Traffic Impact Study
Proposed Residential Development

Naperville, Illinois

Prepared For:

LINCOLN PROPERTY COMPANY

KLOA

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

February 24, 2025

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed residential development to be located in Naperville, Illinois. The site, which currently contains three single-family homes, is located in the northwest corner of the intersection of Naper Boulevard with Plank Road. As proposed, the site will be developed with a residential development consisting of 90 townhomes. Access to the development will be provided via Tuthill Road and Burlington Avenue and their respective intersections with Ogden Avenue, Plank Road, and Naperville-Wheaton Road.

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:

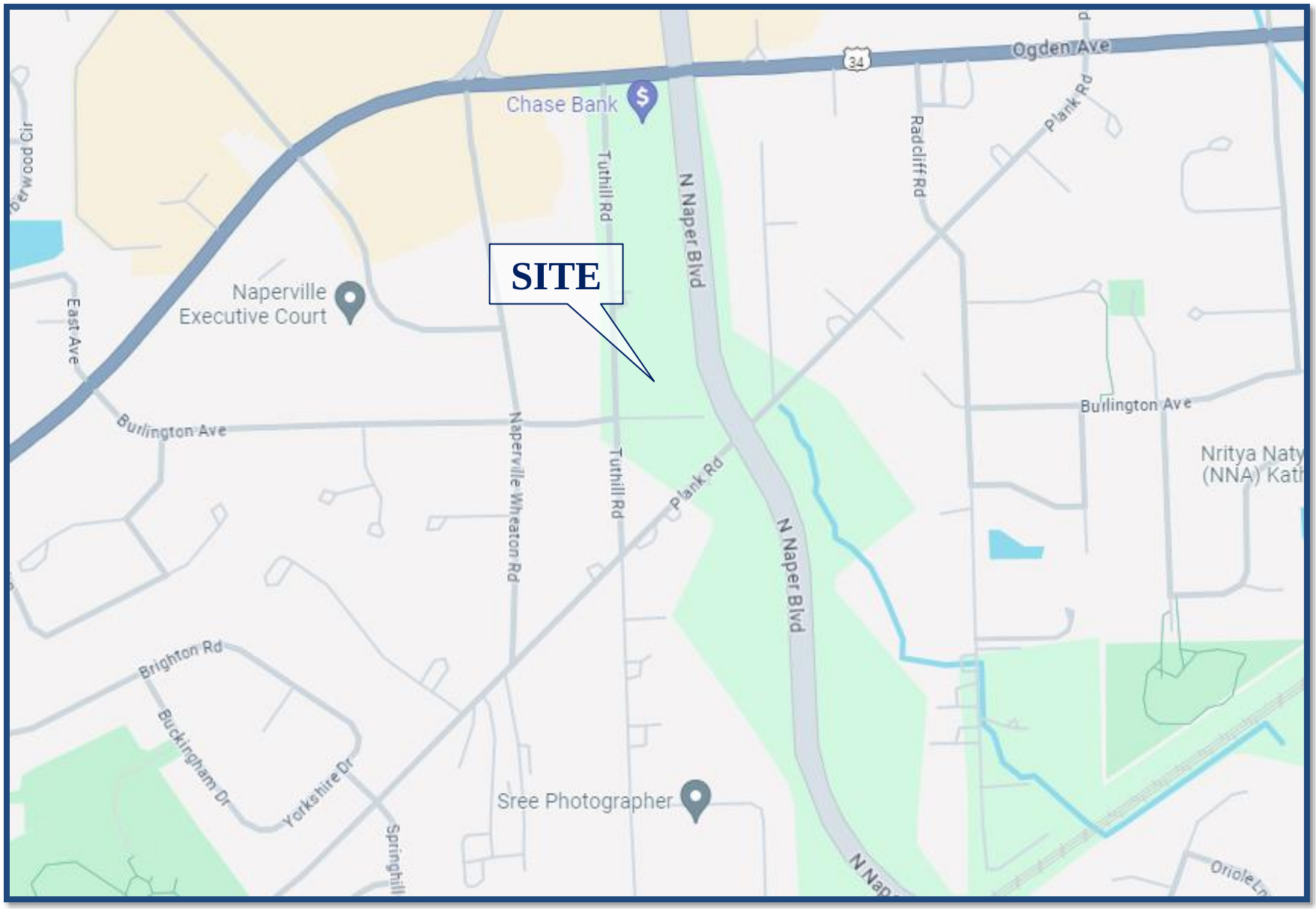
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and weekday evening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

Traffic capacity analyses were conducted for the weekday morning and weekday evening 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 2024.

2. Year 2030 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.

3. Year 2030 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the Year 2030 no-build volumes and the traffic estimated to be generated by the proposed development.



Site Location **Figure 1**

Proposed Residential Development
Naperville, Illinois

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

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

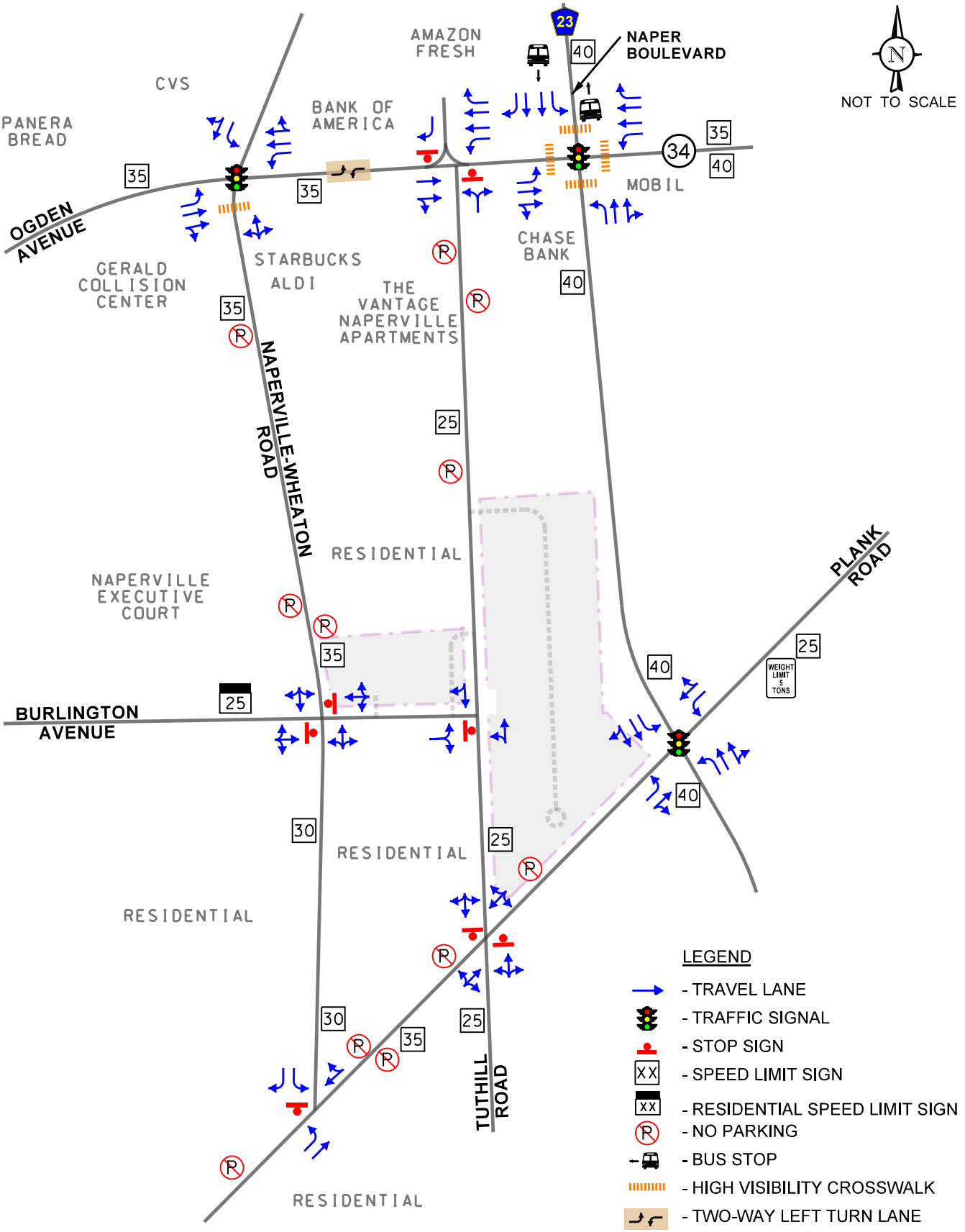
The site, which currently contains three single-family homes, is bounded by residential and commercial uses to the north, Plank Road to the south, Naper Boulevard to the east, and Naperville-Wheaton Road to the west. Land uses in the vicinity of the site are primarily residential, with commercial uses fronting Ogden Avenue north of the site.

Existing Roadway System Characteristics

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

US 34 (Ogden Avenue) is an east-west other principal arterial roadway that in the vicinity of the site provides two travel lanes in each direction separated by a center two-way left turn lane. At its signalized intersection with Naper Boulevard, US 34 provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the westbound approach. Both legs of the intersection provide high-visibility crosswalks. At its signalized intersection with Naperville-Wheaton Road, US 34 provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the westbound approach. At its unsignalized intersection with Tuthill Road, US 34 provides an exclusive left-turn lane, two through lanes and an exclusive right-turn lane on the westbound approach and a through lane and a shared through/right-turn lane on the eastbound approach US 34 is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an annual average daily traffic (AADT) volume of 28,800 vehicles (IDOT 2023) west of Naperville-Wheaton Road and 22,100 vehicles east of Naperville-Wheaton Road (IDOT 2023), and has a posted speed limit of 35 miles per hour west of Naper Boulevard and 40 miles per hour east of Naper Boulevard.

Naper Boulevard is a north-south other principal arterial roadway that in the vicinity of the site provides two travel lanes in each direction. At its signalized intersection with Ogden 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. Both legs of the intersection provide high-visibility crosswalks. At its signalized intersection with Plank Road, Naperville Boulevard provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the northbound and southbound approaches.



Townhome Development
Naperville, Illinois

Existing Roadway Characteristics

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

Job No: 24-181 Figure: 3

Naper Boulevard is under the jurisdiction of the DuPage County Division of Transportation (DuDOT) north of Ogden Avenue and the City of Naperville south of Ogden Avenue. The roadway carries an AADT of 18,400 vehicles (IDOT 2020), and has a posted speed limit of 40 miles per hour.

Naperville-Wheaton Road is generally a north-south roadway. North of Ogden Avenue, the roadway is classified as a major collector roadway and provides two lanes in each direction. South of Ogden Avenue the roadway is classified as a local roadway that provides one travel lane in each direction. At its signalized intersection with US 34, Naperville-Wheaton Road provides a shared left-turn/through/right-turn lane on the northbound approach and an exclusive left-turn lane and a shared through/right-turn lane on the southbound approach. The channelization of the lane results in approximately 50 feet of storage for right-turn vehicles resulting in a defector right-turn lane. The southern leg of the intersection provides a high-visibility crosswalk. At its unsignalized intersection with Plank Road, Naperville-Wheaton Road provides an exclusive left-turn lane and an exclusive right-turn lane on the southbound approach and is under stop sign control. At its unsignalized intersection with Burlington Avenue, Naperville-Wheaton Road provides a shared left-turn/through/right-turn lane on the northbound and southbound approaches. Naperville-Wheaton Road is under the jurisdiction of the City of Naperville, carries an AADT of 8,900 vehicles (IDOT 2020), and has a posted speed limit of 40 miles per hour north of US 34 and 35 miles per hour south of US 34.

Plank Road is generally an east-west major collector roadway that in the vicinity of the site provides one travel lane in each direction. At its signalized intersection with Naper Boulevard, Plank Road provides an exclusive left-turn lane and a shared through/right-turn lane on the eastbound and westbound approaches. At its unsignalized intersection with Tuthill Road, Plank Road provides a shared left-turn/through/right-turn lane on the eastbound and westbound approaches. At its unsignalized intersection with Naperville-Wheaton Road, Plank Road provides an exclusive left-turn lane and a through lane on the eastbound approach and a shared through/right-turn lane on the westbound approach. Plank Road is under the jurisdiction of the City of Naperville, carries an AADT of 2,950 vehicles (IDOT 2020), and has a posted speed limit of 25 miles per hour.

Tuthill Road is a north-south local roadway that in the vicinity of the site provides one travel lane in each direction. At its unsignalized intersection with Plank Road, Tuthill Road provides a shared left-turn/through/right-turn lane on the northbound and southbound approaches and is under stop sign control. At its unsignalized intersection with Ogden Avenue, Tuthill Road provides a shared left-turn/right-turn lane on the northbound approach and is under stop sign control. At its unsignalized intersection with Burlington Avenue, Tuthill Road provides a shared left-turn/through lane on the northbound approach and a shared through/right-turn lane on the southbound approach. Tuthill Road is under the jurisdiction of the City of Naperville and has a posted speed limit of 25 miles per hour.

Burlington Avenue is an east-west local roadway that in the vicinity of the site provides one travel lane in each direction. At its unsignalized intersection with Tuthill Road, Burlington Avenue provides a shared left/right-turn lane on the westbound approach that is under stop sign control. At its unsignalized intersection with Naperville-Wheaton Road, Burlington Avenue provides a shared left-turn/through/right-turn lane on the eastbound and westbound approaches and is under stop sign control. Burlington Avenue is under the jurisdiction of the City of Naperville.

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:

- Ogden Avenue with Naper Boulevard
- Ogden Avenue with Tuthill Road
- Ogden Avenue with Naperville-Wheaton Road
- Plank Road with Naper Boulevard
- Plank Road with Tuthill Road
- Plank Road with Naperville-Wheaton Road
- Burlington Avenue with Tuthill Road
- Burlington Avenue with Naperville-Wheaton Road

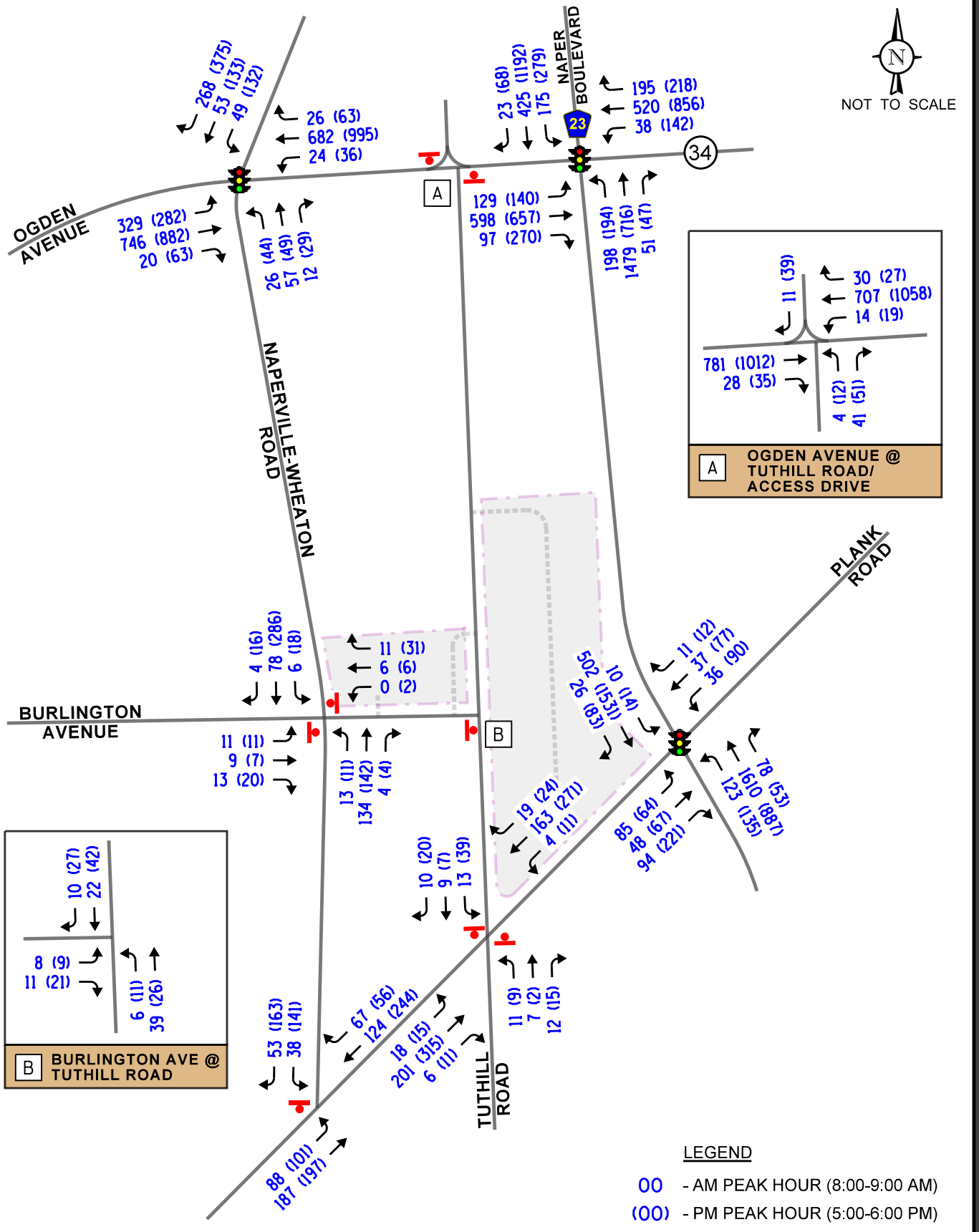
The traffic counts were conducted in July 2024 during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday afternoon/evening (2:00 P.M. to 6:00 P.M.) peak periods. The results of the traffic counts show that the peak hours of traffic generally occur between 7:45 A.M. and 8:45 A.M. during the weekday morning peak period and between 5:00 P.M. and 6:00 P.M. during the weekday evening peak period. Copies of the traffic count summary sheets are included in the Appendix. The existing traffic volumes are illustrated in **Figure 4**.

Crash Data

KLOA, Inc. obtained crash data for the most recent available past five years (2019 to 2023) for the study area intersections. A review of the data revealed the following intersections averaged less than one crash per year over the five-year period:

- Burlington Avenue with Naperville-Wheaton Road
- Burlington Avenue with Tuthill Road
- Plank Road with Naperville-Wheaton Road
- Plank Road with Tuthill Road

A summary of the crash data at the intersections of Ogden Avenue with Naper Boulevard, Ogden Avenue with Naperville-Wheaton Road, Ogden Avenue with Tuthill Road, and Plank Road with Naper Boulevard is shown in **Tables 1** through **4**, respectively. It should be noted that one fatal crash was reported at the intersection of Ogden Avenue with Naperville-Wheaton Road in 2020. This crash was a turning crash involving a westbound left-turn passenger vehicle and an eastbound motorcycle.



Townhome Development
Naperville, Illinois

Existing Traffic Volumes

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

Job No: 24-181 Figure: 4

Table 1
OGDEN AVENUE WITH NAPER BOULEVARD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Pedestrian	Object	Rear End	Sideswipe	Turning	Other	Total
2019	2	0	0	5	1	6	0	14
2020	1	0	0	1	0	4	0	6
2021	1	0	0	1	0	4	0	6
2022	1	0	0	5	0	9	0	15
2023	2	0	0	3	0	5	0	10
Total	**7**	**0**	**0**	**15**	**1**	**28**	**0**	**51**
Average	**1.4**	**--**	**--**	**3.0**	**<1.0**	**5.6**	**--**	**10.2**

Table 2
OGDEN AVENUE WITH NAPERVILLE-WHEATON ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Pedestrian	Object	Rear End	Sideswipe	Turning	Other	Total
2019	1	0	0	3	0	3	0	7
2020	1	0	0	3	0	0	7	11
2021	0	0	1	5	0	7	1	14
2022	1	0	0	3	0	5	1	10
2023	0	0	0	5	1	7	0	13
Total	**3**	**0**	**1**	**19**	**1**	**22**	**9**	**55**
Average	**<1.0**	**--**	**<1.0**	**3.8**	**<1.0**	**4.4**	**1.8**	**11.0**

Table 3
OGDEN AVENUE WITH TUTHILL ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Pedestrian	Object	Rear End	Sideswipe	Turning	Other	Total
2019	1	0	0	1	0	4	0	6
2020	1	0	0	5	1	1	0	8
2021	1	0	0	4	1	5	0	11
2022	0	0	0	4	1	6	0	11
2023	2	0	0	3	1	11	0	17
Total	**5**	**0**	**0**	**17**	**4**	**27**	**0**	**53**
Average	**1.0**	**--**	**--**	**3.4**	**<1.0**	**5.4**	**--**	**10.6**

Table 4
PLANK ROAD WITH NAPER BOULEVARD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Pedestrian	Object	Rear End	Sideswipe	Turning	Other	Total
2019	0	0	0	0	0	2	0	2
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	1	0	1
2022	0	0	0	0	0	0	0	0
2023	1	0	0	1	0	0	0	2
Total	**1**	**0**	**0**	**1**	**0**	**3**	**0**	**5**
Average	**<1.0**	**--**	**--**	**<1.0**	**--**	**<1.0**	**--**	**1.0**

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 site will be developed with a residential development consisting of 90 townhomes. Access to the site will be provided via Burlington Street and Tuthill Road. A copy of the preliminary site plan is included in the Appendix.

Directional Distribution

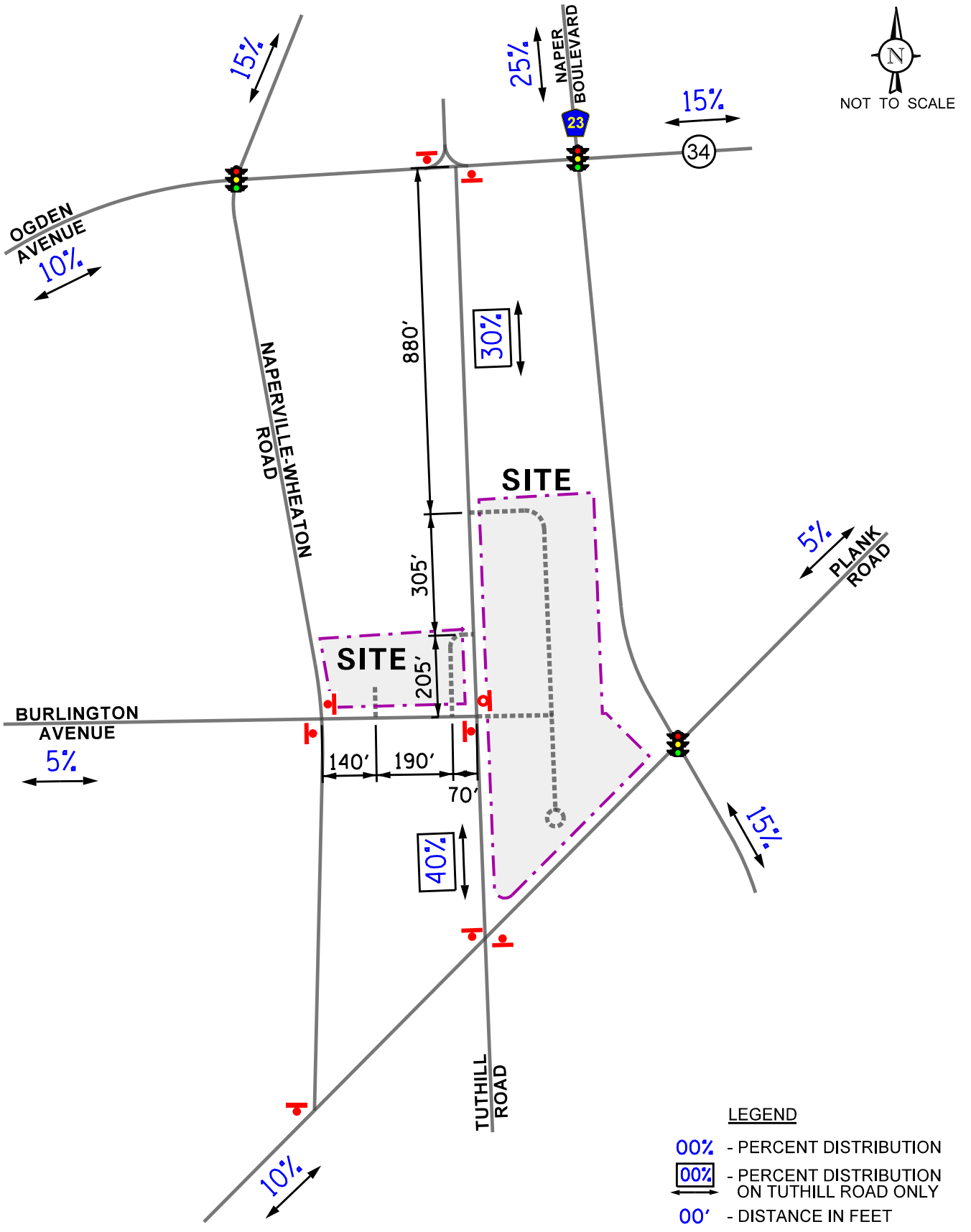
The directions from which residents will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the development-generated traffic. Figure 5 also shows the distance, in feet, between the existing and proposed access intersections.

Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed residential development was based on vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). The "Single-Family Attached Housing" (Land-Use Code 215) rates were used to determine the traffic to be generated by the development. **Table 5** shows the weekday morning and weekday evening peak hour traffic to be generated by the proposed residential development.

Table 5
PROJECTED DEVELOPMENT-GENERATED TRAFFIC VOLUMES

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		In	Out	Total	In	Out	Total
215	Single-Family Attached Housing (90 Units)	11	32	43	30	21	51



Townhome Development
Naperville, Illinois

Directional Distribution

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

Job No: 24-181 Figure: 5

4. Projected Traffic Conditions

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

Development Traffic Assignment

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

Background (No-Build) Traffic Conditions

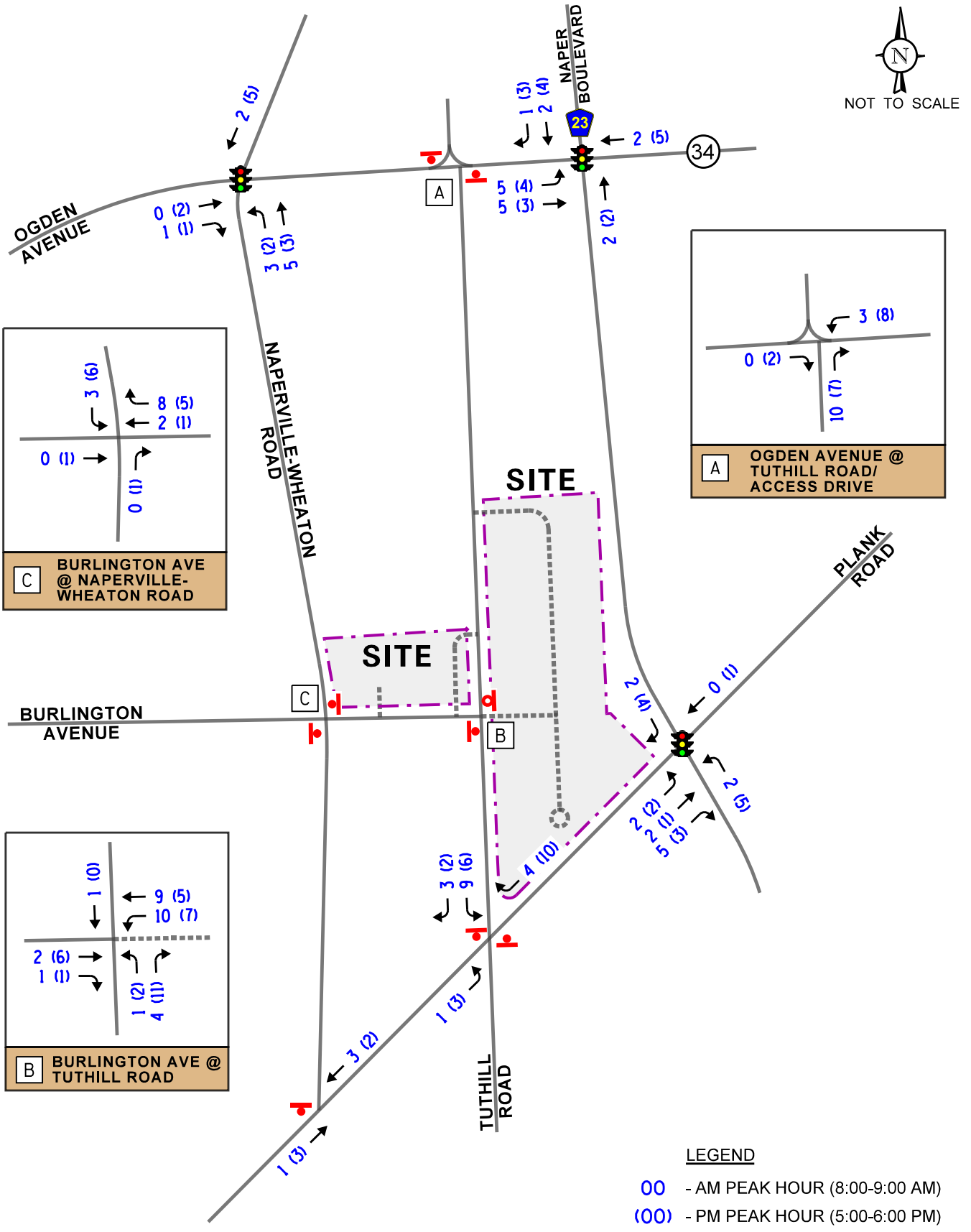
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate of 0.8 percent per year for six years (buildout year plus five years) for a total of approximately five percent to project Year 2030 background conditions. A copy of the CMAP 2050 projections letter is included in the Appendix.

