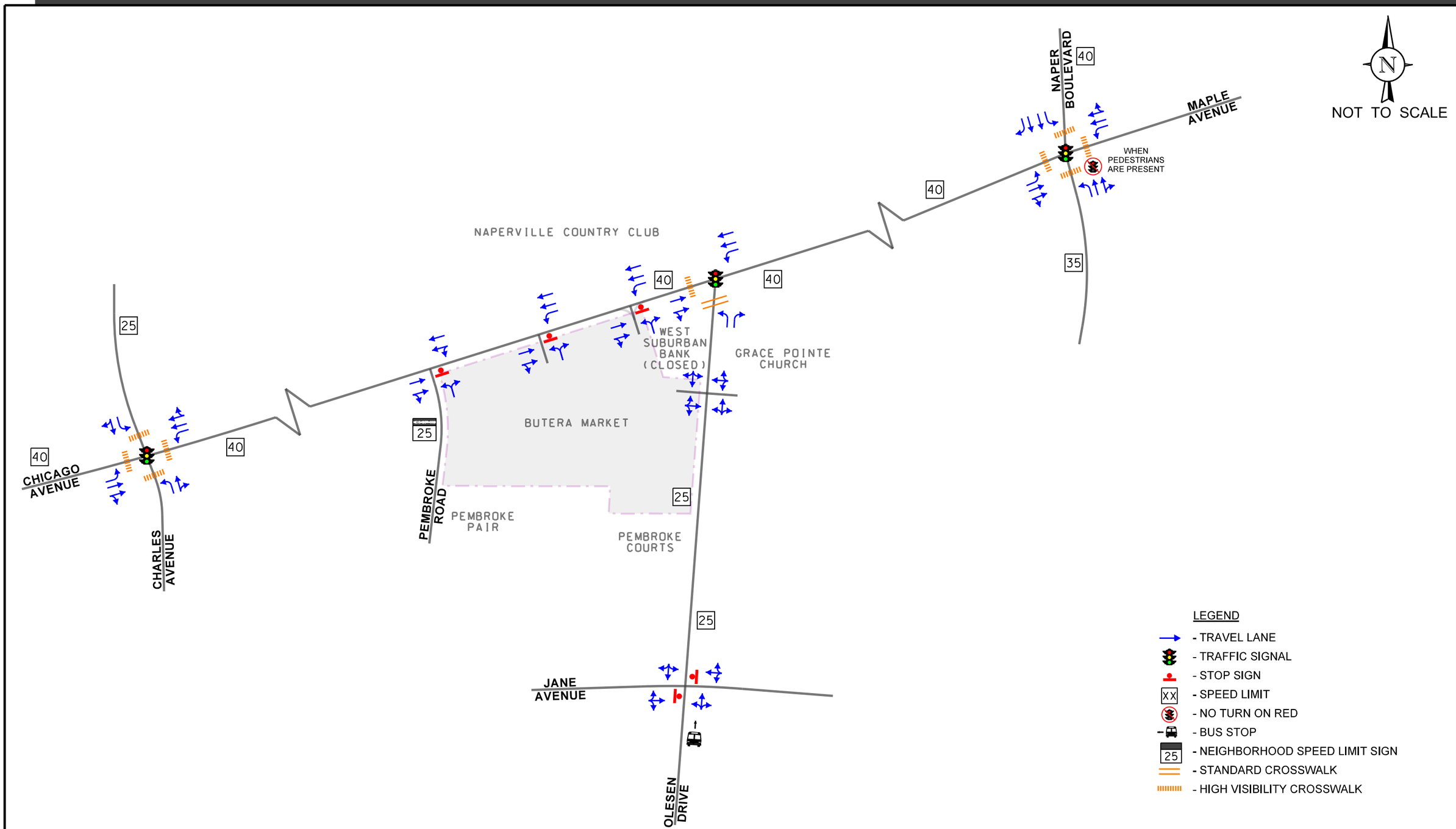
The site, which currently contains a partially occupied retail center, is bounded by Chicago Avenue to the north, Olesen Drive and a vacant West Suburban Bank to the east, Pembroke Park and the Pembroke Courts condominiums to the south, and Pembroke Road to the west. Land uses in the vicinity of the site are primarily residential. The Naperville County Club is located on the north side of Chicago Avenue.

Existing Roadway System Characteristics

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

Chicago Avenue is generally an east-west, major arterial roadway that provides two lanes in each direction. East of Naper Boulevard, Chicago Avenue becomes *Maple Avenue.* At its signalized intersection with Naper Boulevard, the eastbound (Chicago Avenue) and westbound (Maple Avenue) approaches both provide an exclusive left-turn lane, a through lane, and a shared through/right-turn lane. At its signalized intersection with Olesen Drive, Chicago Avenue provides a through lane and a shared through/right-turn lane on the eastbound approach and two through lanes and an exclusive left-turn lane on the westbound approach. At its unsignalized intersection with Pembroke Road, Chicago Avenue provides a through lane and a shared through/right-turn lane on the eastbound approach and a shared left-turn/through lane and a through lane on the westbound approach. At its signalized intersection with Charles Avenue, Chicago Avenue provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. Chicago Avenue/Maple Avenue is under the jurisdiction of the DuPage County Division of Transportation (DuDOT), is not designated as a Strategic Regional Arterial (SRA) route, and has a posted speed limit of 40 miles per hour. Chicago Avenue/Maple Avenue carries an annual average daily traffic (AADT) volume of 18,600 to 21,250 vehicles in the vicinity of the site (DuDOT 2017).

Naper Boulevard is a north-south, principal arterial roadway that provides two lanes in each direction. At its signalized intersection with Chicago Avenue, Naper Boulevard provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the northbound approach and an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the southbound approach. Naper Boulevard is under the jurisdiction of the City of Naperville, is not designated as an SRA route, and has a posted speed limit of 40 miles per hour north of Chiago Avenue and 35 miles per hour east of Chicago Avenue. Naper Boulevard carries an AADT volume of 27,300 to 30,500 vehicles in the vicinity of the site (DuDOT 2017).



HEINEN'S GROCERY STORE
NAPERVILLE, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

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Olesen Drive is a north-south, major collector roadway that extends south from Chicago Avenue and provides one lane in each direction. At its signalized intersection with Chicago Avenue, Olesen Drive provides an exclusive left-turn lane and an exclusive right-turn lane on the northbound approach. At its unsignalized intersection with Jane Avenue, Olesen Drive provides one lane in each direction. Olesen Drive is under the jurisdiction of the City of Naperville, carries an AADT volume of 5,400 vehicles (DuDOT 2017), and has a posted speed limit of 25 miles per hour. Parking is generally permitted on both sides of the road.

Charles Avenue is a north-south, local roadway that provides one lane in each direction. At its signalized intersection with Chicago Avenue, Olesen Drive provides an exclusive left-turn lane and a shared through/right-turn lane on both approaches. Charles Avenue is under the jurisdiction of the City of Naperville and has a posted speed limit of 25 miles per hour.

Jane Avenue is an east-west, local roadway that provides one lane in each direction. At its unsignalized intersection with Olesen Drive, Jane Avenue provides a shared left-turn/through/right-turn lane on both approaches and is under stop sign control. Jane Avenue is under the jurisdiction of the City of Naperville and has a posted speed limit of 25 miles per hour.

Existing Retail Center

The site currently contains a partially occupied retail center that was previously anchored by a Butera Market Grocery Store. The retail center currently contains the following uses:

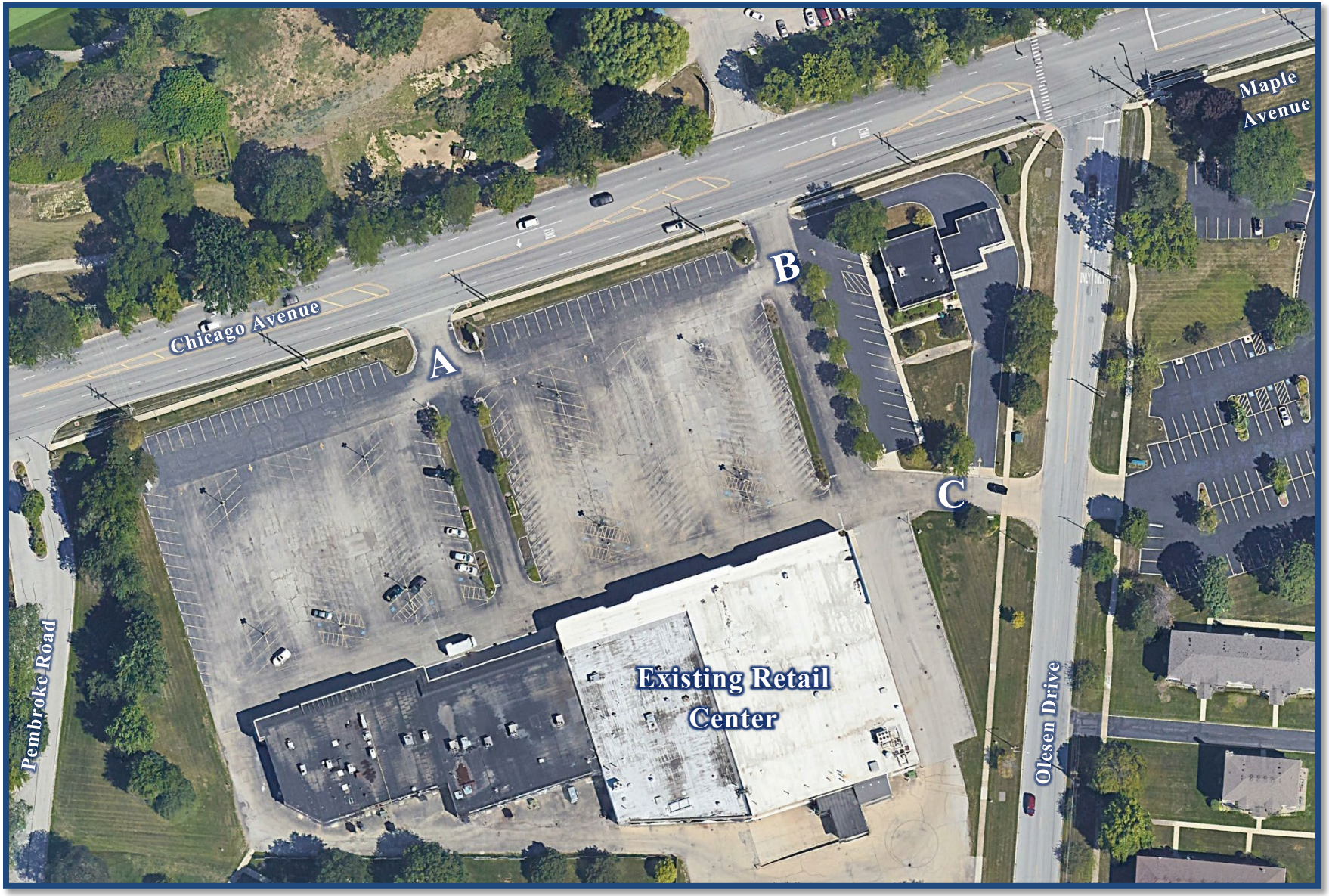
- My Travel Agent Inc.
- Fox River Cabinets
- Farmers Insurance
- Pepe's Mexican Restaurant
- The Can Bar
- White Eagle Health and Wellness
- Union Martial Arts

Access to the center is provided via the three access drives, which are shown in **Figure 4**. The access system also serves the vacant West Suburban Bank. The retail center access drives are as follows:

- The West Chicago Avenue Access Drive (Access A on Figure 3) is a full movement access drive located approximately 350 feet east of Pembroke Road. This access drive provides one inbound lane and one outbound lane and is under stop sign control. Chicago Avenue provides a westbound left-turn lane serving this access drive.

- The East Chicago Avenue Access Drive (Access B on Figure 3) is a full movement access drive located approximately 285 feet west of Olesen Drive. This access drive provides one inbound lane and one outbound lane and is under stop sign control. Chicago Avenue provides a westbound left-turn lane serving this access drive.

- The Olesen Drive Access Drive (Access C on Figure 3) is a full movement access drive located approximately 345 feet south of Olesen Drive aligned opposite a Grace Pointe Church access drive. This access drive provides one inbound lane and one outbound lane.



Existing Retail Center Access **Figure 4**

Existing Traffic Volumes

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

- Chicago Avenue with Naper Boulevard
- Chicago Avenue with Olesen Drive
- Chicago Avenue with Pembroke Road
- Chicago Avenue with Charles Avenue
- Olesen Drive with the Site Access Drive/Grace Pointe Access Drive
- Olesen Drive with Jane Avenue

The traffic counts were conducted on Thursday, August 3, 2023, during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) peak periods, and on Saturday, August 5, 2023, during the midday peak period (12:00 P.M. to 2:00 P.M.). The results of the traffic counts show that the peak hours of traffic generally occur between 8:00 A.M. and 9:00 A.M. during the weekday morning peak period, between 5:00 P.M. and 6:00 P.M. during the weekday evening peak period, and between 12:00 P.M. and 1:00 P.M. during the Saturday midday peak period. Copies of the traffic count summary sheets are included in the Appendix. The existing traffic volumes are illustrated in **Figure 5**.

Crash Analysis

KLOA, Inc. obtained crash data for the most recent available past five years (2018 to 2022) for the study area intersections[1]. A review of the data indicated the following:

- Only three crashes were reported at the intersection of Chicago Avenue with Olesen Drive.
- No crashes were reported at the intersection of Chicago Avenue with Pembroke Road
- Only one crash was reported at the intersection of Olesen Drive with Jane Avenue.
- No fatalities were reported at any intersection during the reviewed period.

Summaries of the crash data at the intersections of Chicago Avenue with Naper Boulevard and Charles Avenue are shown in **Tables 1** and **2**.

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s).

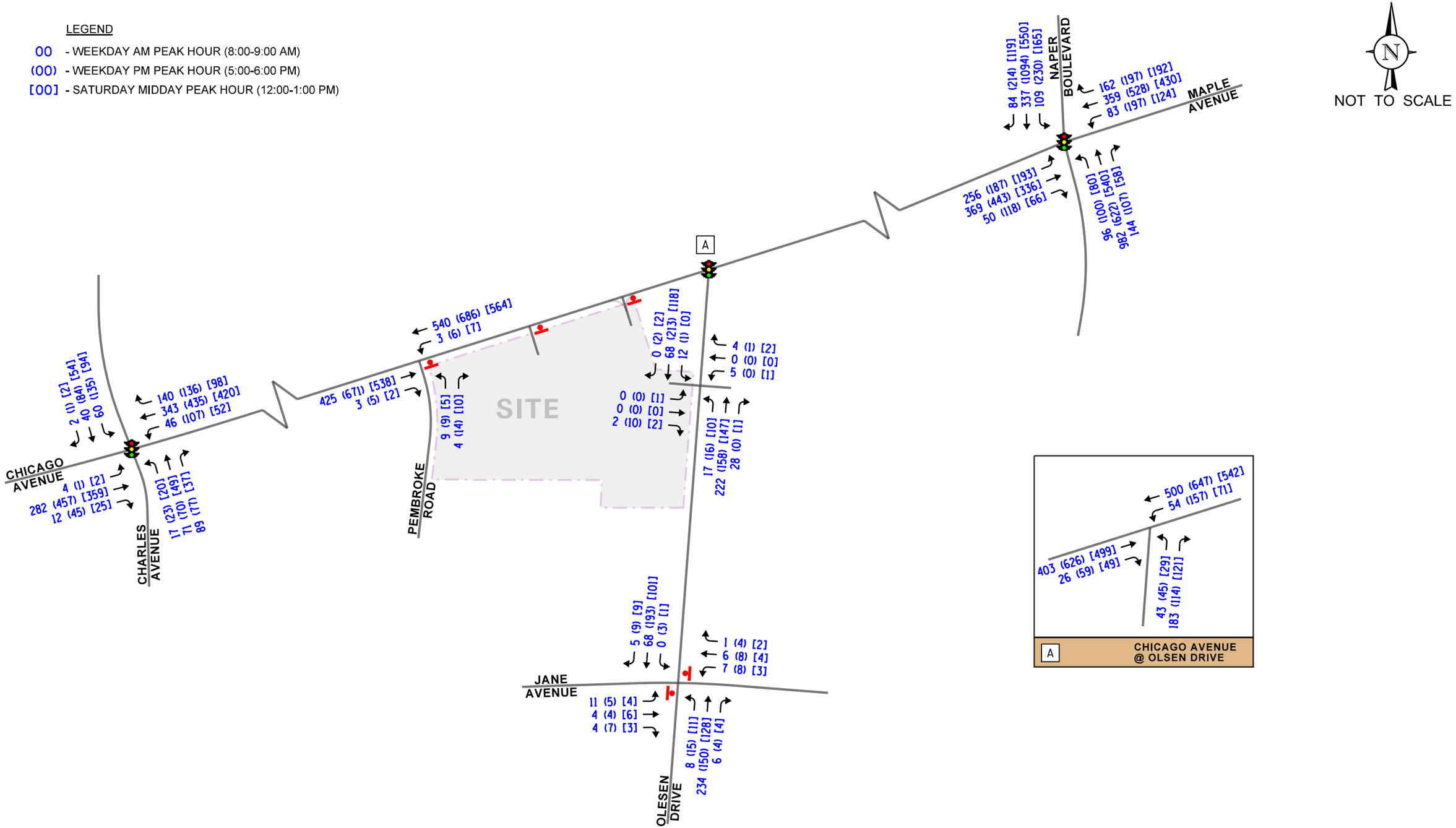
LEGEND

00 - WEEKDAY AM PEAK HOUR (8:00-9:00 AM)

(00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (12:00-1:00 PM)

NOT TO SCALE



HEINEN'S GROCERY STORE
NAPERVILLE, ILLINOIS

EXISTING TRAFFIC VOLUMES

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Table 1
CHICAGO AVENUE WITH NAPER BOULEVARD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Pedestrian	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	4	0	1	1	6
2019	1	0	0	6	0	7	0	14
2020	0	0	1	2	0	1	0	4
2021	0	0	0	7	0	6	0	13
2022	3	0	1	1	0	3	0	8
Total	**4**	**0**	**2**	**20**	**0**	**18**	**1**	**45**
Average	**<1.0**	**--**	**<1.0**	**4.0**	**--**	**3.6**	**<1.0**	**9.0**

Table 2
CHICAGO AVENUE WITH CHARLES AVENUE– CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Pedestrian	Object	Rear End	Sideswipe	Turning	Other	Total
2018	2	0	0	2	0	1	0	5
2019	0	0	0	1	0	2	0	3
2020	0	0	0	0	0	1	0	1
2021	0	0	0	0	0	0	0	0
2022	0	0	1	0	0	1	0	2
Total	**2**	**0**	**1**	**3**	**0**	**5**	**0**	**11**
Average	**<1.0**	**--**	**<1.0**	**<1.0**	**--**	**1.0**	**--**	**2.2**

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 Site and Development Plan

As proposed, the existing shopping center will be redeveloped with an approximately 50,442 square-foot Heinen's Grocery Store with a 227-space surface parking lot located east of the grocery store building. Access to the development will be provided via the access system serving the existing retail center with the following modifications:

- The west access drive on Chicago Avenue will be striped with separate outbound left-turn and right-turn lanes.
- The east access drive on Chicago Avenue will be restricted to right-in/right-out movements via striping, signage, and channelization.
- The Olesen Drive access drive will be placed under stop sign control.
- The internal access drive serving the vacant bank site located immediately south of the east access drive on Chicago Avenue will be relocated further south and will align with the north most east-west drive aisle in the Heinen's parking lot.

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

Directional Distribution

The directions from which the patrons and employees will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 6** illustrates the directional distribution of the development-generated traffic. Figure 6 also shows the distance, in feet, between the existing and proposed access intersections.

Peak Hour Traffic Volumes

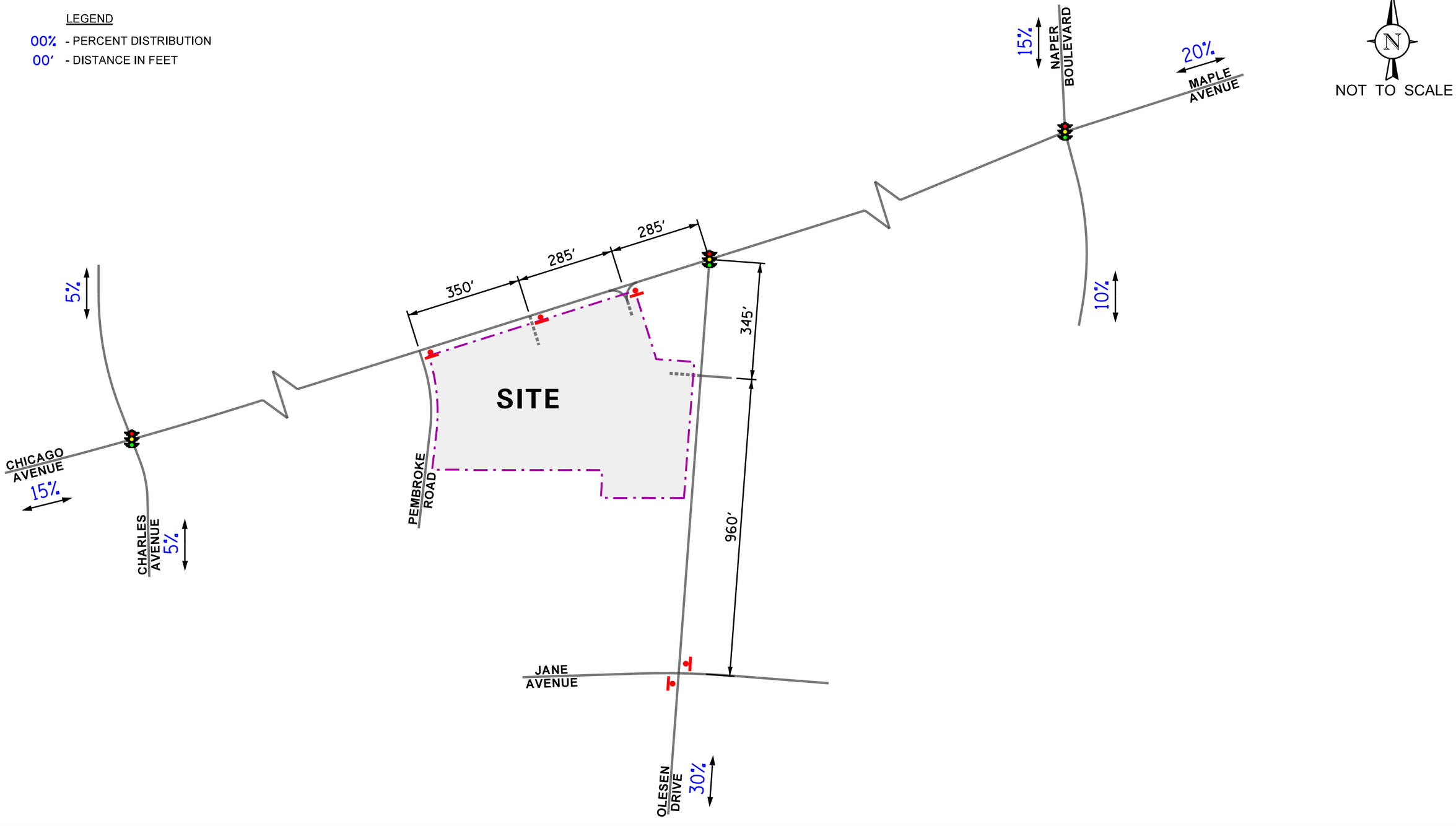
The number of peak hour trips estimated to be generated by the proposed development was based on data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition. "Supermarket" (Land-Use Code 850) rates were used for the proposed grocery store. Copies of the ITE trip generation sheets are included in the Appendix. The projected peak hour trips estimated to be generated by the development are shown in **Table 3.**

LEGEND

00% - PERCENT DISTRIBUTION

00′ - DISTANCE IN FEET

NOT TO SCALE



HEINEN'S GROCERY STORE
NAPERVILLE, ILLINOIS

DIRECTIONAL DISTRIBUTION

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Table 3
ESTIMATED PEAK HOUR TRIP GENERATION

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
850	Supermarket (50,442 s.f.)	82	57	139	215	215	430	267	268	535

Trip Generation Comparison

Currently the site contains an approximately 67,000 square-foot partially occupied retail center that was previously anchored by a Butera Market. The traffic that would have been typically generated by the retail center when it was fully occupied was estimated based on ITE trip generation rates for Land-Use Code 821 (Shopping Plaza with Supermarket).

Table 4 provides a comparison of the traffic estimated to be generated by the proposed grocery store to the traffic that would have been generated by the existing retail center when it was fully occupied. As can be seen, the proposed grocery store will generate less traffic during all three peak hours than the existing retail center would have typically generated.

Table 4
TRIP GENERATION COMPARISON

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Proposed Grocery Store										
850	Supermarket (50,442 s.f.)	82	57	139	215	215	430	267	268	535
Existing Retail Center (Fully Occupied)										
821	Shopping Plaza with Supermarket (67,000 s.f.)	147	90	237	304	329	633	323	311	634
	Difference	**-65**	**-33**	**-98**	**-89**	**-114**	**-203**	**-56**	**-43**	**-99**

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, weekday evening, and Saturday midday 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 6). The traffic assignment for the development is illustrated in **Figure 7.**

Background (No-Build) Traffic Conditions

The Year 2029 no build traffic volumes, illustrated in **Figure 8**, include the following:

- The existing traffic volumes were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate of 1.03 percent per year for six years (buildout year plus five years) for a total of approximately six percent to project Year 2029 background conditions. A copy of the CMAP 2050 projections letter is included in the Appendix.

- The estimated traffic to be generated by the Kidz World day care center to be located in the northeast corner of Chicago Avenue with Olesen Drive. The day care center was under construction when the traffic counts were conducted.

- In addition, the vacant Western Suburban Bank parcel is planned to be redeveloped with a McAlister's Deli. The traffic that could be generated by the deli was based on trip generation rates from ITE's *Trip Generation Manual*, 11th Edition for "Fast Casual Restaurant" (Land-Use Code 930). The estimated peak hour trip generation for the McAlister's Deli is shown on **Table A** in the appendix.

Total Projected Traffic Volumes

The Year 2029 total projected traffic volumes, illustrated in **Figure 9** include the following:

- The Year 2029 no build traffic volumes (Figure 8).
- The traffic estimated to be generated by the proposed grocery store (Figure 7).
- The removal of the existing traffic entering/exiting the site at the Olesen Drive access drive. The traffic using the eastern access drive on Chicago Avenue was balanced to take into account the change to a right-in/right-out drive.

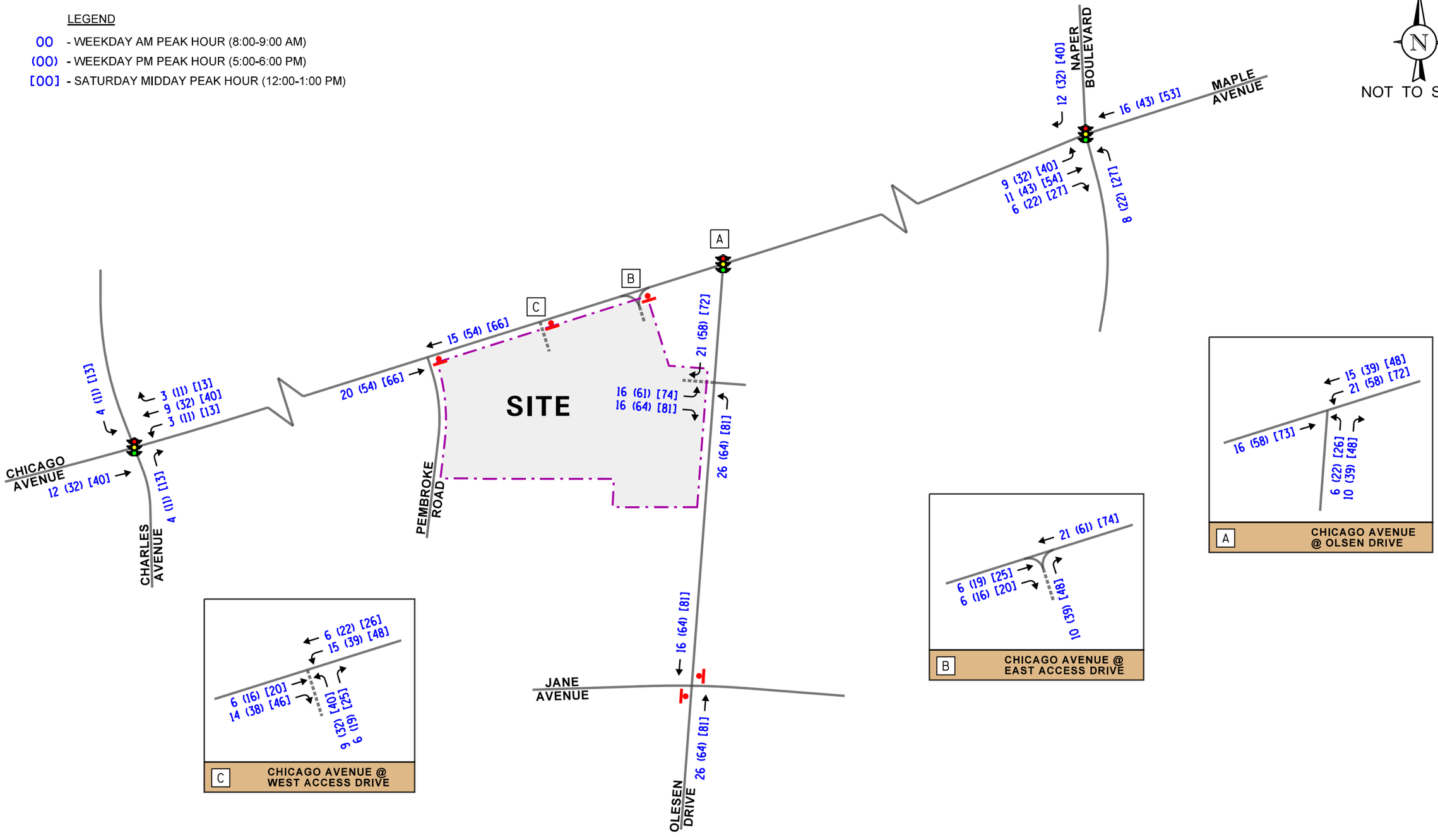
LEGEND

00 - WEEKDAY AM PEAK HOUR (8:00-9:00 AM)

(00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (12:00-1:00 PM)

