

Traffic Impact Study

Redevelopment of the CNH Industrial Campus

Burr Ridge, Illinois



Prepared For:



February 15, 2024

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed redevelopment of the CNH Industrial campus in Burr Ridge, Illinois. The site, which currently contains CNH Industrial and the Burr Ridge Public Works department, is generally located between Madison Street, Plainfield Road, County Line Road, and Harvester Drive. As part of the redevelopment, the following roadway modification will be provided:

- The east-west segment of Veterans Boulevard will be extended from its current terminus east of the site to International Street. The extension will provide two lanes in each direction generally divided by a landscape median.
- Commerce Street will be vacated from approximately 480 feet west of International Street to its eastern terminus.

As proposed, the site is to be redeveloped with the following:

- Approximately 1,199,875 square feet of light industrial space in six buildings. Access to the industrial buildings will be provided via three proposed access drives on the Veterans Boulevard extension, a proposed access drive on the north-south segment of Veterans Boulevard, and two proposed access drives on Commerce Street.
- A residential development with 72 townhome units. Access to the residential development will be provided via a proposed access drive on the Veterans Boulevard extension.
- A new and relocated 68,294 square-foot Burr Ridge public works building. Access to the public works building will be provided via two proposed access drives on Harvester Drive.

In order to accommodate site-generated traffic, the following additional roadway improvements will be provided.

- The signalized intersection of County Line Road with Veterans Boulevard with Carriage Way will be modified as follows:
 - The eastbound approach will be restriped for an exclusive left-turn lane, a shared through/right-turn lane, and an exclusive right-turn lane.
 - County Line Road will be widened to provide dual northbound left-turn lanes.
 - County Line Road will be widened to provide a southbound right-turn lane.
 - The traffic signal will be modified/upgraded.
 - Traffic signal timings and cycle length will be optimized.
- A traffic signal will be warranted and will be provided at the intersection of Veterans Boulevard with the North I-55 Frontage Road. This intersection will be interconnected with

the signalized intersection of County Line Road with Veterans Boulevard and Carriage Way.

- A traffic signal will be warranted and will be provided at the intersection of Plainfield Road with High Grove Boulevard. This intersection will be interconnected with the existing signal system on Plainfield Road. In addition, the northbound approach will be striped for an exclusive left-turn lane and an exclusive right-turn lane.
- The westbound approach of the intersection of Madison Street with High Grove Boulevard will be striped for an exclusive left-turn lane and an exclusive right-turn lane.

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, weekday evening, and Saturday midday peak hours for the following conditions:

1. Existing Conditions – Analyzes the capacity of the existing roadway system using peak hour traffic volumes as determined from peak period traffic counts.
2. Year 2029 No-Build Conditions – Analyzes the capacity of the existing roadway system using the existing traffic volumes increased by an ambient area growth factor.
3. Year 2029 Total Projected Conditions – Analyzes the capacity of the existing roadway system using the Year 2029 no-build traffic volumes increased by the traffic estimated to be generated by the full buildout of proposed development.



Site Location

Figure 1

*CNH Industrial Redevelopment
Burr Ridge, Illinois*



Aerial View of Site

Figure 2

2. Existing Conditions

Existing traffic and roadway conditions were documented based on field visits and traffic counts conducted by KLOA, Inc. The following provides a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses, and peak hour traffic flows along area roadways.

Site Location

The, which currently contains CNH Industrial and the Burr Ridge Public Works department, is generally located between Madison Street, Plainfield Road, County Line Road, and Harvester Drive. Land uses in the vicinity of the site are a mixture of residential, office, and industrial.

Existing Roadway System Characteristics

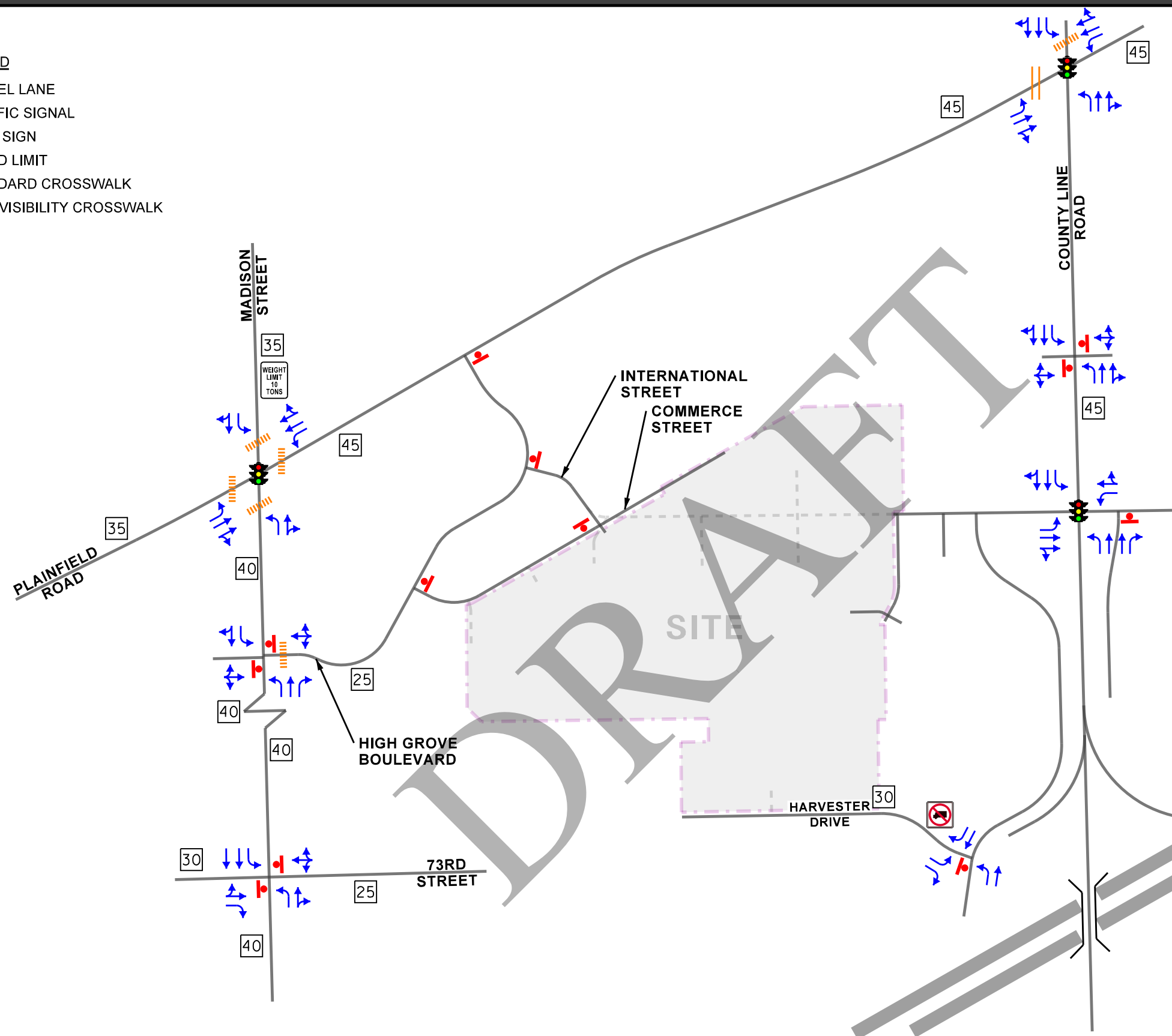
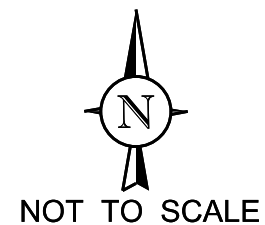
The characteristics of the existing roadways that surround the proposed development are illustrated in **Figure 3** and described below.

Interstate 55 (I-57) is a freeway that runs northeast-southwest in the vicinity of the site. Approximately one-half mile south of Veterans Boulevard, County Line Road has a free flow cloverleaf interchange with I-55. I-55 is under the jurisdiction of the Illinois Department of Transportation (IDOT) and carries an Annual Average Daily Traffic (AADT) volume of 149,900 (IDOT 2022) vehicles.

County Line Road (Cook County Highway W19) is a north-south, minor arterial roadway that provides two lanes in each direction narrowing to one lane in each direction north of Plainfield Road. At its signalized intersection with Plainfield Road, County Line Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. At its signalized intersection with Veterans Boulevard and Carriage Way, County Line Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the northbound approach and an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the southbound approach. At its unsignalized intersection with Carriage Place, County Line Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. County Line Road is under the jurisdiction of the Cook County Department of Transportation and Highways (CCDOH), carries an AADT volume of 18,200 vehicles south of Plainfield Road and 10,700 vehicles north of Plainfield Road (IDOT 2022), is not designated as a Strategic Regional Arterial (SRA) route, and has a posted speed limit of 45 miles per hour.

Plainfield Road (DuPage County Highway 31, Cook County Highway B37) is an east-west roadway. West of County Line Road, Plainfield Road provides two lanes in each direction, is designated as a minor arterial roadway, and is under the jurisdiction of DuPage County Division of Transportation (DuDOT). East of County Line Road, Plainfield Road narrows to one lane in each direction, is designated as major collector roadway, and is under the jurisdiction of CCDOH. At its signalized intersections with County Line Road and Madison Street, Plainfield Road provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches.

- LEGEND**
- TRAVEL LANE
 - TRAFFIC SIGNAL
 - STOP SIGN
 - SPEED LIMIT
 - STANDARD CROSSWALK
 - HIGH VISIBILITY CROSSWALK



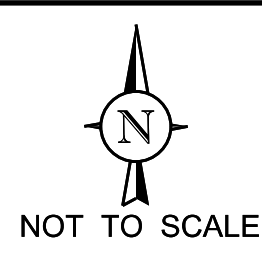
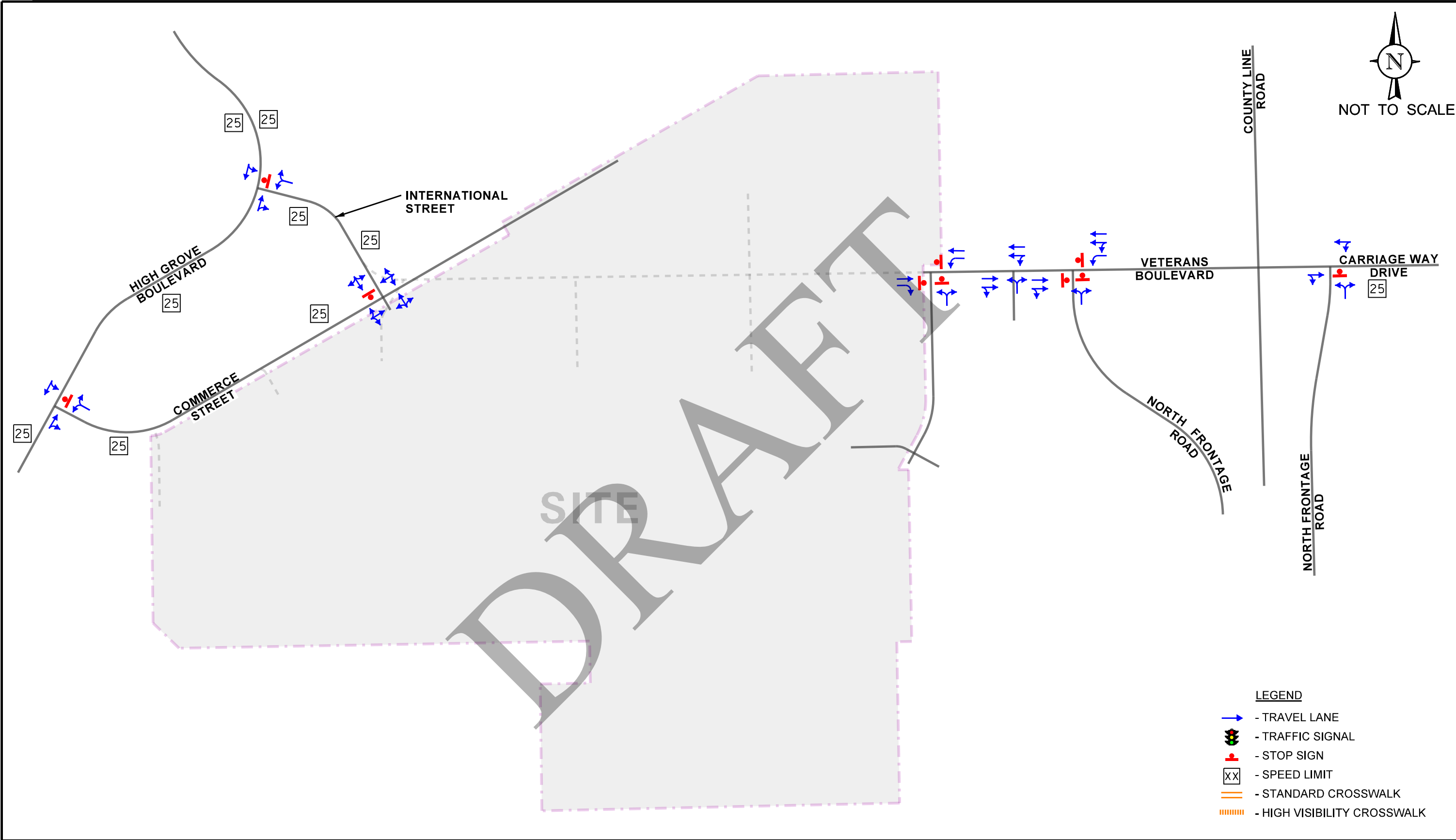


Figure 3A – Existing Roadway Characteristics

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Figure 3B – Existing Roadway Characteristics

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At its unsignalized intersection with High Grove Boulevard, Plainfield Road provides two through lanes and an exclusive right-turn lane on the eastbound approach and two through lanes and an exclusive left-turn lane on the westbound approach. Plainfield Road carries an AADT volume of 16,400 vehicles west of County Line Road and 9,650 vehicles east of County Line Road (IDOT 2022), is not designated as a Strategic Regional Arterial (SRA) route and has a posted speed limit of 45 miles per hour.

Madison Street (DuPage County Highway 8) is a north-south, major collector roadway that provides one lane in each direction. At its signalized intersection with Plainfield Road, Madison Street provides an exclusive left-turn lane and a shared through/right-turn lane on both approaches. At its unsignalized intersection with High Grove Boulevard, Madison Street provides an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on the northbound approach and exclusive left-turn lane and a shared through/right-turn lane on the southbound approach. Madison Street is under the jurisdiction of DuDOT, carries an AADT volume of 8,00 vehicles (IDOT 2020), and has a posted speed limit of 35 miles per hour north of Plainfield Road and 40 miles per hour south of Plainfield Road.

Veterans Boulevard is a local roadway that extends west from County Line Road to the east side of the development site before turning south where it extends for approximately 700 feet. The east west segment of the roadway provides two lanes in each direction divided by a landscape median. The north-south segment provides one lane in each direction. At its signalized intersection with County Line Road, Veterans Boulevard is aligned opposite Carriage Way and provides an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on the eastbound approach. At its all-way stop controlled intersection with the North I-55 Frontage Road, Veterans Boulevard provides a through lane and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane, a shared through/left-turn lane, and a through lane on the westbound approach. At the east boundary of the site, Veterans Boulevard has an all-way stop controlled “T” intersection where the west leg is a CNH Industrial access drive and the south and east legs are Veterans Boulevard. The westbound approach provides an exclusive left-turn lane and a through lane, the eastbound (access drive) approach provides a through lane and an exclusive right-turn lane, and the northbound approach provides a shared left-turn/right-turn lane. The east-west segment of Veterans Boulevard is under the jurisdiction of the Village of Burr Ridge and the north-south section is under the jurisdiction of Downers Grove North Township.

The *North I-55 Frontage Road* is a local frontage road that borders I-55 and provides one lane in each direction. The frontage road is divided by County Line with connection provided via Veterans Boulevard and Carriage Way. At its all-way stop controlled intersection with Veterans Boulevard, the frontage road provides an exclusive left-turn lane and an exclusive right-turn lane. At its unsignalized intersection with Harvester Drive, the frontage road provides an exclusive left-turn lane and a through lane on the northbound approach and a through lane and exclusive right-turn lane on the southbound approach. At its unsignalized intersection with Carriage Way, the frontage road provides a shared left-turn/right-turn lane on the northbound approach and is under stop sign control. The frontage road is under the jurisdiction of the Village of Burr Ridge west of County Line Road and IDOT east of County Line Road and has a posted speed limit of 35 miles per hour.

Carriage Way is an east-west local roadway that extends east from County Line Road and provides one lane in each direction. At its signalized intersection with County Line Road, Carriage Way is aligned opposite Veterans Boulevard and provides an exclusive left-turn lane, and a shared through/right-turn lane on the westbound approach. At its unsignalized intersection with the North I-55 Frontage Road, Carriage Way provides one lane in each direction. Carriage Way is under the jurisdiction of the Village of Burr Ridge and has a posted speed limit of 25 miles per hour.

Carriage Place is an east-west local roadway that extends from Fieldstone Drive to County Line Lane and provides one lane in each direction. At its unsignalized intersection with County Line Road, Carriage Place provides one lane on both approaches and is under stop sign control. Carriage Way is under the jurisdiction of the Village of Burr Ridge.

Harvester Drive is an east-west local roadway that extends west from the I-55 North Frontage Road and provides one lane in each direction. At its unsignalized intersection with the North I-55 Frontage Road, Harvester Drive provides an exclusive left-turn lane and an exclusive right-turn lane on the eastbound approach and is under stop sign control. Harvester Drive is under the jurisdiction of the Village of Burr Ridge.

High Grove Boulevard is a local roadway that extends south from Plainfield Road before turning west towards its terminus at Madison Street. High Grove Boulevard provides one lane in each direction. At its unsignalized intersection with Plainfield Road, High Grove Boulevard is wide enough to provide two outbound lanes on the northbound approach and is under stop sign control. At its unsignalized intersection with Madison Street, High Grove Boulevard is wide enough to provide two outbound lanes on the northbound approach and is under stop sign control. At its unsignalized intersections with Commerce Street and International Street, High Grove Boulevard provides one lane in each direction. High Grove Boulevard is under the jurisdiction of the Village of Burr Ridge and has a posted speed limit of 25 miles per hour.

Commerce Street is an east-west local roadway that extends east from High Grove Boulevard to its terminus at the site's western boundary. At its unsignalized intersection with High Grove Boulevard, Commerce Street provides a shared left-turn/right-turn lane on the northbound approach and is under stop sign control. At its unsignalized intersections with International Street, Commerce Street provides one lane in each direction.

International Street is a north-south local roadway that extends between High Grove Boulevard and Commerce Street. At its unsignalized intersections with High Grove Boulevard and Commerce Street, International Street provides a shared left-turn/right-turn lane and is under stop sign control.

Planned Area Roadway Improvements

Cook County Department of Transportation and Highways (CCDOTH) is proposing to modify the east leg of the intersection of County Line Road with Veterans Boulevard and Carriage Way to address existing issues resulting from the proximity of this intersection to the intersection of Carriage Way with the North I-55 Frontage Road. The proposed development is not projected to increase the volume of traffic at this traveling to or from the east leg of this intersection by a significant amount. These improvements will potentially include additional lanes, channelization, and a median on Carriage Way and the frontage road in order to better accommodate truck turning movements and facilitate traffic flow between the frontage road and County Line Road. Exhibits showing the evaluated alternatives from CCDOTH's 2020 feasibility study are included in the Appendix.

CCDOTH is also proposing to improve the intersection of County Line Road with Plainfield Road. This intersection is the western boundary of a corridor study along Plainfield Road from County Line Road to East Avenue. The corridor study is currently in Phase I (Preliminary Engineering and Environmental Study). The improvements are expected to include widening Plainfield Road to provide a three-lane cross-section as well as improvements at multiple signalized intersections.

Existing Traffic Volumes

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

- County Line Road with Plainfield Road
- County Line Road with Carriage Place
- County Line Road with Veterans Boulevard and Carriage Way
- County Line Road with the I-55 Westbound Off-Ramp and Eastbound On-Ramp
- Plainfield Road with Madison Street
- Plainfield Road with High Grove Boulevard
- Madison Street with High Grove Boulevard
- Madison Street with 73rd Street
- High Grove Boulevard with Commerce Street
- High Grove Boulevard with International Street
- Commerce Street with International Street
- Veterans Boulevard (east-west) with Veterans Boulevard (north-south)
- Veterans Boulevard (east-west) with the 15W030 Access Drive
- Veterans Boulevard (east-west) with the North I-55 Frontage Road
- Veterans Boulevard (north-south) with the office complex access drive
- Carriage Way with the North I-55 Frontage Road
- The North I-55 Frontage Road with Harvester Drive

The traffic counts were conducted on Thursday July 20, 2023, during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) peak periods and on Saturday July 22, 2023 from 10:00 A.M. to 6:00 P.M. The results of the traffic counts show that the peak hours of traffic generally occur from 7:45 to 8:45 A.M. during the weekday morning peak period, from 4:30 to 5:30 P.M. during the weekday evening peak period, and from 11:30 A.M. to 12:30 P.M. on Saturday.

The existing traffic volumes, inclusive of heavy vehicles, are illustrated in **Figure 4**. The existing heavy vehicle traffic volumes are illustrated in **Figure 5**.

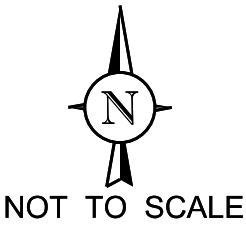
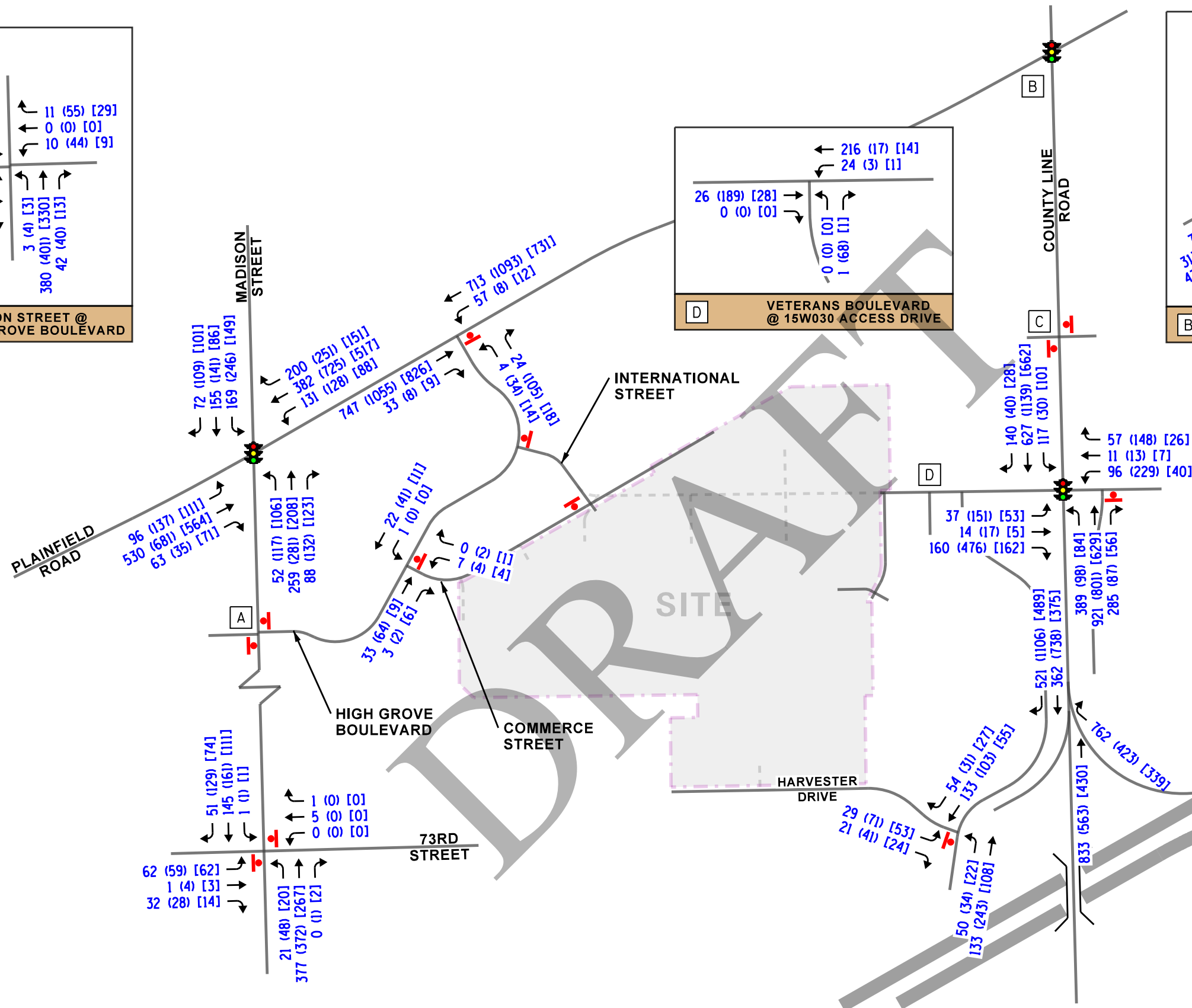
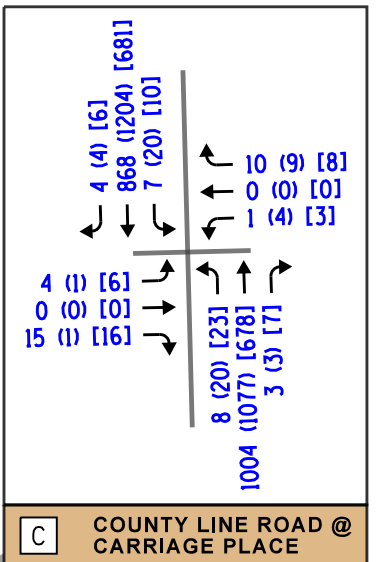
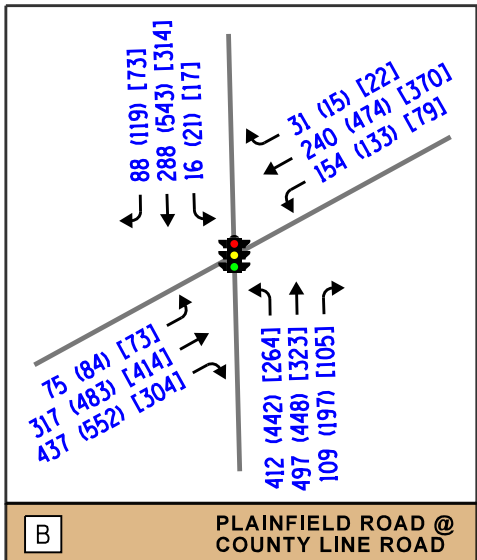
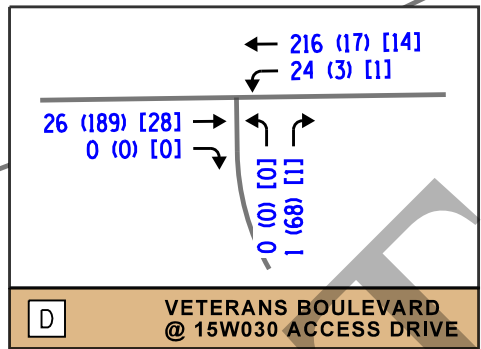
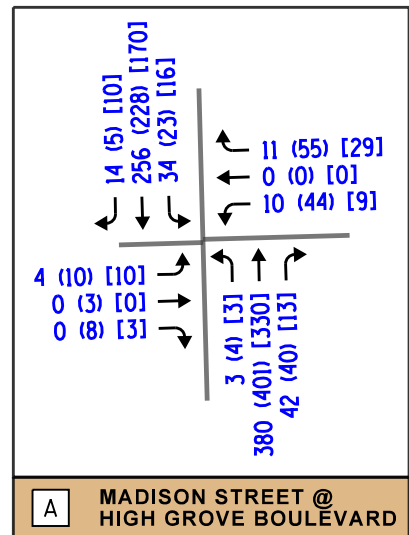
Crash Data Analysis

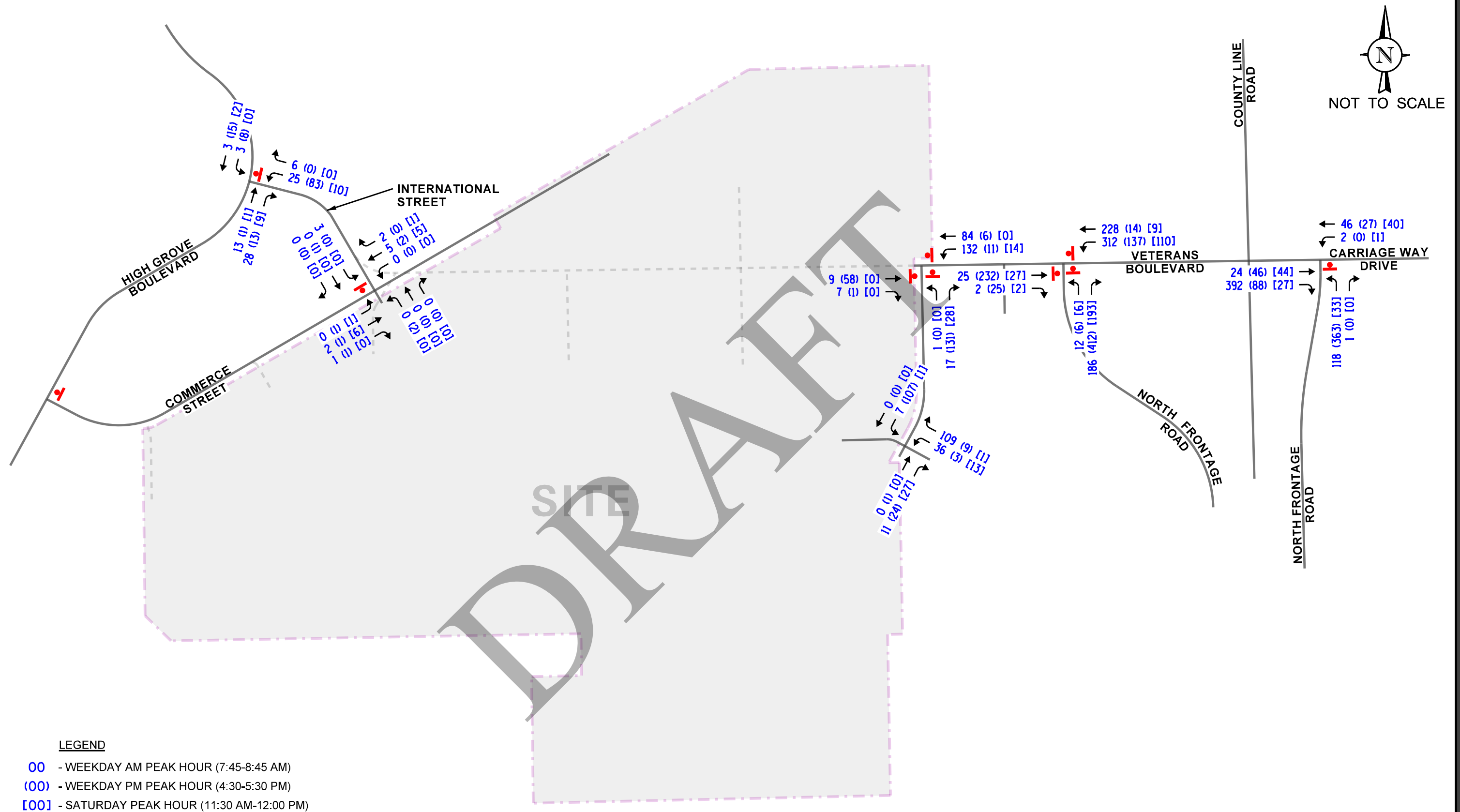
KLOA, Inc. obtained crash data¹ for the past five years (2018 to 2022) for the study area intersections. A review of the crash data indicated the following:

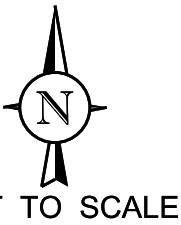
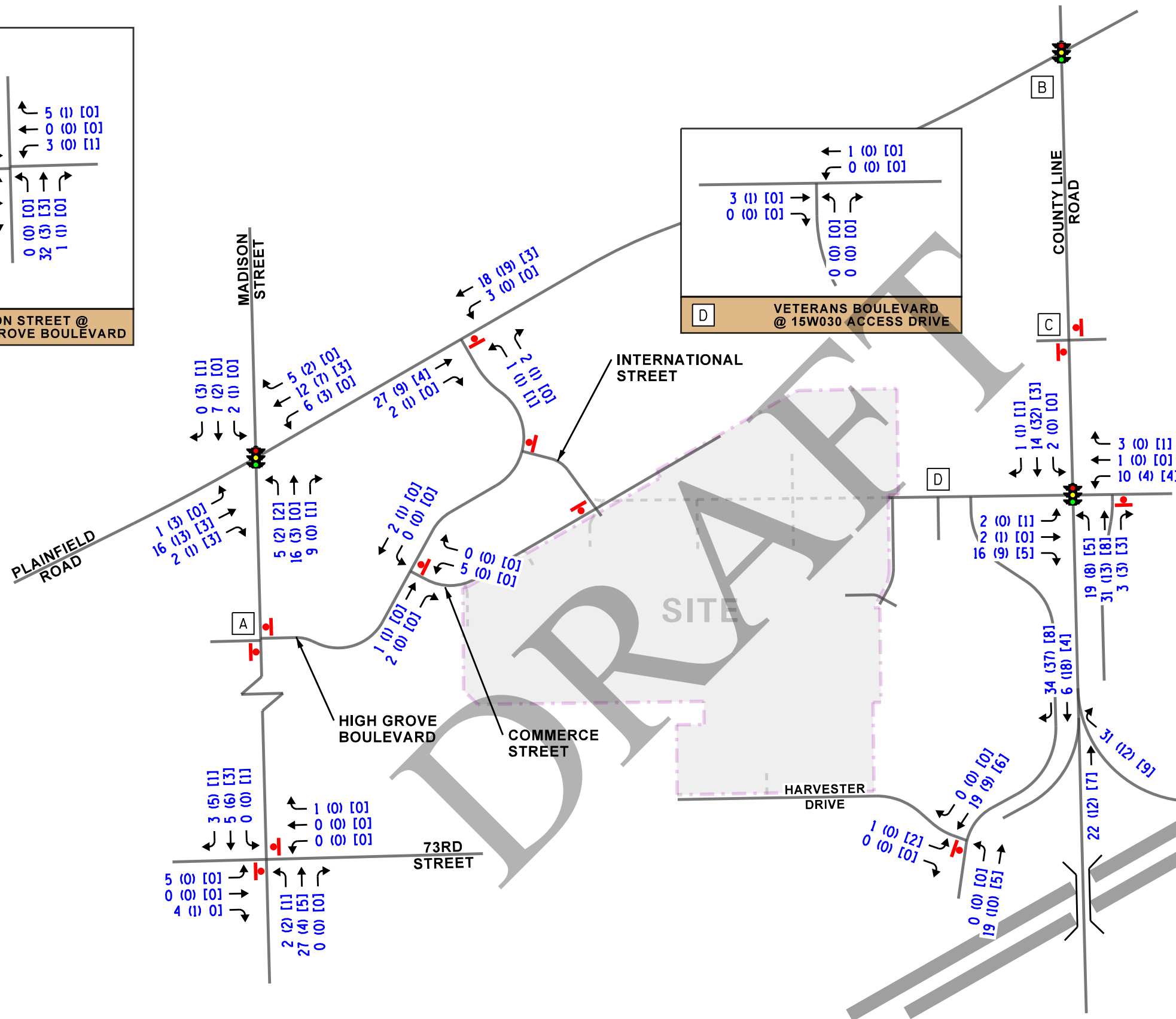
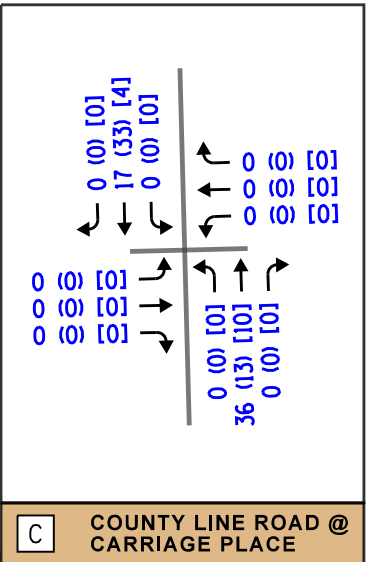
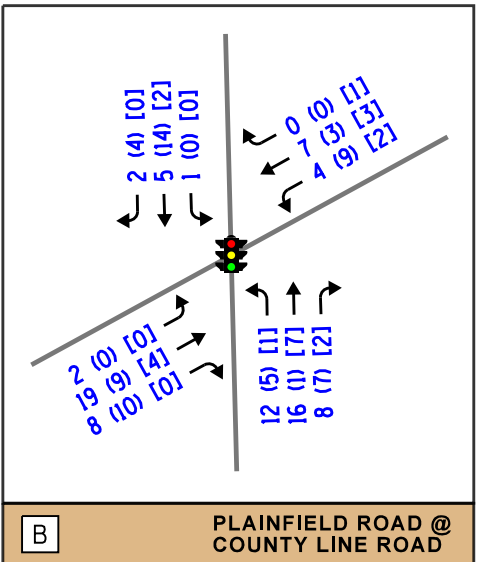
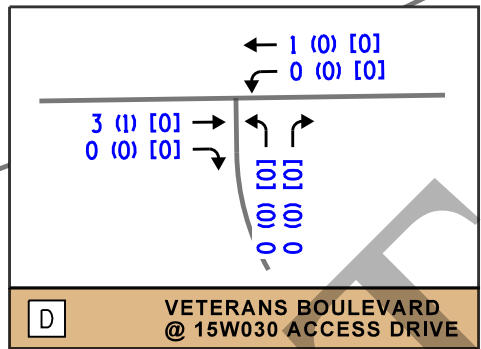
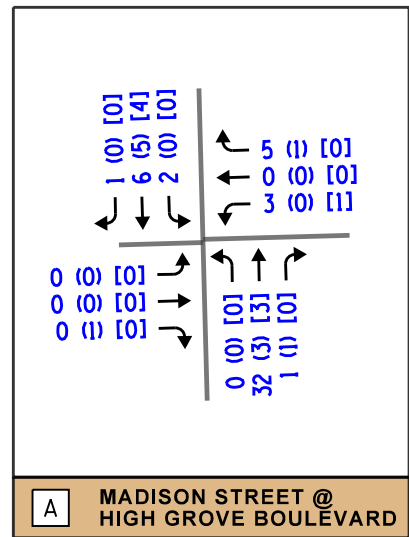
- No crashes were reported at the following intersections:
 - Madison Street with High Grove Boulevard
 - High Grove Boulevard with Commerce Street
 - High Grove Boulevard with International Street
 - Commerce Street with International Street
 - The North I-55 Frontage Road with Harvester Drive
- Less than five total crashes were reported at the following intersections:
 - County Line Road with Carriage Place
 - Plainfield Road with High Grove Boulevard
 - Veterans Boulevard with the North I-55 Frontage Road
- No fatalities were reported at any intersection during the review period.

Tables 1 through **4** summarize the crash data.

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







- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:45-8:45 AM)
 - (00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)
 - [00] - SATURDAY PEAK HOUR (11:30 AM-12:00 PM)

Table 1

COUNTY LINE ROAD WITH PLAINFIELD ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	0	0	0	0	0
2019	1	0	0	1	1	2	0	5
2020	0	0	0	1	0	3	0	4
2021	0	0	0	1	1	0	0	2
2022	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	1	0	0	4	2	5	0	12
Average	<1.0	--	--	<1.0	<1.0	1.0	--	2.4

Table 2

COUNTY LINE ROAD WITH VETERANS' BOULEVARD/CARRIAGE WAY – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	2	0	0	0	2
2019	0	0	0	1	0	0	0	1
2020	0	0	0	1	0	2	0	3
2021	0	0	0	0	0	2	0	2
2022	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>2</u>
Total	0	0	0	4	0	6	0	10
Average	--	--	--	<1.0	--	1.2	--	2.0

Table 3

PLAINFIELD ROAD WITH MADISON STREET - CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	1	0	7	1	4	0	13
2019	0	0	0	5	0	0	0	6
2020	1	0	1	4	0	1	0	7
2021	1	0	0	4	0	4	0	9
2022	<u>1</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>10</u>
Total	3	1	1	25	1	13	0	45
Average	<1.0	<1.0	<1.0	5.0	<1.0	2.6	--	9.0

Table 4

MADISON STREET WITH 73RD STREET - CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	1	0	0	1	0	2	0	4
2019	0	0	0	0	0	1	0	1
2020	0	0	0	0	0	1	0	1
2021	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	<u>0</u>	<u>0</u>
Total	1	0	0	1	0	4	0	0
Average	<1.0	--	--	<1.0	--	<1.0	--	6

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 redeveloped with the following:

- Approximately 1,199,875 square feet of light industrial space in six buildings
- A residential development with 72 townhome units
- A new and relocated 68,294 square-foot Burr Ridge public works building

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

Proposed Roadway Modification Plans

The following roadway modifications are proposed as part of the proposed development.

- The east-west segment of Veterans Boulevard will be extended from its current terminus east of the site to International Street.
 - The extension will provide two lanes in each direction generally divided by a landscape median.
 - The extension will form the third (east) leg of the intersection of the east-west segment of Veterans Boulevard with the north-south segment of Veterans Boulevard which was previously a CNH Industrial access drive. The intersection will be converted to one-way stop control with east-west movements no longer required to stop. The eastbound approach will provide a through lane and a shared through/right-turn lane, the westbound approach will provide a shared through/left-turn lane and a through lane, and the northbound approach will continue to provide a shared left-turn/right-turn lane.
 - West of the site, Veterans Boulevard will narrow to one lane in each direction and merge into International Parkway.
- Commerce Street will be vacated from approximately 480 feet west of International Street to its eastern terminus. The existing access drives on the north side of Commerce Street serving Fusion OEM will be maintained.

The proposed roadway modifications are illustrated on the preliminary site plan.