Furthermore, the traffic estimated to be generated by the currently under construction Casey's General Store located in the southeast corner of the intersection of Ogden Avenue with Naper Boulevard were included in the background traffic volumes.

Figure 7 illustrates the Year 2030 no-build conditions.

Total Projected Traffic Volumes

The development-generated traffic (Figure 6) was added to the Year 2030 no-build traffic volumes (Figure 7) to determine the Year 2030 total projected traffic volumes, shown in **Figure 8.**

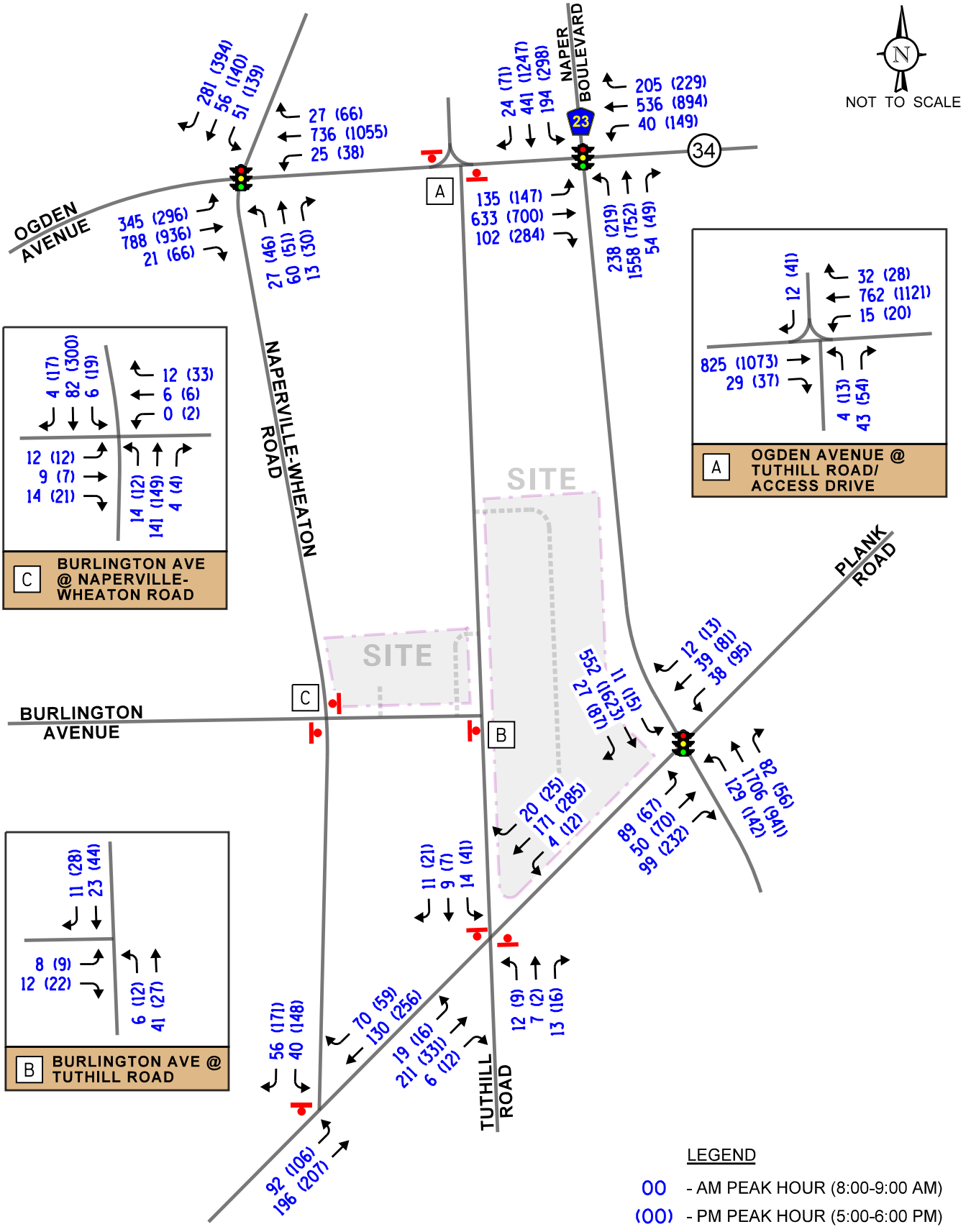


Townhome Development
Naperville, Illinois

Site-Generated Traffic Volumes

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

Job No: 24-181 Figure: 6

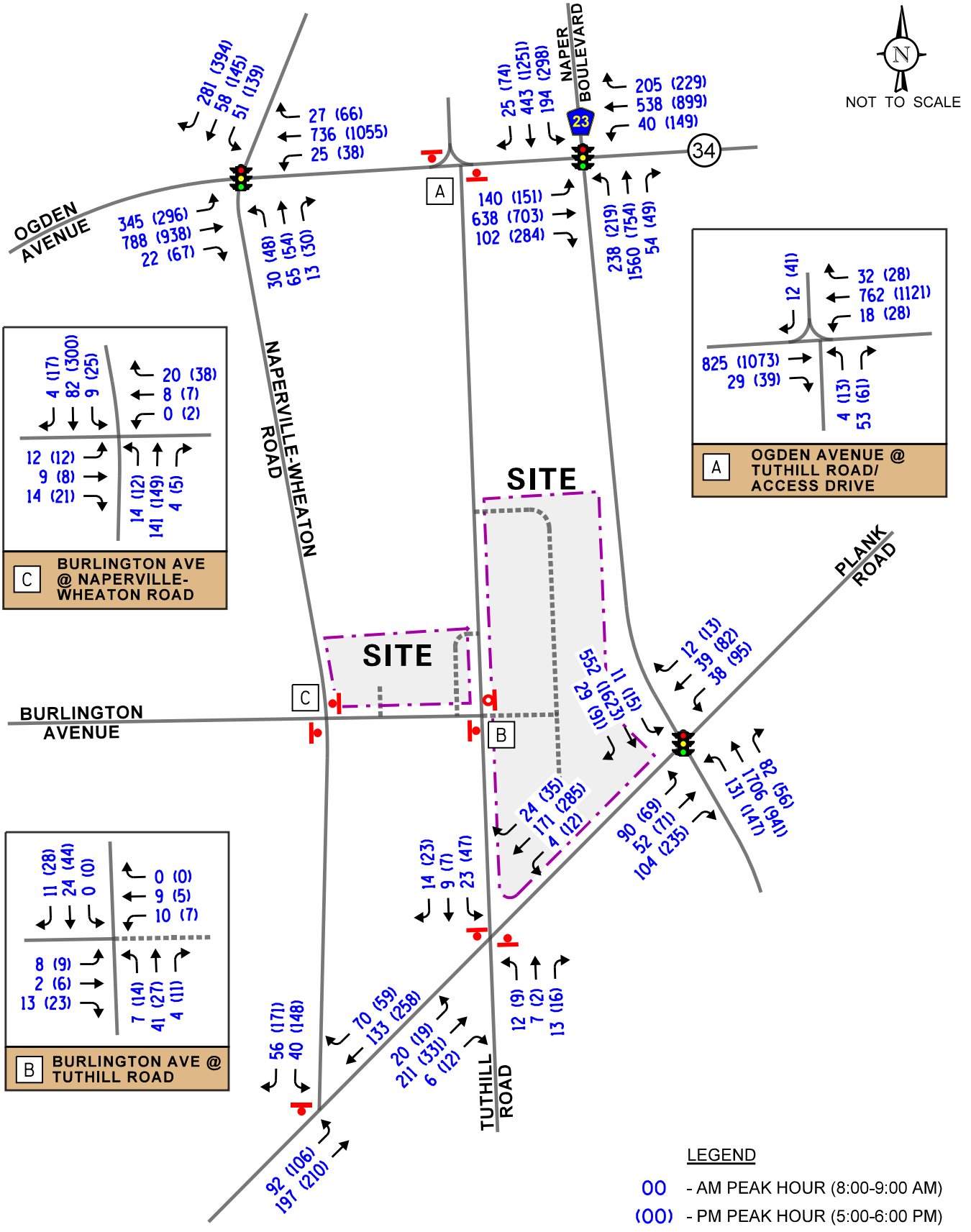


Townhome Development
Naperville, Illinois

Year 2030 No-Build Traffic Volumes

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

Job No: 24-181 Figure: 7



Townhome Development
Naperville, Illinois

Year 2030 Total Traffic Volumes

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

Job No: 24-181 Figure: 8

5. Traffic Analysis and Recommendations

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

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing, Year 2030 no-build, and Year 2030 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6th Edition and analyzed using Synchro/SimTraffic 11 software. The analysis for the traffic-signal controlled intersections of Ogden Avenue with Naper Boulevard and Ogden Avenue with Naperville-Wheaton Road were accomplished using actual cycle lengths, phasings and offsets, and the traffic-signal controlled intersection of Naper Boulevard with Plank Road was accomplished with 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 2030 no-build, and Year 2030 total projected conditions are presented in **Tables 6** through **11**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 6
CAPACITY ANALYSIS RESULTS – OGDEN AVENUE WITH NAPER BOULEVARD – SIGNALIZED

	Peak Hour	Eastbound		Westbound			Northbound		Southbound			Overall
		L	T/R	L	T	R	L	T	L	T	R	
Existing Conditions	**Weekday Morning**	D 40.4	D 54.9	D 35.5	E 55.8	E 57.8	B 15.4	D 46.2	F 88.9	C 22.9	B 13.0	D 46.9
		D – 52.6		E – 55.3			D – 42.7		D – 41.0			
	Weekday Evening	D 44.7	E 58.9	E 57.8	D 49.8	D 44.0	F 118.9	D 49.5	D 36.9	D 46.2	B 18.9	D 52.0
		E – 57.0		D – 49.7			E – 63.5		D – 43.3			
No-Build Conditions	**Weekday Morning**	D 43.8	E 57.4	D 36.4	E 56.1	E 58.8	B 16.9	E 58.4	F 98.8	C 23.2	B 13.0	D 52.8
		E – 55.3		E – 55.8			D – 53.1		D – 45.1			
	Weekday Evening	D 51.8	E 65.6	E 64.2	D 51.3	D 44.8	F 162.2	D 52.8	D 46.3	D 48.6	B 18.9	E 57.8
		E – 63.8		D – 51.6			E – 76.3		D – 46.9			
Projected Conditions	**Weekday Morning**	D 45.4	E 57.8	D 36.5	E 56.2	E 58.8	B 16.9	E 58.7	F 99.9	C 23.3	B 13.0	D 53.1
		E – 55.8		E – 55.9			D – 53.3		D – 45.2			
	Weekday Evening	E 55.2	E 66.1	E 64.3	D 51.6	D 44.8	F 162.2	D 52.8	D 46.6	D 48.8	B 18.9	E 58.1
		E – 64.7		D – 51.8			E – 76.3		D – 47.0			

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

Table 7
CAPACITY ANALYSIS RESULTS – OGDEN AVENUE WITH NAPERVILLE-WHEATON ROAD – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound	Southbound			Overall
		L	T	L	T	L/T/R	L	T	R	
Existing Conditions	Weekday Morning	B 11.5	A 7.5	A 6.3	A 7.1	F – 80.0	D 51.1	D 50.3	D 43.2	B 17.1
		A – 8.7		A – 7.1			D – 45.3			
	Weekday Evening	C 20.5	A 8.9	C 23.1	C 29.1	F – 103.0	E 60.2	D 54.2	D 45.1	C 29.3
		B – 11.6		C – 28.9			D – 50.1			
No-Build Conditions	Weekday Morning	B 12.8	A 7.8	A 8.2	B 10.0	F – 80.6	D 51.0	D 50.2	D 40.0	B 17.8
		A – 9.3		A 10.0			D – 42.9			
	Weekday Evening	C 26.6	A 8.9	C 24.6	C 29.2	F – 107.8	E 63.3	E 55.3	D 43.7	C 30.0
		B – 12.9		C – 29.0			D – 50.2			
Projected Conditions	Weekday Morning	B 13.1	A 8.1	A 8.4	B 10.3	F – 81.8	D 50.5	D 49.8	D 39.4	B 18.2
		A – 9.6		B – 10.2			D – 42.4			
	Weekday Evening	C 27.0	A 9.0	C 24.7	C 29.5	F – 110.6	E 63.2	E 55.4	D 43.4	C 30.4
		B – 13.1		C – 29.3			D – 50.0			

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

Table 8
CAPACITY ANALYSIS RESULTS – NAPER BOULEVARD WITH PLANK ROAD – SIGNALIZED

	Peak Hour	Southbound		Northbound		Eastbound		Westbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Existing Conditions	Weekday Morning	A 5.9	B 11.3	A 5.7	B 13.8	D 36.4	C 33.3	C 32.2	D 36.1	B 15.3
		B – 11.2		B – 13.2		C – 34.5		C – 34.4		
	Weekday Evening	A 8.2	C 32.0	C 33.8	B 14.2	C 28.9	D 46.0	C 33.9	D 40.4	C 28.3
		C – 31.8		B – 16.6		D – 42.9		D – 37.1		
No-Build Conditions	Weekday Morning	A 6.0	B 12.1	A 6.2	B 16.2	D 35.2	C 32.1	C 31.6	D 37.2	B 16.9
		B – 12.0		B – 15.5		C – 33.2		C – 34.8		
	Weekday Evening	A 8.3	D 40.2	D 36.9	B 14.8	C 28.9	D 48.5	C 34.6	D 40.1	C 32.9
		D – 39.9		B – 17.6		D – 44.9		D – 37.3		
Projected Conditions	Weekday Morning	A 6.1	B 12.2	A 6.3	B 16.3	D 35.3	C 33.1	C 31.6	D 37.1	B 17.0
		B – 12.1		B - 15.6		C – 33.9		C – 34.8		
	Weekday Evening	A 8.3	D 41.0	D 38.8	B 14.9	C 29.0	D 49.4	C 34.6	D 40.5	C 33.5
		D – 40.7		B – 17.9		D – 45.6		D – 37.6		

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

Table 9
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Tuthill Road with Ogden Avenue				
• Northbound Approach	B	13.1	C	17.4
• Westbound Left Turn	A	9.8	B	10.9
• Southbound Approach	B	11.1	B	13.1
Naperville-Wheaton Road with Burlington Avenue				
• Northbound Left Turn	A	7.4	A	7.9
• Eastbound Approach	B	10.4	B	12.3
• Westbound Approach	A	9.8	B	10.3
• Southbound Left Turn	A	7.5	A	7.5
Plank Road with Naperville-Wheaton Road				
• Eastbound Left Turn	A	7.8	A	8.2
• Southbound Left Turn	B	14.0	C	24.8
• Southbound Right Turn	A	9.4	B	11.6
Plank Road with Tuthill Road				
• Eastbound Left Turn	A	7.6	A	8.1
• Westbound Left Turn	A	8.0	A	8.1
• Northbound Approach	B	11.6	B	13.7
• Southbound Approach	B	11.8	C	17.7
Tuthill Road with Burlington Avenue				
• Northbound Left Turn	A	7.3	A	7.4
• Eastbound Approach	A	8.8	A	8.9

LOS = Level of Service
Delay is measured in seconds.

Table 10
CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Tuthill Road with Ogden Avenue				
• Northbound Approach	B	13.1	C	18.8
• Westbound Left Turn	A	9.8	B	11.3
• Southbound Approach	B	11.1	B	13.5
Naperville-Wheaton Road with Burlington Avenue				
• Northbound Left Turn	A	7.4	A	8.0
• Eastbound Approach	B	10.4	B	12.6
• Westbound Approach	A	9.8	B	10.4
• Southbound Left Turn	A	7.5	A	7.6
Plank Road with Naperville-Wheaton Road				
• Eastbound Left Turn	A	7.8	A	8.3
• Southbound Left Turn	B	14.0	D	28.1
• Southbound Right Turn	A	9.4	B	11.9
Plank Road with Tuthill Road				
• Eastbound Left Turn	A	7.6	A	8.2
• Westbound Left Turn	A	8.0	A	8.1
• Northbound Approach	B	11.8	B	14.2
• Southbound Approach	B	12.1	C	18.9
Tuthill Road with Burlington Avenue				
• Northbound Left Turn	A	7.3	A	7.4
• Eastbound Approach	A	8.8	A	8.9

LOS = Level of Service
Delay is measured in seconds.

Table 11
CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Tuthill Road with Ogden Avenue				
• Northbound Approach	B	13.1	C	20.4
• Westbound Left Turn	A	9.8	B	11.4
• Southbound Approach	B	11.1	B	13.5
Naperville-Wheaton Road with Burlington Avenue				
• Northbound Left Turn	A	7.4	A	8.0
• Eastbound Approach	B	10.5	B	12.8
• Westbound Approach	A	9.8	B	10.5
• Southbound Left Turn	A	7.5	A	7.6
Plank Road with Naperville-Wheaton Road				
• Eastbound Left Turn	A	7.8	A	8.3
• Southbound Left Turn	B	14.1	D	28.3
• Southbound Right Turn	A	9.4	B	11.9
Plank Road with Tuthill Road				
• Eastbound Left Turn	A	7.7	A	8.2
• Westbound Left Turn	A	8.0	A	8.1
• Northbound Approach	B	11.8	B	14.4
• Southbound Approach	B	12.4	C	20.0
Tuthill Road with Burlington Avenue				
• Northbound Left Turn	A	7.3	A	7.4
• Eastbound Approach	A	9.0	A	9.2
• Westbound Approach	A	9.5	A	9.9

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.

Ogden Avenue with Naper Boulevard

The results of the capacity analyses indicate that overall this intersection currently operates at Level of Service (LOS) D during the weekday morning and weekday evening peak hours. It should be noted that during the weekday morning peak hour, the westbound through and right-turn movements currently operate at LOS E and the southbound left-turn movement currently operates at LOS F. During the weekday evening peak hour, the eastbound and northbound approaches operate at LOS E and the northbound left-turn movement currently operates at LOS F. These movements/approaches operate at LOS E/F during the peak hours due to the high volumes of traffic these movements carry and the long cycle length of 150 seconds. Furthermore, the high volume of northbound though traffic during the weekday morning peak hour and high volume of southbound through traffic during the weekday evening peak hour limits the number of northbound/southbound left-turning vehicles that are able to turn on the permissive phase and limits the green time allocated to left-turning movements.

Under Year 2030 no-build conditions, the intersection overall is projected to operate at LOS D during the weekday morning peak hour and at LOS D during the weekday evening peak hour. All of the approaches are projected to operate at existing levels of service except for the eastbound approach during the weekday morning peak hour which is projected to operate at LOS E. Under Year 2030 total projected conditions, this intersection overall and all of the approaches are projected to operate at no-build levels of service with increases in delay of less than one second.

Overall, the levels of service and increase in delay are a result of the existing traffic volumes and the increase in background growth and other area developments as the proposed development is only projected to increase the traffic traversing this intersection by less than one-half percent during the peak hours. Furthermore, given that regional access to the development is provided via Naperville-Wheaton Road, Burlington Avenue, and Plank Road, the traffic generated by the site will be well distributed through the study area. As such, the proposed development-generated traffic will have a limited impact on the operations of this intersection.

Ogden Avenue with Naperville-Wheaton Road

The results of the capacity analyses indicate that overall this intersection currently operates at LOS B during the weekday morning peak hour and at LOS C during the weekday evening peak hour. It should be noted that the northbound approach currently operates at LOS F during the peak hours. However, this level of service is expected due to the limited amount of green time allocated to this approach during the peak hours (approximately 16 percent of the cycle length or less).

Under Year 2030 no-build and total projected conditions, this intersection overall is projected to continue to operate at LOS B during the weekday morning peak h our and at LOS C during the weekday evening peak hour with increases in delay of approximately one second over existing conditions. All of the approaches are projected to continue operating at LOS D or better during the peak hours except for the northbound approach which is projected to continue operating at existing LOS F with increases in delays of 1.2 seconds in the morning peak hour and less than three seconds during the evening peak hour. Overall, the proposed development is only projected to increase the volume of traffic traversing this intersection by less than one-half percent and will have a limited impact on the operations of this intersection.

Plank Road with Naper Boulevard

The results of the capacity analyses indicate that overall this intersection currently operates at LOS B during the weekday morning peak hour and at LOS C during the weekday evening peak hour. All of the approaches currently operate at LOS D or better during the peak hours. Under Year 2030 total projected conditions, this intersection overall is projected to continue to operate at LOS B during the weekday morning peak hour and at LOS C during the weekday evening peak hour with increases in delay of approximately two and five seconds, respectively. All of the approaches are projected to continue operating at LOS D or better during the peak hours. Overall, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or signal modifications are required.

Ogden Avenue with Tuthill Road

The results of the capacity analyses indicate that all of the critical movements currently operate at LOS B or better during the weekday morning peak hour and at LOS C or better during the weekday evening peak hour. Under Year 2030 total projected conditions, the critical movements are projected to continue to operate at the same levels of service during the peak hour, with increases in delay of approximately less than two second during the weekday evening peak hour. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements are required.

Plank Road with Naperville-Wheaton Road

The results of the capacity analyses indicate that the eastbound and southbound left-turn movements currently operate at LOS B or better during the weekday morning peak hour and at LOS C or better during the weekday evening peak hour. The southbound right-turn movement currently operates at LOS A during the weekday morning peak hour and at LOS B during the weekday evening peak hour. Under Year 2030 total projections, all movements are projected to continue to operate at the same LOS during the weekday morning and evening peak hours with minimal increases in delay except the southbound left-turn is projected to operate at the acceptable LOS D during the weekday evening peak hour, with an increase in delay of less than one second when compared to no-build conditions. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements are required.

Plank Road with Tuthill Road

The results of the capacity analyses indicate that the northbound and southbound approaches currently operate at LOS C or better during the peak hours and the eastbound and westbound left-turn movements currently operate at LOS B or better during the peak hours. Under Year 2030 total projected conditions, all approaches/movements are projected to continue to operate at the same LOS with minimal increases in delay during the peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements are required.

It should be noted that the impact of the proposed development traffic on the operations of this intersection will be limited as the development is only projected to add nine southbound left turns during the weekday morning peak hour and six southbound left-turns during the weekday evening peak hour. In order to ensure adequate operation of this intersection, the following is recommended:

- Vegetation should not be provided within the Plank Road right-of-way along the site frontage to ensure adequate sight lines are provided.

- A speed limit sign should be provided on the west leg of the intersection of Naper Boulevard with Plank Road to inform westbound vehicles of the speed limit for Plank Road. To increase the visibility of this sign, consideration should be given to providing a yellow border on the sign.

Furthermore, as part of the proposed development, sufficient right-of-way will be reserved for the future realignment of Tuthill Road at Plank Road. It is recommended that the realignment of the north leg of the intersection occur at the same time as the south leg of the intersection to avoid introducing a short offset between the two legs in the interim condition.

Naperville Wheaton Road with Burlington Avenue

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

Tuthill Road with Burlington Avenue

The results of the capacity analyses indicate that the eastbound approach and northbound left-turn movement currently operate at LOS A during the weekday morning and evening peak hour. As part of the proposed development, a fourth (east) leg will be provided that will serve the proposed development. The access roadway approach to Tuthill Road should be under stop sign control. Under Year 2030 projected conditions, all of the critical movements are projected to operate at LOS A during the peak hours. As such, this intersection with the provision of a fourth leg will be

adequate in accommodating the traffic estimated to be generated by the proposed development and no additional roadway improvements or traffic control devices will be required.

Parking Evaluation

As proposed, the development will provide 274 parking spaces for 90 units, resulting in a parking ratio of approximately three spaces per unit. Parking for the Front Garage Townhomes will provide a total of 136 parking spaces, with 68 garage spaces and 68 aprons (surface) space resulting in a ratio of four spaces per unit. Parking for the Rear Garage Rowhomes will provided via 138 parking spaces, including 112 garage spaces and 26 surface spaces resulting in parking ratio of 2.5 spaces per unit. The parking for guests will be accommodated within the 26 surface spaces.

Municipal Code of Naperville Illinois Requirements

Based on the Municipal Code of Naperville Illinois Zoning Ordinance, multi-family homes are required to provide parking at a ratio of 2.0 spaces per dwelling unit plus .25 guest parking spaces per unit resulting in a total of 203 required parking spaces for the 90 units. As such, the 274 proposed parking spaces meets City code. Furthermore, it should be noted that the parking supply for the townhomes and rowhomes separately exceed the 2.25 parking spaces per unit requirement.

ITE Parking Generation Manual

In reviewing the survey data published in the Institute of Transportation Engineers' (ITE) 6th Edition of the *Parking Generation Manual*, single family attached housing experiences an average peak parking demand of 1.41 spaces per unit with an 85th percentile parking demand of 2.27 spaces per unit. Therefore, the development is anticipated to have an average peak parking demand of 127 spaces and an 85th percentile parking demand of 204 spaces, which can be accommodated by the proposed parking supply.

Survey of Similar Development

To further evaluate the adequacy of the proposed parking supply, parking occupancy surveys were conducted at the Eldridge Townhome development located in Elmhurst, Illinois. This development has a total of 58 townhome units, rear two car garages without driveway aprons, and a total of 38 surface parking spaces.

The surveys were conducted on a Friday and Saturday in January 2025 during the mid-morning, mid-afternoon, evening, and late evening. The results of the surveys are summarized in **Tables 12** and **13.** It should be noted that for the purposes of the parking surveys, all garage spaces were assumed to be occupied. As can be seen from Tables 12 and 13, the Eldridge Townhome development experienced a peak parking demand of 145 spaces (2.5 spaces per unit), occurring at 10:00 P.M. on Saturday

As such, the proposed parking supply for both the townhome and rowhome units can accommodate the estimated parking demand based on surveys conducted at a similar development.