NOT TO SCALE



HEINEN'S GROCERY STORE
NAPERVILLE, ILLINOIS

SITE-GENERATED TRAFFIC VOLUMES

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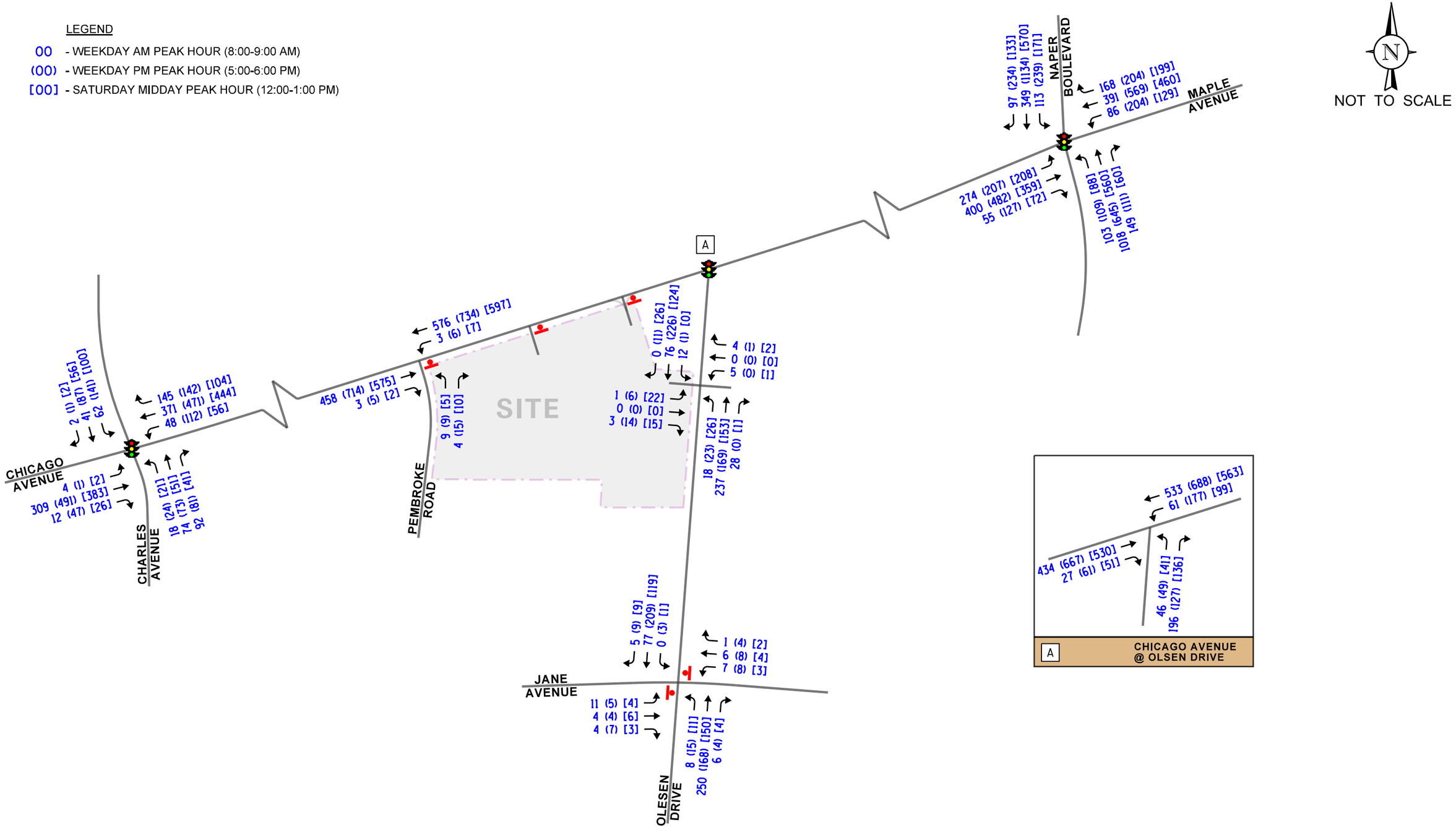
LEGEND

00 - WEEKDAY AM PEAK HOUR (8:00-9:00 AM)

(00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (12:00-1:00 PM)

NOT TO SCALE



HEINEN'S GROCERY STORE
NAPERVILLE, ILLINOIS

YEAR 2029 NO-BUILD TRAFFIC VOLUMES

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LEGEND

00 - WEEKDAY AM PEAK HOUR (8:00-9:00 AM)

(00) - WEEKDAY PM PEAK HOUR (5:00-6:00 PM)

[00] - SATURDAY MIDDAY PEAK HOUR (12:00-1:00 PM)

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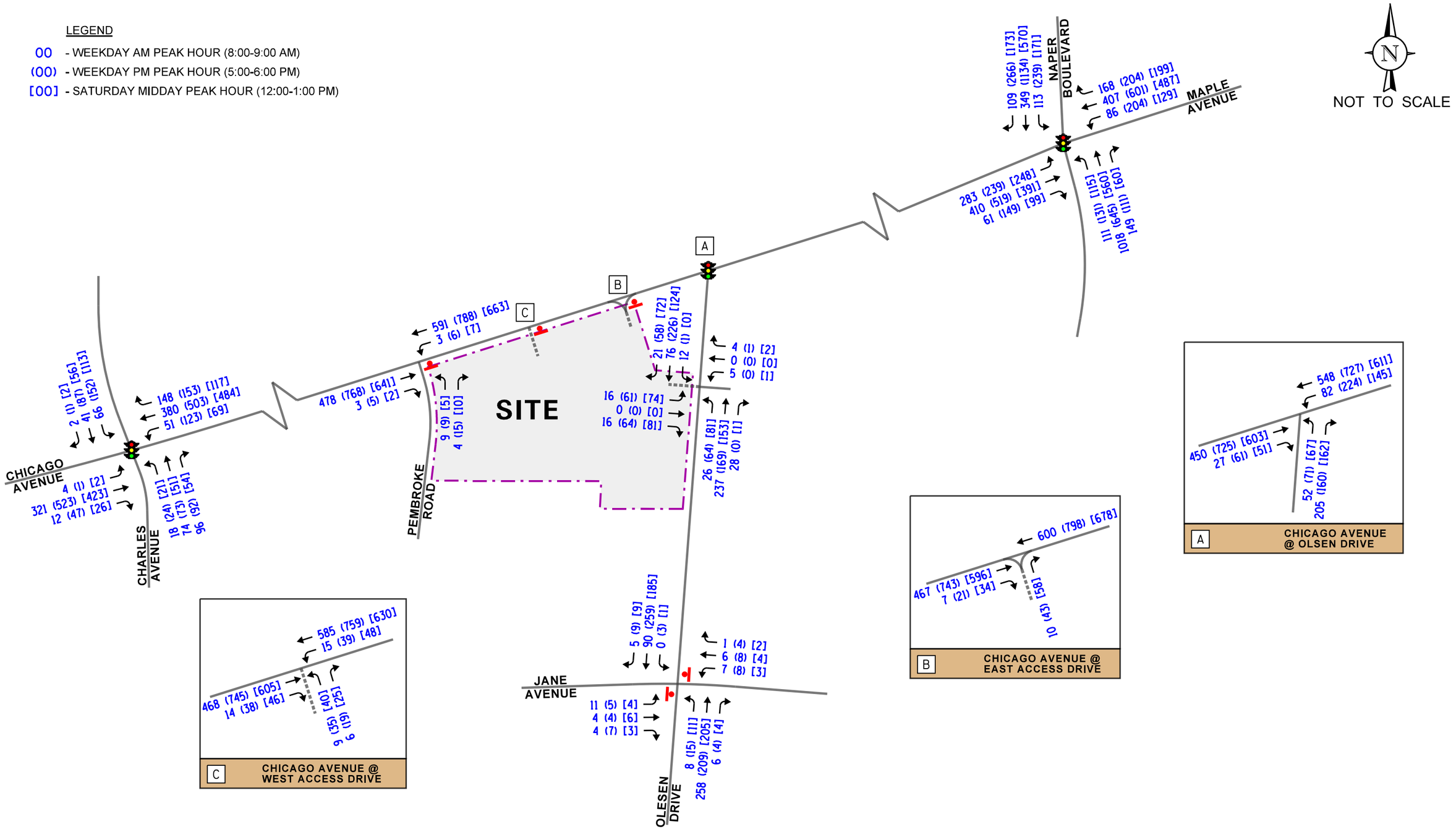

HEINEN'S GROCERY STORE
NAPERVILLE, ILLINOIS

YEAR 2029 TOTAL TRAFFIC VOLUMES

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Job No: 23-200 Figure: 9

5. Traffic Analysis and Recommendations

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

Traffic Analyses

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

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM),* 6th Edition and analyzed using Synchro/SimTraffic 11 software. The analysis for the traffic-signal controlled intersections were accomplished using actual and field-measured cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

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

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

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, Year 2029 no-build, and Year 2029 total projected conditions are presented in **Tables 5** through **11**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5
CAPACITY ANALYSIS RESULTS – CHICAGO AVENUE/MAPLE AVENUE WITH NAPER BOULEVARD– SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Southbound			Overall
		L	T/R	L	T/R	L	T/R	L	T	R	
Existing Conditions	Weekday Morning	D 41.5	D 37.6	C 26.3	D 45.4	B 16.1	D 38.3	C 29.6	C 25.3	A 1.7	D 35.9
		D – 39.1		D – 42.8		D – 36.5		C – 22.4			
	Weekday Evening	D 43.9	D 48.5	C 28.5	D 41.5	D 41.5	D 43.1	C 34.3	D 48.6	B 16.3	D 42.4
		D – 47.3		D – 38.7		D – 42.9		D – 41.9			
	Saturday Midday	B 18.1	C 23.4	B 16.1	C 28.2	C 21.8	D 41.0	C 27.8	C 34.6	A 3.9	C 29.0
		C – 21.7		C – 26.2		D – 38.8		C – 28.9			
No-Build Conditions	Weekday Morning	D 49.8	D 38.8	C 26.4	D 47.6	B 16.4	D 40.6	D 37.3	C 25.8	A 2.6	D 38.3
		D – 42.9		D – 44.7		D – 38.6		C – 24.1			
	Weekday Evening	D 48.3	D 46.3	C 29.1	D 42.1	D 46.0	D 45.6	D 40.7	D 54.7	B 18.3	D 45.1
		D – 46.8		D – 39.4		D – 45.7		D – 47.3			
	Saturday Midday	B 18.5	C 23.5	B 16.3	C 29.6	C 22.5	D 42.2	C 29.1	D 35.2	A 5.2	C 29.7
		C – 21.9		C – 27.4		D – 39.8		C – 29.4			
Projected Conditions	Weekday Morning	D 54.7	D 39.5	C 26.5	D 48.8	B 16.6	D 40.8	D 37.6	C 26.1	A 3.8	D 39.1
		D – 45.2		D – 45.9		D – 37.6		C – 24.1			
	Weekday Evening	E 66.6	D 44.8	C 30.3	D 43.3	E 57.7	D 46.1	D 41.7	D 57.1	C 21.0	D 47.2
		D – 50.6		D – 40.7		D – 47.8		D – 49.0			
	Saturday Midday	C 20.5	C 23.0	B 16.6	C 31.8	C 24.6	D 42.2	C 29.5	D 37.3	A 9.3	C 30.4
		C – 22.2		C – 29.4		D – 39.5		C – 30.6			

-Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

Table 6
CAPACITY ANALYSIS RESULTS – CHICAGO AVENUE WITH OLESEN DRIVE– SIGNALIZED

	Peak Hour	Eastbound	Westbound		Northbound		Overall
		T/R	L	T	L	R	
Existing Conditions	Weekday Morning	A 3.5	A 2.6	A 3.5	E 65.8	B 10.5	A 6.7
			A – 3.4		C – 21.0		
	Weekday Evening	A 3.5	A 2.0	A 1.7	E 72.2	B 11.1	A 5.0
			A – 1.7		C – 28.3		
	Saturday Midday	A 3.5	A 0.9	A 1.0	D 53.3	A 9.6	A 4.0
			A – 1.0		B – 18.1		
No-Build Conditions	Weekday Morning	A 3.6	A 3.3	A 4.3	E 65.8	B 10.3	A 7.1
			A – 4.2		C – 20.7		
	Weekday Evening	A 3.7	A 2.2	A 1.6	E 72.7	B 10.7	A 5.2
			A – 1.7		C – 28.0		
	Saturday Midday	A 3.5	A 1.1	A 1.2	D 54.0	A 9.2	A 4.2
			A – 1.2		B – 18.2		
Projected Conditions	Weekday Morning	A 3.8	A 3.9	A 4.9	E 67.1	B 10.1	A 7.6
			A – 4.8		C – 21.6		
	Weekday Evening	A 4.8	A 3.9	A 1.8	E 74.0	A 9.4	A 6.5
			A – 2.3		C – 29.3		
	Saturday Midday	A 4.5	A 1.7	A 1.4	E 56.3	A 7.8	A 5.5
			A – 1.4		C – 22.0		

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

Table 7
CAPACITY ANALYSIS RESULTS – CHICAGO AVENUE WITH CHARLES AVENUE– SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Existing Conditions	Weekday Morning	A 9.5	B 13.6	A 4.4	A 3.7	C 32.9	D 51.7	D 37.9	D 40.0	B 17.0
		B – 13.5		A – 3.7		D – 49.9		D – 38.8		
	Weekday Evening	B 12.0	B 17.9	B 19.1	C 22.7	C 34.5	E 56.1	D 43.0	D 45.9	C 27.2
		B – 17.9		C – 22.2		D – 53.2		D – 44.1		
	Saturday Midday	A 8.0	B 12.4	A 3.8	A 5.5	C 29.6	D 35.3	C 34.6	D 37.2	B 13.8
		B – 12.4		A – 5.3		C – 34.2		D – 35.6		
No-Build Conditions	Weekday Morning	A 9.8	B 14.1	A 4.3	A 3.8	C 32.5	D 52.1	D 37.9	D 42.2	B 17.1
		B – 14.0		A – 3.8		D – 50.2		D – 39.7		
	Weekday Evening	B 12.0	B 19.0	B 18.4	C 22.3	C 33.9	E 56.7	D 42.5	D 45.1	C 27.2
		B – 19.0		C – 21.7		D – 53.7		D – 43.5		
	Saturday Midday	A 8.0	B 12.8	A 4.4	A 6.1	C 29.3	D 35.5	C 34.6	D 37.0	B 14.2
		B – 12.7		A – 5.9		C – 34.4		D – 35.5		
Projected Conditions	Weekday Morning	B 10.2	B 14.5	A 4.5	A 4.1	C 32.0	D 51.9	D 37.9	D 41.6	B 17.3
		B – 14.5		A – 4.1		D – 50.0		D – 39.4		
	Weekday Evening	B 13.0	C 20.7	B 17.2	C 20.5	C 32.6	E 56.2	D 41.8	D 43.5	C 26.8
		C – 20.7		B – 20.0		D – 53.2		D – 42.4		
	Saturday Midday	A 7.5	B 13.1	A 5.7	A 7.1	C 30.0	C 33.3	D 35.5	D 37.8	B 14.7
		B – 13.1		A – 6.9		C – 32.8		D – 36.2		

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

Table 8
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Chicago Avenue with Pembroke Road						
• Westbound Left Turn	A	8.4	A	9.1	A	8.5
• Northbound Approach	B	14.6	C	15.6	B	12.4
Olesen Drive with the Site Access Drive and the Grace Pointe Access Drive						
• Eastbound Approach	A	8.7	A	9.4	A	9.8
• Westbound Approach	B	11.5	A	9.4	A	9.5
• Northbound Left Turn	A	7.4	A	7.7	A	7.5
• Southbound Left Turn	A	8.0	A	7.5	--	--
Olesen Drive with Jane Avenue						
• Eastbound Approach	B	11.4	B	10.9	B	10.2
• Westbound Approach	B	11.9	B	11.5	B	10.3
• Northbound Left Turn	A	7.4	A	7.7	A	7.4
• Southbound Left Turn	--	--	A	7.5	A	7.5

LOS = Level of Service
Delay is measured in seconds.

Table 9
CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Chicago Avenue with Pembroke Road						
• Westbound Left Turn	A	8.5	A	9.2	A	8.6
• Northbound Approach	C	15.5	C	16.4	B	12.9
Olesen Drive with the Site Access Drive and the Grace Pointe Access Drive						
• Eastbound Approach	B	10.1	B	10.5	B	10.8
• Westbound Approach	B	11.8	A	9.1	A	9.8
• Northbound Left Turn	A	7.4	A	7.8	A	7.6
• Southbound Left Turn	A	8.0	A	7.6	--	--
Olesen Drive with Jane Avenue						
• Eastbound Approach	B	11.7	B	11.1	B	10.5
• Westbound Approach	B	12.2	B	11.8	B	10.5
• Northbound Left Turn	A	7.4	A	7.7	A	7.5
• Southbound Left Turn	--	--	A	7.6	A	7.5

LOS = Level of Service
Delay is measured in seconds.

Table 10
CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Chicago Avenue with Pembroke Road						
• Westbound Left Turn	A	8.6	A	9.5	A	8.9
• Northbound Approach	C	15.9	C	17.6	B	13.8
Chicago Avenue with the West Site Access						
• Westbound Left Turn	A	8.5	A	9.7	A	9.2
• Northbound Left Turn	C	17.5	E	36.4	D	27.9
• Northbound Right Turn	A	9.9	B	11.3	B	10.7
Chicago Avenue with the East Site Access						
• Northbound Approach	A	9.8	B	11.3	B	10.7
Olesen Drive with the Site Access Drive and the Grace Pointe Access Drive						
• Eastbound Approach	B	11.9	B	13.8	B	13.5
• Westbound Approach	B	12.2	A	9.1	B	10.8
• Northbound Left Turn	A	7.5	A	8.0	A	7.8
• Southbound Left Turn	A	8.0	A	7.6	--	--
Olesen Drive with Jane Avenue						
• Eastbound Approach	B	12.0	B	11.9	B	11.5
• Westbound Approach	B	12.4	B	12.8	B	11.5
• Northbound Left Turn	A	7.5	A	7.8	A	7.6
• Southbound Left Turn	--	--	A	7.7	A	7.6

LOS = Level of Service
Delay is measured in seconds.

Discussion and Recommendations

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

Chicago Avenue/Maple Avenue with Naper Boulevard

The results of the capacity analyses indicate that the intersection currently operates at an overall Level of Service (LOS) D during the weekday morning peak hour and weekday evening peak hours and LOS C during the Saturday midday peak hour. All the intersection movements currently operate at LOS D or better during all three peak hours. Under Year 2029 no-build conditions, this intersection is projected to continue to operate at the same LOS during all three peak hours with increases in delay of less than three seconds. Further, all the intersection movements are projected to continue to operate at LOS D or better during all three peak hours.

Under Year 2029 total projected conditions, this intersection is projected to continue to operate at the same LOS during all three peak hours with increases in delay of less than three seconds. Further, all the intersection movements currently operate at LOS D or better during all three peak hours, except the eastbound left-turn movement. The eastbound left-turn movement is projected to operate on the threshold between LOS D/E during the morning peak hour and LOS E during the evening peak hour. It should be noted that the operation of the eastbound left-turn movement could be enhanced with minor signal modifications. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

Chicago Avenue with Olesen Drive

The results of the capacity analyses indicate that the intersection currently operates at an overall LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. It should be noted that the northbound left-turn movement operates at LOS D or E during the peak hours. The lower level of service is a result of the long cycle length (110 to 140 seconds during the peak hours) and the reduced green time provided to the Olesen Drive movements as Chicago Avenue is the major roadway at this intersection. However, the northbound movements operate with a volume-to-capacity (v/c) ratio of less than one and 95th percentile queues that can be accommodated within the existing storage lanes. The Chicago Avenue movements operate at LOS A during all three peak hours. Under Year 2029 no-build conditions, this intersection is projected to continue to operate at an overall LOS A during all three peak hours.

Under Year 2029 total projected conditions, this intersection is projected to continue to operate at LOS A during all three peak hours with increases in delay of approximately one second. As with existing conditions, the northbound left-turn movement is projected to operate at LOS E during the peak hours. However, as is the case under existing conditions, this movement is projected to operate with a v/c ratio of less than one and the 95th percentile queues that can be accommodated within the existing storage lanes. The Chicago Avenue movements are projected to continue to operate at LOS A. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

Chicago Avenue with Charles Avenue

The results of the capacity analyses indicate that the intersection currently operates at an overall LOS B during the weekday morning and Saturday midday peak hours and LOS C during the weekday evening peak hour. It should be noted that some northbound and southbound movements operate at LOS D or E during the peak hours. The lower level of service is a result of the long cycle length (110 to 140 seconds during the peak hours) and the reduced green time provided to the Charles Avenue movements as Chicago Avenue is the major roadway at this intersection. However, the northbound and southbound movements operate with a volume-to-capacity (v/c) ratio of less than one. The Chicago Avenue movements operate at LOS C or better during all three peak hours. Under Year 2029 no-build conditions, this intersection is projected to continue to operate at the same LOS during all three peak hours.

Under Year 2029 total projected conditions, this intersection is projected to continue to operate at the same LOS during all three peak hours with increases in delay of less than one second. As with existing conditions, some northbound and southbound movements are projected to operate at LOS D or E during the peak hours. However, as is the case under existing conditions, these movements are projected to operate with a v/c ratio of less than one. The Chicago Avenue movements are projected to continue to operate at LOS C or better. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

Chicago Avenue with Pembroke Road

The results of the capacity analyses indicate that the northbound approach (Pembroke Road) operates at LOS C or better during the weekday morning, weekday evening, and Saturday midday peak hours. Further, the westbound left-turn movement operates at LOS A during all three peak hours. Under Year 2029 no-build and total projected conditions the northbound approach is projected to operate at LOS C or better during all three peak hours with increases in delay of less than two seconds over existing conditions. In addition, the westbound left-turn lane is projected to continue to operate a LOS A. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

Chicago Avenue with the Site Access Drives

The existing retail center is currently served by two full movement access drives on Chicago Avenue. Both access drives provide one inbound lane and one outbound lane and are under stop sign control. Chicago Avenue provides a westbound left-turn lane serving each access drive. As part of the development, the west access drive will be restriped with separate outbound left-turn and right-turn lanes and the east access drive will be restricted to right-in/right-out movements via striping, signage, and channelization.

Under Year 2029 total projected conditions, outbound right-turn movements from the access drives are projected to operate at LOS B or better and outbound left-turn movements form the west access drive are projected to operate at LOS E or better. The following should be noted:

- The outbound left-turn movement is projected to operate with a low volume to capacity (v/c) ratio indicating that while vehicles may experience some delay, they will be able to turn onto Chicago Avene.

- This analysis does not take into consideration the signalized intersections along Chicago Avenue which will create gaps in the traffic stream allowing vehicles to exit more efficiently.

- The westbound left-turn movement at the west access drive are projected to operate at LOS A during all three peak hours with 95th percentile queues that can be accommodated within the existing turn lane.

- A review of the right-turn lane warrants published in Chapter 36 of the IDOT *Bureau of Design and Environment* (BDE) Manual shows that exclusive right-turn lanes will not be warranted on Chicago Avenue serving either site access drive.

As such, the existing access drives will be adequate in accommodating the traffic estimated to be generated by the proposed grocery store and will ensure efficient access to the site.

Olesen Drive with the Site Access Drive and the Grace Pointe Access Drive

The results of the capacity analyses indicate that all critical movements at this intersection operate at LOS B or better during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 no-build conditions, all the critical movements at this intersection are projected to continue to operate at LOS B or better during all three peak hours.

As proposed, the existing site access drive on Olesen Drive will be maintained and will serve the proposed grocery store. It is recommended that as part of the development that this access drive be placed under stop sign control. Under Year 2029 total projected conditions, outbound movements from the access drive and the Grace Pointe access drive are projected to operate at LOS B during all three peak hours. As such, the existing access drive will be adequate in accommodating the traffic estimated to be generated by the proposed grocery store and will ensure efficient access to the site.

Olesen Drive with Jane Avenue

The results of the capacity analyses indicate that all critical movements at this access drive currently operate at LOS B or better during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 no-build and total projected conditions all critical movements are projected to continue to operate at LOS B or better during all three peak hours. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the development and no roadway improvements or traffic control modifications are required.

Parking Evaluation

As proposed, the site will be redeveloped with a 50,442 square foot grocery store with a 227-space surface parking lot. In order to determine if the parking supply will be sufficient to meet the peak parking demand of the development, the parking requirements of the proposed development were estimated based on the Municipal Code of Naperville and the rates published in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*, 5th Edition.

City of Naperville Requirements

The City of Naperville Code of Ordinance requires four parking spaces per 1,000 square feet of gross floor area for grocery stores. Based on the above, the proposed grocery store would require a total of 194 parking spaces, which results in a surplus of 25 parking spaces.

ITE Parking Generation Manual

Based on the average parking rates published in the Institute of Transportation Engineers (ITE) *Parking Generation Manual*, 5th Edition, the average parking demand for a Supermarket (LUC 850) is as follows:

- 2.93 parking spaces per 1,000 square feet (weekday)
- 3.64 parking spaces per 1,000 square feet (Saturday)

Based on ITE *Parking Generation Manual* rates, the proposed grocery store is projected to have a peak parking demand of approximately 142 parking spaces on a weekday and 177 parking spaces on Saturday, which can be accommodated by the proposed 227 parking spaces.

6. Conclusion

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

- As proposed, the existing partially occupied retail center will be redeveloped with an approximately 50,442 square-foot Heinen's Grocery Store.

- The proposed grocery store will generate less traffic than the existing retail center would have typically generated when it was fully occupied.

- The area roadway system generally has sufficient reserve capacity to accommodate the traffic to be generated by the proposed grocery store and no additional roadway improvements or traffic control modifications are required.

- Access to the grocery store will be provided via the existing access system serving the retail center with the following modifications:

    - The west access drive on Chicago Avenue will be striped with separate outbound left-turn and right-turn lanes.

    - The east access drive on Chicago Avenue will be restricted to right-in/right-out movements via striping, signage, and channelization.

    - The Olesen Drive access drive will be placed under stop sign control.

    - The internal access drive serving the vacant bank site located immediately south of the east access drive on Chicago Avenue will be relocated further south and will align with the north most east-west drive aisle in the Heinen's parking lot.

- The access system will adequately accommodate site-generated traffic and ensure that efficient and flexible access to and from the site is provided.

- The proposed parking supply of 227 parking spaces will accommodate the peak parking demands of the grocery store based on both Naperville Municipal Code and ITE survey data.

Appendix

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

Traffic Count Summary Sheets

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(847)518-9990 abowen@kloainc.com

Count Name: Chicago Avenue with Charles Avenue TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Data

Start Time	Chicago Avenue Eastbound						Chicago Avenue Westbound						Charles Avenue Northbound						Charles Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	0	55	2	0	57	0	4	46	20	1	70	0	2	14	16	2	32	0	7	3	0	0	10	169
7:15 AM	0	0	48	2	0	50	0	8	73	51	0	132	0	2	13	9	0	24	0	7	2	0	0	9	215
7:30 AM	0	0	50	3	6	53	0	4	62	40	1	106	0	6	18	13	1	37	0	16	4	0	0	20	216
7:45 AM	0	1	81	5	0	87	0	14	82	22	0	118	0	4	12	15	0	31	0	20	7	0	0	27	263
Hourly Total	0	1	234	12	6	247	0	30	263	133	2	426	0	14	57	53	3	124	0	50	16	0	0	66	863
8:00 AM	0	0	55	5	0	60	0	8	72	30	0	110	0	5	17	28	0	50	0	19	6	0	0	25	245
8:15 AM	0	2	60	1	0	63	0	11	75	37	1	123	0	4	18	21	2	43	0	14	7	1	0	22	251
8:30 AM	0	1	76	5	1	82	0	13	94	36	1	143	0	6	15	25	1	46	0	9	15	1	0	25	296
8:45 AM	0	1	91	1	0	93	0	14	102	37	0	153	0	3	21	15	2	39	0	18	13	0	0	31	316
Hourly Total	0	4	282	12	1	298	0	46	343	140	2	529	0	18	71	89	5	178	0	60	41	2	0	103	1108
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	112	7	2	120	0	32	93	21	0	146	0	1	16	16	0	33	0	30	17	1	0	48	347
4:15 PM	0	1	96	9	0	106	0	33	107	37	0	177	0	3	8	16	0	27	0	29	10	0	0	39	349
4:30 PM	0	0	123	5	0	128	0	24	118	37	0	179	0	2	18	15	1	35	0	28	22	1	0	51	393
4:45 PM	0	0	129	13	0	142	0	32	82	38	0	152	0	0	20	22	1	42	0	32	14	0	0	46	382
Hourly Total	0	2	460	34	2	496	0	121	400	133	0	654	0	6	62	69	2	137	0	119	63	2	0	184	1471
5:00 PM	0	0	101	7	0	108	0	22	103	40	0	165	0	8	22	32	0	62	0	35	16	0	0	51	386
5:15 PM	0	0	126	9	2	135	0	27	105	33	0	165	0	6	11	16	0	33	0	38	23	1	0	62	395
5:30 PM	0	0	107	16	0	123	0	24	107	28	0	159	0	5	17	15	0	37	0	36	22	0	0	58	377
5:45 PM	0	1	123	13	0	137	0	34	120	35	0	189	0	4	20	14	0	38	0	26	23	0	0	49	413
Hourly Total	0	1	457	45	2	503	0	107	435	136	0	678	0	23	70	77	0	170	0	135	84	1	0	220	1571
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	0	87	11	0	98	0	10	100	26	0	136	0	4	14	12	0	30	0	25	15	0	0	40	304
12:15 PM	0	1	99	7	0	107	0	12	87	28	0	127	0	5	8	20	0	33	0	19	13	1	0	33	300
12:30 PM	0	0	89	5	0	94	0	13	110	22	0	145	0	3	13	5	0	21	0	30	16	1	0	47	307
12:45 PM	0	1	84	2	1	87	0	17	123	22	0	162	0	8	14	0	0	22	0	20	11	0	0	31	302
Hourly Total	0	2	359	25	1	386	0	52	420	98	0	570	0	20	49	37	0	106	0	94	55	2	0	151	1213
1:00 PM	0	1	104	4	0	109	0	17	82	30	0	129	0	6	14	0	0	20	0	21	9	0	0	30	288
1:15 PM	0	1	85	2	0	88	0	14	110	27	0	151	0	4	19	0	0	23	0	11	14	2	0	27	289
1:30 PM	0	2	80	5	0	87	0	18	89	19	0	126	0	1	15	3	0	19	0	22	12	0	0	34	266
1:45 PM	0	0	99	6	0	105	0	15	92	20	0	127	0	0	15	3	0	18	0	15	10	1	0	26	276
Hourly Total	0	4	368	17	0	389	0	64	373	96	0	533	0	11	63	6	0	80	0	69	45	3	0	117	1119
Grand Total	0	14	2160	145	12	2319	0	420	2234	736	4	3390	0	92	372	331	10	795	0	527	304	10	0	841	7345
Approach %	0.0	0.6	93.1	6.3	-	-	0.0	12.4	65.9	21.7	-	-	0.0	11.6	46.8	41.6	-	-	0.0	62.7	36.1	1.2	-	-	-
Total %	0.0	0.2	29.4	2.0	-	31.6	0.0	5.7	30.4	10.0	-	46.2	0.0	1.3	5.1	4.5	-	10.8	0.0	7.2	4.1	0.1	-	11.4	-