Proposed Site Access

Access to the proposed development will be provided via the following:

- *Access Drive A* will be located on Commerce Street approximately 380 feet east of High Grove Boulevard and will serve truck traffic for light industrial building A. This access drive should provide one inbound lane and one outbound lane with outbound movements under stop sign control.
- *Access Drive B* will be located on Commerce Street approximately 800 feet east of High Grove Boulevard and will serve passenger vehicle traffic for light industrial building A. This access drive should provide one inbound lane and one outbound lane with outbound movements under stop sign control.
- *Access Drive C* will be located on the Veterans Boulevard extension approximately 2,450 feet west of the I-55 North Frontage Road and will serve passenger vehicle traffic for light industrial buildings B to F. This access drive should provide one inbound lane and one outbound lane with outbound movements under stop sign control. A westbound left-turn lane serving this access drive should be provided on Veterans Boulevard within the proposed median.
- *Access Drive D* will be located on the Veterans Boulevard extension approximately 1,850 feet west of the I-55 North Frontage Road and will serve passenger vehicle traffic for light industrial buildings B to F. This access drive should provide one inbound lane and one outbound lane with outbound movements under stop sign control. A westbound left-turn lane serving this access drive should be provided on Veterans Boulevard within the proposed median.
- *Access Drive E* will be located on the Veterans Boulevard extension approximately 1,230 feet west of the I-55 North Frontage Road. The access drive will serve passenger vehicle and truck traffic for light industrial buildings B to F on the south side and residential traffic on the north side. Both approaches should provide one inbound lane and two outbound lanes with outbound movements under stop sign control. Eastbound and westbound left-turn lanes serving the access drives should be provided on Veterans Boulevard within the proposed median.
- *Access Drive F* will be located on the north-south segment of Veterans Boulevard 640 feet south of the east-west segment that will serve passenger vehicle truck traffic for light industrial buildings B to F. This access drive will replace an existing CNH Industrial access drive at this location. The access drive should provide one inbound lane and one outbound lane with outbound movements under stop sign control.

- *Access Drive G* will be located on Harvester Drive approximately 1,350 feet west of the North I-55 Frontage Road that will serve the new public works building. The access drive should provide one inbound lane and one outbound lane with outbound movements under stop sign control.

Directional Distribution

The directional distribution of future site-generated trips on the roadway system is a function of several variables, including the operational characteristics of the roadway system and the ease with which drivers can travel over various sections of the roadway system. The directions from which residents, employees and trucks will approach and depart the site are illustrated in **Figure 6**.

Peak Hour Traffic Volumes

The total number of peak hour vehicle trips estimated to be generated by the proposed residential development and light industrial buildings was based on vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE).

The total number of peak hour vehicle trips estimated to be generated by the public works building was based on information provided by the Village of Burr Ridge. The estimated trip generation was compared to the traffic that is currently generated by the existing public works building during the peak hours and was found to be higher. As such, to provide a conservative analysis, the provided estimates were used. It should be noted that as the building will replace the existing public works building, not all trips generated by the building will be new to the area.

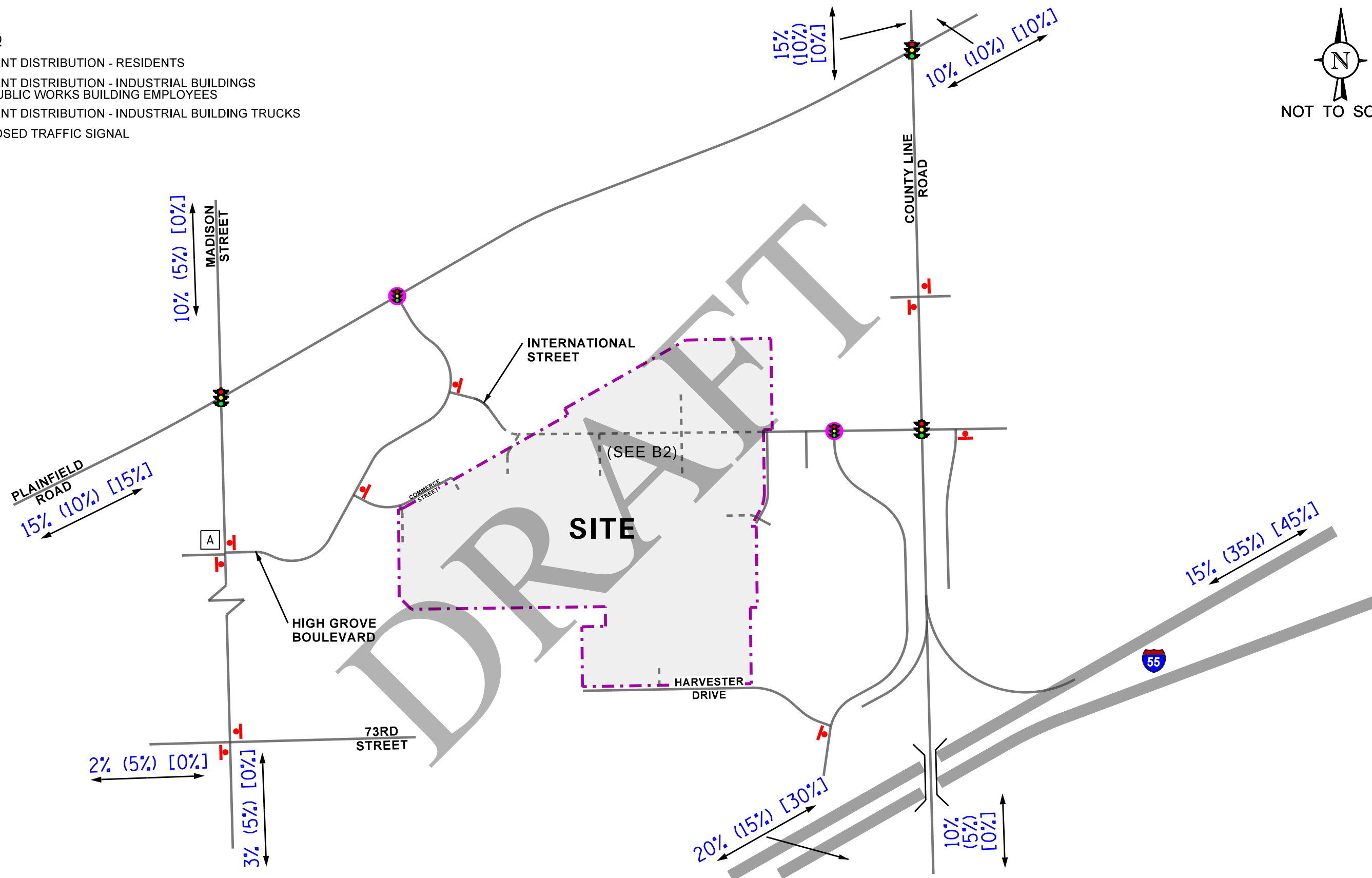
Table 5 summarizes the trips projected to be generated by the development during the peak hours and on a daily basis. **Table 6** summarizes the truck trips projected to be generated by the light industrial buildings by the hour. Copies of the ITE trip generation sheets are included in the Appendix.

LEGEND

- 00% - PERCENT DISTRIBUTION - RESIDENTS
- (00%) - PERCENT DISTRIBUTION - INDUSTRIAL BUILDINGS AND PUBLIC WORKS BUILDING EMPLOYEES
- [00%] - PERCENT DISTRIBUTION - INDUSTRIAL BUILDING TRUCKS
-  - PROPOSED TRAFFIC SIGNAL



NOT TO SCALE



CNH INDUSTRIAL CAMPUS
BURR RIDGE, ILLINOIS

DIRECTIONAL DISTRIBUTION

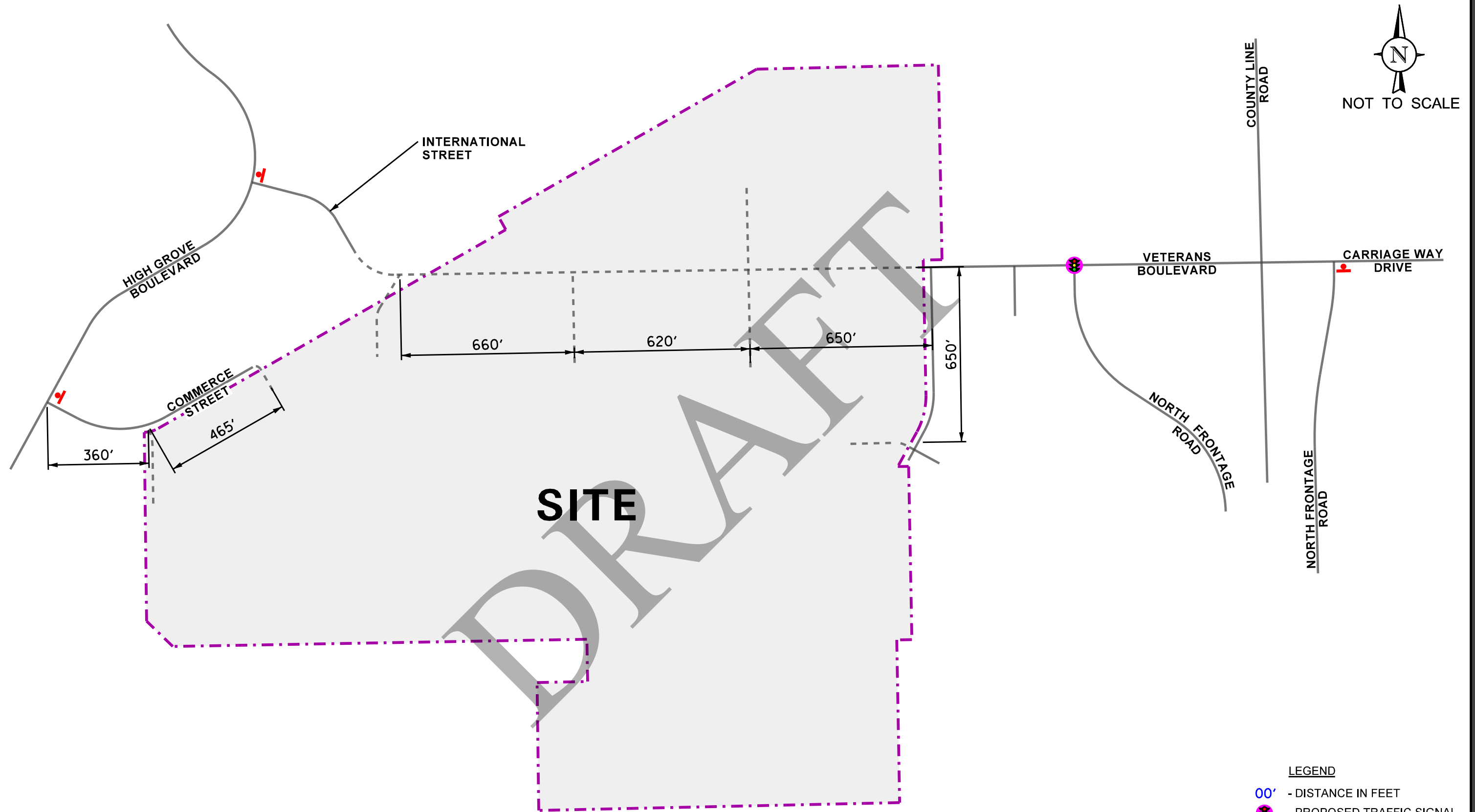


Table 5

ESTIMATED DAILY AND PEAK HOUR TRIP GENERATION

ITE Land - Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Peak Hour			Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
110	General Light Industrial ^{1, 2} (1,199,875 s.f.)	721	99	820	109	671	780	75	75	150	2,281	2,281	4,562
	<i>Industrial Truck Trips</i>	<i>14</i>	<i>15</i>	<i>29</i>	<i>5</i>	<i>6</i>	<i>11</i>	<i>3</i>	<i>3</i>	<i>6</i>	<i>150</i>	<i>150</i>	<i>300</i>
	<i>Industrial Employee Trips</i>	<i>713</i>	<i>75</i>	<i>788</i>	<i>86</i>	<i>655</i>	<i>741</i>	<i>50</i>	<i>49</i>	<i>99</i>	<i>2,032</i>	<i>2,032</i>	<i>4,064</i>
215	Single Family Housing, Attached ¹ (72 Units)	8	24	32	23	16	39	25	26	51	249	249	498
	Public Works Facility (68,294 s.f.) ³	22	10	32	10	22	32	5	5	10	40	40	80
	Development Total	751	133	884	142	709	851	105	106	211	2,570	2,570	5,140
1 – Based on ITE's <i>Trip Generation Manual</i> , 11 th Edition 2 – ITE does not provide peak hour rates for light industrial buildings on Saturday. Volumes estimated based on Saturday daily rates and weekday peak hour proportions. 3 – Based on information provided by the Village of Burr Ridge.													

Table 6
ESTIMATED 24-HOUR TRUCK TRIP GENERATION

Hour	General Ligh Industrial (ITE Land-Use Code 110) - 1,199,875 s.f.					
	Weekday Morning			Weekday Evening		
	In	Out	Total	In	Out	Total
12:00	0	0	0	14	13	27
1:00	0	0	0	19	19	38
2:00	0	1	1	16	16	32
3:00	0	0	0	15	12	27
4:00	0	0	0	5	6	11
5:00	0	0	0	1	3	4
6:00	0	0	0	0	0	0
7:00	15	8	23	0	0	0
8:00	14	15	29	0	0	0
9:00	22	24	46	0	0	0
10:00	18	26	44	0	0	0
11:00	11	7	18	0	0	0
Based on daily truck trips (Table 3) and ITE's Hourly Distribution of Entering and Exiting Truck Trips tables.						

4. Projected Traffic Conditions

The total projected traffic volumes take into consideration the base traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

The estimated weekday morning, weekday evening, and Saturday traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the directional distribution.

- **Figure 7** illustrates the traffic assignment of the residential development trips.
- **Figure 8** illustrates the traffic assignment of the industrial building employee trips.
- **Figure 9** illustrates the traffic assignment of the industrial building truck trips.
- **Figure 10** illustrates the traffic assignment of the new Public Works trips.
- **Figure 11** summarizes the trip generation for the total development.

Background (No-Build) Traffic Volumes

Under no-build and total projected 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 AADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the area roadways are projected to experience a compounded growth rate of approximately 0.3 percent per year. As such, a total background growth of two percent was added to project Year 2029 conditions (construction year plus five years). The Year 2029 no-build traffic volumes, which include the existing traffic volumes increased by the ambient growth factor, are illustrated in **Figure 12**.

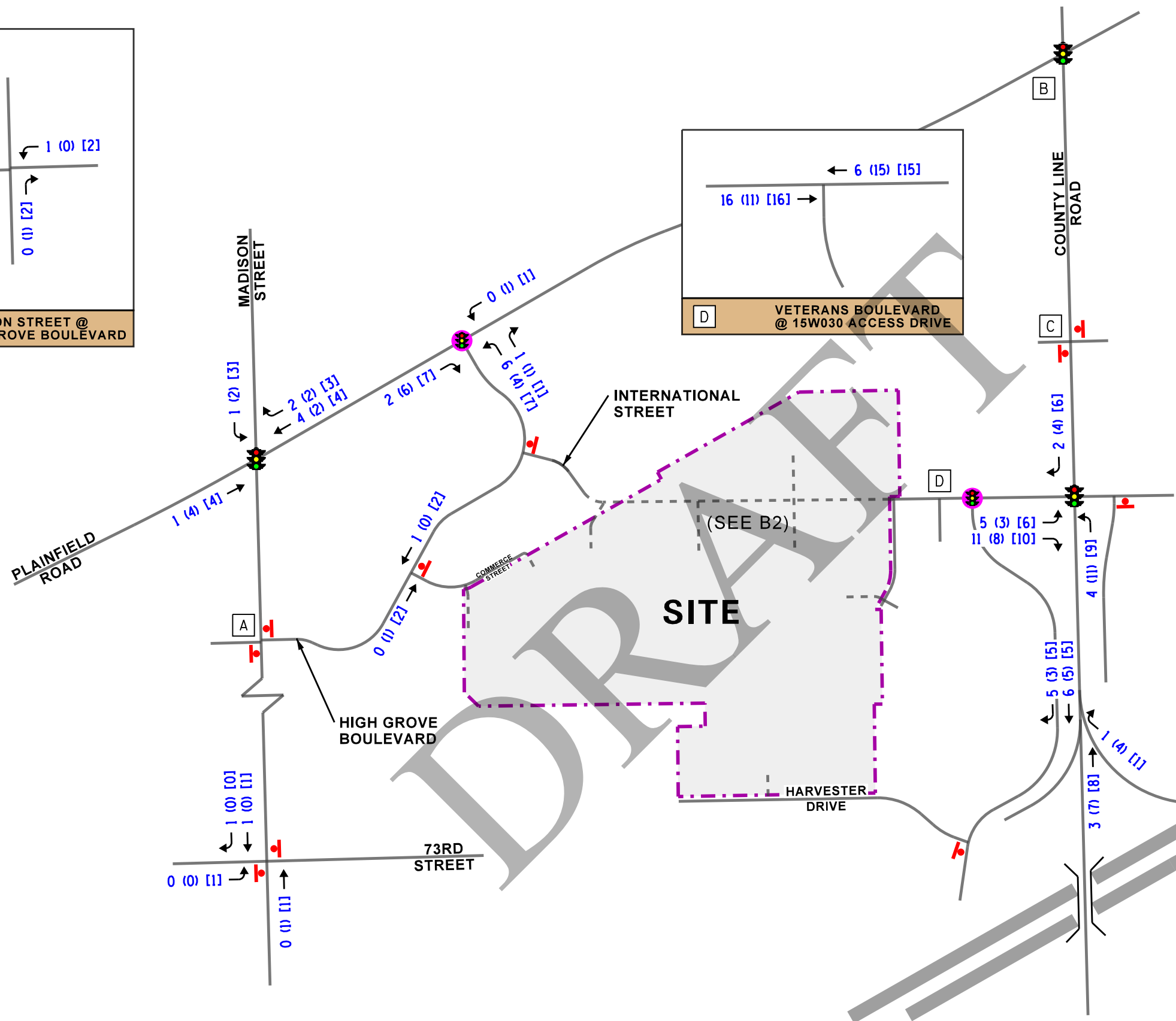
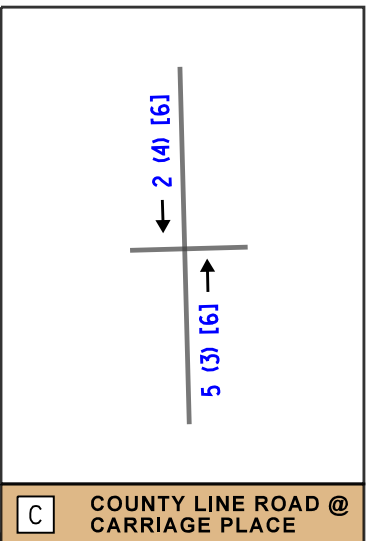
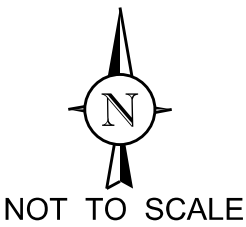
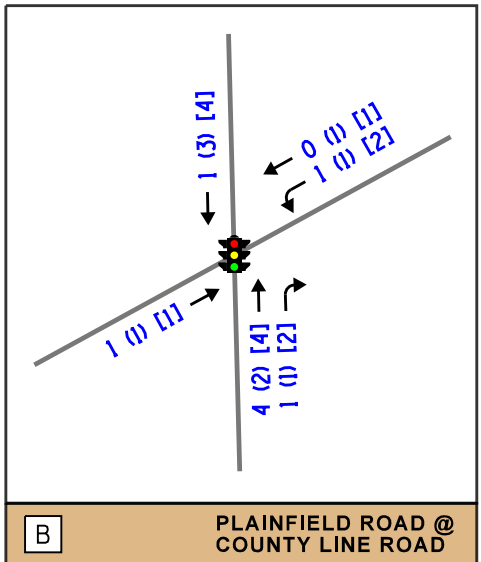
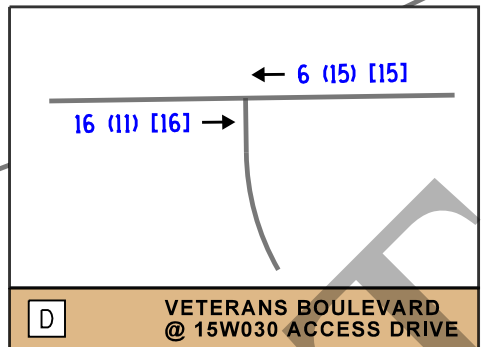
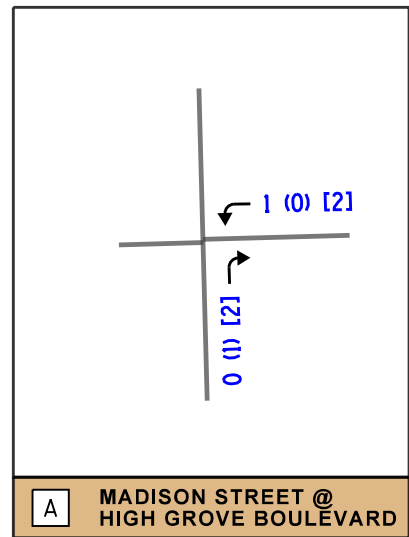
Total Projected Traffic Volumes

The Year 2029 total projected traffic volumes include the Year 2029 no-build traffic volumes (Figure 12) and the volume of traffic expected to be generated by the development (Figures 7 through 11). The Year 2029 total projected traffic volumes are illustrated in **Figure 13**. Figure 13 also includes the removal of the existing traffic generated by CNH Industrial, the removal of the existing traffic generated by the Public Works building (Figure A in the Appendix), and the reassignment of local traffic that may utilize the extension of Veterans Boulevard (Figure B in the Appendix). **Table 7** summarizes the traffic currently being generated by CNH Industrial and the Public Works Department that was removed from the area roadways.

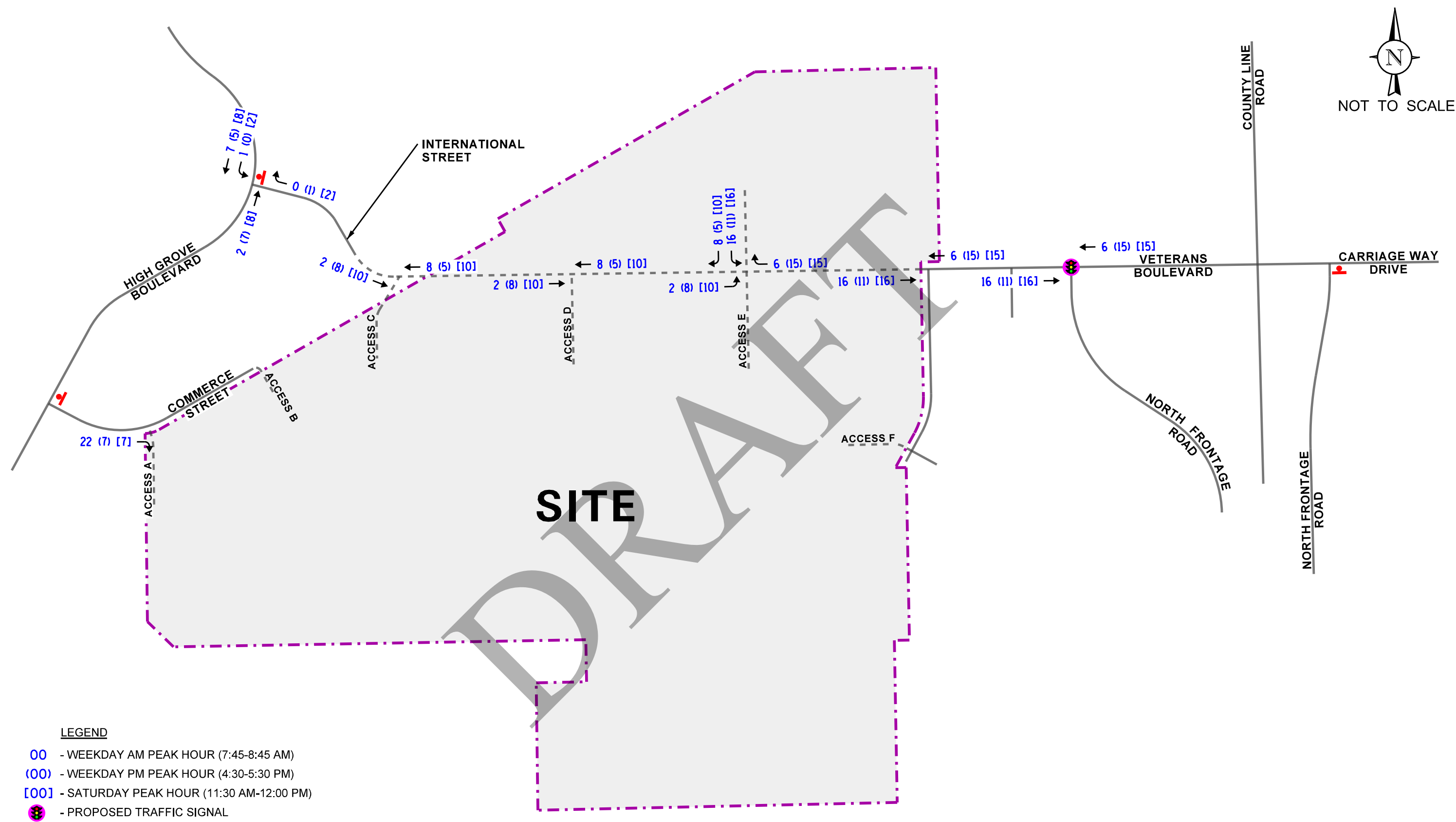
Table 7

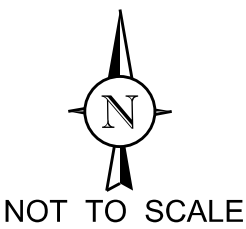
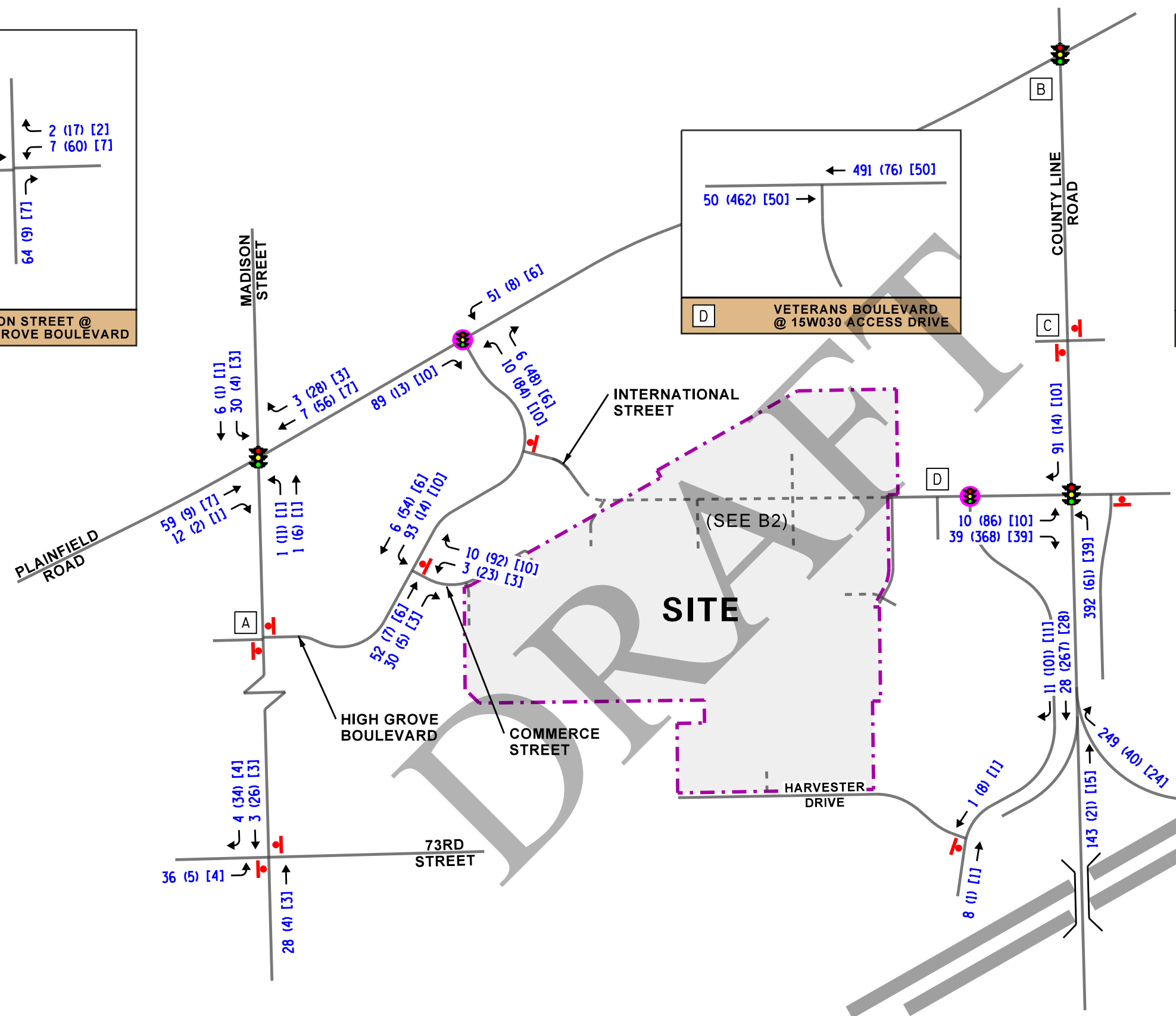
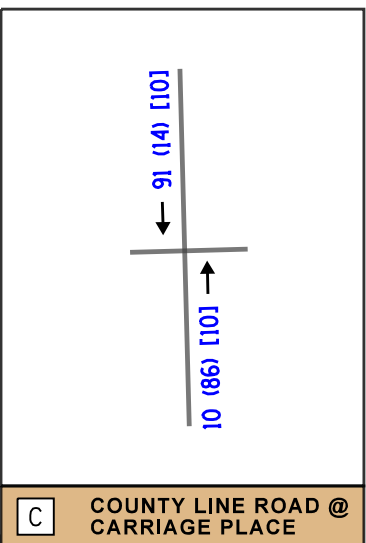
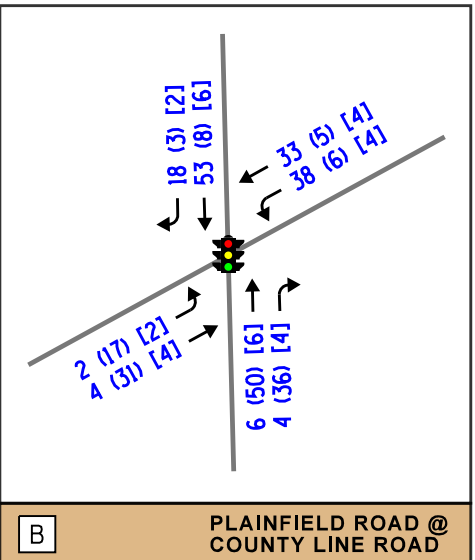
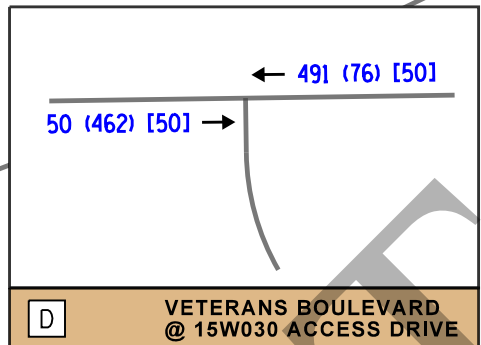
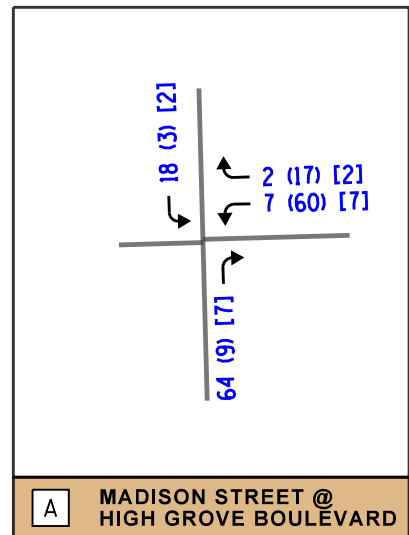
EXISTING SITE TRAFFIC TO BE REMOVED

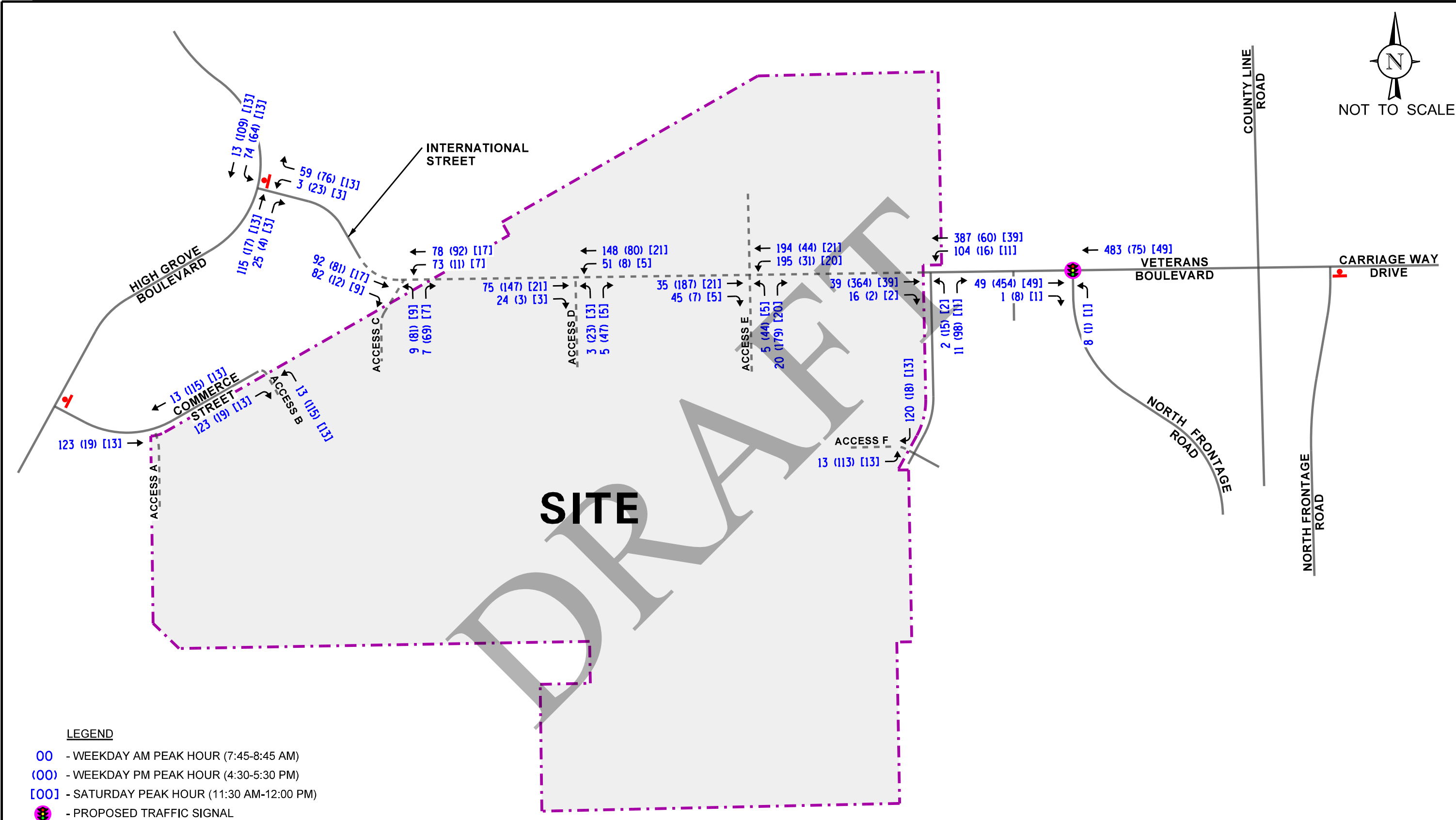
Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
CNH Industrial	187	16	203	15	165	180	1	1	2
Truck Trips	3	3	6	0	1	1	0	0	0
Passenger Vehicle Trips	184	13	197	15	164	179	1	1	2
Public Works Department	6	7	13	3	4	7	6	6	12
Truck Trips	1	4	5	0	0	0	0	0	0
Passenger Vehicle Trips	5	3	8	3	4	7	6	6	12

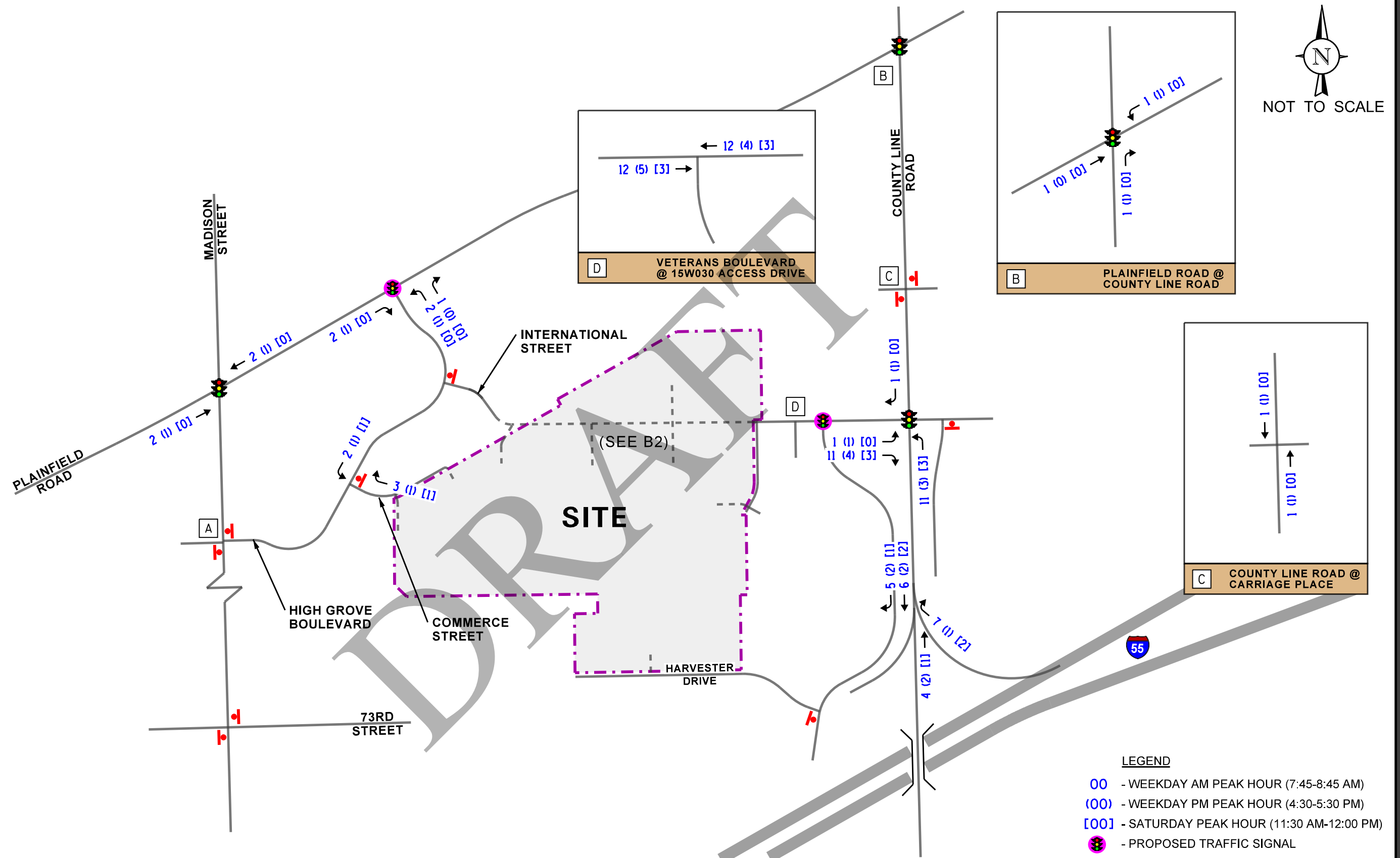


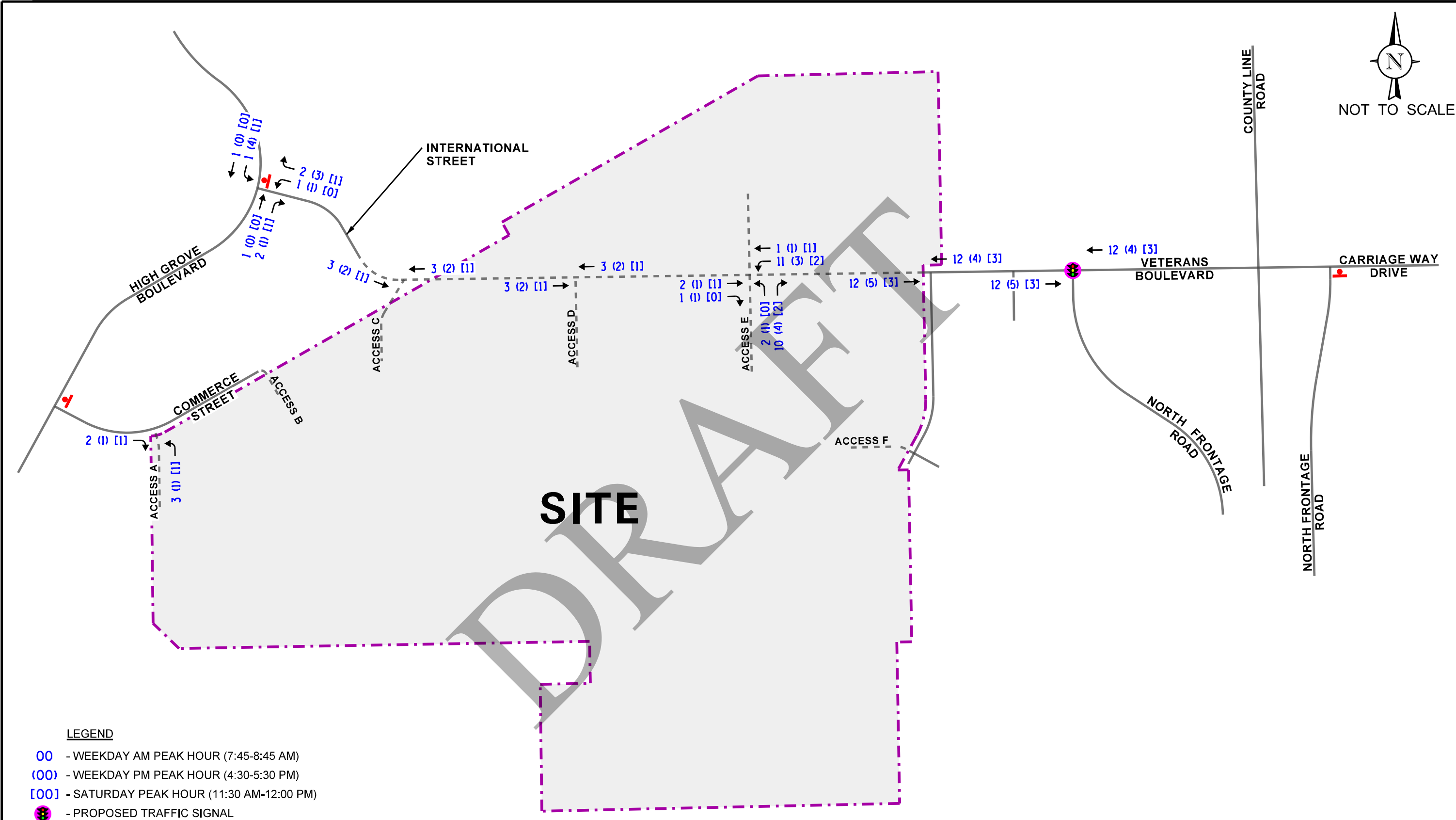
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 - (00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)
 - [00] - SATURDAY PEAK HOUR (11:30 AM-12:00 PM)
 - PROPOSED TRAFFIC SIGNAL