Table 12
ELDRIDGE TOWNHOMES – PARKING OCCUPANCY SURVEYS – FRIDAY

	Garage Spaces	Eldridge Lane	Guest Spaces	Other	Total
Mid-Morning (10:00 A.M.)	116	9	12	0	**137**
Mid-Afternoon (2:00 P.M.)	116	8	13	0	**137**
Evening (6:00 P.M.)	116	10	12	1	**139**
Late Evening (10:00 P.M.	116	10	18	0	**144**

Table 13
ELDRIDGE TOWNHOMES – PARKING OCCUPANCY SURVEYS – SATURDAY

	Garage Spaces	Eldridge Lane	Guest Spaces	Other	Total
Mid-Morning (10:00 A.M.)	116	9	15	1	**141**
Mid-Afternoon (2:00 P.M.)	116	8	15	3	**142**
Evening (6:00 P.M.)	116	10	15	2	**143**
Late Evening (10:00 P.M.	116	9	20	0	**145**

6. Conclusion

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

- As proposed, the site will be developed with a residential development consisting of 90 townhomes.
- The area roadway system generally has sufficient reserve capacity to accommodate the traffic to be generated by the proposed development and no additional roadway improvements or traffic control modifications are required.
- The proposed development is only projected to increase the volume of traffic traversing the intersections of Ogden Avenue with Naper Boulevard and Naperville-Wheaton Road by less than one-half percent during the peak hours.
- With regional access to the proposed residential development provided via Ogden Avenue, Naperville-Wheaton Road, Burlington Avenue, and Plank Road, the site-generated traffic will be well distributed on the area roadway network with maximum site access flexibility.
- Given the angle of the southbound Tuthill Road approach to Plank Road, vegetation should not be provided within the right-of-way to maintain sight distance for westbound vehicles.
- As part of the development, sufficient right of way will be reserved for the future realignment of Tuthill Road at Plank Road to provide a 90-degree intersection.
- The proposed 274 parking spaces will be adequate in accommodating the anticipated peak parking demand for the development based on City of Naperville code, the ITE *Parking Generation Manual*, 6th Edition, and surveys conducted at a similar development.

Appendix

Traffic Count Summary Sheets
Site Plan
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets

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

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

Count Name: Ogden Avenue with Naper Boulevard TMC
Site Code:
Start Date: 07/23/2024

Turning Movement Data

Start Time	Ogden Avenue Eastbound						Ogden 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	App. Total	Int. Total
7:00 AM	0	30	125	13	0	168	0	11	86	29	0	126	0	33	237	6	1	276	0	34	53	2	89	659
7:15 AM	0	32	124	18	0	174	0	8	84	55	0	147	0	37	331	6	0	374	0	27	62	10	99	794
7:30 AM	0	38	183	19	0	240	0	15	99	53	1	167	0	38	375	14	1	427	0	33	84	5	122	956
7:45 AM	0	31	144	27	0	202	0	17	136	50	0	203	0	47	399	10	0	456	0	47	109	9	165	1026
Hourly Total	0	131	576	77	0	784	0	51	405	187	1	643	0	155	1342	36	2	1533	0	141	308	26	475	3435
8:00 AM	0	33	147	27	1	207	0	10	124	50	0	184	0	48	369	14	0	431	0	41	105	6	152	974
8:15 AM	0	35	147	16	0	198	0	6	114	49	1	169	0	48	357	10	0	415	0	43	108	5	156	938
8:30 AM	0	30	160	27	0	217	0	5	146	46	1	197	0	55	354	17	0	426	0	44	103	3	150	990
8:45 AM	0	36	119	28	0	183	0	10	147	47	0	204	0	53	288	15	0	356	0	41	121	10	172	915
Hourly Total	0	134	573	98	1	805	0	31	531	192	2	754	0	204	1368	56	0	1628	0	169	437	24	630	3817
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	40	150	67	0	257	0	31	202	68	0	301	0	48	153	14	1	215	0	61	290	21	372	1145
4:15 PM	0	44	163	60	0	267	0	31	194	50	0	275	0	45	179	5	0	229	0	71	281	19	371	1142
4:30 PM	0	45	159	62	0	266	0	35	198	48	0	281	0	48	168	11	0	227	0	87	272	19	378	1152
4:45 PM	0	38	150	67	1	255	0	36	224	67	0	327	0	54	197	10	0	261	0	54	316	23	393	1236
Hourly Total	0	167	622	256	1	1045	0	133	818	233	0	1184	0	195	697	40	1	932	0	273	1159	82	1514	4675
5:00 PM	0	38	177	64	1	279	0	39	220	62	1	321	0	43	160	11	0	214	0	62	321	15	398	1212
5:15 PM	0	40	178	72	0	290	0	40	198	51	0	289	0	42	192	12	0	246	0	90	315	20	425	1250
5:30 PM	0	29	158	59	1	246	0	29	221	55	0	305	0	54	187	13	0	254	0	75	290	19	384	1189
5:45 PM	0	33	144	75	0	252	0	34	217	50	0	301	0	55	177	11	0	243	0	52	266	14	332	1128
Hourly Total	0	140	657	270	2	1067	0	142	856	218	1	1216	0	194	716	47	0	957	0	279	1192	68	1539	4779
Grand Total	0	572	2428	701	4	3701	0	357	2610	830	4	3797	0	748	4123	179	3	5050	0	862	3096	200	4158	16706
Approach %	0.0	15.5	65.6	18.9	-	-	0.0	9.4	68.7	21.9	-	-	0.0	14.8	81.6	3.5	-	-	0.0	20.7	74.5	4.8	-	-
Total %	0.0	3.4	14.5	4.2	-	22.2	0.0	2.1	15.6	5.0	-	22.7	0.0	4.5	24.7	1.1	-	30.2	0.0	5.2	18.5	1.2	24.9	-
Lights	0	555	2360	686	-	3601	0	354	2553	810	-	3717	0	738	4092	177	-	5007	0	852	3070	188	4110	16435
% Lights	-	97.0	97.2	97.9	-	97.3	-	99.2	97.8	97.6	-	97.9	-	98.7	99.2	98.9	-	99.1	-	98.8	99.2	94.0	98.8	98.4
Buses	0	10	11	2	-	23	0	1	8	1	-	10	0	4	2	0	-	6	0	0	0	8	8	47
% Buses	-	1.7	0.5	0.3	-	0.6	-	0.3	0.3	0.1	-	0.3	-	0.5	0.0	0.0	-	0.1	-	0.0	0.0	4.0	0.2	0.3
Single-Unit Trucks	0	5	37	11	-	53	0	0	32	14	-	46	0	4	24	1	-	29	0	8	19	2	29	157
% Single-Unit Trucks	-	0.9	1.5	1.6	-	1.4	-	0.0	1.2	1.7	-	1.2	-	0.5	0.6	0.6	-	0.6	-	0.9	0.6	1.0	0.7	0.9
Articulated Trucks	0	2	20	2	-	24	0	2	17	5	-	24	0	2	5	1	-	8	0	2	7	2	11	67
% Articulated Trucks	-	0.3	0.8	0.3	-	0.6	-	0.6	0.7	0.6	-	0.6	-	0.3	0.1	0.6	-	0.2	-	0.2	0.2	1.0	0.3	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	-	-

% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Ogden Avenue with Naper Boulevard TMC
Site Code:
Start Date: 07/23/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Ogden Avenue Eastbound						Ogden 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	App. Total	Int. Total
7:45 AM	0	31	144	27	0	202	0	17	136	50	0	203	0	47	399	10	0	456	0	47	109	9	165	1026
8:00 AM	0	33	147	27	1	207	0	10	124	50	0	184	0	48	369	14	0	431	0	41	105	6	152	974
8:15 AM	0	35	147	16	0	198	0	6	114	49	1	169	0	48	357	10	0	415	0	43	108	5	156	938
8:30 AM	0	30	160	27	0	217	0	5	146	46	1	197	0	55	354	17	0	426	0	44	103	3	150	990
Total	0	129	598	97	1	824	0	38	520	195	2	753	0	198	1479	51	0	1728	0	175	425	23	623	3928
Approach %	0.0	15.7	72.6	11.8	-	-	0.0	5.0	69.1	25.9	-	-	0.0	11.5	85.6	3.0	-	-	0.0	28.1	68.2	3.7	-	-
Total %	0.0	3.3	15.2	2.5	-	21.0	0.0	1.0	13.2	5.0	-	19.2	0.0	5.0	37.7	1.3	-	44.0	0.0	4.5	10.8	0.6	15.9	-
PHF	0.000	0.921	0.934	0.898	-	0.949	0.000	0.559	0.890	0.975	-	0.927	0.000	0.900	0.927	0.750	-	0.947	0.000	0.931	0.975	0.639	0.944	0.957
Lights	0	125	570	92	-	787	0	37	493	183	-	713	0	193	1467	51	-	1711	0	172	414	19	605	3816
% Lights	-	96.9	95.3	94.8	-	95.5	-	97.4	94.8	93.8	-	94.7	-	97.5	99.2	100.0	-	99.0	-	98.3	97.4	82.6	97.1	97.1
Buses	0	3	2	0	-	5	0	1	5	1	-	7	0	3	2	0	-	5	0	0	0	2	2	19
% Buses	-	2.3	0.3	0.0	-	0.6	-	2.6	1.0	0.5	-	0.9	-	1.5	0.1	0.0	-	0.3	-	0.0	0.0	8.7	0.3	0.5
Single-Unit Trucks	0	0	20	5	-	25	0	0	12	7	-	19	0	2	9	0	-	11	0	2	9	1	12	67
% Single-Unit Trucks	-	0.0	3.3	5.2	-	3.0	-	0.0	2.3	3.6	-	2.5	-	1.0	0.6	0.0	-	0.6	-	1.1	2.1	4.3	1.9	1.7
Articulated Trucks	0	1	6	0	-	7	0	0	10	4	-	14	0	0	1	0	-	1	0	1	2	1	4	26
% Articulated Trucks	-	0.8	1.0	0.0	-	0.8	-	0.0	1.9	2.1	-	1.9	-	0.0	0.1	0.0	-	0.1	-	0.6	0.5	4.3	0.6	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	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 dfreeman@kloainc.com

Count Name: Ogden Avenue with Naper Boulevard TMC
Site Code:
Start Date: 07/23/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Ogden Avenue Eastbound						Ogden 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	App. Total	Int. Total
5:00 PM	0	38	177	64	1	279	0	39	220	62	1	321	0	43	160	11	0	214	0	62	321	15	398	1212
5:15 PM	0	40	178	72	0	290	0	40	198	51	0	289	0	42	192	12	0	246	0	90	315	20	425	1250
5:30 PM	0	29	158	59	1	246	0	29	221	55	0	305	0	54	187	13	0	254	0	75	290	19	384	1189
5:45 PM	0	33	144	75	0	252	0	34	217	50	0	301	0	55	177	11	0	243	0	52	266	14	332	1128
Total	0	140	657	270	2	1067	0	142	856	218	1	1216	0	194	716	47	0	957	0	279	1192	68	1539	4779
Approach %	0.0	13.1	61.6	25.3	-	-	0.0	11.7	70.4	17.9	-	-	0.0	20.3	74.8	4.9	-	-	0.0	18.1	77.5	4.4	-	-
Total %	0.0	2.9	13.7	5.6	-	22.3	0.0	3.0	17.9	4.6	-	25.4	0.0	4.1	15.0	1.0	-	20.0	0.0	5.8	24.9	1.4	32.2	-
PHF	0.000	0.875	0.923	0.900	-	0.920	0.000	0.888	0.968	0.879	-	0.947	0.000	0.882	0.932	0.904	-	0.942	0.000	0.775	0.928	0.850	0.905	0.956
Lights	0	136	650	267	-	1053	0	142	854	215	-	1211	0	194	713	45	-	952	0	279	1189	66	1534	4750
% Lights	-	97.1	98.9	98.9	-	98.7	-	100.0	99.8	98.6	-	99.6	-	100.0	99.6	95.7	-	99.5	-	100.0	99.7	97.1	99.7	99.4
Buses	0	3	0	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	2	2	5
% Buses	-	2.1	0.0	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.9	0.1	0.1
Single-Unit Trucks	0	1	5	2	-	8	0	0	2	3	-	5	0	0	3	1	-	4	0	0	2	0	2	19
% Single-Unit Trucks	-	0.7	0.8	0.7	-	0.7	-	0.0	0.2	1.4	-	0.4	-	0.0	0.4	2.1	-	0.4	-	0.0	0.2	0.0	0.1	0.4
Articulated Trucks	0	0	2	1	-	3	0	0	0	0	-	0	0	0	0	1	-	1	0	0	1	0	1	5
% Articulated Trucks	-	0.0	0.3	0.4	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.1	-	0.1	-	0.0	0.1	0.0	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	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 dfreeman@kloainc.com

Count Name: Ogden Avenue with Tuthill Road
TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Data

Start Time	Ogden Avenue Eastbound						Ogden Avenue Westbound						Tuthill Road Northbound						Access 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	154	2	0	156	0	1	96	0	0	97	0	0	0	7	0	7	0	0	0	1	1	1	261
7:15 AM	0	0	191	8	0	199	0	3	135	3	0	141	0	0	0	11	0	11	0	0	0	0	0	0	351
7:30 AM	0	2	210	6	0	218	0	4	152	6	0	162	0	1	0	9	0	10	0	0	0	1	1	1	391
7:45 AM	0	3	209	6	0	218	0	2	159	6	0	167	0	1	0	10	0	11	0	0	0	2	2	2	398
Hourly Total	0	5	764	22	0	791	0	10	542	15	0	567	0	2	0	37	0	39	0	0	0	4	4	4	1401
8:00 AM	0	0	191	3	0	194	0	6	166	7	0	179	0	0	0	7	0	7	0	0	0	1	0	1	381
8:15 AM	0	1	198	12	0	211	0	5	194	6	0	205	0	0	0	14	0	14	0	0	0	3	1	3	433
8:30 AM	0	0	204	7	0	211	0	1	188	11	0	200	0	3	0	10	0	13	0	0	0	5	0	5	429
8:45 AM	0	1	209	6	0	216	0	3	200	14	0	217	0	2	1	12	0	15	0	0	0	4	0	4	452
Hourly Total	0	2	802	28	0	832	0	15	748	38	0	801	0	5	1	43	0	49	0	0	0	13	1	13	1695
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	261	10	0	272	0	8	236	3	0	247	0	1	0	11	1	12	0	0	0	11	0	11	542
4:15 PM	0	2	270	5	0	277	0	3	258	6	0	267	0	4	0	9	1	13	0	0	0	10	0	10	567
4:30 PM	0	1	289	8	0	298	0	4	249	7	0	260	0	0	0	11	1	11	0	0	0	7	0	7	576
4:45 PM	0	0	269	13	0	282	0	6	275	14	0	295	0	1	0	14	4	15	0	0	0	7	0	7	599
Hourly Total	0	4	1089	36	0	1129	0	21	1018	30	0	1069	0	6	0	45	7	51	0	0	0	35	0	35	2284
5:00 PM	0	1	290	10	0	301	0	5	279	2	0	286	0	3	0	17	0	20	0	1	0	12	2	13	620
5:15 PM	1	1	287	8	0	297	0	5	296	9	0	310	0	0	0	8	0	8	0	0	0	9	2	9	624
5:30 PM	0	2	285	11	0	298	0	5	265	4	0	274	0	5	0	17	0	22	0	0	0	7	0	7	601
5:45 PM	0	1	255	6	0	262	0	4	268	12	0	284	0	4	0	9	0	13	0	0	0	11	0	11	570
Hourly Total	1	5	1117	35	0	1158	0	19	1108	27	0	1154	0	12	0	51	0	63	0	1	0	39	4	40	2415
Grand Total	1	16	3772	121	0	3910	0	65	3416	110	0	3591	0	25	1	176	7	202	0	1	0	91	9	92	7795
Approach %	0.0	0.4	96.5	3.1	-	-	0.0	1.8	95.1	3.1	-	-	0.0	12.4	0.5	87.1	-	-	0.0	1.1	0.0	98.9	-	-	-
Total %	0.0	0.2	48.4	1.6	-	50.2	0.0	0.8	43.8	1.4	-	46.1	0.0	0.3	0.0	2.3	-	2.6	0.0	0.0	0.0	1.2	-	1.2	-
Lights	1	16	3657	118	-	3792	0	63	3303	108	-	3474	0	25	1	173	-	199	0	1	0	91	-	92	7557
% Lights	100.0	100.0	97.0	97.5	-	97.0	-	96.9	96.7	98.2	-	96.7	-	100.0	100.0	98.3	-	98.5	-	100.0	-	100.0	-	100.0	96.9
Buses	0	0	22	0	-	22	0	2	24	0	-	26	0	0	0	2	-	2	0	0	0	0	-	0	50
% Buses	0.0	0.0	0.6	0.0	-	0.6	-	3.1	0.7	0.0	-	0.7	-	0.0	0.0	1.1	-	1.0	-	0.0	-	0.0	-	0.0	0.6
Single-Unit Trucks	0	0	53	3	-	56	0	0	49	0	-	49	0	0	0	1	-	1	0	0	0	0	-	0	106
% Single-Unit Trucks	0.0	0.0	1.4	2.5	-	1.4	-	0.0	1.4	0.0	-	1.4	-	0.0	0.0	0.6	-	0.5	-	0.0	-	0.0	-	0.0	1.4
Articulated Trucks	0	0	40	0	-	40	0	0	40	1	-	41	0	0	0	0	-	0	0	0	0	0	-	0	81
% Articulated Trucks	0.0	0.0	1.1	0.0	-	1.0	-	0.0	1.2	0.9	-	1.1	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	1	-	1	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	0.9	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	9	-	-
% 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 dfreeman@kloainc.com

Count Name: Ogden Avenue with Tuthill Road
TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Ogden Avenue Eastbound						Ogden Avenue Westbound						Tuthill Road Northbound						Access 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	
7:45 AM	0	3	209	6	0	218	0	2	159	6	0	167	0	1	0	10	0	11	0	0	0	2	2	2	398
8:00 AM	0	0	191	3	0	194	0	6	166	7	0	179	0	0	0	7	0	7	0	0	0	1	0	1	381
8:15 AM	0	1	198	12	0	211	0	5	194	6	0	205	0	0	0	14	0	14	0	0	0	3	1	3	433
8:30 AM	0	0	204	7	0	211	0	1	188	11	0	200	0	3	0	10	0	13	0	0	0	5	0	5	429
Total	0	4	802	28	0	834	0	14	707	30	0	751	0	4	0	41	0	45	0	0	0	11	3	11	1641
Approach %	0.0	0.5	96.2	3.4	-	-	0.0	1.9	94.1	4.0	-	-	0.0	8.9	0.0	91.1	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.2	48.9	1.7	-	50.8	0.0	0.9	43.1	1.8	-	45.8	0.0	0.2	0.0	2.5	-	2.7	0.0	0.0	0.0	0.7	-	0.7	-
PHF	0.000	0.333	0.959	0.583	-	0.956	0.000	0.583	0.911	0.682	-	0.916	0.000	0.333	0.000	0.732	-	0.804	0.000	0.000	0.000	0.550	-	0.550	0.947
Lights	0	4	760	27	-	791	0	14	647	29	-	690	0	4	0	40	-	44	0	0	0	11	-	11	1536
% Lights	-	100.0	94.8	96.4	-	94.8	-	100.0	91.5	96.7	-	91.9	-	100.0	-	97.6	-	97.8	-	-	-	100.0	-	100.0	93.6
Buses	0	0	4	0	-	4	0	0	11	0	-	11	0	0	0	0	-	0	0	0	0	0	-	0	15
% Buses	-	0.0	0.5	0.0	-	0.5	-	0.0	1.6	0.0	-	1.5	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.9
Single-Unit Trucks	0	0	22	1	-	23	0	0	25	0	-	25	0	0	0	1	-	1	0	0	0	0	-	0	49
% Single-Unit Trucks	-	0.0	2.7	3.6	-	2.8	-	0.0	3.5	0.0	-	3.3	-	0.0	-	2.4	-	2.2	-	-	-	0.0	-	0.0	3.0
Articulated Trucks	0	0	16	0	-	16	0	0	24	1	-	25	0	0	0	0	-	0	0	0	0	0	-	0	41
% Articulated Trucks	-	0.0	2.0	0.0	-	1.9	-	0.0	3.4	3.3	-	3.3	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	2.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Ogden Avenue with Tuthill Road
TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Ogden Avenue Eastbound						Ogden Avenue Westbound						Tuthill Road Northbound						Access 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	
5:00 PM	0	1	290	10	0	301	0	5	279	2	0	286	0	3	0	17	0	20	0	1	0	12	2	13	620
5:15 PM	1	1	287	8	0	297	0	5	296	9	0	310	0	0	0	8	0	8	0	0	0	9	2	9	624
5:30 PM	0	2	285	11	0	298	0	5	265	4	0	274	0	5	0	17	0	22	0	0	0	7	0	7	601
5:45 PM	0	1	255	6	0	262	0	4	268	12	0	284	0	4	0	9	0	13	0	0	0	11	0	11	570
Total	1	5	1117	35	0	1158	0	19	1108	27	0	1154	0	12	0	51	0	63	0	1	0	39	4	40	2415
Approach %	0.1	0.4	96.5	3.0	-	-	0.0	1.6	96.0	2.3	-	-	0.0	19.0	0.0	81.0	-	-	0.0	2.5	0.0	97.5	-	-	-
Total %	0.0	0.2	46.3	1.4	-	48.0	0.0	0.8	45.9	1.1	-	47.8	0.0	0.5	0.0	2.1	-	2.6	0.0	0.0	0.0	1.6	-	1.7	-
PHF	0.250	0.625	0.963	0.795	-	0.962	0.000	0.950	0.936	0.563	-	0.931	0.000	0.600	0.000	0.750	-	0.716	0.000	0.250	0.000	0.813	-	0.769	0.968
Lights	1	5	1100	34	-	1140	0	18	1101	26	-	1145	0	12	0	50	-	62	0	1	0	39	-	40	2387
% Lights	100.0	100.0	98.5	97.1	-	98.4	-	94.7	99.4	96.3	-	99.2	-	100.0	-	98.0	-	98.4	-	100.0	-	100.0	-	100.0	98.8
Buses	0	0	3	0	-	3	0	1	2	0	-	3	0	0	0	1	-	1	0	0	0	0	-	0	7
% Buses	0.0	0.0	0.3	0.0	-	0.3	-	5.3	0.2	0.0	-	0.3	-	0.0	-	2.0	-	1.6	-	0.0	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	10	1	-	11	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	15
% Single-Unit Trucks	0.0	0.0	0.9	2.9	-	0.9	-	0.0	0.4	0.0	-	0.3	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6
Articulated Trucks	0	0	4	0	-	4	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	5
% Articulated Trucks	0.0	0.0	0.4	0.0	-	0.3	-	0.0	0.1	0.0	-	0.1	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	1	-	1	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	3.7	-	0.1	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Ogden+with+Naperville+Wheaton
TMC
Site Code:
Start Date: 07/23/2024

Turning Movement Data

Start Time	Ogden Avenue Eastbound						Ogden Avenue Westbound						Naperville Wheaton Road Northbound						Naperville Wheaton Road 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	82	142	3	0	227	0	5	95	6	0	106	0	2	4	2	1	8	0	6	7	37	0	50	391
7:15 AM	0	81	161	8	0	250	0	4	127	1	0	132	0	5	13	0	0	18	0	5	8	47	0	60	460
7:30 AM	0	100	211	2	0	313	0	8	117	3	0	128	0	1	12	2	0	15	0	8	8	46	0	62	518
7:45 AM	0	97	185	8	0	290	0	8	173	4	0	185	0	3	12	3	1	18	0	14	21	78	0	113	606
Hourly Total	0	360	699	21	0	1080	0	25	512	14	0	551	0	11	41	7	2	59	0	33	44	208	0	285	1975
8:00 AM	0	87	177	7	0	271	0	9	158	4	0	171	0	6	16	2	0	24	0	12	12	52	0	76	542
8:15 AM	0	79	182	5	0	266	0	1	164	12	0	177	0	8	16	4	0	28	0	13	14	67	0	94	565
8:30 AM	0	66	202	0	0	268	0	6	187	6	0	199	0	9	13	3	0	25	0	10	6	71	0	87	579
8:45 AM	0	65	183	12	0	260	0	8	186	16	0	210	0	4	15	2	1	21	0	10	11	57	0	78	569
Hourly Total	0	297	744	24	0	1065	0	24	695	38	0	757	0	27	60	11	1	98	0	45	43	247	0	335	2255
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	83	199	14	0	296	0	12	226	13	0	251	0	13	13	9	0	35	0	41	25	103	0	169	751
4:15 PM	0	55	242	13	0	310	0	6	232	14	0	252	0	12	11	8	0	31	0	35	18	93	0	146	739
4:30 PM	0	59	232	14	0	305	0	14	231	12	0	257	0	13	16	3	1	32	0	39	33	82	0	154	748
4:45 PM	0	65	213	17	0	295	0	13	239	11	0	263	0	10	14	8	0	32	0	34	37	82	0	153	743
Hourly Total	0	262	886	58	0	1206	0	45	928	50	0	1023	0	48	54	28	1	130	0	149	113	360	0	622	2981
5:00 PM	0	67	256	16	0	339	0	6	243	22	0	271	0	10	8	8	2	26	0	28	33	103	0	164	800
5:15 PM	0	76	230	22	0	328	0	10	238	9	0	257	0	12	15	4	2	31	0	37	38	83	0	158	774
5:30 PM	0	66	194	15	1	275	0	10	250	20	0	280	0	8	14	6	2	28	0	30	36	87	0	153	736
5:45 PM	0	73	202	10	0	285	0	10	264	12	0	286	0	14	12	11	4	37	0	37	26	102	0	165	773
Hourly Total	0	282	882	63	1	1227	0	36	995	63	0	1094	0	44	49	29	10	122	0	132	133	375	0	640	3083
Grand Total	0	1201	3211	166	1	4578	0	130	3130	165	0	3425	0	130	204	75	14	409	0	359	333	1190	0	1882	10294
Approach %	0.0	26.2	70.1	3.6	-	-	0.0	3.8	91.4	4.8	-	-	0.0	31.8	49.9	18.3	-	-	0.0	19.1	17.7	63.2	-	-	-
Total %	0.0	11.7	31.2	1.6	-	44.5	0.0	1.3	30.4	1.6	-	33.3	0.0	1.3	2.0	0.7	-	4.0	0.0	3.5	3.2	11.6	-	18.3	-
Lights	0	1173	3113	164	-	4450	0	130	3046	162	-	3338	0	128	204	74	-	406	0	351	333	1171	-	1855	10049
% Lights	-	97.7	96.9	98.8	-	97.2	-	100.0	97.3	98.2	-	97.5	-	98.5	100.0	98.7	-	99.3	-	97.8	100.0	98.4	-	98.6	97.6
Buses	0	4	22	0	-	26	0	0	21	0	-	21	0	0	0	0	-	0	0	2	0	3	-	5	52
% Buses	-	0.3	0.7	0.0	-	0.6	-	0.0	0.7	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.6	0.0	0.3	-	0.3	0.5
Single-Unit Trucks	0	18	42	1	-	61	0	0	40	2	-	42	0	2	0	1	-	3	0	3	0	11	-	14	120
% Single-Unit Trucks	-	1.5	1.3	0.6	-	1.3	-	0.0	1.3	1.2	-	1.2	-	1.5	0.0	1.3	-	0.7	-	0.8	0.0	0.9	-	0.7	1.2
Articulated Trucks	0	6	34	0	-	40	0	0	23	1	-	24	0	0	0	0	-	0	0	3	0	5	-	8	72
% Articulated Trucks	-	0.5	1.1	0.0	-	0.9	-	0.0	0.7	0.6	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.8	0.0	0.4	-	0.4	0.7
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1

% Bicycles on Road	-	0.0	0.0	0.6	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	14	-	-	-	-	-	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 dfreeman@kloainc.com