Lights	0	14	2122	144	-	2280	0	414	2196	731	-	3341	0	91	371	326	-	788	0	525	300	10	-	835	7244
% Lights	-	100.0	98.2	99.3	-	98.3	-	98.6	98.3	99.3	-	98.6	-	98.9	99.7	98.5	-	99.1	-	99.6	98.7	100.0	-	99.3	98.6
Buses	0	0	1	0	-	1	0	0	3	1	-	4	0	0	0	0	-	0	0	0	0	0	-	0	5
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.1	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	31	1	-	32	0	2	32	4	-	38	0	0	0	4	-	4	0	2	1	0	-	3	77
% Single-Unit Trucks	-	0.0	1.4	0.7	-	1.4	-	0.5	1.4	0.5	-	1.1	-	0.0	0.0	1.2	-	0.5	-	0.4	0.3	0.0	-	0.4	1.0
Articulated Trucks	0	0	6	0	-	6	0	4	3	0	-	7	0	0	0	1	-	1	0	0	0	0	-	0	14
% Articulated Trucks	-	0.0	0.3	0.0	-	0.3	-	1.0	0.1	0.0	-	0.2	-	0.0	0.0	0.3	-	0.1	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	1	1	0	-	2	0	0	3	0	-	3	5
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	1.1	0.3	0.0	-	0.3	-	0.0	1.0	0.0	-	0.4	0.1
Pedestrians	-	-	-	-	12	-	-	-	-	-	4	-	-	-	-	-	10	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: Chicago Avenue with Charles Avenue TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Chicago Avenue Eastbound						Chicago Avenue Westbound						Charles Avenue Northbound						Charles 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
8:00 AM	0	0	55	5	0	60	0	8	72	30	0	110	0	5	17	28	0	50	0	19	6	0	0	25	245
8:15 AM	0	2	60	1	0	63	0	11	75	37	1	123	0	4	18	21	2	43	0	14	7	1	0	22	251
8:30 AM	0	1	76	5	1	82	0	13	94	36	1	143	0	6	15	25	1	46	0	9	15	1	0	25	296
8:45 AM	0	1	91	1	0	93	0	14	102	37	0	153	0	3	21	15	2	39	0	18	13	0	0	31	316
Total	0	4	282	12	1	298	0	46	343	140	2	529	0	18	71	89	5	178	0	60	41	2	0	103	1108
Approach %	0.0	1.3	94.6	4.0	-	-	0.0	8.7	64.8	26.5	-	-	0.0	10.1	39.9	50.0	-	-	0.0	58.3	39.8	1.9	-	-	-
Total %	0.0	0.4	25.5	1.1	-	26.9	0.0	4.2	31.0	12.6	-	47.7	0.0	1.6	6.4	8.0	-	16.1	0.0	5.4	3.7	0.2	-	9.3	-
PHF	0.000	0.500	0.775	0.600	-	0.801	0.000	0.821	0.841	0.946	-	0.864	0.000	0.750	0.845	0.795	-	0.890	0.000	0.789	0.683	0.500	-	0.831	0.877
Lights	0	4	271	12	-	287	0	45	331	138	-	514	0	17	71	89	-	177	0	59	39	2	-	100	1078
% Lights	-	100.0	96.1	100.0	-	96.3	-	97.8	96.5	98.6	-	97.2	-	94.4	100.0	100.0	-	99.4	-	98.3	95.1	100.0	-	97.1	97.3
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.7	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	8	0	-	8	0	0	11	1	-	12	0	0	0	0	-	0	0	1	1	0	-	2	22
% Single-Unit Trucks	-	0.0	2.8	0.0	-	2.7	-	0.0	3.2	0.7	-	2.3	-	0.0	0.0	0.0	-	0.0	-	1.7	2.4	0.0	-	1.9	2.0
Articulated Trucks	0	0	3	0	-	3	0	1	1	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	5
% Articulated Trucks	-	0.0	1.1	0.0	-	1.0	-	2.2	0.3	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	1	0	-	1	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	5.6	0.0	0.0	-	0.6	-	0.0	2.4	0.0	-	1.0	0.2
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	5	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: Chicago Avenue with Charles Avenue TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Chicago Avenue Eastbound						Chicago Avenue Westbound						Charles Avenue Northbound						Charles 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	101	7	0	108	0	22	103	40	0	165	0	8	22	32	0	62	0	35	16	0	0	51	386
5:15 PM	0	0	126	9	2	135	0	27	105	33	0	165	0	6	11	16	0	33	0	38	23	1	0	62	395
5:30 PM	0	0	107	16	0	123	0	24	107	28	0	159	0	5	17	15	0	37	0	36	22	0	0	58	377
5:45 PM	0	1	123	13	0	137	0	34	120	35	0	189	0	4	20	14	0	38	0	26	23	0	0	49	413
Total	0	1	457	45	2	503	0	107	435	136	0	678	0	23	70	77	0	170	0	135	84	1	0	220	1571
Approach %	0.0	0.2	90.9	8.9	-	-	0.0	15.8	64.2	20.1	-	-	0.0	13.5	41.2	45.3	-	-	0.0	61.4	38.2	0.5	-	-	-
Total %	0.0	0.1	29.1	2.9	-	32.0	0.0	6.8	27.7	8.7	-	43.2	0.0	1.5	4.5	4.9	-	10.8	0.0	8.6	5.3	0.1	-	14.0	-
PHF	0.000	0.250	0.907	0.703	-	0.918	0.000	0.787	0.906	0.850	-	0.897	0.000	0.719	0.795	0.602	-	0.685	0.000	0.888	0.913	0.250	-	0.887	0.951
Lights	0	1	453	45	-	499	0	106	433	136	-	675	0	23	70	76	-	169	0	135	84	1	-	220	1563
% Lights	-	100.0	99.1	100.0	-	99.2	-	99.1	99.5	100.0	-	99.6	-	100.0	100.0	98.7	-	99.4	-	100.0	100.0	100.0	-	100.0	99.5
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	3	0	-	3	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	5
% Single-Unit Trucks	-	0.0	0.7	0.0	-	0.6	-	0.0	0.5	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Articulated Trucks	0	0	1	0	-	1	0	1	0	0	-	1	0	0	0	1	-	1	0	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.2	0.0	-	0.2	-	0.9	0.0	0.0	-	0.1	-	0.0	0.0	1.3	-	0.6	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Chicago Avenue with Charles Avenue TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Chicago Avenue Eastbound						Chicago Avenue Westbound						Charles Avenue Northbound						Charles 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
12:00 PM	0	0	87	11	0	98	0	10	100	26	0	136	0	4	14	12	0	30	0	25	15	0	0	40	304
12:15 PM	0	1	99	7	0	107	0	12	87	28	0	127	0	5	8	20	0	33	0	19	13	1	0	33	300
12:30 PM	0	0	89	5	0	94	0	13	110	22	0	145	0	3	13	5	0	21	0	30	16	1	0	47	307
12:45 PM	0	1	84	2	1	87	0	17	123	22	0	162	0	8	14	0	0	22	0	20	11	0	0	31	302
Total	0	2	359	25	1	386	0	52	420	98	0	570	0	20	49	37	0	106	0	94	55	2	0	151	1213
Approach %	0.0	0.5	93.0	6.5	-	-	0.0	9.1	73.7	17.2	-	-	0.0	18.9	46.2	34.9	-	-	0.0	62.3	36.4	1.3	-	-	-
Total %	0.0	0.2	29.6	2.1	-	31.8	0.0	4.3	34.6	8.1	-	47.0	0.0	1.6	4.0	3.1	-	8.7	0.0	7.7	4.5	0.2	-	12.4	-
PHF	0.000	0.500	0.907	0.568	-	0.902	0.000	0.765	0.854	0.875	-	0.880	0.000	0.625	0.875	0.463	-	0.803	0.000	0.783	0.859	0.500	-	0.803	0.988
Lights	0	2	350	24	-	376	0	52	415	98	-	565	0	20	49	37	-	106	0	94	54	2	-	150	1197
% Lights	-	100.0	97.5	96.0	-	97.4	-	100.0	98.8	100.0	-	99.1	-	100.0	100.0	100.0	-	100.0	-	100.0	98.2	100.0	-	99.3	98.7
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	8	1	-	9	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	13
% Single-Unit Trucks	-	0.0	2.2	4.0	-	2.3	-	0.0	1.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.1
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.8	0.0	-	0.7	0.1
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Count Name: Chicago Avenue with Naper Blvd.
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Data

Start Time	Chicago Avenue Eastbound						Maple Avenue Westbound						Naper Blvd. Northbound						Naper Blvd. Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	58	59	8	0	125	0	16	53	27	0	96	1	16	220	24	0	261	0	21	58	7	0	86	568
7:15 AM	0	55	67	9	0	131	0	14	66	29	0	109	0	27	262	29	1	318	0	20	47	13	0	80	638
7:30 AM	0	59	56	10	0	125	0	18	54	26	0	98	0	17	315	32	0	364	0	16	71	19	0	106	693
7:45 AM	0	50	97	16	0	163	0	22	79	54	0	155	0	27	295	39	0	361	0	38	86	13	0	137	816
Hourly Total	0	222	279	43	0	544	0	70	252	136	0	458	1	87	1092	124	1	1304	0	95	262	52	0	409	2715
8:00 AM	0	79	85	9	0	173	0	23	78	33	0	134	0	18	263	29	0	310	0	23	73	18	0	114	731
8:15 AM	0	58	76	9	0	143	0	18	80	33	0	131	0	23	237	47	2	307	0	31	100	22	0	153	734
8:30 AM	0	55	97	16	0	168	0	27	108	45	1	180	0	16	261	38	1	315	0	25	77	21	0	123	786
8:45 AM	0	64	111	16	0	191	0	15	93	51	0	159	0	39	221	30	2	290	0	30	87	23	0	140	780
Hourly Total	0	256	369	50	0	675	0	83	359	162	1	604	0	96	982	144	5	1222	0	109	337	84	0	530	3031
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	52	92	18	0	162	0	44	110	41	0	195	0	16	145	23	0	184	0	47	286	48	0	381	922
4:15 PM	0	62	103	24	0	189	0	39	121	42	0	202	0	18	140	14	0	172	1	59	266	46	0	372	935
4:30 PM	0	44	118	18	0	180	0	36	149	40	0	225	0	26	140	24	0	190	0	70	260	44	1	374	969
4:45 PM	0	37	144	42	0	223	0	45	114	46	0	205	0	27	158	21	3	206	0	66	299	50	0	415	1049
Hourly Total	0	195	457	102	0	754	0	164	494	169	0	827	0	87	583	82	3	752	1	242	1111	188	1	1542	3875
5:00 PM	0	51	124	29	0	204	0	52	142	37	0	231	0	25	159	29	4	213	0	53	239	44	0	336	984
5:15 PM	0	37	119	32	0	188	0	40	110	52	0	202	0	22	170	35	2	227	0	66	310	63	0	439	1056
5:30 PM	0	50	106	33	0	189	0	48	141	57	0	246	0	24	132	21	0	177	0	51	282	55	0	388	1000
5:45 PM	1	48	94	24	0	167	0	57	135	51	0	243	0	29	161	22	0	212	0	60	263	52	0	375	997
Hourly Total	1	186	443	118	0	748	0	197	528	197	0	922	0	100	622	107	6	829	0	230	1094	214	0	1538	4037
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	35	63	27	0	125	0	17	111	52	0	180	0	20	149	14	0	183	0	41	157	23	0	221	709
12:15 PM	0	60	84	20	0	164	0	28	100	64	0	192	0	17	170	13	0	200	0	52	130	25	0	207	763
12:30 PM	0	55	81	26	0	162	0	21	98	44	0	163	0	17	131	20	0	168	0	49	148	36	0	233	726
12:45 PM	0	37	95	19	0	151	0	21	126	57	0	204	0	18	144	21	0	183	0	41	136	29	0	206	744
Hourly Total	0	187	323	92	0	602	0	87	435	217	0	739	0	72	594	68	0	734	0	183	571	113	0	867	2942
1:00 PM	0	48	97	14	0	159	0	28	125	47	0	200	0	18	129	15	0	162	0	43	139	33	0	215	736
1:15 PM	1	46	70	16	0	133	0	34	118	51	0	203	0	26	148	12	0	186	0	37	153	34	0	224	746
1:30 PM	1	45	76	18	0	140	0	27	91	47	0	165	0	21	126	17	0	164	0	33	112	27	0	172	641
1:45 PM	1	51	93	18	0	163	0	35	96	47	0	178	0	15	137	14	0	166	0	52	146	25	0	223	730
Hourly Total	3	190	336	66	0	595	0	124	430	192	0	746	0	80	540	58	0	678	0	165	550	119	0	834	2853
Grand Total	4	1236	2207	471	0	3918	0	725	2498	1073	1	4296	1	522	4413	583	15	5519	1	1024	3925	770	1	5720	19453
Approach %	0.1	31.5	56.3	12.0	-	-	0.0	16.9	58.1	25.0	-	-	0.0	9.5	80.0	10.6	-	-	0.0	17.9	68.6	13.5	-	-	-
Total %	0.0	6.4	11.3	2.4	-	20.1	0.0	3.7	12.8	5.5	-	22.1	0.0	2.7	22.7	3.0	-	28.4	0.0	5.3	20.2	4.0	-	29.4	-

Lights	4	1227	2177	462	-	3870	0	719	2457	1067	-	4243	1	521	4376	577	-	5475	1	1016	3903	767	-	5687	19275
% Lights	100.0	99.3	98.6	98.1	-	98.8	-	99.2	98.4	99.4	-	98.8	100.0	99.8	99.2	99.0	-	99.2	100.0	99.2	99.4	99.6	-	99.4	99.1
Buses	0	0	0	1	-	1	0	2	1	3	-	6	0	0	0	0	-	0	0	1	3	1	-	5	12
% Buses	0.0	0.0	0.0	0.2	-	0.0	-	0.3	0.0	0.3	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.1	0.1	0.1	-	0.1	0.1
Single-Unit Trucks	0	5	25	8	-	38	0	3	34	3	-	40	0	0	29	5	-	34	0	6	15	2	-	23	135
% Single-Unit Trucks	0.0	0.4	1.1	1.7	-	1.0	-	0.4	1.4	0.3	-	0.9	0.0	0.0	0.7	0.9	-	0.6	0.0	0.6	0.4	0.3	-	0.4	0.7
Articulated Trucks	0	4	5	0	-	9	0	1	6	0	-	7	0	1	8	1	-	10	0	1	4	0	-	5	31
% Articulated Trucks	0.0	0.3	0.2	0.0	-	0.2	-	0.1	0.2	0.0	-	0.2	0.0	0.2	0.2	0.2	-	0.2	0.0	0.1	0.1	0.0	-	0.1	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	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	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	15	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Chicago Avenue with Naper Blvd.
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Chicago Avenue Eastbound						Maple Avenue Westbound						Naper Blvd. Northbound						Naper Blvd. 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
8:00 AM	0	79	85	9	0	173	0	23	78	33	0	134	0	18	263	29	0	310	0	23	73	18	0	114	731
8:15 AM	0	58	76	9	0	143	0	18	80	33	0	131	0	23	237	47	2	307	0	31	100	22	0	153	734
8:30 AM	0	55	97	16	0	168	0	27	108	45	1	180	0	16	261	38	1	315	0	25	77	21	0	123	786
8:45 AM	0	64	111	16	0	191	0	15	93	51	0	159	0	39	221	30	2	290	0	30	87	23	0	140	780
Total	0	256	369	50	0	675	0	83	359	162	1	604	0	96	982	144	5	1222	0	109	337	84	0	530	3031
Approach %	0.0	37.9	54.7	7.4	-	-	0.0	13.7	59.4	26.8	-	-	0.0	7.9	80.4	11.8	-	-	0.0	20.6	63.6	15.8	-	-	-
Total %	0.0	8.4	12.2	1.6	-	22.3	0.0	2.7	11.8	5.3	-	19.9	0.0	3.2	32.4	4.8	-	40.3	0.0	3.6	11.1	2.8	-	17.5	-
PHF	0.000	0.810	0.831	0.781	-	0.884	0.000	0.769	0.831	0.794	-	0.839	0.000	0.615	0.933	0.766	-	0.970	0.000	0.879	0.843	0.913	-	0.866	0.964
Lights	0	256	356	48	-	660	0	82	346	162	-	590	0	95	974	143	-	1212	0	106	332	83	-	521	2983
% Lights	-	100.0	96.5	96.0	-	97.8	-	98.8	96.4	100.0	-	97.7	-	99.0	99.2	99.3	-	99.2	-	97.2	98.5	98.8	-	98.3	98.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	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	-	0.9	0.0	0.0	-	0.2	0.0
Single-Unit Trucks	0	0	11	2	-	13	0	0	11	0	-	11	0	0	7	1	-	8	0	2	3	1	-	6	38
% Single-Unit Trucks	-	0.0	3.0	4.0	-	1.9	-	0.0	3.1	0.0	-	1.8	-	0.0	0.7	0.7	-	0.7	-	1.8	0.9	1.2	-	1.1	1.3
Articulated Trucks	0	0	2	0	-	2	0	1	2	0	-	3	0	1	1	0	-	2	0	0	2	0	-	2	9
% Articulated Trucks	-	0.0	0.5	0.0	-	0.3	-	1.2	0.6	0.0	-	0.5	-	1.0	0.1	0.0	-	0.2	-	0.0	0.6	0.0	-	0.4	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: Chicago Avenue with Naper Blvd.
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Chicago Avenue Eastbound						Maple Avenue Westbound						Naper Blvd. Northbound						Naper Blvd. 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	51	124	29	0	204	0	52	142	37	0	231	0	25	159	29	4	213	0	53	239	44	0	336	984
5:15 PM	0	37	119	32	0	188	0	40	110	52	0	202	0	22	170	35	2	227	0	66	310	63	0	439	1056
5:30 PM	0	50	106	33	0	189	0	48	141	57	0	246	0	24	132	21	0	177	0	51	282	55	0	388	1000
5:45 PM	1	48	94	24	0	167	0	57	135	51	0	243	0	29	161	22	0	212	0	60	263	52	0	375	997
Total	1	186	443	118	0	748	0	197	528	197	0	922	0	100	622	107	6	829	0	230	1094	214	0	1538	4037
Approach %	0.1	24.9	59.2	15.8	-	-	0.0	21.4	57.3	21.4	-	-	0.0	12.1	75.0	12.9	-	-	0.0	15.0	71.1	13.9	-	-	-
Total %	0.0	4.6	11.0	2.9	-	18.5	0.0	4.9	13.1	4.9	-	22.8	0.0	2.5	15.4	2.7	-	20.5	0.0	5.7	27.1	5.3	-	38.1	-
PHF	0.250	0.912	0.893	0.894	-	0.917	0.000	0.864	0.930	0.864	-	0.937	0.000	0.862	0.915	0.764	-	0.913	0.000	0.871	0.882	0.849	-	0.876	0.956
Lights	1	183	441	117	-	742	0	196	527	196	-	919	0	100	615	105	-	820	0	229	1089	214	-	1532	4013
% Lights	100.0	98.4	99.5	99.2	-	99.2	-	99.5	99.8	99.5	-	99.7	-	100.0	98.9	98.1	-	98.9	-	99.6	99.5	100.0	-	99.6	99.4
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	2	0	-	2	3
% Buses	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.5	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.1	0.1
Single-Unit Trucks	0	2	2	1	-	5	0	1	1	0	-	2	0	0	5	2	-	7	0	1	3	0	-	4	18
% Single-Unit Trucks	0.0	1.1	0.5	0.8	-	0.7	-	0.5	0.2	0.0	-	0.2	-	0.0	0.8	1.9	-	0.8	-	0.4	0.3	0.0	-	0.3	0.4
Articulated Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	3
% Articulated Trucks	0.0	0.5	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: Chicago Avenue with Naper Blvd.
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Chicago Avenue Eastbound						Maple Avenue Westbound						Naper Blvd. Northbound						Naper Blvd. Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	0	48	97	14	0	159	0	28	125	47	0	200	0	18	129	15	0	162	0	43	139	33	0	215	736
1:15 PM	1	46	70	16	0	133	0	34	118	51	0	203	0	26	148	12	0	186	0	37	153	34	0	224	746
1:30 PM	1	45	76	18	0	140	0	27	91	47	0	165	0	21	126	17	0	164	0	33	112	27	0	172	641
1:45 PM	1	51	93	18	0	163	0	35	96	47	0	178	0	15	137	14	0	166	0	52	146	25	0	223	730
Total	3	190	336	66	0	595	0	124	430	192	0	746	0	80	540	58	0	678	0	165	550	119	0	834	2853
Approach %	0.5	31.9	56.5	11.1	-	-	0.0	16.6	57.6	25.7	-	-	0.0	11.8	79.6	8.6	-	-	0.0	19.8	65.9	14.3	-	-	-
Total %	0.1	6.7	11.8	2.3	-	20.9	0.0	4.3	15.1	6.7	-	26.1	0.0	2.8	18.9	2.0	-	23.8	0.0	5.8	19.3	4.2	-	29.2	-
PHF	0.750	0.931	0.866	0.917	-	0.913	0.000	0.886	0.860	0.941	-	0.919	0.000	0.769	0.912	0.853	-	0.911	0.000	0.793	0.899	0.875	-	0.931	0.956
Lights	3	189	334	66	-	592	0	122	428	190	-	740	0	80	538	58	-	676	0	164	547	117	-	828	2836
% Lights	100.0	99.5	99.4	100.0	-	99.5	-	98.4	99.5	99.0	-	99.2	-	100.0	99.6	100.0	-	99.7	-	99.4	99.5	98.3	-	99.3	99.4
Buses	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	2
% Buses	0.0	0.0	0.0	0.0	-	0.0	-	0.8	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.8	-	0.1	0.1
Single-Unit Trucks	0	1	2	0	-	3	0	1	2	2	-	5	0	0	2	0	-	2	0	1	3	1	-	5	15
% Single-Unit Trucks	0.0	0.5	0.6	0.0	-	0.5	-	0.8	0.5	1.0	-	0.7	-	0.0	0.4	0.0	-	0.3	-	0.6	0.5	0.8	-	0.6	0.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Count Name: Chicago Avenue with Olesen Drive
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Data

Start Time	Oleson Drive Eastbound						Olesen Drive Westbound						Chicago Avenue Northbound						Chicago Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	76	4	0	80	0	6	68	0	0	74	0	2	0	32	0	34	0	0	0	0	0	0	188
7:15 AM	0	0	67	3	0	70	0	9	107	0	0	116	0	8	0	36	1	44	0	0	0	0	0	0	230
7:30 AM	0	0	69	7	0	76	0	11	89	0	0	100	0	9	0	43	1	52	0	0	0	0	0	0	228
7:45 AM	0	0	104	7	0	111	0	11	107	0	0	118	0	6	0	54	0	60	0	0	0	0	0	0	289
Hourly Total	0	0	316	21	0	337	0	37	371	0	0	408	0	25	0	165	2	190	0	0	0	0	0	0	935
8:00 AM	0	0	98	5	0	103	0	10	101	0	0	111	0	7	0	49	0	56	0	0	0	0	1	0	270
8:15 AM	0	0	87	3	0	90	0	14	104	0	0	118	0	11	0	47	0	58	0	0	0	0	1	0	266
8:30 AM	0	0	103	4	1	107	0	16	138	0	0	154	0	11	0	33	0	44	0	0	0	0	0	0	305
8:45 AM	0	0	110	14	0	124	0	14	134	0	0	148	0	14	0	50	0	64	0	0	0	0	0	0	336
Hourly Total	0	0	398	26	1	424	0	54	477	0	0	531	0	43	0	179	0	222	0	0	0	0	2	0	1177
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	142	14	0	156	0	32	130	0	0	162	0	5	0	21	0	26	0	0	0	0	0	0	344
4:15 PM	0	0	141	11	0	152	0	35	132	0	0	167	0	9	0	32	0	41	0	0	0	0	0	0	360
4:30 PM	0	0	151	12	0	163	0	29	147	0	0	176	0	14	0	28	0	42	0	0	0	0	0	0	381
4:45 PM	0	0	192	16	0	208	0	34	133	0	0	167	0	8	0	25	0	33	0	0	0	0	0	0	408
Hourly Total	0	0	626	53	0	679	0	130	542	0	0	672	0	36	0	106	0	142	0	0	0	0	0	0	1493
5:00 PM	0	0	131	7	1	138	0	44	137	0	0	181	0	10	0	26	0	36	0	0	0	0	1	0	355
5:15 PM	0	0	153	16	0	169	0	43	148	0	0	191	0	9	0	27	0	36	0	0	0	0	0	0	396
5:30 PM	0	0	134	15	0	149	0	38	139	0	0	177	0	12	0	26	0	38	0	0	0	0	0	0	364
5:45 PM	0	0	125	21	0	146	0	30	169	0	0	199	0	14	0	35	2	49	0	0	0	0	0	0	394
Hourly Total	0	0	543	59	1	602	0	155	593	0	0	748	0	45	0	114	2	159	0	0	0	0	1	0	1509
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	0	105	16	0	121	0	17	124	0	0	141	0	8	0	26	0	34	0	0	0	0	0	0	296
12:15 PM	0	0	141	10	0	151	0	18	117	0	0	135	0	10	0	27	0	37	0	0	0	0	0	0	323
12:30 PM	0	0	138	11	0	149	0	21	124	0	0	145	0	5	0	27	0	32	0	0	0	0	0	0	326
12:45 PM	0	0	115	8	0	123	0	10	141	0	0	151	0	6	0	36	0	42	0	0	0	0	0	0	316
Hourly Total	0	0	499	45	0	544	0	66	506	0	0	572	0	29	0	116	0	145	0	0	0	0	0	0	1261
1:00 PM	0	0	129	15	0	144	0	25	118	0	0	143	0	7	0	26	0	33	0	0	0	0	0	0	320
1:15 PM	0	0	88	11	0	99	0	20	132	0	0	152	0	10	0	32	0	42	0	0	0	0	0	0	293
1:30 PM	0	0	113	6	0	119	0	23	98	0	0	121	0	7	0	28	0	35	0	0	0	0	0	0	275
1:45 PM	0	0	120	9	0	129	0	22	94	0	0	116	0	5	0	32	0	37	0	0	0	0	0	0	282
Hourly Total	0	0	450	41	0	491	0	90	442	0	0	532	0	29	0	118	0	147	0	0	0	0	0	0	1170
Grand Total	0	0	2832	245	2	3077	0	532	2931	0	0	3463	0	207	0	798	4	1005	0	0	0	0	3	0	7545
Approach %	0.0	0.0	92.0	8.0	-	-	0.0	15.4	84.6	0.0	-	-	0.0	20.6	0.0	79.4	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	37.5	3.2	-	40.8	0.0	7.1	38.8	0.0	-	45.9	0.0	2.7	0.0	10.6	-	13.3	0.0	0.0	0.0	0.0	-	0.0	-

Lights	0	0	2792	238	-	3030	0	530	2889	0	-	3419	0	203	0	797	-	1000	0	0	0	0	-	0	7449
% Lights	-	-	98.6	97.1	-	98.5	-	99.6	98.6	-	-	98.7	-	98.1	-	99.9	-	99.5	-	-	-	-	-	-	98.7
Buses	0	0	1	1	-	2	0	0	1	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	4
% Buses	-	-	0.0	0.4	-	0.1	-	0.0	0.0	-	-	0.0	-	0.5	-	0.0	-	0.1	-	-	-	-	-	-	0.1
Single-Unit Trucks	0	0	31	6	-	37	0	2	32	0	-	34	0	3	0	1	-	4	0	0	0	0	-	0	75
% Single-Unit Trucks	-	-	1.1	2.4	-	1.2	-	0.4	1.1	-	-	1.0	-	1.4	-	0.1	-	0.4	-	-	-	-	-	-	1.0
Articulated Trucks	0	0	5	0	-	5	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	11
% Articulated Trucks	-	-	0.2	0.0	-	0.2	-	0.0	0.2	-	-	0.2	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.1
Bicycles on Road	0	0	3	0	-	3	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	6
% Bicycles on Road	-	-	0.1	0.0	-	0.1	-	0.0	0.1	-	-	0.1	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.1
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Chicago Avenue with Olesen Drive
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Oleson Drive Eastbound						Olesen Drive Westbound						Chicago Avenue Northbound						Chicago 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
8:00 AM	0	0	98	5	0	103	0	10	101	0	0	111	0	7	0	49	0	56	0	0	0	0	1	0	270
8:15 AM	0	0	87	3	0	90	0	14	104	0	0	118	0	11	0	47	0	58	0	0	0	0	1	0	266
8:30 AM	0	0	103	4	1	107	0	16	138	0	0	154	0	11	0	33	0	44	0	0	0	0	0	0	305
8:45 AM	0	0	110	14	0	124	0	14	134	0	0	148	0	14	0	50	0	64	0	0	0	0	0	0	336
Total	0	0	398	26	1	424	0	54	477	0	0	531	0	43	0	179	0	222	0	0	0	0	2	0	1177
Approach %	0.0	0.0	93.9	6.1	-	-	0.0	10.2	89.8	0.0	-	-	0.0	19.4	0.0	80.6	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	33.8	2.2	-	36.0	0.0	4.6	40.5	0.0	-	45.1	0.0	3.7	0.0	15.2	-	18.9	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.000	0.905	0.464	-	0.855	0.000	0.844	0.864	0.000	-	0.862	0.000	0.768	0.000	0.895	-	0.867	0.000	0.000	0.000	0.000	-	0.000	0.876
Lights	0	0	388	25	-	413	0	54	462	0	-	516	0	43	0	178	-	221	0	0	0	0	-	0	1150
% Lights	-	-	97.5	96.2	-	97.4	-	100.0	96.9	-	-	97.2	-	100.0	-	99.4	-	99.5	-	-	-	-	-	-	97.7
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
Single-Unit Trucks	0	0	8	1	-	9	0	0	10	0	-	10	0	0	0	1	-	1	0	0	0	0	-	0	20
% Single-Unit Trucks	-	-	2.0	3.8	-	2.1	-	0.0	2.1	-	-	1.9	-	0.0	-	0.6	-	0.5	-	-	-	-	-	-	1.7
Articulated Trucks	0	0	1	0	-	1	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	4
% Articulated Trucks	-	-	0.3	0.0	-	0.2	-	0.0	0.6	-	-	0.6	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.3
Bicycles on Road	0	0	1	0	-	1	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	3
% Bicycles on Road	-	-	0.3	0.0	-	0.2	-	0.0	0.4	-	-	0.4	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.3
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Chicago Avenue with Olesen Drive
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Oleson Drive Eastbound						Olesen Drive Westbound						Chicago Avenue Northbound						Chicago 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	131	7	1	138	0	44	137	0	0	181	0	10	0	26	0	36	0	0	0	0	1	0	355
5:15 PM	0	0	153	16	0	169	0	43	148	0	0	191	0	9	0	27	0	36	0	0	0	0	0	0	396
5:30 PM	0	0	134	15	0	149	0	38	139	0	0	177	0	12	0	26	0	38	0	0	0	0	0	0	364
5:45 PM	0	0	125	21	0	146	0	30	169	0	0	199	0	14	0	35	2	49	0	0	0	0	0	0	394
Total	0	0	543	59	1	602	0	155	593	0	0	748	0	45	0	114	2	159	0	0	0	0	1	0	1509
Approach %	0.0	0.0	90.2	9.8	-	-	0.0	20.7	79.3	0.0	-	-	0.0	28.3	0.0	71.7	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	36.0	3.9	-	39.9	0.0	10.3	39.3	0.0	-	49.6	0.0	3.0	0.0	7.6	-	10.5	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.000	0.887	0.702	-	0.891	0.000	0.881	0.877	0.000	-	0.940	0.000	0.804	0.000	0.814	-	0.811	0.000	0.000	0.000	0.000	-	0.000	0.953
Lights	0	0	538	59	-	597	0	155	592	0	-	747	0	45	0	114	-	159	0	0	0	0	-	0	1503
% Lights	-	-	99.1	100.0	-	99.2	-	100.0	99.8	-	-	99.9	-	100.0	-	100.0	-	100.0	-	-	-	-	-	-	99.6
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
Single-Unit Trucks	0	0	3	0	-	3	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	4
% Single-Unit Trucks	-	-	0.6	0.0	-	0.5	-	0.0	0.2	-	-	0.1	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	-	0.4	0.0	-	0.3	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.1
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Chicago Avenue with Olesen Drive
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Oleson Drive Eastbound						Olesen Drive Westbound						Chicago Avenue Northbound						Chicago Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	0	0	105	16	0	121	0	17	124	0	0	141	0	8	0	26	0	34	0	0	0	0	0	0	296
12:15 PM	0	0	141	10	0	151	0	18	117	0	0	135	0	10	0	27	0	37	0	0	0	0	0	0	323
12:30 PM	0	0	138	11	0	149	0	21	124	0	0	145	0	5	0	27	0	32	0	0	0	0	0	0	326
12:45 PM	0	0	115	8	0	123	0	10	141	0	0	151	0	6	0	36	0	42	0	0	0	0	0	0	316
Total	0	0	499	45	0	544	0	66	506	0	0	572	0	29	0	116	0	145	0	0	0	0	0	0	1261
Approach %	0.0	0.0	91.7	8.3	-	-	0.0	11.5	88.5	0.0	-	-	0.0	20.0	0.0	80.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.0	39.6	3.6	-	43.1	0.0	5.2	40.1	0.0	-	45.4	0.0	2.3	0.0	9.2	-	11.5	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.000	0.885	0.703	-	0.901	0.000	0.786	0.897	0.000	-	0.947	0.000	0.725	0.000	0.806	-	0.863	0.000	0.000	0.000	0.000	-	0.000	0.967
Lights	0	0	495	41	-	536	0	66	503	0	-	569	0	27	0	116	-	143	0	0	0	0	-	0	1248
% Lights	-	-	99.2	91.1	-	98.5	-	100.0	99.4	-	-	99.5	-	93.1	-	100.0	-	98.6	-	-	-	-	-	-	99.0
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	-	0.0	0.0	-	0.0	-	0.0	0.2	-	-	0.2	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.1
Single-Unit Trucks	0	0	4	4	-	8	0	0	2	0	-	2	0	2	0	0	-	2	0	0	0	0	-	0	12
% Single-Unit Trucks	-	-	0.8	8.9	-	1.5	-	0.0	0.4	-	-	0.3	-	6.9	-	0.0	-	1.4	-	-	-	-	-	-	1.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Chicago Avenue with Pembroke Road TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Data