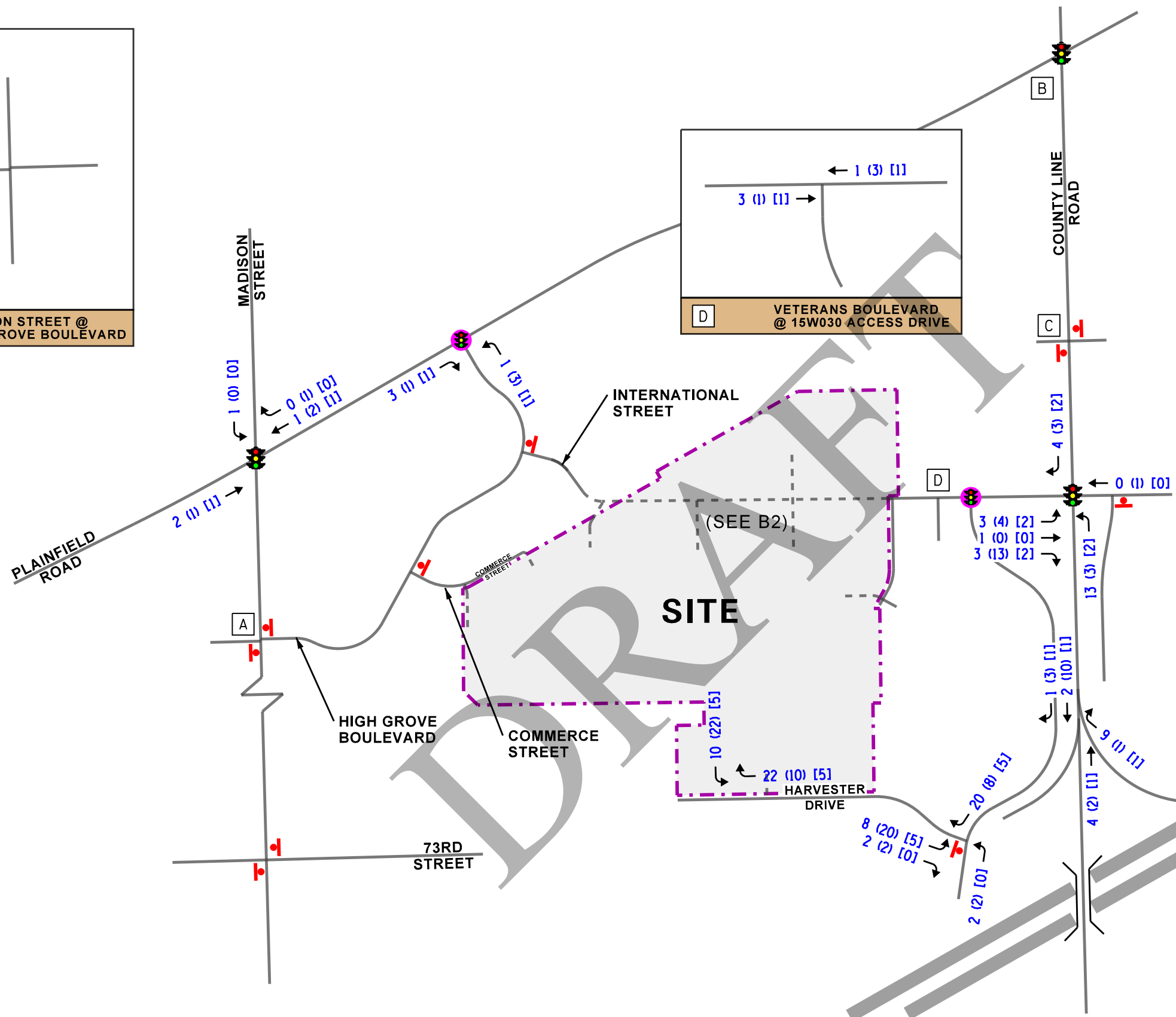
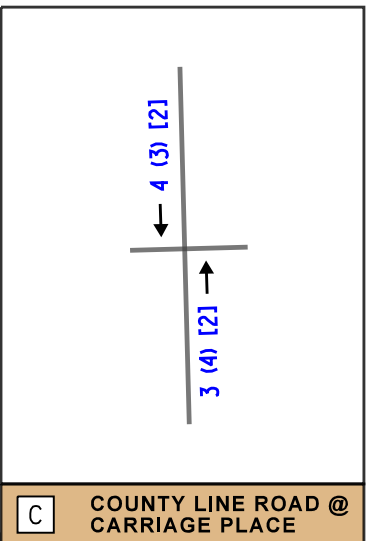
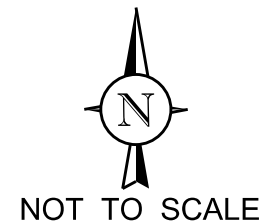
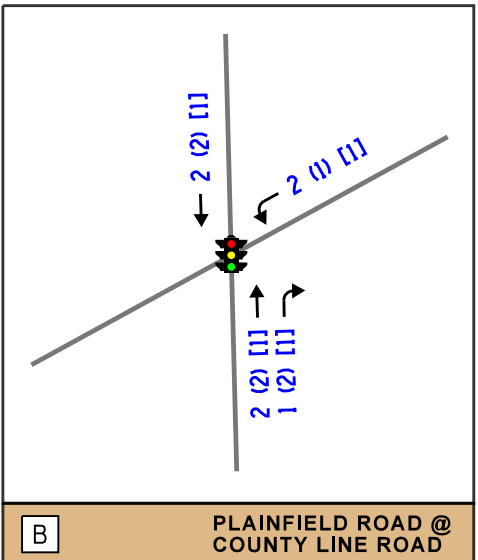
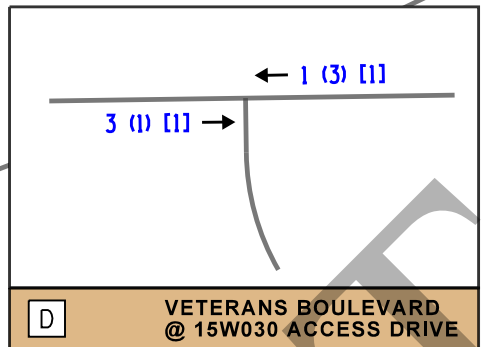
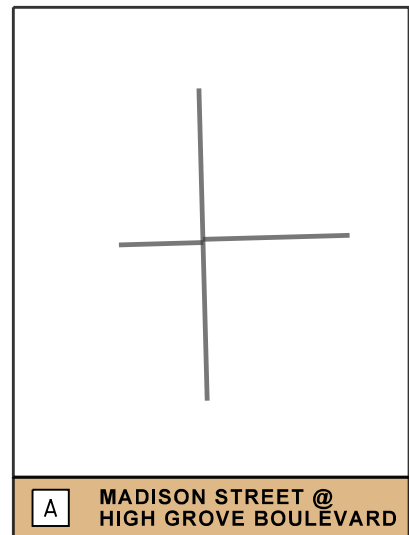


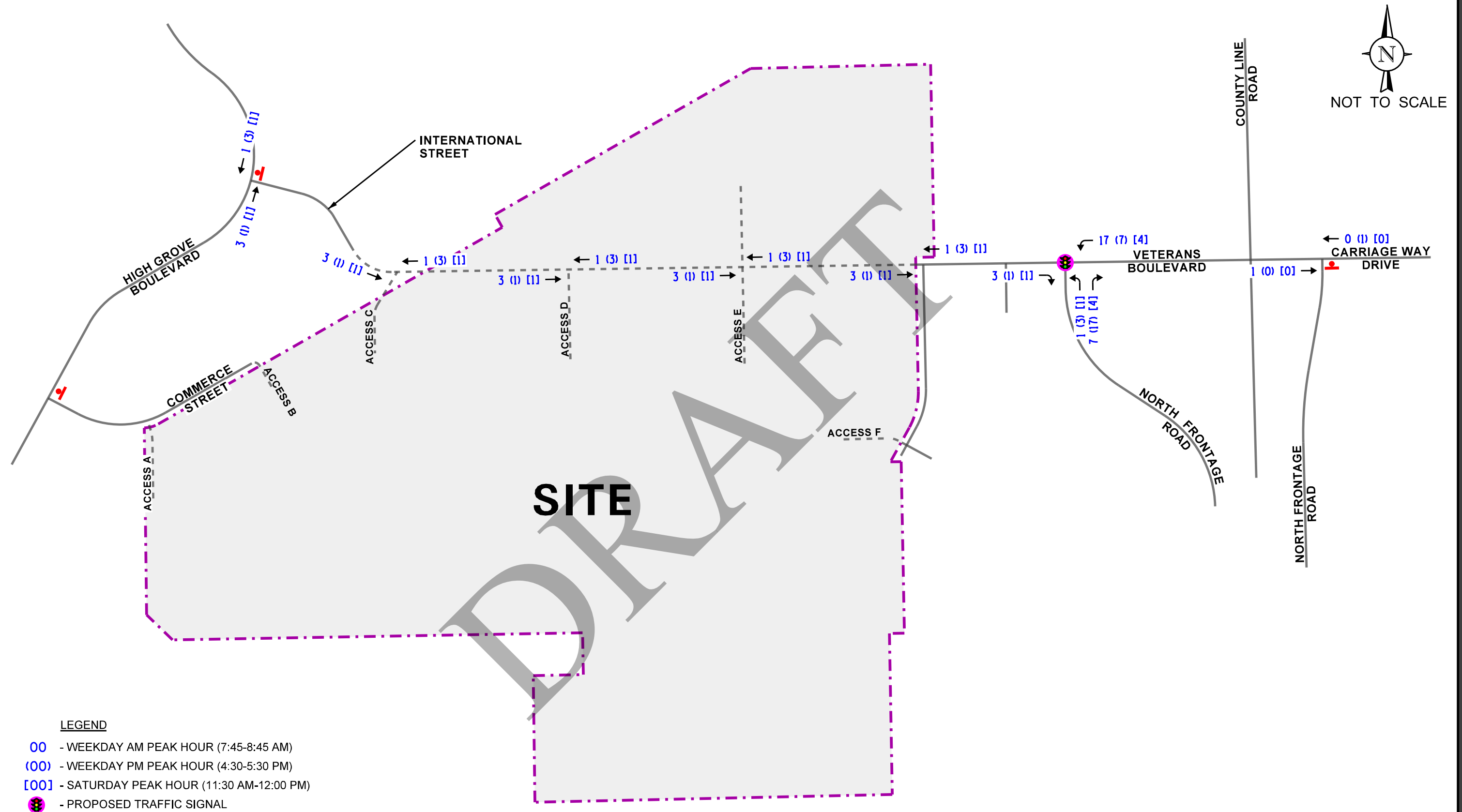


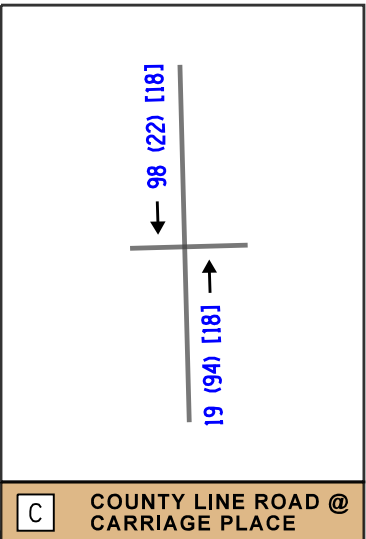
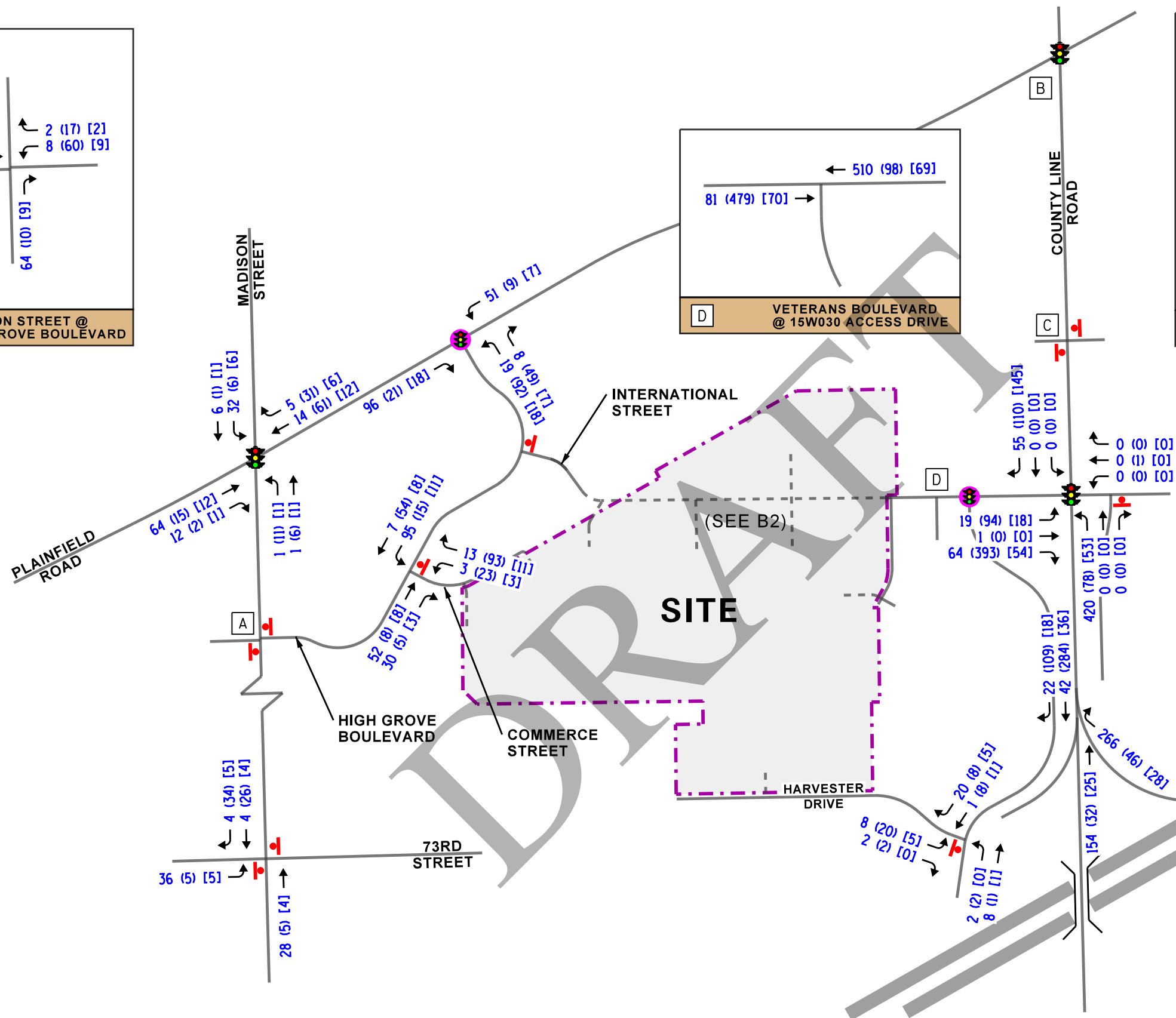
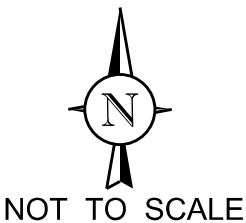
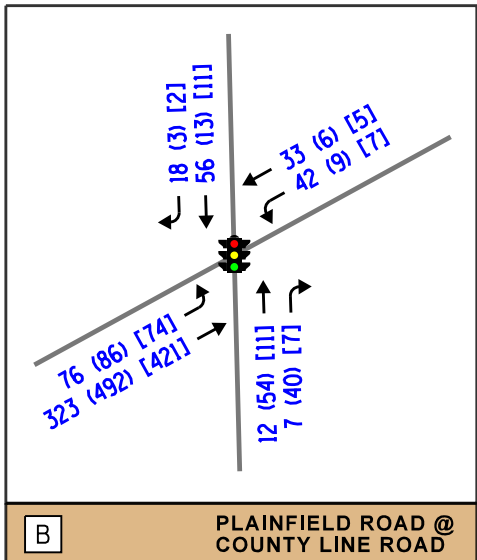
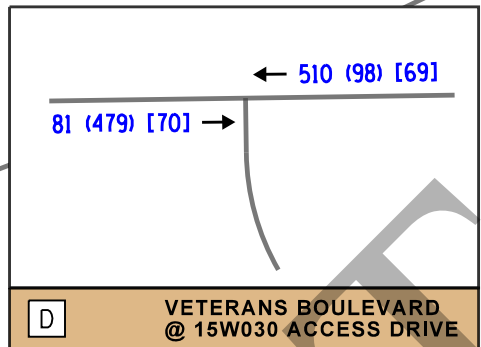
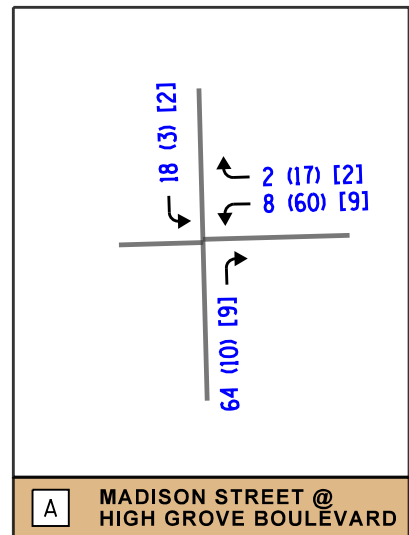




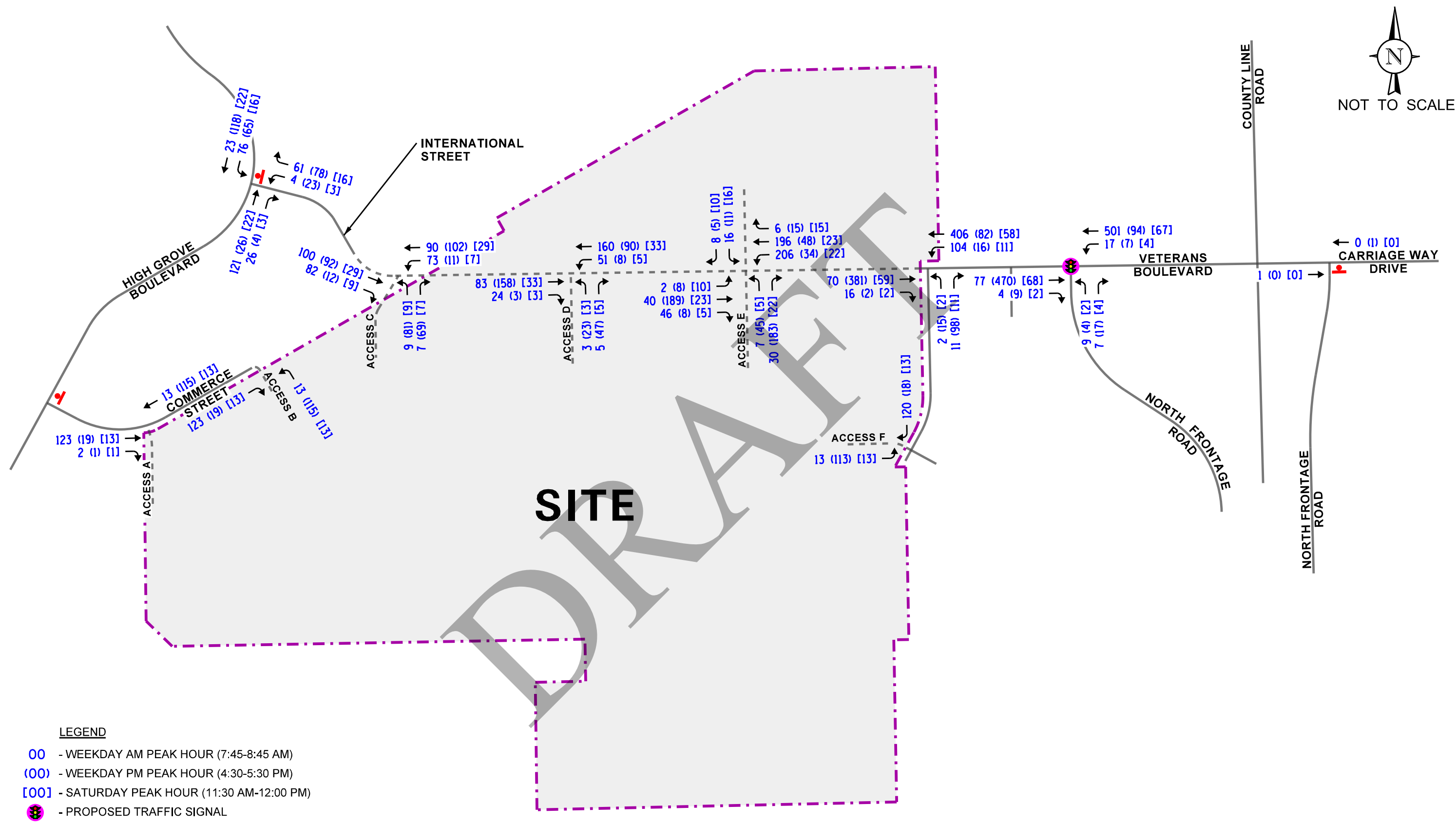


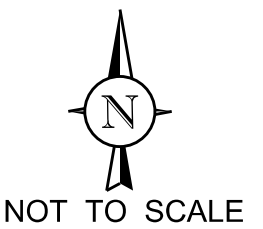
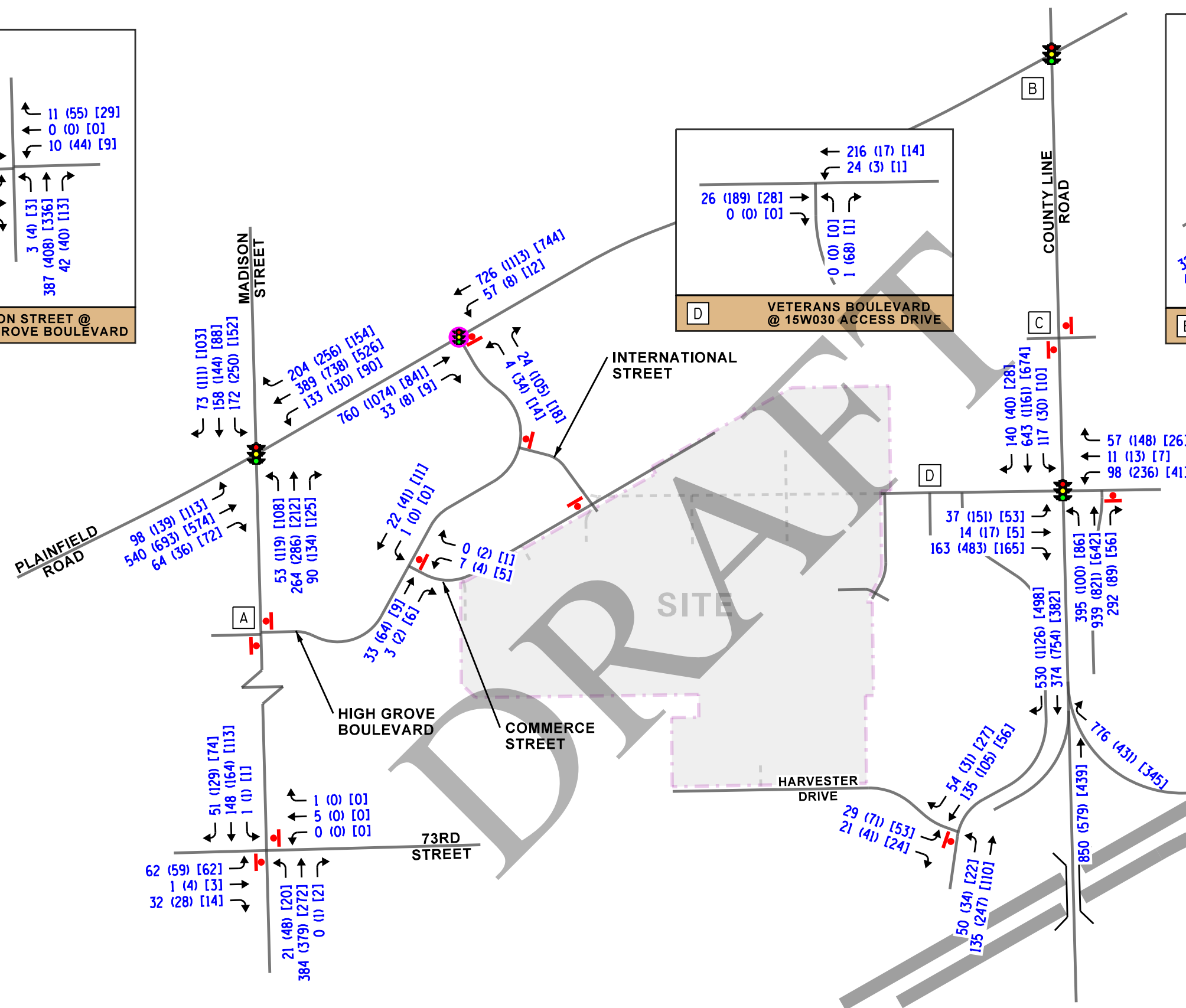
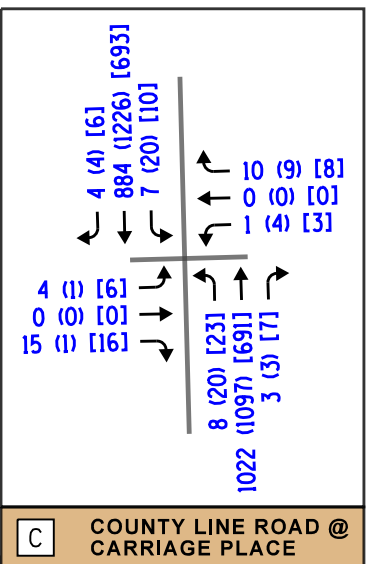
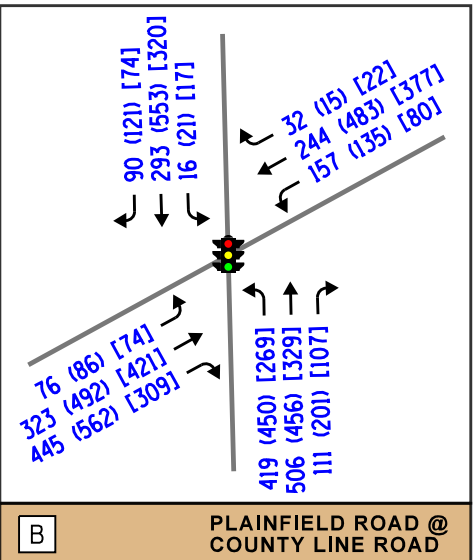
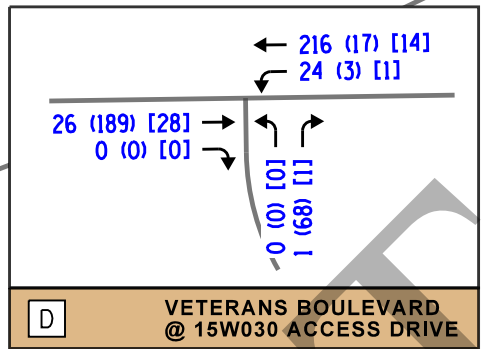
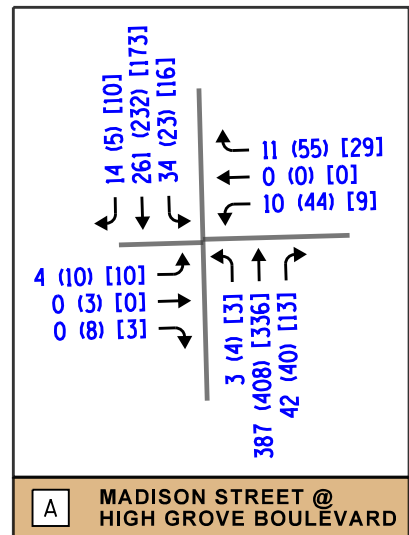






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 - (00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)
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 - 🚦 - PROPOSED TRAFFIC SIGNAL





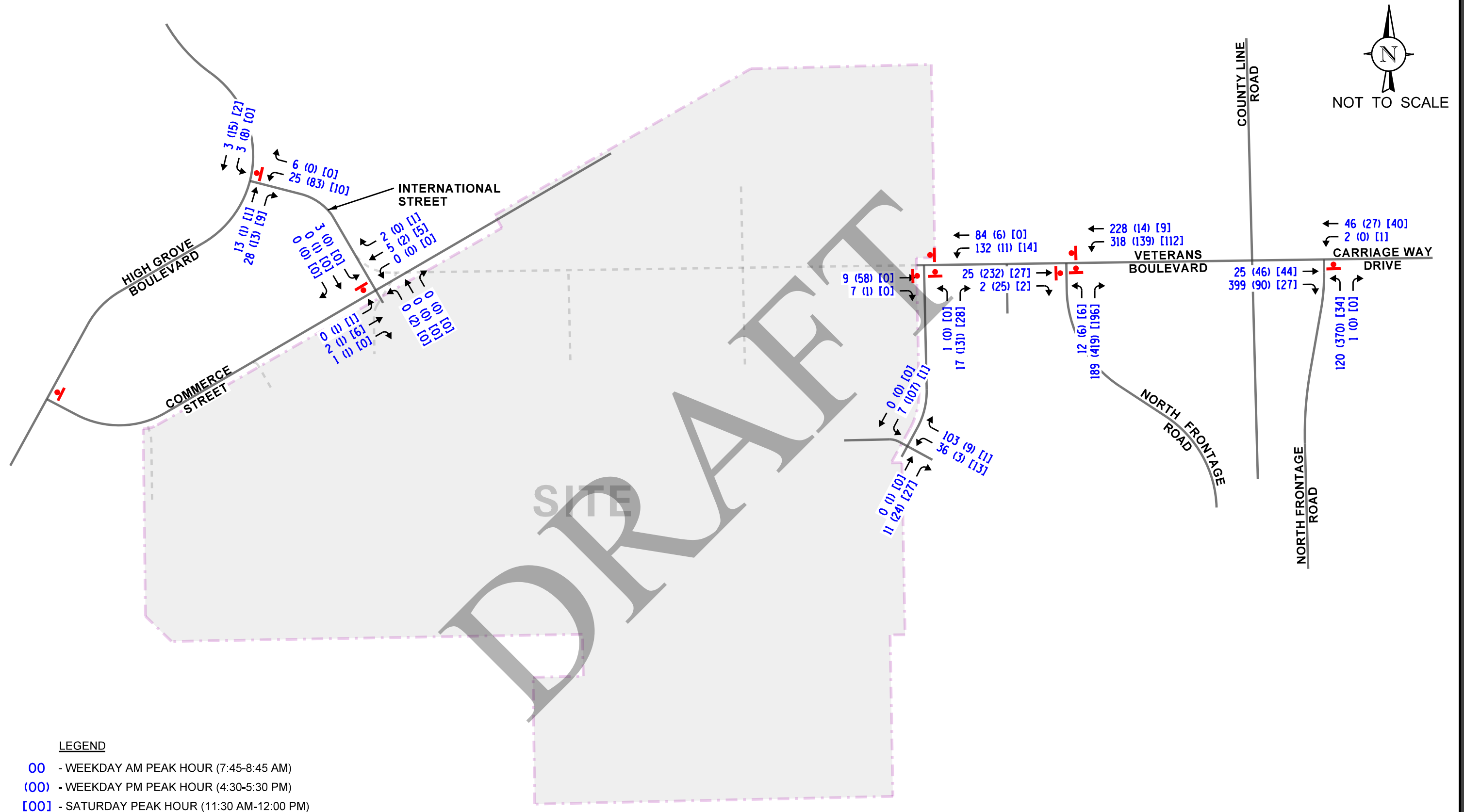
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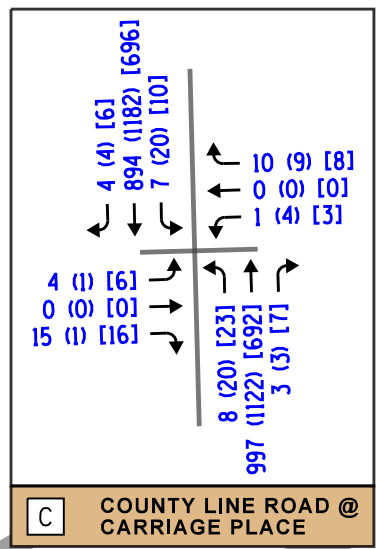
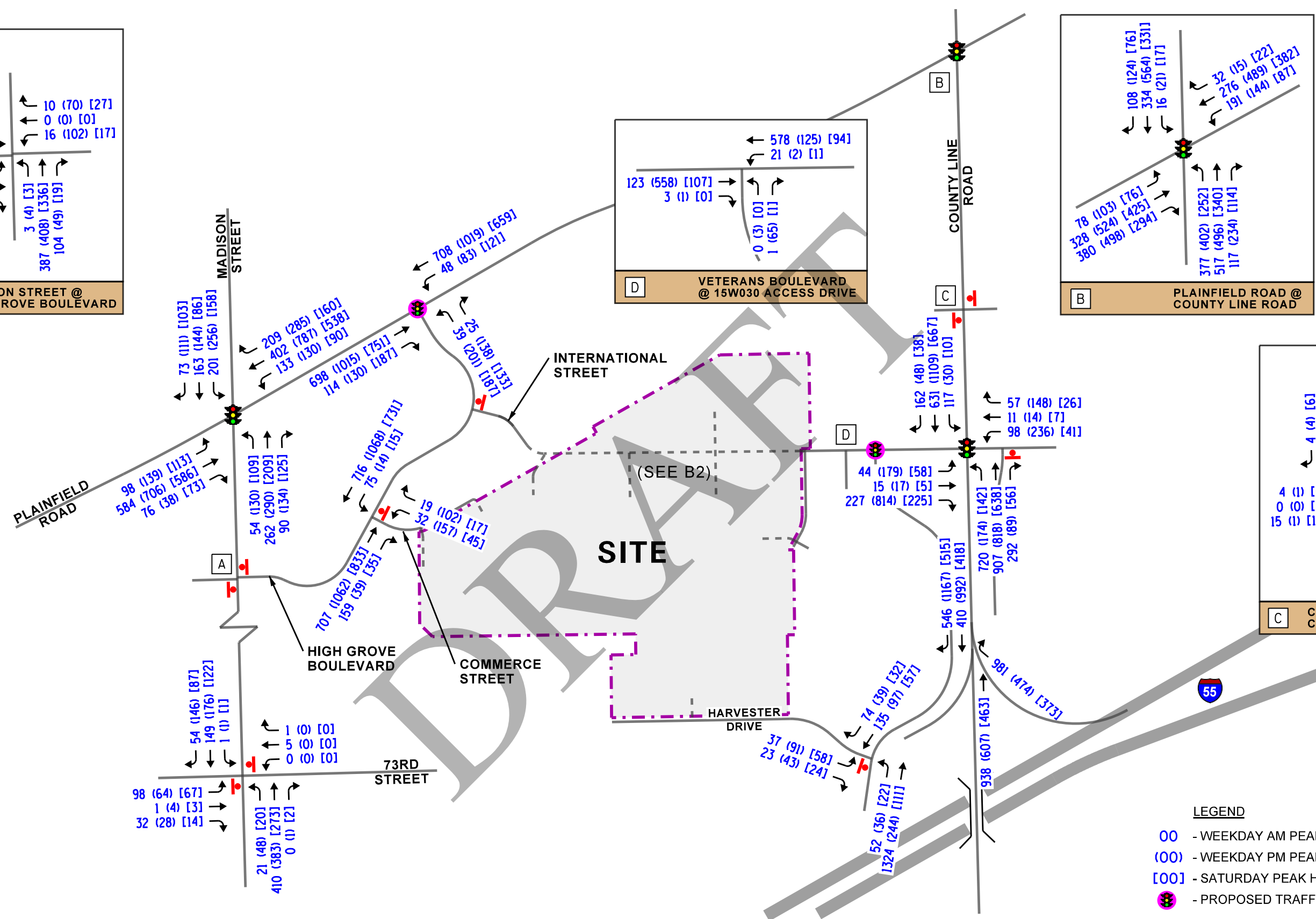
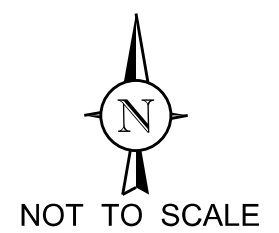
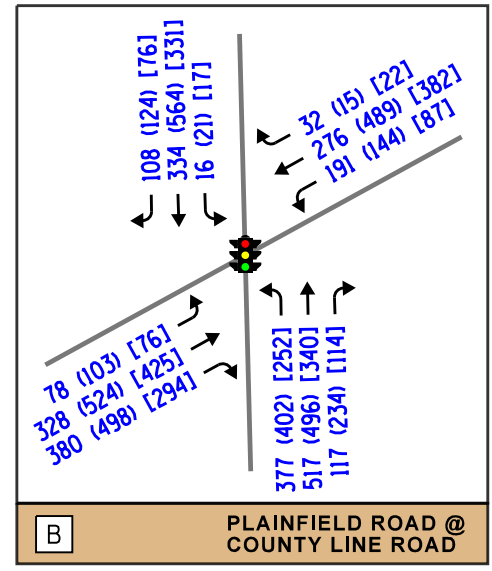
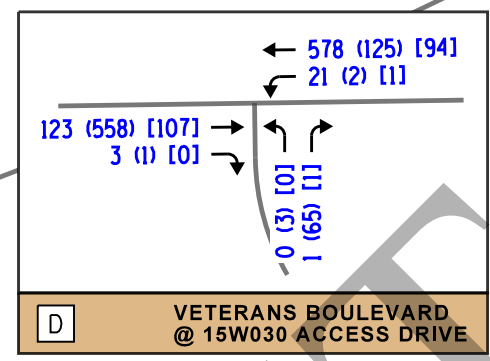
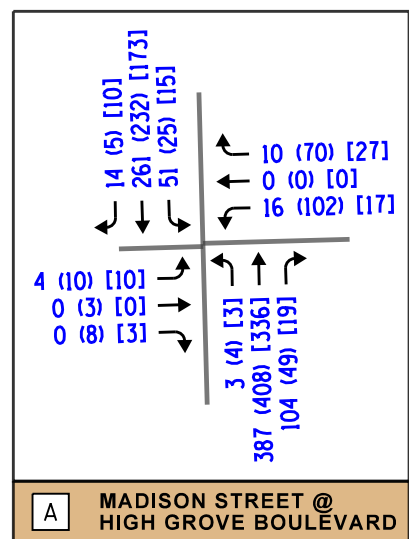
CNH INDUSTRIAL CAMPUS
BURR RIDGE, ILLINOIS