Count Name: Ogden+with+Naperville+Wheaton
TMC
Site Code:
Start Date: 07/23/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Ogden Avenue Eastbound						Ogden Avenue Westbound						Naperville Wheaton Road Northbound						Naperville Wheaton Road 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	
7:45 AM	0	97	185	8	0	290	0	8	173	4	0	185	0	3	12	3	1	18	0	14	21	78	0	113	606
8:00 AM	0	87	177	7	0	271	0	9	158	4	0	171	0	6	16	2	0	24	0	12	12	52	0	76	542
8:15 AM	0	79	182	5	0	266	0	1	164	12	0	177	0	8	16	4	0	28	0	13	14	67	0	94	565
8:30 AM	0	66	202	0	0	268	0	6	187	6	0	199	0	9	13	3	0	25	0	10	6	71	0	87	579
Total	0	329	746	20	0	1095	0	24	682	26	0	732	0	26	57	12	1	95	0	49	53	268	0	370	2292
Approach %	0.0	30.0	68.1	1.8	-	-	0.0	3.3	93.2	3.6	-	-	0.0	27.4	60.0	12.6	-	-	0.0	13.2	14.3	72.4	-	-	-
Total %	0.0	14.4	32.5	0.9	-	47.8	0.0	1.0	29.8	1.1	-	31.9	0.0	1.1	2.5	0.5	-	4.1	0.0	2.1	2.3	11.7	-	16.1	-
PHF	0.000	0.848	0.923	0.625	-	0.944	0.000	0.667	0.912	0.542	-	0.920	0.000	0.722	0.891	0.750	-	0.848	0.000	0.875	0.631	0.859	-	0.819	0.946
Lights	0	320	706	20	-	1046	0	24	641	24	-	689	0	26	57	12	-	95	0	46	53	260	-	359	2189
% Lights	-	97.3	94.6	100.0	-	95.5	-	100.0	94.0	92.3	-	94.1	-	100.0	100.0	100.0	-	100.0	-	93.9	100.0	97.0	-	97.0	95.5
Buses	0	1	5	0	-	6	0	0	10	0	-	10	0	0	0	0	-	0	0	1	0	1	-	2	18
% Buses	-	0.3	0.7	0.0	-	0.5	-	0.0	1.5	0.0	-	1.4	-	0.0	0.0	0.0	-	0.0	-	2.0	0.0	0.4	-	0.5	0.8
Single-Unit Trucks	0	6	19	0	-	25	0	0	18	1	-	19	0	0	0	0	-	0	0	0	0	3	-	3	47
% Single-Unit Trucks	-	1.8	2.5	0.0	-	2.3	-	0.0	2.6	3.8	-	2.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	1.1	-	0.8	2.1
Articulated Trucks	0	2	16	0	-	18	0	0	13	1	-	14	0	0	0	0	-	0	0	2	0	4	-	6	38
% Articulated Trucks	-	0.6	2.1	0.0	-	1.6	-	0.0	1.9	3.8	-	1.9	-	0.0	0.0	0.0	-	0.0	-	4.1	0.0	1.5	-	1.6	1.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: Ogden+with+Naperville+Wheaton
TMC
Site Code:
Start Date: 07/23/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Ogden Avenue Eastbound						Ogden Avenue Westbound						Naperville Wheaton Road Northbound						Naperville Wheaton Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	67	256	16	0	339	0	6	243	22	0	271	0	10	8	8	2	26	0	28	33	103	0	164	800
5:15 PM	0	76	230	22	0	328	0	10	238	9	0	257	0	12	15	4	2	31	0	37	38	83	0	158	774
5:30 PM	0	66	194	15	1	275	0	10	250	20	0	280	0	8	14	6	2	28	0	30	36	87	0	153	736
5:45 PM	0	73	202	10	0	285	0	10	264	12	0	286	0	14	12	11	4	37	0	37	26	102	0	165	773
Total	0	282	882	63	1	1227	0	36	995	63	0	1094	0	44	49	29	10	122	0	132	133	375	0	640	3083
Approach %	0.0	23.0	71.9	5.1	-	-	0.0	3.3	91.0	5.8	-	-	0.0	36.1	40.2	23.8	-	-	0.0	20.6	20.8	58.6	-	-	-
Total %	0.0	9.1	28.6	2.0	-	39.8	0.0	1.2	32.3	2.0	-	35.5	0.0	1.4	1.6	0.9	-	4.0	0.0	4.3	4.3	12.2	-	20.8	-
PHF	0.000	0.928	0.861	0.716	-	0.905	0.000	0.900	0.942	0.716	-	0.956	0.000	0.786	0.817	0.659	-	0.824	0.000	0.892	0.875	0.910	-	0.970	0.963
Lights	0	277	872	63	-	1212	0	36	991	63	-	1090	0	44	49	29	-	122	0	131	133	372	-	636	3060
% Lights	-	98.2	98.9	100.0	-	98.8	-	100.0	99.6	100.0	-	99.6	-	100.0	100.0	100.0	-	100.0	-	99.2	100.0	99.2	-	99.4	99.3
Buses	0	0	2	0	-	2	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	1	-	1	5
% Buses	-	0.0	0.2	0.0	-	0.2	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.3	-	0.2	0.2
Single-Unit Trucks	0	3	7	0	-	10	0	0	2	0	-	2	0	0	0	0	-	0	0	1	0	2	-	3	15
% Single-Unit Trucks	-	1.1	0.8	0.0	-	0.8	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.8	0.0	0.5	-	0.5	0.5
Articulated Trucks	0	2	1	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	-	0.7	0.1	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
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
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	10	-	-	-	-	-	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 dfreeman@kloainc.com

Count Name: Naper+Boulevard+with+Plank+Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Data

Start Time	Plank Road Eastbound						Plank Road Westbound						Naper Blvd. Northbound						Naper Blvd. 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	15	8	9	0	32	0	6	4	3	0	13	0	12	274	21	0	307	0	6	89	5	1	100	452
7:15 AM	0	18	16	18	0	52	0	3	6	2	0	11	0	26	336	13	0	375	0	3	70	9	0	82	520
7:30 AM	0	17	8	11	0	36	0	12	8	4	0	24	0	23	433	16	0	472	0	3	96	5	0	104	636
7:45 AM	0	22	12	24	0	58	0	12	9	4	0	25	0	32	373	26	0	431	0	0	132	6	0	138	652
Hourly Total	0	72	44	62	0	178	0	33	27	13	0	73	0	93	1416	76	0	1585	0	12	387	25	1	424	2260
8:00 AM	0	22	12	22	0	56	0	4	13	0	0	17	0	27	393	22	0	442	0	5	120	5	0	130	645
8:15 AM	0	26	10	29	0	65	0	8	8	3	0	19	0	27	362	11	0	400	0	1	101	8	0	110	594
8:30 AM	0	15	14	19	0	48	0	12	7	4	0	23	0	37	343	19	0	399	0	4	149	7	0	160	630
8:45 AM	0	22	14	21	0	57	0	14	14	6	0	34	0	43	296	18	0	357	0	1	145	12	0	158	606
Hourly Total	0	85	50	91	0	226	0	38	42	13	0	93	0	134	1394	70	0	1598	0	11	515	32	0	558	2475
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	25	13	51	1	89	0	16	12	3	0	31	0	34	180	11	0	225	0	6	327	18	0	351	696
4:15 PM	0	21	12	51	0	84	0	28	21	2	0	51	0	31	208	15	0	254	0	8	310	14	0	332	721
4:30 PM	0	19	8	54	0	81	0	20	16	3	0	39	0	34	226	17	0	277	1	5	324	29	0	359	756
4:45 PM	0	15	13	62	0	90	0	22	15	3	0	40	0	36	251	13	0	300	0	3	342	12	0	357	787
Hourly Total	0	80	46	218	1	344	0	86	64	11	0	161	0	135	865	56	0	1056	1	22	1303	73	0	1399	2960
5:00 PM	0	22	17	51	0	90	0	30	18	5	0	53	0	41	248	8	0	297	0	2	401	12	0	415	855
5:15 PM	0	10	19	61	0	90	0	24	19	1	0	44	0	32	205	14	0	251	0	4	390	25	0	419	804
5:30 PM	0	13	14	66	0	93	0	21	23	4	0	48	0	35	202	18	0	255	0	1	397	33	0	431	827
5:45 PM	0	19	17	43	0	79	0	15	17	2	0	34	0	27	232	13	0	272	0	7	343	13	0	363	748
Hourly Total	0	64	67	221	0	352	0	90	77	12	0	179	0	135	887	53	0	1075	0	14	1531	83	0	1628	3234
Grand Total	0	301	207	592	1	1100	0	247	210	49	0	506	0	497	4562	255	0	5314	1	59	3736	213	1	4009	10929
Approach %	0.0	27.4	18.8	53.8	-	-	0.0	48.8	41.5	9.7	-	-	0.0	9.4	85.8	4.8	-	-	0.0	1.5	93.2	5.3	-	-	-
Total %	0.0	2.8	1.9	5.4	-	10.1	0.0	2.3	1.9	0.4	-	4.6	0.0	4.5	41.7	2.3	-	48.6	0.0	0.5	34.2	1.9	-	36.7	-
Lights	0	293	206	590	-	1089	0	243	207	45	-	495	0	496	4524	253	-	5273	1	58	3682	210	-	3951	10808
% Lights	-	97.3	99.5	99.7	-	99.0	-	98.4	98.6	91.8	-	97.8	-	99.8	99.2	99.2	-	99.2	100.0	98.3	98.6	98.6	-	98.6	98.9
Buses	0	1	0	0	-	1	0	0	0	0	-	0	0	0	8	1	-	9	0	0	8	0	-	8	18
% Buses	-	0.3	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.4	-	0.2	0.0	0.0	0.2	0.0	-	0.2	0.2
Single-Unit Trucks	0	5	1	1	-	7	0	3	3	3	-	9	0	1	27	1	-	29	0	1	43	2	-	46	91
% Single-Unit Trucks	-	1.7	0.5	0.2	-	0.6	-	1.2	1.4	6.1	-	1.8	-	0.2	0.6	0.4	-	0.5	0.0	1.7	1.2	0.9	-	1.1	0.8
Articulated Trucks	0	2	0	1	-	3	0	1	0	1	-	2	0	0	3	0	-	3	0	0	3	1	-	4	12
% Articulated Trucks	-	0.7	0.0	0.2	-	0.3	-	0.4	0.0	2.0	-	0.4	-	0.0	0.1	0.0	-	0.1	0.0	0.0	0.1	0.5	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% 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 dfreeman@kloainc.com

Count Name: Naper+Boulevard+with+Plank+Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Plank Road Eastbound						Plank Road 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
7:45 AM	0	22	12	24	0	58	0	12	9	4	0	25	0	32	373	26	0	431	0	0	132	6	0	138	652
8:00 AM	0	22	12	22	0	56	0	4	13	0	0	17	0	27	393	22	0	442	0	5	120	5	0	130	645
8:15 AM	0	26	10	29	0	65	0	8	8	3	0	19	0	27	362	11	0	400	0	1	101	8	0	110	594
8:30 AM	0	15	14	19	0	48	0	12	7	4	0	23	0	37	343	19	0	399	0	4	149	7	0	160	630
Total	0	85	48	94	0	227	0	36	37	11	0	84	0	123	1471	78	0	1672	0	10	502	26	0	538	2521
Approach %	0.0	37.4	21.1	41.4	-	-	0.0	42.9	44.0	13.1	-	-	0.0	7.4	88.0	4.7	-	-	0.0	1.9	93.3	4.8	-	-	-
Total %	0.0	3.4	1.9	3.7	-	9.0	0.0	1.4	1.5	0.4	-	3.3	0.0	4.9	58.3	3.1	-	66.3	0.0	0.4	19.9	1.0	-	21.3	-
PHF	0.000	0.817	0.857	0.810	-	0.873	0.000	0.750	0.712	0.688	-	0.840	0.000	0.831	0.936	0.750	-	0.946	0.000	0.500	0.842	0.813	-	0.841	0.967
Lights	0	82	48	92	-	222	0	35	34	11	-	80	0	122	1452	77	-	1651	0	10	480	25	-	515	2468
% Lights	-	96.5	100.0	97.9	-	97.8	-	97.2	91.9	100.0	-	95.2	-	99.2	98.7	98.7	-	98.7	-	100.0	95.6	96.2	-	95.7	97.9
Buses	0	1	0	0	-	1	0	0	0	0	-	0	0	0	5	1	-	6	0	0	6	0	-	6	13
% Buses	-	1.2	0.0	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.3	1.3	-	0.4	-	0.0	1.2	0.0	-	1.1	0.5
Single-Unit Trucks	0	2	0	1	-	3	0	1	3	0	-	4	0	1	12	0	-	13	0	0	15	0	-	15	35
% Single-Unit Trucks	-	2.4	0.0	1.1	-	1.3	-	2.8	8.1	0.0	-	4.8	-	0.8	0.8	0.0	-	0.8	-	0.0	3.0	0.0	-	2.8	1.4
Articulated Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	1	1	-	2	5
% Articulated Trucks	-	0.0	0.0	1.1	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.2	3.8	-	0.4	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	-	-	-	-	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 dfreeman@kloainc.com

Count Name: Naper+Boulevard+with+Plank+Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Plank Road Eastbound						Plank Road 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	22	17	51	0	90	0	30	18	5	0	53	0	41	248	8	0	297	0	2	401	12	0	415	855
5:15 PM	0	10	19	61	0	90	0	24	19	1	0	44	0	32	205	14	0	251	0	4	390	25	0	419	804
5:30 PM	0	13	14	66	0	93	0	21	23	4	0	48	0	35	202	18	0	255	0	1	397	33	0	431	827
5:45 PM	0	19	17	43	0	79	0	15	17	2	0	34	0	27	232	13	0	272	0	7	343	13	0	363	748
Total	0	64	67	221	0	352	0	90	77	12	0	179	0	135	887	53	0	1075	0	14	1531	83	0	1628	3234
Approach %	0.0	18.2	19.0	62.8	-	-	0.0	50.3	43.0	6.7	-	-	0.0	12.6	82.5	4.9	-	-	0.0	0.9	94.0	5.1	-	-	-
Total %	0.0	2.0	2.1	6.8	-	10.9	0.0	2.8	2.4	0.4	-	5.5	0.0	4.2	27.4	1.6	-	33.2	0.0	0.4	47.3	2.6	-	50.3	-
PHF	0.000	0.727	0.882	0.837	-	0.946	0.000	0.750	0.837	0.600	-	0.844	0.000	0.823	0.894	0.736	-	0.905	0.000	0.500	0.954	0.629	-	0.944	0.946
Lights	0	63	67	221	-	351	0	89	77	12	-	178	0	135	882	53	-	1070	0	14	1526	82	-	1622	3221
% Lights	-	98.4	100.0	100.0	-	99.7	-	98.9	100.0	100.0	-	99.4	-	100.0	99.4	100.0	-	99.5	-	100.0	99.7	98.8	-	99.6	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	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	5	0	-	5	0	0	5	1	-	6	11
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	0.3	1.2	-	0.4	0.3
Articulated Trucks	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	1.6	0.0	0.0	-	0.3	-	1.1	0.0	0.0	-	0.6	-	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	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Naperville Wheaton Road with Plank Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Data

Start Time	Naperville Wheaton Road Eastbound					Plank Road Westbound					Naperville Wheaton Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	14	36	0	50	0	13	4	0	17	0	6	6	2	12	79
7:15 AM	0	10	36	0	46	0	26	12	0	38	0	5	4	2	9	93
7:30 AM	0	17	31	0	48	0	23	11	0	34	0	7	9	0	16	98
7:45 AM	0	22	53	0	75	0	35	16	0	51	0	10	13	1	23	149
Hourly Total	0	63	156	0	219	0	97	43	0	140	0	28	32	5	60	419
8:00 AM	0	23	45	0	68	0	30	14	0	44	0	8	15	0	23	135
8:15 AM	0	20	49	0	69	0	21	22	0	43	0	14	14	1	28	140
8:30 AM	0	23	40	0	63	0	38	15	0	53	0	6	11	1	17	133
8:45 AM	0	29	45	0	74	0	49	17	0	66	0	9	16	0	25	165
Hourly Total	0	95	179	0	274	0	138	68	0	206	0	37	56	2	93	573
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	9	49	0	58	0	53	12	0	65	0	35	33	0	68	191
4:15 PM	0	22	55	0	77	0	48	15	0	63	0	30	34	0	64	204
4:30 PM	0	19	42	0	61	0	64	10	0	74	0	30	38	0	68	203
4:45 PM	0	19	54	0	73	0	60	12	0	72	0	37	48	0	85	230
Hourly Total	0	69	200	0	269	0	225	49	0	274	0	132	153	0	285	828
5:00 PM	0	22	57	0	79	0	52	18	0	70	0	37	41	0	78	227
5:15 PM	0	33	46	0	79	0	63	15	0	78	0	37	41	0	78	235
5:30 PM	0	17	57	0	74	0	83	13	0	96	0	40	47	0	87	257
5:45 PM	0	29	37	0	66	0	46	10	0	56	0	27	34	0	61	183
Hourly Total	0	101	197	0	298	0	244	56	0	300	0	141	163	0	304	902
Grand Total	0	328	732	0	1060	0	704	216	0	920	0	338	404	7	742	2722
Approach %	0.0	30.9	69.1	-	-	0.0	76.5	23.5	-	-	0.0	45.6	54.4	-	-	-
Total %	0.0	12.0	26.9	-	38.9	0.0	25.9	7.9	-	33.8	0.0	12.4	14.8	-	27.3	-
Lights	0	326	726	-	1052	0	699	214	-	913	0	336	402	-	738	2703
% Lights	-	99.4	99.2	-	99.2	-	99.3	99.1	-	99.2	-	99.4	99.5	-	99.5	99.3
Buses	0	0	1	-	1	0	0	0	-	0	0	0	0	-	0	1
% Buses	-	0.0	0.1	-	0.1	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	2	2	-	4	0	4	1	-	5	0	1	2	-	3	12
% Single-Unit Trucks	-	0.6	0.3	-	0.4	-	0.6	0.5	-	0.5	-	0.3	0.5	-	0.4	0.4
Articulated Trucks	0	0	3	-	3	0	1	0	-	1	0	1	0	-	1	5
% Articulated Trucks	-	0.0	0.4	-	0.3	-	0.1	0.0	-	0.1	-	0.3	0.0	-	0.1	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	0.5	-	0.1	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Naperville Wheaton Road with Plank Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Naperville Wheaton Road Eastbound					Plank Road Westbound					Naperville Wheaton Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:45 AM	0	22	53	0	75	0	35	16	0	51	0	10	13	1	23	149
8:00 AM	0	23	45	0	68	0	30	14	0	44	0	8	15	0	23	135
8:15 AM	0	20	49	0	69	0	21	22	0	43	0	14	14	1	28	140
8:30 AM	0	23	40	0	63	0	38	15	0	53	0	6	11	1	17	133
Total	0	88	187	0	275	0	124	67	0	191	0	38	53	3	91	557
Approach %	0.0	32.0	68.0	-	-	0.0	64.9	35.1	-	-	0.0	41.8	58.2	-	-	-
Total %	0.0	15.8	33.6	-	49.4	0.0	22.3	12.0	-	34.3	0.0	6.8	9.5	-	16.3	-
PHF	0.000	0.957	0.882	-	0.917	0.000	0.816	0.761	-	0.901	0.000	0.679	0.883	-	0.813	0.935
Lights	0	88	186	-	274	0	121	65	-	186	0	37	53	-	90	550
% Lights	-	100.0	99.5	-	99.6	-	97.6	97.0	-	97.4	-	97.4	100.0	-	98.9	98.7
Buses	0	0	1	-	1	0	0	0	-	0	0	0	0	-	0	1
% Buses	-	0.0	0.5	-	0.4	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	0	-	0	0	2	1	-	3	0	0	0	-	0	3
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	1.6	1.5	-	1.6	-	0.0	0.0	-	0.0	0.5
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	1	0	-	1	2
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.8	0.0	-	0.5	-	2.6	0.0	-	1.1	0.4
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	1.5	-	0.5	-	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Naperville Wheaton Road with Plank Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Naperville Wheaton Road Eastbound					Plank Road Westbound					Naperville Wheaton Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
5:00 PM	0	22	57	0	79	0	52	18	0	70	0	37	41	0	78	227
5:15 PM	0	33	46	0	79	0	63	15	0	78	0	37	41	0	78	235
5:30 PM	0	17	57	0	74	0	83	13	0	96	0	40	47	0	87	257
5:45 PM	0	29	37	0	66	0	46	10	0	56	0	27	34	0	61	183
Total	0	101	197	0	298	0	244	56	0	300	0	141	163	0	304	902
Approach %	0.0	33.9	66.1	-	-	0.0	81.3	18.7	-	-	0.0	46.4	53.6	-	-	-
Total %	0.0	11.2	21.8	-	33.0	0.0	27.1	6.2	-	33.3	0.0	15.6	18.1	-	33.7	-
PHF	0.000	0.765	0.864	-	0.943	0.000	0.735	0.778	-	0.781	0.000	0.881	0.867	-	0.874	0.877
Lights	0	100	195	-	295	0	243	56	-	299	0	140	162	-	302	896
% Lights	-	99.0	99.0	-	99.0	-	99.6	100.0	-	99.7	-	99.3	99.4	-	99.3	99.3
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	1	0	-	1	0	1	0	-	1	0	1	1	-	2	4
% Single-Unit Trucks	-	1.0	0.0	-	0.3	-	0.4	0.0	-	0.3	-	0.7	0.6	-	0.7	0.4
Articulated Trucks	0	0	2	-	2	0	0	0	-	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	1.0	-	0.7	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	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.
9575 W. Higgins Rd., Suite 400

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

Count Name: Naperville-Wheaton+Road+with+Burlington+Avenue TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Data

Start Time	Burlington Avenue Eastbound						Burlington Avenue Westbound						Naperville Wheaton Road Northbound						Naperville Wheaton Road 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	2	0	2	0	0	0	3	1	3	0	0	17	0	1	17	0	0	3	0	0	3	25
7:15 AM	0	0	2	2	1	4	0	0	0	2	0	2	0	4	19	0	0	23	0	0	10	0	1	10	39
7:30 AM	0	3	0	2	0	5	0	0	0	1	1	1	0	4	26	0	0	30	0	1	12	1	1	14	50
7:45 AM	0	5	3	5	0	13	0	0	2	0	0	2	0	4	30	0	0	34	0	1	19	0	0	20	69
Hourly Total	0	8	5	11	1	24	0	0	2	6	2	8	0	12	92	0	1	104	0	2	44	1	2	47	183
8:00 AM	0	1	3	3	0	7	0	0	2	5	0	7	0	1	38	0	0	39	0	0	19	1	0	20	73
8:15 AM	0	3	3	3	0	9	0	0	0	1	0	1	0	4	36	1	0	41	0	4	25	2	1	31	82
8:30 AM	0	2	0	2	0	4	0	0	2	5	0	7	0	4	30	3	0	37	0	1	15	1	0	17	65
8:45 AM	0	0	1	2	0	3	0	0	0	4	0	4	0	4	42	1	0	47	0	0	19	1	0	20	74
Hourly Total	0	6	7	10	0	23	0	0	4	15	0	19	0	13	146	5	0	164	0	5	78	5	1	88	294
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	4	2	1	8	0	0	0	3	0	3	0	0	22	0	0	22	0	1	66	4	0	71	104
4:15 PM	0	3	3	9	0	15	0	1	3	4	0	8	0	1	36	2	0	39	0	2	57	3	0	62	124
4:30 PM	0	1	0	3	1	4	0	1	0	4	0	5	0	1	25	0	0	26	0	4	66	1	0	71	106
4:45 PM	0	4	3	8	0	15	0	1	1	2	0	4	0	0	32	1	1	33	0	2	76	6	0	84	136
Hourly Total	0	10	10	22	2	42	0	3	4	13	0	20	0	2	115	3	1	120	0	9	265	14	0	288	470
5:00 PM	0	3	1	7	2	11	0	2	2	11	0	15	0	3	30	1	1	34	0	6	66	3	0	75	135
5:15 PM	0	1	3	3	0	7	0	0	1	7	0	8	0	4	50	1	0	55	0	3	77	2	0	82	152
5:30 PM	0	4	2	10	1	16	0	0	1	10	0	11	0	1	29	1	1	31	0	7	82	7	0	96	154
5:45 PM	0	3	1	0	1	4	0	0	2	3	0	5	0	3	33	1	0	37	0	2	61	4	0	67	113
Hourly Total	0	11	7	20	4	38	0	2	6	31	0	39	0	11	142	4	2	157	0	18	286	16	0	320	554
Grand Total	0	35	29	63	7	127	0	5	16	65	2	86	0	38	495	12	4	545	0	34	673	36	3	743	1501
Approach %	0.0	27.6	22.8	49.6	-	-	0.0	5.8	18.6	75.6	-	-	0.0	7.0	90.8	2.2	-	-	0.0	4.6	90.6	4.8	-	-	-
Total %	0.0	2.3	1.9	4.2	-	8.5	0.0	0.3	1.1	4.3	-	5.7	0.0	2.5	33.0	0.8	-	36.3	0.0	2.3	44.8	2.4	-	49.5	-
Lights	0	35	28	62	-	125	0	4	16	65	-	85	0	38	491	11	-	540	0	34	670	36	-	740	1490
% Lights	-	100.0	96.6	98.4	-	98.4	-	80.0	100.0	100.0	-	98.8	-	100.0	99.2	91.7	-	99.1	-	100.0	99.6	100.0	-	99.6	99.3
Buses	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	2
% Buses	-	0.0	0.0	1.6	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	8.3	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	1	0	-	1	0	1	0	0	-	1	0	0	4	0	-	4	0	0	2	0	-	2	8
% Single-Unit Trucks	-	0.0	3.4	0.0	-	0.8	-	20.0	0.0	0.0	-	1.2	-	0.0	0.8	0.0	-	0.7	-	0.0	0.3	0.0	-	0.3	0.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	7	-	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Naperville-Wheaton+Road+with+Burlington+Avenue TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Burlington Avenue Eastbound						Burlington Avenue Westbound						Naperville Wheaton Road Northbound						Naperville Wheaton Road 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	
7:45 AM	0	5	3	5	0	13	0	0	2	0	0	2	0	4	30	0	0	34	0	1	19	0	0	20	69
8:00 AM	0	1	3	3	0	7	0	0	2	5	0	7	0	1	38	0	0	39	0	0	19	1	0	20	73
8:15 AM	0	3	3	3	0	9	0	0	0	1	0	1	0	4	36	1	0	41	0	4	25	2	1	31	82
8:30 AM	0	2	0	2	0	4	0	0	2	5	0	7	0	4	30	3	0	37	0	1	15	1	0	17	65
Total	0	11	9	13	0	33	0	0	6	11	0	17	0	13	134	4	0	151	0	6	78	4	1	88	289
Approach %	0.0	33.3	27.3	39.4	-	-	0.0	0.0	35.3	64.7	-	-	0.0	8.6	88.7	2.6	-	-	0.0	6.8	88.6	4.5	-	-	-
Total %	0.0	3.8	3.1	4.5	-	11.4	0.0	0.0	2.1	3.8	-	5.9	0.0	4.5	46.4	1.4	-	52.2	0.0	2.1	27.0	1.4	-	30.4	-
PHF	0.000	0.550	0.750	0.650	-	0.635	0.000	0.000	0.750	0.550	-	0.607	0.000	0.813	0.882	0.333	-	0.921	0.000	0.375	0.780	0.500	-	0.710	0.881
Lights	0	11	8	13	-	32	0	0	6	11	-	17	0	13	133	4	-	150	0	6	77	4	-	87	286
% Lights	-	100.0	88.9	100.0	-	97.0	-	-	100.0	100.0	-	100.0	-	100.0	99.3	100.0	-	99.3	-	100.0	98.7	100.0	-	98.9	99.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	2
% Single-Unit Trucks	-	0.0	11.1	0.0	-	3.0	-	-	0.0	0.0	-	0.0	-	0.0	0.7	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.3	0.0	-	1.1	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
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Naperville-Wheaton+Road+with+Burlington+Avenue TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Burlington Avenue Eastbound						Burlington Avenue Westbound						Naperville Wheaton Road Northbound						Naperville Wheaton Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	3	1	7	2	11	0	2	2	11	0	15	0	3	30	1	1	34	0	6	66	3	0	75	135
5:15 PM	0	1	3	3	0	7	0	0	1	7	0	8	0	4	50	1	0	55	0	3	77	2	0	82	152
5:30 PM	0	4	2	10	1	16	0	0	1	10	0	11	0	1	29	1	1	31	0	7	82	7	0	96	154
5:45 PM	0	3	1	0	1	4	0	0	2	3	0	5	0	3	33	1	0	37	0	2	61	4	0	67	113
Total	0	11	7	20	4	38	0	2	6	31	0	39	0	11	142	4	2	157	0	18	286	16	0	320	554
Approach %	0.0	28.9	18.4	52.6	-	-	0.0	5.1	15.4	79.5	-	-	0.0	7.0	90.4	2.5	-	-	0.0	5.6	89.4	5.0	-	-	-
Total %	0.0	2.0	1.3	3.6	-	6.9	0.0	0.4	1.1	5.6	-	7.0	0.0	2.0	25.6	0.7	-	28.3	0.0	3.2	51.6	2.9	-	57.8	-
PHF	0.000	0.688	0.583	0.500	-	0.594	0.000	0.250	0.750	0.705	-	0.650	0.000	0.688	0.710	1.000	-	0.714	0.000	0.643	0.872	0.571	-	0.833	0.899
Lights	0	11	7	20	-	38	0	1	6	31	-	38	0	11	141	4	-	156	0	18	285	16	-	319	551
% Lights	-	100.0	100.0	100.0	-	100.0	-	50.0	100.0	100.0	-	97.4	-	100.0	99.3	100.0	-	99.4	-	100.0	99.7	100.0	-	99.7	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	1	0	0	-	1	0	0	1	0	-	1	0	0	1	0	-	1	3
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	50.0	0.0	0.0	-	2.6	-	0.0	0.7	0.0	-	0.6	-	0.0	0.3	0.0	-	0.3	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
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	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 dfreeman@kloainc.com