Start Time	Chicago Avenue Eastbound					Chicago Avenue Westbound					Pembroke Road Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	78	1	0	79	0	3	68	0	71	0	5	5	2	10	160
7:15 AM	0	67	0	0	67	0	0	128	0	128	0	4	4	1	8	203
7:30 AM	0	72	0	0	72	0	1	104	0	105	0	5	3	1	8	185
7:45 AM	0	114	0	0	114	0	1	116	0	117	0	3	2	1	5	236
Hourly Total	0	331	1	0	332	0	5	416	0	421	0	17	14	5	31	784
8:00 AM	0	98	0	0	98	0	1	114	0	115	0	2	2	0	4	217
8:15 AM	0	92	1	0	93	0	2	116	0	118	0	4	0	5	4	215
8:30 AM	0	110	2	0	112	0	0	155	0	155	0	1	2	2	3	270
8:45 AM	0	125	0	0	125	0	0	155	0	155	0	2	0	1	2	282
Hourly Total	0	425	3	0	428	0	3	540	0	543	0	9	4	8	13	984
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	163	1	0	164	0	0	140	0	140	0	2	4	0	6	310
4:15 PM	0	145	1	0	146	0	2	158	0	160	0	0	2	0	2	308
4:30 PM	0	161	1	0	162	0	0	181	0	181	0	0	4	1	4	347
4:45 PM	0	199	1	0	200	0	2	151	0	153	0	4	1	2	5	358
Hourly Total	0	668	4	0	672	0	4	630	0	634	0	6	11	3	17	1323
5:00 PM	0	169	1	0	170	0	1	159	0	160	0	2	2	0	4	334
5:15 PM	0	184	1	0	185	0	0	170	0	170	0	0	4	0	4	359
5:30 PM	0	150	2	0	152	0	2	165	0	167	0	2	8	1	10	329
5:45 PM	0	168	1	0	169	0	3	192	0	195	0	5	0	1	5	369
Hourly Total	0	671	5	0	676	0	6	686	0	692	0	9	14	2	23	1391
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	124	0	0	124	0	2	141	0	143	0	1	1	0	2	269
12:15 PM	0	140	1	0	141	0	0	130	0	130	0	3	4	0	7	278
12:30 PM	0	138	1	0	139	0	2	133	0	135	0	1	1	0	2	276
12:45 PM	0	116	0	0	116	0	3	160	0	163	0	0	4	0	4	283
Hourly Total	0	518	2	0	520	0	7	564	0	571	0	5	10	0	15	1106
1:00 PM	0	147	0	0	147	0	2	131	0	133	0	0	2	0	2	282
1:15 PM	0	105	1	0	106	0	0	151	0	151	0	2	1	0	3	260
1:30 PM	0	120	3	0	123	0	1	119	0	120	0	3	2	0	5	248
1:45 PM	0	133	0	0	133	0	0	127	0	127	0	1	4	0	5	265
Hourly Total	0	505	4	0	509	0	3	528	0	531	0	6	9	0	15	1055
Grand Total	0	3118	19	0	3137	0	28	3364	0	3392	0	52	62	18	114	6643
Approach %	0.0	99.4	0.6	-	-	0.0	0.8	99.2	-	-	0.0	45.6	54.4	-	-	-
Total %	0.0	46.9	0.3	-	47.2	0.0	0.4	50.6	-	51.1	0.0	0.8	0.9	-	1.7	-
Lights	0	3070	18	-	3088	0	28	3317	-	3345	0	52	61	-	113	6546

% Lights	-	98.5	94.7	-	98.4	-	100.0	98.6	-	98.6	-	100.0	98.4	-	99.1	98.5
Buses	0	1	0	-	1	0	0	2	-	2	0	0	0	-	0	3
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	40	0	-	40	0	0	37	-	37	0	0	1	-	1	78
% Single-Unit Trucks	-	1.3	0.0	-	1.3	-	0.0	1.1	-	1.1	-	0.0	1.6	-	0.9	1.2
Articulated Trucks	0	7	1	-	8	0	0	7	-	7	0	0	0	-	0	15
% Articulated Trucks	-	0.2	5.3	-	0.3	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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(847)518-9990 abowen@kloainc.com

Count Name: Chicago Avenue with Pembroke Road TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Chicago Avenue Eastbound					Chicago Avenue Westbound					Pembroke Road Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
8:00 AM	0	98	0	0	98	0	1	114	0	115	0	2	2	0	4	217
8:15 AM	0	92	1	0	93	0	2	116	0	118	0	4	0	5	4	215
8:30 AM	0	110	2	0	112	0	0	155	0	155	0	1	2	2	3	270
8:45 AM	0	125	0	0	125	0	0	155	0	155	0	2	0	1	2	282
Total	0	425	3	0	428	0	3	540	0	543	0	9	4	8	13	984
Approach %	0.0	99.3	0.7	-	-	0.0	0.6	99.4	-	-	0.0	69.2	30.8	-	-	-
Total %	0.0	43.2	0.3	-	43.5	0.0	0.3	54.9	-	55.2	0.0	0.9	0.4	-	1.3	-
PHF	0.000	0.850	0.375	-	0.856	0.000	0.375	0.871	-	0.876	0.000	0.563	0.500	-	0.813	0.872
Lights	0	414	2	-	416	0	3	526	-	529	0	9	4	-	13	958
% Lights	-	97.4	66.7	-	97.2	-	100.0	97.4	-	97.4	-	100.0	100.0	-	100.0	97.4
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	9	0	-	9	0	0	11	-	11	0	0	0	-	0	20
% Single-Unit Trucks	-	2.1	0.0	-	2.1	-	0.0	2.0	-	2.0	-	0.0	0.0	-	0.0	2.0
Articulated Trucks	0	2	1	-	3	0	0	3	-	3	0	0	0	-	0	6
% Articulated Trucks	-	0.5	33.3	-	0.7	-	0.0	0.6	-	0.6	-	0.0	0.0	-	0.0	0.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Chicago Avenue with Pembroke Road TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Chicago Avenue Eastbound					Chicago Avenue Westbound					Pembroke Road 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	169	1	0	170	0	1	159	0	160	0	2	2	0	4	334
5:15 PM	0	184	1	0	185	0	0	170	0	170	0	0	4	0	4	359
5:30 PM	0	150	2	0	152	0	2	165	0	167	0	2	8	1	10	329
5:45 PM	0	168	1	0	169	0	3	192	0	195	0	5	0	1	5	369
Total	0	671	5	0	676	0	6	686	0	692	0	9	14	2	23	1391
Approach %	0.0	99.3	0.7	-	-	0.0	0.9	99.1	-	-	0.0	39.1	60.9	-	-	-
Total %	0.0	48.2	0.4	-	48.6	0.0	0.4	49.3	-	49.7	0.0	0.6	1.0	-	1.7	-
PHF	0.000	0.912	0.625	-	0.914	0.000	0.500	0.893	-	0.887	0.000	0.450	0.438	-	0.575	0.942
Lights	0	668	5	-	673	0	6	684	-	690	0	9	14	-	23	1386
% Lights	-	99.6	100.0	-	99.6	-	100.0	99.7	-	99.7	-	100.0	100.0	-	100.0	99.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	3	0	-	3	0	0	2	-	2	0	0	0	-	0	5
% Single-Unit Trucks	-	0.4	0.0	-	0.4	-	0.0	0.3	-	0.3	-	0.0	0.0	-	0.0	0.4
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	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Chicago Avenue with Pembroke Road TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Chicago Avenue Eastbound					Chicago Avenue Westbound					Pembroke Road Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
12:00 PM	0	124	0	0	124	0	2	141	0	143	0	1	1	0	2	269
12:15 PM	0	140	1	0	141	0	0	130	0	130	0	3	4	0	7	278
12:30 PM	0	138	1	0	139	0	2	133	0	135	0	1	1	0	2	276
12:45 PM	0	116	0	0	116	0	3	160	0	163	0	0	4	0	4	283
Total	0	518	2	0	520	0	7	564	0	571	0	5	10	0	15	1106
Approach %	0.0	99.6	0.4	-	-	0.0	1.2	98.8	-	-	0.0	33.3	66.7	-	-	-
Total %	0.0	46.8	0.2	-	47.0	0.0	0.6	51.0	-	51.6	0.0	0.5	0.9	-	1.4	-
PHF	0.000	0.925	0.500	-	0.922	0.000	0.583	0.881	-	0.876	0.000	0.417	0.625	-	0.536	0.977
Lights	0	508	2	-	510	0	7	559	-	566	0	5	10	-	15	1091
% Lights	-	98.1	100.0	-	98.1	-	100.0	99.1	-	99.1	-	100.0	100.0	-	100.0	98.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	9	0	-	9	0	0	5	-	5	0	0	0	-	0	14
% Single-Unit Trucks	-	1.7	0.0	-	1.7	-	0.0	0.9	-	0.9	-	0.0	0.0	-	0.0	1.3
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	-	0.2	0.0	-	0.2	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Olesen Drive with Access Drive
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Data

Start Time	Access Drive Eastbound						Access Drive Westbound						Oleson Drive Northbound						Olesen Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	35	0	0	36	0	0	10	0	0	10	47
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	43	0	0	51	0	0	12	0	0	12	63
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	51	0	0	55	0	0	19	0	0	19	74
7:45 AM	0	0	0	1	1	1	0	0	0	0	0	0	0	2	60	0	0	62	0	1	16	0	0	17	80
Hourly Total	0	0	0	2	1	2	0	0	0	0	0	0	1	14	189	0	0	204	0	1	57	0	0	58	264
8:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	3	59	1	0	63	0	0	16	0	0	16	80
8:15 AM	0	0	0	0	0	0	0	1	0	2	0	3	0	2	56	6	0	64	0	1	15	0	0	16	83
8:30 AM	0	0	0	1	0	1	0	1	0	0	0	1	0	5	45	2	0	52	0	0	20	0	0	20	74
8:45 AM	0	0	0	0	0	0	0	3	0	2	0	5	0	7	62	19	0	88	0	11	17	0	0	28	121
Hourly Total	0	0	0	2	0	2	0	5	0	4	0	9	0	17	222	28	0	267	0	12	68	0	0	80	358
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	4	0	4	0	0	0	0	0	0	0	1	25	1	0	27	0	0	40	3	0	43	74
4:15 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	3	42	1	0	46	0	0	49	0	0	49	97
4:30 PM	0	0	0	1	0	1	0	0	1	0	0	1	0	2	41	0	0	43	0	0	41	0	0	41	86
4:45 PM	0	0	0	3	0	3	0	0	0	0	0	0	0	2	34	0	0	36	0	1	44	1	0	46	85
Hourly Total	0	0	0	10	0	10	0	0	1	0	0	1	0	8	142	2	0	152	0	1	174	4	0	179	342
5:00 PM	0	0	0	2	0	2	0	0	1	1	0	2	0	10	35	0	0	45	0	1	53	1	0	55	104
5:15 PM	0	0	1	2	0	3	0	0	0	0	0	0	0	2	34	0	0	36	0	0	61	1	0	62	101
5:30 PM	0	0	0	5	0	5	0	0	0	0	0	0	0	3	37	0	0	40	0	0	50	0	0	50	95
5:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	50	0	0	51	0	0	49	0	0	49	101
Hourly Total	0	0	1	10	0	11	0	0	1	1	0	2	0	16	156	0	0	172	0	1	213	2	0	216	401
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	32	1	0	33	0	0	35	0	0	35	69
12:15 PM	0	1	0	0	0	1	0	1	0	0	0	1	0	1	39	0	0	40	0	0	25	1	0	26	68
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	32	0	0	36	0	0	38	0	0	38	74
12:45 PM	0	0	0	2	0	2	0	0	0	1	0	1	0	5	44	0	0	49	0	0	20	1	0	21	73
Hourly Total	0	1	0	2	0	3	0	1	0	2	0	3	0	10	147	1	0	158	0	0	118	2	0	120	284
1:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	27	0	0	27	0	0	34	1	0	35	63
1:15 PM	0	1	0	2	0	3	0	0	0	0	0	0	0	1	37	0	0	38	0	0	29	0	0	29	70
1:30 PM	0	1	0	1	0	2	0	0	0	0	0	0	0	1	34	0	0	35	0	0	25	1	0	26	63
1:45 PM	0	0	0	4	0	4	0	0	0	0	0	0	0	2	33	0	0	35	0	0	30	0	0	30	69
Hourly Total	0	2	0	8	0	10	0	0	0	0	0	0	0	4	131	0	0	135	0	0	118	2	0	120	265
Grand Total	0	3	1	34	1	38	0	6	2	7	0	15	1	69	987	31	0	1088	0	15	748	10	0	773	1914
Approach %	0.0	7.9	2.6	89.5	-	-	0.0	40.0	13.3	46.7	-	-	0.1	6.3	90.7	2.8	-	-	0.0	1.9	96.8	1.3	-	-	-
Total %	0.0	0.2	0.1	1.8	-	2.0	0.0	0.3	0.1	0.4	-	0.8	0.1	3.6	51.6	1.6	-	56.8	0.0	0.8	39.1	0.5	-	40.4	-

Lights	0	3	0	32	-	35	0	6	1	7	-	14	1	69	981	30	-	1081	0	15	739	10	-	764	1894
% Lights	-	100.0	0.0	94.1	-	92.1	-	100.0	50.0	100.0	-	93.3	100.0	100.0	99.4	96.8	-	99.4	-	100.0	98.8	100.0	-	98.8	99.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	5	1	-	6	0	0	8	0	-	8	15
% Single-Unit Trucks	-	0.0	0.0	2.9	-	2.6	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.5	3.2	-	0.6	-	0.0	1.1	0.0	-	1.0	0.8
Articulated Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	2
% Articulated Trucks	-	0.0	0.0	2.9	-	2.6	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	0.1
Bicycles on Road	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	100.0	0.0	-	2.6	-	0.0	50.0	0.0	-	6.7	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Olesen Drive with Access Drive
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Access Drive Eastbound						Access Drive Westbound						Oleson Drive Northbound						Olesen Drive 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
8:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	3	59	1	0	63	0	0	16	0	0	16	80
8:15 AM	0	0	0	0	0	0	0	1	0	2	0	3	0	2	56	6	0	64	0	1	15	0	0	16	83
8:30 AM	0	0	0	1	0	1	0	1	0	0	0	1	0	5	45	2	0	52	0	0	20	0	0	20	74
8:45 AM	0	0	0	0	0	0	0	3	0	2	0	5	0	7	62	19	0	88	0	11	17	0	0	28	121
Total	0	0	0	2	0	2	0	5	0	4	0	9	0	17	222	28	0	267	0	12	68	0	0	80	358
Approach %	0.0	0.0	0.0	100.0	-	-	0.0	55.6	0.0	44.4	-	-	0.0	6.4	83.1	10.5	-	-	0.0	15.0	85.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.6	-	0.6	0.0	1.4	0.0	1.1	-	2.5	0.0	4.7	62.0	7.8	-	74.6	0.0	3.4	19.0	0.0	-	22.3	-
PHF	0.000	0.000	0.000	0.500	-	0.500	0.000	0.417	0.000	0.500	-	0.450	0.000	0.607	0.895	0.368	-	0.759	0.000	0.273	0.850	0.000	-	0.714	0.740
Lights	0	0	0	2	-	2	0	5	0	4	-	9	0	17	221	28	-	266	0	12	67	0	-	79	356
% Lights	-	-	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	99.5	100.0	-	99.6	-	100.0	98.5	-	-	98.8	99.4
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
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Single-Unit Trucks	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.5	0.0	-	0.4	-	0.0	1.5	-	-	1.3	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	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
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Olesen Drive with Access Drive
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Access Drive Eastbound						Access Drive Westbound						Oleson Drive Northbound						Olesen Drive 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	0	2	0	2	0	0	1	1	0	2	0	10	35	0	0	45	0	1	53	1	0	55	104
5:15 PM	0	0	1	2	0	3	0	0	0	0	0	0	0	2	34	0	0	36	0	0	61	1	0	62	101
5:30 PM	0	0	0	5	0	5	0	0	0	0	0	0	0	3	37	0	0	40	0	0	50	0	0	50	95
5:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	50	0	0	51	0	0	49	0	0	49	101
Total	0	0	1	10	0	11	0	0	1	1	0	2	0	16	156	0	0	172	0	1	213	2	0	216	401
Approach %	0.0	0.0	9.1	90.9	-	-	0.0	0.0	50.0	50.0	-	-	0.0	9.3	90.7	0.0	-	-	0.0	0.5	98.6	0.9	-	-	-
Total %	0.0	0.0	0.2	2.5	-	2.7	0.0	0.0	0.2	0.2	-	0.5	0.0	4.0	38.9	0.0	-	42.9	0.0	0.2	53.1	0.5	-	53.9	-
PHF	0.000	0.000	0.250	0.500	-	0.550	0.000	0.000	0.250	0.250	-	0.250	0.000	0.400	0.780	0.000	-	0.843	0.000	0.250	0.873	0.500	-	0.871	0.964
Lights	0	0	0	10	-	10	0	0	0	1	-	1	0	16	156	0	-	172	0	1	213	2	-	216	399
% Lights	-	-	0.0	100.0	-	90.9	-	-	0.0	100.0	-	50.0	-	100.0	100.0	-	-	100.0	-	100.0	100.0	100.0	-	100.0	99.5
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
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
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
Bicycles on Road	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	-	100.0	0.0	-	9.1	-	-	100.0	0.0	-	50.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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(847)518-9990 abowen@kloainc.com

Count Name: Olesen Drive with Access Drive
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Access Drive Eastbound						Access Drive Westbound						Oleson Drive Northbound						Olesen Drive 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
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	32	1	0	33	0	0	35	0	0	35	69
12:15 PM	0	1	0	0	0	1	0	1	0	0	0	1	0	1	39	0	0	40	0	0	25	1	0	26	68
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	32	0	0	36	0	0	38	0	0	38	74
12:45 PM	0	0	0	2	0	2	0	0	0	1	0	1	0	5	44	0	0	49	0	0	20	1	0	21	73
Total	0	1	0	2	0	3	0	1	0	2	0	3	0	10	147	1	0	158	0	0	118	2	0	120	284
Approach %	0.0	33.3	0.0	66.7	-	-	0.0	33.3	0.0	66.7	-	-	0.0	6.3	93.0	0.6	-	-	0.0	0.0	98.3	1.7	-	-	-
Total %	0.0	0.4	0.0	0.7	-	1.1	0.0	0.4	0.0	0.7	-	1.1	0.0	3.5	51.8	0.4	-	55.6	0.0	0.0	41.5	0.7	-	42.3	-
PHF	0.000	0.250	0.000	0.250	-	0.375	0.000	0.250	0.000	0.500	-	0.750	0.000	0.500	0.835	0.250	-	0.806	0.000	0.000	0.776	0.500	-	0.789	0.959
Lights	0	1	0	1	-	2	0	1	0	2	-	3	0	10	145	1	-	156	0	0	114	2	-	116	277
% Lights	-	100.0	-	50.0	-	66.7	-	100.0	-	100.0	-	100.0	-	100.0	98.6	100.0	-	98.7	-	-	96.6	100.0	-	96.7	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
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	4	0	-	4	6
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.4	0.0	-	1.3	-	-	3.4	0.0	-	3.3	2.1
Articulated Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	-	50.0	-	33.3	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Olesen+Drive+with+Jane+Avenue
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Data

Start Time	Jane Avenue Eastbound						Jane Avenue Westbound						Oleson Drive Northbound						Oleson Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	1	0	2	0	3	0	0	3	0	0	3	0	5	31	1	0	37	0	0	11	0	1	11	54
7:15 AM	0	2	0	1	1	3	0	0	0	1	0	1	0	3	48	0	0	51	0	0	14	1	3	15	70
7:30 AM	0	5	0	0	2	5	0	1	1	1	0	3	0	5	47	1	0	53	0	0	16	2	0	18	79
7:45 AM	0	4	0	0	1	4	0	1	2	0	0	3	0	5	57	0	1	62	0	2	14	1	0	17	86
Hourly Total	0	12	0	3	4	15	0	2	6	2	0	10	0	18	183	2	1	203	0	2	55	4	4	61	289
8:00 AM	0	6	1	1	2	8	0	3	1	1	0	5	0	1	43	0	1	44	0	0	12	0	0	12	69
8:15 AM	0	2	2	2	4	6	0	1	4	0	0	5	0	4	62	3	1	69	0	0	17	3	1	20	100
8:30 AM	0	1	0	1	2	2	0	2	1	0	0	3	0	2	48	2	1	52	0	0	19	1	0	20	77
8:45 AM	0	2	3	0	0	5	0	1	2	0	0	3	0	1	81	1	0	83	0	0	20	1	0	21	112
Hourly Total	0	11	6	4	8	21	0	7	8	1	0	16	0	8	234	6	3	248	0	0	68	5	1	73	358
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	2	1	0	4	0	1	1	1	0	3	0	5	28	2	0	35	0	1	42	4	0	47	89
4:15 PM	0	1	0	3	0	4	0	3	2	0	0	5	0	2	42	5	0	49	0	1	42	3	0	46	104
4:30 PM	0	1	0	1	0	2	0	2	4	2	0	8	0	6	33	2	0	41	0	0	35	3	0	38	89
4:45 PM	0	0	2	1	0	3	0	2	1	2	0	5	0	9	33	0	1	42	0	0	45	2	0	47	97
Hourly Total	0	3	4	6	0	13	0	8	8	5	0	21	0	22	136	9	1	167	0	2	164	12	0	178	379
5:00 PM	0	0	0	1	0	1	0	1	4	0	0	5	0	5	37	1	1	43	0	0	47	4	0	51	100
5:15 PM	0	1	1	3	0	5	0	3	0	1	0	4	0	1	34	2	0	37	0	0	51	1	0	52	98
5:30 PM	0	2	1	2	0	5	0	2	1	2	0	5	0	4	37	3	0	44	0	2	48	1	0	51	105
5:45 PM	0	2	2	1	0	5	0	2	3	1	0	6	0	5	42	0	0	47	0	1	47	3	0	51	109
Hourly Total	0	5	4	7	0	16	0	8	8	4	0	20	0	15	150	6	1	171	0	3	193	9	0	205	412
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	35	2	0	39	0	1	29	3	0	33	72
12:15 PM	0	0	0	1	0	1	0	0	2	0	0	2	0	2	39	0	0	41	0	0	24	0	0	24	68
12:30 PM	0	0	1	2	0	3	0	0	1	0	0	1	0	2	31	3	0	36	0	0	33	0	0	33	73
12:45 PM	0	0	1	2	0	3	0	1	2	0	0	3	0	2	28	1	0	31	0	0	19	3	0	22	59
Hourly Total	0	0	2	5	0	7	0	1	5	0	0	6	0	8	133	6	0	147	0	1	105	6	0	112	272
1:00 PM	0	2	3	1	0	6	0	2	2	0	0	4	0	2	27	1	0	30	0	0	31	0	0	31	71
1:15 PM	0	1	0	0	0	1	0	1	1	0	0	2	0	4	37	0	0	41	0	0	22	4	0	26	70
1:30 PM	0	0	2	2	0	4	0	0	1	2	0	3	0	3	34	1	0	38	0	1	20	3	0	24	69
1:45 PM	0	1	1	0	0	2	0	0	0	0	0	0	0	2	30	2	0	34	0	0	28	2	0	30	66
Hourly Total	0	4	6	3	0	13	0	3	4	2	0	9	0	11	128	4	0	143	0	1	101	9	0	111	276
Grand Total	0	35	22	28	12	85	0	29	39	14	0	82	0	82	964	33	6	1079	0	9	686	45	5	740	1986
Approach %	0.0	41.2	25.9	32.9	-	-	0.0	35.4	47.6	17.1	-	-	0.0	7.6	89.3	3.1	-	-	0.0	1.2	92.7	6.1	-	-	-
Total %	0.0	1.8	1.1	1.4	-	4.3	0.0	1.5	2.0	0.7	-	4.1	0.0	4.1	48.5	1.7	-	54.3	0.0	0.5	34.5	2.3	-	37.3	-

Lights	0	34	19	27	-	80	0	29	35	11	-	75	0	81	960	29	-	1070	0	8	679	44	-	731	1956
% Lights	-	97.1	86.4	96.4	-	94.1	-	100.0	89.7	78.6	-	91.5	-	98.8	99.6	87.9	-	99.2	-	88.9	99.0	97.8	-	98.8	98.5
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	7.1	-	1.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	1	0	-	1	0	0	0	2	-	2	0	0	4	0	-	4	0	1	6	1	-	8	15
% Single-Unit Trucks	-	0.0	4.5	0.0	-	1.2	-	0.0	0.0	14.3	-	2.4	-	0.0	0.4	0.0	-	0.4	-	11.1	0.9	2.2	-	1.1	0.8
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	0	0	1	0	-	1	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	3.0	-	0.1	-	0.0	0.1	0.0	-	0.1	0.1
Bicycles on Road	0	1	2	1	-	4	0	0	4	0	-	4	0	1	0	3	-	4	0	0	0	0	-	0	12
% Bicycles on Road	-	2.9	9.1	3.6	-	4.7	-	0.0	10.3	0.0	-	4.9	-	1.2	0.0	9.1	-	0.4	-	0.0	0.0	0.0	-	0.0	0.6
Pedestrians	-	-	-	-	12	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Olesen+Drive+with+Jane+Avenue
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Jane Avenue Eastbound						Jane Avenue Westbound						Oleson Drive Northbound						Oleson Drive 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
8:00 AM	0	6	1	1	2	8	0	3	1	1	0	5	0	1	43	0	1	44	0	0	12	0	0	12	69
8:15 AM	0	2	2	2	4	6	0	1	4	0	0	5	0	4	62	3	1	69	0	0	17	3	1	20	100
8:30 AM	0	1	0	1	2	2	0	2	1	0	0	3	0	2	48	2	1	52	0	0	19	1	0	20	77
8:45 AM	0	2	3	0	0	5	0	1	2	0	0	3	0	1	81	1	0	83	0	0	20	1	0	21	112
Total	0	11	6	4	8	21	0	7	8	1	0	16	0	8	234	6	3	248	0	0	68	5	1	73	358
Approach %	0.0	52.4	28.6	19.0	-	-	0.0	43.8	50.0	6.3	-	-	0.0	3.2	94.4	2.4	-	-	0.0	0.0	93.2	6.8	-	-	-
Total %	0.0	3.1	1.7	1.1	-	5.9	0.0	2.0	2.2	0.3	-	4.5	0.0	2.2	65.4	1.7	-	69.3	0.0	0.0	19.0	1.4	-	20.4	-
PHF	0.000	0.458	0.500	0.500	-	0.656	0.000	0.583	0.500	0.250	-	0.800	0.000	0.500	0.722	0.500	-	0.747	0.000	0.000	0.850	0.417	-	0.869	0.799
Lights	0	11	4	4	-	19	0	7	6	1	-	14	0	8	233	6	-	247	0	0	67	5	-	72	352
% Lights	-	100.0	66.7	100.0	-	90.5	-	100.0	75.0	100.0	-	87.5	-	100.0	99.6	100.0	-	99.6	-	-	98.5	100.0	-	98.6	98.3
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	1	0	-	1	0	0	1	0	-	1	2
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.4	-	-	1.5	0.0	-	1.4	0.6
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	2	0	-	2	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Bicycles on Road	-	0.0	33.3	0.0	-	9.5	-	0.0	25.0	0.0	-	12.5	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	1.1
Pedestrians	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Olesen+Drive+with+Jane+Avenue
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Jane Avenue Eastbound						Jane Avenue Westbound						Oleson Drive Northbound						Oleson Drive 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	0	1	0	1	0	1	4	0	0	5	0	5	37	1	1	43	0	0	47	4	0	51	100
5:15 PM	0	1	1	3	0	5	0	3	0	1	0	4	0	1	34	2	0	37	0	0	51	1	0	52	98
5:30 PM	0	2	1	2	0	5	0	2	1	2	0	5	0	4	37	3	0	44	0	2	48	1	0	51	105
5:45 PM	0	2	2	1	0	5	0	2	3	1	0	6	0	5	42	0	0	47	0	1	47	3	0	51	109
Total	0	5	4	7	0	16	0	8	8	4	0	20	0	15	150	6	1	171	0	3	193	9	0	205	412
Approach %	0.0	31.3	25.0	43.8	-	-	0.0	40.0	40.0	20.0	-	-	0.0	8.8	87.7	3.5	-	-	0.0	1.5	94.1	4.4	-	-	-
Total %	0.0	1.2	1.0	1.7	-	3.9	0.0	1.9	1.9	1.0	-	4.9	0.0	3.6	36.4	1.5	-	41.5	0.0	0.7	46.8	2.2	-	49.8	-
PHF	0.000	0.625	0.500	0.583	-	0.800	0.000	0.667	0.500	0.500	-	0.833	0.000	0.750	0.893	0.500	-	0.910	0.000	0.375	0.946	0.563	-	0.986	0.945
Lights	0	5	4	7	-	16	0	8	8	4	-	20	0	15	150	4	-	169	0	3	193	9	-	205	410
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	66.7	-	98.8	-	100.0	100.0	100.0	-	100.0	99.5
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	0	0	-	0	0	0	0	0	-	0	0	0	0	2	-	2	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	33.3	-	1.2	-	0.0	0.0	0.0	-	0.0	0.5
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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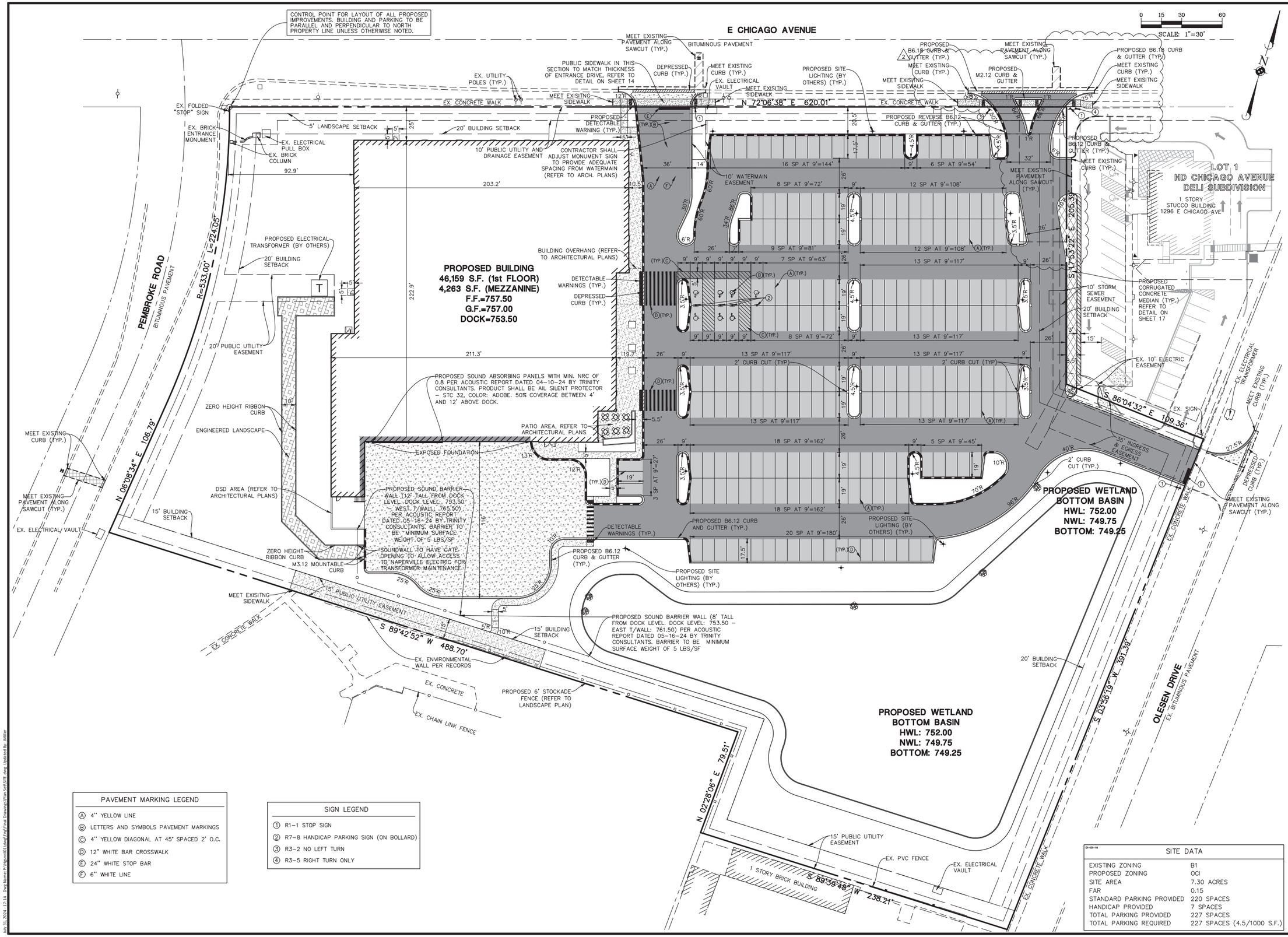
Count Name: Olesen+Drive+with+Jane+Avenue
TMC
Site Code:
Start Date: 08/03/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Jane Avenue Eastbound						Jane Avenue Westbound						Oleson Drive Northbound						Oleson Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	0	2	3	1	0	6	0	2	2	0	0	4	0	2	27	1	0	30	0	0	31	0	0	31	71
1:15 PM	0	1	0	0	0	1	0	1	1	0	0	2	0	4	37	0	0	41	0	0	22	4	0	26	70
1:30 PM	0	0	2	2	0	4	0	0	1	2	0	3	0	3	34	1	0	38	0	1	20	3	0	24	69
1:45 PM	0	1	1	0	0	2	0	0	0	0	0	0	0	2	30	2	0	34	0	0	28	2	0	30	66
Total	0	4	6	3	0	13	0	3	4	2	0	9	0	11	128	4	0	143	0	1	101	9	0	111	276
Approach %	0.0	30.8	46.2	23.1	-	-	0.0	33.3	44.4	22.2	-	-	0.0	7.7	89.5	2.8	-	-	0.0	0.9	91.0	8.1	-	-	-
Total %	0.0	1.4	2.2	1.1	-	4.7	0.0	1.1	1.4	0.7	-	3.3	0.0	4.0	46.4	1.4	-	51.8	0.0	0.4	36.6	3.3	-	40.2	-
PHF	0.000	0.500	0.500	0.375	-	0.542	0.000	0.375	0.500	0.250	-	0.563	0.000	0.688	0.865	0.500	-	0.872	0.000	0.250	0.815	0.563	-	0.895	0.972
Lights	0	4	6	3	-	13	0	3	4	2	-	9	0	11	127	4	-	142	0	1	101	8	-	110	274
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	-	100.0	99.2	100.0	-	99.3	-	100.0	100.0	88.9	-	99.1	99.3
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	1	0	-	1	0	0	0	1	-	1	2
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.8	0.0	-	0.7	-	0.0	0.0	11.1	-	0.9	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Preliminary Site Plan