YEAR 2029 NO-BUILD TRAFFIC VOLUMES



Job No: 23-091 Figure: 12A



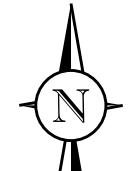
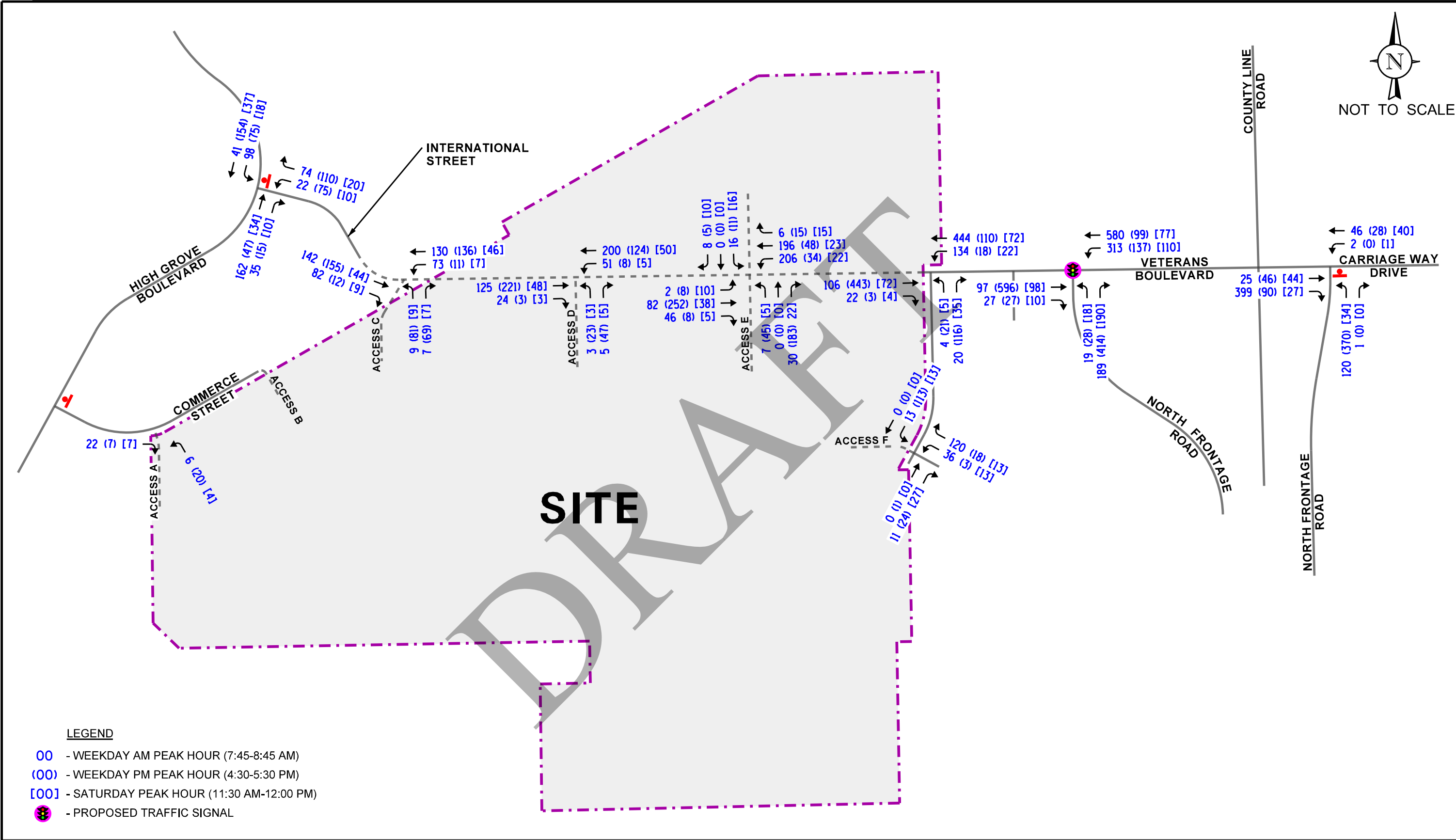


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 - (00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)
 - [00] - SATURDAY PEAK HOUR (11:30 AM-12:00 PM)
 - PROPOSED TRAFFIC SIGNAL

CNH INDUSTRIAL CAMPUS
BURR RIDGE, ILLINOIS

YEAR 2029 TOTAL TRAFFIC VOLUMES





NOT TO SCALE

5. Traffic Analysis and Recommendations

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

Traffic Analyses

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

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

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

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

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, Year 2029 no-build, and Year 2029 total projected conditions are presented in **Tables 8** through **15**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 8

CAPACITY ANALYSIS RESULTS – PLAINFIELD ROAD WITH COUNTY LINE ROAD

Existing Conditions	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall	
		L	T	R	L	T	R	L	T	R	L	T	R		
	Weekday Morning	C 20.4	C 30.5		C 28.0	C 27.9		C 31.2	C 24.9		B 19.7	D 43.1		C 30.0	
		C – 29.6			C – 27.9			C – 27.4			D – 41.9				
	Weekday Evening	C 26.8	F 88.9		D 39.8	D 40.5		D 49.7	C 22.2		B 18.6	D 50.8		D 54.0	
		F – 84.2			D – 40.4			C – 33.4			D – 49.8				
	Saturday Midday	B 18.5	C 28.3		C 20.5	C 28.0		C 22.0	C 20.6		B 16.4	C 33.4		C 26.3	
		C – 27.4			C – 26.8			C – 21.1			C – 32.7				
	No-build Conditions	Weekday Morning	C 22.6	C 34.1		C 33.8	C 30.3		C 33.8	C 23.9		B 19.2	D 41.4		C 32.3
			C – 33.1			C – 31.6			C – 28.3			D – 40.5			
Weekday Evening		C 27.1	F 99.1		D 40.6	D 41.2		D 52.4	C 22.4		B 18.8	D 51.9		E 57.8	
		F – 93.7			D – 41.1			C – 34.6			D – 50.9				
Saturday Midday		B 18.8	C 29.0		C 21.0	C 28.5		C 22.2	C 20.6		B 16.4	C 33.6		C 26.7	
		C – 28.1			C – 27.2			C – 21.2			C – 32.9				
Projected Conditions	Weekday Morning	C 22.8	D 35.6		C 34.7	C 30.8		C 33.1	C 25.2		B 19.6	D 41.6		C 32.8	
		C – 34.3			C – 32.3			C – 28.2			D – 40.8				
	Weekday Evening	C 27.1	F 88.2		D 40.5	D 40.2		D 46.9	C 23.7		B 19.0	D 51.1		D 52.8	
		F – 82.7			D – 40.3			C – 32.0			D – 50.2				
	Saturday Midday	B 18.4	C 29.9		C 20.9	C 28.1		C 22.7	C 21.4		B 16.5	C 34.1		C 27.2	
C – 28.8			C – 26.8			C – 21.8			C – 33.4						

Table 9

CAPACITY ANALYSIS RESULTS – COUNTY LINE ROAD WITH VETERANS BOULEVARD AND CARRIAGE WAY

	Peak Hour	Eastbound			Westbound		Northbound			Southbound			Overall
		L	T	R	L	T/R	L	T	R	L	T	R	
	Existing Conditions	Weekday Morning	D 38.3	D 49.8	A 5.2	D 39.3	C 20.4	B 19.0	B 13.6	A 1.0	B 10.8	C 25.7	B 17.2
B – 13.9			C – 31.4		B – 12.6			B – 23.7					
Weekday Evening		D 46.1	D 50.2	E 60.3	D 44.9	C 20.3	A 9.9	B 13.1	A 1.1	A 9.9	D 41.0	C 34.1	
		E – 56.7			C – 34.8		B – 11.7			D – 40.2			
Saturday Midday		C 31.7	D 36.0	A 8.9	C 24.6	B 19.5	A 6.3	A 8.2	A 1.1	A 6.0	B 14.4	B 11.7	
		B – 14.9			C – 22.3		A – 7.5			B – 14.3			
No-build Conditions	Weekday Morning	D 38.3	D 49.9	A 5.2	D 39.6	C 20.3	C 20.8	B 13.8	A 1.0	B 10.	C 26.0	B 17.7	
		B – 13.8			C – 31.7		B – 13.2			C – 24.0			
	Weekday Evening	D 46.1	D 50.2	E 64.0	D 45.9	C 20.3	B 10.1	B 13.2	A 1.1	A 9.9	D 42.6	D 35.4	
		E – 59.5			D – 35.6		B – 11.8			D – 41.9			
	Saturday Midday	C 32.1	D 36.4	A 8.9	C 25.0	B 19.6	A 6.3	A 8.2	A 1.1	A 6.0	B 14.3	B 11.7	
		B – 15.0			C – 22.6		A – 7.5			B – 14.2			
Projected Conditions ¹	Weekday Morning	C 28.7	B 18.2	A 8.2	D 47.6	C 22.8	D 38.9	B 14.8	A 1.3	E 67.5	C 27.8	A 3.3	C 23.9
		B – 15.6			D – 37.5		C – 21.8			C – 28.6			
	Weekday Evening	C 25.4	D 54.8	A 7.9	D 54.8	A 7.9	E 73.5	C 27.4	A 2.5	E 67.9	D 42.3	A 0.1	D 40.5
		D – 35.7			D – 35.7		C – 32.8			D – 41.3			
	Saturday Midday	C 31.8	B 16.8	B 15.7	C 32.9	C 21.8	D 47.5	A 8.4	A 1.1	D 45.7	B 13.6	A 0.6	B 15.3
		B – 19.4			C – 28.0		B – 14.5			B – 13.3			
1 – Includes recommended intersection improvements													

Table 10

CAPACITY ANALYSIS RESULTS – PLAINFIELD ROAD WITH MADISON STREET

Existing Conditions	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
	Weekday Morning	B 16.8	C 28.0	C 21.6	C 26.8	C 21.3	E 62.7	C 29.2	C 32.8	C 32.7
		C – 26.5		C- 25.9		E – 57.3		C – 31.3		
	Weekday Evening	C 22.9	C 28.7	B 14.6	C 26.1	C 20.9	E 59.1	E 59.0	C 32.1	C 33.7
		C – 27.8		C – 24.8		D – 50.7		D - 45.4		
Saturday Midday	B 15.0	C 24.0	B 10.9	C 23.2	B 19.9	D 50.8	C 24.1	C 25.3	C 26.7	
	C – 22.7		C – 21.8		D – 43.3		C – 24.7			
No-build Conditions	Weekday Morning	B 17.1	C 28.5	C 22.0	C 27.4	C 21.2	E 63.4	C 29.3	C 32.8	C 33.2
		C – 26.9		C - 26.4		E – 57.9		C – 31.3		
	Weekday Evening	C 24.6	C 29.1	B 14.9	C 26.8	C 21.0	E 60.6	E 64.2	C 32.4	C 34.7
		C – 28.1		C – 25.4		D – 51.9		D – 48.2		
	Saturday Midday	B 15.3	C 24.4	B 10.8	C 23.4	B 19.8	D 51.2	C 24.2	C 25.5	C 26.9
		C – 23.1		C – 21.9		D – 43.6		C – 24.9		
Projected Conditions	Weekday Morning	B 17.3	C 29.7	C 22.2	C 26.1	C 21.4	E 66.3	C 31.6	C 33.0	C 33.6
		C – 28.1		C – 25.4		E – 60.3		C – 32.3		
	Weekday Evening	C 27.7	C 29.3	B 16.2	C 29.3	C 21.4	E 61.6	E 71.7	C 32.6	D 36.4
		C – 29.1		C – 27.9		D – 52.2		D – 52.2		
	Saturday Midday	B 15.4	C 23.3	B 12.0	C 24.8	B 19.8	D 51.0	C 24.5	C 25.2	C 27.3
		C – 23.3		C – 23.3		D – 43.4		C – 24.9		

Table 11

CAPACITY ANALYSIS RESULTS – VETERANS BOULEVARD WITH THE NORTH FRONTAGE ROAD

	Peak Hour	Eastbound	Westbound		Northbound		Overall
		T/R	L	T	L	R	
Projected Conditions	Weekday Morning	C 30.6	A 1.8	A 1.5	D 45.3	A 1.0	A 5.1
			A – 1.6		A – 5.0		
	Weekday Evening	B 18.1	A 5.1	A 4.4	C 34.3	B 14.5	B 14.7
			A – 4.6		B – 15.1		
	Saturday Midday	A 6.8	B 16.8	B 17.2	D 44.9	A 6.4	B 11.8
			B – 17.1		A – 9.7		

Table 12

CAPACITY ANALYSIS RESULTS – PLAINFIELD ROAD WITH HIGH GROVE BOULEVARD

Projected Conditions	Peak Hour	Eastbound		Westbound		Northbound		Overall
		T	R	L	T	L	R	
	Weekday Morning	A 2.7	A 0.1	A 1.8	A 2.1	E 56.5	B 16.5	A 3.3
		A – 2.2		A – 2.1		D – 41.1		
	Weekday Evening	A 7.4	A 0.1	A 2.1	A 5.6	D 50.0	A 8.0	A 9.2
		A – 7.2		A – 5.5		C – 33.4		
	Saturday Midday	A 4.7	A 1.2	A 1.4	A 2.3	D 45.5	B 18.6	A 4.8
		A – 4.6		A – 2.2		D – 38.1		

Table 13

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
County Line Road with Carriage Place¹						
• Eastbound Approach	B	14.0	C	24.8	B	13.5
• Westbound Approach	B	13.4	C	19.1	B	13.4
• Northbound Left Turn	A	9.8	B	11.9	A	9.4
• Southbound Left Turn	B	10.4	B	11.1	A	9.3
Plainfield Road with High Grove Boulevard¹						
• Northbound Left Turn	E	35.5	F	75.2	D	32.0
• Northbound Right Turn	B	11.3	B	14.6	B	11.6
• Westbound Left Turn	A	9.9	B	10.7	A	9.8
Madison Street with High Grove Boulevard¹						
• Eastbound Approach	C	17.4	C	17.5	B	13.4
• Westbound Left Turn	C	18.3	C	21.8	B	14.2
• Westbound Right Turn	B	11.5	B	12.1	B	10.4
• Northbound Left Turn	A	7.8	A	7.8	A	7.6
• Southbound Left Turn	A	8.4	A	8.6	A	8.0
Madison Street with 73rd Street¹						
• Eastbound Left Turn	C	16.6	C	20.2	B	13.1
• Eastbound Right Turn	A	9.4	A	8.2	A	8.9
• Westbound Approach	B	14.5	--	--	B	14.3
• Northbound Left Turn	A	7.8	A	8.2	A	7.7
• Southbound Left Turn	A	8.1	A	8.2	A	9.1
High Grove Boulevard with Commerce Street¹						
• Westbound Approach	A	9.6	A	9.0	A	8.6
• Southbound Left Turn	A	7.3	--	--	--	--
High Grove Boulevard with International Street¹						
• Westbound Approach	A	9.3	A	9.2	A	8.4
• Southbound Left Turn	A	7.6	A	7.5	A	7.2
Commerce Street with International Street¹						
• Eastbound Left Turn	--	--	A	7.5	A	7.2
• Northbound Approach	--	--	A	8.6	A	--
• Southbound Approach	A	8.6	A	9.0	A	--
LOS = Level of Service			1 – Two-way stop control			
Delay is measured in seconds.			2 – All-way stop control			

Table 13 - Continued

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Veterans Boulevard with Veterans Boulevard²						
• Overall	A	8.8	A	7.4	A	7.1
• Eastbound Approach	A	7.2	A	8.0	--	--
• Westbound Approach	A	9.1	A	8.0	A	8.0
• Northbound Approach	A	7.1	A	7.1	A	6.6
Veterans Boulevard with the North I-55 Frontage Road²						
• Overall	B	10.5	C	22.7	A	8.7
• Eastbound Approach	A	9.4	B	13.2	A	8.2
• Westbound Approach	B	10.4	B	12.2	A	8.9
• Northbound Approach	B	10.9	D	32.2	A	8.7
Veterans Boulevard with 15W030 Office Access¹						
• Westbound Left Turn	A	7.3	A	7.7	A	8.4
• Northbound Approach	A	8.4	A	9.3	A	7.3
The North I-55 Frontage Road with Harvester Drive						
• Eastbound Left Turn	B	12.0	B	14.1	B	10.5
• Eastbound Right Turn	A	9.1	A	9.2	A	8.7
• Northbound Left Turn	A	7.8	A	7.6	A	7.4
Carriage Way with the North I-55 Frontage Road²						
• Westbound Left Turn	A	8.3	--	--	A	7.3
• Northbound Approach	A	9.8	B	12.7	A	9.3
LOS = Level of Service			1 – All-way stop control			
Delay is measured in seconds.			2 – Two-way stop control			

Table 14

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – NO-BUILD CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
County Line Road with Carriage Place¹						
• Eastbound Approach	B	14.1	C	24.8	B	13.5
• Westbound Approach	B	13.6	C	19.1	B	13.4
• Northbound Left Turn	A	9.8	B	11.9	A	9.4
• Southbound Left Turn	B	10.5	B	11.1	A	9.3
Plainfield Road with High Grove Boulevard¹						
• Northbound Left Turn	E	36.6	F	75.2	D	32.0
• Northbound Right Turn	B	11.4	B	14.6	B	11.6
• Westbound Left Turn	A	10.0	B	10.7	A	9.8
Madison Street with High Grove Boulevard¹						
• Eastbound Approach	C	17.4	C	17.5	B	13.4
• Westbound Left Turn	C	18.6	C	21.8	B	14.2
• Westbound Right Turn	B	11.6	B	12.1	B	10.4
• Northbound Left Turn	A	7.8	A	7.8	A	7.6
• Southbound Left Turn	A	8.4	A	8.6	A	8.0
Madison Street with 73rd Street¹						
• Eastbound Left Turn	C	16.9	C	20.2	B	13.1
• Eastbound Right Turn	A	9.4	A	9.5	A	8.9
• Westbound Approach	B	14.7	--	--	B	14.3
• Northbound Left Turn	A	7.8	A	8.2	A	7.7
• Southbound Left Turn	A	8.1	A	8.2	A	9.1
High Grove Boulevard with Commerce Street¹						
• Westbound Approach	A	9.6	A	9.0	A	8.6
• Southbound Left Turn	A	7.3	--	--	--	--
High Grove Boulevard with International Street¹						
• Westbound Approach	A	9.3	A	9.2	A	8.4
• Southbound Left Turn	A	7.6	A	7.5	A	7.2
Commerce Street with International Street¹						
• Eastbound Left Turn	--	--	A	7.5	A	7.2
• Northbound Approach	--	--	A	8.6	A	--
• Southbound Approach	A	8.6	A	9.0	A	--
LOS = Level of Service			1 – Two-way stop control			
Delay is measured in seconds.			2 – All-way stop control			

Table 14 - Continued

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – NO-BUILD CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Veterans Boulevard with Veterans Boulevard²						
• Overall	A	8.8	A	7.4	A	7.1
• Eastbound Approach	A	7.2	A	8.0	--	--
• Westbound Approach	A	9.1	A	8.0	A	8.0
• Northbound Approach	A	7.1	A	7.1	A	6.6
Veterans Boulevard with the North I-55 Frontage Road²						
• Overall	B	10.5	C	22.7	A	8.8
• Eastbound Approach	A	9.4	B	13.2	A	8.2
• Westbound Approach	B	10.4	B	12.2	A	9.0
• Northbound Approach	B	10.9	D	32.2	A	8.7
Veterans Boulevard with 15W030 Office Access¹						
• Westbound Left Turn	A	7.3	A	7.7	A	8.4
• Northbound Approach	A	8.4	A	9.3	A	7.3
The North I-55 Frontage Road with Harvester Drive						
• Eastbound Left Turn	B	12.0	B	14.1	B	10.5
• Eastbound Right Turn	A	9.2	A	9.2	A	8.7
• Northbound Left Turn	A	7.8	A	7.6	A	7.4
Carriage Way with the North I-55 Frontage Road²						
• Westbound Left Turn	A	8.3	--	--	A	7.3
• Northbound Approach	A	9.8	B	12.7	A	9.3
LOS = Level of Service			1 – All-way stop control			
Delay is measured in seconds.			2 – Two-way stop control			

Table 15

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
County Line Road with Carriage Place¹						
• Eastbound Approach	B	14.2	C	24.1	B	13.5
• Westbound Approach	B	13.4	C	19.4	B	13.5
• Northbound Left Turn	A	9.9	B	11.6	A	9.4
• Southbound Left Turn	B	10.3	B	11.2	A	9.3
Madison Street with High Grove Boulevard¹						
• Eastbound Approach	C	19.2	C	18.2	B	13.4
• Westbound Left Turn	C	18.6	D	30.1	B	14.2
• Westbound Right Turn	B	11.3	B	12.4	B	10.4
• Northbound Left Turn	A	7.8	A	7.8	A	7.6
• Southbound Left Turn	A	8.6	A	8.6	A	8.1
Madison Street with 73rd Street¹						
• Eastbound Left Turn	C	19.6	C	21.7	B	13.2
• Eastbound Right Turn	A	9.4	A	9.6	A	8.9
• Westbound Approach	B	15.2	--	--	B	14.4
• Northbound Left Turn	A	7.8	A	8.4	A	7.7
• Southbound Left Turn	A	8.2	A	8.2	A	9.1
High Grove Boulevard with Commerce Street¹						
• Westbound Approach	B	10.0	A	9.8	A	8.6
• Southbound Left Turn	A	7.7	A	7.5	A	7.3
High Grove Boulevard with International Street¹						
• Westbound Approach	B	13.1	B	11.0	A	8.9
• Southbound Left Turn	A	7.7	A	7.7	A	7.3
Commerce Street with Access Drive A¹						
• Northbound Approach	B	10.4	B	10.4	A	9.6
Commerce Street with Access Drive B¹						
• Northbound Approach	A	8.9	A	9.0	A	8.6
Veterans Boulevard with Access Drive C						
• Westbound Left Turn	A	7.8	A	7.6	A	7.3
• Northbound Approach	B	10.6	B	10.6	A	8.8
LOS = Level of Service			1 – Two-way stop control			
Delay is measured in seconds.			2 – All-way stop control			

Table 15 - Continued

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Veterans Boulevard with Access Drive D¹						
• Westbound Left Turn	A	7.6	A	7.7	A	7.3
• Northbound Approach	A	9.6	A	9.9	A	8.7
Veterans Boulevard with Access Drive E¹						
• Eastbound Left Turn	A	7.7	A	7.4	A	9.5
• Westbound Left Turn	A	8.0	A	8.0	A	8.6
• Northbound Left Turn	C	19.5	B	12.6	A	7.6
• Northbound Right Turn	A	9.2	A	10.2	A	7.4
• Southbound Left Turn	C	19.4	B	12.8	A	9.6
• Southbound Right Turn	A	9.0	A	8.6	A	8.5
Veterans Boulevard with Veterans Boulevard¹						
• Westbound Left Turn	A	7.8	A	8.3	A	8.6
• Northbound Approach	B	10.2	B	11.5	B	10.8
Veterans Boulevard with 15W030 Office Access¹						
• Westbound Left Turn	A	7.5	B	10.8	A	8.4
• Northbound Approach	A	8.6	A	8.6	A	7.3
The North I-55 Frontage Road with Harvester Drive						
• Eastbound Left Turn	B	12.4	B	14.6	B	14.6
• Eastbound Right Turn	A	9.3	A	9.1	A	9.1
• Northbound Left Turn	A	7.8	A	7.7	A	7.7
Carriage Way with the North I-55 Frontage Road²						
• Westbound Left Turn	A	8.4	--	--	--	--
• Northbound Approach	A	9.8	B	12.7	B	12.7
LOS = Level of Service Delay is measured in seconds.						
1 – All-way stop control 2 – Two-way stop control						

Discussion and Recommendations

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

Plainfield Road with County Line Road

The results of the capacity analysis indicate that overall, this intersection currently operates at level of service (LOS) C during the weekday morning and Saturday midday peak hours and at LOS D during the weekday evening peak hour. Under no-build conditions, this intersection is projected to continue operating at LOS C during both the weekday morning and Saturday midday peak hours and is projected to operate at LOS E during the weekday evening peak hour. Under total projected conditions, this intersection is projected to operate at LOS C during the weekday morning and Saturday midday peak hours and at LOS D during the weekday evening peak hour.

The delay experienced during the weekday evening peak hour is primarily the result of the eastbound approach which currently operates at LOS F as the result of the high volume of right-turn vehicles and lack of an eastbound right-turn lane. It should be noted that the proposed development will likely *decrease* the volume of eastbound right-turn traffic at this intersection as the proposed Veterans Boulevard extension will provide an alternate route for vehicles traveling to and from County Line Road. As previously mentioned, Cook County is planning to improve this intersection as part of overall improvements to Plainfield Road. It is recommended that these improvements include the provision of an eastbound right-turn lane.

County Line Road with Veterans Boulevard and Carriage Way

The results of the capacity analysis indicate that overall, this intersection currently operates at LOS B during the weekday morning and Saturday midday peak hours and at LOS C during the weekday evening peak hour. Under no-build conditions, this intersection is projected to continue operating at LOS B during both the weekday morning and Saturday midday peak hours and is projected to operate at LOS D during the weekday evening peak hour.

As proposed, this intersection will be improved to better accommodate projected traffic volumes as follows:

- The eastbound approach will be restriped to provide an exclusive left-turn lane, a shared through/right-turn lane, and an exclusive right-turn lane. The eastbound right-turn overlap phase will be removed. However, the additional right-turn lane will increase capacity, particularly during the weekday evening peak hour.
- County Line Road will be widened to provide a southbound right-turn lane and the traffic signal will be modified to provide a southbound right-turn overlap phase.
- County Line Road will be widened to provide dual northbound left-turn lanes and the traffic signal will be modified for protected only northbound and southbound left turn movements.

- The traffic signal timings and cycle length will be optimized to accommodate projected traffic volumes.
- As discussed later in the report, a traffic signal will be provided at the intersection of Veterans Boulevard with the North I-55 Frontage Road. These intersections should be coordinated and signal timings and cycle lengths for both these intersections should be jointly optimized to reduce queueing between the intersections.

A conceptual geometric exhibit illustrating the recommended intersection improvements is included in the appendix.

As previously mentioned, CCDOTH is planning to improve the east leg of this intersection. The designs for these improvements have not been finalized. Further, the proposed development is not projected to increase the volume of traffic at this traveling to or from the east leg of this intersection by a significant amount. As such, these improvements were not accounted for but will improve intersection operations in the future.

Under total projected conditions, this intersection is projected to operate at LOS C during the weekday morning peak hour, LOS D during the weekday evening peak hour, and LOS B during the Saturday midday peak hour. The following should be noted.

- All movements are projected to operate at LOS D or better during all three peak hours except the northbound and southbound left-turn movements.
- The northbound and southbound left turn movements are projected to operate at LOS D or E. This is the result of the protected only operations required for dual left turn lanes. However, 95th percentile queues for these movements can be accommodated within the proposed left-turn lanes.
- The through movements on County Line Road are projected to operate at LOS C or better with the exception of the southbound through movement during the weekday evening peak hour which is projected to operate at LOS D. This movement currently operates at LOS D is projected to operate with a *decrease* in delay over no-build conditions.
- All movements are projected to operate at with a volume to capacity (v/c) ratio of less than one during all three peak hours.
- Eastbound 95th percentile queues on Veterans Boulevard are not projected to extend to the North I-55 Frontage Roads. This is due in part to the coordinated operations of these signals.

As such, with the proposed improvements and modifications, this intersection will adequately accommodate site-generated traffic.

Given that some of the site generated traffic approaching this intersection from the south on County Line Road will be exiting I-55, a weave analysis of this segment of roadway was completed using HCM methodology. It should be noted that the proposed improvements will increase the distance vehicles existing I-55 have to merge as the length of the dual left-turn lanes and taper will be shorter than the existing turn lane and taper. The results of the analysis indicated that this segment of County Line Road is projected to operate at an acceptable LOS and with a volume to capacity (v/c) ratio of less than one during all three peak hours. It should be noted that this analysis only considers the “short length” between the end of the I-55 off-ramp and the beginning of the northbound left-turn lane taper. As northbound queues on County Line Road for all movements are not projected to exceed the length of the northbound dual left-turn lanes, queues on County Line Road will not negatively impact the ability of vehicles to weave to get into the left turn lane.

Veterans Boulevard with the North I-55 Frontage Road

The results of the capacity analysis indicate that overall, this intersection currently operates at LOS B during the weekday morning peak hour, LOS C during the weekday evening peak hour, LOS A during the Saturday midday peak hour. Under no-build conditions, this intersection is projected to continue operating at the same LOS.

A traffic signal warrant analysis was performed for this intersection based on the Federal Highway Administration’s *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), 2009. For the purposes of this study, Signal Warrant 3 (Peak Hour) was used. **Table 16** contains the peak hour traffic volumes at this intersection and summary of the evaluation.

The results of the analysis indicate that a traffic signal will be warranted at this intersection during the weekday evening peak hour under total projected conditions. As such, a traffic signal is warranted at this intersection and will be provided as part of this development. The traffic signal should be interconnected with the existing traffic signal at the intersection of Veterans Boulevard with County Line Road. These intersections should be coordinated and signal timings and cycle lengths for both these intersections should be jointly optimized to reduce queueing between the intersections.

Currently, the intersection provides an exclusive left-turn lane, a shared through/left-turn lane, and a through lane on the westbound approach. Maintaining this geometry is desirable so that vehicles turning onto Veterans Boulevard from either of the northbound dual left turn lanes on County Line Road are able to turn onto the frontage road. However, in order to accommodate westbound through and left-turn movements in the same lane, this intersection will be required to operate under split phase operation with eastbound and westbound movements operating independently. It should be noted that this configuration will allow for a northbound right-turn overlap phase.

Under total projected conditions, assuming the provision of the traffic signal, this intersection is projected to operate at LOS A during the weekday morning peak hour and at LOS B during the weekday evening and Saturday evening peak hours. Further, all movements are projected to operate at LOS D or better during all three peak hours. 95th percentile westbound queues are not projected to extend to County Line Road. This is due in part to the coordinated operations of these signals. As such, with the completion of the proposed improvements, this intersection will adequately accommodate site-generated traffic.

Table 16

WARRANT VOLUME SUMMARY – VETERANS BOULEVARD WITH THE I-55 NORTH FRONTAGE ROAD

	Peak Hour	Figure 14 Reference	Minor Approach	Major Approach (Two-Way)	Signal Warrant Met? ⁵
Existing Conditions	Weekday Morning	A	198	567	No
	Weekday Evening	B	418	408	No
	Saturday Midday	C	199	148	No
No-build Conditions	Weekday Morning	D	201	573	No
	Weekday Evening	E	425	410	No
	Saturday Midday	F	202	150	No
Total Projected Conditions	Weekday Morning	G	208	1017	No
	Weekday Evening	H	442	859	Yes
	Saturday Midday	I	208	295	No
1 - MUTCD Signal Warrant 3 (Peak Hour), two or more lanes on major approach, two lanes on minor approach.					

Plainfield Road with Madison Street

The results of the capacity analysis indicate that overall, this intersection currently operates at LOS C during the weekday morning, weekday evening, and Saturday midday peak hours. Further, all movements operate at LOS E or better during all three peak hours and Plainfield Road movements operate at LOS C or better. Under no-build conditions, this intersection is projected to continue operating at LOS C during all three peak hours.

Under total projected conditions, this intersection is projected to operate at LOS C during the weekday morning and Saturday midday peak hours and LOS D during the weekday evening peak hour with increases in delay of less than two seconds. Further, all movements are projected to operate at the same LOS as no-build conditions. It should be noted that the vacation of Commerce Street as part of the development will reduce the volume of site-generated traffic traveling on Madison Street at this intersection as Plainfield Road will provide more direct access to the development. As such, this intersection can adequately accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

Plainfield Road with High Grove Boulevard

The results of the capacity analysis indicate that outbound left-turn movements from this access drive currently operate at LOS D to F during the weekday morning, weekday evening, and Saturday midday peak hours and all other critical movements operate at LOS C or better. Under no-build conditions, all critical movements are projected to continue to operate at the same LOS during all three peak hours.

A traffic signal warrant analysis was performed for this intersection based on the Federal Highway Administration's *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), 2009. For the purposes of this study, Signal Warrant 3 (Peak Hour) was used. **Table 17** contains the peak hour traffic volumes at this intersection and summary of the evaluation.

Table 17

WARRANT VOLUME SUMMARY – PLAINFIELD ROAD WITH HIGH GROVE BOULEVARD

	Peak Hour	Figure 14 Reference	Minor Approach	Major Approach (Two-Way)	Signal Warrant Met? ¹
Existing Conditions	Weekday Morning	A	28	1,550	No
	Weekday Evening	B	139	2,164	No
	Saturday Midday	C	32	1,578	No
No-build Conditions	Weekday Morning	D	28	1,576	No
	Weekday Evening	E	139	2,203	No
	Saturday Midday	F	32	1,606	No
Total Projected Conditions	Weekday Morning	G	51	1,657	No
	Weekday Evening	H	259	2,183	Yes
	Saturday Midday	I	62	1,614	No

1 - MUTCD Signal Warrant 3 (Peak Hour), two or more lanes on major approach, two lanes on minor approach.

The results of the analysis indicate that a traffic signal will be warranted at this intersection during the weekday evening peak hour under total projected conditions. As such, a traffic signal is warranted at this intersection and will be provided as part of this development. The traffic signal will be interconnected with the existing traffic signal system on Plainfield Road and will use the existing cycle length of the system which varies throughout the day. The signal should provide a westbound protected left-turn/northbound right-turn overlap phase. As part of the provision of the traffic signal, the northbound approach, which is wide enough for two lanes, will be restriped for an exclusive left-turn lane and an exclusive right-turn lane. This will allow for the provision of a northbound right-turn overlap phase.

Under total projected conditions, assuming the provision of the traffic signal, this intersection is projected to operate at LOS A during the weekday morning and Saturday midday peak hours and at LOS B during the weekday evening peak hour. Further, all movements are projected to operate at LOS D or better during all three peak hours and through movements on Veterans Boulevard are projected to operate at LOS A. 95th percentile westbound queues are not projected to extend to County Line Road. As such, with the completion of the proposed improvements, this intersection will adequately accommodate site-generated traffic.

County Line Road with Carriage Place

The results of the capacity analysis indicate that eastbound and westbound approaches operate at LOS B or C during the weekday morning, weekday evening, and Saturday midday peak hours and the northbound and southbound left turn movements operate at LOS A. Under no-build and total projected conditions, all movements are projected to continue to operate at the same LOS during all three peak hours. The proposed development is not projected to increase the volume of turning movements at this intersection. As such, this intersection can adequately accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

Madison Street with High Grove Boulevard

The results of the capacity analysis indicate that eastbound and westbound movements currently operate at LOS C or better during the weekday morning, weekday evening, and Saturday midday peak hours and the northbound and southbound left turn movements operate at LOS A. Under no-build conditions, all movements are projected to continue to operate at the same LOS during all three peak hours.

The westbound approach of this intersection is wide enough for two lanes and will be restriped for an exclusive left-turn lane and an exclusive right-turn lane.

Under total projected conditions, eastbound and westbound movements are projected to operate at LOS D or better during all three peak hours and the northbound and southbound left turn movements are projected to operate at LOS A. As such, this intersection can adequately accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

County Line Road with Carriage Place

The results of the capacity analysis indicate that eastbound and westbound movements operate at LOS C or better during the weekday morning, weekday evening, and Saturday midday peak hours and the northbound and southbound left turn movements operate at LOS A. Under no-build and total projected conditions, all movements are projected to continue to operate at the same LOS during all three peak hours. As such, this intersection can adequately accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

High Grove Boulevard with Commerce Street, High Grove Boulevard with International Street, and Commerce Street with International Street

The results of the capacity analysis indicate that all critical movements at these intersections operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. Under no-build conditions, all movements are projected to continue to operate at the same LOS during all three peak hours.

As proposed, the intersection of Commerce Street with International Street will be vacated. However, this will not impact the access of the existing developments along these roadways as all driveways are to remain except those serving CNH Industrial and the public works building.

Under total projected conditions, the critical movements at the intersections of High Grove Boulevard with Commerce Street and International Street are projected to operate at LOS B or better during all three peak hours. As such, these intersections can adequately accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

Commerce Street Access System (Access A and B)

As proposed, two access drives will be provided on Commerce Street serving light industrial building A. These access drives will provide one inbound lane and one outbound lane with outbound movements under stop sign control. Under total projected conditions, turning movements to and from the proposed access drives are projected to operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. As such, these access drives will adequately accommodate site-generated traffic.

Veterans Boulevard Access System (Access C, D, E, F)

As proposed, three access drives will be provided along the extension of Veterans Boulevard and one access drive will be provided on the north-south segment of Veterans Boulevard. Access drives C, D, and F will provide one inbound lane and one outbound lane with outbound movements under stop sign control. Access drive E will provide one inbound lane and two outbound lanes on both sides of Veterans Boulevard with outbound movements under stop sign control. Separate left-turn lanes will be provided within the median on Veterans Boulevard serving access drives C, D, and E.

Under total projected conditions, turning movements to and from the proposed access drives are projected to operate at LOS C or better during the weekday morning, weekday evening, and Saturday midday peak hours. As such, these access drives will adequately accommodate site-generated traffic.

The North I-55 Frontage Road with Harvester Drive

The results of the capacity analysis indicate that all critical movements currently operate at LOS B or better during the weekday morning, weekday evening, and Saturday midday peak hours.

Under no-build and total projected traffic volumes, all critical movements are projected to continue to operate at LOS B or better during all three peak hours. As such, this intersection can adequately accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

Carriage Way with the North I-55 Frontage Road

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

It should be noted that this analysis does not take into consideration queues from the signalized intersection of County Line Road with Carriage Way which regularly block this intersection. As previously mentioned, Cook County is planning to improve this intersection to address queuing and delays resulting from its close proximity to the County Line/Carriage Way traffic signal. Further, the proposed development is not projected to increase the volume of traffic at this traveling to or from the east leg of this intersection by a significant amount. As such, this intersection can adequately accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

7. Conclusion

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

- The proposed development will consist of approximately 1,199,875 square feet of light industrial space in six buildings, a residential development with 72 townhome units, and a new and relocated 68,294 square-foot Burr Ridge public works building.
- As part of the development, the following roadway modifications will be provided:
 - The east-west segment of Veterans Boulevard will be extended from its current terminus east of the site to International Street. The extension will provide two lanes in each direction generally divided by a landscape median.
 - Commerce Street will be vacated from approximately 480 feet west of International Street to its eastern terminus.
- In order to accommodate site-generated traffic, the following additional roadway improvements will be provided.
 - The signalized intersection of County Line Road with Veterans Boulevard with Carriage Way will be modified as follows:
 - The eastbound approach will be restriped for an exclusive left-turn lane, a shared through/right-turn lane, and an exclusive right-turn lane.
 - County Line Road will be widened to provide dual northbound left-turn lanes.
 - County Line Road will be widened to provide a southbound right-turn lane.
 - Traffic signal will be modified/upgraded.
 - Traffic signal timings and cycle length will be optimized.
 - A traffic signal will be warranted and will be provided at the intersection of Veterans Boulevard with the North I-55 Frontage Road. This intersection will be interconnected with the signalized intersection of County Line Road with Veterans Boulevard and Carriage Way.
 - A traffic signal will be warranted and will be provided at the intersection of Plainfield Road with High Grove Boulevard. This intersection will be interconnected with the existing signal system on Plainfield Road. In addition, the northbound approach will be striped for an exclusive left-turn lane and an exclusive right-turn lane.

- The westbound approach of the intersection of Madison Street with High Grove Boulevard will be striped for an exclusive left-turn lane and an exclusive right-turn lane.
- With the completion of the proposed improvements, area intersections will have sufficient reserve capacity to accommodate site-generated traffic volumes.
- Cook County is planning improvements to the signalized intersection of Plainfield Road with County Line Road, the east leg of the signalized intersection County Line Road with Veterans Boulevard and Carriage Way, and the intersection of Carriage Way with the North I-55 Frontage Road. These improvements will benefit intersection operations but are not necessary to accommodate the proposed development.
- Access to the development will be provided via two access drives on Commerce Street, three access drives on the extension of Veterans Boulevard, an access drive on the north-south segment of Veterans Boulevard, and an access drive on Harvester Drive
- The proposed access system will adequately accommodate site-generated traffic and will provide efficient and flexible access.

Appendix

CCDOTH Feasibility Study Exhibit

Traffic Count Summary Sheets

Preliminary Site Plan

ITE Trip Generation Worksheets

CMAP Projections Letter

Figure A (Removal of Existing Traffic)

Figure B (Reassignment of Existing Traffic)

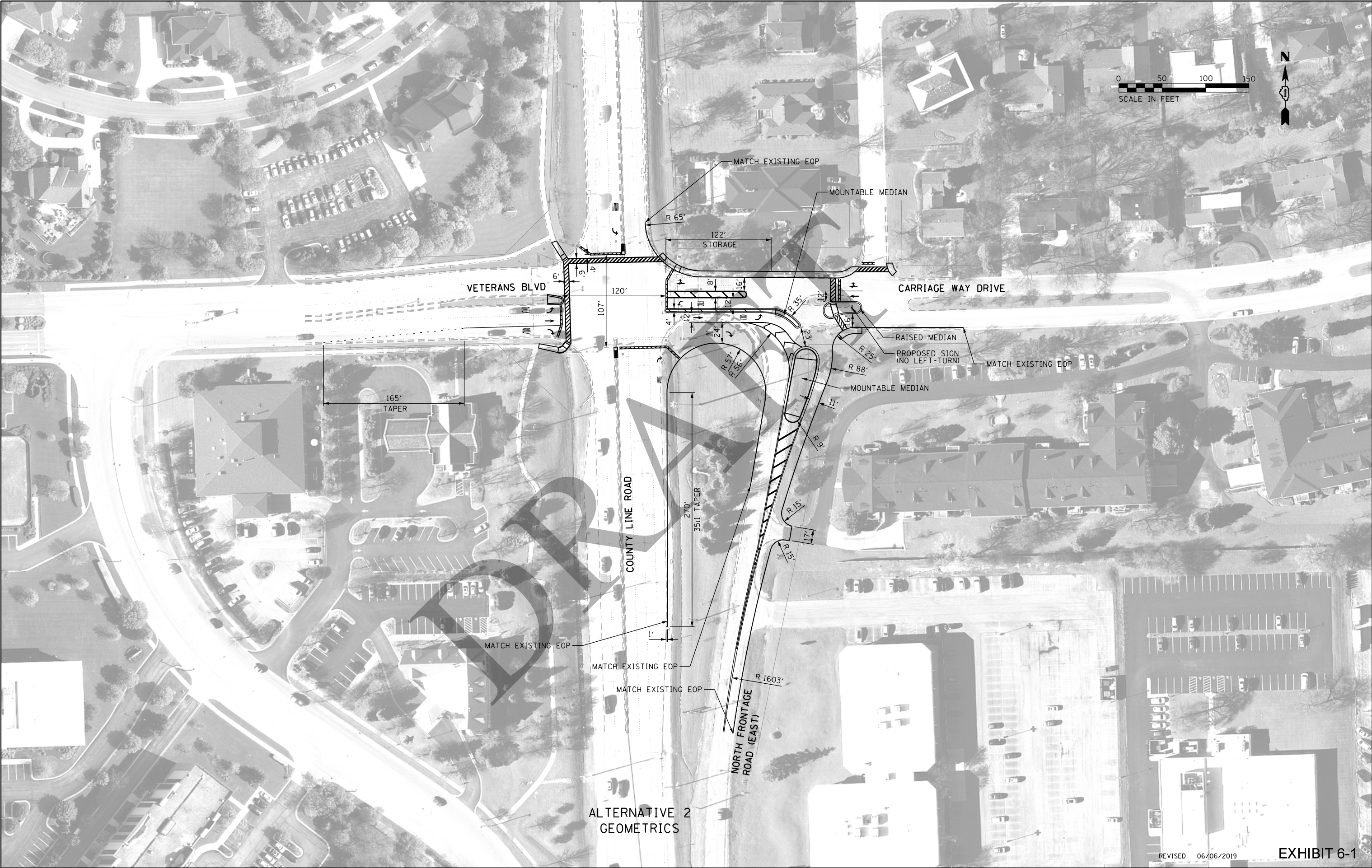
Level of Service Criteria

Capacity Analysis Summary Sheets

CCDOTH Feasibility Study Exhibit

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	CHECKED		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	GRADES CHECKED		
NO.	STRUCTURE NOTATIONS CHKD		



AEG ATLAS ENGINEERING GROUP, LTD. 3100 Dundee Road, Suite 502 Northbrook, IL 60062 847.753.8020 (office) 847.753.8023 (fax)	USER NAME = jzege	DESIGNED - GS, KC	REVISED - 02/21/2019	 COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS	NORTH FRONTAGE ROAD AND CARRIAGE WAY ALTERNATIVE 2 - AERIAL PLAN					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1200.0000' / ft.	DRAWN - JPZ, AS	REVISED - 06/06/2019										2	1
	PLOT DATE = 6/6/2019	CHECKED - YO, KC	REVISED -		CONTRACT NO.									
	DATE - 10-12-18	REVISED -	ILLINOIS FED. AID PROJECT											
SCALE:		SHEET	OF	SHEETS	STA.	TO STA.								