Count Name: Plank+Road+with+Tuthill+Road
TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Data

Start Time	Plank Road Eastbound						Plank Road Westbound						Tuthill Road Northbound						Tuthill Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	2	31	2	1	35	0	1	17	4	1	22	0	1	2	0	1	3	0	0	1	0	1	1	61
7:15 AM	0	2	44	1	0	47	0	1	30	5	0	36	0	2	1	6	0	9	0	1	1	1	0	3	95
7:30 AM	0	3	29	2	0	34	0	0	37	4	0	41	0	0	1	7	0	8	0	1	1	2	0	4	87
7:45 AM	0	1	57	2	0	60	0	3	39	4	0	46	0	4	0	2	0	6	0	0	2	3	0	5	117
Hourly Total	0	8	161	7	1	176	0	5	123	17	1	145	0	7	4	15	1	26	0	2	5	6	1	13	360
8:00 AM	0	6	51	0	0	57	0	1	42	6	0	49	0	1	3	2	0	6	0	3	2	4	0	9	121
8:15 AM	0	4	53	3	0	60	0	0	41	4	1	45	0	2	3	2	0	7	0	8	4	2	0	14	126
8:30 AM	0	7	40	1	0	48	0	0	41	5	1	46	0	4	1	6	0	11	0	2	1	1	0	4	109
8:45 AM	0	4	46	3	0	53	0	3	57	8	0	68	0	4	1	4	0	9	0	4	0	1	0	5	135
Hourly Total	0	21	190	7	0	218	0	4	181	23	2	208	0	11	8	14	0	33	0	17	7	8	0	32	491
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	84	1	0	87	0	1	51	1	1	53	0	1	0	1	0	2	0	4	2	1	0	7	149
4:15 PM	0	3	74	2	0	79	0	3	61	10	1	74	0	3	1	3	0	7	0	7	2	4	0	13	173
4:30 PM	0	3	65	1	0	69	0	0	67	4	0	71	0	0	1	2	0	3	0	8	6	3	0	17	160
4:45 PM	0	5	87	2	0	94	0	1	54	3	1	58	1	6	1	0	0	8	0	7	2	5	1	14	174
Hourly Total	0	13	310	6	0	329	0	5	233	18	3	256	1	10	3	6	0	20	0	26	12	13	1	51	656
5:00 PM	0	5	87	3	0	95	0	2	65	9	0	76	0	2	0	4	0	6	0	7	3	3	1	13	190
5:15 PM	0	2	76	3	0	81	0	4	71	6	0	81	0	1	0	3	0	4	0	11	2	7	0	20	186
5:30 PM	0	5	87	4	0	96	0	1	84	4	0	89	0	3	1	5	0	9	0	14	0	6	0	20	214
5:45 PM	0	3	65	1	0	69	0	4	51	5	0	60	0	3	1	3	0	7	0	7	2	4	0	13	149
Hourly Total	0	15	315	11	0	341	0	11	271	24	0	306	0	9	2	15	0	26	0	39	7	20	1	66	739
Grand Total	0	57	976	31	1	1064	0	25	808	82	6	915	1	37	17	50	1	105	0	84	31	47	3	162	2246
Approach %	0.0	5.4	91.7	2.9	-	-	0.0	2.7	88.3	9.0	-	-	1.0	35.2	16.2	47.6	-	-	0.0	51.9	19.1	29.0	-	-	-
Total %	0.0	2.5	43.5	1.4	-	47.4	0.0	1.1	36.0	3.7	-	40.7	0.0	1.6	0.8	2.2	-	4.7	0.0	3.7	1.4	2.1	-	7.2	-
Lights	0	57	970	31	-	1058	0	22	802	82	-	906	1	36	15	48	-	100	0	81	29	46	-	156	2220
% Lights	-	100.0	99.4	100.0	-	99.4	-	88.0	99.3	100.0	-	99.0	100.0	97.3	88.2	96.0	-	95.2	-	96.4	93.5	97.9	-	96.3	98.8
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	2	0	-	2	0	3	4	0	-	7	0	1	1	2	-	4	0	2	1	1	-	4	17
% Single-Unit Trucks	-	0.0	0.2	0.0	-	0.2	-	12.0	0.5	0.0	-	0.8	0.0	2.7	5.9	4.0	-	3.8	-	2.4	3.2	2.1	-	2.5	0.8
Articulated Trucks	0	0	3	0	-	3	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	5
% Articulated Trucks	-	0.0	0.3	0.0	-	0.3	-	0.0	0.2	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	1	1	0	-	2	3

% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	5.9	0.0	-	1.0	-	1.2	3.2	0.0	-	1.2	0.1
Pedestrians	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Plank+Road+with+Tuthill+Road
TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Plank Road Eastbound						Plank Road Westbound						Tuthill Road Northbound						Tuthill Road 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	
7:45 AM	0	1	57	2	0	60	0	3	39	4	0	46	0	4	0	2	0	6	0	0	2	3	0	5	117
8:00 AM	0	6	51	0	0	57	0	1	42	6	0	49	0	1	3	2	0	6	0	3	2	4	0	9	121
8:15 AM	0	4	53	3	0	60	0	0	41	4	1	45	0	2	3	2	0	7	0	8	4	2	0	14	126
8:30 AM	0	7	40	1	0	48	0	0	41	5	1	46	0	4	1	6	0	11	0	2	1	1	0	4	109
Total	0	18	201	6	0	225	0	4	163	19	2	186	0	11	7	12	0	30	0	13	9	10	0	32	473
Approach %	0.0	8.0	89.3	2.7	-	-	0.0	2.2	87.6	10.2	-	-	0.0	36.7	23.3	40.0	-	-	0.0	40.6	28.1	31.3	-	-	-
Total %	0.0	3.8	42.5	1.3	-	47.6	0.0	0.8	34.5	4.0	-	39.3	0.0	2.3	1.5	2.5	-	6.3	0.0	2.7	1.9	2.1	-	6.8	-
PHF	0.000	0.643	0.882	0.500	-	0.938	0.000	0.333	0.970	0.792	-	0.949	0.000	0.688	0.583	0.500	-	0.682	0.000	0.406	0.563	0.625	-	0.571	0.938
Lights	0	18	199	6	-	223	0	3	158	19	-	180	0	11	6	11	-	28	0	12	8	10	-	30	461
% Lights	-	100.0	99.0	100.0	-	99.1	-	75.0	96.9	100.0	-	96.8	-	100.0	85.7	91.7	-	93.3	-	92.3	88.9	100.0	-	93.8	97.5
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.5	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	0	0	-	0	0	1	3	0	-	4	0	0	1	1	-	2	0	1	1	0	-	2	8
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	25.0	1.8	0.0	-	2.2	-	0.0	14.3	8.3	-	6.7	-	7.7	11.1	0.0	-	6.3	1.7
Articulated Trucks	0	0	1	0	-	1	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.5	0.0	-	0.4	-	0.0	1.2	0.0	-	1.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.6
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	-	-	-	-	-	2	-	-	-	-	-	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 dfreeman@kloainc.com

Count Name: Plank+Road+with+Tuthill+Road
TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Plank Road Eastbound						Plank Road Westbound						Tuthill Road Northbound						Tuthill Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	5	87	3	0	95	0	2	65	9	0	76	0	2	0	4	0	6	0	7	3	3	1	13	190
5:15 PM	0	2	76	3	0	81	0	4	71	6	0	81	0	1	0	3	0	4	0	11	2	7	0	20	186
5:30 PM	0	5	87	4	0	96	0	1	84	4	0	89	0	3	1	5	0	9	0	14	0	6	0	20	214
5:45 PM	0	3	65	1	0	69	0	4	51	5	0	60	0	3	1	3	0	7	0	7	2	4	0	13	149
Total	0	15	315	11	0	341	0	11	271	24	0	306	0	9	2	15	0	26	0	39	7	20	1	66	739
Approach %	0.0	4.4	92.4	3.2	-	-	0.0	3.6	88.6	7.8	-	-	0.0	34.6	7.7	57.7	-	-	0.0	59.1	10.6	30.3	-	-	-
Total %	0.0	2.0	42.6	1.5	-	46.1	0.0	1.5	36.7	3.2	-	41.4	0.0	1.2	0.3	2.0	-	3.5	0.0	5.3	0.9	2.7	-	8.9	-
PHF	0.000	0.750	0.905	0.688	-	0.888	0.000	0.688	0.807	0.667	-	0.860	0.000	0.750	0.500	0.750	-	0.722	0.000	0.696	0.583	0.714	-	0.825	0.863
Lights	0	15	314	11	-	340	0	10	271	24	-	305	0	8	2	15	-	25	0	39	6	20	-	65	735
% Lights	-	100.0	99.7	100.0	-	99.7	-	90.9	100.0	100.0	-	99.7	-	88.9	100.0	100.0	-	96.2	-	100.0	85.7	100.0	-	98.5	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	1	0	-	1	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	3
% Single-Unit Trucks	-	0.0	0.3	0.0	-	0.3	-	9.1	0.0	0.0	-	0.3	-	11.1	0.0	0.0	-	3.8	-	0.0	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	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	14.3	0.0	-	1.5	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Burlington+Avenue+with+Tuthill+Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Data

Start Time	Burlington Avenue Eastbound						Burlington Avenue Westbound						Tuthill Road Northbound						Tuthill Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	3	5	0	0	8	0	0	1	0	0	1	9
7:15 AM	0	1	0	1	0	2	0	0	0	0	0	0	0	2	5	0	0	7	0	0	2	0	0	2	11
7:30 AM	0	1	0	1	0	2	0	0	0	0	0	0	0	0	7	0	0	7	0	0	3	1	0	4	13
7:45 AM	0	3	0	1	0	4	0	0	0	0	0	0	0	0	7	0	0	7	0	0	7	2	0	9	20
Hourly Total	0	5	0	3	1	8	0	0	0	0	0	0	0	5	24	0	0	29	0	0	13	3	0	16	53
8:00 AM	0	1	0	2	0	3	0	0	0	0	0	0	0	5	9	0	0	14	0	0	5	1	0	6	23
8:15 AM	0	1	0	7	0	8	0	0	0	0	0	0	0	0	12	0	0	12	0	0	8	1	0	9	29
8:30 AM	0	3	0	1	0	4	0	0	0	0	0	0	0	1	11	0	0	12	0	0	2	6	0	8	24
8:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	1	13	0	0	14	0	0	5	6	0	11	27
Hourly Total	0	7	0	10	0	17	0	0	0	0	0	0	0	7	45	0	0	52	0	0	20	14	0	34	103
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	0	3	0	4	0	0	0	0	1	0	0	0	4	0	0	4	0	0	8	4	0	12	20
4:15 PM	0	2	0	6	0	8	0	0	0	0	1	0	0	4	8	0	0	12	0	0	9	3	0	12	32
4:30 PM	0	1	0	2	0	3	0	0	0	0	1	0	0	1	7	0	0	8	0	0	9	4	0	13	24
4:45 PM	0	3	0	4	0	7	0	0	0	0	0	0	0	1	10	0	0	11	0	0	11	6	1	17	35
Hourly Total	0	7	0	15	0	22	0	0	0	0	3	0	0	6	29	0	0	35	0	0	37	17	1	54	111
5:00 PM	0	4	0	4	0	8	0	0	0	0	0	0	0	3	8	0	0	11	0	0	7	11	0	18	37
5:15 PM	0	3	0	5	0	8	0	0	0	0	0	0	0	1	6	0	0	7	0	0	16	8	0	24	39
5:30 PM	0	0	0	10	0	10	0	0	0	0	0	0	0	4	7	0	0	11	0	0	14	6	0	20	41
5:45 PM	0	2	0	2	0	4	0	0	0	0	0	0	0	3	5	0	0	8	0	0	5	2	0	7	19
Hourly Total	0	9	0	21	0	30	0	0	0	0	0	0	0	11	26	0	0	37	0	0	42	27	0	69	136
Grand Total	0	28	0	49	1	77	0	0	0	0	3	0	0	29	124	0	0	153	0	0	112	61	1	173	403
Approach %	0.0	36.4	0.0	63.6	-	-	0.0	0.0	0.0	0.0	-	-	0.0	19.0	81.0	0.0	-	-	0.0	0.0	64.7	35.3	-	-	-
Total %	0.0	6.9	0.0	12.2	-	19.1	0.0	0.0	0.0	0.0	-	0.0	0.0	7.2	30.8	0.0	-	38.0	0.0	0.0	27.8	15.1	-	42.9	-
Lights	0	28	0	47	-	75	0	0	0	0	-	0	0	29	123	0	-	152	0	0	107	59	-	166	393
% Lights	-	100.0	-	95.9	-	97.4	-	-	-	-	-	-	-	100.0	99.2	-	-	99.3	-	-	95.5	96.7	-	96.0	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
Single-Unit Trucks	0	0	0	2	-	2	0	0	0	0	-	0	0	0	1	0	-	1	0	0	2	2	-	4	7
% Single-Unit Trucks	-	0.0	-	4.1	-	2.6	-	-	-	-	-	-	-	0.0	0.8	-	-	0.7	-	-	1.8	3.3	-	2.3	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	3

% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	-	-	2.7	0.0	-	1.7	0.7
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% 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 dfreeman@kloainc.com

Count Name: Burlington+Avenue+with+Tuthill+Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Burlington Avenue Eastbound						Burlington Avenue Westbound						Tuthill Road Northbound						Tuthill Road 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	
7:45 AM	0	3	0	1	0	4	0	0	0	0	0	0	0	0	7	0	0	7	0	0	7	2	0	9	20
8:00 AM	0	1	0	2	0	3	0	0	0	0	0	0	0	5	9	0	0	14	0	0	5	1	0	6	23
8:15 AM	0	1	0	7	0	8	0	0	0	0	0	0	0	0	12	0	0	12	0	0	8	1	0	9	29
8:30 AM	0	3	0	1	0	4	0	0	0	0	0	0	0	1	11	0	0	12	0	0	2	6	0	8	24
Total	0	8	0	11	0	19	0	0	0	0	0	0	0	6	39	0	0	45	0	0	22	10	0	32	96
Approach %	0.0	42.1	0.0	57.9	-	-	0.0	0.0	0.0	0.0	-	-	0.0	13.3	86.7	0.0	-	-	0.0	0.0	68.8	31.3	-	-	-
Total %	0.0	8.3	0.0	11.5	-	19.8	0.0	0.0	0.0	0.0	-	0.0	0.0	6.3	40.6	0.0	-	46.9	0.0	0.0	22.9	10.4	-	33.3	-
PHF	0.000	0.667	0.000	0.393	-	0.594	0.000	0.000	0.000	0.000	-	0.000	0.000	0.300	0.813	0.000	-	0.804	0.000	0.000	0.688	0.417	-	0.889	0.828
Lights	0	8	0	10	-	18	0	0	0	0	-	0	0	6	38	0	-	44	0	0	20	10	-	30	92
% Lights	-	100.0	-	90.9	-	94.7	-	-	-	-	-	-	-	100.0	97.4	-	-	97.8	-	-	90.9	100.0	-	93.8	95.8
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	0	1	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	3
% Single-Unit Trucks	-	0.0	-	9.1	-	5.3	-	-	-	-	-	-	-	0.0	2.6	-	-	2.2	-	-	4.5	0.0	-	3.1	3.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	-	-	4.5	0.0	-	3.1	1.0
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 dfreeman@kloainc.com

Count Name: Burlington+Avenue+with+Tuthill+Road TMC
Site Code:
Start Date: 07/18/2024

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Burlington Avenue Eastbound						Burlington Avenue Westbound						Tuthill Road Northbound						Tuthill Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	4	0	4	0	8	0	0	0	0	0	0	0	3	8	0	0	11	0	0	7	11	0	18	37
5:15 PM	0	3	0	5	0	8	0	0	0	0	0	0	0	1	6	0	0	7	0	0	16	8	0	24	39
5:30 PM	0	0	0	10	0	10	0	0	0	0	0	0	0	4	7	0	0	11	0	0	14	6	0	20	41
5:45 PM	0	2	0	2	0	4	0	0	0	0	0	0	0	3	5	0	0	8	0	0	5	2	0	7	19
Total	0	9	0	21	0	30	0	0	0	0	0	0	0	11	26	0	0	37	0	0	42	27	0	69	136
Approach %	0.0	30.0	0.0	70.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	29.7	70.3	0.0	-	-	0.0	0.0	60.9	39.1	-	-	-
Total %	0.0	6.6	0.0	15.4	-	22.1	0.0	0.0	0.0	0.0	-	0.0	0.0	8.1	19.1	0.0	-	27.2	0.0	0.0	30.9	19.9	-	50.7	-
PHF	0.000	0.563	0.000	0.525	-	0.750	0.000	0.000	0.000	0.000	-	0.000	0.000	0.688	0.813	0.000	-	0.841	0.000	0.000	0.656	0.614	-	0.719	0.829
Lights	0	9	0	21	-	30	0	0	0	0	-	0	0	11	26	0	-	37	0	0	41	26	-	67	134
% Lights	-	100.0	-	100.0	-	100.0	-	-	-	-	-	-	-	100.0	100.0	-	-	100.0	-	-	97.6	96.3	-	97.1	98.5
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
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	1
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	-	-	0.0	3.7	-	1.4	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
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	-	-	2.4	0.0	-	1.4	0.7
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Site Plan

Site Data

Proposed Zoning	R3A (PUD/Medium Density Multiple Family Residence District) upon annexation.
Site Area	350,647 SF (8,.05 Ac)
Proposed Density	34 Two Story Townhomes (Two Car Gar.) 56 Three Story Townhomes (Two Car Gar.) 90 Total Units (11.2 Du/Ac.)
Parking	
Required Pkg,/Unit	2.25 Spaces/ Unit 203 Total Required Parking Spaces
Provided Pkg./Unit	
	Front Garage Townhomes (34 Homes) Garages 68 Apron Spaces 68 Total Spaces 136 Spaces (4:1 Ratio)
	Rear Garage Rowhomes (56 Homes) Garages 112 Surface Spaces ~~27~~ Total Spaces ~~139~~ 138 Spaces (2.5:1 Ratio)
	Total Site 275Spaces (3.0:1 Ratio)

Yard Requirements	Yard Type	Required	Proposed
West Parcel (Tuthill)	Front Yard	25'	25' Min
(Burlington Avenue)	Corner Side Yard	15'	*37' Min.
(North Property Line)	Interior Side Yard	6'	8' Min.
(Naperville Wheaton Road)	Rear Yard	25'	25'
East Parcel (Tuthill)	Front Yard	25'	*37' Min
(Plank Road)	Corner Side Yard	15'	23' Min.
(North Property Line)	Interior Side Yard	6'	8' Min.
(Naperville Boulevard)	Rear Yard	25'	25' NO

*Denotes Platted Setback

90 UNITS
Townhouse Type A
2 story
34 Units

Rowhome Type B
3 story
56 Units

ISSUE DATE: 11-05-2024

REVISIONS

THESE PLANS AND SPECIFICATIONS ARE PROTECTED UNDER THE COPYRIGHT LAWS OF THE UNITED STATES AND OWNERSHIP OF SUCH ARE RETAINED BY BSB DESIGN, INC. AND ALL RIGHTS AND PRIVILEGES.

Lincoln Property Company

120 N. LaSalle Street
Chicago, Illinois 60602
PH: 312-345-8789

Naperville Townhomes

-- Naperville IL

2024-11-05 - Project Submittal Issued

BSB DESIGN
BSBDESIGN.COM

220 N. Smith Street Suite 210
Palatine, Illinois 60067
847 705 2200

JOB NO: -- PROJ MGR: TS
DRAWN: TJS CHECKED: --

DIMENSIONED SITE PLAN

L1.01

CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607
cmap.illinois.gov | 312-454-0400

July 10, 2024

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

Subject: Naper Blvd - Ogden Ave - Plank Rd - Naperville Wheaton Rd
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated 7/9/2024, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT	Year 2050 ADT
Naper Blvd north of Ogden Ave	12,700	15,700
Naper Blvd south of Ogden Ave	18,400	22,700
Ogden Ave, at Naper Blvd	22,130	27,300
Plank Rd, at Naper Blvd	2,950	3,650
Naperville-Wheaton Rd , @ Ogden Ave	8,900	11,000

Traffic projections are developed using existing ADT data provided in the request letter and the results from the June 2024 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)
2024_TrafficForecasts\Naperville\du-29-24\du-29-24.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

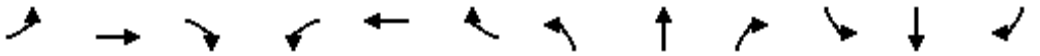
Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of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

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

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

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour

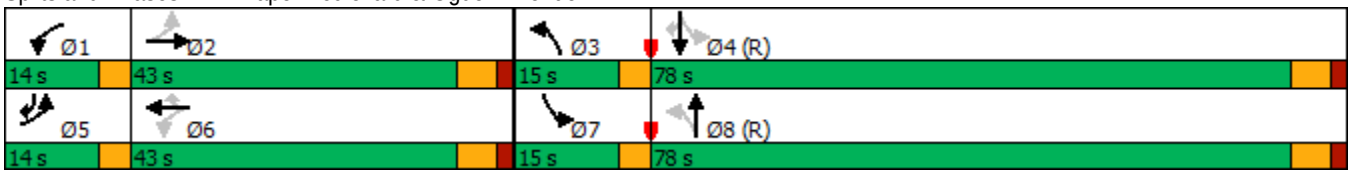


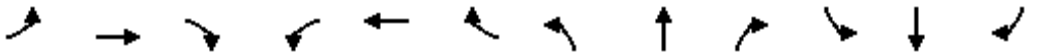
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	598	97	38	520	195	198	1479	51	175	425	23
Future Volume (vph)	129	598	97	38	520	195	198	1479	51	175	425	23
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	200		260	250		0	300		260
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	50			100			110			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.979				0.850		0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3366	0	1752	3619	1524	1770	3558	0	1770	3689	1380
Flt Permitted	0.235			0.168			0.469			0.055		
Satd. Flow (perm)	433	3366	0	310	3619	1524	874	3558	0	102	3689	1380
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		320			793			1494			667	
Travel Time (s)		6.2			15.4			25.5			11.4	
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 (%)	3%	5%	5%	3%	5%	6%	2%	1%	0%	2%	3%	17%
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)	134	724	0	40	542	203	206	1594	0	182	443	24
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases	2			6		6	8			4		4
Detector Phase	5	2		1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	15.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	6.5	21.5		6.5	21.5	21.5	6.5	21.5		6.5	21.5	6.5
Total Split (s)	14.0	43.0		14.0	43.0	43.0	15.0	78.0		15.0	78.0	14.0
Total Split (%)	9.3%	28.7%		9.3%	28.7%	28.7%	10.0%	52.0%		10.0%	52.0%	9.3%
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	0.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.5	6.5		3.5	6.5	6.5	3.5	6.5		3.5	6.5	3.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	50.5	39.1		45.5	34.8	34.8	86.9	72.9		88.6	73.9	90.7
Actuated g/C Ratio	0.34	0.26		0.30	0.23	0.23	0.58	0.49		0.59	0.49	0.60

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.57	0.83		0.24	0.65	0.58	0.36	0.92		0.94	0.24	0.03
Control Delay	40.4	54.9		35.5	55.8	57.8	15.4	46.2		88.9	22.9	13.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	40.4	54.9		35.5	55.8	57.8	15.4	46.2		88.9	22.9	13.0
LOS	D	D		D	E	E	B	D		F	C	B
Approach Delay		52.6			55.3			42.7			41.0	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	61	357		26	250	175	88	765		128	133	9
Queue Length 95th (ft)	110	#463		54	315	263	131	#935		#292	172	23
Internal Link Dist (ft)		240			713			1414			587	
Turn Bay Length (ft)	100			200		260	250			300		260
Base Capacity (vph)	237	877		200	880	370	577	1728		194	1818	836
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.57	0.83		0.20	0.62	0.55	0.36	0.92		0.94	0.24	0.03

Intersection Summary		
Area Type:	Other	
Cycle Length: 150		
Actuated Cycle Length: 150		
Offset: 15 (10%), Referenced to phase 4:SBTL and 8:NBTL, Start of Green		
Natural Cycle: 90		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 46.9	Intersection LOS: D	
Intersection Capacity Utilization 92.7%	ICU Level of Service F	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 1: Naper Boulevard & Ogden Avenue





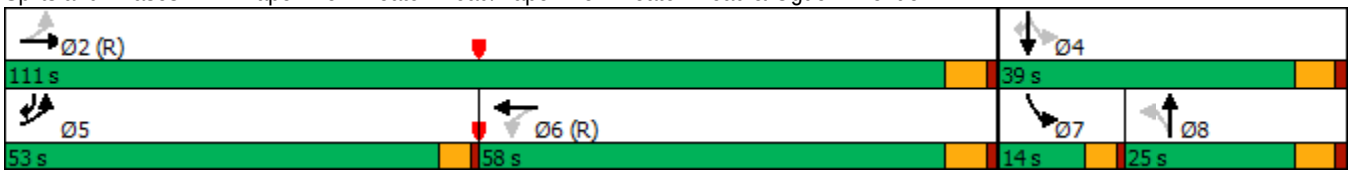
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	746	20	24	682	26	26	57	12	49	53	268
Future Volume (vph)	329	746	20	24	682	26	26	57	12	49	53	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	150		0	0		0	0		25
Storage Lanes	1		0	1		0	0		0	1		1
Taper Length (ft)	90			100			25			25		
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												
Frt		0.996			0.995			0.982				0.850
Flt Protected	0.950			0.950				0.987		0.950		
Satd. Flow (prot)	1752	3429	0	1805	3386	0	0	1842	0	1703	2000	1568
Flt Permitted	0.308			0.347				0.890		0.469		
Satd. Flow (perm)	568	3429	0	659	3386	0	0	1661	0	841	2000	1568
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		754			543			1386			1035	
Travel Time (s)		14.7			10.6			27.0			17.6	
Confl. Peds. (#/hr)												
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 (%)	3%	5%	0%	0%	6%	8%	0%	0%	0%	6%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	346	806	0	25	745	0	0	100	0	52	56	282
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	pm+ov
Protected Phases	5	2			6			8		7	4	5
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		6	6		8	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0		21.0	21.0		21.0	21.0		7.5	14.0	7.5
Total Split (s)	53.0	111.0		58.0	58.0		25.0	25.0		14.0	39.0	53.0
Total Split (%)	35.3%	74.0%		38.7%	38.7%		16.7%	16.7%		9.3%	26.0%	35.3%
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.5	1.5		1.5	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		6.0	6.0			6.0		4.5	6.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	None
Act Effct Green (s)	113.3	111.8		90.1	90.1			14.8		27.7	26.2	49.4
Actuated g/C Ratio	0.76	0.75		0.60	0.60			0.10		0.18	0.17	0.33