DRAWN BY	DATE	REVISIONS
JRM	06-02-24	REVISED PER CITY OF NAPERVILLE REVIEW #5
MJH	07-26-24	REVISED CHICAGO AVENUE EASTERN ENTRANCE
MJH	07-03-24	REVISED PER DUDOT REVIEW #2
MJH	10-29-24	REVISED PER DUDOT REVIEW

Manhard CONSULTING
manhard.com
1 East Wacker Drive, Suite 2700, Chicago, IL 60601 ph 312.824.3801 fx 847.634.0095
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners

PROPOSED HEINEN'S GROCERY STORE
CITY OF NAPERVILLE, ILLINOIS
OVERALL SITE DIMENSIONAL AND PAVING PLAN

PROJ. MGR.:	MDE
PROJ. ASSOC.:	JRM
DRAWN BY:	EJB
DATE:	02/09/24
SCALE:	1"=30'

SHEET
EXB
HGS.NVIL01

FINAL ENGINEERING - NOT FOR CONSTRUCTION

ITE Trip Generation Worksheets

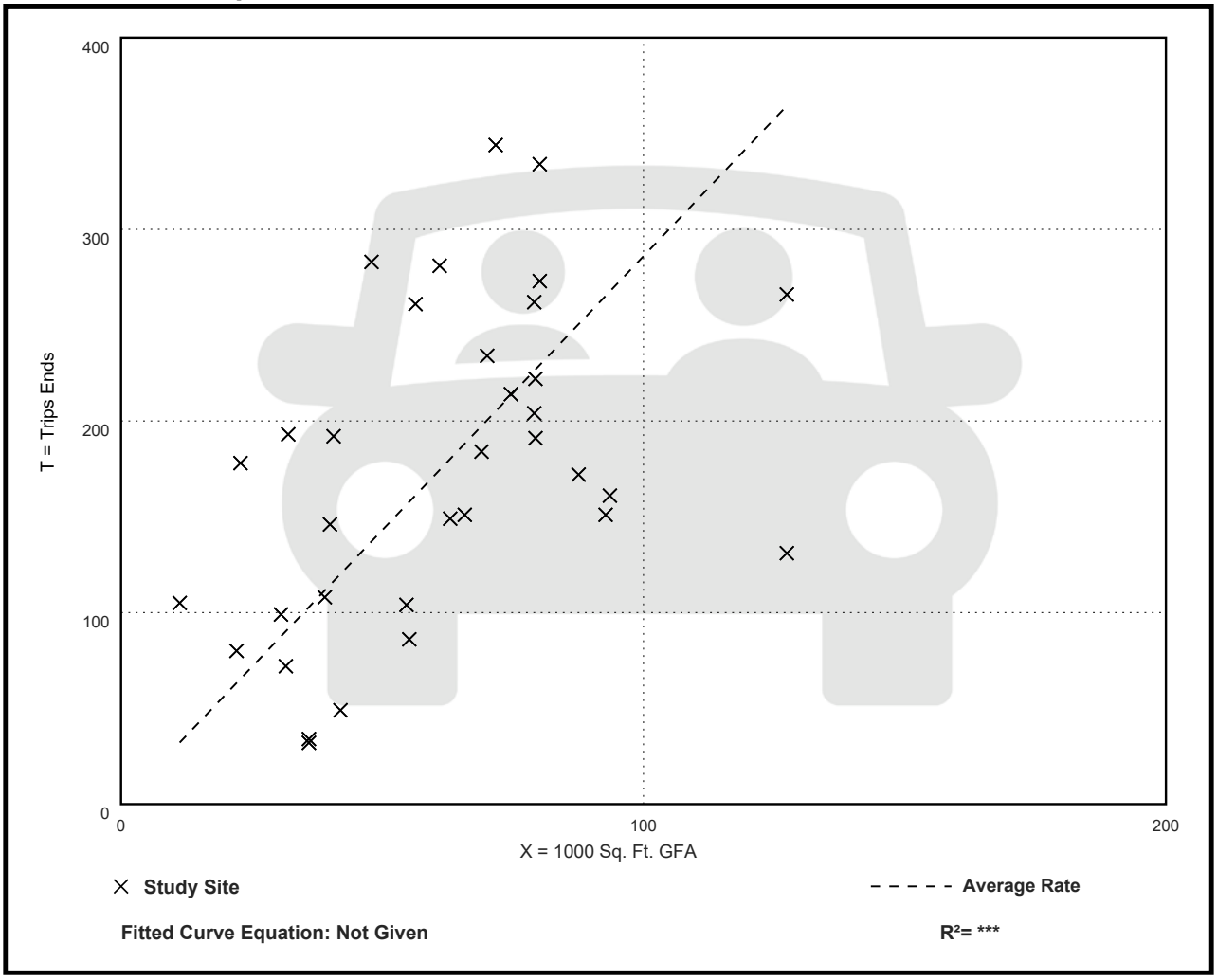
Supermarket
(850)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 61
Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.86	0.89 - 9.35	1.45

Data Plot and Equation



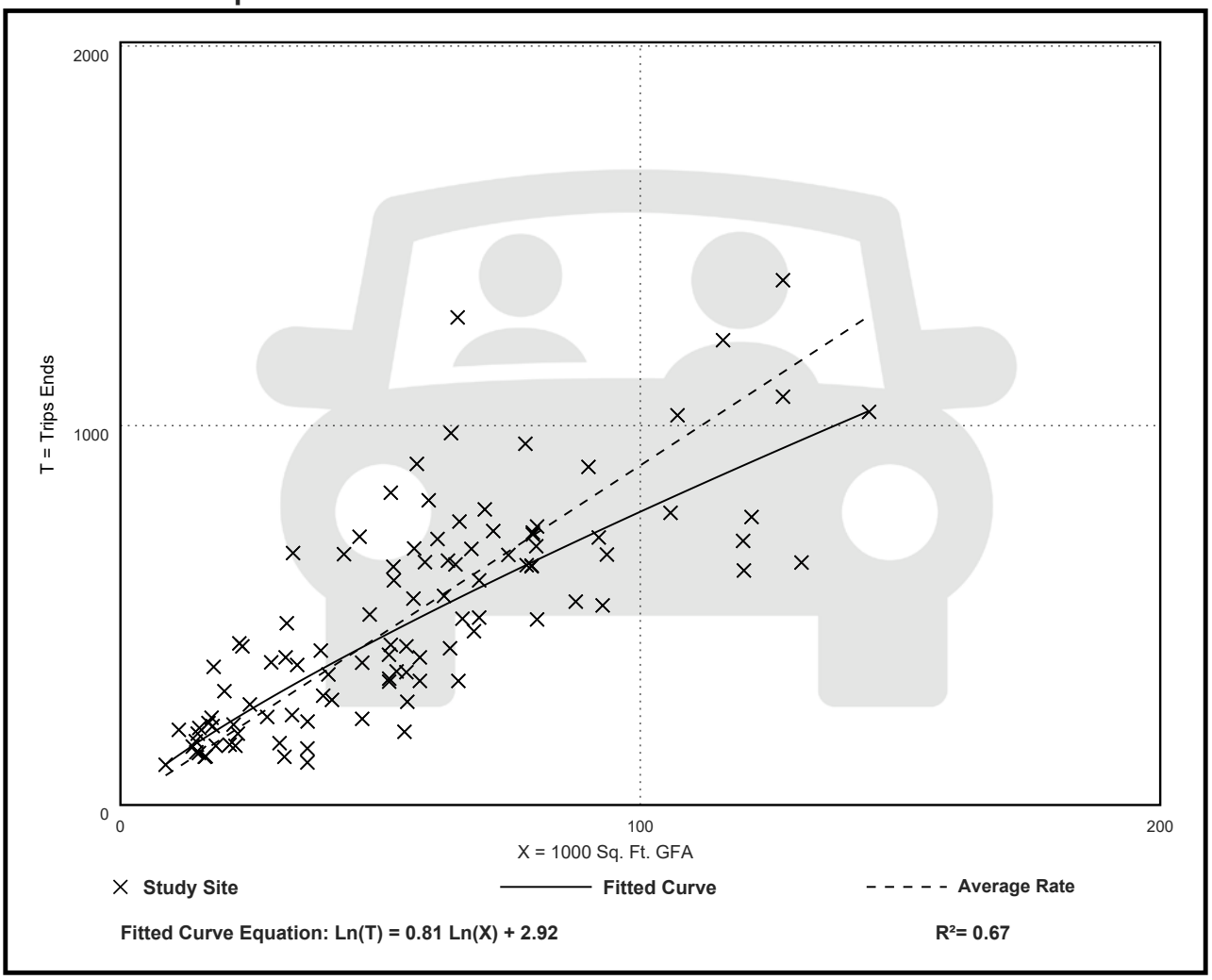
Supermarket
(850)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 55
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
8.95	3.11 - 20.30	3.32

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.81 Ln(X) + 2.92

R^2= 0.67

Supermarket
(850)

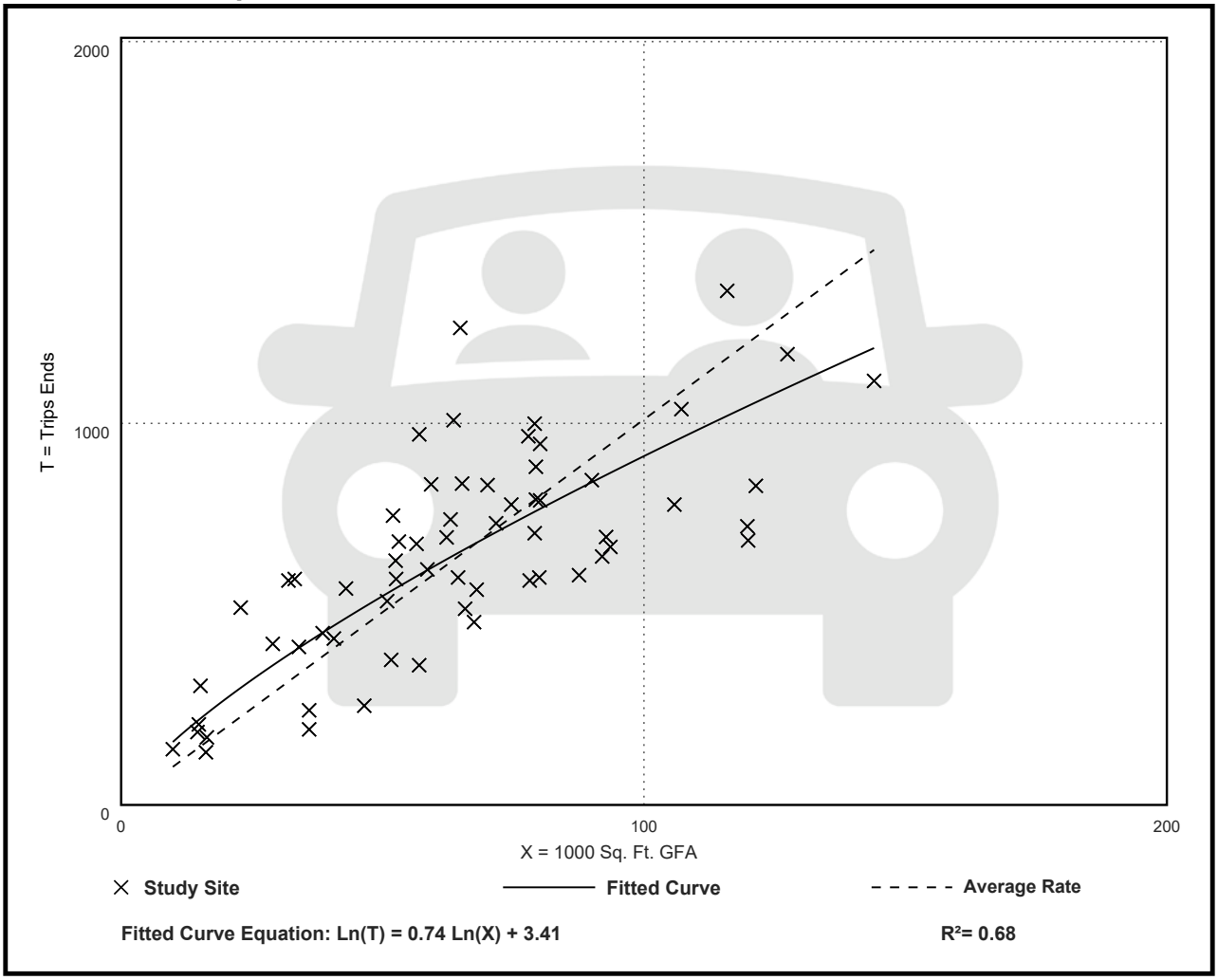
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 62
Avg. 1000 Sq. Ft. GFA: 65
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.10	5.51 - 22.61	3.30

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.74 Ln(X) + 3.41

R^2= 0.68

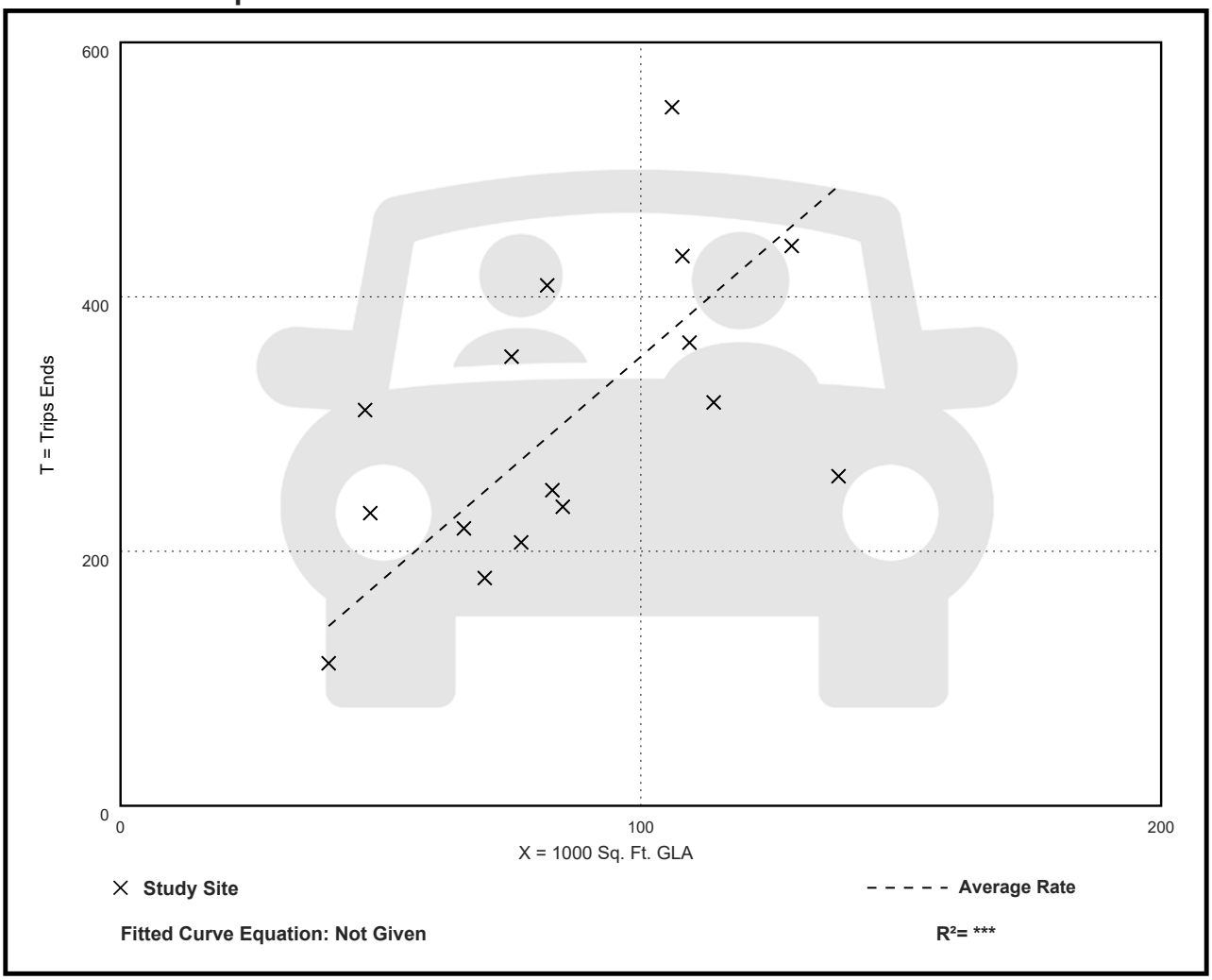
Shopping Plaza (40-150k) - Supermarket - Yes (821)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. 1000 Sq. Ft. GLA: 86
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.53	1.88 - 6.62	1.17

Data Plot and Equation



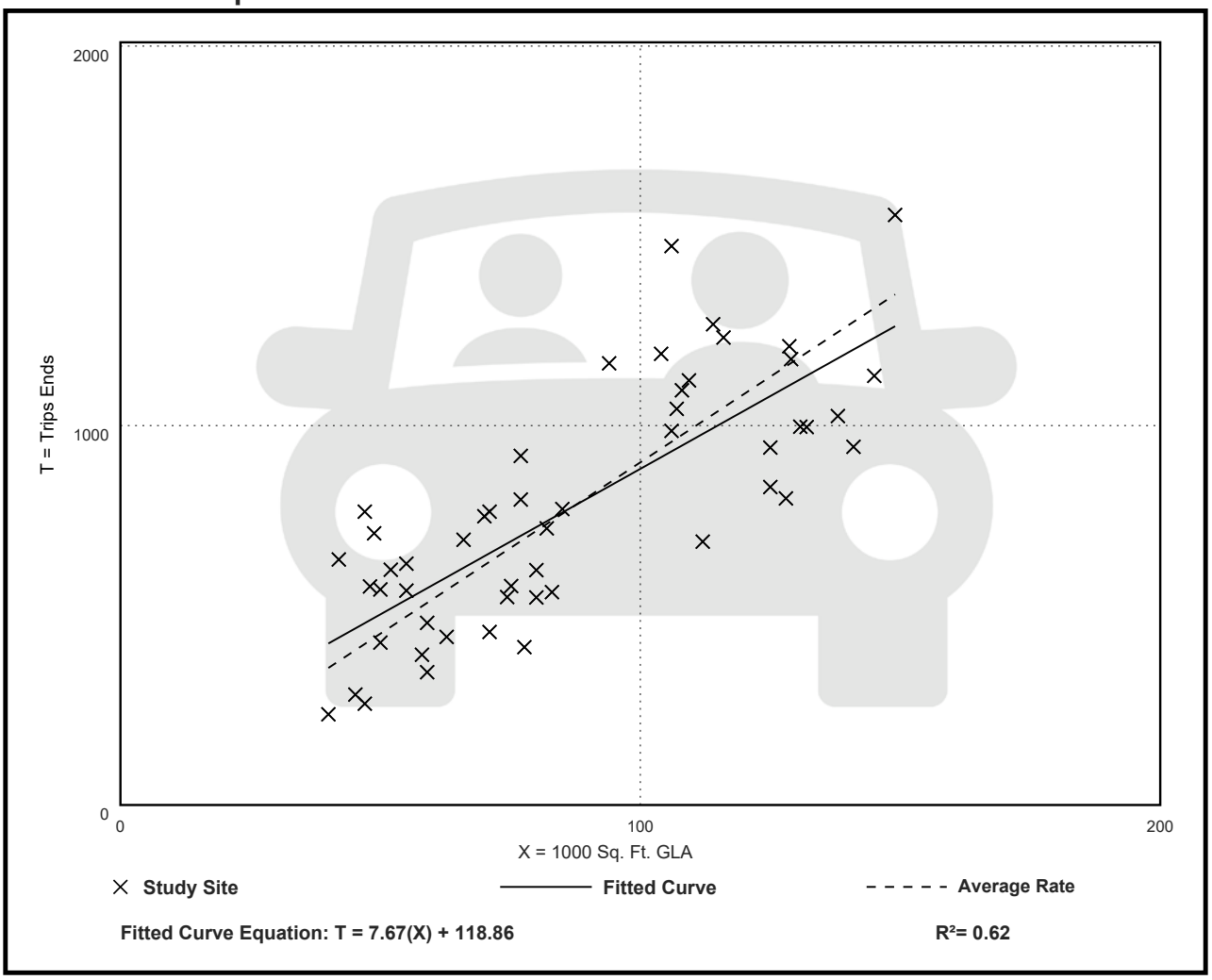
Shopping Plaza (40-150k) - Supermarket - Yes (821)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 51
Avg. 1000 Sq. Ft. GLA: 87
Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
9.03	5.35 - 16.45	2.37

Data Plot and Equation



Fitted Curve Equation: T = 7.67(X) + 118.86

R^2= 0.62

Shopping Plaza (40-150k) - Supermarket - Yes (821)

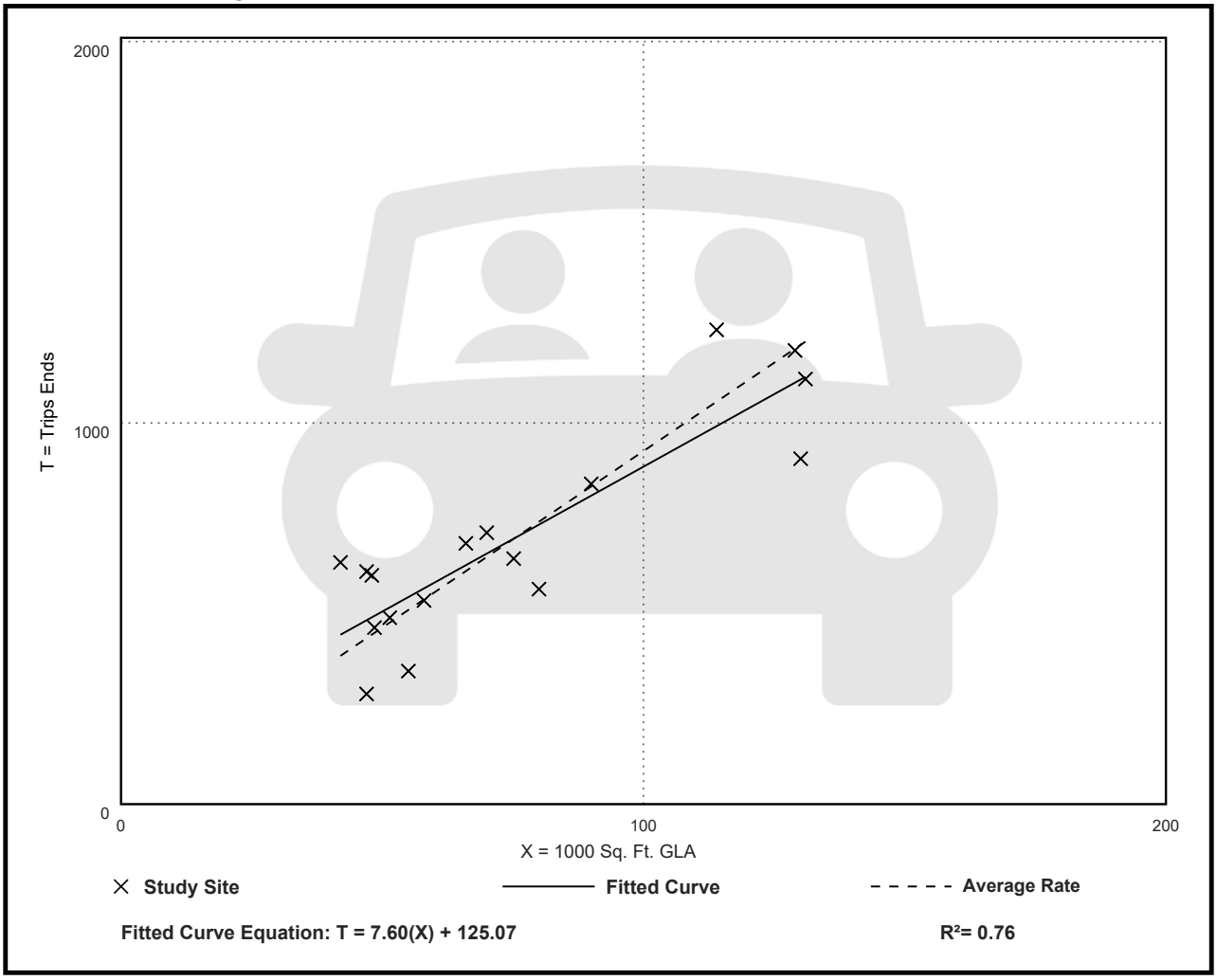
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 17
Avg. 1000 Sq. Ft. GLA: 75
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
9.26	6.15 - 15.10	2.07

Data Plot and Equation



Fitted Curve Equation: T = 7.60(X) + 125.07

R^2= 0.76

Fast Casual Restaurant
(930)

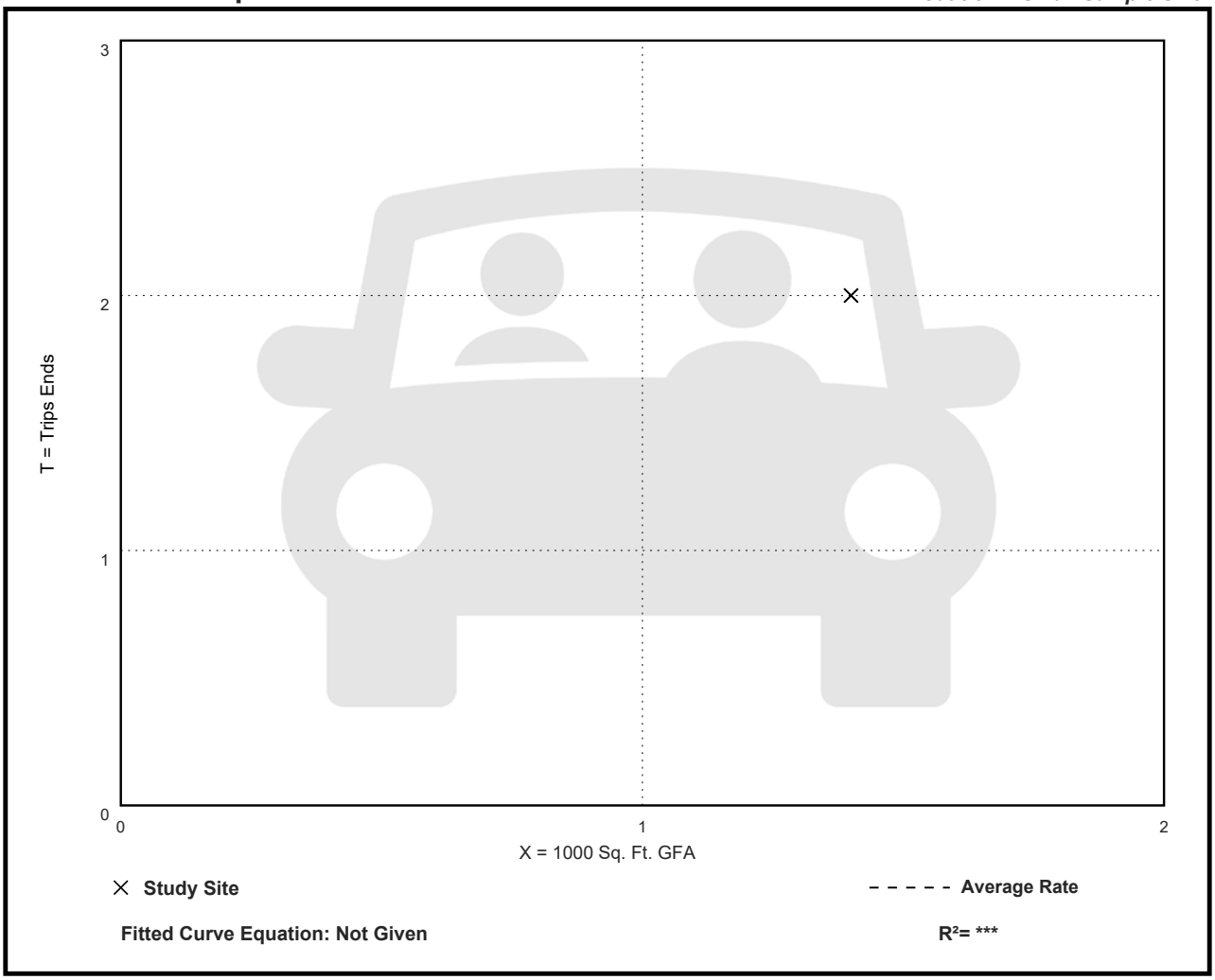
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.43	1.43 - 1.43	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