FILE NAME = Q:\Engineer\00 PROJECTS\3016 Milhouse Engineering\3016-05-003.MILH-CCDOH Prelim Eng Services\W01.N Frontage Rd Burr Ridge\300 CADD\CADD Drawings\CADD Sheets\DS3016W01-sht-Planning-Alt2-GeometryAer101.dgn
Default

Traffic Count Summary Sheets



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Count Name: County Line Road with I-55 Ramps
ATR
Site Code:
Start Date: 07/20/2023
Page No: 1

Lane 1 (Southbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
7:00 AM	90	0	2	6	0	98
7:15 AM	112	0	2	3	0	117
7:30 AM	111	0	3	0	0	114
7:45 AM	115	0	3	5	0	123
8:00 AM	136	0	4	8	0	148
8:15 AM	120	0	4	2	0	126
8:30 AM	116	0	2	6	0	124
8:45 AM	99	0	2	10	0	111
4:00 PM	251	0	4	8	0	263
4:15 PM	225	0	4	2	0	231
4:30 PM	281	0	4	1	0	286
4:45 PM	239	0	2	6	0	247
5:00 PM	285	0	0	7	0	292
5:15 PM	274	0	3	4	0	281
5:30 PM	243	0	2	4	0	249
5:45 PM	227	0	3	3	0	233
10:00 AM	95	0	2	3	0	100
10:15 AM	121	0	1	1	0	123
10:30 AM	90	0	2	3	0	95
10:45 AM	101	0	2	0	0	103
11:00 AM	100	0	1	0	0	101
11:15 AM	109	0	2	0	0	111
11:30 AM	100	0	1	0	0	101
11:45 AM	120	0	0	0	1	121
12:00 PM	125	0	3	2	0	130
12:15 PM	136	0	1	1	0	138
12:30 PM	97	1	2	1	0	101
12:45 PM	107	0	3	0	0	110
1:00 PM	111	0	2	3	0	116
1:15 PM	130	0	1	1	0	132
1:30 PM	102	0	0	1	0	103
1:45 PM	112	0	2	1	0	115
2:00 PM	135	0	2	1	1	139
2:15 PM	137	0	1	0	0	138
2:30 PM	132	0	1	2	0	135
2:45 PM	107	0	0	1	0	108
3:00 PM	137	0	1	0	0	138
3:15 PM	124	0	4	2	0	130
3:30 PM	116	0	0	0	0	116

3:45 PM	123	0	1	4	0	128
4:00 PM	130	0	2	2	0	134
4:15 PM	131	0	4	0	0	135
4:30 PM	145	0	0	0	0	145
4:45 PM	122	0	1	1	0	124
5:00 PM	122	0	0	0	0	122
5:15 PM	99	0	0	0	0	99
5:30 PM	86	0	0	0	0	86
5:45 PM	116	0	0	1	0	117
Total	6642	1	86	106	2	6837
Total %	97.1	0.0	1.3	1.6	0.0	100.0
AM Times	7:45 AM	7:00 AM	7:30 AM	8:00 AM	11:00 AM	7:45 AM
AM Peaks	487	0	14	26	1	521
PM Times	4:30 PM	4:00 PM	4:00 PM	4:45 PM	5:00 PM	4:30 PM
PM Peaks	1079	0	14	21	0	1106



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ATR
Site Code:
Start Date: 07/20/2023
Page No: 3

Lane 2 (Southbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
7:00 AM	39	0	0	0	0	39
7:15 AM	62	0	2	1	0	65
7:30 AM	69	0	1	0	0	70
7:45 AM	87	0	2	0	0	89
8:00 AM	94	0	1	0	0	95
8:15 AM	69	0	1	0	0	70
8:30 AM	93	0	1	0	0	94
8:45 AM	92	0	1	0	0	93
4:00 PM	181	0	5	1	0	187
4:15 PM	182	3	3	1	0	189
4:30 PM	157	2	2	0	0	161
4:45 PM	191	0	3	0	0	194
5:00 PM	184	0	2	1	0	187
5:15 PM	187	0	1	1	0	189
5:30 PM	167	0	2	0	0	169
5:45 PM	189	0	2	1	0	192
10:00 AM	69	0	3	0	0	72
10:15 AM	75	0	1	0	0	76
10:30 AM	74	0	1	0	0	75
10:45 AM	86	0	0	0	0	86
11:00 AM	87	0	1	1	0	89
11:15 AM	77	0	0	1	0	78
11:30 AM	76	0	1	0	0	77
11:45 AM	108	0	0	0	0	108
12:00 PM	84	0	0	0	0	84
12:15 PM	106	0	0	0	0	106
12:30 PM	70	0	2	0	0	72
12:45 PM	72	0	0	0	0	72
1:00 PM	84	0	0	0	0	84
1:15 PM	75	0	0	1	0	76
1:30 PM	68	0	0	1	0	69
1:45 PM	79	0	1	0	0	80
2:00 PM	96	0	0	0	0	96
2:15 PM	94	0	0	0	0	94
2:30 PM	91	0	1	0	0	92
2:45 PM	77	0	0	0	0	77
3:00 PM	83	0	0	0	0	83
3:15 PM	81	0	0	0	0	81
3:30 PM	84	0	0	1	0	85

3:45 PM	85	0	0	0	0	85
4:00 PM	78	0	2	0	0	80
4:15 PM	84	0	0	0	0	84
4:30 PM	70	0	0	0	0	70
4:45 PM	89	0	1	0	0	90
5:00 PM	76	0	0	0	0	76
5:15 PM	82	0	1	0	0	83
5:30 PM	67	0	1	0	0	68
5:45 PM	69	0	0	0	0	69
Total	4639	5	45	11	0	4700
Total %	98.7	0.1	1.0	0.2	0.0	100.0
AM Times	7:45 AM	7:00 AM	7:30 AM	8:00 AM	11:00 AM	7:45 AM
AM Peaks	343	0	5	0	0	348
PM Times	4:30 PM	4:00 PM	4:00 PM	4:45 PM	5:00 PM	4:30 PM
PM Peaks	719	5	13	2	0	731



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ATR
Site Code:
Start Date: 07/20/2023
Page No: 5

Lane 1 (Northbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
7:00 AM	129	0	1	2	0	132
7:15 AM	137	0	1	3	0	141
7:30 AM	177	0	4	4	0	185
7:45 AM	220	0	4	7	0	231
8:00 AM	180	0	3	4	0	187
8:15 AM	177	0	3	4	0	184
8:30 AM	154	1	3	2	0	160
8:45 AM	142	0	2	3	0	147
4:00 PM	115	0	1	0	0	116
4:15 PM	101	0	1	3	0	105
4:30 PM	108	1	0	1	0	110
4:45 PM	99	0	2	0	0	101
5:00 PM	92	0	3	1	0	96
5:15 PM	112	0	2	2	0	116
5:30 PM	121	0	1	4	0	126
5:45 PM	99	0	2	1	0	102
10:00 AM	75	0	0	1	0	76
10:15 AM	62	0	0	1	0	63
10:30 AM	69	0	0	0	0	69
10:45 AM	82	0	1	0	0	83
11:00 AM	79	0	0	0	0	79
11:15 AM	65	0	0	2	0	67
11:30 AM	85	0	0	2	0	87
11:45 AM	83	0	0	2	0	85
12:00 PM	84	0	1	0	0	85
12:15 PM	78	0	2	2	0	82
12:30 PM	73	0	4	1	0	78
12:45 PM	77	0	1	1	0	79
1:00 PM	77	0	2	2	0	81
1:15 PM	60	0	0	1	0	61
1:30 PM	69	0	2	0	0	71
1:45 PM	83	0	2	0	0	85
2:00 PM	71	0	1	1	0	73
2:15 PM	59	0	1	3	0	63
2:30 PM	81	0	0	1	0	82
2:45 PM	91	0	3	0	0	94
3:00 PM	86	0	2	0	0	88
3:15 PM	73	0	0	1	0	74
3:30 PM	58	0	1	0	0	59

3:45 PM	80	0	0	0	0	80
4:00 PM	53	0	0	2	0	55
4:15 PM	57	0	1	2	0	60
4:30 PM	62	0	1	1	0	64
4:45 PM	63	0	1	0	0	64
5:00 PM	81	0	0	0	0	81
5:15 PM	71	0	0	1	0	72
5:30 PM	69	0	0	1	0	70
5:45 PM	72	0	0	2	0	74
Total	4491	2	59	71	0	4623
Total %	97.1	0.0	1.3	1.5	0.0	100.0
AM Times	7:45 AM	7:00 AM	7:30 AM	8:00 AM	11:00 AM	7:45 AM
AM Peaks	731	0	14	13	0	762
PM Times	4:30 PM	4:00 PM	4:00 PM	4:45 PM	5:00 PM	4:30 PM
PM Peaks	411	1	4	7	0	423



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ATR
Site Code:
Start Date: 07/20/2023
Page No: 7

Lane 2 (Northbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
7:00 AM	48	1	3	1	0	53
7:15 AM	49	1	2	0	0	52
7:30 AM	64	0	1	2	0	67
7:45 AM	70	0	3	1	0	74
8:00 AM	53	1	3	0	0	57
8:15 AM	67	0	0	0	0	67
8:30 AM	64	0	0	1	0	65
8:45 AM	71	1	3	0	0	75
4:00 PM	58	0	0	0	0	58
4:15 PM	51	0	0	0	0	51
4:30 PM	66	0	2	1	0	69
4:45 PM	50	0	1	0	0	51
5:00 PM	52	0	0	0	0	52
5:15 PM	51	0	3	1	0	55
5:30 PM	35	0	0	1	0	36
5:45 PM	43	0	0	0	1	44
10:00 AM	41	0	0	0	0	41
10:15 AM	32	0	0	1	0	33
10:30 AM	33	0	1	0	0	34
10:45 AM	47	0	0	0	0	47
11:00 AM	43	0	0	0	0	43
11:15 AM	45	0	0	0	0	45
11:30 AM	33	1	0	3	0	37
11:45 AM	37	0	0	0	0	37
12:00 PM	55	0	0	0	0	55
12:15 PM	48	0	0	1	0	49
12:30 PM	35	0	0	0	0	35
12:45 PM	47	0	1	0	0	48
1:00 PM	44	0	0	0	0	44
1:15 PM	47	0	1	0	0	48
1:30 PM	36	0	0	0	0	36
1:45 PM	40	0	0	0	0	40
2:00 PM	35	0	0	0	0	35
2:15 PM	45	0	0	0	0	45
2:30 PM	52	0	0	0	0	52
2:45 PM	35	0	0	0	0	35
3:00 PM	44	0	0	0	0	44
3:15 PM	33	0	0	0	0	33
3:30 PM	42	0	0	0	0	42

3:45 PM	42	0	0	1	0	43
4:00 PM	29	0	0	0	0	29
4:15 PM	30	0	0	0	0	30
4:30 PM	39	0	0	0	0	39
4:45 PM	33	0	0	0	0	33
5:00 PM	33	0	0	0	0	33
5:15 PM	41	0	0	0	0	41
5:30 PM	28	0	1	0	0	29
5:45 PM	19	0	0	0	0	19
Total	2135	5	25	14	1	2180
Total %	97.9	0.2	1.1	0.6	0.0	100.0
AM Times	7:45 AM	7:00 AM	7:30 AM	8:00 AM	11:00 AM	7:45 AM
AM Peaks	254	2	7	1	0	263
PM Times	4:30 PM	4:00 PM	4:00 PM	4:45 PM	5:00 PM	4:30 PM
PM Peaks	219	0	3	2	1	227



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ATR
Site Code:
Start Date: 07/20/2023
Page No: 9

Lane 3 (Northbound)

Start Time	Lights	Buses	Single-Unit Trucks	Articulated Trucks	Bicycles on Road	Total
7:00 AM	94	1	1	0	0	96
7:15 AM	85	0	1	1	0	87
7:30 AM	130	0	0	1	0	131
7:45 AM	121	0	2	0	0	123
8:00 AM	134	0	1	1	0	136
8:15 AM	114	0	2	1	0	117
8:30 AM	127	0	1	2	0	130
8:45 AM	117	0	1	1	0	119
4:00 PM	85	0	1	0	0	86
4:15 PM	73	0	0	0	0	73
4:30 PM	90	0	1	0	0	91
4:45 PM	58	0	0	0	0	58
5:00 PM	93	0	0	0	0	93
5:15 PM	87	0	0	0	0	87
5:30 PM	77	0	0	0	0	77
5:45 PM	78	0	0	0	0	78
10:00 AM	78	0	0	0	0	78
10:15 AM	59	0	2	0	0	61
10:30 AM	65	0	2	0	0	67
10:45 AM	76	0	0	1	0	77
11:00 AM	61	0	0	0	0	61
11:15 AM	79	0	1	0	0	80
11:30 AM	59	0	0	0	0	59
11:45 AM	51	0	0	0	0	51
12:00 PM	73	0	0	0	0	73
12:15 PM	57	0	0	0	0	57
12:30 PM	62	0	0	0	0	62
12:45 PM	62	0	0	0	0	62
1:00 PM	48	0	0	0	0	48
1:15 PM	58	0	0	0	0	58
1:30 PM	53	0	1	0	0	54
1:45 PM	49	0	0	0	0	49
2:00 PM	67	0	0	0	0	67
2:15 PM	52	0	0	0	0	52
2:30 PM	53	0	2	0	0	55
2:45 PM	44	0	2	1	0	47
3:00 PM	60	0	0	0	0	60
3:15 PM	43	0	0	0	0	43
3:30 PM	51	0	0	0	0	51

3:45 PM	49	0	0	0	0	49
4:00 PM	48	0	1	0	0	49
4:15 PM	48	0	0	0	0	48
4:30 PM	50	0	0	0	0	50
4:45 PM	48	0	0	0	0	48
5:00 PM	48	0	0	0	0	48
5:15 PM	49	1	0	0	0	50
5:30 PM	45	0	0	0	0	45
5:45 PM	39	0	0	0	0	39
Total	3347	2	22	9	0	3380
Total %	99.0	0.1	0.7	0.3	0.0	100.0
AM Times	7:45 AM	7:00 AM	7:30 AM	8:00 AM	11:00 AM	7:45 AM
AM Peaks	496	1	5	5	0	506
PM Times	4:30 PM	4:00 PM	4:00 PM	4:45 PM	5:00 PM	4:30 PM
PM Peaks	328	0	2	0	0	329



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

Rosemont, Illinois, United States 60018
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Count Name: County Line Road with Plainfield
Road TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	Plainfield Road Eastbound						Plainfield Road Westbound						County Line Road Northbound						County Line 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	18	51	0	0	69	0	21	30	1	0	52	0	79	115	28	0	222	0	2	56	5	0	63	406
7:15 AM	0	18	54	0	0	72	0	26	60	1	0	87	0	74	83	28	0	185	0	0	77	4	0	81	425
7:30 AM	0	22	83	0	0	105	0	32	61	1	0	94	0	86	130	23	0	239	0	4	75	11	0	90	528
7:45 AM	0	18	81	0	0	99	0	51	62	2	0	115	0	102	141	24	0	267	0	6	90	23	0	119	600
Hourly Total	0	76	269	0	0	345	0	130	213	5	0	348	0	341	469	103	0	913	0	12	298	43	0	353	1959
8:00 AM	0	18	79	0	0	97	0	39	61	8	0	108	0	95	114	23	0	232	0	1	72	23	0	96	533
8:15 AM	0	16	84	0	0	100	0	44	61	6	0	111	0	113	105	31	0	249	0	4	61	20	0	85	545
8:30 AM	0	23	73	0	0	96	0	20	56	15	0	91	0	102	137	31	0	270	0	5	66	22	0	93	550
8:45 AM	0	32	71	0	0	103	0	36	70	10	0	116	0	96	104	30	0	230	0	8	56	19	0	83	532
Hourly Total	0	89	307	0	0	396	0	139	248	39	0	426	0	406	460	115	0	981	0	18	255	84	0	357	2160
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	19	120	0	0	139	0	33	113	2	0	148	0	104	125	46	0	275	0	5	145	30	0	180	742
4:15 PM	0	25	125	0	0	150	0	38	138	4	0	180	0	97	85	40	0	222	0	5	128	14	0	147	699
4:30 PM	0	21	101	0	0	122	0	23	121	3	0	147	0	123	130	59	0	312	0	2	130	24	0	156	737
4:45 PM	0	18	127	0	0	145	0	41	129	7	0	177	0	102	102	39	0	243	0	7	134	28	0	169	734
Hourly Total	0	83	473	0	0	556	0	135	501	16	0	652	0	426	442	184	0	1052	0	19	537	96	0	652	2912
5:00 PM	0	24	125	0	0	149	0	35	97	4	0	136	0	114	88	59	0	261	0	7	121	30	0	158	704
5:15 PM	0	21	130	0	0	151	0	34	127	1	0	162	0	103	113	40	0	256	0	5	158	37	0	200	769
5:30 PM	0	26	124	0	0	150	0	35	116	2	0	153	0	116	106	28	0	250	0	11	168	23	0	202	755
5:45 PM	0	12	101	0	0	113	0	44	99	2	0	145	0	106	90	33	0	229	0	5	137	16	0	158	645
Hourly Total	0	83	480	0	0	563	0	148	439	9	0	596	0	439	397	160	0	996	0	28	584	106	0	718	2873
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	18	56	0	0	74	0	25	58	6	0	89	0	62	96	24	0	182	0	2	57	21	0	80	425
10:15 AM	0	20	67	0	0	87	0	28	80	5	0	113	0	54	57	18	0	129	0	6	69	19	0	94	423
10:30 AM	0	12	89	0	0	101	0	26	59	6	0	91	0	60	62	12	0	134	0	4	62	9	0	75	401
10:45 AM	0	21	60	0	0	81	0	16	74	4	0	94	2	78	91	32	0	203	0	6	82	10	0	98	476
Hourly Total	0	71	272	0	0	343	0	95	271	21	0	387	2	254	306	86	0	648	0	18	270	59	0	347	1725
11:00 AM	0	16	83	0	0	99	0	16	63	6	0	85	0	65	82	21	0	168	0	8	67	9	0	84	436
11:15 AM	0	8	75	0	0	83	0	13	66	5	0	84	1	62	67	24	0	154	0	5	63	19	0	87	408
11:30 AM	0	15	109	0	0	124	0	20	96	3	0	119	0	59	79	27	0	165	0	4	62	15	0	81	489
11:45 AM	0	14	91	0	0	105	0	28	82	8	0	118	0	75	75	25	0	175	0	0	93	25	1	118	516
Hourly Total	0	53	358	0	0	411	0	77	307	22	0	406	1	261	303	97	0	662	0	17	285	68	1	370	1849
12:00 PM	0	21	98	0	0	119	0	15	96	7	0	118	0	58	86	33	0	177	0	5	56	16	0	77	491
12:15 PM	0	23	116	0	0	139	0	16	96	4	0	116	0	72	83	20	0	175	0	8	103	17	0	128	558
12:30 PM	0	11	96	0	0	107	0	17	76	7	0	100	0	61	85	27	0	173	0	4	57	20	1	81	461

12:45 PM	0	18	84	0	0	102	1	25	72	8	0	106	0	67	74	31	0	172	0	3	57	12	0	72	452
Hourly Total	0	73	394	0	0	467	1	73	340	26	0	440	0	258	328	111	0	697	0	20	273	65	1	358	1962
1:00 PM	0	23	107	0	0	130	1	16	77	1	0	95	0	68	87	22	0	177	0	3	72	23	1	98	500
1:15 PM	0	18	104	0	0	122	0	20	68	2	0	90	0	60	75	18	0	153	0	6	83	16	0	105	470
1:30 PM	0	10	102	0	0	112	0	13	79	3	0	95	0	66	57	28	0	151	0	2	63	21	2	86	444
1:45 PM	0	8	90	0	0	98	0	23	78	3	0	104	0	66	65	25	0	156	0	3	75	25	0	103	461
Hourly Total	0	59	403	0	0	462	1	72	302	9	0	384	0	260	284	93	0	637	0	14	293	85	3	392	1875
2:00 PM	0	15	85	0	0	100	0	17	79	4	0	100	0	68	75	19	0	162	0	8	81	14	0	103	465
2:15 PM	0	20	98	0	0	118	0	28	68	4	0	100	0	58	70	24	0	152	1	3	93	21	0	118	488
2:30 PM	0	23	84	0	0	107	0	21	61	9	0	91	0	81	79	22	0	182	0	3	67	19	0	89	469
2:45 PM	0	17	78	0	0	95	0	19	71	3	0	93	0	66	77	16	0	159	0	4	65	15	0	84	431
Hourly Total	0	75	345	0	0	420	0	85	279	20	0	384	0	273	301	81	0	655	1	18	306	69	0	394	1853
3:00 PM	0	8	86	0	0	94	0	21	72	5	0	98	0	69	90	30	0	189	0	5	72	17	1	94	475
3:15 PM	0	13	87	0	1	100	0	15	71	4	0	90	0	53	67	22	0	142	0	3	81	20	2	104	436
3:30 PM	0	13	75	0	0	88	0	17	79	2	0	98	0	45	59	34	0	138	0	4	63	12	1	79	403
3:45 PM	0	12	85	0	0	97	0	13	62	2	0	77	2	56	75	25	0	158	0	2	88	12	0	102	434
Hourly Total	0	46	333	0	1	379	0	66	284	13	0	363	2	223	291	111	0	627	0	14	304	61	4	379	1748
4:00 PM	0	17	75	0	0	92	0	17	83	5	0	105	0	47	44	7	0	98	0	4	86	12	0	102	397
4:15 PM	0	15	88	0	0	103	0	21	53	2	0	76	0	53	63	12	0	128	0	4	85	14	0	103	410
4:30 PM	0	20	81	0	0	101	0	22	73	2	0	97	0	67	51	30	1	148	0	1	99	4	0	104	450
4:45 PM	0	15	81	0	0	96	0	27	52	6	0	85	0	56	51	19	0	126	0	5	81	9	0	95	402
Hourly Total	0	67	325	0	0	392	0	87	261	15	0	363	0	223	209	68	1	500	0	14	351	39	0	404	1659
5:00 PM	0	16	77	0	0	93	0	23	59	1	0	83	0	54	53	16	0	123	0	3	80	10	0	93	392
5:15 PM	0	10	74	0	0	84	0	19	65	2	0	86	0	56	56	30	1	142	0	5	68	17	0	90	402
5:30 PM	0	10	84	0	0	94	0	11	61	2	0	74	0	56	47	20	0	123	0	4	53	17	0	74	365
5:45 PM	0	11	70	0	0	81	0	25	52	1	0	78	0	61	47	13	0	121	0	2	76	22	0	100	380
Hourly Total	0	47	305	0	0	352	0	78	237	6	0	321	0	227	203	79	1	509	0	14	277	66	0	357	1539
Grand Total	0	822	4264	0	1	5086	2	1185	3682	201	0	5070	5	3591	3993	1288	2	8877	1	206	4033	841	9	5081	24114
Approach %	0.0	16.2	83.8	0.0	-	-	0.0	23.4	72.6	4.0	-	-	0.1	40.5	45.0	14.5	-	-	0.0	4.1	79.4	16.6	-	-	-
Total %	0.0	3.4	17.7	0.0	-	21.1	0.0	4.9	15.3	0.8	-	21.0	0.0	14.9	16.6	5.3	-	36.8	0.0	0.9	16.7	3.5	-	21.1	-
Lights	0	811	4198	0	-	5009	2	1162	3639	198	-	5001	5	3544	3952	1258	-	8759	1	204	3966	827	-	4998	23767
% Lights	-	98.7	98.5	-	-	98.5	100.0	98.1	98.8	98.5	-	98.6	100.0	98.7	99.0	97.7	-	98.7	100.0	99.0	98.3	98.3	-	98.4	98.6
Buses	0	0	1	0	-	1	0	8	0	0	-	8	0	1	1	3	-	5	0	1	1	2	-	4	18
% Buses	-	0.0	0.0	-	-	0.0	0.0	0.7	0.0	0.0	-	0.2	0.0	0.0	0.0	0.2	-	0.1	0.0	0.5	0.0	0.2	-	0.1	0.1
Single-Unit Trucks	0	5	47	0	-	52	0	10	30	2	-	42	0	34	31	22	-	87	0	0	40	8	-	48	229
% Single-Unit Trucks	-	0.6	1.1	-	-	1.0	0.0	0.8	0.8	1.0	-	0.8	0.0	0.9	0.8	1.7	-	1.0	0.0	0.0	1.0	1.0	-	0.9	0.9
Articulated Trucks	0	6	18	0	-	24	0	5	12	1	-	18	0	12	9	4	-	25	0	1	25	4	-	30	97
% Articulated Trucks	-	0.7	0.4	-	-	0.5	0.0	0.4	0.3	0.5	-	0.4	0.0	0.3	0.2	0.3	-	0.3	0.0	0.5	0.6	0.5	-	0.6	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	1	-	1	0	0	1	0	-	1	3
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.1	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

[illegible]

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Count Name: County Line Road with Plainfield
Road TMC
Site Code:
Start Date: 07/20/2023
Page No: 4

Turning Movement Peak Hour Data (4:30 PM)

[illegible]



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Count Name: County Line Road with Plainfield
Road TMC
Site Code:
Start Date: 07/20/2023
Page No: 5

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Plainfield Road Eastbound						Plainfield Road Westbound						County Line Road Northbound						County Line 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	
11:30 AM	0	15	109	0	0	124	0	20	96	3	0	119	0	59	79	27	0	165	0	4	62	15	0	81	489
11:45 AM	0	14	91	0	0	105	0	28	82	8	0	118	0	75	75	25	0	175	0	0	93	25	1	118	516
12:00 PM	0	21	98	0	0	119	0	15	96	7	0	118	0	58	86	33	0	177	0	5	56	16	0	77	491
12:15 PM	0	23	116	0	0	139	0	16	96	4	0	116	0	72	83	20	0	175	0	8	103	17	0	128	558
Total	0	73	414	0	0	487	0	79	370	22	0	471	0	264	323	105	0	692	0	17	314	73	1	404	2054
Approach %	0.0	15.0	85.0	0.0	-	-	0.0	16.8	78.6	4.7	-	-	0.0	38.2	46.7	15.2	-	-	0.0	4.2	77.7	18.1	-	-	-
Total %	0.0	3.6	20.2	0.0	-	23.7	0.0	3.8	18.0	1.1	-	22.9	0.0	12.9	15.7	5.1	-	33.7	0.0	0.8	15.3	3.6	-	19.7	-
PHF	0.000	0.793	0.892	0.000	-	0.876	0.000	0.705	0.964	0.688	-	0.989	0.000	0.880	0.939	0.795	-	0.977	0.000	0.531	0.762	0.730	-	0.789	0.920
Lights	0	73	410	0	-	483	0	77	367	21	-	465	0	263	318	103	-	684	0	17	312	73	-	402	2034
% Lights	-	100.0	99.0	-	-	99.2	-	97.5	99.2	95.5	-	98.7	-	99.6	98.5	98.1	-	98.8	-	100.0	99.4	100.0	-	99.5	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	4	0	-	4	0	2	0	0	-	2	0	1	5	1	-	7	0	0	1	0	-	1	14
% Single-Unit Trucks	-	0.0	1.0	-	-	0.8	-	2.5	0.0	0.0	-	0.4	-	0.4	1.5	1.0	-	1.0	-	0.0	0.3	0.0	-	0.2	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	3	1	-	4	0	0	0	1	-	1	0	0	1	0	-	1	6
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	0.0	0.8	4.5	-	0.8	-	0.0	0.0	1.0	-	0.1	-	0.0	0.3	0.0	-	0.2	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: County Line Road with Veterans
Blvd.TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	Veterans Blvd. Eastbound						Carriage Way Drive Westbound						County Line Road Northbound						County Line 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	7	1	23	0	31	0	11	4	6	0	21	0	59	172	42	0	273	0	18	101	14	0	133	458
7:15 AM	0	10	1	39	0	50	0	16	4	6	0	26	0	60	178	43	0	281	0	19	124	14	0	157	514
7:30 AM	0	16	2	25	0	43	0	8	5	9	0	22	0	65	243	59	0	367	0	27	146	19	0	192	624
7:45 AM	0	8	6	43	0	57	0	12	1	9	0	22	2	108	226	91	0	427	0	47	159	39	0	245	751
Hourly Total	0	41	10	130	0	181	0	47	14	30	0	91	2	292	819	235	0	1348	0	111	530	86	0	727	2347
8:00 AM	0	5	1	40	0	46	0	32	2	11	0	45	0	89	217	69	0	375	0	15	171	37	0	223	689
8:15 AM	0	10	5	27	0	42	0	22	3	13	0	38	0	97	204	51	0	352	0	33	134	25	0	192	624
8:30 AM	0	12	4	39	0	55	0	24	5	21	0	50	0	61	218	70	0	349	0	21	163	28	0	212	666
8:45 AM	0	9	1	33	0	43	0	29	2	30	0	61	1	68	188	76	0	333	0	36	132	41	0	209	646
Hourly Total	0	36	11	139	0	186	0	107	12	75	0	194	1	315	827	266	0	1409	0	105	600	131	0	836	2625
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	34	7	96	0	137	0	56	10	33	0	99	0	25	207	18	0	250	0	16	288	10	0	314	800
4:15 PM	0	28	2	83	0	113	0	38	4	17	0	59	1	31	171	21	0	224	0	12	300	5	0	317	713
4:30 PM	0	49	4	117	0	170	0	60	3	43	0	106	0	15	214	32	0	261	0	9	267	9	0	285	822
4:45 PM	0	24	5	102	0	131	0	49	2	34	0	85	0	23	164	18	0	205	0	9	282	14	0	305	726
Hourly Total	0	135	18	398	0	551	0	203	19	127	0	349	1	94	756	89	0	940	0	46	1137	38	0	1221	3061
5:00 PM	0	53	4	142	0	199	0	67	1	35	0	103	0	30	181	19	0	230	0	8	278	9	0	295	827
5:15 PM	0	21	4	104	0	129	0	48	7	33	0	88	1	29	217	14	0	261	0	3	312	8	0	323	801
5:30 PM	0	20	4	80	0	104	0	44	1	27	0	72	1	31	200	9	0	241	0	11	311	11	0	333	750
5:45 PM	0	19	3	60	0	82	0	36	4	23	0	63	0	19	185	14	0	218	0	8	323	8	0	339	702
Hourly Total	0	113	15	386	0	514	0	195	13	118	0	326	2	109	783	56	0	950	0	30	1224	36	0	1290	3080
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	13	5	26	0	44	0	10	1	9	0	20	2	19	156	13	0	190	0	4	134	4	0	142	396
10:15 AM	0	8	0	37	0	45	0	12	3	4	0	19	4	32	125	6	0	167	0	2	151	8	0	161	392
10:30 AM	0	5	2	29	0	36	0	10	1	7	0	18	3	19	131	8	0	161	0	5	125	9	0	139	354
10:45 AM	0	12	0	25	0	37	0	8	0	7	0	15	1	22	175	10	0	208	0	3	156	10	0	169	429
Hourly Total	0	38	7	117	0	162	0	40	5	27	0	72	10	92	587	37	0	726	0	14	566	31	0	611	1571
11:00 AM	0	5	1	29	0	35	0	11	1	10	0	22	4	14	159	10	0	187	0	3	142	6	0	151	395
11:15 AM	0	6	1	40	0	47	0	7	0	7	0	14	3	30	148	7	0	188	0	1	138	7	0	146	395
11:30 AM	0	18	1	28	0	47	0	10	3	6	0	19	1	22	151	9	0	183	0	4	149	4	0	157	406
11:45 AM	0	12	3	39	0	54	0	7	2	9	0	18	1	19	147	10	0	177	0	0	171	9	1	180	429
Hourly Total	0	41	6	136	0	183	0	35	6	32	0	73	9	85	605	36	0	735	0	8	600	26	1	634	1625
12:00 PM	0	11	1	53	0	65	0	13	1	2	0	16	3	24	171	16	0	214	0	2	148	2	0	152	447
12:15 PM	0	12	0	42	2	54	0	9	1	8	0	18	2	12	158	14	0	186	0	3	189	13	0	205	463
12:30 PM	0	11	0	31	0	42	0	9	0	3	0	12	2	15	153	11	0	181	0	1	134	5	1	140	375

12:45 PM	0	10	0	36	0	46	0	10	1	7	0	18	2	16	153	10	0	181	0	8	127	7	0	142	387
Hourly Total	0	44	1	162	2	207	0	41	3	20	0	64	9	67	635	51	0	762	0	14	598	27	1	639	1672
1:00 PM	0	5	3	27	0	35	0	14	1	8	0	23	2	15	161	9	0	187	0	4	155	3	0	162	407
1:15 PM	0	6	0	26	0	32	0	20	1	7	0	28	2	15	137	9	0	163	0	3	163	4	0	170	393
1:30 PM	0	6	0	18	0	24	0	13	0	11	0	24	1	16	137	5	0	159	0	5	141	3	0	149	356
1:45 PM	0	6	0	31	0	37	0	8	0	1	1	9	3	16	141	9	0	169	0	5	156	9	0	170	385
Hourly Total	0	23	3	102	0	128	0	55	2	27	1	84	8	62	576	32	0	678	0	17	615	19	0	651	1541
2:00 PM	0	11	2	53	0	66	0	10	2	7	0	19	2	16	143	9	0	170	0	6	157	8	0	171	426
2:15 PM	0	12	1	28	0	41	0	13	1	8	0	22	1	11	139	10	0	161	0	7	183	4	0	194	418
2:30 PM	0	2	0	40	0	42	0	11	1	5	0	17	2	14	165	10	0	191	0	5	177	7	0	189	439
2:45 PM	0	8	1	35	0	44	0	7	0	3	0	10	1	8	154	8	0	171	0	3	135	8	0	146	371
Hourly Total	0	33	4	156	0	193	0	41	4	23	0	68	6	49	601	37	0	693	0	21	652	27	0	700	1654
3:00 PM	0	8	1	33	0	42	0	12	0	6	0	18	0	16	177	7	0	200	0	2	169	5	0	176	436
3:15 PM	0	6	0	21	0	27	1	8	0	13	0	22	1	18	123	6	0	148	0	3	174	5	0	182	379
3:30 PM	0	8	0	22	0	30	0	9	0	8	0	17	1	15	126	6	0	148	0	2	166	9	0	177	372
3:45 PM	0	7	2	30	0	39	0	10	1	5	0	16	2	20	136	7	0	165	0	2	168	7	0	177	397
Hourly Total	0	29	3	106	0	138	1	39	1	32	0	73	4	69	562	26	0	661	0	9	677	26	0	712	1584
4:00 PM	0	7	1	26	0	34	0	6	2	2	0	10	2	21	94	8	0	125	0	2	183	7	0	192	361
4:15 PM	0	9	0	28	0	37	0	4	1	2	0	7	5	22	115	3	0	145	0	4	179	7	0	190	379
4:30 PM	0	7	0	27	0	34	0	7	0	2	0	9	1	12	132	6	0	151	0	4	185	7	0	196	390
4:45 PM	0	2	0	30	0	32	0	8	0	3	0	11	1	15	124	3	0	143	0	4	179	6	0	189	375
Hourly Total	0	25	1	111	0	137	0	25	3	9	0	37	9	70	465	20	0	564	0	14	726	27	0	767	1505
5:00 PM	0	5	1	27	0	33	0	6	0	3	0	9	8	17	128	8	0	161	0	1	159	7	0	167	370
5:15 PM	0	6	2	21	0	29	0	5	0	2	0	7	5	21	133	7	0	166	0	2	145	2	0	149	351
5:30 PM	0	11	0	26	0	37	0	2	0	5	0	7	1	21	116	3	0	141	0	4	126	1	0	131	316
5:45 PM	0	9	0	21	0	30	0	5	0	8	0	13	2	10	107	8	0	127	0	5	167	6	0	178	348
Hourly Total	0	31	3	95	0	129	0	18	0	18	0	36	16	69	484	26	0	595	0	12	597	16	0	625	1385
Grand Total	0	589	82	2038	2	2709	1	846	82	538	1	1467	77	1373	7700	911	0	10061	0	401	8522	490	2	9413	23650
Approach %	0.0	21.7	3.0	75.2	-	-	0.1	57.7	5.6	36.7	-	-	0.8	13.6	76.5	9.1	-	-	0.0	4.3	90.5	5.2	-	-	-
Total %	0.0	2.5	0.3	8.6	-	11.5	0.0	3.6	0.3	2.3	-	6.2	0.3	5.8	32.6	3.9	-	42.5	0.0	1.7	36.0	2.1	-	39.8	-
Lights	0	580	68	1949	-	2597	1	818	75	531	-	1425	77	1292	7595	891	-	9855	0	394	8403	487	-	9284	23161
% Lights	-	98.5	82.9	95.6	-	95.9	100.0	96.7	91.5	98.7	-	97.1	100.0	94.1	98.6	97.8	-	98.0	-	98.3	98.6	99.4	-	98.6	97.9
Buses	0	1	1	2	-	4	0	3	0	0	-	3	0	1	5	2	-	8	0	1	9	0	-	10	25
% Buses	-	0.2	1.2	0.1	-	0.1	0.0	0.4	0.0	0.0	-	0.2	0.0	0.1	0.1	0.2	-	0.1	-	0.2	0.1	0.0	-	0.1	0.1
Single-Unit Trucks	0	4	6	21	-	31	0	18	3	3	-	24	0	16	81	10	-	107	0	4	73	2	-	79	241
% Single-Unit Trucks	-	0.7	7.3	1.0	-	1.1	0.0	2.1	3.7	0.6	-	1.6	0.0	1.2	1.1	1.1	-	1.1	-	1.0	0.9	0.4	-	0.8	1.0
Articulated Trucks	0	2	1	62	-	65	0	7	0	4	-	11	0	64	19	7	-	90	0	2	36	1	-	39	205
% Articulated Trucks	-	0.3	1.2	3.0	-	2.4	0.0	0.8	0.0	0.7	-	0.7	0.0	4.7	0.2	0.8	-	0.9	-	0.5	0.4	0.2	-	0.4	0.9
Bicycles on Road	0	2	6	4	-	12	0	0	4	0	-	4	0	0	0	1	-	1	0	0	1	0	-	1	18
% Bicycles on Road	-	0.3	7.3	0.2	-	0.4	0.0	0.0	4.9	0.0	-	0.3	0.0	0.0	0.0	0.1	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

[illegible]

[illegible]



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

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

Count Name: County Line Road with Veterans
Blvd.TMC
Site Code:
Start Date: 07/20/2023
Page No: 5

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Veterans Blvd. Eastbound						Carriage Way Drive Westbound						County Line Road Northbound						County Line 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	
11:30 AM	0	18	1	28	0	47	0	10	3	6	0	19	1	22	151	9	0	183	0	4	149	4	0	157	406
11:45 AM	0	12	3	39	0	54	0	7	2	9	0	18	1	19	147	10	0	177	0	0	171	9	1	180	429
12:00 PM	0	11	1	53	0	65	0	13	1	2	0	16	3	24	171	16	0	214	0	2	148	2	0	152	447
12:15 PM	0	12	0	42	2	54	0	9	1	8	0	18	2	12	158	14	0	186	0	3	189	13	0	205	463
Total	0	53	5	162	2	220	0	39	7	25	0	71	7	77	627	49	0	760	0	9	657	28	1	694	1745
Approach %	0.0	24.1	2.3	73.6	-	-	0.0	54.9	9.9	35.2	-	-	0.9	10.1	82.5	6.4	-	-	0.0	1.3	94.7	4.0	-	-	-
Total %	0.0	3.0	0.3	9.3	-	12.6	0.0	2.2	0.4	1.4	-	4.1	0.4	4.4	35.9	2.8	-	43.6	0.0	0.5	37.7	1.6	-	39.8	-
PHF	0.000	0.736	0.417	0.764	-	0.846	0.000	0.750	0.583	0.694	-	0.934	0.583	0.802	0.917	0.766	-	0.888	0.000	0.563	0.869	0.538	-	0.846	0.942
Lights	0	52	5	157	-	214	0	36	7	24	-	67	7	72	619	47	-	745	0	9	655	27	-	691	1717
% Lights	-	98.1	100.0	96.9	-	97.3	-	92.3	100.0	96.0	-	94.4	100.0	93.5	98.7	95.9	-	98.0	-	100.0	99.7	96.4	-	99.6	98.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	0	2	-	3	0	3	0	1	-	4	0	0	5	1	-	6	0	0	1	1	-	2	15
% Single-Unit Trucks	-	1.9	0.0	1.2	-	1.4	-	7.7	0.0	4.0	-	5.6	0.0	0.0	0.8	2.0	-	0.8	-	0.0	0.2	3.6	-	0.3	0.9
Articulated Trucks	0	0	0	3	-	3	0	0	0	0	-	0	0	5	3	1	-	9	0	0	0	0	-	0	12
% Articulated Trucks	-	0.0	0.0	1.9	-	1.4	-	0.0	0.0	0.0	-	0.0	0.0	6.5	0.5	2.0	-	1.2	-	0.0	0.0	0.0	-	0.0	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.1	0.1
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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