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.61	0.32		0.06	0.37			0.61		0.25	0.16	0.55
Control Delay	11.5	7.5		6.3	7.1			80.0		51.1	50.3	43.2
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Delay	11.5	7.5		6.3	7.1			80.0		51.1	50.3	43.2
LOS	B	A		A	A			E		D	D	D
Approach Delay		8.7			7.1			80.0			45.3	
Approach LOS		A			A			E			D	
Queue Length 50th (ft)	102	136		3	55			95		42	46	223
Queue Length 95th (ft)	156	182		m8	369			157		80	85	263
Internal Link Dist (ft)		674			463			1306			955	
Turn Bay Length (ft)	220			150								25
Base Capacity (vph)	811	2556		395	2033			210		212	441	843
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	0.43	0.32		0.06	0.37			0.48		0.25	0.13	0.33

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 17.1 Intersection LOS: B
Intersection Capacity Utilization 63.5% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Naperville-Wheaton Road/Naperville Wheaton Road & Ogden Avenue



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	10	502	26	123	1610	78	85	48	94	36	37	11
Future Volume (vph)	10	502	26	123	1610	78	85	48	94	36	37	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	105		0	116		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	140			85			175			90		
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												
Frt		0.993			0.993			0.900			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3447	0	1787	3549	0	1736	1688	0	1752	1728	0
Flt Permitted	0.079			0.408			0.614			0.664		
Satd. Flow (perm)	150	3447	0	768	3549	0	1122	1688	0	1225	1728	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			7			73			11	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1494			1264			284			1049	
Travel Time (s)		25.5			21.5			7.7			28.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	4%	1%	1%	1%	4%	0%	2%	3%	8%	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)	10	545	0	127	1740	0	88	146	0	37	49	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		8.0	18.0		8.0	18.0	
Total Split (s)	10.0	68.0		12.0	70.0		10.0	18.0		12.0	20.0	
Total Split (%)	9.1%	61.8%		10.9%	63.6%		9.1%	16.4%		10.9%	18.2%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	60.3	51.9		65.6	61.6		16.0	9.9		16.4	10.6	
Actuated g/C Ratio	0.66	0.57		0.72	0.67		0.17	0.11		0.18	0.12	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.05	0.28		0.20	0.73		0.36	0.59		0.14	0.23	
Control Delay	5.9	11.3		5.7	13.8		36.4	33.3		32.2	36.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.9	11.3		5.7	13.8		36.4	33.3		32.2	36.1	
LOS	A	B		A	B		D	C		C	D	
Approach Delay		11.2			13.2			34.5			34.4	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	2	87		23	325		44	43		18	22	
Queue Length 95th (ft)	7	130		45	603		93	115		48	61	
Internal Link Dist (ft)		1414			1184			204			969	
Turn Bay Length (ft)	160			105			116			100		
Base Capacity (vph)	220	2399		647	2549		246	290		282	280	
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	0.05	0.23		0.20	0.68		0.36	0.50		0.13	0.17	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 91.5			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 15.3		Intersection LOS: B	
Intersection Capacity Utilization 78.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Plank Road & Naper Boulevard

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	781	28	14	707	30	4	0	41	0	0	11
Future Vol, veh/h	0	781	28	14	707	30	4	0	41	0	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	50	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	5	4	0	8	3	0	0	2	0	0	0
Mvmt Flow	0	822	29	15	744	32	4	0	43	0	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	851	0	0	1239	1643	426	-	-	372
Stage 1	-	-	-	-	-	-	837	837	-	-	-	-
Stage 2	-	-	-	-	-	-	402	806	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.94	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.32	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	796	-	-	134	101	577	0	0	631
Stage 1	0	-	-	-	-	-	332	385	-	0	0	-
Stage 2	0	-	-	-	-	-	601	398	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	796	-	-	130	99	577	-	-	631
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	222	-	-	-	-
Stage 1	-	-	-	-	-	-	332	385	-	-	-	-
Stage 2	-	-	-	-	-	-	579	390	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	12.7	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	515	-	-	796	-	-	631
HCM Lane V/C Ratio	0.092	-	-	0.019	-	-	0.018
HCM Control Delay (s)	12.7	-	-	9.6	-	-	10.8
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	9	13	0	6	11	13	134	4	6	78	4
Future Vol, veh/h	11	9	13	0	6	11	13	134	4	6	78	4
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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	11	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	13	10	15	0	7	13	15	152	5	7	89	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	301	293	92	303	293	155	94	0	0	157	0	0
Stage 1	106	106	-	185	185	-	-	-	-	-	-	-
Stage 2	195	187	-	118	108	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.61	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.61	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.61	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.099	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	655	603	971	653	621	896	1513	-	-	1435	-	-
Stage 1	905	790	-	821	751	-	-	-	-	-	-	-
Stage 2	811	729	-	891	810	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	633	593	971	627	611	896	1513	-	-	1435	-	-
Mov Cap-2 Maneuver	633	593	-	627	611	-	-	-	-	-	-	-
Stage 1	895	786	-	812	743	-	-	-	-	-	-	-
Stage 2	784	721	-	862	806	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	9.8	0.6	0.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1513	-	-	718	769	1435	-	-
HCM Lane V/C Ratio	0.01	-	-	0.052	0.025	0.005	-	-
HCM Control Delay (s)	7.4	0	-	10.3	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	38	53	88	187	124	67
Future Vol, veh/h	38	53	88	187	124	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	80	0	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	0	2	3
Mvmt Flow	40	56	94	199	132	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	555	168	203	0	-	0
Stage 1	168	-	-	-	-	-
Stage 2	387	-	-	-	-	-
Critical Hdwy	6.43	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	491	881	1381	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	458	881	1381	-	-	-
Mov Cap-2 Maneuver	458	-	-	-	-	-
Stage 1	801	-	-	-	-	-
Stage 2	684	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	11.2	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SBLn2	SWT	SWR
Capacity (veh/h)	1381	-	458	881	-	-
HCM Lane V/C Ratio	0.068	-	0.088	0.064	-	-
HCM Control Delay (s)	7.8	-	13.6	9.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	7	12	13	9	10	18	201	6	4	163	19
Future Vol, veh/h	11	7	12	13	9	10	18	201	6	4	163	19
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	14	8	8	11	0	0	1	0	25	3	0
Mvmt Flow	12	7	13	14	10	11	19	214	6	4	173	20

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	457	456	217	456	449	183	193	0	0	220	0	0
Stage 1	255	255	-	191	191	-	-	-	-	-	-	-
Stage 2	202	201	-	265	258	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.64	6.28	7.18	6.61	6.2	4.1	-	-	4.35	-	-
Critical Hdwy Stg 1	6.1	5.64	-	6.18	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.64	-	6.18	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.126	3.372	3.572	4.099	3.3	2.2	-	-	2.425	-	-
Pot Cap-1 Maneuver	517	483	808	505	492	865	1392	-	-	1224	-	-
Stage 1	754	675	-	797	726	-	-	-	-	-	-	-
Stage 2	805	713	-	727	678	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	495	473	808	484	482	865	1392	-	-	1224	-	-
Mov Cap-2 Maneuver	495	473	-	484	482	-	-	-	-	-	-	-
Stage 1	742	664	-	784	723	-	-	-	-	-	-	-
Stage 2	781	710	-	696	667	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	11.6	11.8	0.6	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1392	-	-	578	560	1224	-	-
HCM Lane V/C Ratio	0.014	-	-	0.055	0.061	0.003	-	-
HCM Control Delay (s)	7.6	0	-	11.6	11.8	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	11	6	39	22	10
Future Vol, veh/h	8	11	6	39	22	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	9	0	3	9	0
Mvmt Flow	10	13	7	47	27	12

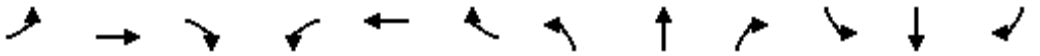
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	94	33	39	0	-	0
Stage 1	33	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.4	6.29	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.381	2.2	-	-	-
Pot Cap-1 Maneuver	911	1021	1584	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	967	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	906	1021	1584	-	-	-
Mov Cap-2 Maneuver	906	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	967	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1584	-	969	-	-
HCM Lane V/C Ratio	0.005	-	0.024	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	657	270	142	856	218	194	716	47	279	1192	68
Future Volume (vph)	140	657	270	142	856	218	194	716	47	279	1192	68
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	200		260	250		0	300		260
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	50			100			110			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.956				0.850		0.991				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3417	0	1805	3800	1599	1805	3569	0	1805	3800	1568
Flt Permitted	0.122			0.088			0.083			0.162		
Satd. Flow (perm)	225	3417	0	167	3800	1599	158	3569	0	308	3800	1568
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		320			793			1494			667	
Travel Time (s)		6.2			15.4			25.5			11.4	
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 (%)	3%	1%	1%	0%	0%	1%	0%	0%	4%	0%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	965	0	148	892	227	202	795	0	291	1242	71
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases	2			6		6	8			4		4
Detector Phase	5	2		1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	15.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	6.5	21.5		6.5	21.5	21.5	6.5	21.5		6.5	21.5	6.5
Total Split (s)	15.0	54.0		15.0	54.0	54.0	15.0	46.0		35.0	66.0	15.0
Total Split (%)	10.0%	36.0%		10.0%	36.0%	36.0%	10.0%	30.7%		23.3%	44.0%	10.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	0.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.5	6.5		3.5	6.5	6.5	3.5	6.5		3.5	6.5	3.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	61.9	47.9		62.1	47.9	47.9	62.6	48.1		77.2	59.5	77.1
Actuated g/C Ratio	0.41	0.32		0.41	0.32	0.32	0.42	0.32		0.51	0.40	0.51

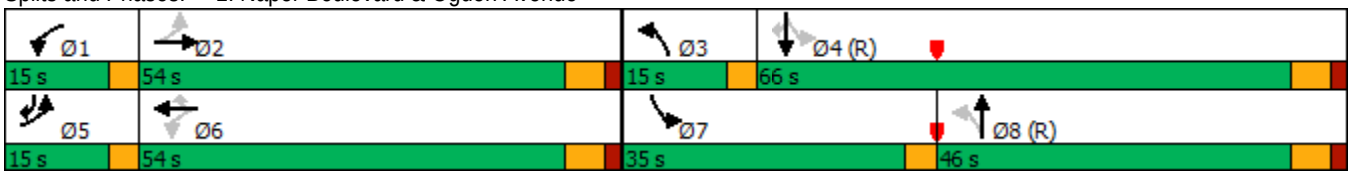
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.88		0.78	0.73	0.44	1.05	0.69		0.75	0.82	0.09
Control Delay	44.7	58.9		57.8	49.8	44.0	118.9	49.5		36.9	46.2	18.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	44.7	58.9		57.8	49.8	44.0	118.9	49.5		36.9	46.2	18.9
LOS	D	E		E	D	D	F	D		D	D	B
Approach Delay		57.0			49.7			63.5			43.3	
Approach LOS		E			D			E			D	
Queue Length 50th (ft)	97	485		88	411	177	~159	359		160	570	34
Queue Length 95th (ft)	m#160	#583		#193	492	261	#349	473		257	663	63
Internal Link Dist (ft)		240			713			1414			587	
Turn Bay Length (ft)	100			200		260	250			300		260
Base Capacity (vph)	210	1091		195	1214	511	192	1144		473	1507	810
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.70	0.88		0.76	0.73	0.44	1.05	0.69		0.62	0.82	0.09

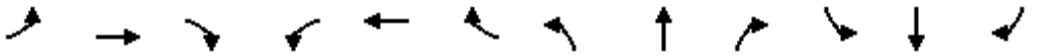
Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 52.0 Intersection LOS: D
Intersection Capacity Utilization 94.2% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Naper Boulevard & Ogden Avenue





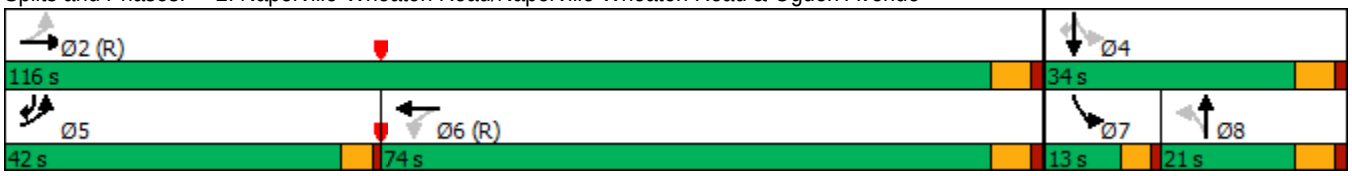
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	282	882	63	36	995	63	44	49	29	132	133	375
Future Volume (vph)	282	882	63	36	995	63	44	49	29	132	133	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	150		0	0		0	0		25
Storage Lanes	1		0	1		0	0		0	1		1
Taper Length (ft)	90			100			25			25		
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												
Frt		0.990			0.991			0.968				0.850
Flt Protected	0.950			0.950				0.982		0.950		
Satd. Flow (prot)	1770	3541	0	1805	3578	0	0	1806	0	1787	2000	1599
Flt Permitted	0.172			0.291				0.823		0.462		
Satd. Flow (perm)	320	3541	0	553	3578	0	0	1514	0	869	2000	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		754			543			1386			1035	
Travel Time (s)		14.7			10.6			27.0			17.6	
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 (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	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)	294	985	0	38	1102	0	0	127	0	138	139	391
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	pm+ov
Protected Phases	5	2			6			8		7	4	5
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		6	6		8	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0		21.0	21.0		21.0	21.0		7.5	14.0	7.5
Total Split (s)	42.0	116.0		74.0	74.0		21.0	21.0		13.0	34.0	42.0
Total Split (%)	28.0%	77.3%		49.3%	49.3%		14.0%	14.0%		8.7%	22.7%	28.0%
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.5	1.5		1.5	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		6.0	6.0			6.0		4.5	6.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	None
Act Effct Green (s)	108.8	107.3		84.2	84.2			15.3		32.2	30.7	55.3
Actuated g/C Ratio	0.73	0.72		0.56	0.56			0.10		0.21	0.20	0.37

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.39		0.12	0.55			0.82		0.55	0.34	0.66
Control Delay	20.5	8.9		23.1	29.1			103.0		60.2	54.2	45.1
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Delay	20.5	8.9		23.1	29.1			103.0		60.2	54.2	45.1
LOS	C	A		C	C			F		E	D	D
Approach Delay		11.6			28.9			103.0			50.1	
Approach LOS		B			C			F			D	
Queue Length 50th (ft)	90	191		17	269			124		114	116	315
Queue Length 95th (ft)	163	202		m25	m313			#244		189	190	406
Internal Link Dist (ft)		674			463			1306			955	
Turn Bay Length (ft)	220			150								25
Base Capacity (vph)	594	2596		310	2008			157		253	409	791
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	0.49	0.38		0.12	0.55			0.81		0.55	0.34	0.49

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 38 (25%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Naperville-Wheaton Road/Naperville Wheaton Road & Ogden Avenue



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	14	1531	83	135	887	53	64	67	221	90	77	12
Future Volume (vph)	14	1531	83	135	887	53	64	67	221	90	77	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	105		0	116		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	140			85			175			90		
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												
Frt		0.992			0.992			0.885			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3581	0	1787	3581	0	1805	1678	0	1805	1858	0
Flt Permitted	0.259			0.066			0.696			0.252		
Satd. Flow (perm)	482	3581	0	124	3581	0	1322	1678	0	479	1858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			8			130			6	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1494			1264			284			1049	
Travel Time (s)		25.5			21.5			7.7			28.6	
Confl. Peds. (#/hr)												
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 (%)	2%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	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)	15	1699	0	142	990	0	67	304	0	95	94	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		8.0	22.0		8.0	22.0	
Total Split (s)	12.0	60.0		12.0	60.0		13.0	25.0		13.0	25.0	
Total Split (%)	10.9%	54.5%		10.9%	54.5%		11.8%	22.7%		11.8%	22.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	62.9	54.5		68.5	62.7		24.6	15.4		25.4	15.9	
Actuated g/C Ratio	0.61	0.53		0.66	0.60		0.24	0.15		0.24	0.15	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.04	0.90		0.65	0.46		0.19	0.84		0.42	0.33	
Control Delay	8.2	32.0		33.8	14.2		28.9	46.0		33.9	40.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.2	32.0		33.8	14.2		28.9	46.0		33.9	40.4	
LOS	A	C		C	B		C	D		C	D	
Approach Delay		31.8			16.6			42.9			37.1	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	4	576		45	183		34	119		48	54	
Queue Length 95th (ft)	12	#773		#137	297		68	#246		89	104	
Internal Link Dist (ft)		1414			1184			204			969	
Turn Bay Length (ft)	160			105			116			100		
Base Capacity (vph)	411	1884		219	2169		366	416		241	348	
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	0.04	0.90		0.65	0.46		0.18	0.73		0.39	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 103.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 28.3		Intersection LOS: C	
Intersection Capacity Utilization 91.2%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Plank Road & Naper Boulevard

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1012	35	19	1058	27	12	0	51	0	0	39
Future Vol, veh/h	0	1012	35	19	1058	27	12	0	51	0	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	50	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	5	1	4	0	0	2	0	0	0
Mvmt Flow	0	1043	36	20	1091	28	12	0	53	0	0	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1079	0	0	1647	2220	540	-	-	546
Stage 1	-	-	-	-	-	-	1061	1061	-	-	-	-
Stage 2	-	-	-	-	-	-	586	1159	-	-	-	-
Critical Hdwy	-	-	-	4.2	-	-	7.5	6.5	6.94	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.25	-	-	3.5	4	3.32	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	625	-	-	67	44	486	0	0	487
Stage 1	0	-	-	-	-	-	243	303	-	0	0	-
Stage 2	0	-	-	-	-	-	468	272	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	625	-	-	60	43	486	-	-	487
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	148	-	-	-	-
Stage 1	-	-	-	-	-	-	243	303	-	-	-	-
Stage 2	-	-	-	-	-	-	416	263	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	17.4	13.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	355	-	-	625	-	-	487
HCM Lane V/C Ratio	0.183	-	-	0.031	-	-	0.083
HCM Control Delay (s)	17.4	-	-	10.9	-	-	13.1
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	7	20	2	6	31	11	142	4	18	286	16
Future Vol, veh/h	11	7	20	2	6	31	11	142	4	18	286	16
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	89	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	50	0	0	0	1	0	0	0	0
Mvmt Flow	12	8	22	2	7	34	12	154	4	20	311	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	561	542	320	555	548	156	328	0	0	158	0	0
Stage 1	360	360	-	180	180	-	-	-	-	-	-	-
Stage 2	201	182	-	375	368	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.6	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.95	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	441	450	725	377	447	895	1243	-	-	1434	-	-
Stage 1	662	630	-	722	754	-	-	-	-	-	-	-
Stage 2	805	753	-	559	625	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	411	437	725	353	434	895	1243	-	-	1434	-	-
Mov Cap-2 Maneuver	411	437	-	353	434	-	-	-	-	-	-	-
Stage 1	655	619	-	714	746	-	-	-	-	-	-	-
Stage 2	759	745	-	526	614	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	10.3	0.6	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1243	-	-	538	721	1434	-	-
HCM Lane V/C Ratio	0.01	-	-	0.078	0.059	0.014	-	-
HCM Control Delay (s)	7.9	0	-	12.3	10.3	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	6.9

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	141	163	101	197	244	56
Future Vol, veh/h	141	163	101	197	244	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	80	0	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	160	185	115	224	277	64

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	763	309	341	0	-	0
Stage 1	309	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	374	733	1224	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	339	733	1224	-	-	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	677	-	-	-	-	-
Stage 2	642	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	17.7	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SBLn2	SWT	SWR
Capacity (veh/h)	1224	-	339	733	-	-
HCM Lane V/C Ratio	0.094	-	0.473	0.253	-	-
HCM Control Delay (s)	8.2	-	24.8	11.6	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	2.4	1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	9	2	15	39	7	20	15	315	11	11	271	24
Future Vol, veh/h	9	2	15	39	7	20	15	315	11	11	271	24
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	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	9	0	0	11	0	0	0	14	0
Mvmt Flow	10	2	17	45	8	23	17	366	13	13	315	28

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	778	776	373	771	768	329	343	0	0	379	0	0
Stage 1	407	407	-	355	355	-	-	-	-	-	-	-
Stage 2	371	369	-	416	413	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.19	6.5	6.2	4.21	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.581	4	3.3	2.299	-	-	2.2	-	-
Pot Cap-1 Maneuver	316	331	678	309	334	717	1167	-	-	1191	-	-
Stage 1	625	601	-	648	633	-	-	-	-	-	-	-
Stage 2	653	624	-	600	597	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	293	320	678	292	323	717	1167	-	-	1191	-	-
Mov Cap-2 Maneuver	293	320	-	292	323	-	-	-	-	-	-	-
Stage 1	614	590	-	636	624	-	-	-	-	-	-	-
Stage 2	615	615	-	572	586	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	13.8	17.7	0.4	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1167	-	-	440	360	1191	-	-
HCM Lane V/C Ratio	0.015	-	-	0.069	0.213	0.011	-	-
HCM Control Delay (s)	8.1	0	-	13.8	17.7	8.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.8	0	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	21	11	26	42	27
Future Vol, veh/h	9	21	11	26	42	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	2	4
Mvmt Flow	11	25	13	31	51	33

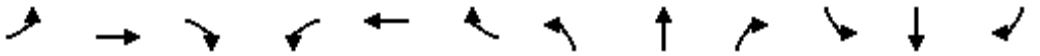
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	125	68	84	0	-	0
Stage 1	68	-	-	-	-	-
Stage 2	57	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	875	1001	1526	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	867	1001	1526	-	-	-
Mov Cap-2 Maneuver	867	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	971	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	2.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1526	-	957	-	-
HCM Lane V/C Ratio	0.009	-	0.038	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Capacity Analysis Summary Sheets

Year 2030 No-Build Weekday Morning Peak Hour



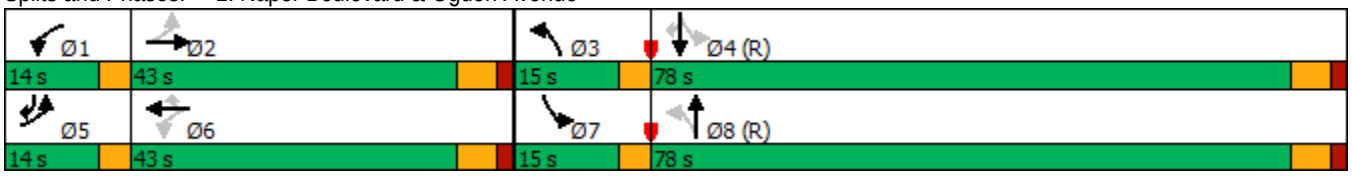
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	633	102	40	536	205	238	1558	54	194	441	24
Future Volume (vph)	135	633	102	40	536	205	238	1558	54	194	441	24
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	200		260	250		0	300		260
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	50			100			110			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.979				0.850		0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3366	0	1752	3619	1524	1770	3558	0	1770	3689	1380
Flt Permitted	0.225			0.141			0.462			0.055		
Satd. Flow (perm)	415	3366	0	260	3619	1524	861	3558	0	102	3689	1380
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		320			793			1494			667	
Travel Time (s)		6.2			15.4			25.5			11.4	
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 (%)	3%	5%	5%	3%	5%	6%	2%	1%	0%	2%	3%	17%
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)	141	765	0	42	558	214	248	1679	0	202	459	25
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases	2			6		6	8			4		4
Detector Phase	5	2		1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	15.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	6.5	21.5		6.5	21.5	21.5	6.5	21.5		6.5	21.5	6.5
Total Split (s)	14.0	43.0		14.0	43.0	43.0	15.0	78.0		15.0	78.0	14.0
Total Split (%)	9.3%	28.7%		9.3%	28.7%	28.7%	10.0%	52.0%		10.0%	52.0%	9.3%
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	0.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.5	6.5		3.5	6.5	6.5	3.5	6.5		3.5	6.5	3.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	50.7	39.3		45.9	35.0	35.0	85.8	71.5		88.3	73.4	90.2
Actuated g/C Ratio	0.34	0.26		0.31	0.23	0.23	0.57	0.48		0.59	0.49	0.60

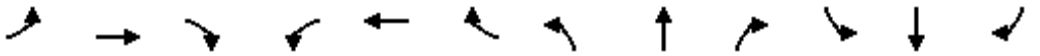
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.61	0.87		0.27	0.66	0.60	0.44	0.99		0.98	0.25	0.03
Control Delay	43.8	57.4		36.4	56.1	58.8	16.9	58.4		98.8	23.2	13.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	43.8	57.4		36.4	56.1	58.8	16.9	58.4		98.8	23.2	13.0
LOS	D	E		D	E	E	B	E		F	C	B
Approach Delay		55.3			55.8			53.1			45.1	
Approach LOS		E			E			D			D	
Queue Length 50th (ft)	68	383		27	258	186	109	843		~168	138	10
Queue Length 95th (ft)	124	#511		56	324	278	158	#1024		#339	178	24
Internal Link Dist (ft)		240			713			1414			587	
Turn Bay Length (ft)	100			200		260	250			300		260
Base Capacity (vph)	233	882		188	880	370	563	1695		206	1804	831
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.61	0.87		0.22	0.63	0.58	0.44	0.99		0.98	0.25	0.03

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 15 (10%), Referenced to phase 4:SBTL and 8:NBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 52.8 Intersection LOS: D
Intersection Capacity Utilization 97.1% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Naper Boulevard & Ogden Avenue





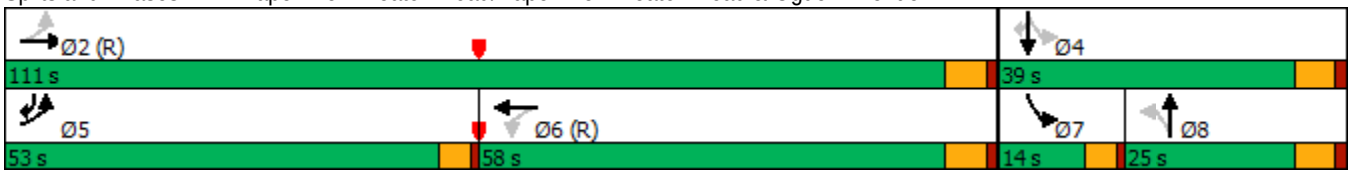
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	345	788	21	25	736	27	27	60	13	51	56	281
Future Volume (vph)	345	788	21	25	736	27	27	60	13	51	56	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	150		0	0		0	0		25
Storage Lanes	1		0	1		0	0		0	1		1
Taper Length (ft)	90			100			25			25		
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												
Frt		0.996			0.995			0.982				0.850
Flt Protected	0.950			0.950				0.987		0.950		
Satd. Flow (prot)	1752	3429	0	1805	3386	0	0	1842	0	1703	2000	1568
Flt Permitted	0.277			0.332				0.890		0.460		
Satd. Flow (perm)	511	3429	0	631	3386	0	0	1661	0	825	2000	1568
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		754			543			1386			1035	
Travel Time (s)		14.7			10.6			27.0			17.6	
Confl. Peds. (#/hr)												
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 (%)	3%	5%	0%	0%	6%	8%	0%	0%	0%	6%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	363	851	0	26	803	0	0	105	0	54	59	296
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	pm+ov
Protected Phases	5	2			6			8		7	4	5
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		6	6		8	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0		21.0	21.0		21.0	21.0		7.5	14.0	7.5
Total Split (s)	53.0	111.0		58.0	58.0		25.0	25.0		14.0	39.0	53.0
Total Split (%)	35.3%	74.0%		38.7%	38.7%		16.7%	16.7%		9.3%	26.0%	35.3%
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.5	1.5		1.5	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		6.0	6.0			6.0		4.5	6.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	None
Act Effct Green (s)	112.8	111.3		86.3	86.3			15.2		28.2	26.7	53.2
Actuated g/C Ratio	0.75	0.74		0.58	0.58			0.10		0.19	0.18	0.35