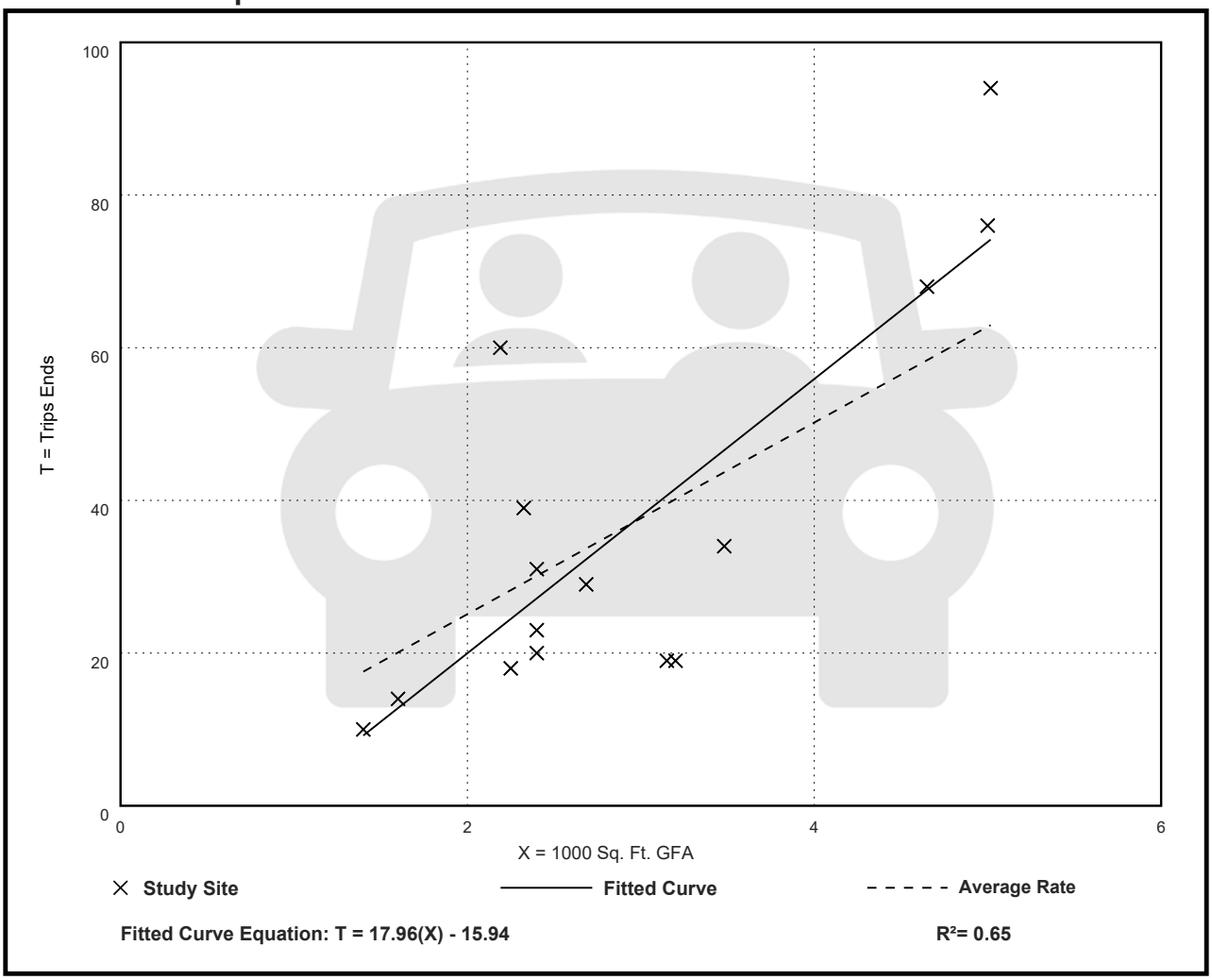
Fast Casual Restaurant
(930)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
12.55	5.94 - 27.40	5.52

Data Plot and Equation



Fitted Curve Equation: T = 17.96(X) - 15.94

R^2= 0.65

Fast Casual Restaurant
(930)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

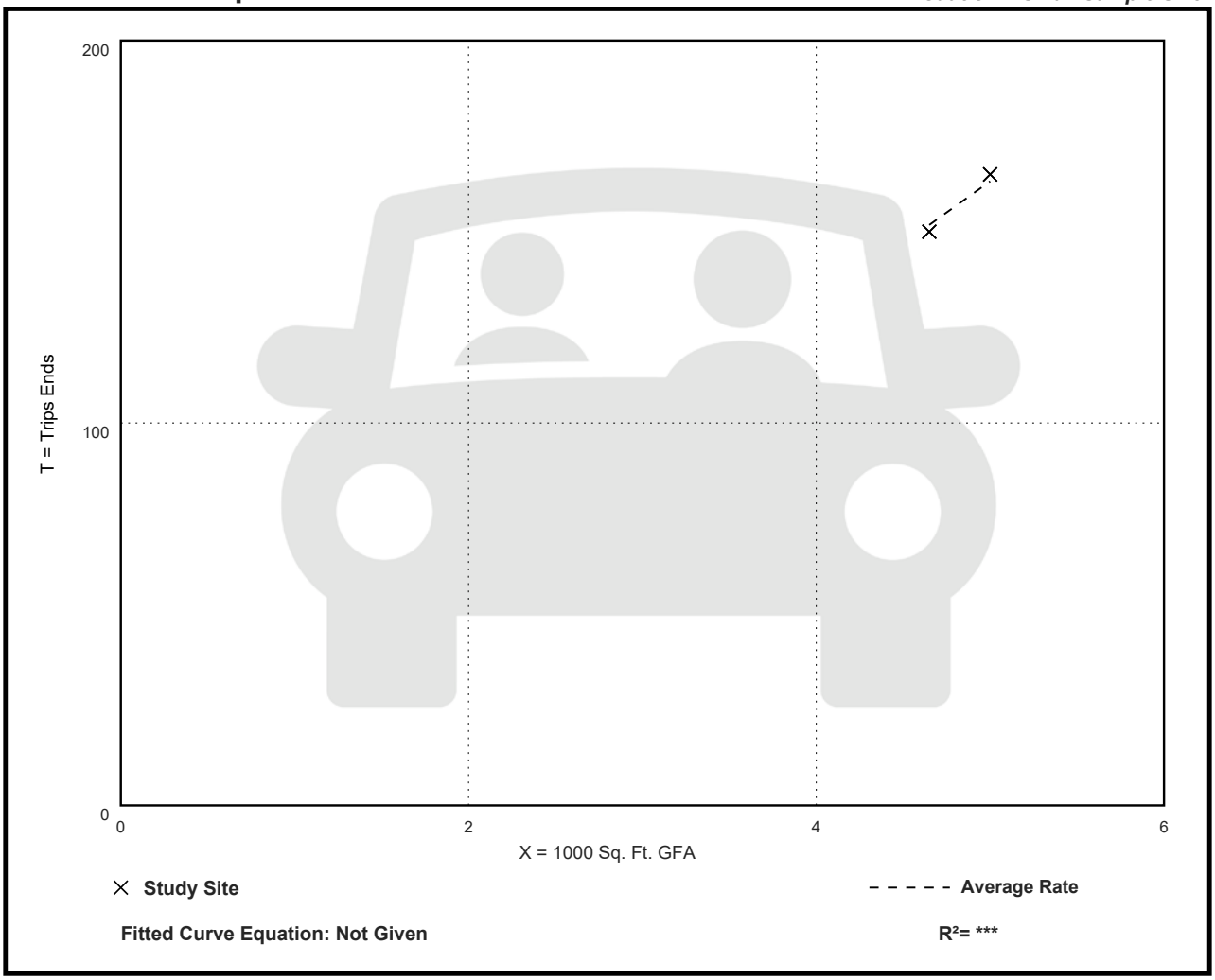
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.64	32.26 - 33.00	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

2050 CMAP Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607

cmap.illinois.gov | 312-454-0400

July 18th, 2023

Ryan May
Project Coordinator
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: Chicago Ave with Olesen Dr and Naper Blvd
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated July 17th, 2023, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT (2020)	2050 ADT from 2020 base	Current ADT (2017)	2050 ADT from 2017 base
Olesen Dr @ Chicago Ave	2,650	3,650	5,400	6,600
Chicago Ave west of Olesen Dr	7,100	9,800	18,600	22,700
Chicago Ave east of Olesen Dr	11,400	15,700	20,900	25,600
Maple Ave east of Naper Blvd	12,800	17,100	21,250	25,700
Naper Blvd north of Chicago Ave	18,400	22,200	30,500	35,200
Naper Blvd south of Chicago Ave	14,500	18,300	27,300	32,300

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

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

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

cc: Rios (IDOT)
\2023_TrafficForecasts\Naperville\du-33-23\du-33-23.docx

McAlister's Deli Trip Generation

Table A
ESTIMATED PEAK HOUR TRIP GENERATION – MCALISTER'S DELI

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
930	Fast Casual Restaurant (3,000 s.f.)	2	2	4	21	17	38	54	44	98

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

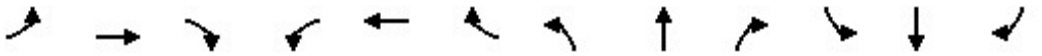
Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of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

Unsignalized Intersections	
Level of Service	Average Total Delay (SEC/VEH)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour Conditions



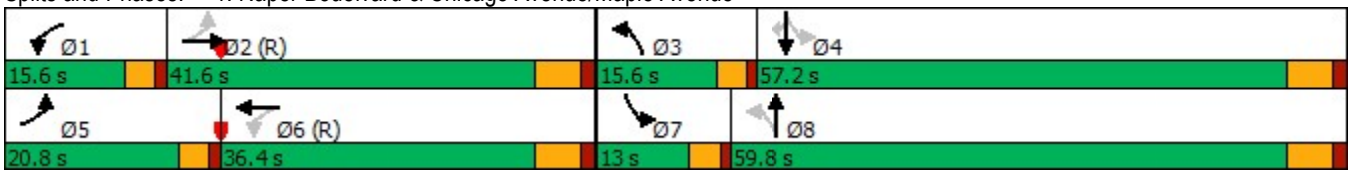
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	369	50	83	359	162	96	982	144	109	337	84
Future Volume (vph)	256	369	50	83	359	162	96	982	144	109	337	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		1.00		1.00				1.00				
Frt		0.982			0.953			0.981				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1925	3401	0	1906	3348	0	1728	3384	0	1752	3455	1599
Flt Permitted	0.226			0.483			0.515			0.097		
Satd. Flow (perm)	458	3401	0	966	3348	0	937	3384	0	179	3455	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			52			15				126
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)			5	5					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	4%	1%	4%	0%	1%	1%	1%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	267	436	0	86	543	0	100	1173	0	114	351	88
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	20.8	41.6		15.6	36.4		15.6	59.8		13.0	57.2	57.2
Total Split (%)	16.0%	32.0%		12.0%	28.0%		12.0%	46.0%		10.0%	44.0%	44.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	51.8	36.7		41.1	30.0		66.4	55.2		66.0	55.1	55.1
Actuated g/C Ratio	0.40	0.28		0.32	0.23		0.51	0.42		0.51	0.42	0.42

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.74	0.45		0.23	0.67		0.19	0.81		0.57	0.24	0.12
Control Delay	41.5	37.6		26.3	45.4		16.1	38.3		29.6	25.3	1.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	41.5	37.6		26.3	45.4		16.1	38.3		29.6	25.3	1.7
LOS	D	D		C	D		B	D		C	C	A
Approach Delay		39.1			42.8			36.5			22.4	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	160	142		44	199		41	454		47	100	0
Queue Length 95th (ft)	201	212		80	263		71	550		91	142	13
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	372	974		407	824		566	1446		202	1463	749
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	0.72	0.45		0.21	0.66		0.18	0.81		0.56	0.24	0.12

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 81.9 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 35.9 Intersection LOS: D
Intersection Capacity Utilization 83.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue



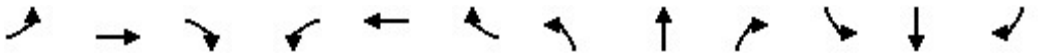
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	403	26	54	500	43	183
Future Volume (vph)	403	26	54	500	43	183
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor	1.00		1.00		1.00	
Frt	0.991					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3498	0	1805	3689	1805	1599
Flt Permitted			0.456		0.950	
Satd. Flow (perm)	3498	0	866	3689	1802	1599
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	9					208
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)		2	2		1	
Confl. Bikes (#/hr)		1				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	4%	0%	3%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	488	0	61	568	49	208
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	83.2		13.0	96.2	33.8	
Total Split (%)	64.0%		10.0%	74.0%	26.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	98.8		110.9	108.9	9.1	19.2
Actuated g/C Ratio	0.76		0.85	0.84	0.07	0.15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.18		0.08	0.18	0.39	0.50
Control Delay	3.5		2.6	3.5	65.8	10.5
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	3.5		2.6	3.5	65.8	10.5
LOS	A		A	A	E	B
Approach Delay	3.5			3.4	21.0	
Approach LOS	A			A	C	
Queue Length 50th (ft)	28		2	10	40	0
Queue Length 95th (ft)	46		m31	194	79	62
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2659		803	3090	385	505
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.18		0.08	0.18	0.13	0.41

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 93.6 (72%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 6.7 Intersection LOS: A
Intersection Capacity Utilization 33.8% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Olesen Drive & Chicago Avenue

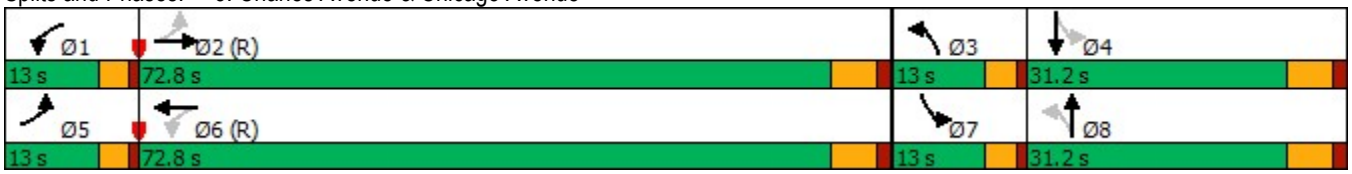


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	282	12	46	343	140	17	71	89	60	40	2
Future Volume (vph)	4	282	12	46	343	140	17	71	89	60	40	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		0.99			1.00	0.99		1.00	1.00	
Frt		0.994			0.957			0.917			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3451	0	1711	3373	0	1685	1727	0	1652	1835	0
Flt Permitted	0.447			0.523			0.726			0.356		
Satd. Flow (perm)	821	3451	0	932	3373	0	1286	1727	0	618	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			70			43			2	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)			5	5			1		2	2		
Confl. Bikes (#/hr)									1			1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	0%	2%	3%	1%	0%	0%	0%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	334	0	52	549	0	19	182	0	68	47	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	13.0	72.8		13.0	72.8		13.0	31.2		13.0	31.2	
Total Split (%)	10.0%	56.0%		10.0%	56.0%		10.0%	24.0%		10.0%	24.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	85.6	79.0		89.8	86.0		25.3	17.8		31.9	25.3	
Actuated g/C Ratio	0.66	0.61		0.69	0.66		0.19	0.14		0.25	0.19	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.01	0.16		0.08	0.24		0.07	0.67		0.29	0.13	
Control Delay	9.5	13.6		4.4	3.7		32.9	51.7		37.9	40.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	9.5	13.6		4.4	3.7		32.9	51.7		37.9	40.0	
LOS	A	B		A	A		C	D		D	D	
Approach Delay		13.5			3.7			49.9			38.8	
Approach LOS		B			A			D			D	
Queue Length 50th (ft)	1	65		6	28		12	113		44	29	
Queue Length 95th (ft)	7	108		16	50		29	177		73	62	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	621	2119		698	2262		294	369		237	399	
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	0.01	0.16		0.07	0.24		0.06	0.49		0.29	0.12	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 65 (50%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 50.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Charles Avenue & Chicago Avenue



Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	425	3	3	540	9	4
Future Vol, veh/h	425	3	3	540	9	4
Conflicting Peds, #/hr	0	8	8	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	3	33	0	3	0	0
Mvmt Flow	489	3	3	621	10	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	500	0	816	254
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	317	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1075	-	319	752
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	717	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1069	-	316	748
Mov Cap-2 Maneuver	-	-	-	-	316	-
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	714	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	316	748	-	-	1069	-
HCM Lane V/C Ratio	0.033	0.006	-	-	0.003	-
HCM Control Delay (s)	16.8	9.8	-	-	8.4	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

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	11	4	4	7	6	1	8	234	6	0	68	5
Future Vol, veh/h	11	4	4	7	6	1	8	234	6	0	68	5
Conflicting Peds, #/hr	1	0	3	3	0	1	8	0	0	0	0	8
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	0	0	0	0	1	0
Mvmt Flow	14	5	5	9	8	1	10	293	8	0	85	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	419	417	99	413	416	298	99	0	0	301	0	0
Stage 1	96	96	-	317	317	-	-	-	-	-	-	-
Stage 2	323	321	-	96	99	-	-	-	-	-	-	-
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	548	530	962	553	530	746	1507	-	-	1272	-	-
Stage 1	916	819	-	698	658	-	-	-	-	-	-	-
Stage 2	693	655	-	916	817	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	534	522	953	541	522	745	1497	-	-	1272	-	-
Mov Cap-2 Maneuver	534	522	-	541	522	-	-	-	-	-	-	-
Stage 1	902	813	-	692	653	-	-	-	-	-	-	-
Stage 2	678	650	-	903	811	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	11.9	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1497	-	-	585	543	1272	-	-
HCM Lane V/C Ratio	0.007	-	-	0.041	0.032	-	-	-
HCM Control Delay (s)	7.4	0	-	11.4	11.9	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	5	0	4	17	222	28	12	68	0
Future Vol, veh/h	0	0	2	5	0	4	17	222	28	12	68	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	74	74	95	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	0	0	2	7	0	5	23	300	38	16	92	0

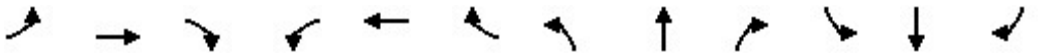
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	492	508	92	490	489	319	92	0	0	338	0	0
Stage 1	124	124	-	365	365	-	-	-	-	-	-	-
Stage 2	368	384	-	125	124	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical 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	490	471	971	492	482	726	1515	-	-	1232	-	-
Stage 1	885	797	-	658	627	-	-	-	-	-	-	-
Stage 2	656	615	-	884	797	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	474	455	971	479	466	726	1515	-	-	1232	-	-
Mov Cap-2 Maneuver	474	455	-	479	466	-	-	-	-	-	-	-
Stage 1	868	786	-	645	615	-	-	-	-	-	-	-
Stage 2	639	603	-	870	786	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.7	11.5	0.5	1.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	971	564	1232	-	-
HCM Lane V/C Ratio	0.015	-	-	0.002	0.022	0.013	-	-
HCM Control Delay (s)	7.4	0	-	8.7	11.5	8	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour Conditions



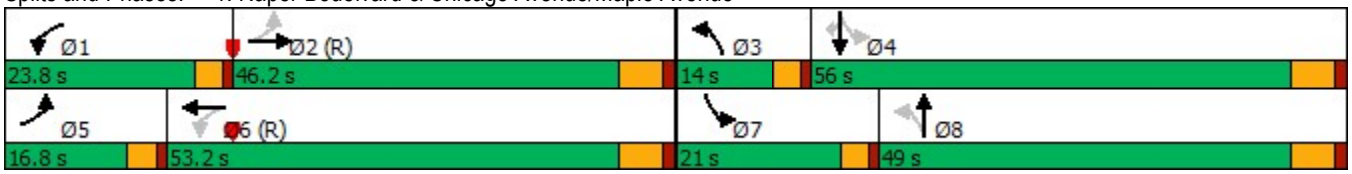
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	187	443	118	197	528	197	100	622	107	230	1094	214
Future Volume (vph)	187	443	118	197	528	197	100	622	107	230	1094	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		1.00		1.00								
Frt		0.968			0.959			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1888	3472	0	1906	3453	0	1745	3374	0	1805	3455	1615
Flt Permitted	0.206			0.274			0.086			0.191		
Satd. Flow (perm)	409	3472	0	548	3453	0	158	3374	0	363	3455	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			41			14				117
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)			6	6								
Confl. Bikes (#/hr)												
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 (%)	2%	0%	1%	1%	0%	1%	0%	1%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	584	0	205	755	0	104	759	0	240	1140	223
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	16.8	46.2		23.8	53.2		14.0	49.0		21.0	56.0	56.0
Total Split (%)	12.0%	33.0%		17.0%	38.0%		10.0%	35.0%		15.0%	40.0%	40.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	56.9	42.6		61.3	45.1		58.5	47.4		68.7	53.6	53.6
Actuated g/C Ratio	0.41	0.30		0.44	0.32		0.42	0.34		0.49	0.38	0.38

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.66	0.54		0.54	0.66		0.62	0.66		0.72	0.86	0.32
Control Delay	43.9	48.5		28.5	41.5		41.5	43.1		34.3	48.6	16.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	43.9	48.5		28.5	41.5		41.5	43.1		34.3	48.6	16.3
LOS	D	D		C	D		D	D		C	D	B
Approach Delay		47.3			38.7			42.9			41.9	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	152	280		109	288		52	319		131	522	66
Queue Length 95th (ft)	149	316		163	359		108	395		192	#659	136
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	303	1080		439	1191		180	1151		353	1321	690
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	0.64	0.54		0.47	0.63		0.58	0.66		0.68	0.86	0.32

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 99.4 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 42.4 Intersection LOS: D
Intersection Capacity Utilization 85.9% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue

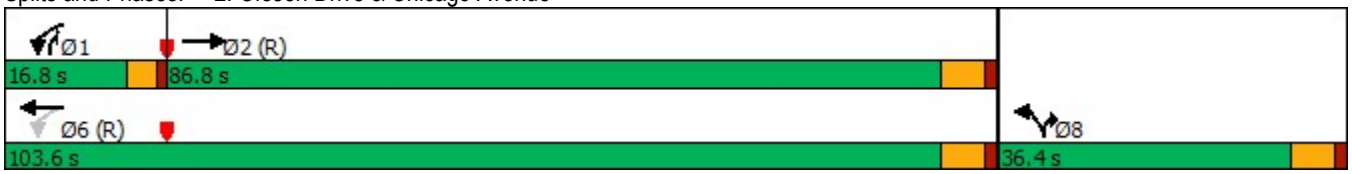


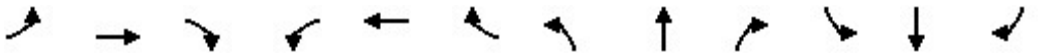
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	626	59	157	647	45	114
Future Volume (vph)	626	59	157	647	45	114
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor	1.00		1.00		1.00	
Frt	0.987					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3524	0	1805	3800	1805	1615
Flt Permitted			0.355		0.950	
Satd. Flow (perm)	3524	0	674	3800	1802	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	12					120
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)		1	1		1	
Confl. Bikes (#/hr)		2				
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 (%)	1%	0%	0%	0%	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)	721	0	165	681	47	120
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	86.8		16.8	103.6	36.4	
Total Split (%)	62.0%		12.0%	74.0%	26.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	107.5		121.0	119.0	9.0	20.5
Actuated g/C Ratio	0.77		0.86	0.85	0.06	0.15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.27		0.26	0.21	0.41	0.35
Control Delay	3.5		2.0	1.7	72.2	11.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	3.5		2.0	1.7	72.2	11.1
LOS	A		A	A	E	B
Approach Delay	3.5			1.7	28.3	
Approach LOS	A			A	C	
Queue Length 50th (ft)	57		17	41	42	0
Queue Length 95th (ft)	72		14	33	84	55
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2707		685	3229	391	444
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.27		0.24	0.21	0.12	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 29.4 (21%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 44.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Olesen Drive & Chicago Avenue



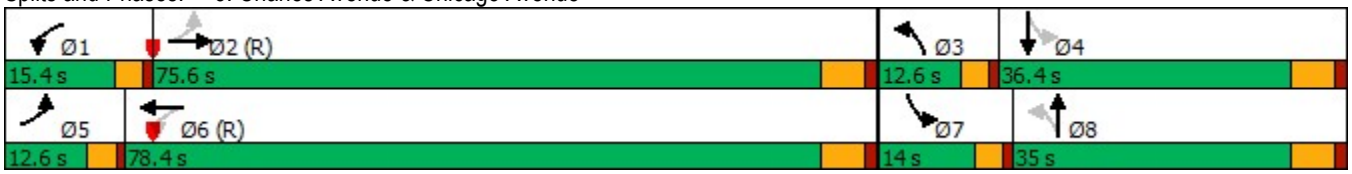


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	457	45	107	435	136	23	70	77	135	84	1
Future Volume (vph)	1	457	45	107	435	136	23	70	77	135	84	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							1.00				1.00	
Frt		0.987			0.964			0.922			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3531	0	1728	3480	0	1685	1743	0	1685	1896	0
Flt Permitted	0.425			0.401			0.699			0.384		
Satd. Flow (perm)	781	3531	0	729	3480	0	1236	1743	0	681	1896	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			44			36				
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)							2					2
Confl. Bikes (#/hr)												
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%	1%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	528	0	113	601	0	24	155	0	142	89	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	12.6	75.6		15.4	78.4		12.6	35.0		14.0	36.4	
Total Split (%)	9.0%	54.0%		11.0%	56.0%		9.0%	25.0%		10.0%	26.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	85.4	77.9		92.9	89.0		26.0	16.9		39.1	30.0	
Actuated g/C Ratio	0.61	0.56		0.66	0.64		0.19	0.12		0.28	0.21	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.00	0.27		0.21	0.27		0.10	0.64		0.47	0.22	
Control Delay	12.0	17.9		19.1	22.7		34.5	56.1		43.0	45.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.0	17.9		19.1	22.7		34.5	56.1		43.0	45.9	
LOS	B	B		B	C		C	E		D	D	
Approach Delay		17.9			22.2			53.2			44.1	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	0	123		58	189		16	105		103	70	
Queue Length 95th (ft)	3	203		88	200		35	173		144	111	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	552	2003		566	2243		270	389		305	433	
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	0.00	0.26		0.20	0.27		0.09	0.40		0.47	0.21	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 22.4 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 52.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Charles Avenue & Chicago Avenue



Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	671	5	6	686	9	14
Future Vol, veh/h	671	5	6	686	9	14
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	714	5	6	730	10	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	721	0	1096	362
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	377	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	890	-	211	641
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	889	-	208	640
Mov Cap-2 Maneuver	-	-	-	-	208	-
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	662	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	640	-	-	889	-
HCM Lane V/C Ratio	0.046	0.023	-	-	0.007	-
HCM Control Delay (s)	23.1	10.8	-	-	9.1	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	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	5	4	7	8	8	4	15	150	4	3	193	9
Future Vol, veh/h	5	4	7	8	8	4	15	150	4	3	193	9
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	4	7	9	9	4	16	160	4	3	205	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	417	412	211	417	415	162	215	0	0	164	0	0
Stage 1	216	216	-	194	194	-	-	-	-	-	-	-
Stage 2	201	196	-	223	221	-	-	-	-	-	-	-
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	550	533	834	550	531	888	1367	-	-	1427	-	-
Stage 1	791	728	-	812	744	-	-	-	-	-	-	-
Stage 2	805	742	-	784	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	535	525	833	535	523	888	1367	-	-	1427	-	-
Mov Cap-2 Maneuver	535	525	-	535	523	-	-	-	-	-	-	-
Stage 1	781	727	-	801	734	-	-	-	-	-	-	-
Stage 2	782	732	-	770	723	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	11.5	0.7	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1367	-	-	631	575	1427	-	-
HCM Lane V/C Ratio	0.012	-	-	0.027	0.037	0.002	-	-
HCM Control Delay (s)	7.7	0	-	10.9	11.5	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	10	0	0	1	16	158	0	1	213	2
Future Vol, veh/h	0	0	10	0	0	1	16	158	0	1	213	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	10	0	0	1	17	165	0	1	222	2

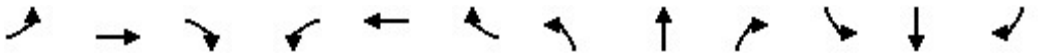
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	425	424	223	429	425	165	224	0	0	165	0	0
Stage 1	225	225	-	199	199	-	-	-	-	-	-	-
Stage 2	200	199	-	230	226	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical 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	543	525	822	540	524	885	1357	-	-	1426	-	-
Stage 1	782	721	-	807	740	-	-	-	-	-	-	-
Stage 2	806	740	-	777	721	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	536	517	822	527	516	885	1357	-	-	1426	-	-
Mov Cap-2 Maneuver	536	517	-	527	516	-	-	-	-	-	-	-
Stage 1	771	720	-	796	730	-	-	-	-	-	-	-
Stage 2	794	730	-	766	720	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	9.1	0.7	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1357	-	-	822	885	1426	-	-
HCM Lane V/C Ratio	0.012	-	-	0.013	0.001	0.001	-	-
HCM Control Delay (s)	7.7	0	-	9.4	9.1	7.5	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Capacity Analysis Summary Sheets

Existing Saturday Midday Peak Hour Conditions



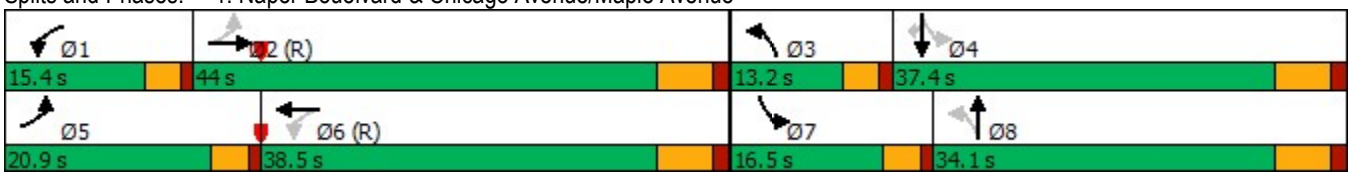
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	336	66	124	430	192	80	540	58	165	550	119
Future Volume (vph)	193	336	66	124	430	192	80	540	58	165	550	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.975			0.954			0.986				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1906	3491	0	1888	3433	0	1745	3441	0	1787	3455	1583
Flt Permitted	0.267			0.493			0.364			0.215		
Satd. Flow (perm)	536	3491	0	980	3433	0	669	3441	0	404	3455	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			66			10				149
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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 (%)	1%	1%	0%	2%	0%	1%	0%	0%	0%	1%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	201	419	0	129	648	0	83	623	0	172	573	124
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	20.9	44.0		15.4	38.5		13.2	34.1		16.5	37.4	37.4
Total Split (%)	19.0%	40.0%		14.0%	35.0%		12.0%	31.0%		15.0%	34.0%	34.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	54.7	40.9		49.5	38.2		38.5	28.4		45.3	33.7	33.7
Actuated g/C Ratio	0.50	0.37		0.45	0.35		0.35	0.26		0.41	0.31	0.31

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.48	0.32		0.25	0.52		0.26	0.70		0.56	0.54	0.21
Control Delay	18.1	23.4		16.1	28.2		21.8	41.0		27.8	34.6	3.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	18.1	23.4		16.1	28.2		21.8	41.0		27.8	34.6	3.9
LOS	B	C		B	C		C	D		C	C	A
Approach Delay		21.7			26.2			38.8			28.9	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	87	110		47	172		35	206		76	181	0
Queue Length 95th (ft)	137	173		81	244		66	272		125	240	30
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	484	1311		553	1235		331	910		324	1059	588
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.42	0.32		0.23	0.52		0.25	0.68		0.53	0.54	0.21

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 95.7 (87%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 29.0 Intersection LOS: C
Intersection Capacity Utilization 71.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue

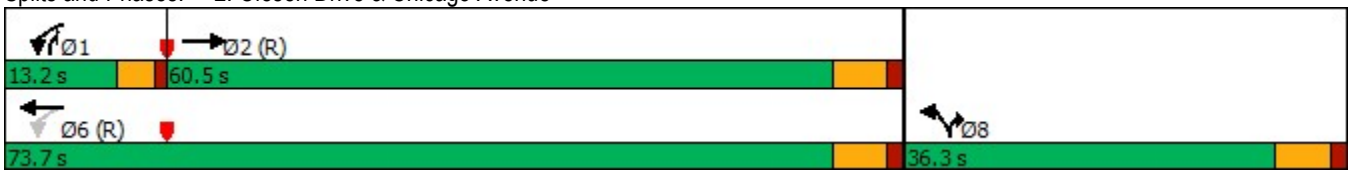


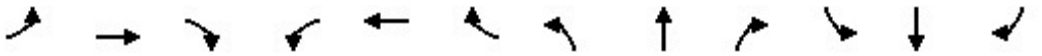
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	499	49	71	542	29	121
Future Volume (vph)	499	49	71	542	29	121
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.986					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3240	0	1805	3762	1687	1615
Flt Permitted			0.419		0.950	
Satd. Flow (perm)	3240	0	796	3762	1687	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	13					125
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	99%	0%	1%	7%	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)	565	0	73	559	30	125
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	60.5		13.2	73.7	36.3	
Total Split (%)	55.0%		12.0%	67.0%	33.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	80.2		92.4	90.4	7.6	17.8
Actuated g/C Ratio	0.73		0.84	0.82	0.07	0.16