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Count Name: County Line with Carriage Place
TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	Carriage Place Eastbound					County Line Road Northbound					County Line Road Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
7:00 AM	0	1	0	0	1	0	1	191	0	192	0	128	1	0	129	322
7:15 AM	0	0	0	0	0	0	2	187	0	189	0	170	1	0	171	360
7:30 AM	0	0	0	0	0	0	1	254	0	255	0	166	0	0	166	421
7:45 AM	0	1	0	0	1	0	3	225	0	228	0	237	1	0	238	467
Hourly Total	0	2	0	0	2	0	7	857	0	864	0	701	3	0	704	1570
8:00 AM	0	2	8	0	10	0	3	222	0	225	0	197	0	0	197	432
8:15 AM	0	1	2	0	3	0	1	240	0	241	0	203	0	0	203	447
8:30 AM	0	0	5	0	5	0	1	256	0	257	0	197	3	0	200	462
8:45 AM	0	3	5	0	8	0	6	206	0	212	0	203	0	0	203	423
Hourly Total	0	6	20	0	26	0	11	924	0	935	0	800	3	0	803	1764
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	2	0	3	1	2	291	0	294	0	307	1	0	308	605
4:15 PM	0	2	0	0	2	0	0	217	0	217	0	302	2	0	304	523
4:30 PM	0	0	0	0	0	0	0	318	0	318	0	292	1	0	293	611
4:45 PM	0	0	0	0	0	0	0	218	0	218	0	301	1	0	302	520
Hourly Total	0	3	2	0	5	1	2	1044	0	1047	0	1202	5	0	1207	2259
5:00 PM	0	0	0	0	0	1	6	275	0	282	0	291	1	0	292	574
5:15 PM	0	1	1	0	2	1	12	275	0	288	0	317	1	0	318	608
5:30 PM	0	0	1	0	1	0	4	242	0	246	0	344	2	0	346	593
5:45 PM	0	0	4	0	4	0	4	244	0	248	0	310	2	0	312	564
Hourly Total	0	1	6	0	7	2	26	1036	0	1064	0	1262	6	0	1268	2339
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	2	4	0	6	0	4	181	0	185	0	140	1	0	141	332
10:15 AM	0	1	1	0	2	0	3	124	0	127	0	149	2	0	151	280
10:30 AM	0	1	4	1	5	0	6	148	0	154	0	141	1	0	142	301
10:45 AM	0	2	5	0	7	0	3	197	0	200	0	163	1	0	164	371
Hourly Total	0	6	14	1	20	0	16	650	0	666	0	593	5	0	598	1284
11:00 AM	0	0	0	0	0	0	8	160	0	168	0	146	0	0	146	314
11:15 AM	0	0	5	0	5	0	8	155	0	163	0	137	1	0	138	306
11:30 AM	0	1	4	0	5	0	9	170	0	179	0	148	1	0	149	333
11:45 AM	0	3	7	0	10	0	8	151	0	159	0	175	2	0	177	346
Hourly Total	0	4	16	0	20	0	33	636	0	669	0	606	4	0	610	1299
12:00 PM	0	2	2	0	4	0	2	185	0	187	0	151	1	0	152	343
12:15 PM	0	0	3	0	3	1	3	178	0	182	0	205	2	0	207	392
12:30 PM	0	1	2	0	3	1	7	160	0	168	0	126	1	0	127	298
12:45 PM	0	2	3	0	5	0	6	175	0	181	0	148	1	0	149	335

Hourly Total	0	5	10	0	15	2	18	698	0	718	0	630	5	0	635	1368
1:00 PM	0	0	5	0	5	0	1	163	0	164	0	147	5	0	152	321
1:15 PM	0	1	3	0	4	1	6	143	0	150	0	173	1	0	174	328
1:30 PM	0	0	3	0	3	1	1	148	0	150	0	131	1	0	132	285
1:45 PM	0	2	5	0	7	1	1	155	0	157	1	150	3	0	154	318
Hourly Total	0	3	16	0	19	3	9	609	0	621	1	601	10	0	612	1252
2:00 PM	0	0	6	0	6	0	3	168	0	171	0	174	3	0	177	354
2:15 PM	0	0	7	0	7	0	2	154	0	156	0	195	0	0	195	358
2:30 PM	0	1	1	0	2	0	2	173	0	175	1	179	1	0	181	358
2:45 PM	0	1	2	0	3	1	4	170	0	175	0	147	0	0	147	325
Hourly Total	0	2	16	0	18	1	11	665	0	677	1	695	4	0	700	1395
3:00 PM	0	1	1	0	2	0	3	177	0	180	0	178	0	0	178	360
3:15 PM	0	0	1	0	1	1	5	142	0	148	0	205	1	0	206	355
3:30 PM	0	1	0	0	1	0	2	148	0	150	0	179	0	0	179	330
3:45 PM	0	1	2	0	3	0	2	154	0	156	0	196	1	0	197	356
Hourly Total	0	3	4	0	7	1	12	621	0	634	0	758	2	0	760	1401
4:00 PM	0	0	4	0	4	0	5	90	0	95	0	189	2	0	191	290
4:15 PM	0	3	4	0	7	1	1	101	0	103	0	190	2	0	192	302
4:30 PM	0	1	2	0	3	0	2	110	0	112	0	200	2	0	202	317
4:45 PM	0	0	2	1	2	0	2	81	0	83	0	179	1	0	180	265
Hourly Total	0	4	12	1	16	1	10	382	0	393	0	758	7	0	765	1174
5:00 PM	0	1	4	0	5	0	4	122	0	126	0	165	2	0	167	298
5:15 PM	0	0	4	0	4	1	3	116	0	120	0	142	1	0	143	267
5:30 PM	0	0	6	0	6	0	3	114	0	117	0	121	1	0	122	245
5:45 PM	0	1	7	0	8	0	6	116	0	122	0	163	0	0	163	293
Hourly Total	0	2	21	0	23	1	16	468	0	485	0	591	4	0	595	1103
Grand Total	0	41	137	2	178	12	171	8590	0	8773	2	9197	58	0	9257	18208
Approach %	0.0	23.0	77.0	-	-	0.1	1.9	97.9	-	-	0.0	99.4	0.6	-	-	-
Total %	0.0	0.2	0.8	-	1.0	0.1	0.9	47.2	-	48.2	0.0	50.5	0.3	-	50.8	-
Lights	0	40	136	-	176	12	170	8490	-	8672	2	9065	57	-	9124	17972
% Lights	-	97.6	99.3	-	98.9	100.0	99.4	98.8	-	98.8	100.0	98.6	98.3	-	98.6	98.7
Buses	0	0	0	-	0	0	0	16	-	16	0	6	0	-	6	22
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.2	-	0.2	0.0	0.1	0.0	-	0.1	0.1
Single-Unit Trucks	0	1	1	-	2	0	1	63	-	64	0	84</				

Start Time	Carriage Place Eastbound					County Line Road Northbound					County Line Road Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
7:45 AM	0	1	0	0	1	0	3	225	0	228	0	237	1	0	238	467
8:00 AM	0	2	8	0	10	0	3	222	0	225	0	197	0	0	197	432
8:15 AM	0	1	2	0	3	0	1	240	0	241	0	203	0	0	203	447
8:30 AM	0	0	5	0	5	0	1	256	0	257	0	197	3	0	200	462
Total	0	4	15	0	19	0	8	943	0	951	0	834	4	0	838	1808
Approach %	0.0	21.1	78.9	-	-	0.0	0.8	99.2	-	-	0.0	99.5	0.5	-	-	-
Total %	0.0	0.2	0.8	-	1.1	0.0	0.4	52.2	-	52.6	0.0	46.1	0.2	-	46.3	-
PHF	0.000	0.500	0.469	-	0.475	0.000	0.667	0.921	-	0.925	0.000	0.880	0.333	-	0.880	0.968
Lights	0	4	15	-	19	0	8	913	-	921	0	817	4	-	821	1761
% Lights	-	100.0	100.0	-	100.0	-	100.0	96.8	-	96.8	-	98.0	100.0	-	98.0	97.4
Buses	0	0	0	-	0	0	0	4	-	4	0	1	0	-	1	5
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.4	-	0.4	-	0.1	0.0	-	0.1	0.3
Single-Unit Trucks	0	0	0	-	0	0	0	16	-	16	0	12	0	-	12	28
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	1.7	-	1.7	-	1.4	0.0	-	1.4	1.5
Articulated Trucks	0	0	0	-	0	0	0	10	-	10	0	4	0	-	4	14
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	1.1	-	1.1	-	0.5	0.0	-	0.5	0.8
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Start Time	Carriage Place Eastbound					County Line Road Northbound					County Line Road Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
4:30 PM	0	0	0	0	0	0	0	318	0	318	0	292	1	0	293	611
4:45 PM	0	0	0	0	0	0	0	218	0	218	0	301	1	0	302	520
5:00 PM	0	0	0	0	0	1	6	275	0	282	0	291	1	0	292	574
5:15 PM	0	1	1	0	2	1	12	275	0	288	0	317	1	0	318	608
Total	0	1	1	0	2	2	18	1086	0	1106	0	1201	4	0	1205	2313
Approach %	0.0	50.0	50.0	-	-	0.2	1.6	98.2	-	-	0.0	99.7	0.3	-	-	-
Total %	0.0	0.0	0.0	-	0.1	0.1	0.8	47.0	-	47.8	0.0	51.9	0.2	-	52.1	-
PHF	0.000	0.250	0.250	-	0.250	0.500	0.375	0.854	-	0.869	0.000	0.947	1.000	-	0.947	0.946
Lights	0	1	1	-	2	2	18	1078	-	1098	0	1167	4	-	1171	2271
% Lights	-	100.0	100.0	-	100.0	100.0	100.0	99.3	-	99.3	-	97.2	100.0	-	97.2	98.2
Buses	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.1	0.0	-	0.1	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	8	-	8	0	19	0	-	19	27
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.7	-	0.7	-	1.6	0.0	-	1.6	1.2
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	13	0	-	13	13
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	1.1	0.0	-	1.1	0.6
Bicycles on Road	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	-	0.1	0.0	-	0.1	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Start Time	Carriage Place Eastbound					County Line Road Northbound					County Line Road Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
11:30 AM	0	1	4	0	5	0	9	170	0	179	0	148	1	0	149	333
11:45 AM	0	3	7	0	10	0	8	151	0	159	0	175	2	0	177	346
12:00 PM	0	2	2	0	4	0	2	185	0	187	0	151	1	0	152	343
12:15 PM	0	0	3	0	3	1	3	178	0	182	0	205	2	0	207	392
Total	0	6	16	0	22	1	22	684	0	707	0	679	6	0	685	1414
Approach %	0.0	27.3	72.7	-	-	0.1	3.1	96.7	-	-	0.0	99.1	0.9	-	-	-
Total %	0.0	0.4	1.1	-	1.6	0.1	1.6	48.4	-	50.0	0.0	48.0	0.4	-	48.4	-
PHF	0.000	0.500	0.571	-	0.550	0.250	0.611	0.924	-	0.945	0.000	0.828	0.750	-	0.827	0.902
Lights	0	6	16	-	22	1	22	678	-	701	0	677	6	-	683	1406
% Lights	-	100.0	100.0	-	100.0	100.0	100.0	99.1	-	99.2	-	99.7	100.0	-	99.7	99.4
Buses	0	0	0	-	0	0	0	3	-	3	0	0	0	-	0	3
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.4	-	0.4	-	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	1	0	-	1	2
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.1	-	0.1	-	0.1	0.0	-	0.1	0.1
Articulated Trucks	0	0	0	-	0	0	0	2	-	2	0	1	0	-	1	3
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.3	-	0.3	-	0.1	0.0	-	0.1	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	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: Harvester Drive with Frontage
Road TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

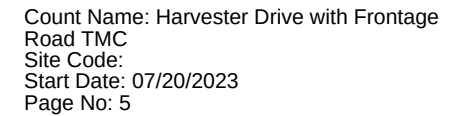
Turning Movement Data

Start Time	Harvester Drive Eastbound					Frontage Road Northbound					Frontage Road Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
7:00 AM	0	1	1	0	2	0	5	28	0	33	0	23	6	0	29	64
7:15 AM	0	6	1	0	7	0	4	32	0	36	0	17	12	0	29	72
7:30 AM	0	6	1	0	7	0	8	28	0	36	0	22	11	0	33	76
7:45 AM	0	7	7	0	14	0	15	37	0	52	0	42	18	0	60	126
Hourly Total	0	20	10	0	30	0	32	125	0	157	0	104	47	0	151	338
8:00 AM	0	6	2	0	8	0	3	37	0	40	0	32	10	0	42	90
8:15 AM	0	10	5	0	15	0	18	27	0	45	0	35	16	0	51	111
8:30 AM	0	7	7	0	14	0	14	32	0	46	0	24	10	0	34	94
8:45 AM	0	14	5	0	19	0	23	25	0	48	0	15	32	0	47	114
Hourly Total	0	37	19	0	56	0	58	121	0	179	0	106	68	0	174	409
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	15	15	0	30	0	6	55	0	61	0	27	13	0	40	131
4:15 PM	0	18	16	0	34	0	5	41	0	46	0	22	10	0	32	112
4:30 PM	0	29	21	0	50	0	10	59	0	69	0	18	12	0	30	149
4:45 PM	0	7	3	0	10	0	7	61	0	68	0	23	2	0	25	103
Hourly Total	0	69	55	0	124	0	28	216	0	244	0	90	37	0	127	495
5:00 PM	0	26	14	0	40	0	7	79	0	86	0	35	8	0	43	169
5:15 PM	0	9	3	0	12	0	10	44	0	54	0	27	9	0	36	102
5:30 PM	0	5	3	0	8	0	5	38	0	43	0	28	3	0	31	82
5:45 PM	0	5	8	0	13	1	8	43	0	52	0	24	7	0	31	96
Hourly Total	0	45	28	0	73	1	30	204	0	235	0	114	27	0	141	449
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	13	8	0	21	0	7	17	0	24	0	10	9	0	19	64
10:15 AM	0	8	7	0	15	0	3	21	0	24	0	12	22	0	34	73
10:30 AM	0	13	3	0	16	0	10	17	0	27	0	9	19	0	28	71
10:45 AM	0	7	5	0	12	0	7	25	0	32	0	11	16	0	27	71
Hourly Total	0	41	23	0	64	0	27	80	0	107	0	42	66	0	108	279
11:00 AM	0	10	4	0	14	0	7	18	0	25	0	8	6	0	14	53
11:15 AM	0	12	5	0	17	0	11	26	0	37	0	8	6	0	14	68
11:30 AM	0	13	5	0	18	0	5	15	0	20	0	14	8	0	22	60
11:45 AM	0	14	9	0	23	0	4	21	0	25	0	11	8	0	19	67
Hourly Total	0	49	23	0	72	0	27	80	0	107	0	41	28	0	69	248
12:00 PM	0	15	3	0	18	0	5	42	0	47	0	18	5	0	23	88
12:15 PM	0	11	7	0	18	0	8	30	0	38	0	12	6	0	18	74
12:30 PM	0	9	6	0	15	0	3	9	0	12	0	7	5	0	12	39
12:45 PM	0	11	3	0	14	0	4	27	0	31	0	6	10	0	16	61

Hourly Total	0	46	19	0	65	0	20	108	0	128	0	43	26	0	69	262
1:00 PM	0	11	8	0	19	0	1	24	0	25	0	11	6	0	17	61
1:15 PM	0	9	4	0	13	0	7	20	0	27	0	6	9	0	15	55
1:30 PM	0	7	5	0	12	0	4	12	0	16	0	5	10	0	15	43
1:45 PM	0	8	8	0	16	0	9	26	0	35	0	11	8	0	19	70
Hourly Total	0	35	25	0	60	0	21	82	0	103	0	33	33	0	66	229
2:00 PM	0	42	7	0	49	0	3	23	0	26	0	7	10	0	17	92
2:15 PM	0	11	9	0	20	0	10	23	0	33	0	10	3	0	13	66
2:30 PM	0	10	3	0	13	0	4	22	0	26	0	4	8	0	12	51
2:45 PM	0	13	4	0	17	0	8	26	0	34	0	6	7	0	13	64
Hourly Total	0	76	23	0	99	0	25	94	0	119	0	27	28	0	55	273
3:00 PM	0	8	3	0	11	0	5	23	0	28	0	7	3	0	10	49
3:15 PM	0	1	2	0	3	0	2	22	0	24	0	7	8	0	15	42
3:30 PM	0	7	5	0	12	0	3	24	0	27	0	6	8	0	14	53
3:45 PM	0	3	8	0	11	0	3	17	0	20	0	5	11	0	16	47
Hourly Total	0	19	18	0	37	0	13	86	0	99	0	25	30	0	55	191
4:00 PM	0	9	6	0	15	0	9	30	0	39	0	11	8	0	19	73
4:15 PM	0	8	1	1	9	0	4	22	0	26	0	7	8	0	15	50
4:30 PM	0	4	3	0	7	0	3	20	0	23	0	7	6	0	13	43
4:45 PM	0	5	5	0	10	0	5	22	0	27	0	7	7	0	14	51
Hourly Total	0	26	15	1	41	0	21	94	0	115	0	32	29	0	61	217
5:00 PM	0	5	7	0	12	0	11	26	0	37	0	8	6	0	14	63
5:15 PM	0	12	7	0	19	0	7	9	0	16	0	17	6	0	23	58
5:30 PM	0	7	10	0	17	0	1	21	0	22	0	10	5	0	15	54
5:45 PM	0	6	4	0	10	0	5	13	0	18	0	6	7	0	13	41
Hourly Total	0	30	28	0	58	0	24	69	0	93	0	41	24	0	65	216
Grand Total	0	493	286	1	779	1	326	1359	0	1686	0	698	443	0	1141	3606
Approach %	0.0	63.3	36.7	-	-	0.1	19.3	80.6	-	-	0.0	61.2	38.8	-	-	-
Total %	0.0	13.7	7.9	-	21.6	0.0	9.0	37.7	-	46.8	0.0	19.4	12.3	-	31.6	-
Lights	0	487	285	-	772	1	324	1264	-	1589	0	615	440	-	1055	3416
% Lights	-	98.8	99.7	-	99.1	100.0	99.4	93.0	-	94.2	-	88.1	99.3	-	92.5	94.7
Buses	0	0	0	-	0	0	0	2	-	2	0	1	0	-	1	3
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.1	-	0.1	-	0.1	0.0	-	0.1	0.1
Single-Unit Trucks	0	5	1	-	6	0	2	30	-	32	0	18	2	-	20	58
% Single-Unit Trucks	-	1.0	0.3	-	0.8	0.0	0.6	2.2	-</							

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[illegible]

[illegible]



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Count Name: High Grove Blvd. with Commerce
Street TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	Commerce Street Westbound					High Grove Blvd. Northbound					High Grove Blvd. Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
7:00 AM	0	1	1	0	2	0	4	1	0	5	0	1	8	0	9	16
7:15 AM	0	0	0	0	0	0	8	2	0	10	0	1	3	0	4	14
7:30 AM	0	0	0	0	0	0	12	2	0	14	0	1	7	0	8	22
7:45 AM	0	4	0	0	4	0	9	0	0	9	1	0	6	0	7	20
Hourly Total	0	5	1	0	6	0	33	5	0	38	1	3	24	0	28	72
8:00 AM	0	1	0	0	1	0	8	1	0	9	0	0	8	0	8	18
8:15 AM	0	1	0	0	1	0	6	0	0	6	0	0	5	0	5	12
8:30 AM	0	1	0	0	1	0	10	2	0	12	0	0	3	0	3	16
8:45 AM	0	2	0	0	2	0	8	2	0	10	0	1	4	0	5	17
Hourly Total	0	5	0	0	5	0	32	5	0	37	0	1	20	0	21	63
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	0	0	1	0	18	0	0	18	0	0	15	0	15	34
4:15 PM	0	0	1	0	1	0	11	0	0	11	0	1	9	0	10	22
4:30 PM	0	0	2	0	2	0	14	0	0	14	0	0	20	0	20	36
4:45 PM	0	2	0	0	2	0	16	1	0	17	0	0	6	0	6	25
Hourly Total	0	3	3	0	6	0	59	1	0	60	0	1	50	0	51	117
5:00 PM	0	2	0	0	2	0	24	1	0	25	0	0	6	0	6	33
5:15 PM	0	0	0	0	0	0	10	0	0	10	0	0	9	0	9	19
5:30 PM	0	1	0	0	1	0	13	0	0	13	0	1	2	0	3	17
5:45 PM	0	0	1	0	1	0	1	0	0	1	0	1	5	0	6	8
Hourly Total	0	3	1	0	4	0	48	1	0	49	0	2	22	0	24	77
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	1	0	0	1	1	8	1	0	10	0	0	3	0	3	14
10:15 AM	0	0	0	0	0	0	5	0	0	5	0	0	2	0	2	7
10:30 AM	0	0	0	0	0	0	6	1	0	7	0	0	3	0	3	10
10:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	4	0	4	6
Hourly Total	0	1	0	0	1	1	21	2	0	24	0	0	12	0	12	37
11:00 AM	0	1	0	0	1	0	4	0	0	4	0	1	3	0	4	9
11:15 AM	0	0	1	0	1	0	3	0	0	3	0	0	4	0	4	8
11:30 AM	0	0	1	0	1	0	3	1	0	4	0	0	4	0	4	9
11:45 AM	0	1	0	0	1	0	2	1	0	3	0	0	4	0	4	8
Hourly Total	0	2	2	0	4	0	12	2	0	14	0	1	15	0	16	34
12:00 PM	0	1	0	0	1	0	4	2	0	6	0	0	2	0	2	9
12:15 PM	0	2	0	0	2	0	0	2	0	2	0	0	1	0	1	5
12:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
12:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	3	0	3	7

Hourly Total	0	3	0	0	3	0	10	4	0	14	0	0	7	0	7	24
1:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	2	0	2	6
1:30 PM	0	0	1	0	1	0	1	0	0	1	0	1	1	0	2	4
1:45 PM	0	1	0	0	1	0	4	2	0	6	0	0	2	0	2	9
Hourly Total	0	1	1	0	2	0	11	2	0	13	0	1	5	0	6	21
2:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
2:15 PM	0	1	0	2	1	0	1	0	0	1	0	0	3	0	3	5
2:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
2:45 PM	0	0	0	2	0	0	3	0	0	3	0	0	0	0	0	3
Hourly Total	0	1	0	4	1	0	6	0	0	6	0	0	3	0	3	10
3:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	6
3:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Hourly Total	0	0	0	0	0	0	6	0	0	6	0	0	4	0	4	10
4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
4:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	3
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	4
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
Hourly Total	0	1	0	0	1	0	7	0	0	7	0	0	4	0	4	12
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Hourly Total	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	4
Grand Total	0	25	8	4	33	1	247	23	0	271	1	9	167	0	177	481
Approach %	0.0	75.8	24.2	-	-	0.4	91.1	8.5	-	-	0.6	5.1	94.4	-	-	-
Total %	0.0	5.2	1.7	-	6.9	0.2	51.4	4.8	-	56.3	0.2	1.9	34.7	-	36.8	-
Lights	0	20	5	-	25	1	237	18	-	256	1	5	155	-	161	442
% Lights	-	80.0	62.5	-	75.8	100.0	96.0	78.3	-	94.5	100.0	55.6	92.8	-	91.0	91.9
Buses	0	0	0	-	0	0	0	0	-	0	0	2	0	-	2	2
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	22.2	0.0	-	1.1	0.4
Single-Unit Trucks	0	5	3	-	8	0	5	5	-	10	0	2	7	-	9	27
% Single-Unit Trucks	-	20.0	37.5	-	24.2	0.0	2.0	21.7	-	3.7	0.0	22.2	4.2	-	5.1	5.6
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.4	0.0	-	0.4	0.0	0.0	0.6	-	0.6	0.4
Bicycles on Road	0	0	0	-	0	0	4	0	-	4	0	0	4	-	4	8
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	1.6	0.0	-	1.5	0.0	0.0	2.4	-	2.3	1.7
Pedestrians	-	-		4	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Start Time	Commerce Street Westbound					High Grove Blvd. Northbound					High Grove Blvd. Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
7:45 AM	0	4	0	0	4	0	9	0	0	9	1	0	6	0	7	20
8:00 AM	0	1	0	0	1	0	8	1	0	9	0	0	8	0	8	18
8:15 AM	0	1	0	0	1	0	6	0	0	6	0	0	5	0	5	12
8:30 AM	0	1	0	0	1	0	10	2	0	12	0	0	3	0	3	16
Total	0	7	0	0	7	0	33	3	0	36	1	0	22	0	23	66
Approach %	0.0	100.0	0.0	-	-	0.0	91.7	8.3	-	-	4.3	0.0	95.7	-	-	-
Total %	0.0	10.6	0.0	-	10.6	0.0	50.0	4.5	-	54.5	1.5	0.0	33.3	-	34.8	-
PHF	0.000	0.438	0.000	-	0.438	0.000	0.825	0.375	-	0.750	0.250	0.000	0.688	-	0.719	0.825
Lights	0	2	0	-	2	0	32	1	-	33	1	0	20	-	21	56
% Lights	-	28.6	-	-	28.6	-	97.0	33.3	-	91.7	100.0	-	90.9	-	91.3	84.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	5	0	-	5	0	1	2	-	3	0	0	2	-	2	10
% Single-Unit Trucks	-	71.4	-	-	71.4	-	3.0	66.7	-	8.3	0.0	-	9.1	-	8.7	15.2
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[illegible]

Start Time	Commerce Street Westbound					High Grove Blvd. Northbound					High Grove Blvd. Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
11:30 AM	0	0	1	0	1	0	3	1	0	4	0	0	4	0	4	9
11:45 AM	0	1	0	0	1	0	2	1	0	3	0	0	4	0	4	8
12:00 PM	0	1	0	0	1	0	4	2	0	6	0	0	2	0	2	9
12:15 PM	0	2	0	0	2	0	0	2	0	2	0	0	1	0	1	5
Total	0	4	1	0	5	0	9	6	0	15	0	0	11	0	11	31
Approach %	0.0	80.0	20.0	-	-	0.0	60.0	40.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	12.9	3.2	-	16.1	0.0	29.0	19.4	-	48.4	0.0	0.0	35.5	-	35.5	-
PHF	0.000	0.500	0.250	-	0.625	0.000	0.563	0.750	-	0.625	0.000	0.000	0.688	-	0.688	0.861
Lights	0	4	1	-	5	0	9	6	-	15	0	0	11	-	11	31
% Lights	-	100.0	100.0	-	100.0	-	100.0	100.0	-	100.0	-	-	100.0	-	100.0	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: High Grove Blvd. with International
Street TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	International Street Westbound					High Grove Blvd. Northbound					High Grove Blvd. Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	3	0	0	3	0	2	16	0	18	21
7:15 AM	0	2	2	0	4	0	3	0	0	3	0	2	3	0	5	12
7:30 AM	0	0	0	0	0	0	2	2	0	4	0	6	11	0	17	21
7:45 AM	0	0	2	0	2	0	6	2	0	8	0	7	10	0	17	27
Hourly Total	0	2	4	0	6	0	14	4	0	18	0	17	40	0	57	81
8:00 AM	0	2	0	0	2	0	4	3	0	7	0	3	9	0	12	21
8:15 AM	0	1	1	0	2	0	5	0	0	5	0	1	4	0	5	12
8:30 AM	0	0	0	0	0	0	10	1	0	11	0	2	5	0	7	18
8:45 AM	0	1	2	0	3	0	3	0	0	3	0	3	4	0	7	13
Hourly Total	0	4	3	0	7	0	22	4	0	26	0	9	22	0	31	64
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	1	0	2	0	18	0	0	18	0	1	2	0	3	23
4:15 PM	0	0	5	0	5	0	14	1	0	15	0	2	4	0	6	26
4:30 PM	0	7	12	0	19	0	26	0	0	26	0	1	1	0	2	47
4:45 PM	0	1	1	0	2	1	15	0	0	16	0	0	4	0	4	22
Hourly Total	0	9	19	0	28	1	73	1	0	75	0	4	11	0	15	118
5:00 PM	0	0	2	0	2	0	26	0	0	26	0	0	4	0	4	32
5:15 PM	0	0	0	0	0	0	15	0	0	15	0	0	4	0	4	19
5:30 PM	0	0	1	0	1	0	11	0	0	11	0	1	2	0	3	15
5:45 PM	0	0	1	0	1	0	4	0	0	4	0	0	5	0	5	10
Hourly Total	0	0	4	0	4	0	56	0	0	56	0	1	15	0	16	76
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	0	0	0	0	0	8	0	0	8	0	0	3	0	3	11
10:15 AM	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	6
10:30 AM	0	0	0	0	0	0	7	0	0	7	0	0	2	0	2	9
10:45 AM	0	0	1	0	1	0	3	0	0	3	0	1	3	0	4	8
Hourly Total	0	0	1	0	1	0	23	0	0	23	0	1	9	0	10	34
11:00 AM	0	0	1	0	1	0	4	0	0	4	0	0	4	0	4	9
11:15 AM	0	0	0	0	0	0	3	0	0	3	0	2	3	0	5	8
11:30 AM	0	0	1	0	1	0	5	0	0	5	0	1	3	0	4	10
11:45 AM	0	0	1	0	1	0	1	0	0	1	0	0	5	0	5	7
Hourly Total	0	0	3	0	3	0	13	0	0	13	0	3	15	0	18	34
12:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	5
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
12:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	2	0	2	5

Hourly Total	0	0	0	0	0	0	9	0	0	9	0	0	4	0	4	13
1:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	5
1:15 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	5
1:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	4
1:45 PM	0	0	2	0	2	0	4	1	0	5	0	1	3	0	4	11
Hourly Total	0	0	2	0	2	0	16	1	0	17	0	1	5	0	6	25
2:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
2:15 PM	0	0	6	0	6	0	2	1	0	3	0	0	2	0	2	11
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	6
Hourly Total	0	0	6	0	6	0	9	1	0	10	0	0	2	0	2	18
3:00 PM	0	0	1	0	1	0	2	1	0	3	0	0	2	0	2	6
3:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Hourly Total	0	0	1	0	1	0	5	1	0	6	0	0	3	0	3	10
4:00 PM	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	4
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
Hourly Total	0	0	0	0	0	0	7	0	0	7	0	1	3	0	4	11
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2
Grand Total	0	15	44	0	59	1	248	12	0	261	0	37	129	0	166	486
Approach %	0.0	25.4	74.6	-	-	0.4	95.0	4.6	-	-	0.0	22.3	77.7	-	-	-
Total %	0.0	3.1	9.1	-	12.1	0.2	51.0	2.5	-	53.7	0.0	7.6	26.5	-	34.2	-
Lights	0	13	40	-	53	1	234	12	-	247	0	34	120	-	154	454
% Lights	-	86.7	90.9	-	89.8	100.0	94.4	100.0	-	94.6	-	91.9	93.0	-	92.8	93.4
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	2	1	-	3	0	7	0	-	7	0	3	6	-	9	19
% Single-Unit Trucks	-	13.3	2.3	-	5.1	0.0	2.8	0.0	-	2.7	-	8.1	4.7	-	5.4	3.9
Articulated Trucks	0	0	2	-	2	0	1	0	-	1	0	0	2	-	2	5
% Articulated Trucks	-	0.0	4.5	-	3.4	0.0	0.4	0.0	-	0.4	-	0.0	1.6	-	1.2	1.0
Bicycles on Road	0	0	1	-	1	0	6	0	-	6	0	0	1	-	1	8
% Bicycles on Road	-	0.0	2.3	-	1.7	0.0	2.4	0.0	-	2.3	-	0.0	0.8	-	0.6	1.6
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Start Time	International Street Westbound					High Grove Blvd. Northbound					High Grove Blvd. Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
7:45 AM	0	0	2	0	2	0	6	2	0	8	0	7	10	0	17	27
8:00 AM	0	2	0	0	2	0	4	3	0	7	0	3	9	0	12	21
8:15 AM	0	1	1	0	2	0	5	0	0	5	0	1	4	0	5	12
8:30 AM	0	0	0	0	0	0	10	1	0	11	0	2	5	0	7	18
Total	0	3	3	0	6	0	25	6	0	31	0	13	28	0	41	78
Approach %	0.0	50.0	50.0	-	-	0.0	80.6	19.4	-	-	0.0	31.7	68.3	-	-	-
Total %	0.0	3.8	3.8	-	7.7	0.0	32.1	7.7	-	39.7	0.0	16.7	35.9	-	52.6	-
PHF	0.000	0.375	0.375	-	0.750	0.000	0.625	0.500	-	0.705	0.000	0.464	0.700	-	0.603	0.722
Lights	0	2	3	-	5	0	24	6	-	30	0	10	27	-	37	72
% Lights	-	66.7	100.0	-	83.3	-	96.0	100.0	-	96.8	-	76.9	96.4	-	90.2	92.3
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	3	1	-	4	6
% Single-Unit Trucks	-	33.3	0.0	-	16.7	-	4.0	0.0	-	3.2	-	23.1	3.6	-	9.8	7.7
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[illegible]

Start Time	International Street Westbound					High Grove Blvd. Northbound					High Grove Blvd. Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
11:30 AM	0	0	1	0	1	0	5	0	0	5	0	1	3	0	4	10
11:45 AM	0	0	1	0	1	0	1	0	0	1	0	0	5	0	5	7
12:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	5
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	2	0	10	0	0	10	0	1	9	0	10	22
Approach %	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	0.0	10.0	90.0	-	-	-
Total %	0.0	0.0	9.1	-	9.1	0.0	45.5	0.0	-	45.5	0.0	4.5	40.9	-	45.5	-
PHF	0.000	0.000	0.500	-	0.500	0.000	0.500	0.000	-	0.500	0.000	0.250	0.450	-	0.500	0.550
Lights	0	0	2	-	2	0	10	0	-	10	0	1	9	-	10	22
% Lights	-	-	100.0	-	100.0	-	100.0	-	-	100.0	-	100.0	100.0	-	100.0	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	-	-	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[illegible]

12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	4	0	0	4	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	8		
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:45 PM	0	1	0	2	0	3	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	2	
Hourly Total	0	1	0	2	0	3	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	2	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	0	6	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	0	6	
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	2	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	
Grand Total	0	4	14	4	0	22	0	0	17	18	0	35	0	7	7	0	0	14	0	9	7	1	0	17
Approach %	0.0	18.2	63.6	18.2	-	-	0.0	0.0	48.6	51.4	-	-	0.0	50.0	50.0	0.0	-	-	0.0	52.9	41.2	5.9	-	-
Total %	0.0	4.5	15.9	4.5	-	25.0	0.0	0.0	19.3	20.5	-	39.8	0.0	8.0	8.0	0.0	-	15.9	0.0	10.2	8.0	1.1	-	19.3
Lights	0	3	10	4	-	17	0	0	12	15	-	27	0	7	7	0	-	14	0	9	7	1	-	17
% Lights	-	75.0	71.4	100.0	-	77.3	-	-	70.6	83.3	-	77.1	-	100.0	100.0	-	-	100.0	-	100.0	100.0	100.0	-	100.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0
Single-Unit Trucks	0	0	4	0	-	4	0	0	5	3	-	8	0	0	0	0	-	0	0	0	0	0	-	0
% Single-Unit Trucks	-	0.0	28.6	0.0	-	18.2	-	-	29.4	16.7	-	22.9	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0
Articulated Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	-	25.0	0.0	0.0	-	4.5	-	-	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
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Movement Peak Hour Data (7:45 AM)

[illegible]

[illegible]

[illegible]



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

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

Count Name: Madison Street with High Grove Blvd.
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	High Grove Blvd. Eastbound						High Grove Blvd. Westbound						Madison Street Northbound						Madison Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	1	0	0	0	1	0	1	0	1	1	2	0	1	61	11	0	73	0	6	29	2	0	37	113
7:15 AM	0	0	0	0	0	0	0	1	0	2	0	3	0	0	83	12	0	95	0	7	26	1	0	34	132
7:30 AM	0	0	0	0	1	0	0	0	0	1	0	1	0	0	98	13	0	111	0	11	49	4	0	64	176
7:45 AM	0	2	0	0	0	2	0	3	0	3	0	6	0	0	94	11	0	105	0	8	71	3	0	82	195
Hourly Total	0	3	0	0	1	3	0	5	0	7	1	12	0	1	336	47	0	384	0	32	175	10	0	217	616
8:00 AM	0	1	0	0	0	1	0	3	0	2	0	5	0	0	91	9	0	100	0	9	46	3	0	58	164
8:15 AM	0	0	0	0	0	0	0	3	0	4	0	7	0	1	92	8	0	101	0	7	75	5	0	87	195
8:30 AM	0	1	0	0	0	1	0	1	0	2	0	3	0	2	104	14	0	120	0	10	65	3	0	78	202
8:45 AM	0	2	0	2	2	4	0	3	0	7	0	10	0	1	98	13	0	112	0	11	62	1	0	74	200
Hourly Total	0	4	0	2	2	6	0	10	0	15	0	25	0	4	385	44	0	433	0	37	248	12	0	297	761
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	3	0	1	0	4	0	10	0	14	0	24	0	2	122	10	0	134	0	2	71	2	0	75	237
4:15 PM	0	0	0	1	0	1	0	9	0	10	0	19	0	4	95	9	0	108	0	8	41	3	0	52	180
4:30 PM	0	3	1	1	0	5	0	19	0	20	0	39	0	0	104	10	0	114	0	1	55	1	0	57	215
4:45 PM	0	2	1	2	0	5	0	6	0	6	0	12	0	2	93	8	0	103	0	8	54	3	0	65	185
Hourly Total	0	8	2	5	0	15	0	44	0	50	0	94	0	8	414	37	0	459	0	19	221	9	0	249	817
5:00 PM	0	2	1	5	3	8	0	17	0	18	0	35	0	1	121	12	0	134	0	7	66	1	0	74	251
5:15 PM	0	3	0	0	6	3	0	2	0	11	3	13	0	1	84	10	0	95	0	7	55	0	0	62	173
5:30 PM	0	2	0	1	1	3	0	3	1	9	0	13	0	0	74	7	0	81	0	5	69	2	0	76	173
5:45 PM	0	2	0	1	0	3	0	2	0	2	0	4	0	1	76	4	0	81	0	9	55	1	0	65	153
Hourly Total	0	9	1	7	10	17	0	24	1	40	3	65	0	3	355	33	0	391	0	28	245	4	0	277	750
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	3	0	0	0	3	0	2	0	12	0	14	0	0	73	4	0	77	0	11	35	4	0	50	144
10:15 AM	0	1	0	1	0	2	0	3	0	3	1	6	0	0	51	4	0	55	0	6	41	5	0	52	115
10:30 AM	0	3	0	0	0	3	0	7	0	9	3	16	1	3	61	5	0	70	0	4	39	1	0	44	133
10:45 AM	0	1	1	0	0	2	0	3	0	8	0	11	0	2	87	8	0	97	1	6	43	5	0	55	165
Hourly Total	0	8	1	1	0	10	0	15	0	32	4	47	1	5	272	21	0	299	1	27	158	15	0	201	557
11:00 AM	0	1	0	2	0	3	0	4	2	12	0	18	0	1	66	3	0	70	0	6	29	2	0	37	128
11:15 AM	0	1	0	0	3	1	0	2	0	3	0	5	0	0	55	7	0	62	0	8	33	3	0	44	112
11:30 AM	0	4	0	1	0	5	0	5	0	11	0	16	0	2	96	2	0	100	0	0	34	3	0	37	158
11:45 AM	0	2	0	1	2	3	0	4	0	5	0	9	0	1	80	3	0	84	0	8	46	2	0	56	152
Hourly Total	0	8	0	4	5	12	0	15	2	31	0	48	0	4	297	15	0	316	0	22	142	10	0	174	550
12:00 PM	0	3	0	1	0	4	0	0	0	8	1	8	0	0	81	4	0	85	0	1	44	4	0	49	146
12:15 PM	0	1	0	0	0	1	0	0	0	5	0	5	0	0	77	4	0	81	0	7	46	1	0	54	141
12:30 PM	0	3	0	2	0	5	0	1	0	7	0	8	0	0	60	2	0	62	0	1	35	1	0	37	112