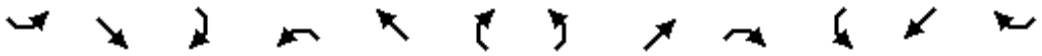
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.66	0.33		0.07	0.41			0.62		0.26	0.17	0.53
Control Delay	12.8	7.8		8.2	10.0			80.6		51.0	50.2	40.0
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Delay	12.8	7.8		8.2	10.0			80.6		51.0	50.2	40.0
LOS	B	A		A	B			F		D	D	D
Approach Delay		9.3			10.0			80.6			42.9	
Approach LOS		A			A			F			D	
Queue Length 50th (ft)	110	149		4	70			100		44	48	225
Queue Length 95th (ft)	165	194		m17	402			163		83	89	261
Internal Link Dist (ft)		674			463			1306			955	
Turn Bay Length (ft)	220			150								25
Base Capacity (vph)	785	2549		363	1948			210		213	443	848
Starvation Cap Reductn	0	0		0	0			0		0	0	0
Spillback Cap Reductn	0	0		0	0			0		0	0	0
Storage Cap Reductn	0	0		0	0			0		0	0	0
Reduced v/c Ratio	0.46	0.33		0.07	0.41			0.50		0.25	0.13	0.35

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 17.8 Intersection LOS: B
Intersection Capacity Utilization 66.2% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Naperville-Wheaton Road/Naperville Wheaton Road & Ogden Avenue





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	11	552	27	129	1706	82	89	50	99	38	39	12
Future Volume (vph)	11	552	27	129	1706	82	89	50	99	38	39	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	105		0	116		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	140			85			175			90		
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												
Frt		0.993			0.993			0.901			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3447	0	1787	3549	0	1736	1690	0	1752	1727	0
Flt Permitted	0.071			0.380			0.687			0.566		
Satd. Flow (perm)	135	3447	0	715	3549	0	1255	1690	0	1044	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			8			72			11	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1494			1264			284			1049	
Travel Time (s)		25.5			21.5			7.7			28.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	4%	4%	1%	1%	1%	4%	0%	2%	3%	8%	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)	11	597	0	133	1844	0	92	154	0	39	52	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		8.0	18.0		8.0	18.0	
Total Split (s)	10.0	68.0		12.0	70.0		10.0	18.0		12.0	20.0	
Total Split (%)	9.1%	61.8%		10.9%	63.6%		9.1%	16.4%		10.9%	18.2%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	62.1	53.8		67.3	63.2		18.2	12.0		19.0	10.8	
Actuated g/C Ratio	0.65	0.56		0.70	0.66		0.19	0.13		0.20	0.11	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.06	0.31		0.23	0.78		0.34	0.56		0.15	0.25	
Control Delay	6.0	12.1		6.2	16.2		35.2	32.1		31.6	37.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.0	12.1		6.2	16.2		35.2	32.1		31.6	37.2	
LOS	A	B		A	B		D	C		C	D	
Approach Delay		12.0			15.5			33.2			34.8	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	2	99		24	374		46	48		19	23	
Queue Length 95th (ft)	7	144		47	678		97	124		50	64	
Internal Link Dist (ft)		1414			1184			204			969	
Turn Bay Length (ft)	160			105			116			100		
Base Capacity (vph)	204	2268		600	2411		272	298		280	265	
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	0.05	0.26		0.22	0.76		0.34	0.52		0.14	0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 95.5			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Plank Road & Naper Boulevard

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	825	29	15	762	32	4	0	43	0	0	12
Future Vol, veh/h	0	825	29	15	762	32	4	0	43	0	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	50	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	5	4	0	8	3	0	0	2	0	0	0
Mvmt Flow	0	868	31	16	802	34	4	0	45	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	899	0	0	1317	1752	450	-	-	401
Stage 1	-	-	-	-	-	-	884	884	-	-	-	-
Stage 2	-	-	-	-	-	-	433	868	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.94	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.32	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	764	-	-	117	86	556	0	0	604
Stage 1	0	-	-	-	-	-	311	366	-	0	0	-
Stage 2	0	-	-	-	-	-	577	372	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	764	-	-	113	84	556	-	-	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	228	205	-	-	-	-
Stage 1	-	-	-	-	-	-	311	366	-	-	-	-
Stage 2	-	-	-	-	-	-	553	364	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	13.1	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	495	-	-	764	-	-	604
HCM Lane V/C Ratio	0.1	-	-	0.021	-	-	0.021
HCM Control Delay (s)	13.1	-	-	9.8	-	-	11.1
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	9	14	0	6	12	14	141	4	6	82	4
Future Vol, veh/h	12	9	14	0	6	12	14	141	4	6	82	4
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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	11	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	14	10	16	0	7	14	16	160	5	7	93	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	315	307	96	318	307	163	98	0	0	165	0	0
Stage 1	110	110	-	195	195	-	-	-	-	-	-	-
Stage 2	205	197	-	123	112	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.61	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.61	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.61	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.099	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	642	592	966	639	610	887	1508	-	-	1426	-	-
Stage 1	900	787	-	811	743	-	-	-	-	-	-	-
Stage 2	802	721	-	886	807	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	618	582	966	612	600	887	1508	-	-	1426	-	-
Mov Cap-2 Maneuver	618	582	-	612	600	-	-	-	-	-	-	-
Stage 1	889	783	-	801	734	-	-	-	-	-	-	-
Stage 2	773	712	-	856	803	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	9.8	0.7	0.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1508	-	-	709	765	1426	-	-
HCM Lane V/C Ratio	0.011	-	-	0.056	0.027	0.005	-	-
HCM Control Delay (s)	7.4	0	-	10.4	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	40	56	92	196	130	70
Future Vol, veh/h	40	56	92	196	130	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	80	0	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	0	2	3
Mvmt Flow	43	60	98	209	138	74

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	580	175	212	0	-	0
Stage 1	175	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Critical Hdwy	6.43	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	475	874	1370	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	441	874	1370	-	-	-
Mov Cap-2 Maneuver	441	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	11.3	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SBLn2	SWT	SWR
Capacity (veh/h)	1370	-	441	874	-	-
HCM Lane V/C Ratio	0.071	-	0.096	0.068	-	-
HCM Control Delay (s)	7.8	-	14	9.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	12	7	13	14	9	11	19	211	6	4	171	20
Future Vol, veh/h	12	7	13	14	9	11	19	211	6	4	171	20
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	14	8	8	11	0	0	1	0	25	3	0
Mvmt Flow	13	7	14	15	10	12	20	224	6	4	182	21

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	479	478	227	479	471	193	203	0	0	230	0	0
Stage 1	267	267	-	201	201	-	-	-	-	-	-	-
Stage 2	212	211	-	278	270	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.64	6.28	7.18	6.61	6.2	4.1	-	-	4.35	-	-
Critical Hdwy Stg 1	6.1	5.64	-	6.18	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.64	-	6.18	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.126	3.372	3.572	4.099	3.3	2.2	-	-	2.425	-	-
Pot Cap-1 Maneuver	500	469	798	487	478	854	1381	-	-	1214	-	-
Stage 1	743	667	-	787	718	-	-	-	-	-	-	-
Stage 2	795	706	-	716	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	478	459	798	465	468	854	1381	-	-	1214	-	-
Mov Cap-2 Maneuver	478	459	-	465	468	-	-	-	-	-	-	-
Stage 1	730	656	-	774	715	-	-	-	-	-	-	-
Stage 2	771	703	-	684	659	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	11.8	12.1	0.6	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1381	-	-	565	546	1214	-	-
HCM Lane V/C Ratio	0.015	-	-	0.06	0.066	0.004	-	-
HCM Control Delay (s)	7.6	0	-	11.8	12.1	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	12	6	41	23	11
Future Vol, veh/h	8	12	6	41	23	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	9	0	3	9	0
Mvmt Flow	10	14	7	49	28	13

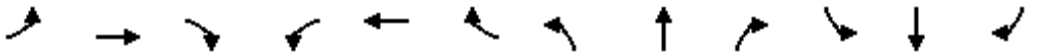
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	98	35	41	0	-	0
Stage 1	35	-	-	-	-	-
Stage 2	63	-	-	-	-	-
Critical Hdwy	6.4	6.29	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.381	2.2	-	-	-
Pot Cap-1 Maneuver	906	1018	1581	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	965	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	901	1018	1581	-	-	-
Mov Cap-2 Maneuver	901	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	965	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1581	-	968	-	-
HCM Lane V/C Ratio	0.005	-	0.025	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Capacity Analysis Summary Sheets

Year 2030 No-Build Weekday Evening Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	147	700	284	149	894	229	219	752	49	298	1247	71
Future Volume (vph)	147	700	284	149	894	229	219	752	49	298	1247	71
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	200		260	250		0	300		260
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	50			100			110			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.957				0.850		0.991				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3421	0	1805	3800	1599	1805	3569	0	1805	3800	1568
Flt Permitted	0.103			0.084			0.086			0.132		
Satd. Flow (perm)	190	3421	0	160	3800	1599	163	3569	0	251	3800	1568
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		320			793			1494			667	
Travel Time (s)		6.2			15.4			25.5			11.4	
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 (%)	3%	1%	1%	0%	0%	1%	0%	0%	4%	0%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	153	1025	0	155	931	239	228	834	0	310	1299	74
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases	2			6		6	8			4		4
Detector Phase	5	2		1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	15.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	6.5	21.5		6.5	21.5	21.5	6.5	21.5		6.5	21.5	6.5
Total Split (s)	15.0	54.0		15.0	54.0	54.0	15.0	46.0		35.0	66.0	15.0
Total Split (%)	10.0%	36.0%		10.0%	36.0%	36.0%	10.0%	30.7%		23.3%	44.0%	10.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	0.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.5	6.5		3.5	6.5	6.5	3.5	6.5		3.5	6.5	3.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	61.9	47.7		62.1	47.8	47.8	60.9	46.4		77.5	59.5	77.2
Actuated g/C Ratio	0.41	0.32		0.41	0.32	0.32	0.41	0.31		0.52	0.40	0.51

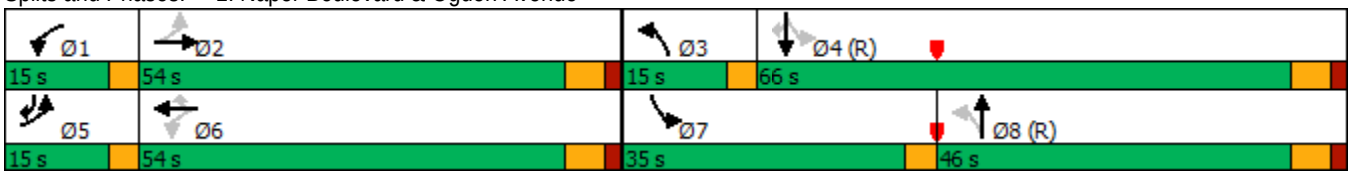
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.78	0.94		0.82	0.77	0.47	1.19	0.76		0.81	0.86	0.09
Control Delay	51.8	65.6		64.2	51.3	44.8	162.2	52.8		46.3	48.6	18.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	51.8	65.6		64.2	51.3	44.8	162.2	52.8		46.3	48.6	18.9
LOS	D	E		E	D	D	F	D		D	D	B
Approach Delay		63.8			51.6			76.3			46.9	
Approach LOS		E			D			E			D	
Queue Length 50th (ft)	102	526		95	435	188	~215	391		199	610	36
Queue Length 95th (ft)	m#195	#660		#217	517	277	#407	#523		307	708	65
Internal Link Dist (ft)		240			713			1414			587	
Turn Bay Length (ft)	100			200		260	250			300		260
Base Capacity (vph)	198	1088		192	1211	509	191	1102		456	1507	810
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.77	0.94		0.81	0.77	0.47	1.19	0.76		0.68	0.86	0.09

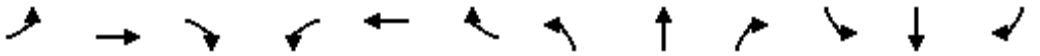
Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 57.8 Intersection LOS: E
Intersection Capacity Utilization 99.1% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Naper Boulevard & Ogden Avenue





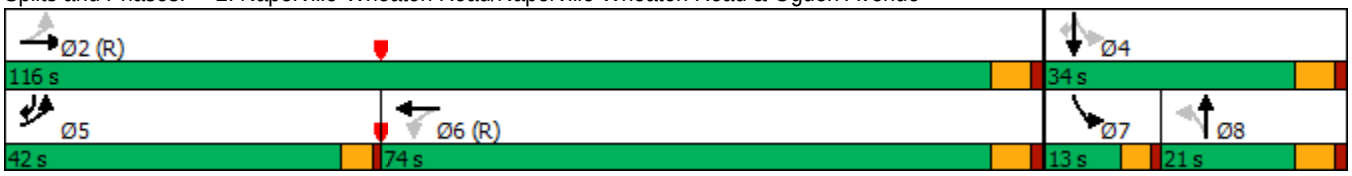
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	296	936	66	38	1055	66	46	51	30	139	140	394
Future Volume (vph)	296	936	66	38	1055	66	46	51	30	139	140	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	220		0	150		0	0		0	0		25
Storage Lanes	1		0	1		0	0		0	1		1
Taper Length (ft)	90			100			25			25		
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												
Frt		0.990			0.991			0.968				0.850
Flt Protected	0.950			0.950				0.982		0.950		
Satd. Flow (prot)	1770	3541	0	1805	3578	0	0	1806	0	1787	2000	1599
Flt Permitted	0.148			0.274				0.820		0.455		
Satd. Flow (perm)	276	3541	0	521	3578	0	0	1508	0	856	2000	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		754			543			1386			1035	
Travel Time (s)		14.7			10.6			27.0			17.6	
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 (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	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)	308	1044	0	40	1168	0	0	132	0	145	146	410
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	pm+ov
Protected Phases	5	2			6			8		7	4	5
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		6	6		8	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0		21.0	21.0		21.0	21.0		7.5	14.0	7.5
Total Split (s)	42.0	116.0		74.0	74.0		21.0	21.0		13.0	34.0	42.0
Total Split (%)	28.0%	77.3%		49.3%	49.3%		14.0%	14.0%		8.7%	22.7%	28.0%
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.5	1.5		1.5	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		6.0	6.0			6.0		4.5	6.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	None
Act Effct Green (s)	109.4	107.9		81.9	81.9			15.4		31.6	30.1	57.6
Actuated g/C Ratio	0.73	0.72		0.55	0.55			0.10		0.21	0.20	0.38

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.74	0.41		0.14	0.60			0.86		0.59	0.36	0.67
Control Delay	26.6	8.9		24.6	29.2			107.8		63.3	55.3	43.7
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Delay	26.6	8.9		24.6	29.2			107.8		63.3	55.3	43.7
LOS	C	A		C	C			F		E	E	D
Approach Delay		12.9			29.0			107.8			50.2	
Approach LOS		B			C			F			D	
Queue Length 50th (ft)	109	184		15	245			130		126	127	342
Queue Length 95th (ft)	210	218		m26	m347			#259		197	198	413
Internal Link Dist (ft)		674			463			1306			955	
Turn Bay Length (ft)	220			150								25
Base Capacity (vph)	574	2596		284	1954			155		244	401	785
Starvation Cap Reductn	0	0		0	0			0		0	0	0
Spillback Cap Reductn	0	0		0	0			0		0	0	0
Storage Cap Reductn	0	0		0	0			0		0	0	0
Reduced v/c Ratio	0.54	0.40		0.14	0.60			0.85		0.59	0.36	0.52

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 38 (25%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 30.0 Intersection LOS: C
Intersection Capacity Utilization 81.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Naperville-Wheaton Road/Naperville Wheaton Road & Ogden Avenue



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	15	1623	87	142	941	56	67	70	232	95	81	13
Future Volume (vph)	15	1623	87	142	941	56	67	70	232	95	81	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	160		0	105		0	116		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	140			85			175			90		
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												
Frt		0.992			0.992			0.885			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3581	0	1787	3581	0	1805	1678	0	1805	1857	0
Flt Permitted	0.236			0.066			0.693			0.241		
Satd. Flow (perm)	440	3581	0	124	3581	0	1317	1678	0	458	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			8			130			7	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1494			1264			284			1049	
Travel Time (s)		25.5			21.5			7.7			28.6	
Confl. Peds. (#/hr)												
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 (%)	2%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	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)	16	1800	0	149	1050	0	71	318	0	100	99	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		8.0	22.0		8.0	22.0	
Total Split (s)	12.0	60.0		12.0	60.0		13.0	25.0		13.0	25.0	
Total Split (%)	10.9%	54.5%		10.9%	54.5%		11.8%	22.7%		11.8%	22.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	62.9	54.4		68.5	62.8		25.4	16.2		26.2	16.6	
Actuated g/C Ratio	0.60	0.52		0.65	0.60		0.24	0.15		0.25	0.16	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.05	0.96		0.69	0.49		0.20	0.86		0.44	0.33	
Control Delay	8.3	40.2		36.9	14.8		28.9	48.5		34.6	40.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.3	40.2		36.9	14.8		28.9	48.5		34.6	40.1	
LOS	A	D		D	B		C	D		C	D	
Approach Delay		39.9			17.6			44.9			37.3	
Approach LOS		D			B			D			D	
Queue Length 50th (ft)	4	~711		51	204		36	130		51	57	
Queue Length 95th (ft)	12	#853		#151	322		70	#270		94	109	
Internal Link Dist (ft)		1414			1184			204			969	
Turn Bay Length (ft)	160			105			116			100		
Base Capacity (vph)	384	1866		217	2151		372	413		239	349	
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	0.04	0.96		0.69	0.49		0.19	0.77		0.42	0.28	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 104.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 32.9 Intersection LOS: C
Intersection Capacity Utilization 95.4% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Plank Road & Naper Boulevard

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	0	1073	37	20	1121	28	13	0	54	0	0	41
Future Vol, veh/h	0	1073	37	20	1121	28	13	0	54	0	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	50	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	5	1	4	0	0	2	0	0	0
Mvmt Flow	0	1106	38	21	1156	29	13	0	56	0	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1144	0	0	1745	2352	572	-	-	578
Stage 1	-	-	-	-	-	-	1125	1125	-	-	-	-
Stage 2	-	-	-	-	-	-	620	1227	-	-	-	-
Critical Hdwy	-	-	-	4.2	-	-	7.5	6.5	6.94	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.25	-	-	3.5	4	3.32	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	590	-	-	56	36	463	0	0	464
Stage 1	0	-	-	-	-	-	222	283	-	0	0	-
Stage 2	0	-	-	-	-	-	447	253	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	590	-	-	50	35	463	-	-	464
Mov Cap-2 Maneuver	-	-	-	-	-	-	150	135	-	-	-	-
Stage 1	-	-	-	-	-	-	222	283	-	-	-	-
Stage 2	-	-	-	-	-	-	392	244	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	18.8	13.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	330	-	-	590	-	-	464
HCM Lane V/C Ratio	0.209	-	-	0.035	-	-	0.091
HCM Control Delay (s)	18.8	-	-	11.3	-	-	13.5
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	7	21	2	6	33	12	149	4	19	300	17
Future Vol, veh/h	12	7	21	2	6	33	12	149	4	19	300	17
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	89	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	50	0	0	0	1	0	0	0	0
Mvmt Flow	13	8	23	2	7	36	13	162	4	21	326	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	589	569	335	583	576	164	344	0	0	166	0	0
Stage 1	377	377	-	190	190	-	-	-	-	-	-	-
Stage 2	212	192	-	393	386	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.6	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.95	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	423	435	712	360	431	886	1226	-	-	1424	-	-
Stage 1	649	619	-	713	747	-	-	-	-	-	-	-
Stage 2	795	745	-	546	614	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	392	422	712	336	418	886	1226	-	-	1424	-	-
Mov Cap-2 Maneuver	392	422	-	336	418	-	-	-	-	-	-	-
Stage 1	641	608	-	704	738	-	-	-	-	-	-	-
Stage 2	747	736	-	512	603	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	10.4	0.6	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1226	-	-	520	712	1424	-	-
HCM Lane V/C Ratio	0.011	-	-	0.084	0.063	0.015	-	-
HCM Control Delay (s)	8	0	-	12.6	10.4	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	7.5

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	148	171	106	207	256	59
Future Vol, veh/h	148	171	106	207	256	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	80	0	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	168	194	120	235	291	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	800	325	358	0	-	0
Stage 1	325	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	356	718	1206	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	320	718	1206	-	-	-
Mov Cap-2 Maneuver	320	-	-	-	-	-
Stage 1	661	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	19.4	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SBLn2	SWT	SWR
Capacity (veh/h)	1206	-	320	718	-	-
HCM Lane V/C Ratio	0.1	-	0.526	0.271	-	-
HCM Control Delay (s)	8.3	-	28.1	11.9	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	2.9	1.1	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	2	16	41	7	21	16	331	12	12	285	25
Future Vol, veh/h	9	2	16	41	7	21	16	331	12	12	285	25
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	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	9	0	0	11	0	0	0	14	0
Mvmt Flow	10	2	19	48	8	24	19	385	14	14	331	29

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	820	818	392	815	811	346	360	0	0	399	0	0
Stage 1	430	430	-	374	374	-	-	-	-	-	-	-
Stage 2	390	388	-	441	437	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.19	6.5	6.2	4.21	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.581	4	3.3	2.299	-	-	2.2	-	-
Pot Cap-1 Maneuver	296	313	661	288	316	702	1151	-	-	1171	-	-
Stage 1	607	587	-	633	621	-	-	-	-	-	-	-
Stage 2	638	612	-	582	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	272	302	661	271	305	702	1151	-	-	1171	-	-
Mov Cap-2 Maneuver	272	302	-	271	305	-	-	-	-	-	-	-
Stage 1	594	575	-	620	612	-	-	-	-	-	-	-
Stage 2	599	603	-	552	571	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	14.2	18.9	0.4	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1151	-	-	422	338	1171	-	-
HCM Lane V/C Ratio	0.016	-	-	0.074	0.237	0.012	-	-
HCM Control Delay (s)	8.2	0	-	14.2	18.9	8.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.9	0	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	22	12	27	44	28
Future Vol, veh/h	9	22	12	27	44	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	2	4
Mvmt Flow	11	27	14	33	53	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	131	70	87	0	-	0
Stage 1	70	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	868	998	1522	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	967	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	860	998	1522	-	-	-
Mov Cap-2 Maneuver	860	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	967	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	2.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1522	-	954	-	-
HCM Lane V/C Ratio	0.009	-	0.039	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Capacity Analysis Summary Sheets

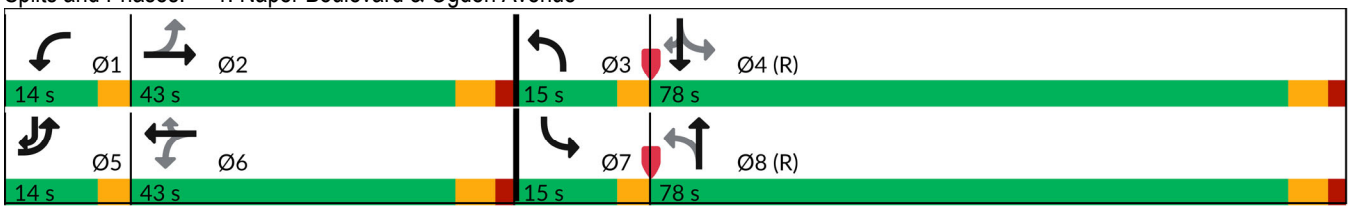
Year 2030 Total Projected Weekday Morning Peak Hour

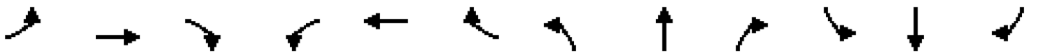
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	638	102	40	538	205	238	1560	54	194	443	25
Future Volume (vph)	140	638	102	40	538	205	238	1560	54	194	443	25
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	100		0	200		260	250		0	300		260
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	50			100			110			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.979				0.850		0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3366	0	1752	3619	1524	1770	3558	0	1770	3689	1380
Flt Permitted	0.223			0.138			0.461			0.055		
Satd. Flow (perm)	411	3366	0	255	3619	1524	859	3558	0	102	3689	1380
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		320			793			1494			667	
Travel Time (s)		6.2			15.4			25.5			11.4	
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
Heavy Vehicles (%)	3%	5%	5%	3%	5%	6%	2%	1%	0%	2%	3%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	771	0	42	560	214	248	1681	0	202	461	26
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases	2			6		6	8			4		4
Detector Phase	5	2		1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	15.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	6.5	21.5		6.5	21.5	21.5	6.5	21.5		6.5	21.5	6.5
Total Split (s)	14.0	43.0		14.0	43.0	43.0	15.0	78.0		15.0	78.0	14.0
Total Split (%)	9.3%	28.7%		9.3%	28.7%	28.7%	10.0%	52.0%		10.0%	52.0%	9.3%
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	0.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.5	6.5		3.5	6.5	6.5	3.5	6.5		3.5	6.5	3.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	50.8	39.4		45.9	35.0	35.0	85.8	71.5		88.3	73.3	90.2
Actuated g/C Ratio	0.34	0.26		0.31	0.23	0.23	0.57	0.48		0.59	0.49	0.60
v/c Ratio	0.63	0.87		0.27	0.66	0.60	0.44	0.99		0.99	0.26	0.03
Control Delay (s/veh)	45.4	57.8		36.5	56.2	58.8	16.9	58.7		99.9	23.3	13.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	45.4	57.8		36.5	56.2	58.8	16.9	58.7		99.9	23.3	13.0
LOS	D	E		D	E	E	B	E		F	C	B
Approach Delay (s/veh)		55.8			55.9			53.3			45.3	
Approach LOS		E			E			D			D	
Queue Length 50th (ft)	71	387		27	260	186	109	845		~168	139	10
Queue Length 95th (ft)	131	#518		56	326	278	158	#1026		#339	178	24

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		240			713			1414			587	
Turn Bay Length (ft)	100			200		260	250			300		260
Base Capacity (vph)	232	884		187	880	370	562	1695		205	1803	831
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.63	0.87		0.22	0.64	0.58	0.44	0.99		0.99	0.26	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 15 (10%), Referenced to phase 4:SBTL and 8:NBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay (s/veh): 53.1		Intersection LOS: D	
Intersection Capacity Utilization 97.3%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Naper Boulevard & Ogden Avenue



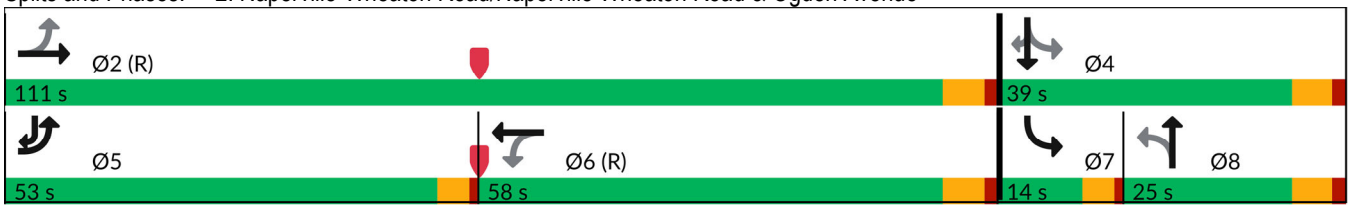


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	345	788	22	25	736	27	30	65	13	51	58	281
Future Volume (vph)	345	788	22	25	736	27	30	65	13	51	58	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	220		0	150		0	0		0	0		25
Storage Lanes	1		0	1		0	0		0	1		1
Taper Length (ft)	90			100			25			25		
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
Frt		0.996			0.995			0.983				0.850
Flt Protected	0.950			0.950				0.986		0.950		
Satd. Flow (prot)	1752	3429	0	1805	3386	0	0	1842	0	1703	2000	1568
Flt Permitted	0.276			0.332				0.884		0.452		
Satd. Flow (perm)	509	3429	0	631	3386	0	0	1651	0	810	2000	1568
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		754			543			1386			1035	
Travel Time (s)		14.7			10.6			27.0			17.6	
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
Heavy Vehicles (%)	3%	5%	0%	0%	6%	8%	0%	0%	0%	6%	0%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	363	852	0	26	803	0	0	114	0	54	61	296
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	pm+ov
Protected Phases	5	2			6			8		7	4	5
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		6	6		8	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0		21.0	21.0		21.0	21.0		7.5	14.0	7.5
Total Split (s)	53.0	111.0		58.0	58.0		25.0	25.0		14.0	39.0	53.0
Total Split (%)	35.3%	74.0%		38.7%	38.7%		16.7%	16.7%		9.3%	26.0%	35.3%
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.5	1.5		1.5	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		6.0	6.0			6.0		4.5	6.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	None
Act Effct Green (s)	112.2	110.7		85.7	85.7			15.8		28.8	27.3	53.8
Actuated g/C Ratio	0.75	0.74		0.57	0.57			0.11		0.19	0.18	0.36
v/c Ratio	0.66	0.34		0.07	0.42			0.66		0.26	0.17	0.53
Control Delay (s/veh)	13.1	8.1		8.4	10.3			81.8		50.5	49.8	39.4
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Delay (s/veh)	13.1	8.1		8.4	10.3			81.8		50.5	49.8	39.4
LOS	B	A		A	B			F		D	D	D
Approach Delay (s/veh)		9.6			10.2			81.8			42.4	
Approach LOS		A			B			F			D	
Queue Length 50th (ft)	113	153		4	70			109		43	49	222
Queue Length 95th (ft)	165	195		m17	402			175		83	92	261