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.24		0.10	0.18	0.26	0.34
Control Delay	3.5		0.9	1.0	53.3	9.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	3.5		0.9	1.0	53.3	9.6
LOS	A		A	A	D	A
Approach Delay	3.5			1.0	18.1	
Approach LOS	A			A	B	
Queue Length 50th (ft)	24		2	11	20	0
Queue Length 95th (ft)	56		6	25	50	50
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2365		753	3093	464	535
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.24		0.10	0.18	0.06	0.23

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 51.7 (47%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 4.0		Intersection LOS: A	
Intersection Capacity Utilization 36.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Olesen Drive & Chicago Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	359	25	52	420	98	20	49	37	94	54	2
Future Volume (vph)	2	359	25	52	420	98	20	49	37	94	54	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							1.00				1.00	
Frt		0.990			0.972			0.935			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3468	0	1745	3481	0	1685	1776	0	1685	1890	0
Flt Permitted	0.458			0.490			0.720			0.508		
Satd. Flow (perm)	841	3468	0	900	3481	0	1275	1776	0	901	1890	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			29			34			2	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)												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%	3%	4%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	388	0	53	523	0	20	86	0	95	57	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	13.2	47.3		13.2	47.3		13.2	36.3		13.2	36.3	
Total Split (%)	12.0%	43.0%		12.0%	43.0%		12.0%	33.0%		12.0%	33.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	72.1	65.7		76.2	72.5		17.4	10.8		25.5	18.9	
Actuated g/C Ratio	0.66	0.60		0.69	0.66		0.16	0.10		0.23	0.17	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.00	0.19		0.08	0.23		0.09	0.42		0.33	0.17	
Control Delay	8.0	12.4		3.8	5.5		29.6	35.3		34.6	37.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.0	12.4		3.8	5.5		29.6	35.3		34.6	37.2	
LOS	A	B		A	A		C	D		C	D	
Approach Delay		12.4			5.3			34.2			35.6	
Approach LOS		B			A			C			D	
Queue Length 50th (ft)	0	66		6	35		11	35		53	31	
Queue Length 95th (ft)	4	112		14	115		28	81		89	69	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	648	2073		695	2305		267	513		290	522	
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	0.00	0.19		0.08	0.23		0.07	0.17		0.33	0.11	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 105.6 (96%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 43.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Charles Avenue & Chicago Avenue

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	538	2	7	564	5	10
Future Vol, veh/h	538	2	7	564	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	549	2	7	576	5	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	551	0	852	276
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	302	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1029	-	303	727
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	730	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1029	-	300	727
Mov Cap-2 Maneuver	-	-	-	-	300	-
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	723	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	300	727	-	-	1029	-
HCM Lane V/C Ratio	0.017	0.014	-	-	0.007	-
HCM Control Delay (s)	17.2	10	-	-	8.5	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

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	4	6	3	3	4	2	11	128	4	1	101	9
Future Vol, veh/h	4	6	3	3	4	2	11	128	4	1	101	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	11
Mvmt Flow	4	6	3	3	4	2	11	132	4	1	104	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	270	269	109	271	271	134	113	0	0	136	0	0
Stage 1	111	111	-	156	156	-	-	-	-	-	-	-
Stage 2	159	158	-	115	115	-	-	-	-	-	-	-
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	687	641	950	686	639	920	1489	-	-	1461	-	-
Stage 1	899	807	-	851	772	-	-	-	-	-	-	-
Stage 2	848	771	-	895	804	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	677	635	950	674	633	920	1489	-	-	1461	-	-
Mov Cap-2 Maneuver	677	635	-	674	633	-	-	-	-	-	-	-
Stage 1	892	806	-	844	766	-	-	-	-	-	-	-
Stage 2	835	765	-	884	803	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	10.3	0.6	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1489	-	-	702	695	1461	-	-
HCM Lane V/C Ratio	0.008	-	-	0.019	0.013	0.001	-	-
HCM Control Delay (s)	7.4	0	-	10.2	10.3	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	2	1	0	2	10	147	1	0	118	2
Future Vol, veh/h	1	0	2	1	0	2	10	147	1	0	118	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	50	0	0	0	0	1	3	0	3	0
Mvmt Flow	1	0	2	1	0	2	10	153	1	0	123	2

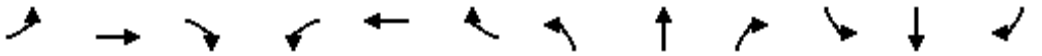
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	299	298	124	299	299	154	125	0	0	154	0	0
Stage 1	124	124	-	174	174	-	-	-	-	-	-	-
Stage 2	175	174	-	125	125	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.7	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.75	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	657	617	812	657	616	897	1474	-	-	1439	-	-
Stage 1	885	797	-	833	759	-	-	-	-	-	-	-
Stage 2	832	759	-	884	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	652	613	812	652	612	897	1474	-	-	1439	-	-
Mov Cap-2 Maneuver	652	613	-	652	612	-	-	-	-	-	-	-
Stage 1	879	797	-	827	754	-	-	-	-	-	-	-
Stage 2	824	754	-	882	796	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	9.5	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1474	-	-	751	797	1439	-	-
HCM Lane V/C Ratio	0.007	-	-	0.004	0.004	-	-	-
HCM Control Delay (s)	7.5	0	-	9.8	9.5	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Capacity Analysis Summary Sheets

Year 2029 No Build Weekday Morning Peak Hour Conditions



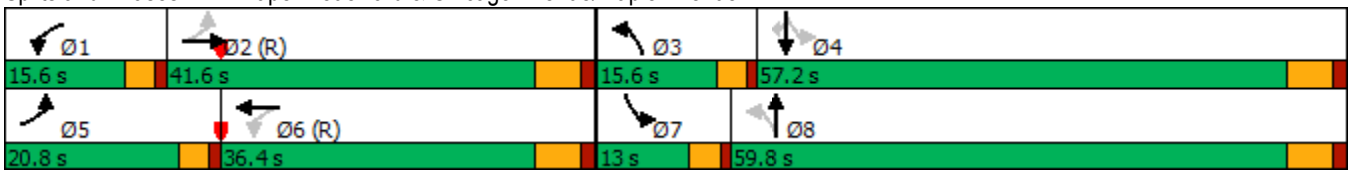
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	400	55	86	391	168	103	1018	149	113	349	97
Future Volume (vph)	274	400	55	86	391	168	103	1018	149	113	349	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		1.00		1.00				1.00				
Frt		0.982			0.955			0.981				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1925	3401	0	1906	3354	0	1728	3384	0	1752	3455	1599
Flt Permitted	0.199			0.450			0.500			0.082		
Satd. Flow (perm)	403	3401	0	900	3354	0	909	3384	0	151	3455	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			48			15				126
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)			5	5					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	4%	1%	4%	0%	1%	1%	1%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	285	474	0	90	582	0	107	1215	0	118	364	101
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	20.8	41.6		15.6	36.4		15.6	59.8		13.0	57.2	57.2
Total Split (%)	16.0%	32.0%		12.0%	28.0%		12.0%	46.0%		10.0%	44.0%	44.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	52.4	37.2		41.4	30.2		66.1	54.7		65.1	54.2	54.2
Actuated g/C Ratio	0.40	0.29		0.32	0.23		0.51	0.42		0.50	0.42	0.42

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.81	0.48		0.25	0.71		0.21	0.85		0.64	0.25	0.14
Control Delay	49.8	38.8		26.4	47.6		16.4	40.6		37.3	25.8	2.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	49.8	38.8		26.4	47.6		16.4	40.6		37.3	25.8	2.6
LOS	D	D		C	D		B	D		D	C	A
Approach Delay		42.9			44.7			38.6			24.1	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	182	176		46	220		44	480		49	105	0
Queue Length 95th (ft)	#271	232		83	287		76	580		#119	146	22
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	359	981		392	821		550	1433		186	1440	740
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	0.79	0.48		0.23	0.71		0.19	0.85		0.63	0.25	0.14

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 81.9 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 38.3 Intersection LOS: D
Intersection Capacity Utilization 87.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue



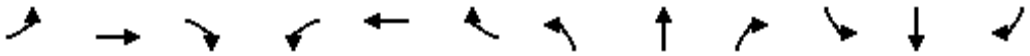
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	434	27	61	533	46	196
Future Volume (vph)	434	27	61	533	46	196
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor	1.00		1.00		1.00	
Frt	0.991					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3499	0	1805	3689	1805	1599
Flt Permitted			0.440		0.950	
Satd. Flow (perm)	3499	0	835	3689	1802	1599
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	9					223
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)		2	2		1	
Confl. Bikes (#/hr)		1				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	4%	0%	3%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	524	0	69	606	52	223
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	83.2		13.0	96.2	33.8	
Total Split (%)	64.0%		10.0%	74.0%	26.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	98.4		110.7	108.7	9.3	19.6
Actuated g/C Ratio	0.76		0.85	0.84	0.07	0.15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.20		0.09	0.20	0.41	0.52
Control Delay	3.6		3.3	4.3	66.2	10.3
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	3.6		3.3	4.3	66.2	10.3
LOS	A		A	A	E	B
Approach Delay	3.6			4.2	20.9	
Approach LOS	A			A	C	
Queue Length 50th (ft)	32		2	27	43	0
Queue Length 95th (ft)	48		m40	215	81	64
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2651		778	3085	385	517
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.20		0.09	0.20	0.14	0.43

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 93.6 (72%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 7.1		Intersection LOS: A	
Intersection Capacity Utilization 35.0%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 2: Olesen Drive & Chicago Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	309	12	48	371	145	18	74	92	62	41	2
Future Volume (vph)	4	309	12	48	371	145	18	74	92	62	41	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		0.99			1.00	0.99		1.00	1.00	
Frt		0.994			0.958			0.917			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3451	0	1711	3376	0	1685	1727	0	1652	1835	0
Flt Permitted	0.431			0.504			0.725			0.336		
Satd. Flow (perm)	792	3451	0	899	3376	0	1284	1727	0	583	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			65			43			1	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)			5	5			1		2	2		
Confl. Bikes (#/hr)									1			1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	0%	2%	3%	1%	0%	0%	0%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	365	0	55	587	0	20	189	0	70	49	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	13.0	72.8		13.0	72.8		13.0	31.2		13.0	31.2	
Total Split (%)	10.0%	56.0%		10.0%	56.0%		10.0%	24.0%		10.0%	24.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	85.0	78.4		89.3	85.5		25.9	18.3		32.4	23.7	
Actuated g/C Ratio	0.65	0.60		0.69	0.66		0.20	0.14		0.25	0.18	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.01	0.18		0.08	0.26		0.07	0.68		0.31	0.15	
Control Delay	9.8	14.1		4.3	3.8		32.5	52.1		37.9	42.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	9.8	14.1		4.3	3.8		32.5	52.1		37.9	42.2	
LOS	A	B		A	A		C	D		D	D	
Approach Delay		14.0			3.8			50.2			39.7	
Approach LOS		B			A			D			D	
Queue Length 50th (ft)	1	73		7	31		13	118		45	35	
Queue Length 95th (ft)	7	121		15	51		29	184		74	65	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	599	2107		673	2253		299	369		233	383	
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	0.01	0.17		0.08	0.26		0.07	0.51		0.30	0.13	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 65 (50%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 17.1		Intersection LOS: B	
Intersection Capacity Utilization 50.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Charles Avenue & Chicago Avenue

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	458	3	3	576	9	4
Future Vol, veh/h	458	3	3	576	9	4
Conflicting Peds, #/hr	0	8	8	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	3	33	0	3	0	0
Mvmt Flow	526	3	3	662	10	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	537	0	873	273
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	337	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1041	-	293	731
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	701	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1035	-	290	727
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	697	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	290	727	-	-	1035	-
HCM Lane V/C Ratio	0.036	0.006	-	-	0.003	-
HCM Control Delay (s)	17.9	10	-	-	8.5	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

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	11	4	4	7	6	1	8	250	6	0	77	5
Future Vol, veh/h	11	4	4	7	6	1	8	250	6	0	77	5
Conflicting Peds, #/hr	1	0	3	3	0	1	8	0	0	0	0	8
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	0	0	0	0	1	0
Mvmt Flow	14	5	5	9	8	1	10	313	8	0	96	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	450	448	110	444	447	318	110	0	0	321	0	0
Stage 1	107	107	-	337	337	-	-	-	-	-	-	-
Stage 2	343	341	-	107	110	-	-	-	-	-	-	-
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	523	509	949	528	509	727	1493	-	-	1250	-	-
Stage 1	903	811	-	681	645	-	-	-	-	-	-	-
Stage 2	676	642	-	903	808	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	509	501	940	517	501	726	1483	-	-	1250	-	-
Mov Cap-2 Maneuver	509	501	-	517	501	-	-	-	-	-	-	-
Stage 1	889	805	-	676	640	-	-	-	-	-	-	-
Stage 2	661	637	-	890	802	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	12.2	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1483	-	-	561	521	1250	-	-
HCM Lane V/C Ratio	0.007	-	-	0.042	0.034	-	-	-
HCM Control Delay (s)	7.4	0	-	11.7	12.2	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	3	5	0	4	18	237	28	12	76	0
Future Vol, veh/h	1	0	3	5	0	4	18	237	28	12	76	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	74	74	95	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	1	0	3	7	0	5	24	320	38	16	103	0

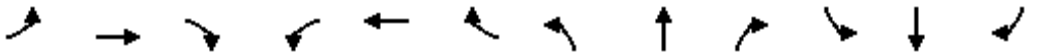
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	525	541	103	524	522	339	103	0	0	358	0	0
Stage 1	135	135	-	387	387	-	-	-	-	-	-	-
Stage 2	390	406	-	137	135	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical 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	466	451	957	467	462	708	1502	-	-	1212	-	-
Stage 1	873	789	-	641	613	-	-	-	-	-	-	-
Stage 2	638	601	-	871	789	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	451	436	957	453	446	708	1502	-	-	1212	-	-
Mov Cap-2 Maneuver	451	436	-	453	446	-	-	-	-	-	-	-
Stage 1	856	778	-	628	601	-	-	-	-	-	-	-
Stage 2	620	589	-	856	778	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	11.8	0.5	1.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1502	-	-	716	539	1212	-	-
HCM Lane V/C Ratio	0.016	-	-	0.006	0.023	0.013	-	-
HCM Control Delay (s)	7.4	0	-	10.1	11.8	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Capacity Analysis Summary Sheets

Year 2029 No Build Weekday Evening Peak Hour Conditions



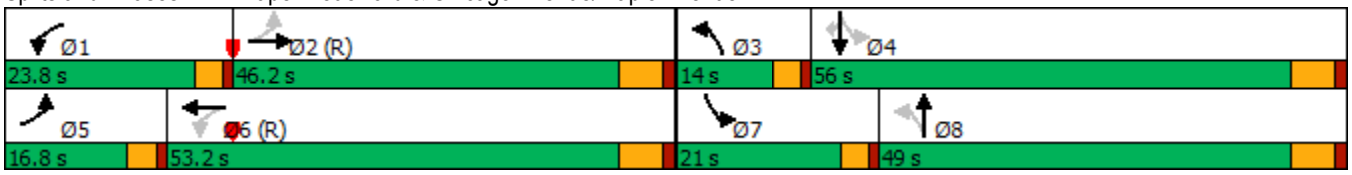
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	482	127	204	569	204	109	645	111	239	1134	234
Future Volume (vph)	207	482	127	204	569	204	109	645	111	239	1134	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		1.00		1.00								
Frt		0.969			0.960			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1888	3475	0	1906	3456	0	1745	3374	0	1805	3455	1615
Flt Permitted	0.184			0.247			0.088			0.166		
Satd. Flow (perm)	366	3475	0	494	3456	0	162	3374	0	315	3455	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			39			14				117
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)			6	6								
Confl. Bikes (#/hr)												
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 (%)	2%	0%	1%	1%	0%	1%	0%	1%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	634	0	213	806	0	114	788	0	249	1181	244
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	16.8	46.2		23.8	53.2		14.0	49.0		21.0	56.0	56.0
Total Split (%)	12.0%	33.0%		17.0%	38.0%		10.0%	35.0%		15.0%	40.0%	40.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	58.1	43.6		62.5	46.1		56.9	45.6		67.4	52.0	52.0
Actuated g/C Ratio	0.42	0.31		0.45	0.33		0.41	0.33		0.48	0.37	0.37

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.75	0.58		0.57	0.69		0.67	0.71		0.78	0.92	0.36
Control Delay	48.2	46.4		29.1	42.1		46.0	45.6		40.7	54.7	18.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	48.2	46.4		29.1	42.1		46.0	45.6		40.7	54.7	18.3
LOS	D	D		C	D		D	D		D	D	B
Approach Delay		46.9			39.4			45.7			47.3	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	167	303		113	316		58	335		137	551	82
Queue Length 95th (ft)	#209	352		170	391		#128	414		#230	#700	156
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	292	1099		427	1191		179	1108		332	1283	674
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	0.74	0.58		0.50	0.68		0.64	0.71		0.75	0.92	0.36

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 99.4 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 45.1 Intersection LOS: D
Intersection Capacity Utilization 87.9% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue

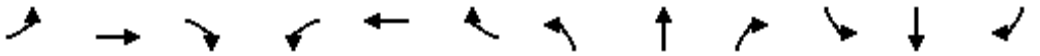


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	667	61	177	688	49	127
Future Volume (vph)	667	61	177	688	49	127
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor	1.00		1.00		1.00	
Frt	0.987					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3524	0	1805	3800	1805	1615
Flt Permitted			0.337		0.950	
Satd. Flow (perm)	3524	0	640	3800	1802	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	11					134
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)		1	1		1	
Confl. Bikes (#/hr)		2				
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 (%)	1%	0%	0%	0%	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)	766	0	186	724	52	134
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	86.8		16.8	103.6	36.4	
Total Split (%)	62.0%		12.0%	74.0%	26.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	106.8		120.6	118.6	9.4	21.2
Actuated g/C Ratio	0.76		0.86	0.85	0.07	0.15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.28		0.30	0.22	0.43	0.37
Control Delay	3.8		2.2	1.6	72.7	10.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	3.8		2.2	1.6	72.7	10.7
LOS	A		A	A	E	B
Approach Delay	3.8			1.7	28.0	
Approach LOS	A			A	C	
Queue Length 50th (ft)	63		23	49	46	0
Queue Length 95th (ft)	92		13	25	90	58
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2689		657	3218	391	455
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.28		0.28	0.22	0.13	0.29

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 29.4 (21%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay: 5.2		Intersection LOS: A	
Intersection Capacity Utilization 46.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Olesen Drive & Chicago Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	491	47	112	471	142	24	73	81	141	87	1
Future Volume (vph)	1	491	47	112	471	142	24	73	81	141	87	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							1.00				1.00	
Frt		0.987			0.965			0.921			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3531	0	1728	3484	0	1685	1741	0	1685	1896	0
Flt Permitted	0.407			0.379			0.697			0.372		
Satd. Flow (perm)	748	3531	0	689	3484	0	1232	1741	0	660	1896	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			42			36				
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)							2					2
Confl. Bikes (#/hr)												
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%	1%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	566	0	118	645	0	25	162	0	148	93	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	12.6	75.6		15.4	78.4		12.6	35.0		14.0	36.4	
Total Split (%)	9.0%	54.0%		11.0%	56.0%		9.0%	25.0%		10.0%	26.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	84.1	76.6		91.9	88.0		26.5	17.5		40.1	31.0	
Actuated g/C Ratio	0.60	0.55		0.66	0.63		0.19	0.12		0.29	0.22	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.00	0.29		0.23	0.29		0.10	0.65		0.48	0.22	
Control Delay	12.0	19.0		18.4	22.3		33.9	56.7		42.5	45.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.0	19.0		18.4	22.3		33.9	56.7		42.5	45.1	
LOS	B	B		B	C		C	E		D	D	
Approach Delay		19.0			21.7			53.7			43.5	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	0	137		56	192		17	111		106	73	
Queue Length 95th (ft)	3	225		88	205		35	180		147	114	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	526	1980		539	2226		275	389		310	441	
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	0.00	0.29		0.22	0.29		0.09	0.42		0.48	0.21	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 22.4 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 27.2		Intersection LOS: C	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Charles Avenue & Chicago Avenue

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	714	5	6	734	9	15
Future Vol, veh/h	714	5	6	734	9	15
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	760	5	6	781	10	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	767	0	1168	385
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	403	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	856	-	189	619
Stage 1	-	-	-	-	425	-
Stage 2	-	-	-	-	649	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	855	-	187	618
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	425	-
Stage 2	-	-	-	-	641	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	187	618	-	-	855	-
HCM Lane V/C Ratio	0.051	0.026	-	-	0.007	-
HCM Control Delay (s)	25.3	11	-	-	9.2	0.1
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

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	5	4	7	8	8	4	15	168	4	3	209	9
Future Vol, veh/h	5	4	7	8	8	4	15	168	4	3	209	9
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	4	7	9	9	4	16	179	4	3	222	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	453	448	228	453	451	181	232	0	0	183	0	0
Stage 1	233	233	-	213	213	-	-	-	-	-	-	-
Stage 2	220	215	-	240	238	-	-	-	-	-	-	-
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	520	509	816	520	507	867	1348	-	-	1404	-	-
Stage 1	775	716	-	794	730	-	-	-	-	-	-	-
Stage 2	787	729	-	768	712	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	505	501	815	505	499	867	1348	-	-	1404	-	-
Mov Cap-2 Maneuver	505	501	-	505	499	-	-	-	-	-	-	-
Stage 1	765	715	-	784	721	-	-	-	-	-	-	-
Stage 2	764	720	-	754	711	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	11.8	0.6	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1348	-	-	604	548	1404	-	-
HCM Lane V/C Ratio	0.012	-	-	0.028	0.039	0.002	-	-
HCM Control Delay (s)	7.7	0	-	11.1	11.8	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	14	0	0	1	23	169	0	1	226	11
Future Vol, veh/h	6	0	14	0	0	1	23	169	0	1	226	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	15	0	0	1	24	176	0	1	235	11

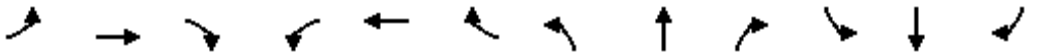
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	468	467	241	474	472	176	246	0	0	176	0	0
Stage 1	243	243	-	224	224	-	-	-	-	-	-	-
Stage 2	225	224	-	250	248	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical 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	509	496	803	504	493	872	1332	-	-	1412	-	-
Stage 1	765	708	-	783	722	-	-	-	-	-	-	-
Stage 2	782	722	-	759	705	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	500	486	803	487	483	872	1332	-	-	1412	-	-
Mov Cap-2 Maneuver	500	486	-	487	483	-	-	-	-	-	-	-
Stage 1	750	707	-	767	708	-	-	-	-	-	-	-
Stage 2	765	708	-	744	704	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	9.1	0.9	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1332	-	-	679	872	1412	-	-
HCM Lane V/C Ratio	0.018	-	-	0.031	0.001	0.001	-	-
HCM Control Delay (s)	7.8	0	-	10.5	9.1	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-

Capacity Analysis Summary Sheets

Year 2029 No Build Saturday Midday Peak Hour Conditions

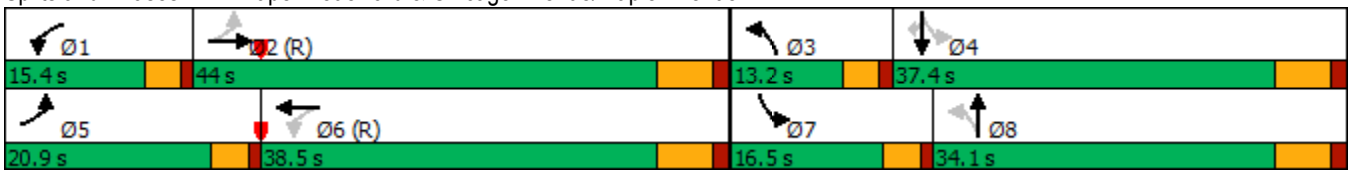


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	359	72	129	460	199	88	560	60	171	570	133
Future Volume (vph)	208	359	72	129	460	199	88	560	60	171	570	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.975			0.955			0.985				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1906	3491	0	1888	3437	0	1745	3437	0	1787	3455	1583
Flt Permitted	0.240			0.473			0.346			0.200		
Satd. Flow (perm)	482	3491	0	940	3437	0	635	3437	0	376	3455	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			62			10				149
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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 (%)	1%	1%	0%	2%	0%	1%	0%	0%	0%	1%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	217	449	0	134	686	0	92	646	0	178	594	139
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	20.9	44.0		15.4	38.5		13.2	34.1		16.5	37.4	37.4
Total Split (%)	19.0%	40.0%		14.0%	35.0%		12.0%	31.0%		15.0%	34.0%	34.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	55.1	40.8		49.1	37.7		38.6	28.3		45.2	33.6	33.6
Actuated g/C Ratio	0.50	0.37		0.45	0.34		0.35	0.26		0.41	0.31	0.31

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.54	0.34		0.27	0.56		0.30	0.73		0.59	0.56	0.24
Control Delay	18.4	23.5		16.3	29.6		22.5	42.2		29.1	35.2	5.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	18.4	23.5		16.3	29.6		22.5	42.2		29.1	35.2	5.2
LOS	B	C		B	C		C	D		C	D	A
Approach Delay		21.8			27.4			39.8			29.4	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	94	118		49	189		39	216		79	190	0
Queue Length 95th (ft)	127	183		84	266		72	284		129	250	40
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	465	1308		534	1217		320	896		315	1054	586
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	0.34		0.25	0.56		0.29	0.72		0.57	0.56	0.24

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 95.7 (87%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 29.7		Intersection LOS: C	
Intersection Capacity Utilization 74.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue

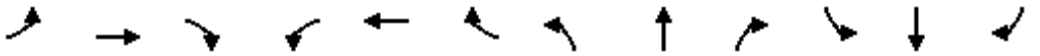


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	530	51	99	563	41	136
Future Volume (vph)	530	51	99	563	41	136
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.987					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3249	0	1805	3762	1687	1615
Flt Permitted			0.402		0.950	
Satd. Flow (perm)	3249	0	764	3762	1687	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	13					140
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	99%	0%	1%	7%	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)	599	0	102	580	42	140
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	60.5		13.2	73.7	36.3	
Total Split (%)	55.0%		12.0%	67.0%	33.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	79.2		91.8	89.8	8.2	18.8
Actuated g/C Ratio	0.72		0.83	0.82	0.07	0.17

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.26		0.15	0.19	0.33	0.36
Control Delay	3.6		1.1	1.2	54.6	9.0
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	3.6		1.1	1.2	54.6	9.0
LOS	A		A	A	D	A
Approach Delay	3.6			1.2	19.5	
Approach LOS	A			A	B	
Queue Length 50th (ft)	27		3	12	29	0
Queue Length 95th (ft)	57		7	22	63	51
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2341		724	3070	464	546
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.26		0.14	0.19	0.09	0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 51.7 (47%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 4.4		Intersection LOS: A	
Intersection Capacity Utilization 38.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Olesen Drive & Chicago Avenue

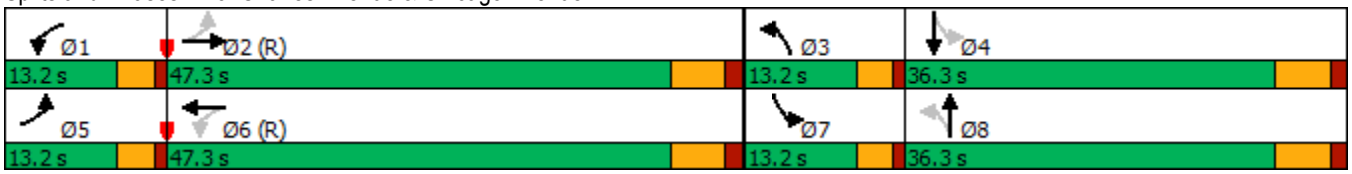


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	383	26	56	444	104	21	51	41	100	56	2
Future Volume (vph)	2	383	26	56	444	104	21	51	41	100	56	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							1.00				1.00	
Frt		0.991			0.972			0.934			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3471	0	1745	3481	0	1685	1775	0	1685	1890	0
Flt Permitted	0.445			0.474			0.719			0.508		
Satd. Flow (perm)	817	3471	0	871	3481	0	1273	1775	0	901	1890	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			30			36			2	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)												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%	3%	4%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	413	0	57	553	0	21	93	0	101	59	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	13.2	47.3		13.2	47.3		13.2	36.3		13.2	36.3	
Total Split (%)	12.0%	43.0%		12.0%	43.0%		12.0%	33.0%		12.0%	33.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	71.6	65.2		75.8	72.1		17.8	11.1		25.9	19.3	
Actuated g/C Ratio	0.65	0.59		0.69	0.66		0.16	0.10		0.24	0.18	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.00	0.20		0.09	0.24		0.09	0.44		0.34	0.18	
Control Delay	8.0	12.8		4.7	6.4		29.3	35.5		34.6	37.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.0	12.8		4.7	6.4		29.3	35.5		34.6	37.0	
LOS	A	B		A	A		C	D		C	D	
Approach Delay		12.7			6.2			34.4			35.5	
Approach LOS		B			A			C			D	
Queue Length 50th (ft)	1	72		7	42		11	38		56	32	
Queue Length 95th (ft)	4	120		15	127		29	87		94	71	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	631	2058		674	2292		270	515		294	522	
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	0.00	0.20		0.08	0.24		0.08	0.18		0.34	0.11	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 105.6 (96%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 44.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Charles Avenue & Chicago Avenue



Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	575	2	7	597	5	10
Future Vol, veh/h	575	2	7	597	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	587	2	7	609	5	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	589	0	907	295
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	319	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	996	-	279	707
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	996	-	276	707
Mov Cap-2 Maneuver	-	-	-	-	276	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	708	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	276	707	-	-	996	-
HCM Lane V/C Ratio	0.018	0.014	-	-	0.007	-
HCM Control Delay (s)	18.3	10.2	-	-	8.6	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	6	3	3	4	2	11	150	4	1	119	9
Future Vol, veh/h	4	6	3	3	4	2	11	150	4	1	119	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	11
Mvmt Flow	4	6	3	3	4	2	11	155	4	1	123	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	312	311	128	313	313	157	132	0	0	159	0	0
Stage 1	130	130	-	179	179	-	-	-	-	-	-	-
Stage 2	182	181	-	134	134	-	-	-	-	-	-	-
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	644	607	927	643	606	894	1466	-	-	1433	-	-
Stage 1	878	792	-	827	755	-	-	-	-	-	-	-
Stage 2	824	754	-	874	789	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	635	602	927	631	601	894	1466	-	-	1433	-	-
Mov Cap-2 Maneuver	635	602	-	631	601	-	-	-	-	-	-	-
Stage 1	871	791	-	820	749	-	-	-	-	-	-	-
Stage 2	811	748	-	863	788	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	10.5	0.5	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1466	-	-	667	659	1433	-	-
HCM Lane V/C Ratio	0.008	-	-	0.02	0.014	0.001	-	-
HCM Control Delay (s)	7.5	0	-	10.5	10.5	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	0	15	1	0	2	26	153	1	0	124	26
Future Vol, veh/h	22	0	15	1	0	2	26	153	1	0	124	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	50	0	0	0	0	1	3	0	3	0
Mvmt Flow	23	0	16	1	0	2	27	159	1	0	129	27