12:45 PM	0	3	0	1	1	4	0	1	0	5	0	6	0	1	69	3	0	73	0	1	29	1	0	31	114
Hourly Total	0	10	0	4	1	14	0	2	0	25	1	27	0	1	287	13	0	301	0	10	154	7	0	171	513
1:00 PM	0	6	0	0	2	6	0	0	0	9	0	9	0	0	70	0	0	70	0	3	25	2	0	30	115
1:15 PM	0	3	0	1	0	4	0	5	0	5	4	10	0	0	61	3	0	64	0	0	42	0	0	42	120
1:30 PM	0	3	0	0	0	3	0	2	0	0	0	2	0	3	58	1	0	62	0	0	24	3	0	27	94
1:45 PM	0	2	0	2	0	4	0	1	0	1	0	2	0	1	60	5	0	66	0	3	37	3	0	43	115
Hourly Total	0	14	0	3	2	17	0	8	0	15	4	23	0	4	249	9	0	262	0	6	128	8	0	142	444
2:00 PM	0	2	0	3	0	5	0	0	0	2	0	2	0	0	55	1	0	56	0	1	49	3	0	53	116
2:15 PM	0	3	0	0	0	3	0	2	0	2	1	4	0	1	58	1	0	60	0	0	33	2	0	35	102
2:30 PM	0	8	0	1	3	9	0	1	0	2	0	3	0	1	53	0	0	54	0	1	37	7	0	45	111
2:45 PM	0	7	1	1	0	9	0	0	0	3	0	3	0	1	49	2	0	52	0	1	31	3	0	35	99
Hourly Total	0	20	1	5	3	26	0	3	0	9	1	12	0	3	215	4	0	222	0	3	150	15	0	168	428
3:00 PM	0	7	0	1	0	8	0	0	0	4	1	4	0	1	47	2	0	50	0	1	26	1	0	28	90
3:15 PM	0	2	0	0	0	2	0	1	0	0	0	1	0	1	56	2	0	59	0	1	28	1	0	30	92
3:30 PM	0	2	0	0	1	2	0	0	0	0	0	0	0	0	66	0	0	66	0	1	30	1	0	32	100
3:45 PM	0	2	0	1	2	3	0	1	0	0	0	1	0	0	47	0	0	47	0	0	38	2	0	40	91
Hourly Total	0	13	0	2	3	15	0	2	0	4	1	6	0	2	216	4	0	222	0	3	122	5	0	130	373
4:00 PM	0	4	0	2	0	6	0	0	0	0	0	0	0	2	58	2	0	62	0	0	33	1	0	34	102
4:15 PM	0	0	0	2	0	2	0	2	0	1	0	3	0	0	52	1	0	53	0	0	30	4	0	34	92
4:30 PM	0	2	0	1	0	3	0	1	0	1	0	2	1	0	63	1	0	65	0	1	36	3	0	40	110
4:45 PM	0	1	0	0	0	1	0	1	0	0	0	1	0	0	54	0	0	54	0	1	16	1	0	18	74
Hourly Total	0	7	0	5	0	12	0	4	0	2	0	6	1	2	227	4	0	234	0	2	115	9	0	126	378
5:00 PM	0	1	0	1	1	2	0	0	0	0	1	0	0	0	34	2	0	36	0	0	21	0	0	21	59
5:15 PM	0	2	0	0	0	2	0	0	0	1	0	1	0	0	53	0	0	53	0	0	26	1	0	27	8

Turning Movement Peak Hour Data (7:45 AM)

[illegible]

[illegible]

[illegible]



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

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

Count Name: Plainfield Road with High Grove
Blvd. TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	Plainfield Road Eastbound					Plainfield Road Westbound					High Grove Blvd. Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	129	5	0	134	0	20	92	0	112	0	0	2	1	2	248
7:15 AM	0	145	7	0	152	0	4	114	0	118	0	1	4	1	5	275
7:30 AM	0	171	15	0	186	1	17	165	0	183	0	1	2	0	3	372
7:45 AM	0	195	11	0	206	0	16	178	0	194	0	2	7	0	9	409
Hourly Total	0	640	38	0	678	1	57	549	0	607	0	4	15	2	19	1304
8:00 AM	0	179	9	0	188	0	19	158	0	177	0	0	5	2	5	370
8:15 AM	0	188	9	0	197	0	13	186	0	199	0	2	4	0	6	402
8:30 AM	0	185	4	0	189	0	9	191	0	200	0	0	8	0	8	397
8:45 AM	0	198	5	0	203	0	13	201	0	214	0	3	4	0	7	424
Hourly Total	0	750	27	0	777	0	54	736	0	790	0	5	21	2	26	1593
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	273	2	0	275	0	7	277	0	284	0	5	26	0	31	590
4:15 PM	0	273	4	0	277	0	4	225	0	229	0	8	24	0	32	538
4:30 PM	0	250	2	0	252	0	2	270	0	272	0	13	33	0	46	570
4:45 PM	0	278	3	0	281	0	5	281	0	286	0	2	20	0	22	589
Hourly Total	0	1074	11	0	1085	0	18	1053	0	1071	0	28	103	0	131	2287
5:00 PM	0	268	2	0	270	0	0	256	0	256	0	13	29	1	42	568
5:15 PM	0	259	1	0	260	0	1	286	0	287	0	6	23	0	29	576
5:30 PM	0	277	0	0	277	0	4	262	0	266	0	3	14	0	17	560
5:45 PM	0	239	2	0	241	0	3	254	0	257	0	3	10	0	13	511
Hourly Total	0	1043	5	0	1048	0	8	1058	0	1066	0	25	76	1	101	2215
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	142	2	0	144	0	2	140	0	142	0	5	7	0	12	298
10:15 AM	0	146	1	0	147	0	2	164	0	166	0	1	6	0	7	320
10:30 AM	0	165	5	0	170	0	1	144	0	145	0	1	6	0	7	322
10:45 AM	0	153	5	0	158	0	8	171	0	179	0	6	3	0	9	346
Hourly Total	0	606	13	0	619	0	13	619	0	632	0	13	22	0	35	1286
11:00 AM	0	166	2	0	168	0	6	141	0	147	0	5	9	2	14	329
11:15 AM	0	160	7	0	167	0	5	171	0	176	0	4	6	0	10	353
11:30 AM	0	197	4	0	201	0	3	179	0	182	0	5	7	0	12	395
11:45 AM	0	194	2	0	196	0	4	193	0	197	0	3	4	0	7	400
Hourly Total	0	717	15	0	732	0	18	684	0	702	0	17	26	2	43	1477
12:00 PM	0	204	2	0	206	0	2	177	0	179	0	4	4	0	8	393
12:15 PM	0	231	1	0	232	0	3	183	0	186	0	2	3	0	5	423
12:30 PM	0	175	1	0	176	0	1	165	0	166	0	2	3	1	5	347
12:45 PM	0	175	2	0	177	0	3	146	0	149	0	3	5	1	8	334

Hourly Total	0	785	6	0	791	0	9	671	0	680	0	11	15	2	26	1497
1:00 PM	0	193	1	0	194	0	2	199	0	201	0	2	5	3	7	402
1:15 PM	0	219	1	0	220	0	3	160	0	163	0	3	9	0	12	395
1:30 PM	0	171	1	0	172	0	2	178	0	180	0	0	2	0	2	354
1:45 PM	0	162	4	0	166	0	8	164	0	172	0	4	3	0	7	345
Hourly Total	0	745	7	0	752	0	15	701	0	716	0	9	19	3	28	1496
2:00 PM	0	169	2	0	171	0	4	185	0	189	0	2	9	0	11	371
2:15 PM	0	180	4	0	184	0	1	155	0	156	0	2	11	0	13	353
2:30 PM	0	189	2	0	191	0	0	168	0	168	0	2	0	0	2	361
2:45 PM	0	155	2	0	157	0	3	152	0	155	0	1	3	0	4	316
Hourly Total	0	693	10	0	703	0	8	660	0	668	0	7	23	0	30	1401
3:00 PM	0	178	4	0	182	0	1	157	0	158	0	8	4	1	12	352
3:15 PM	0	200	4	0	204	0	1	151	0	152	0	2	3	0	5	361
3:30 PM	0	184	2	0	186	0	0	121	0	121	0	2	2	0	4	311
3:45 PM	0	172	2	0	174	0	1	142	0	143	0	1	2	0	3	320
Hourly Total	0	734	12	0	746	0	3	571	0	574	0	13	11	1	24	1344
4:00 PM	0	162	1	0	163	0	0	130	0	130	0	0	3	0	3	296
4:15 PM	0	196	2	0	198	0	1	127	0	128	0	1	1	0	2	328
4:30 PM	0	184	2	0	186	0	0	148	0	148	0	5	3	0	8	342
4:45 PM	0	177	0	0	177	0	1	133	0	134	0	0	2	0	2	313
Hourly Total	0	719	5	0	724	0	2	538	0	540	0	6	9	0	15	1279
5:00 PM	0	171	0	0	171	0	0	134	0	134	0	1	2	0	3	308
5:15 PM	0	157	0	0	157	0	0	134	0	134	0	0	1	1	1	292
5:30 PM	0	142	0	0	142	0	0	136	0	136	0	1	0	0	1	279
5:45 PM	0	145	0	0	145	0	0	148	0	148	0	1	0	0	1	294
Hourly Total	0	615	0	0	615	0	0	552	0	552	0	3	3	1	6	1173
Grand Total	0	9121	149	0	9270	1	205	8392	0	8598	0	141	343	14	484	18352
Approach %	0.0	98.4	1.6	-	-	0.0	2.4	97.6	-	-	0.0	29.1	70.9	-	-	-
Total %	0.0	49.7	0.8	-	50.5	0.0	1.1	45.7	-	46.9	0.0	0.8	1.9	-	2.6	-
Lights	0	9022	144	-	9166	1	194	8302	-	8497	0	136	331	-	467	18130
% Lights	-	98.9	96.6	-	98.9	100.0	94.6	98.9	-	98.8	-	96.5	96.5	-	96.5	98.8
Buses	0	0	0	-	0	0	0	2	-	2	0	0	0	-	0	2
% Buses	-	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	70	3	-	73	0	9	53	-	62	0	5	5	-	10	145
% Single-Unit Trucks	-	0.8	2.0	-	0.8	0.0	4.4	0.6	-	0.7	-	3.5	1.5	-	2.1	0.8
Articulated Trucks	0	27	2	-	29	0	1	33	-	34	0	0	4	-	4	67
% Articulated Trucks	-	0.3	1.3	-	0.3	0.0	0.5	0.4	-	0.4	-	0.0	1.2	-	0.8	0.4
Bicycles on Road	0	2	0	-	2	0	1	2	-	3	0	0	3	-	3	8
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.5	0.0	-	0.0	-	0.0	0.9	-	0.6	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	14	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Plainfield Road with High Grove
Blvd. TMC
Site Code:
Start Date: 07/20/2023
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Plainfield Road Eastbound					Plainfield Road Westbound					High Grove Blvd. Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:45 AM	0	195	11	0	206	0	16	178	0	194	0	2	7	0	9	409
8:00 AM	0	179	9	0	188	0	19	158	0	177	0	0	5	2	5	370
8:15 AM	0	188	9	0	197	0	13	186	0	199	0	2	4	0	6	402
8:30 AM	0	185	4	0	189	0	9	191	0	200	0	0	8	0	8	397
Total	0	747	33	0	780	0	57	713	0	770	0	4	24	2	28	1578
Approach %	0.0	95.8	4.2	-	-	0.0	7.4	92.6	-	-	0.0	14.3	85.7	-	-	-
Total %	0.0	47.3	2.1	-	49.4	0.0	3.6	45.2	-	48.8	0.0	0.3	1.5	-	1.8	-
PHF	0.000	0.958	0.750	-	0.947	0.000	0.750	0.933	-	0.963	0.000	0.500	0.750	-	0.778	0.965
Lights	0	720	31	-	751	0	54	695	-	749	0	3	22	-	25	1525
% Lights	-	96.4	93.9	-	96.3	-	94.7	97.5	-	97.3	-	75.0	91.7	-	89.3	96.6
Buses	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	17	2	-	19	0	2	12	-	14	0	1	2	-	3	36
% Single-Unit Trucks	-	2.3	6.1	-	2.4	-	3.5	1.7	-	1.8	-	25.0	8.3	-	10.7	2.3
Articulated Trucks	0	10	0	-	10	0	1	5	-	6	0	0	0	-	0	16
% Articulated Trucks	-	1.3	0.0	-	1.3	-	1.8	0.7	-	0.8	-	0.0	0.0	-	0.0	1.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Plainfield Road with High Grove
Blvd. TMC
Site Code:
Start Date: 07/20/2023
Page No: 4

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Plainfield Road Eastbound					Plainfield Road Westbound					High Grove Blvd. Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
4:30 PM	0	250	2	0	252	0	2	270	0	272	0	13	33	0	46	570
4:45 PM	0	278	3	0	281	0	5	281	0	286	0	2	20	0	22	589
5:00 PM	0	268	2	0	270	0	0	256	0	256	0	13	29	1	42	568
5:15 PM	0	259	1	0	260	0	1	286	0	287	0	6	23	0	29	576
Total	0	1055	8	0	1063	0	8	1093	0	1101	0	34	105	1	139	2303
Approach %	0.0	99.2	0.8	-	-	0.0	0.7	99.3	-	-	0.0	24.5	75.5	-	-	-
Total %	0.0	45.8	0.3	-	46.2	0.0	0.3	47.5	-	47.8	0.0	1.5	4.6	-	6.0	-
PHF	0.000	0.949	0.667	-	0.946	0.000	0.400	0.955	-	0.959	0.000	0.654	0.795	-	0.755	0.978
Lights	0	1046	7	-	1053	0	8	1074	-	1082	0	33	104	-	137	2272
% Lights	-	99.1	87.5	-	99.1	-	100.0	98.3	-	98.3	-	97.1	99.0	-	98.6	98.7
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	5	0	-	5	0	0	11	-	11	0	1	0	-	1	17
% Single-Unit Trucks	-	0.5	0.0	-	0.5	-	0.0	1.0	-	1.0	-	2.9	0.0	-	0.7	0.7
Articulated Trucks	0	4	1	-	5	0	0	8	-	8	0	0	1	-	1	14
% Articulated Trucks	-	0.4	12.5	-	0.5	-	0.0	0.7	-	0.7	-	0.0	1.0	-	0.7	0.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

[illegible]



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Count Name: Plainfield Road with Madison
Street TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	Plainfield Road Eastbound						Plainfield Road Westbound						Madison Street Northbound						Madison Street 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	14	56	30	0	100	0	14	97	9	0	120	0	23	9	6	0	38	0	5	40	10	0	55	313
7:15 AM	0	15	55	34	0	104	0	19	109	16	0	144	0	41	27	16	0	84	0	13	55	13	0	81	413
7:30 AM	0	27	81	47	0	155	0	15	130	12	0	157	0	35	30	18	0	83	0	9	64	17	0	90	485
7:45 AM	0	23	99	33	0	155	0	31	146	20	0	197	0	48	55	26	1	129	0	15	65	17	0	97	578
Hourly Total	0	79	291	144	0	514	0	79	482	57	0	618	0	147	121	66	1	334	0	42	224	57	0	323	1789
8:00 AM	0	26	93	51	0	170	0	21	125	8	0	154	0	43	26	10	0	79	0	10	62	23	2	95	498
8:15 AM	0	39	93	58	0	190	0	17	134	19	0	170	0	43	37	20	0	100	0	11	64	22	0	97	557
8:30 AM	0	43	97	58	0	198	0	27	125	16	1	168	0	35	39	16	1	90	0	16	68	26	0	110	566
8:45 AM	0	42	96	60	0	198	0	29	122	15	3	166	0	44	59	13	1	116	0	20	58	36	1	114	594
Hourly Total	0	150	379	227	0	756	0	94	506	58	4	658	0	165	161	59	2	385	0	57	252	107	3	416	2215
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	44	170	50	0	264	0	31	156	12	0	199	0	67	34	28	0	129	0	28	80	43	0	151	743
4:15 PM	0	22	161	68	1	251	0	23	196	9	0	228	0	62	33	34	0	129	0	31	75	32	0	138	746
4:30 PM	0	32	175	59	0	266	0	35	152	11	0	198	0	62	30	27	0	119	0	31	68	38	1	137	720
4:45 PM	0	37	185	63	0	285	0	31	169	12	4	212	0	72	34	32	0	138	0	30	59	21	0	110	745
Hourly Total	0	135	691	240	1	1066	0	120	673	44	4	837	0	263	131	121	0	515	0	120	282	134	1	536	2954
5:00 PM	0	32	166	71	2	269	0	32	189	10	0	231	0	57	43	27	0	127	0	22	79	31	0	132	759
5:15 PM	0	27	199	58	0	284	0	39	171	2	3	212	0	55	36	23	0	114	0	34	75	42	0	151	761
5:30 PM	0	38	195	64	0	297	0	33	216	13	0	262	0	61	39	24	0	124	0	18	43	27	0	88	771
5:45 PM	0	24	140	59	1	223	0	26	144	11	0	181	0	71	39	51	0	161	0	15	54	27	0	96	661
Hourly Total	0	121	700	252	3	1073	0	130	720	36	3	886	0	244	157	125	0	526	0	89	251	127	0	467	2952
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	21	105	31	0	157	0	30	90	17	0	137	0	23	22	25	1	70	0	32	37	27	0	96	460
10:15 AM	0	31	103	25	1	159	0	27	113	18	1	158	0	29	18	17	1	64	0	20	27	10	0	57	438
10:30 AM	0	21	98	25	2	144	0	25	105	11	1	141	0	41	19	19	0	79	0	23	29	22	0	74	438
10:45 AM	0	22	122	38	0	182	0	18	107	18	2	143	0	32	28	21	0	81	0	22	62	26	0	110	516
Hourly Total	0	95	428	119	3	642	0	100	415	64	4	579	0	125	87	82	2	294	0	97	155	85	0	337	1852
11:00 AM	0	17	91	42	0	150	0	35	113	14	0	162	0	35	14	29	2	78	0	28	40	23	0	91	481
11:15 AM	0	18	110	45	0	173	0	26	131	12	0	169	0	39	17	27	0	83	0	18	30	17	0	65	490
11:30 AM	0	18	133	31	0	182	0	22	124	14	0	160	0	31	23	26	2	80	0	28	65	34	0	127	549
11:45 AM	0	22	145	35	0	202	0	27	144	17	2	188	0	34	27	19	0	80	0	28	62	25	0	115	585
Hourly Total	0	75	479	153	0	707	0	110	512	57	2	679	0	139	81	101	4	321	0	102	197	99	0	398	2105
12:00 PM	0	22	118	44	1	184	0	30	131	21	0	182	0	48	14	26	1	88	0	29	47	26	0	102	556
12:15 PM	0	26	121	41	0	188	0	32	165	19	0	216	0	36	24	30	0	90	0	21	37	38	0	96	590
12:30 PM	0	14	122	43	0	179	0	33	103	9	1	145	0	28	20	35	0	83	0	19	41	21	0	81	488

12:45 PM	0	25	109	28	2	162	0	30	124	8	0	162	0	38	18	27	1	83	0	20	46	17	1	83	490
Hourly Total	0	87	470	156	3	713	0	125	523	57	1	705	0	150	76	118	2	344	0	89	171	102	1	362	2124
1:00 PM	0	28	128	44	0	200	0	19	139	8	0	166	0	30	12	41	0	83	0	27	43	19	0	89	538
1:15 PM	0	24	89	52	0	165	0	32	160	14	0	206	0	42	22	26	0	90	0	20	30	19	0	69	530
1:30 PM	0	24	131	29	0	184	0	27	114	12	0	153	0	32	15	27	1	74	0	17	29	20	0	66	477
1:45 PM	0	19	112	39	0	170	0	28	127	10	0	165	0	30	16	24	0	70	0	24	32	10	0	66	471
Hourly Total	0	95	460	164	0	719	0	106	540	44	0	690	0	134	65	118	1	317	0	88	134	68	0	290	2016
2:00 PM	0	25	129	35	1	189	0	28	129	21	0	178	0	40	23	25	0	88	0	13	34	23	0	70	525
2:15 PM	0	12	111	30	0	153	0	23	145	17	0	185	0	34	20	24	0	78	0	20	34	19	0	73	489
2:30 PM	0	18	114	39	0	171	0	34	151	11	2	196	0	38	18	18	0	74	0	19	32	23	0	74	515
2:45 PM	0	19	112	28	0	159	0	12	113	9	0	134	0	30	19	21	0	70	0	12	35	24	0	71	434
Hourly Total	0	74	466	132	1	672	0	97	538	58	2	693	0	142	80	88	0	310	0	64	135	89	0	288	1963
3:00 PM	0	13	121	34	2	168	0	32	137	8	0	177	0	48	18	14	0	80	0	14	43	12	0	69	494
3:15 PM	0	14	112	31	0	157	0	34	142	14	1	190	0	37	17	14	0	68	0	13	34	18	0	65	480
3:30 PM	0	13	95	28	0	136	0	26	126	5	0	157	0	42	22	18	0	82	0	17	42	26	0	85	460
3:45 PM	0	20	101	24	7	145	0	22	124	8	0	154	0	30	28	18	0	76	0	19	27	25	4	71	446
Hourly Total	0	60	429	117	9	606	0	114	529	35	1	678	0	157	85	64	0	306	0	63	146	81	4	290	1880
4:00 PM	0	19	90	28	0	137	0	20	118	9	0	147	0	45	22	19	0	86	0	18	40	13	0	71	441
4:15 PM	0	14	91	27	0	132	0	20	138	10	0	168	0	38	27	28	0	93	0	12	31	18	0	61	454
4:30 PM	0	12	106	33	0	151	0	25	123	8	0	156	0	42	18	11	0	71	0	13	36	30	0	79	457
4:45 PM	0	10	93	34	0	137	0	16	126	4	0	146	0	29	14	19	0	62	0	13	27	26	0	66	411
Hourly Total	0	55	380	122	0	557	0	81	505	31	0	617	0	154	81	77	0	312	0	56	134	87	0	277	1763
5:00 PM	0	9	93	29	0	131	0	22	117	5	0	144	0	29	9	23	0	61	0	7	28	12	0	47	383
5:15 PM	0	15	92	38	0	145	0	21	106	9	0	136	0	35	9	25	0	69	0	22	32	10	0	64	414
5:30 PM	0	14	96	22	0	132	0	22	109	5	0	136	0	21	10	25	0	56	0	12	24	15	0	51	375
5:45 PM	0	10	117	26	0	153	0	27	105	8	0	140	0	31	12	34	0	77	0	16	16	6	0	38	408
Hourly Total	0	48	398	115	0	561	0	92	437	27	0	556	0	116	40	107	0	263	0	57	100	43	0	200	1580
Grand Total	0	1074	5571	1941	20	8586	0	1248	6380	568	21	8196	0	1936	1165	1126	12	4227	0	924	2181	1079	9	4184	25193
Approach %	0.0	12.5	64.9	22.6	-	-	0.0	15.2	77.8	6.9	-	-	0.0	45.8	27.6	26.6	-	-	0.0	22.1	52.1	25.8	-	-	-
Total %	0.0	4.3	22.1	7.7	-	34.1	0.0	5.0	25.3	2.3	-	32.5	0.0	7.7	4.6	4.5	-	16.8	0.0	3.7	8.7	4.3	-	16.6	-
Lights	0	1051	5510	1929	-	8490	0	1239	6303	547	-	8089	0	1927	1124	1116	-	4167	0	896	2120	1062	-	4078	24824
% Lights	-	97.9	98.9	99.4	-	98.9	-	99.3	98.8	96.3	-	98.7	-	99.5	96.5	99.1	-	98.6	-	97.0	97.2	98.4	-	97.5	98.5
Buses	0	0	2	1	-	3	0	0	0	0	-	0	0	0	1	1	-	2	0	1	0	0	-	1	6
% Buses	-	0.0	0.0	0.1	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.1	-	0.0	-	0.1	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	17	40	9	-	66	0	9	60	15	-	84	0	9	19	8	-	36	0	13	29	10	-	52	238
% Single-Unit Trucks	-	1.6	0.7	0.5	-	0.8	-	0.7	0.9	2.6	-	1.0	-	0.5	1.6	0.7	-	0.9	-	1.4	1.3	0.9	-	1.2	0.9
Articulated Trucks	0	5	19	1	-	25	0	0	17	4	-	21	0	0	5	0	-	5	0	13	5	6	-	24	75
% Articulated Trucks	-	0.5	0.3	0.1	-	0.3	-	0.0	0.3	0.7	-	0.3	-	0.0	0.4	0.0	-	0.1	-	1.4	0.2	0.6	-	0.6	0.3
Bicycles on Road	0	1	0	1	-	2	0	0	0	2	-	2	0	0	16	1	-	17	0	1	27	1	-	29	50
% Bicycles on Road	-	0.1	0.0	0.1	-	0.0	-	0.0	0.0	0.4	-	0.0	-	0.0	1.4	0.1	-	0.4	-	0.1	1.2	0.1	-	0.7	0.2
Pedestrians	-	-	-	-	20	-	-	-	-	21	-	-	-	-	-	-	12	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Plainfield Road with Madison
Street TMC
Site Code:
Start Date: 07/20/2023
Page No: 3

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Plainfield Road Eastbound						Plainfield Road Westbound						Madison Street Northbound						Madison Street 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	23	99	33	0	155	0	31	146	20	0	197	0	48	55	26	1	129	0	15	65	17	0	97	578
8:00 AM	0	26	93	51	0	170	0	21	125	8	0	154	0	43	26	10	0	79	0	10	62	23	2	95	498
8:15 AM	0	39	93	58	0	190	0	17	134	19	0	170	0	43	37	20	0	100	0	11	64	22	0	97	557
8:30 AM	0	43	97	58	0	198	0	27	125	16	1	168	0	35	39	16	1	90	0	16	68	26	0	110	566
Total	0	131	382	200	0	713	0	96	530	63	1	689	0	169	157	72	2	398	0	52	259	88	2	399	2199
Approach %	0.0	18.4	53.6	28.1	-	-	0.0	13.9	76.9	9.1	-	-	0.0	42.5	39.4	18.1	-	-	0.0	13.0	64.9	22.1	-	-	-
Total %	0.0	6.0	17.4	9.1	-	32.4	0.0	4.4	24.1	2.9	-	31.3	0.0	7.7	7.1	3.3	-	18.1	0.0	2.4	11.8	4.0	-	18.1	-
PHF	0.000	0.762	0.965	0.862	-	0.900	0.000	0.774	0.908	0.788	-	0.874	0.000	0.880	0.714	0.692	-	0.771	0.000	0.813	0.952	0.846	-	0.907	0.951
Lights	0	125	370	195	-	690	0	95	514	61	-	670	0	167	148	72	-	387	0	47	243	79	-	369	2116
% Lights	-	95.4	96.9	97.5	-	96.8	-	99.0	97.0	96.8	-	97.2	-	98.8	94.3	100.0	-	97.2	-	90.4	93.8	89.8	-	92.5	96.2
Buses	0	0	1	1	-	2	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	3
% Buses	-	0.0	0.3	0.5	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	4	8	3	-	15	0	1	14	2	-	17	0	2	4	0	-	6	0	4	15	5	-	24	62
% Single-Unit Trucks	-	3.1	2.1	1.5	-	2.1	-	1.0	2.6	3.2	-	2.5	-	1.2	2.5	0.0	-	1.5	-	7.7	5.8	5.7	-	6.0	2.8
Articulated Trucks	0	2	3	1	-	6	0	0	2	0	-	2	0	0	2	0	-	2	0	1	1	4	-	6	16
% Articulated Trucks	-	1.5	0.8	0.5	-	0.8	-	0.0	0.4	0.0	-	0.3	-	0.0	1.3	0.0	-	0.5	-	1.9	0.4	4.5	-	1.5	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.3	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Plainfield Road with Madison
Street TMC
Site Code:
Start Date: 07/20/2023
Page No: 4

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Plainfield Road Eastbound						Plainfield Road Westbound						Madison Street Northbound						Madison Street 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	
4:30 PM	0	32	175	59	0	266	0	35	152	11	0	198	0	62	30	27	0	119	0	31	68	38	1	137	720
4:45 PM	0	37	185	63	0	285	0	31	169	12	4	212	0	72	34	32	0	138	0	30	59	21	0	110	745
5:00 PM	0	32	166	71	2	269	0	32	189	10	0	231	0	57	43	27	0	127	0	22	79	31	0	132	759
5:15 PM	0	27	199	58	0	284	0	39	171	2	3	212	0	55	36	23	0	114	0	34	75	42	0	151	761
Total	0	128	725	251	2	1104	0	137	681	35	7	853	0	246	143	109	0	498	0	117	281	132	1	530	2985
Approach %	0.0	11.6	65.7	22.7	-	-	0.0	16.1	79.8	4.1	-	-	0.0	49.4	28.7	21.9	-	-	0.0	22.1	53.0	24.9	-	-	-
Total %	0.0	4.3	24.3	8.4	-	37.0	0.0	4.6	22.8	1.2	-	28.6	0.0	8.2	4.8	3.7	-	16.7	0.0	3.9	9.4	4.4	-	17.8	-
PHF	0.000	0.865	0.911	0.884	-	0.968	0.000	0.878	0.901	0.729	-	0.923	0.000	0.854	0.831	0.852	-	0.902	0.000	0.860	0.889	0.786	-	0.877	0.981
Lights	0	125	718	249	-	1092	0	134	668	34	-	836	0	245	139	106	-	490	0	115	278	132	-	525	2943
% Lights	-	97.7	99.0	99.2	-	98.9	-	97.8	98.1	97.1	-	98.0	-	99.6	97.2	97.2	-	98.4	-	98.3	98.9	100.0	-	99.1	98.6
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	3	5	2	-	10	0	3	8	1	-	12	0	1	1	3	-	5	0	0	1	0	-	1	28
% Single-Unit Trucks	-	2.3	0.7	0.8	-	0.9	-	2.2	1.2	2.9	-	1.4	-	0.4	0.7	2.8	-	1.0	-	0.0	0.4	0.0	-	0.2	0.9
Articulated Trucks	0	0	2	0	-	2	0	0	5	0	-	5	0	0	1	0	-	1	0	2	2	0	-	4	12
% Articulated Trucks	-	0.0	0.3	0.0	-	0.2	-	0.0	0.7	0.0	-	0.6	-	0.0	0.7	0.0	-	0.2	-	1.7	0.7	0.0	-	0.8	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.4	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	2	-	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Plainfield Road with Madison
Street TMC
Site Code:
Start Date: 07/20/2023
Page No: 5

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Plainfield Road Eastbound						Plainfield Road Westbound						Madison Street Northbound						Madison Street Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
11:30 AM	0	18	133	31	0	182	0	22	124	14	0	160	0	31	23	26	2	80	0	28	65	34	0	127	549
11:45 AM	0	22	145	35	0	202	0	27	144	17	2	188	0	34	27	19	0	80	0	28	62	25	0	115	585
12:00 PM	0	22	118	44	1	184	0	30	131	21	0	182	0	48	14	26	1	88	0	29	47	26	0	102	556
12:15 PM	0	26	121	41	0	188	0	32	165	19	0	216	0	36	24	30	0	90	0	21	37	38	0	96	590
Total	0	88	517	151	1	756	0	111	564	71	2	746	0	149	88	101	3	338	0	106	211	123	0	440	2280
Approach %	0.0	11.6	68.4	20.0	-	-	0.0	14.9	75.6	9.5	-	-	0.0	44.1	26.0	29.9	-	-	0.0	24.1	48.0	28.0	-	-	-
Total %	0.0	3.9	22.7	6.6	-	33.2	0.0	4.9	24.7	3.1	-	32.7	0.0	6.5	3.9	4.4	-	14.8	0.0	4.6	9.3	5.4	-	19.3	-
PHF	0.000	0.846	0.891	0.858	-	0.936	0.000	0.867	0.855	0.845	-	0.863	0.000	0.776	0.815	0.842	-	0.939	0.000	0.914	0.812	0.809	-	0.866	0.966
Lights	0	88	514	151	-	753	0	111	561	68	-	740	0	149	86	100	-	335	0	104	208	122	-	434	2262
% Lights	-	100.0	99.4	100.0	-	99.6	-	100.0	99.5	95.8	-	99.2	-	100.0	97.7	99.0	-	99.1	-	98.1	98.6	99.2	-	98.6	99.2
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	3	3	-	6	0	0	0	1	-	1	0	1	0	1	-	2	9
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.5	4.2	-	0.8	-	0.0	0.0	1.0	-	0.3	-	0.9	0.0	0.8	-	0.5	0.4
Articulated Trucks	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	4
% Articulated Trucks	-	0.0	0.6	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.9	0.0	0.0	-	0.2	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	3	0	-	3	5
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	2.3	0.0	-	0.6	-	0.0	1.4	0.0	-	0.7	0.2
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



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Count Name: Veterans Blvd. with CNH Access
Drive TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	CNH Access Drive Eastbound					Access Drive Westbound					Veterans Blvd. Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	4	21	0	25	26
7:15 AM	0	2	0	0	2	0	0	0	0	0	0	4	22	0	26	28
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	19	0	22	22
7:45 AM	0	3	0	0	3	0	0	2	0	2	0	9	28	0	37	42
Hourly Total	0	6	0	0	6	0	0	2	0	2	0	20	90	0	110	118
8:00 AM	0	0	0	0	0	0	0	3	0	3	0	7	27	0	34	37
8:15 AM	0	2	0	0	2	0	0	1	0	1	0	5	14	0	19	22
8:30 AM	0	2	0	0	2	0	0	5	0	5	0	9	15	0	24	31
8:45 AM	0	4	0	0	4	0	0	1	1	1	0	14	17	0	31	36
Hourly Total	0	8	0	0	8	0	0	10	1	10	0	35	73	0	108	126
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	31	0	0	31	0	0	5	0	5	0	1	3	0	4	40
4:15 PM	0	24	0	0	24	0	0	4	0	4	0	0	5	0	5	33
4:30 PM	0	25	0	0	25	0	1	9	0	10	1	2	1	0	4	39
4:45 PM	0	25	0	0	25	0	0	4	0	4	0	0	5	0	5	34
Hourly Total	0	105	0	0	105	0	1	22	0	23	1	3	14	0	18	146
5:00 PM	0	25	0	0	25	0	0	7	0	7	0	0	2	0	2	34
5:15 PM	0	17	0	0	17	0	0	1	0	1	0	0	1	0	1	19
5:30 PM	0	12	0	0	12	0	0	6	0	6	0	0	1	0	1	19
5:45 PM	0	10	0	0	10	0	0	1	0	1	0	0	0	0	0	11
Hourly Total	0	64	0	0	64	0	0	15	0	15	0	0	4	0	4	83
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
10:30 AM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	3
10:45 AM	0	0	0	0	0	0	0	1	0	1	0	4	1	0	5	6
Hourly Total	0	0	0	0	0	0	0	4	0	4	0	5	1	0	6	10
11:00 AM	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	3
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	4
11:30 AM	0	1	0	0	1	0	0	6	0	6	0	2	0	0	2	9
11:45 AM	0	0	0	0	0	0	0	10	1	10	0	6	1	0	7	17
Hourly Total	0	2	1	0	3	0	0	17	1	17	0	11	2	0	13	33
12:00 PM	0	0	0	0	0	0	0	2	0	2	0	3	0	0	3	5
12:15 PM	0	0	0	0	0	0	0	6	0	6	0	1	0	0	1	7
12:30 PM	0	0	0	0	0	0	0	7	0	7	0	2	0	0	2	9
12:45 PM	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	3

Hourly Total	0	0	0	0	0	0	0	18	0	18	0	6	0	0	6	24
1:00 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
1:45 PM	0	2	0	0	2	0	2	1	0	3	0	0	0	0	0	5
Hourly Total	0	2	0	0	2	0	2	4	0	6	0	0	0	0	0	8
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
2:15 PM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	3
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Hourly Total	0	0	0	0	0	0	0	3	0	3	1	1	0	0	2	5
3:00 PM	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	3
3:15 PM	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
3:45 PM	0	0	0	0	0	0	0	8	0	8	0	0	0	0	0	8
Hourly Total	0	1	0	0	1	0	0	10	0	10	0	4	1	0	5	16
4:00 PM	0	1	0	0	1	0	0	4	0	4	0	2	1	0	3	8
4:15 PM	0	1	0	0	1	0	1	7	0	8	0	1	0	0	1	10
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	2	0	0	2	0	1	12	0	13	0	3	1	0	4	19
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Hourly Total	0	0	2	0	2	0	2	2	0	4	0	1	0	0	1	7
Grand Total	0	190	3	0	193	0	6	119	2	125	2	89	186	0	277	595
Approach %	0.0	98.4	1.6	-	-	0.0	4.8	95.2	-	-	0.7	32.1	67.1	-	-	-
Total %	0.0	31.9	0.5	-	32.4	0.0	1.0	20.0	-	21.0	0.3	15.0	31.3	-	46.6	-
Lights	0	182	3	-	185	0	3	116	-	119	2	88	183	-	273	577
% Lights	-	95.8	100.0	-	95.9	-	50.0	97.5	-	95.2	100.0	98.9	98.4	-	98.6	97.0
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	0.0
Single-Unit Trucks	0	1	0	-	1	0	0	0	-	0	0	0	2	-	2	3
% Single-Unit Trucks	-	0.5	0.0	-	0.5	-	0.0	0.0	-	0.0	0.0	0.0	1.1	-	0.7	0.5
Articulated Trucks	0	4	0	-	4	0	0	0	-	0	0	0	1	-	1	5
% Articulated Trucks	-	2.1	0.0	-	2.1	-	0.0	0.0	-	0.0	0.0	0.0	0.5	-	0.4	0.8
Bicycles on Road	0	3	0	-	3	0	3	3	-	6	0	1	0	-	1	10
% Bicycles on Road	-	1.6	0.0	-	1.6	-	50.0	2.5	-	4.8	0.0	1.1	0.0	-	0.4	1.7
Pedestrians	-	-	-	0	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

Start Time	CNH Access Drive Eastbound					Access Drive Westbound					Veterans Blvd. Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:45 AM	0	3	0	0	3	0	0	2	0	2	0	9	28	0	37	42
8:00 AM	0	0	0	0	0	0	0	3	0	3	0	7	27	0	34	37
8:15 AM	0	2	0	0	2	0	0	1	0	1	0	5	14	0	19	22
8:30 AM	0	2	0	0	2	0	0	5	0	5	0	9	15	0	24	31
Total	0	7	0	0	7	0	0	11	0	11	0	30	84	0	114	132
Approach %	0.0	100.0	0.0	-	-	0.0	0.0	100.0	-	-	0.0	26.3	73.7	-	-	-
Total %	0.0	5.3	0.0	-	5.3	0.0	0.0	8.3	-	8.3	0.0	22.7	63.6	-	86.4	-
PHF	0.000	0.583	0.000	-	0.583	0.000	0.000	0.550	-	0.550	0.000	0.833	0.750	-	0.770	0.786
Lights	0	4	0	-	4	0	0	11	-	11	0	29	83	-	112	127
% Lights	-	57.1	-	-	57.1	-	-	100.0	-	100.0	-	96.7	98.8	-	98.2	96.2
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
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	3	0	-	3	0	0	0	-	0	0	0	1	-	1	4
% Articulated Trucks	-	42.9	-	-	42.9	-	-	0.0	-	0.0	-	0.0	1.2	-	0.9	3.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Bicycles on Road	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	3.3	0.0	-	0.9	0.8
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[illegible]



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Count Name: Veterans Blvd. with CNH Access
Drive TMC
Site Code:
Start Date: 07/20/2023
Page No: 5

Turning Movement Peak Hour Data (11:30 AM)

Start Time	CNH Access Drive Eastbound					Access Drive Westbound					Veterans Blvd. Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
11:30 AM	0	1	0	0	1	0	0	6	0	6	0	2	0	0	2	9
11:45 AM	0	0	0	0	0	0	0	10	1	10	0	6	1	0	7	17
12:00 PM	0	0	0	0	0	0	0	2	0	2	0	3	0	0	3	5
12:15 PM	0	0	0	0	0	0	0	6	0	6	0	1	0	0	1	7
Total	0	1	0	0	1	0	0	24	1	24	0	12	1	0	13	38
Approach %	0.0	100.0	0.0	-	-	0.0	0.0	100.0	-	-	0.0	92.3	7.7	-	-	-
Total %	0.0	2.6	0.0	-	2.6	0.0	0.0	63.2	-	63.2	0.0	31.6	2.6	-	34.2	-
PHF	0.000	0.250	0.000	-	0.250	0.000	0.000	0.600	-	0.600	0.000	0.500	0.250	-	0.464	0.559
Lights	0	1	0	-	1	0	0	24	-	24	0	12	1	-	13	38
% Lights	-	100.0	-	-	100.0	-	-	100.0	-	100.0	-	100.0	100.0	-	100.0	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
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
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-



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Count Name: Veterans Blvd. with Frontage Road
TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	Veterans Blvd. Eastbound					Veterans Blvd. Westbound					Frontage Road Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	1	0	0	1	0	46	32	0	78	0	3	32	0	35	114
7:15 AM	0	2	1	0	3	0	41	37	0	78	0	7	47	0	54	135
7:30 AM	0	1	1	0	2	0	62	32	0	94	0	3	38	0	41	137
7:45 AM	0	7	0	0	7	1	86	61	0	148	0	4	52	0	56	211
Hourly Total	0	11	2	0	13	1	235	162	0	398	0	17	169	0	186	597
8:00 AM	0	3	0	0	3	0	80	52	0	132	0	3	49	0	52	187
8:15 AM	0	3	2	0	5	0	80	45	0	125	0	3	38	0	41	171
8:30 AM	0	8	0	0	8	2	63	30	0	95	0	2	49	0	51	154
8:45 AM	0	3	1	0	4	0	74	38	0	112	0	1	40	0	41	157
Hourly Total	0	17	3	0	20	2	297	165	0	464	0	9	176	0	185	669
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	41	5	0	46	0	39	5	0	44	0	0	85	0	85	175
4:15 PM	0	41	2	0	43	0	36	4	0	40	0	0	78	0	78	161
4:30 PM	0	61	6	0	67	0	24	3	0	27	0	1	114	0	115	209
4:45 PM	0	41	6	0	47	0	35	5	0	40	0	1	84	0	85	172
Hourly Total	0	184	19	0	203	0	134	17	0	151	0	2	361	0	363	717
5:00 PM	0	73	10	0	83	0	36	4	0	40	1	3	132	0	136	259
5:15 PM	0	34	3	0	37	0	41	2	0	43	0	0	82	0	82	162
5:30 PM	0	33	2	1	35	2	39	2	0	43	0	0	71	0	71	149
5:45 PM	0	19	2	0	21	1	30	0	0	31	0	0	60	0	60	112
Hourly Total	0	159	17	1	176	3	146	8	0	157	1	3	345	0	349	682
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	0	0	0	0	0	1	23	0	0	24	0	0	43	0	43	67
10:15 AM	0	2	1	0	3	2	41	2	0	45	0	0	41	0	41	89
10:30 AM	0	4	1	0	5	0	26	3	0	29	0	0	33	0	33	67
10:45 AM	0	1	0	1	1	0	27	5	0	32	1	0	36	0	37	70
Hourly Total	0	7	2	1	9	3	117	10	0	130	1	0	153	0	154	293
11:00 AM	0	2	1	0	3	1	19	2	0	22	0	1	35	0	36	61
11:15 AM	0	2	0	0	2	1	33	3	0	37	0	1	50	0	51	90
11:30 AM	0	4	1	0	5	3	25	1	0	29	0	1	35	0	36	70
11:45 AM	0	12	0	0	12	3	23	5	0	31	0	2	36	0	38	81
Hourly Total	0	20	2	0	22	8	100	11	0	119	0	5	156	0	161	302
12:00 PM	0	4	0	0	4	1	25	2	0	28	1	2	60	0	63	95
12:15 PM	0	7	1	0	8	2	22	1	0	25	0	0	47	0	47	80
12:30 PM	0	7	0	0	7	3	15	2	1	20	0	1	29	0	30	57
12:45 PM	0	4	0	0	4	2	23	0	0	25	0	0	45	0	45	74