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		674			463			1306			955	
Turn Bay Length (ft)	220			150								25
Base Capacity (vph)	782	2539		360	1934			209		215	445	855
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	0.46	0.34		0.07	0.42			0.55		0.25	0.14	0.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 18.2		Intersection LOS: B	
Intersection Capacity Utilization 66.6%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Naperville-Wheaton Road/Naperville Wheaton Road & Ogden Avenue

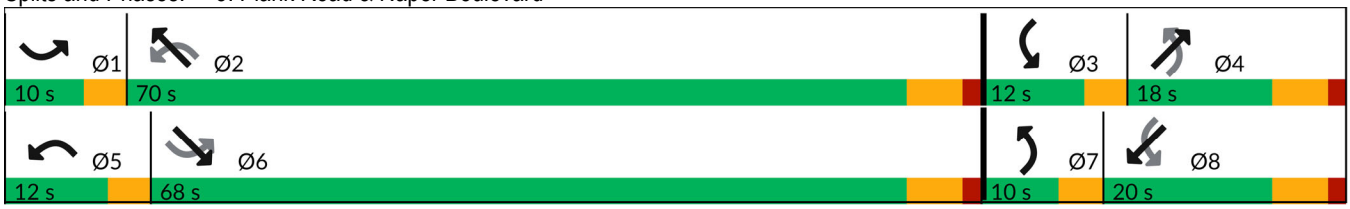


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	11	552	29	131	1706	82	90	52	104	38	39	12
Future Volume (vph)	11	552	29	131	1706	82	90	52	104	38	39	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	105		0	116		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	140			85			175			90		
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
Frt		0.992			0.993			0.900			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3443	0	1787	3549	0	1736	1688	0	1752	1727	0
Flt Permitted	0.071			0.379			0.687			0.540		
Satd. Flow (perm)	135	3443	0	713	3549	0	1255	1688	0	996	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			8			73			11	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1494			1264			284			1049	
Travel Time (s)		25.5			21.5			7.7			28.6	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	4%	4%	1%	1%	1%	4%	0%	2%	3%	8%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	599	0	135	1844	0	93	161	0	39	52	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		8.0	18.0		8.0	18.0	
Total Split (s)	10.0	68.0		12.0	70.0		10.0	18.0		12.0	20.0	
Total Split (%)	9.1%	61.8%		10.9%	63.6%		9.1%	16.4%		10.9%	18.2%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	62.0	53.7		67.3	63.2		18.3	12.1		19.1	10.9	
Actuated g/C Ratio	0.65	0.56		0.70	0.66		0.19	0.13		0.20	0.11	
v/c Ratio	0.06	0.31		0.23	0.78		0.34	0.58		0.15	0.25	
Control Delay (s/veh)	6.1	12.2		6.3	16.3		35.3	33.1		31.6	37.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	6.1	12.2		6.3	16.3		35.3	33.1		31.6	37.1	
LOS	A	B		A	B		D	C		C	D	
Approach Delay (s/veh)		12.1			15.6			33.9			34.8	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	2	101		25	381		46	52		19	23	
Queue Length 95th (ft)	7	144		48	678		98	#134		50	64	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		1414			1184			204			969	
Turn Bay Length (ft)	160			105			116			100		
Base Capacity (vph)	203	2264		598	2409		273	298		275	265	
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	0.05	0.26		0.23	0.77		0.34	0.54		0.14	0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 95.6			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay (s/veh): 17.0		Intersection LOS: B	
Intersection Capacity Utilization 82.2%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: Plank Road & Naper Boulevard



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	4	825	29	18	762	32	4	0	53	0	0	12
Future Vol, veh/h	4	825	29	18	762	32	4	0	53	0	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	50	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	5	4	0	8	3	0	0	2	0	0	0
Mvmt Flow	4	868	31	19	802	34	4	0	56	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	836	0	0	899	0	0	1331	1766	450	-	-	401
Stage 1	-	-	-	-	-	-	892	892	-	-	-	-
Stage 2	-	-	-	-	-	-	439	874	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.94	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.32	-	-	3.3
Pot Cap-1 Maneuver	807	-	-	764	-	-	115	85	556	0	0	604
Stage 1	-	-	-	-	-	-	307	363	-	0	0	-
Stage 2	-	-	-	-	-	-	572	370	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	807	-	-	764	-	-	110	82	556	-	-	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	223	201	-	-	-	-
Stage 1	-	-	-	-	-	-	304	359	-	-	-	-
Stage 2	-	-	-	-	-	-	546	361	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.2	13.1	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	503	807	-	-	764	-	-	604
HCM Lane V/C Ratio	0.119	0.005	-	-	0.025	-	-	0.021
HCM Ctrl Dly (s/v)	13.1	9.5	-	-	9.8	-	-	11.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q (veh)	0.4	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	9	14	0	8	20	14	141	4	9	82	4
Future Vol, veh/h	12	9	14	0	8	20	14	141	4	9	82	4
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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	11	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	14	10	16	0	9	23	16	160	5	10	93	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	327	313	96	324	313	163	98	0	0	165	0	0
Stage 1	116	116	-	195	195	-	-	-	-	-	-	-
Stage 2	211	197	-	129	118	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.61	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.61	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.61	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.099	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	630	588	966	633	606	887	1508	-	-	1426	-	-
Stage 1	894	782	-	811	743	-	-	-	-	-	-	-
Stage 2	796	721	-	880	802	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	598	577	966	605	594	887	1508	-	-	1426	-	-
Mov Cap-2 Maneuver	598	577	-	605	594	-	-	-	-	-	-	-
Stage 1	883	777	-	801	734	-	-	-	-	-	-	-
Stage 2	757	712	-	848	796	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.5	9.8	0.7	0.7
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1508	-	-	698	777	1426	-	-
HCM Lane V/C Ratio	0.011	-	-	0.057	0.041	0.007	-	-
HCM Ctrl Dly (s/v)	7.4	0	-	10.5	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	40	56	92	197	133	70
Future Vol, veh/h	40	56	92	197	133	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	80	0	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	0	2	3
Mvmt Flow	43	60	98	210	141	74

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	584	178	215	0	-	0
Stage 1	178	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Critical Hdwy	6.43	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	472	870	1367	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	438	870	1367	-	-	-
Mov Cap-2 Maneuver	438	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	SB	NE	SW
HCM Ctrl Dly, s/v	11.4	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SBLn2	SWT	SWR
Capacity (veh/h)	1367	-	438	870	-	-
HCM Lane V/C Ratio	0.072	-	0.097	0.068	-	-
HCM Ctrl Dly (s/v)	7.8	-	14.1	9.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q (veh)	0.2	-	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	7	13	23	9	14	20	211	6	4	171	24
Future Vol, veh/h	12	7	13	23	9	14	20	211	6	4	171	24
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	14	8	8	11	0	0	1	0	25	3	0
Mvmt Flow	13	7	14	24	10	15	21	224	6	4	182	26

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	485	485	227	483	475	195	208	0	0	230	0	0
Stage 1	269	269	-	203	203	-	-	-	-	-	-	-
Stage 2	216	216	-	280	272	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.64	6.28	7.18	6.61	6.2	4.1	-	-	4.35	-	-
Critical Hdwy Stg 1	6.1	5.64	-	6.18	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.64	-	6.18	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.126	3.372	3.572	4.099	3.3	2.2	-	-	2.425	-	-
Pot Cap-1 Maneuver	496	465	798	484	475	851	1375	-	-	1214	-	-
Stage 1	741	665	-	785	717	-	-	-	-	-	-	-
Stage 2	791	702	-	714	668	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	472	455	798	462	465	851	1375	-	-	1214	-	-
Mov Cap-2 Maneuver	472	455	-	462	465	-	-	-	-	-	-	-
Stage 1	728	653	-	771	714	-	-	-	-	-	-	-
Stage 2	764	699	-	681	656	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Ctrl Dly, s/v	11.8	12.4	0.6	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1375	-	-	560	537	1214	-	-
HCM Lane V/C Ratio	0.015	-	-	0.061	0.091	0.004	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	11.8	12.4	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.2	0.3	0	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	2	13	10	9	0	7	41	4	0	24	11
Future Vol, veh/h	8	2	13	10	9	0	7	41	4	0	24	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	83	92	83	92	92	92	83	83	92	92	83	83
Heavy Vehicles, %	0	2	9	2	2	2	0	3	2	2	9	0
Mvmt Flow	10	2	16	11	10	0	8	49	4	0	29	13

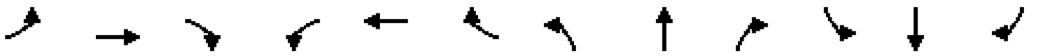
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	108	105	36	112	109	51	42	0	0	53	0	0
Stage 1	36	36	-	67	67	-	-	-	-	-	-	-
Stage 2	72	69	-	45	42	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.29	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.381	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	876	785	1017	866	781	1017	1580	-	-	1553	-	-
Stage 1	985	865	-	943	839	-	-	-	-	-	-	-
Stage 2	943	837	-	969	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	865	781	1017	848	777	1017	1580	-	-	1553	-	-
Mov Cap-2 Maneuver	865	781	-	848	777	-	-	-	-	-	-	-
Stage 1	980	865	-	938	835	-	-	-	-	-	-	-
Stage 2	927	833	-	952	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9	9.5	1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1580	-	-	937	813	1553	-	-
HCM Lane V/C Ratio	0.005	-	-	0.029	0.025	-	-	-
HCM Ctrl Dly (s/v)	7.3	0	-	9	9.5	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	-	0.1	0.1	0	-	-

Capacity Analysis Summary Sheets

Year 2030 Total Projected Weekday Evening Peak Hour

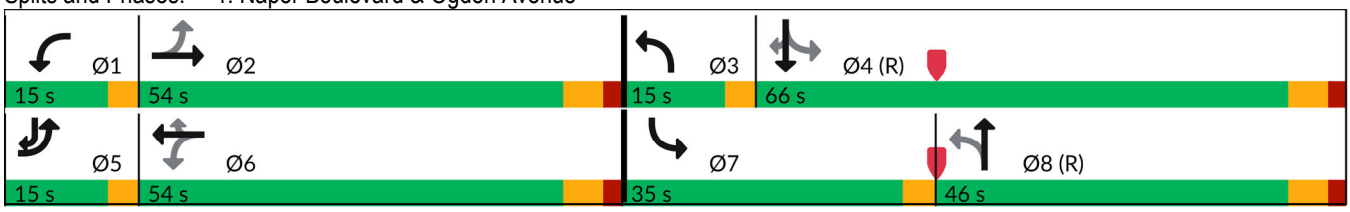


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	151	703	284	149	899	229	219	754	49	298	1251	74
Future Volume (vph)	151	703	284	149	899	229	219	754	49	298	1251	74
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	100		0	200		260	250		0	300		260
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	50			100			110			80		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.957				0.850		0.991				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3421	0	1805	3800	1599	1805	3569	0	1805	3800	1568
Flt Permitted	0.100			0.084			0.086			0.131		
Satd. Flow (perm)	184	3421	0	160	3800	1599	163	3569	0	249	3800	1568
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		320			793			1494			667	
Travel Time (s)		6.2			15.4			25.5			11.4	
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
Heavy Vehicles (%)	3%	1%	1%	0%	0%	1%	0%	0%	4%	0%	0%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	157	1028	0	155	936	239	228	836	0	310	1303	77
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases	2			6		6	8			4		4
Detector Phase	5	2		1	6	6	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0	15.0	3.0	15.0		3.0	15.0	3.0
Minimum Split (s)	6.5	21.5		6.5	21.5	21.5	6.5	21.5		6.5	21.5	6.5
Total Split (s)	15.0	54.0		15.0	54.0	54.0	15.0	46.0		35.0	66.0	15.0
Total Split (%)	10.0%	36.0%		10.0%	36.0%	36.0%	10.0%	30.7%		23.3%	44.0%	10.0%
Yellow Time (s)	3.5	4.5		3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	0.0	2.0		0.0	2.0	2.0	0.0	2.0		0.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.5	6.5		3.5	6.5	6.5	3.5	6.5		3.5	6.5	3.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Min		None	C-Min	None
Act Effct Green (s)	62.0	47.7		62.0	47.7	47.7	60.9	46.4		77.5	59.5	77.3
Actuated g/C Ratio	0.41	0.32		0.41	0.32	0.32	0.41	0.31		0.52	0.40	0.52
v/c Ratio	0.81	0.94		0.82	0.77	0.47	1.19	0.76		0.81	0.86	0.10
Control Delay (s/veh)	55.2	66.1		64.3	51.6	44.8	162.2	52.8		46.6	48.8	18.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	55.2	66.1		64.3	51.6	44.8	162.2	52.8		46.6	48.8	18.9
LOS	E	E		E	D	D	F	D		D	D	B
Approach Delay (s/veh)		64.7			51.8			76.3			47.0	
Approach LOS		E			D			E			D	
Queue Length 50th (ft)	105	527		95	437	188	~215	392		200	612	37
Queue Length 95th (ft)	m#204	#661		#217	522	277	#407	#525		308	712	67

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		240			713			1414			587	
Turn Bay Length (ft)	100			200		260	250			300		260
Base Capacity (vph)	196	1088		192	1209	508	191	1102		455	1507	810
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.80	0.94		0.81	0.77	0.47	1.19	0.76		0.68	0.86	0.10

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay (s/veh): 58.1		Intersection LOS: E	
Intersection Capacity Utilization 99.3%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Naper Boulevard & Ogden Avenue

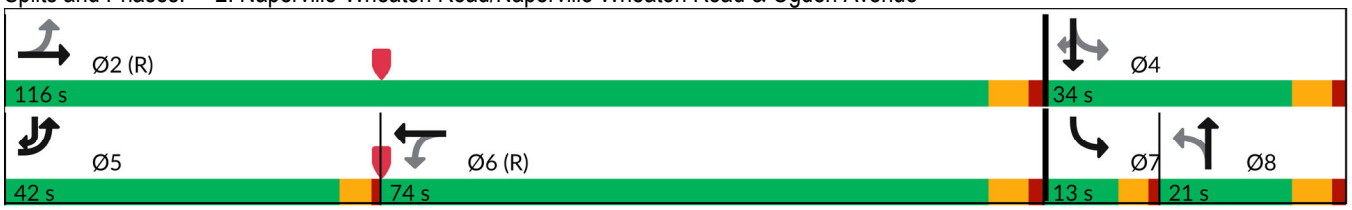


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	296	938	67	38	1055	66	48	54	30	139	145	394
Future Volume (vph)	296	938	67	38	1055	66	48	54	30	139	145	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Storage Length (ft)	220		0	150		0	0		0	0		25
Storage Lanes	1		0	1		0	0		0	1		1
Taper Length (ft)	90			100			25			25		
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
Frt		0.990			0.991			0.969				0.850
Flt Protected	0.950			0.950				0.982		0.950		
Satd. Flow (prot)	1770	3541	0	1805	3578	0	0	1808	0	1787	2000	1599
Flt Permitted	0.147			0.273				0.817		0.450		
Satd. Flow (perm)	274	3541	0	519	3578	0	0	1504	0	847	2000	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		754			543			1386			1035	
Travel Time (s)		14.7			10.6			27.0			17.6	
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
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	308	1047	0	40	1168	0	0	137	0	145	151	410
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	pm+ov
Protected Phases	5	2			6			8		7	4	5
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		6	6		8	8		7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		15.0	15.0		8.0	8.0		3.0	8.0	3.0
Minimum Split (s)	7.5	21.0		21.0	21.0		21.0	21.0		7.5	14.0	7.5
Total Split (s)	42.0	116.0		74.0	74.0		21.0	21.0		13.0	34.0	42.0
Total Split (%)	28.0%	77.3%		49.3%	49.3%		14.0%	14.0%		8.7%	22.7%	28.0%
Yellow Time (s)	3.5	4.5		4.5	4.5		4.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	1.5		1.5	1.5		1.5	1.5		1.0	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0		6.0	6.0			6.0		4.5	6.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		Yes
Recall Mode	None	C-Min		C-Min	C-Min		None	None		None	None	None
Act Effct Green (s)	109.1	107.6		81.7	81.7			15.6		31.9	30.4	57.8
Actuated g/C Ratio	0.73	0.72		0.54	0.54			0.10		0.21	0.20	0.39
v/c Ratio	0.75	0.41		0.14	0.60			0.88		0.59	0.37	0.67
Control Delay (s/veh)	27.0	9.0		24.7	29.5			110.6		63.2	55.4	43.4
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Delay (s/veh)	27.0	9.0		24.7	29.5			110.6		63.2	55.4	43.4
LOS	C	A		C	C			F		E	E	D
Approach Delay (s/veh)		13.1			29.3			110.6			50.0	
Approach LOS		B			C			F			D	
Queue Length 50th (ft)	110	184		15	247			135		126	132	342
Queue Length 95th (ft)	211	219		m26	m350			#269		197	204	413

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		674			463			1306			955	
Turn Bay Length (ft)	220			150								25
Base Capacity (vph)	573	2596		282	1947			156		244	405	787
Starvation Cap Reductn	0	0		0	0			0		0	0	0
Spillback Cap Reductn	0	0		0	0			0		0	0	0
Storage Cap Reductn	0	0		0	0			0		0	0	0
Reduced v/c Ratio	0.54	0.40		0.14	0.60			0.88		0.59	0.37	0.52

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 38 (25%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay (s/veh): 30.4		Intersection LOS: C	
Intersection Capacity Utilization 81.4%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Naperville-Wheaton Road/Naperville Wheaton Road & Ogden Avenue



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	15	1623	91	147	941	56	69	71	235	95	82	13
Future Volume (vph)	15	1623	91	147	941	56	69	71	235	95	82	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	160		0	105		0	116		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	140			85			175			90		
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
Frt		0.992			0.992			0.885			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3581	0	1787	3581	0	1805	1678	0	1805	1857	0
Flt Permitted	0.236			0.067			0.692			0.238		
Satd. Flow (perm)	440	3581	0	126	3581	0	1315	1678	0	452	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			8			130			6	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1494			1264			284			1049	
Travel Time (s)		25.5			21.5			7.7			28.6	
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
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	1804	0	155	1050	0	73	322	0	100	100	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	8.0	22.0		8.0	22.0		8.0	22.0		8.0	22.0	
Total Split (s)	12.0	60.0		12.0	60.0		13.0	25.0		13.0	25.0	
Total Split (%)	10.9%	54.5%		10.9%	54.5%		11.8%	22.7%		11.8%	22.7%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	62.8	54.4		68.5	62.7		25.6	16.3		26.3	16.7	
Actuated g/C Ratio	0.60	0.52		0.65	0.60		0.24	0.16		0.25	0.16	
v/c Ratio	0.05	0.97		0.71	0.49		0.20	0.87		0.44	0.33	
Control Delay (s/veh)	8.3	41.0		38.8	14.9		29.0	49.4		34.6	40.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	8.3	41.0		38.8	14.9		29.0	49.4		34.6	40.5	
LOS	A	D		D	B		C	D		C	D	
Approach Delay (s/veh)		40.7			17.9			45.6			37.6	
Approach LOS		D			B			D			D	
Queue Length 50th (ft)	4	~714		55	204		37	134		51	58	
Queue Length 95th (ft)	12	#856		#160	322		72	#277		94	110	

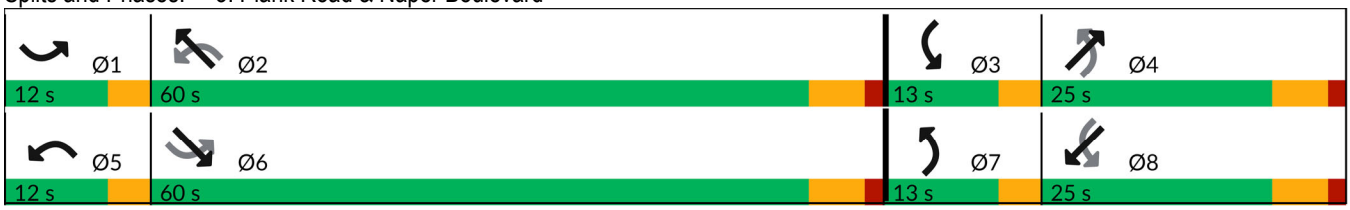
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Internal Link Dist (ft)		1414			1184			204			969	
Turn Bay Length (ft)	160			105			116			100		
Base Capacity (vph)	383	1863		218	2148		373	412		238	347	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.97		0.71	0.49		0.20	0.78		0.42	0.29	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 104.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay (s/veh): 33.5		Intersection LOS: C	
Intersection Capacity Utilization 96.0%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Plank Road & Naper Boulevard



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	5	1073	39	28	1121	28	13	0	31	1	0	41
Future Vol, veh/h	5	1073	39	28	1121	28	13	0	31	1	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	50	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	5	1	4	0	0	2	0	0	0
Mvmt Flow	5	1106	40	29	1156	29	13	0	32	1	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1185	0	0	1146	0	0	1772	2379	573	1777	-	578
Stage 1	-	-	-	-	-	-	1136	1136	-	1214	-	-
Stage 2	-	-	-	-	-	-	636	1243	-	563	-	-
Critical Hdwy	4.1	-	-	4.2	-	-	7.5	6.5	6.94	7.5	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	-	-
Follow-up Hdwy	2.2	-	-	2.25	-	-	3.5	4	3.32	3.5	-	3.3
Pot Cap-1 Maneuver	596	-	-	589	-	-	54	35	463	53	0	464
Stage 1	-	-	-	-	-	-	218	279	-	196	0	-
Stage 2	-	-	-	-	-	-	437	249	-	483	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	596	-	-	589	-	-	46	33	463	47	-	464
Mov Cap-2 Maneuver	-	-	-	-	-	-	143	129	-	47	-	-
Stage 1	-	-	-	-	-	-	213	273	-	191	-	-
Stage 2	-	-	-	-	-	-	378	237	-	439	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.3	20.4	13.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	279	596	-	-	589	-	-	464
HCM Lane V/C Ratio	0.163	0.009	-	-	0.049	-	-	0.091
HCM Ctrl Dly (s/v)	20.4	11.1	-	-	11.4	-	-	13.5
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q (veh)	0.6	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	8	21	2	7	38	12	149	5	25	300	17
Future Vol, veh/h	12	8	21	2	7	38	12	149	5	25	300	17
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	89	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	50	0	0	0	1	0	0	0	0
Mvmt Flow	13	9	23	2	8	41	13	162	5	27	326	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	604	582	335	596	589	165	344	0	0	167	0	0
Stage 1	389	389	-	191	191	-	-	-	-	-	-	-
Stage 2	215	193	-	405	398	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.6	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.95	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	413	427	712	353	423	885	1226	-	-	1423	-	-
Stage 1	639	612	-	712	746	-	-	-	-	-	-	-
Stage 2	792	745	-	537	606	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	377	412	712	327	408	885	1226	-	-	1423	-	-
Mov Cap-2 Maneuver	377	412	-	327	408	-	-	-	-	-	-	-
Stage 1	631	597	-	703	737	-	-	-	-	-	-	-
Stage 2	738	736	-	500	591	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.8	10.5	0.6	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1226	-	-	506	710	1423	-	-
HCM Lane V/C Ratio	0.011	-	-	0.089	0.072	0.019	-	-
HCM Ctrl Dly (s/v)	8	0	-	12.8	10.5	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.3	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	7.5

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	148	171	106	210	258	59
Future Vol, veh/h	148	171	106	210	258	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	80	0	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	168	194	120	239	293	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	806	327	360	0	-	0
Stage 1	327	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	353	717	1204	-	-	-
Stage 1	733	-	-	-	-	-
Stage 2	625	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	318	717	1204	-	-	-
Mov Cap-2 Maneuver	318	-	-	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	625	-	-	-	-	-

Approach	SB	NE	SW
HCM Ctrl Dly, s/v	19.5	2.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SBLn2	SWT	SWR
Capacity (veh/h)	1204	-	318	717	-	-
HCM Lane V/C Ratio	0.1	-	0.529	0.271	-	-
HCM Ctrl Dly (s/v)	8.3	-	28.3	11.9	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q (veh)	0.3	-	2.9	1.1	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	2	16	47	7	23	19	331	12	12	285	35
Future Vol, veh/h	9	2	16	47	7	23	19	331	12	12	285	35
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	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	9	0	0	11	0	0	0	14	0
Mvmt Flow	10	2	19	55	8	27	22	385	14	14	331	41

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	833	836	392	827	823	352	372	0	0	399	0	0
Stage 1	436	436	-	380	380	-	-	-	-	-	-	-
Stage 2	397	400	-	447	443	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.19	6.5	6.2	4.21	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.581	4	3.3	2.299	-	-	2.2	-	-
Pot Cap-1 Maneuver	290	305	661	283	311	696	1139	-	-	1171	-	-
Stage 1	603	583	-	628	617	-	-	-	-	-	-	-
Stage 2	633	605	-	577	579	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	265	293	661	265	299	696	1139	-	-	1171	-	-
Mov Cap-2 Maneuver	265	293	-	265	299	-	-	-	-	-	-	-
Stage 1	588	568	-	612	608	-	-	-	-	-	-	-
Stage 2	592	596	-	545	565	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Ctrl Dly, s/v	14.4	20	0.4	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1139	-	-	415	329	1171	-	-
HCM Lane V/C Ratio	0.019	-	-	0.076	0.272	0.012	-	-
HCM Ctrl Dly (s/v)	8.2	0	-	14.4	20	8.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.2	1.1	0	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	6	23	7	5	0	14	27	11	0	44	28
Future Vol, veh/h	9	6	23	7	5	0	14	27	11	0	44	28
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	83	92	83	92	92	92	83	83	92	92	83	83
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	2	4
Mvmt Flow	11	7	28	8	5	0	17	33	12	0	53	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	146	149	70	161	160	39	87	0	0	45	0	0
Stage 1	70	70	-	73	73	-	-	-	-	-	-	-
Stage 2	76	79	-	88	87	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.2	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	827	743	998	804	732	1033	1522	-	-	1563	-	-
Stage 1	945	837	-	937	834	-	-	-	-	-	-	-
Stage 2	938	829	-	920	823	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	815	735	998	770	724	1033	1522	-	-	1563	-	-
Mov Cap-2 Maneuver	815	735	-	770	724	-	-	-	-	-	-	-
Stage 1	935	837	-	927	825	-	-	-	-	-	-	-
Stage 2	922	820	-	887	823	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.2	9.9	2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1522	-	-	903	750	1563	-	-
HCM Lane V/C Ratio	0.011	-	-	0.05	0.017	-	-	-
HCM Ctrl Dly (s/v)	7.4	0	-	9.2	9.9	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q (veh)	0	-	-	0.2	0.1	0	-	-