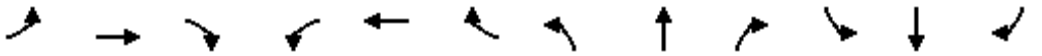
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	358	357	143	365	370	160	156	0	0	160	0	0
Stage 1	143	143	-	214	214	-	-	-	-	-	-	-
Stage 2	215	214	-	151	156	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.7	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.75	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	601	572	792	595	563	890	1436	-	-	1432	-	-
Stage 1	865	782	-	793	729	-	-	-	-	-	-	-
Stage 2	792	729	-	856	772	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	590	560	792	574	551	890	1436	-	-	1432	-	-
Mov Cap-2 Maneuver	590	560	-	574	551	-	-	-	-	-	-	-
Stage 1	847	782	-	776	714	-	-	-	-	-	-	-
Stage 2	774	714	-	839	772	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	9.8	1.1	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1436	-	-	658	752	1432	-	-
HCM Lane V/C Ratio	0.019	-	-	0.059	0.004	-	-	-
HCM Control Delay (s)	7.6	0	-	10.8	9.8	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-

Capacity Analysis Summary Sheets

Year 2029 Total Weekday Morning Peak Hour Conditions



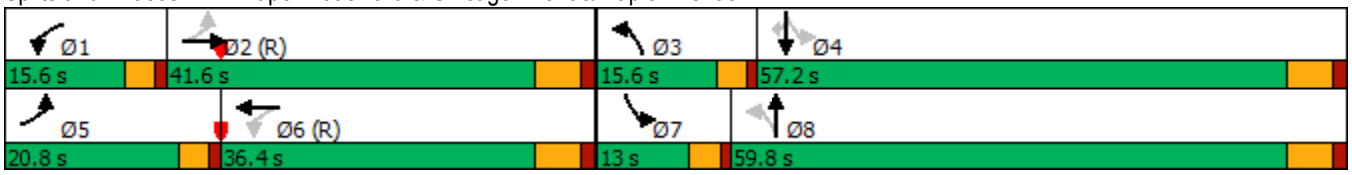
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	283	411	61	86	407	168	111	1018	149	113	349	109
Future Volume (vph)	283	411	61	86	407	168	111	1018	149	113	349	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		1.00		1.00				1.00				
Frt		0.980			0.956			0.981				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1925	3393	0	1906	3356	0	1728	3384	0	1752	3455	1599
Flt Permitted	0.186			0.435			0.498			0.082		
Satd. Flow (perm)	377	3393	0	870	3356	0	906	3384	0	151	3455	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			45			15				126
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)			5	5					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	4%	1%	4%	0%	1%	1%	1%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	295	492	0	90	599	0	116	1215	0	118	364	114
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	20.8	41.6		15.6	36.4		15.6	59.8		13.0	57.2	57.2
Total Split (%)	16.0%	32.0%		12.0%	28.0%		12.0%	46.0%		10.0%	44.0%	44.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	52.6	37.4		41.4	30.2		66.2	54.6		64.7	53.8	53.8
Actuated g/C Ratio	0.40	0.29		0.32	0.23		0.51	0.42		0.50	0.41	0.41

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.85	0.50		0.26	0.74		0.22	0.85		0.64	0.25	0.16
Control Delay	54.7	39.5		26.5	48.8		16.6	40.8		37.6	26.1	3.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	54.7	39.5		26.5	48.8		16.6	40.8		37.6	26.1	3.8
LOS	D	D		C	D		B	D		D	C	A
Approach Delay		45.2			45.9			38.6			24.1	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	161	195		46	229		48	480		49	105	0
Queue Length 95th (ft)	#304	244		83	298		81	580		#119	146	31
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	352	984		385	819		548	1429		186	1429	735
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	0.84	0.50		0.23	0.73		0.21	0.85		0.63	0.25	0.16

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 81.9 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 39.1 Intersection LOS: D
Intersection Capacity Utilization 88.1% 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: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue



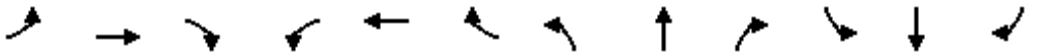
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	450	27	82	548	52	205
Future Volume (vph)	450	27	82	548	52	205
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor	1.00		1.00		1.00	
Frt	0.991					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3499	0	1805	3689	1805	1599
Flt Permitted			0.432		0.950	
Satd. Flow (perm)	3499	0	820	3689	1802	1599
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	8					233
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)		2	2		1	
Confl. Bikes (#/hr)		1				
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	4%	0%	3%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	542	0	93	623	59	233
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	83.2		13.0	96.2	33.8	
Total Split (%)	64.0%		10.0%	74.0%	26.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	97.8		110.4	108.4	9.6	20.2
Actuated g/C Ratio	0.75		0.85	0.83	0.07	0.16

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.21		0.12	0.20	0.44	0.52
Control Delay	3.8		3.9	4.9	67.1	10.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	3.8		3.9	4.9	67.1	10.1
LOS	A		A	A	E	B
Approach Delay	3.8			4.8	21.6	
Approach LOS	A			A	C	
Queue Length 50th (ft)	40		8	62	48	0
Queue Length 95th (ft)	55		m56	217	90	64
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2633		764	3075	385	525
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.21		0.12	0.20	0.15	0.44

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 93.6 (72%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 7.6		Intersection LOS: A	
Intersection Capacity Utilization 36.0%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 2: Olesen Drive & Chicago Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	321	12	51	380	148	18	74	96	66	41	2
Future Volume (vph)	4	321	12	51	380	148	18	74	96	66	41	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		0.99			1.00	0.99		1.00	1.00	
Frt		0.994			0.958			0.915			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3451	0	1711	3376	0	1685	1723	0	1652	1835	0
Flt Permitted	0.425			0.495			0.725			0.328		
Satd. Flow (perm)	781	3451	0	883	3376	0	1284	1723	0	569	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			65			45			1	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)			5	5			1		2	2		
Confl. Bikes (#/hr)									1			1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	0%	2%	3%	1%	0%	0%	0%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	379	0	58	600	0	20	193	0	75	49	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	13.0	72.8		13.0	72.8		13.0	31.2		13.0	31.2	
Total Split (%)	10.0%	56.0%		10.0%	56.0%		10.0%	24.0%		10.0%	24.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	84.4	77.8		88.8	85.0		26.1	18.5		33.0	24.2	
Actuated g/C Ratio	0.65	0.60		0.68	0.65		0.20	0.14		0.25	0.19	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.01	0.18		0.09	0.27		0.07	0.68		0.32	0.14	
Control Delay	10.2	14.5		4.5	4.1		32.0	51.9		37.9	41.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.2	14.5		4.5	4.1		32.0	51.9		37.9	41.6	
LOS	B	B		A	A		C	D		D	D	
Approach Delay		14.5			4.1			50.0			39.4	
Approach LOS		B			A			D			D	
Queue Length 50th (ft)	1	76		7	33		13	120		49	35	
Queue Length 95th (ft)	7	127		17	53		29	185		78	65	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	589	2097		660	2244		301	371		236	389	
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	0.01	0.18		0.09	0.27		0.07	0.52		0.32	0.13	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 65 (50%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 17.3		Intersection LOS: B	
Intersection Capacity Utilization 50.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Charles Avenue & Chicago Avenue

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	478	3	3	591	9	4
Future Vol, veh/h	478	3	3	591	9	4
Conflicting Peds, #/hr	0	8	8	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	3	33	0	3	0	0
Mvmt Flow	549	3	3	679	10	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	560	0	905	284
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	346	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1021	-	280	719
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	694	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1015	-	277	715
Mov Cap-2 Maneuver	-	-	-	-	277	-
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	691	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	277	715	-	-	1015	-
HCM Lane V/C Ratio	0.037	0.006	-	-	0.003	-
HCM Control Delay (s)	18.5	10.1	-	-	8.6	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	468	14	15	585	9	6
Future Vol, veh/h	468	14	15	585	9	6
Conflicting Peds, #/hr	0	8	8	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	493	15	16	616	9	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	516	0	849	262
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	340	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1060	-	304	743
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	698	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1051	-	297	736
Mov Cap-2 Maneuver	-	-	-	-	297	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	688	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	297	736	-	-	1051	-
HCM Lane V/C Ratio	0.032	0.009	-	-	0.015	-
HCM Control Delay (s)	17.5	9.9	-	-	8.5	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	467	7	0	600	0	10
Future Vol, veh/h	467	7	0	600	0	10
Conflicting Peds, #/hr	0	8	8	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	492	7	0	632	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	246
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	760
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	760
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	760	-	-
HCM Lane V/C Ratio	0.014	-	-
HCM Control Delay (s)	9.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

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	11	4	4	7	6	1	8	258	6	0	90	5
Future Vol, veh/h	11	4	4	7	6	1	8	258	6	0	90	5
Conflicting Peds, #/hr	1	0	3	3	0	1	8	0	0	0	0	8
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	0	0	0	0	1	0
Mvmt Flow	14	5	5	9	8	1	10	323	8	0	113	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	477	475	127	471	474	328	127	0	0	331	0	0
Stage 1	124	124	-	347	347	-	-	-	-	-	-	-
Stage 2	353	351	-	124	127	-	-	-	-	-	-	-
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	502	491	929	506	492	718	1472	-	-	1240	-	-
Stage 1	885	797	-	673	638	-	-	-	-	-	-	-
Stage 2	668	636	-	885	795	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	488	484	920	495	485	717	1462	-	-	1240	-	-
Mov Cap-2 Maneuver	488	484	-	495	485	-	-	-	-	-	-	-
Stage 1	872	791	-	668	633	-	-	-	-	-	-	-
Stage 2	653	631	-	872	789	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.4	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1462	-	-	540	502	1240	-	-
HCM Lane V/C Ratio	0.007	-	-	0.044	0.035	-	-	-
HCM Control Delay (s)	7.5	0	-	12	12.4	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	0	16	5	0	4	26	237	28	12	76	21
Future Vol, veh/h	16	0	16	5	0	4	26	237	28	12	76	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	74	74	95	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	22	0	17	7	0	5	35	320	38	16	103	28

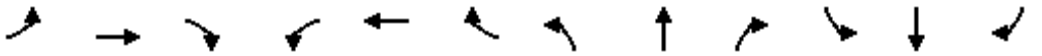
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	561	577	117	567	572	339	131	0	0	358	0	0
Stage 1	149	149	-	409	409	-	-	-	-	-	-	-
Stage 2	412	428	-	158	163	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical 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	441	430	941	437	433	708	1467	-	-	1212	-	-
Stage 1	858	778	-	623	600	-	-	-	-	-	-	-
Stage 2	621	588	-	849	767	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	423	411	941	415	414	708	1467	-	-	1212	-	-
Mov Cap-2 Maneuver	423	411	-	415	414	-	-	-	-	-	-	-
Stage 1	832	767	-	604	582	-	-	-	-	-	-	-
Stage 2	598	570	-	822	756	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	12.2	0.7	0.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1467	-	-	557	509	1212	-	-
HCM Lane V/C Ratio	0.024	-	-	0.069	0.024	0.013	-	-
HCM Control Delay (s)	7.5	0	-	11.9	12.2	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

Capacity Analysis Summary Sheets

Year 2029 Total Weekday Evening Peak Hour Conditions

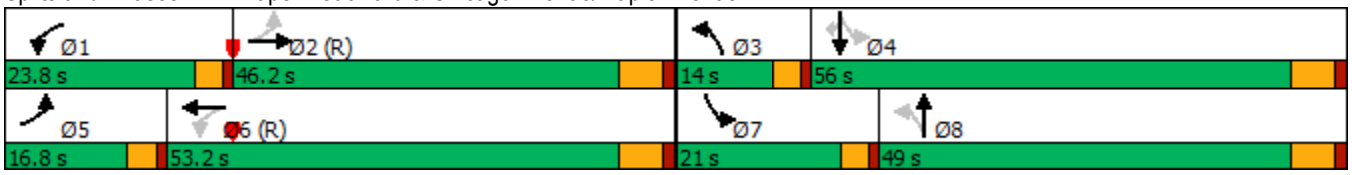


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	519	149	204	605	204	131	645	111	239	1134	266
Future Volume (vph)	239	519	149	204	605	204	131	645	111	239	1134	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		1.00		1.00								
Frt		0.967			0.962			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1888	3467	0	1906	3464	0	1745	3374	0	1805	3455	1615
Flt Permitted	0.164			0.215			0.089			0.163		
Satd. Flow (perm)	326	3467	0	431	3464	0	163	3374	0	310	3455	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			36			14				117
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)			6	6								
Confl. Bikes (#/hr)												
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 (%)	2%	0%	1%	1%	0%	1%	0%	1%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	249	696	0	213	843	0	136	788	0	249	1181	277
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	16.8	46.2		23.8	53.2		14.0	49.0		21.0	56.0	56.0
Total Split (%)	12.0%	33.0%		17.0%	38.0%		10.0%	35.0%		15.0%	40.0%	40.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	59.0	44.2		62.7	46.3		56.8	45.1		66.8	51.2	51.2
Actuated g/C Ratio	0.42	0.32		0.45	0.33		0.41	0.32		0.48	0.37	0.37

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.89	0.63		0.61	0.72		0.77	0.72		0.79	0.94	0.42
Control Delay	66.6	44.8		30.3	43.3		57.7	46.1		41.7	57.1	21.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	66.6	44.8		30.3	43.3		57.7	46.1		41.7	57.1	21.0
LOS	E	D		C	D		E	D		D	E	C
Approach Delay		50.6			40.7			47.8			49.0	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	180	328		113	337		72	335		137	551	107
Queue Length 95th (ft)	#304	247		170	415		#180	414		#234	#700	189
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	280	1111		408	1191		179	1096		329	1262	665
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	0.89	0.63		0.52	0.71		0.76	0.72		0.76	0.94	0.42

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 99.4 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 47.2		Intersection LOS: D	
Intersection Capacity Utilization 91.8%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue



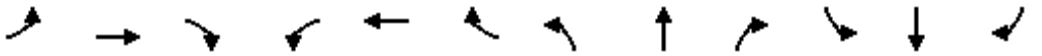
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	725	61	224	727	71	160
Future Volume (vph)	725	61	224	727	71	160
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor	1.00		1.00		1.00	
Frt	0.988					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3528	0	1805	3800	1805	1615
Flt Permitted			0.310		0.950	
Satd. Flow (perm)	3528	0	589	3800	1802	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	10					168
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)		1	1		1	
Confl. Bikes (#/hr)		2				
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 (%)	1%	0%	0%	0%	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)	827	0	236	765	75	168
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	86.8		16.8	103.6	36.4	
Total Split (%)	62.0%		12.0%	74.0%	26.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	104.0		118.8	116.8	11.2	24.0
Actuated g/C Ratio	0.74		0.85	0.83	0.08	0.17

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.32		0.41	0.24	0.52	0.40
Control Delay	4.8		3.9	1.8	74.0	9.4
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	4.8		3.9	1.8	74.0	9.4
LOS	A		A	A	E	A
Approach Delay	4.8			2.3	29.3	
Approach LOS	A			A	C	
Queue Length 50th (ft)	66		25	53	67	0
Queue Length 95th (ft)	137		m23	31	117	60
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2623		610	3171	391	486
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.32		0.39	0.24	0.19	0.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 29.4 (21%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 6.5		Intersection LOS: A	
Intersection Capacity Utilization 51.7%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 2: Olesen Drive & Chicago Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	523	47	123	503	153	24	73	92	152	87	1
Future Volume (vph)	1	523	47	123	503	153	24	73	92	152	87	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							1.00				1.00	
Frt		0.988			0.965			0.916			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3534	0	1728	3484	0	1685	1731	0	1685	1896	0
Flt Permitted	0.389			0.357			0.697			0.352		
Satd. Flow (perm)	714	3534	0	649	3484	0	1232	1731	0	624	1896	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			42			41				
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)							2					2
Confl. Bikes (#/hr)												
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%	1%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	600	0	129	690	0	25	174	0	160	93	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	12.6	75.6		15.4	78.4		12.6	35.0		14.0	36.4	
Total Split (%)	9.0%	54.0%		11.0%	56.0%		9.0%	25.0%		10.0%	26.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	82.0	74.4		90.2	86.3		27.1	18.1		41.8	32.7	
Actuated g/C Ratio	0.59	0.53		0.64	0.62		0.19	0.13		0.30	0.23	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.00	0.32		0.26	0.32		0.10	0.67		0.50	0.21	
Control Delay	13.0	20.7		17.1	20.4		32.6	56.2		41.8	43.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.0	20.7		17.1	20.4		32.6	56.2		41.8	43.5	
LOS	B	C		B	C		C	E		D	D	
Approach Delay		20.7			19.9			53.2			42.4	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	0	153		58	182		16	117		114	72	
Queue Length 95th (ft)	3	251		83	216		34	189		154	111	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	496	1950		509	2196		280	391		319	457	
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	0.00	0.31		0.25	0.31		0.09	0.45		0.50	0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 22.4 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Charles Avenue & Chicago Avenue

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	768	5	6	788	9	15
Future Vol, veh/h	768	5	6	788	9	15
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	817	5	6	838	10	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	824	0	1253	413
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	431	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	815	-	167	594
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	629	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	814	-	164	593
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	620	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	164	593	-	-	814	-
HCM Lane V/C Ratio	0.058	0.027	-	-	0.008	-
HCM Control Delay (s)	28.3	11.2	-	-	9.5	0.1
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	745	38	39	759	35	19
Future Vol, veh/h	745	38	39	759	35	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	784	40	41	799	37	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	824	0	1286	412
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	482	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	815	-	159	595
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	593	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	815	-	151	595
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	563	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	27.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	151	595	-	-	815	-
HCM Lane V/C Ratio	0.244	0.034	-	-	0.05	-
HCM Control Delay (s)	36.4	11.3	-	-	9.7	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	743	21	0	798	0	43
Future Vol, veh/h	743	21	0	798	0	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	782	22	0	840	0	45

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	391
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	614
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	614
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	614	-	-
HCM Lane V/C Ratio	0.074	-	-
HCM Control Delay (s)	11.3	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

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	5	4	7	8	8	4	15	209	4	3	259	9
Future Vol, veh/h	5	4	7	8	8	4	15	209	4	3	259	9
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	4	7	9	9	4	16	222	4	3	276	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	550	545	282	550	548	224	286	0	0	226	0	0
Stage 1	287	287	-	256	256	-	-	-	-	-	-	-
Stage 2	263	258	-	294	292	-	-	-	-	-	-	-
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	449	449	762	449	447	820	1288	-	-	1354	-	-
Stage 1	725	678	-	753	699	-	-	-	-	-	-	-
Stage 2	747	698	-	719	675	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	434	441	761	435	439	820	1288	-	-	1354	-	-
Mov Cap-2 Maneuver	434	441	-	435	439	-	-	-	-	-	-	-
Stage 1	715	676	-	742	689	-	-	-	-	-	-	-
Stage 2	724	688	-	705	673	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	12.8	0.5	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1288	-	-	537	482	1354	-	-
HCM Lane V/C Ratio	0.012	-	-	0.032	0.044	0.002	-	-
HCM Control Delay (s)	7.8	0	-	11.9	12.8	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	61	0	64	0	0	1	64	169	0	1	226	58
Future Vol, veh/h	61	0	64	0	0	1	64	169	0	1	226	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	64	0	67	0	0	1	67	176	0	1	235	60

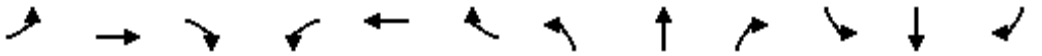
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	578	577	265	611	607	176	295	0	0	176	0	0
Stage 1	267	267	-	310	310	-	-	-	-	-	-	-
Stage 2	311	310	-	301	297	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical 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	430	430	779	409	414	872	1278	-	-	1412	-	-
Stage 1	743	692	-	705	663	-	-	-	-	-	-	-
Stage 2	704	663	-	712	671	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	410	405	779	357	390	872	1278	-	-	1412	-	-
Mov Cap-2 Maneuver	410	405	-	357	390	-	-	-	-	-	-	-
Stage 1	700	691	-	664	625	-	-	-	-	-	-	-
Stage 2	662	625	-	650	670	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	9.1	2.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1278	-	-	541	872	1412	-	-
HCM Lane V/C Ratio	0.052	-	-	0.241	0.001	0.001	-	-
HCM Control Delay (s)	8	0	-	13.8	9.1	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	0	0	-	-

Capacity Analysis Summary Sheets

Year 2029 Total Saturday Midday Peak Hour Conditions

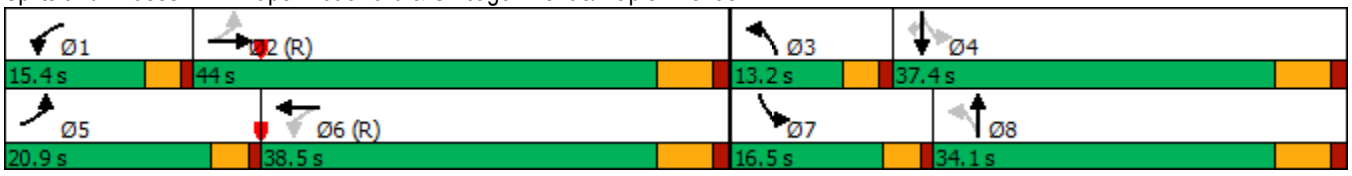


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	248	398	99	129	499	199	115	560	60	171	570	173
Future Volume (vph)	248	398	99	129	499	199	115	560	60	171	570	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	14	12	12	11	11	11	12	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	225		0	150		0	240		90
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	120			185			85			95		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.970			0.957			0.985				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1906	3474	0	1888	3445	0	1745	3437	0	1787	3455	1583
Flt Permitted	0.211			0.435			0.308			0.200		
Satd. Flow (perm)	423	3474	0	864	3445	0	566	3437	0	376	3455	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			55			10				149
Link Speed (mph)		40			40			40			35	
Link Distance (ft)		2807			1575			1366			1420	
Travel Time (s)		47.8			26.8			23.3			27.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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 (%)	1%	1%	0%	2%	0%	1%	0%	0%	0%	1%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	258	518	0	134	727	0	120	646	0	178	594	180
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		1	6		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	21.0		7.0	21.0	21.0
Total Split (s)	20.9	44.0		15.4	38.5		13.2	34.1		16.5	37.4	37.4
Total Split (%)	19.0%	40.0%		14.0%	35.0%		12.0%	31.0%		15.0%	34.0%	34.0%
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	4.5
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	1.5
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)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	None
Act Effct Green (s)	56.0	40.9		48.1	36.6		39.0	28.3		44.4	31.0	31.0
Actuated g/C Ratio	0.51	0.37		0.44	0.33		0.35	0.26		0.40	0.28	0.28

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.65	0.40		0.29	0.61		0.41	0.73		0.60	0.61	0.33
Control Delay	20.2	22.7		16.6	31.8		24.6	42.2		29.5	37.3	9.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.2	22.7		16.6	31.8		24.6	42.2		29.5	37.3	9.3
LOS	C	C		B	C		C	D		C	D	A
Approach Delay		21.9			29.4			39.5			30.6	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	109	134		49	212		51	216		79	190	16
Queue Length 95th (ft)	75	205		84	289		91	284		129	250	69
Internal Link Dist (ft)		2727			1495			1286			1340	
Turn Bay Length (ft)	220			225			150			240		90
Base Capacity (vph)	444	1310		499	1184		301	896		314	988	559
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	0.58	0.40		0.27	0.61		0.40	0.72		0.57	0.60	0.32

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 95.7 (87%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 30.3		Intersection LOS: C	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Naper Bouelvard & Chicago Avenue/Maple Avenue

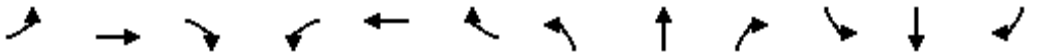


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	603	51	145	611	67	162
Future Volume (vph)	603	51	145	611	67	162
Ideal Flow (vphpl)	1900	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	125		125	140
Storage Lanes		0	1		0	1
Taper Length (ft)			135		135	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.988					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3281	0	1805	3762	1687	1615
Flt Permitted			0.365		0.950	
Satd. Flow (perm)	3281	0	694	3762	1687	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	11					167
Link Speed (mph)	40			40	25	
Link Distance (ft)	285			2807	343	
Travel Time (s)	4.9			47.8	9.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	99%	0%	1%	7%	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)	675	0	149	630	69	167
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	2		1	6	8	8 1
Permitted Phases			6			
Detector Phase	2		1	6	8	8 1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	4.0	
Minimum Split (s)	21.0		7.0	21.0	10.0	
Total Split (s)	60.5		13.2	73.7	36.3	
Total Split (%)	55.0%		12.0%	67.0%	33.0%	
Yellow Time (s)	4.5		3.0	4.5	4.5	
All-Red Time (s)	1.5		1.0	1.5	1.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	6.0		4.0	6.0	6.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min		None	C-Min	None	
Act Effct Green (s)	76.7		90.1	88.1	9.9	21.3
Actuated g/C Ratio	0.70		0.82	0.80	0.09	0.19

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.29		0.23	0.21	0.46	0.37
Control Delay	4.5		1.7	1.4	56.3	7.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	4.5		1.7	1.4	56.3	7.8
LOS	A		A	A	E	A
Approach Delay	4.5			1.4	22.0	
Approach LOS	A			A	C	
Queue Length 50th (ft)	37		10	23	47	0
Queue Length 95th (ft)	81		12	22	90	53
Internal Link Dist (ft)	205			2727	263	
Turn Bay Length (ft)			125		125	140
Base Capacity (vph)	2291		661	3013	464	565
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.29		0.23	0.21	0.15	0.30

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 51.7 (47%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 5.5		Intersection LOS: A	
Intersection Capacity Utilization 43.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Olesen Drive & Chicago Avenue

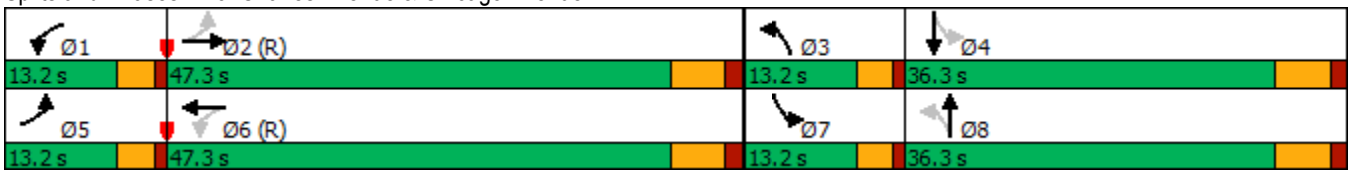


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	423	26	69	484	117	21	51	54	113	56	2
Future Volume (vph)	2	423	26	69	484	117	21	51	54	113	56	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	12	11	12	12	10	12	12	10	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	150		0	135		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	190			180			110			105		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							1.00				1.00	
Frt		0.991			0.971			0.923			0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1745	3471	0	1745	3477	0	1685	1754	0	1685	1890	0
Flt Permitted	0.422			0.447			0.719			0.529		
Satd. Flow (perm)	775	3471	0	821	3477	0	1273	1754	0	938	1890	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			31			48			2	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1137			1793			884			921	
Travel Time (s)		19.4			30.6			24.1			25.1	
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)												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%	3%	4%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	453	0	70	607	0	21	107	0	114	59	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		7.0	10.0		7.0	10.0	
Total Split (s)	13.2	47.3		13.2	47.3		13.2	36.3		13.2	36.3	
Total Split (%)	12.0%	43.0%		12.0%	43.0%		12.0%	33.0%		12.0%	33.0%	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5		1.0	1.5		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	69.3	62.8		73.7	70.0		19.9	11.3		27.4	21.4	
Actuated g/C Ratio	0.63	0.57		0.67	0.64		0.18	0.10		0.25	0.19	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.00	0.23		0.11	0.27		0.08	0.48		0.37	0.16	
Control Delay	7.5	13.1		6.0	7.4		30.0	33.3		35.5	37.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.5	13.1		6.0	7.4		30.0	33.3		35.5	37.8	
LOS	A	B		A	A		C	C		D	D	
Approach Delay		13.1			7.3			32.8			36.2	
Approach LOS		B			A			C			D	
Queue Length 50th (ft)	1	83		14	60		11	39		63	31	
Queue Length 95th (ft)	3	122		20	131		30	91		110	75	
Internal Link Dist (ft)		1057			1713			804			841	
Turn Bay Length (ft)	150			150			135			80		
Base Capacity (vph)	589	1985		628	2224		295	517		308	522	
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	0.00	0.23		0.11	0.27		0.07	0.21		0.37	0.11	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 105.6 (96%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 14.9		Intersection LOS: B	
Intersection Capacity Utilization 47.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Charles Avenue & Chicago Avenue



Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	641	2	7	663	5	10
Future Vol, veh/h	641	2	7	663	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	654	2	7	677	5	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	656	0	1008	328
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	353	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	941	-	240	674
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	688	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	941	-	237	674
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	680	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	237	674	-	-	941	-
HCM Lane V/C Ratio	0.022	0.015	-	-	0.008	-
HCM Control Delay (s)	20.5	10.4	-	-	8.9	0.1
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	605	46	48	630	40	25
Future Vol, veh/h	605	46	48	630	40	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	105	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	637	48	51	663	42	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	685	0	1095	343
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	918	-	211	659
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	627	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	918	-	199	659
Mov Cap-2 Maneuver	-	-	-	-	199	-
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	592	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	21.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	199	659	-	-	918	-
HCM Lane V/C Ratio	0.212	0.04	-	-	0.055	-
HCM Control Delay (s)	27.9	10.7	-	-	9.2	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	596	34	0	678	0	58
Future Vol, veh/h	596	34	0	678	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	627	36	0	714	0	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	314
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	688
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	688
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	688	-	-
HCM Lane V/C Ratio	0.089	-	-
HCM Control Delay (s)	10.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	6	3	3	4	2	11	205	4	1	185	9
Future Vol, veh/h	4	6	3	3	4	2	11	205	4	1	185	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	11
Mvmt Flow	4	6	3	3	4	2	11	211	4	1	191	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	436	435	196	437	437	213	200	0	0	215	0	0
Stage 1	198	198	-	235	235	-	-	-	-	-	-	-
Stage 2	238	237	-	202	202	-	-	-	-	-	-	-
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	534	517	850	533	516	832	1384	-	-	1367	-	-
Stage 1	808	741	-	773	714	-	-	-	-	-	-	-
Stage 2	770	713	-	805	738	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	525	512	850	522	511	832	1384	-	-	1367	-	-
Mov Cap-2 Maneuver	525	512	-	522	511	-	-	-	-	-	-	-
Stage 1	801	740	-	766	708	-	-	-	-	-	-	-
Stage 2	757	707	-	795	737	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	11.5	0.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	568	563	1367	-	-
HCM Lane V/C Ratio	0.008	-	-	0.024	0.016	0.001	-	-
HCM Control Delay (s)	7.6	0	-	11.5	11.5	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	74	0	81	1	0	2	81	153	1	0	124	72
Future Vol, veh/h	74	0	81	1	0	2	81	153	1	0	124	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	50	0	0	0	0	1	3	0	3	0
Mvmt Flow	77	0	84	1	0	2	84	159	1	0	129	75

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	496	495	167	537	532	160	204	0	0	160	0	0
Stage 1	167	167	-	328	328	-	-	-	-	-	-	-
Stage 2	329	328	-	209	204	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.7	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	3.75	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	487	479	767	458	456	890	1380	-	-	1432	-	-
Stage 1	840	764	-	689	651	-	-	-	-	-	-	-
Stage 2	688	651	-	798	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	461	447	767	387	425	890	1380	-	-	1432	-	-
Mov Cap-2 Maneuver	461	447	-	387	425	-	-	-	-	-	-	-
Stage 1	784	764	-	643	607	-	-	-	-	-	-	-
Stage 2	640	607	-	710	737	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	10.8	2.7	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1380	-	-	582	621	1432	-	-
HCM Lane V/C Ratio	0.061	-	-	0.277	0.005	-	-	-
HCM Control Delay (s)	7.8	0	-	13.5	10.8	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.1	0	0	-	-