Hourly Total	0	22	1	0	23	8	85	5	1	98	1	3	181	0	185	306
1:00 PM	0	2	0	0	2	1	18	0	0	19	0	0	32	0	32	53
1:15 PM	0	0	0	0	0	1	19	0	0	20	0	0	32	0	32	52
1:30 PM	0	1	1	0	2	2	16	1	0	19	0	0	19	0	19	40
1:45 PM	0	1	0	0	1	2	21	0	0	23	0	0	33	0	33	57
Hourly Total	0	4	1	0	5	6	74	1	0	81	0	0	116	0	116	202
2:00 PM	0	0	1	0	1	2	23	1	0	26	1	0	68	0	69	96
2:15 PM	0	1	1	0	2	0	15	1	0	16	0	0	37	0	37	55
2:30 PM	0	0	0	0	0	0	21	1	0	22	0	0	42	0	42	64
2:45 PM	0	1	1	0	2	2	17	0	0	19	0	0	41	0	41	62
Hourly Total	0	2	3	0	5	4	76	3	0	83	1	0	188	0	189	277
3:00 PM	0	6	0	0	6	2	18	1	0	21	0	0	38	0	38	65
3:15 PM	0	2	0	0	2	1	18	4	0	23	1	0	21	0	22	47
3:30 PM	0	0	0	0	0	1	21	1	0	23	0	0	31	0	31	54
3:45 PM	0	8	1	0	9	2	24	1	0	27	0	0	31	0	31	67
Hourly Total	0	16	1	0	17	6	81	7	0	94	1	0	121	0	122	233
4:00 PM	0	4	1	0	5	1	26	2	0	29	0	1	34	0	35	69
4:15 PM	0	6	0	0	6	1	29	0	0	30	0	1	35	0	36	72
4:30 PM	0	1	0	0	1	3	17	0	0	20	0	0	32	0	32	53
4:45 PM	0	0	1	0	1	0	15	1	0	16	0	0	30	0	30	47
Hourly Total	0	11	2	0	13	5	87	3	0	95	0	2	131	0	133	241
5:00 PM	0	0	0	0	0	2	16	1	0	19	0	0	33	0	33	52
5:15 PM	0	0	0	0	0	0	22	0	0	22	0	0	28	0	28	50
5:30 PM	0	1	0	0	1	3	21	1	0	25	1	0	36	0	37	63
5:45 PM	0	0	0	0	0	0	15	0	0	15	0	0	23	0	23	38
Hourly Total	0	1	0	0	1	5	74	2	0	81	1	0	120	0	121	203
Grand Total	0	454	53	2	507	51	1506	394	1	1951	6	41	2217	0	2264	4722
Approach %	0.0	89.5	10.5	-	-	2.6	77.2	20.2	-	-	0.3	1.8	97.9	-	-	-
Total %	0.0	9.6	1.1	-	10.7	1.1	31.9	8.3	-	41.3	0.1	0.9	47.0	-	47.9	-
Lights	0	448	51	-	499	49	1420	390	-	1859	6	41	2115	-	2162	4520
% Lights	-	98.7	96.2	-	98.4	96.1	94.3	99.0	-	95.3	100.0	100.0	95.4	-	95.5	95.7
Buses	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Buses	-	0.0	0.0	-	0.0	0.0	0.1	0.0	-	0.1	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	2	-	3	1	18	3	-	22	0	0	40	-	40	65
% Single-Unit Trucks	-	0.2	3.8	-	0.6	2.0	1.2	0.8	-	1.1	0.0	0.0	1.8	-	1.8	1.4
Articulated Trucks	0	4	0	-	4	1	60	1	-	62	0	0	54	-	54	120
% Articulated Trucks	-	0.9	0.0	-	0.8	2.0	4.0	0.3	-	3.2	0.0	0.0	2.4	-	2.4	2.5
Bicycles on Road	0	1	0	-	1	0	7	0	-	7	0	0	7	-	7	15
% Bicycles on Road	-	0.2	0.0	-	0.2	0.0	0.5	0.0	-	0.4	0.0	0.0	0.3	-	0.3	0.3
Pedestrians	-	-	-	2	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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Count Name: Carriage Way Drive with Frontage
Road TMC
Site Code:
Start Date: 07/20/2023
Page No: 1

Turning Movement Data

Start Time	Carriage Way Drive Eastbound						Carriage Way Drive Westbound						Frontage Road Northbound						County Line Lane 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	3	55	0	58	0	0	11	0	0	11	0	19	0	0	0	19	0	0	0	1	1	1	89
7:15 AM	0	1	3	61	0	65	0	0	6	0	0	6	0	26	0	0	0	26	0	0	1	2	0	3	100
7:30 AM	0	0	4	90	0	94	0	0	11	0	0	11	0	17	0	0	0	17	0	0	0	2	0	2	124
7:45 AM	1	1	11	128	0	141	0	0	11	1	0	12	0	18	0	0	0	18	0	0	1	2	0	3	174
Hourly Total	1	2	21	334	0	358	0	0	39	1	0	40	0	80	0	0	0	80	0	0	2	7	1	9	487
8:00 AM	0	0	2	86	0	88	0	0	8	0	0	8	0	32	1	0	0	33	0	1	0	3	0	4	133
8:15 AM	0	0	3	91	0	94	0	0	8	0	0	8	0	30	0	0	0	30	0	1	1	3	0	5	137
8:30 AM	1	2	5	87	0	95	0	0	9	1	0	10	0	38	0	0	0	38	0	0	0	3	0	3	146
8:45 AM	1	1	7	113	0	122	0	0	9	0	0	9	0	41	0	0	0	41	0	0	3	1	0	4	176
Hourly Total	2	3	17	377	0	399	0	0	34	1	0	35	0	141	1	0	0	142	0	2	4	10	0	16	592
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	1	2	10	25	0	38	0	1	6	0	0	7	0	88	1	0	0	89	0	1	1	4	0	6	140
4:15 PM	0	2	10	28	0	40	0	0	3	0	0	3	0	58	1	0	0	59	0	0	0	1	0	1	103
4:30 PM	0	4	6	33	0	43	0	0	6	0	0	6	0	111	0	0	0	111	0	0	0	1	0	1	161
4:45 PM	0	1	9	22	0	32	0	0	5	0	0	5	0	77	0	0	0	77	0	1	0	3	0	4	118
Hourly Total	1	9	35	108	0	153	0	1	20	0	0	21	0	334	2	0	0	336	0	2	1	9	0	12	522
5:00 PM	0	2	8	23	0	33	0	0	4	3	0	7	0	108	0	0	0	108	0	2	0	1	0	3	151
5:15 PM	0	6	10	10	0	26	0	0	6	0	0	6	0	67	0	0	0	67	0	0	0	1	0	1	100
5:30 PM	1	3	12	12	0	28	0	0	5	0	0	5	0	71	0	0	0	71	0	3	0	3	1	6	110
5:45 PM	0	2	15	11	0	28	0	0	7	1	0	8	0	51	0	0	0	51	0	2	0	1	0	3	90
Hourly Total	1	13	45	56	0	115	0	0	22	4	0	26	0	297	0	0	0	297	0	7	0	6	1	13	451
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	1	4	7	10	0	22	0	1	8	0	0	9	0	8	0	1	0	9	0	2	0	3	0	5	45
10:15 AM	0	0	1	7	0	8	0	0	7	0	0	7	0	7	0	0	0	7	0	2	0	2	0	4	26
10:30 AM	1	1	8	7	0	17	0	0	4	0	0	4	0	13	0	0	0	13	0	1	0	0	0	1	35
10:45 AM	1	0	3	6	0	10	0	0	10	2	0	12	0	7	0	0	0	7	0	2	0	0	0	2	31
Hourly Total	3	5	19	30	0	57	0	1	29	2	0	32	0	35	0	1	0	36	0	7	0	5	0	12	137
11:00 AM	1	4	5	5	0	15	0	0	10	0	0	10	0	9	0	1	0	10	0	1	0	2	0	3	38
11:15 AM	0	2	6	3	0	11	1	1	9	0	0	11	0	4	0	0	0	4	0	1	0	1	0	2	28
11:30 AM	1	2	6	5	0	14	0	0	8	0	0	8	0	7	0	0	0	7	0	0	0	4	0	4	33
11:45 AM	0	1	11	8	0	20	0	1	10	0	0	11	0	7	0	0	0	7	0	2	0	0	0	2	40
Hourly Total	2	9	28	21	0	60	1	2	37	0	0	40	0	27	0	1	0	28	0	4	0	7	0	11	139
12:00 PM	1	3	7	7	0	18	0	0	7	0	0	7	0	9	0	0	0	9	0	0	0	3	0	3	37
12:15 PM	1	4	7	7	0	19	0	0	4	0	0	4	0	10	0	0	0	10	0	1	0	4	0	5	38
12:30 PM	0	1	7	6	0	14	0	0	5	1	0	6	0	9	0	0	0	9	0	1	0	1	0	2	31

12:45 PM	0	1	13	7	0	21	0	0	8	0	0	8	0	12	0	0	0	12	0	2	0	1	0	3	44
Hourly Total	2	9	34	27	0	72	0	0	24	1	0	25	0	40	0	0	0	40	0	4	0	9	0	13	150
1:00 PM	1	4	4	4	0	13	0	0	10	0	0	10	0	9	0	0	0	9	0	1	0	0	0	1	33
1:15 PM	0	2	4	6	0	12	0	0	5	0	0	5	0	23	0	0	0	23	0	0	0	1	0	1	41
1:30 PM	0	0	5	5	0	10	0	0	10	1	0	11	0	16	0	1	0	17	0	2	0	2	0	4	42
1:45 PM	1	0	5	6	0	12	0	0	5	0	0	5	0	3	0	0	0	3	0	0	0	0	0	0	20
Hourly Total	2	6	18	21	0	47	0	0	30	1	0	31	0	51	0	1	0	52	0	3	0	3	0	6	136
2:00 PM	0	1	6	7	0	14	0	0	8	1	0	9	0	9	0	0	0	9	0	0	0	2	0	2	34
2:15 PM	0	0	9	5	0	14	0	0	11	0	0	11	0	10	0	0	0	10	0	2	0	0	0	2	37
2:30 PM	1	3	4	6	0	14	0	0	3	0	0	3	0	8	0	0	0	8	0	1	0	2	0	3	28
2:45 PM	1	0	4	4	0	9	0	0	2	1	0	3	0	7	0	0	0	7	0	1	0	3	0	4	23
Hourly Total	2	4	23	22	0	51	0	0	24	2	0	26	0	34	0	0	0	34	0	4	0	7	0	11	122
3:00 PM	0	4	11	2	0	17	0	0	7	0	0	7	0	10	0	0	0	10	0	0	0	1	0	1	35
3:15 PM	1	1	7	2	0	11	0	0	5	1	0	6	0	9	0	0	0	9	0	0	0	1	0	1	27
3:30 PM	2	0	6	3	0	11	0	0	6	0	0	6	0	11	0	0	0	11	0	3	0	0	0	3	31
3:45 PM	1	5	9	4	0	19	0	0	8	0	0	8	0	5	0	0	0	5	0	0	0	4	0	4	36
Hourly Total	4	10	33	11	0	58	0	0	26	1	0	27	0	35	0	0	0	35	0	3	0	6	0	9	129
4:00 PM	0	2	12	1	0	15	0	0	3	0	0	3	0	4	0	0	0	4	0	1	0	1	0	2	24
4:15 PM	0	0	10	1	0	11	0	0	0	0	0	0	0	4	0	0	0	4	0	2	0	3	0	5	20
4:30 PM	0	3	5	3	0	11	0	0	6	0	0	6	0	4	0	0	0	4	0	1	0	0	0	1	22
4:45 PM	1	0	8	1	0	10	0	0	4	0	0	4	0	4	0	0	0	4	0	2	0	2	0	4	22
Hourly Total	1	5	35	6	0	47	0	0	13	0	0	13	0	16	0	0	0	16	0	6	0	6	0	12	88
5:00 PM	0	3	7	0	0	10	0	1	3	0	0	4	0	4	0	1	0	5	0	1	0	1	0	2	21
5:15 PM	1	1	9	0	0	11	0	0	2	0	0	2	0	3	0	0	0	3	0	2	0	1	1	3	19
5:30 PM	1	0	7	0	0	8	0	0	2	0	0	2	0	1	0	0	0	1	0	0	0	2	0	2	13
5:45 PM	2	0	8	3	0	13	0	0	10	0	0	10	0	2	0	1	0	3	0	0	0	0	0	0	26
Hourly Total	4	4	31	3	0	42	0	1	17	0	0	18	0	10	0	2	0	12	0	3	0	4	1	7	79
Grand Total	25	79	339	1016	0	1459	1	5	315	13	0	334	0	1100	3	5	0	1108	0	45	7	79	3	131	3032
Approach %	1.7	5.4	23.2	69.6	-	-	0.3	1.5	94.3	3.9	-	-	0.0	99.3	0.3	0.5	-	-	0.0	34.4	5.3	60.3	-	-	-
Total %	0.8	2.6	11.2	33.5	-	48.1	0.0	0.2	10.4	0.4	-	11.0	0.0	36.3	0.1	0.2	-	36.5	0.0	1.5	0.2	2.6	-	4.3	-
Lights	25	78	332	989	-	1424	1	4	309	12	-	326	0	1066	3	5	-	1074	0	44	7	79	-	130	2954
% Lights	100.0	98.7	97.9	97.3	-	97.6	100.0	80.0	98.1	92.3	-	97.6	-	96.9	100.0	100.0	-	96.9	-	97.8	100.0	100.0	-	99.2	97.4
Buses	0	0	1	5	-	6	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	8
% Buses	0.0	0.0	0.3	0.5	-	0.4	0.0	0.0	0.0	0.0	-	0.0	-	0.2	0.0	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	1	0	15	-	16	0	1	3	1	-	5	0	26	0	0	-	26	0	0	0	0	-	0	47
% Single-Unit Trucks	0.0	1.3	0.0	1.5	-	1.1	0.0	20.0	1.0	7.7	-	1.5	-	2.4	0.0	0.0	-	2.3	-	0.0	0.0	0.0	-	0.0	1.6
Articulated Trucks	0	0	0	7	-	7	0	0	0	0	-	0	0	6	0	0	-	6	0	0	0	0	-	0	13
% Articulated Trucks	0.0	0.0	0.0	0.7	-	0.5	0.0	0.0	0.0	0.0	-	0.0	-	0.5	0.0	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	6	0	-	6	0	0	3	0	-	3	0	0	0	0	-	0	0	1	0	0	-	1	10
% Bicycles on Road	0.0	0.0	1.8	0.0	-	0.4	0.0	0.0	1.0	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	2.2	0.0	0.0	-	0.8	0.3
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

[illegible]

[illegible]

[illegible]

TEAPAC[Ver 9.50.02] - 15-Minute Counts: All Vehicles - by Mvmt

Int# 2 veterans/office

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
700	0	0	0	0	0	3	0	0	0	0	0	0	3
715	0	0	0	0	0	5	0	0	0	0	0	0	5
730	0	0	0	0	0	3	0	0	0	0	0	0	3
745	0	0	0	0	0	7	0	0	0	0	0	0	7
800	0	0	0	0	0	7	0	0	0	0	0	0	7
815	0	0	0	0	0	8	0	0	0	0	0	0	8
830	0	0	0	0	0	7	1	0	0	0	0	0	8
845	0	0	0	0	0	2	2	0	0	0	0	0	4
1600	0	0	0	0	0	0	2	0	0	0	0	0	2
1615	0	0	0	0	0	0	3	0	0	0	0	0	3
1630	0	0	0	0	0	1	17	0	0	0	0	0	18
1645	0	0	0	0	0	1	8	0	0	0	0	0	9
1700	0	0	0	0	0	1	35	0	0	0	0	0	36
1715	0	0	0	0	0	0	8	0	0	0	0	0	8
1730	0	0	0	0	0	0	3	0	0	0	0	0	3
1745	0	0	0	0	0	0	3	0	0	0	0	0	3
Total	0	0	0	0	0	45	82	0	0	0	0	0	127

TEAPAC[Ver 9.50.02] - 15-Minute Counts: All Vehicles - Totals

Int# 2 veterans/office

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	0	3	0	0	0	0	3	0	3
715	0	5	0	0	0	0	5	0	5
730	0	3	0	0	0	0	3	0	3
745	0	7	0	0	0	0	7	0	7
800	0	7	0	0	0	0	7	0	7
815	0	8	0	0	0	0	8	0	8
830	0	7	1	0	0	1	7	0	8
845	0	2	2	0	0	2	2	0	4
1600	0	0	2	0	0	2	0	0	2
1615	0	0	3	0	0	3	0	0	3
1630	0	1	17	0	0	17	1	0	18
1645	0	1	8	0	0	8	1	0	9
1700	0	1	35	0	0	35	1	0	36
1715	0	0	8	0	0	8	0	0	8
1730	0	0	3	0	0	3	0	0	3
1745	0	0	3	0	0	3	0	0	3
Total	0	45	82	0	0	82	45	0	127

Int# 4 veterans/office/sat

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
1100	0	0	0	0	0	0	0	0	0	0	0	0	0
1115	0	0	0	0	0	0	0	0	0	0	0	0	0
1130	0	0	0	0	0	1	1	0	0	0	0	0	2
1145	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	0	0	0	0	0	0	0	0	0	0	0	0	0
1215	0	0	0	0	0	0	0	0	0	0	0	0	0
1230	0	0	0	0	0	0	0	0	0	0	0	0	0
1245	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	0	0	0	2

Int# 4 veterans/office/sat

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
1100	0	0	0	0	0	0	0	0	0
1115	0	0	0	0	0	0	0	0	0
1130	0	1	1	0	0	1	1	0	2
1145	0	0	0	0	0	0	0	0	0
1200	0	0	0	0	0	0	0	0	0
1215	0	0	0	0	0	0	0	0	0
1230	0	0	0	0	0	0	0	0	0
1245	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	1	1	0	2

Int# 4 veterans/office/sat

[illegible]

TEAPAC[Ver 9.50.02] - 15-Minute Counts: All Vehicles - by Mvmt

Int# 1 veterans/cnhacc

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
700	0	0	0	0	15	24	0	0	0	0	1	0	40
715	0	0	0	0	19	29	1	0	0	1	0	0	50
730	0	0	0	0	18	41	3	0	0	2	0	0	64
745	0	0	0	0	29	36	4	0	0	4	2	0	75
800	0	0	0	0	24	34	1	0	1	1	2	0	63
815	0	0	0	0	15	28	2	0	0	2	3	0	50
830	0	0	0	0	16	34	4	0	0	0	2	0	56
845	0	0	0	0	11	23	4	0	0	0	2	0	40
1600	0	0	0	0	1	2	20	0	0	0	15	0	38
1615	0	0	0	0	1	4	25	0	1	1	18	0	50
1630	0	0	0	0	4	2	30	0	0	1	18	0	55
1645	0	0	0	0	1	1	25	0	0	0	13	0	40
1700	0	0	0	0	1	2	41	0	0	0	16	0	60
1715	0	0	0	0	0	3	35	0	0	0	11	0	49
1730	0	0	0	0	0	1	30	0	0	1	17	0	49
1745	0	0	0	0	0	2	19	0	0	0	9	0	30
Total	0	0	0	0	155	266	244	0	2	13	129	0	809

TEAPAC[Ver 9.50.02] - 15-Minute Counts: All Vehicles - Totals

Int# 1 veterans/cnhacc

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	0	39	0	1	0	1	24	15	40
715	0	48	1	1	0	1	30	19	50
730	0	59	3	2	0	3	43	18	64
745	0	65	4	6	0	6	40	29	75
800	0	58	2	3	0	3	35	25	63
815	0	43	2	5	0	5	30	15	50
830	0	50	4	2	0	6	34	16	56
845	0	34	4	2	0	6	23	11	40
1600	0	3	20	15	0	35	2	1	38
1615	0	5	26	19	0	43	5	2	50
1630	0	6	30	19	0	48	3	4	55
1645	0	2	25	13	0	38	1	1	40
1700	0	3	41	16	0	57	2	1	60
1715	0	3	35	11	0	46	3	0	49
1730	0	1	30	18	0	47	2	0	49
1745	0	2	19	9	0	28	2	0	30
Total	0	421	246	142	0	373	279	157	809

TEAPAC[Ver 9.50.02] - 15-Minute Counts: All Vehicles - by Mvmt

Int# 3 veterans/cnh/sat

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
1100	0	0	0	0	0	0	1	0	0	0	0	0	1
1115	0	0	0	0	1	1	2	0	0	1	0	0	5
1130	0	0	0	0	0	1	2	0	0	0	0	0	3
1145	0	0	0	0	0	1	2	0	0	0	0	0	3
1200	0	0	0	0	0	0	3	0	0	0	0	0	3
1215	0	0	0	0	0	1	8	0	0	0	0	0	9
1230	0	0	0	0	0	1	3	0	0	0	1	0	5
1245	0	0	0	0	0	1	5	0	0	0	0	0	6
Total	0	0	0	0	1	6	26	0	0	1	1	0	35

TEAPAC[Ver 9.50.02] - 15-Minute Counts: All Vehicles - Totals

Int# 3 veterans/cnh/sat

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
1100	0	0	1	0	0	1	0	0	1
1115	0	2	2	1	0	2	2	1	5
1130	0	1	2	0	0	2	1	0	3
1145	0	1	2	0	0	2	1	0	3
1200	0	0	3	0	0	3	0	0	3
1215	0	1	8	0	0	8	1	0	9
1230	0	1	3	1	0	4	1	0	5
1245	0	1	5	0	0	5	1	0	6
Total	0	7	26	2	0	27	7	1	35

TEAPAC[Ver 9.50.02] - 15-Minute Flow Rates: by Movement

Int# 3 veterans/cnh/sat

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
1100	0	0	0	0	0	0	4	0	0	0	0	0	4
1115	0	0	0	0	4	4	8	0	0	4	0	0	20
1130	0	0	0	0	0	4	8	0	0	0	0	0	12
1145	0	0	0	0	0	4	8	0	0	0	0	0	12
1200	0	0	0	0	0	0	12	0	0	0	0	0	12
1215	0	0	0	0	0	4	32	0	0	0	0	0	36
1230	0	0	0	0	0	4	12	0	0	0	4	0	20
1245	0	0	0	0	0	4	20	0	0	0	0	0	24

DRAFT

Preliminary Site Plan

ITE Trip Generation Worksheets

General Light Industrial (110)

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

Setting/Location: General Urban/Suburban

Number of Studies: 37

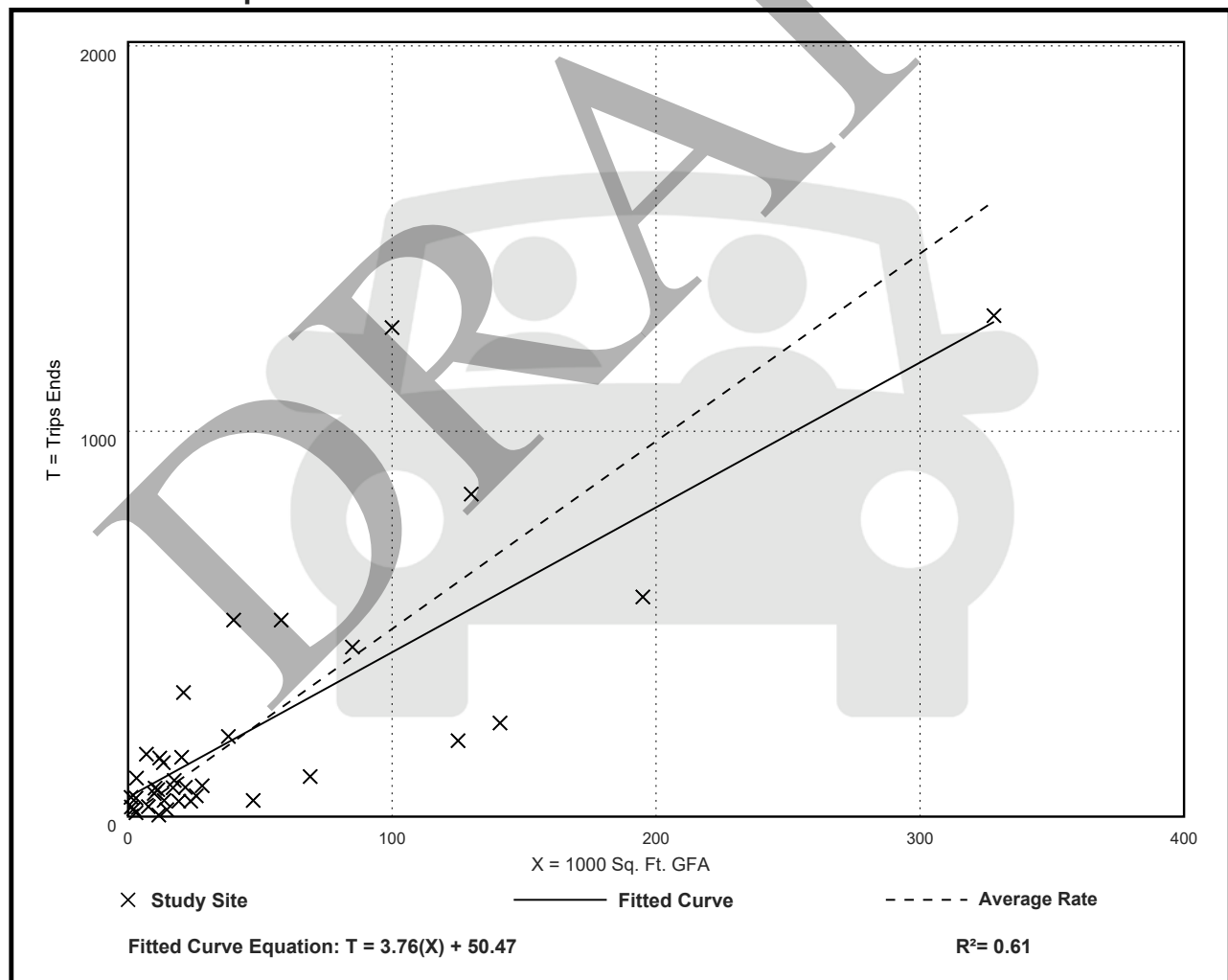
Avg. 1000 Sq. Ft. GFA: 45

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.87	0.34 - 43.86	4.08

Data Plot and Equation



General Light Industrial (110)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 41

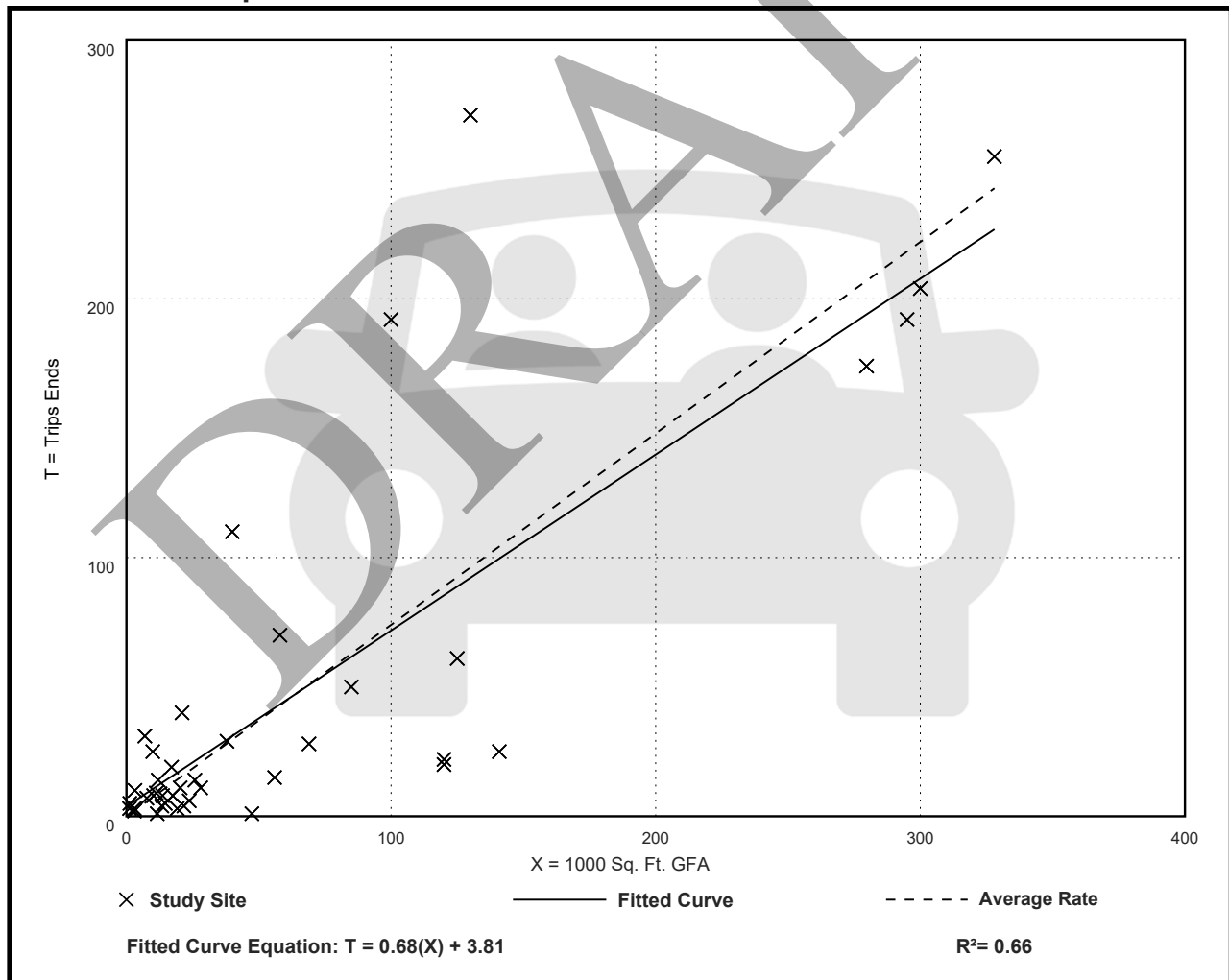
Avg. 1000 Sq. Ft. GFA: 65

Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.74	0.02 - 4.46	0.61

Data Plot and Equation



General Light Industrial (110)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 40

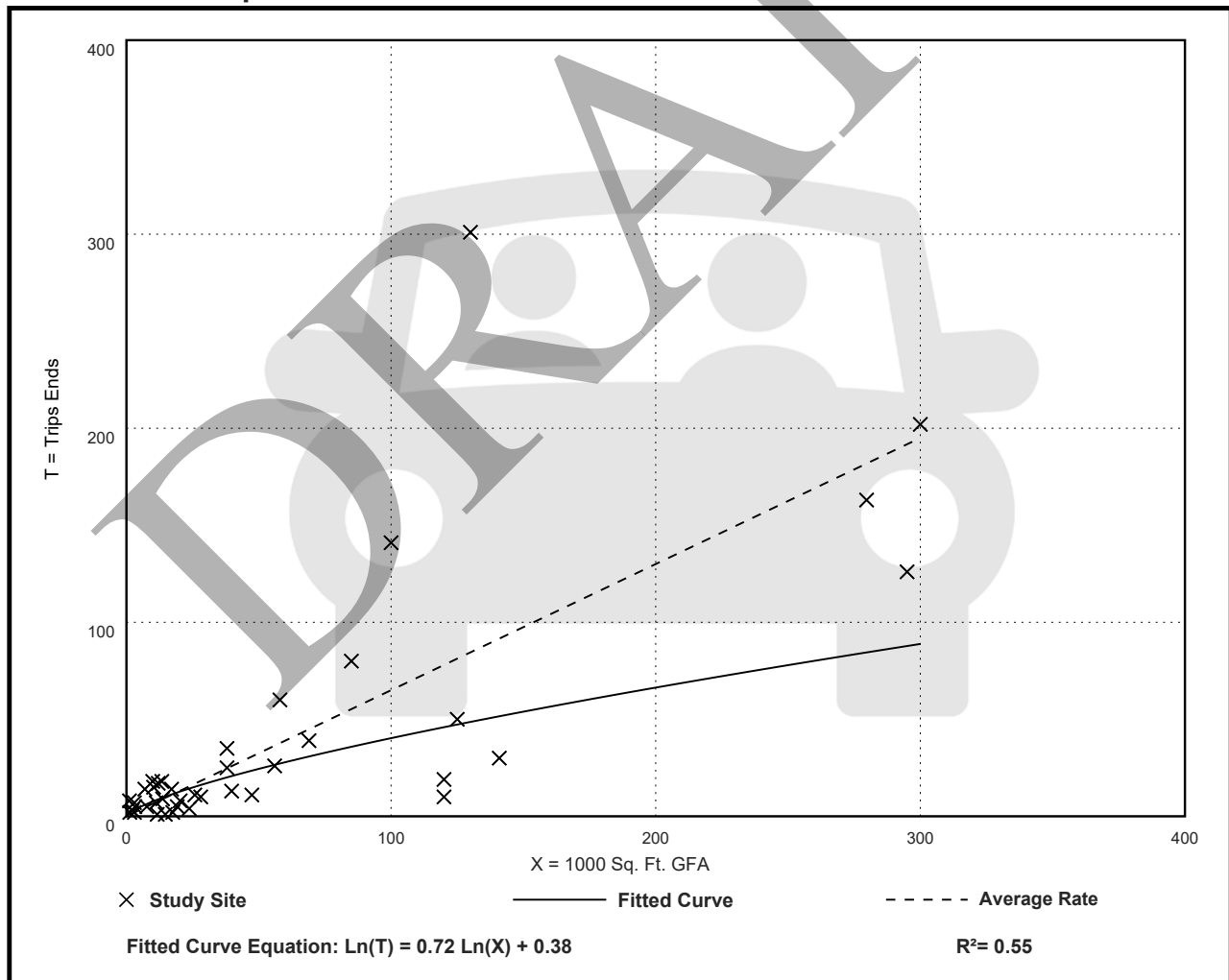
Avg. 1000 Sq. Ft. GFA: 58

Directional Distribution: 14% entering, 86% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.65	0.07 - 7.02	0.56

Data Plot and Equation



Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 22

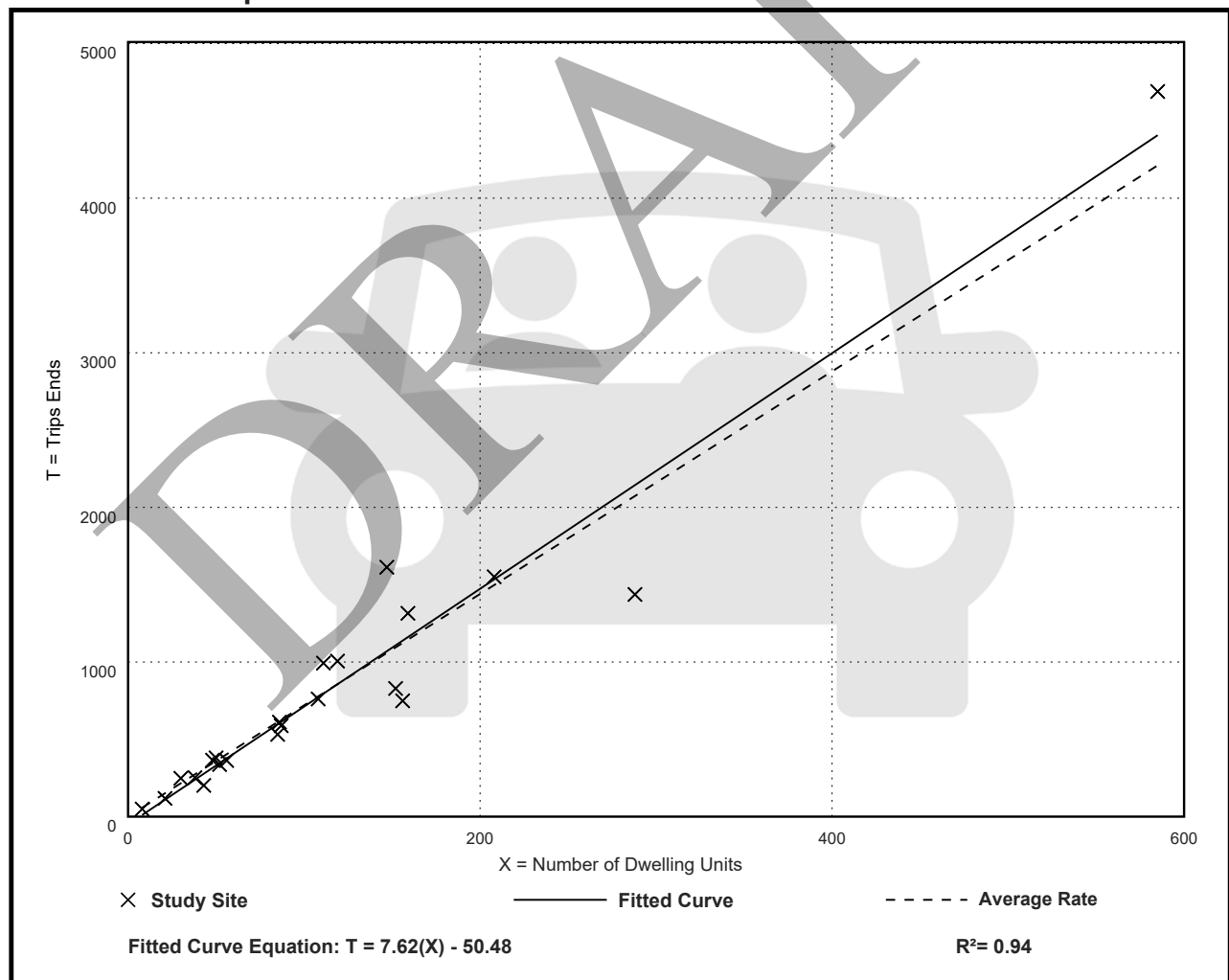
Avg. Num. of Dwelling Units: 120

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 46

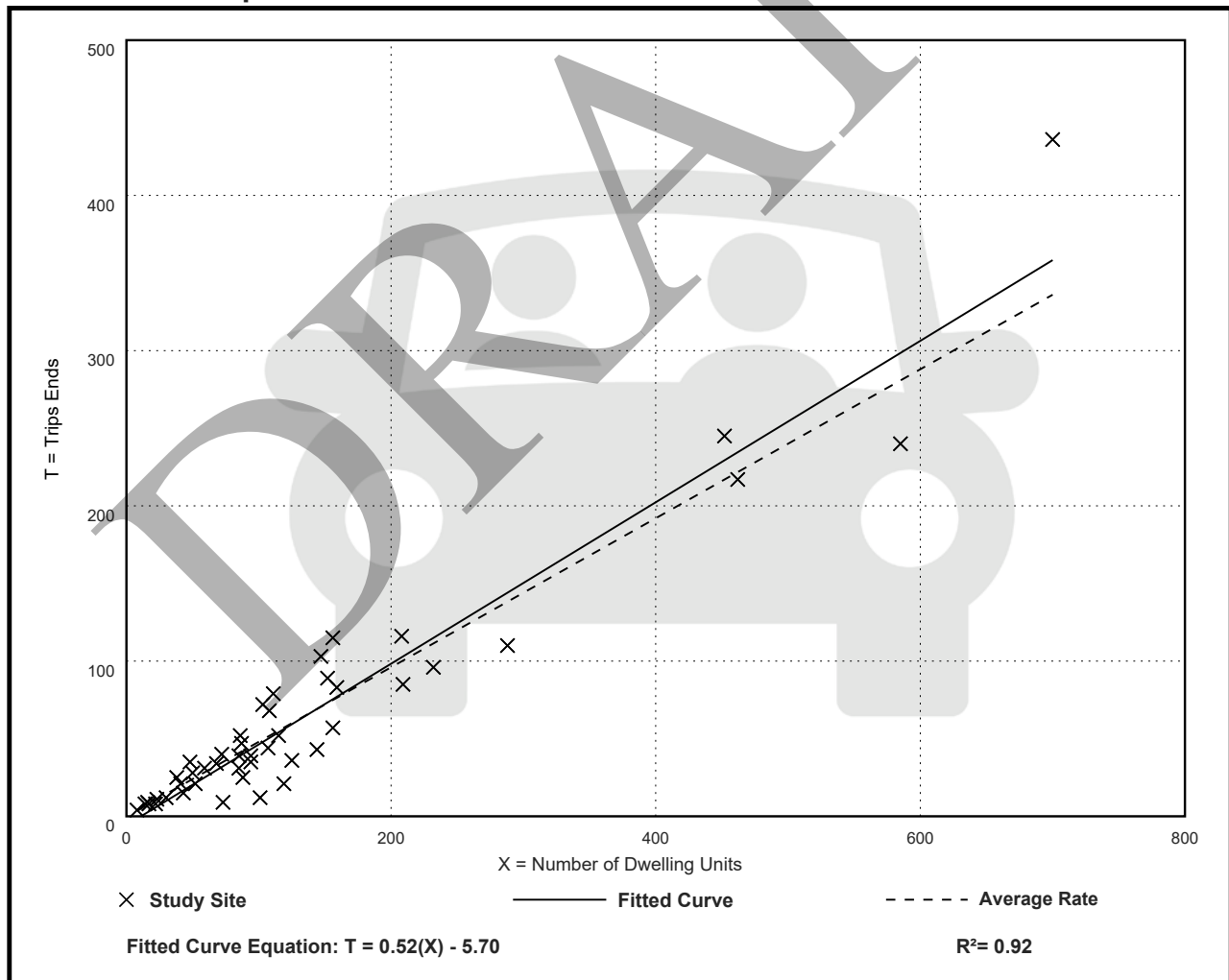
Avg. Num. of Dwelling Units: 135

Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 51

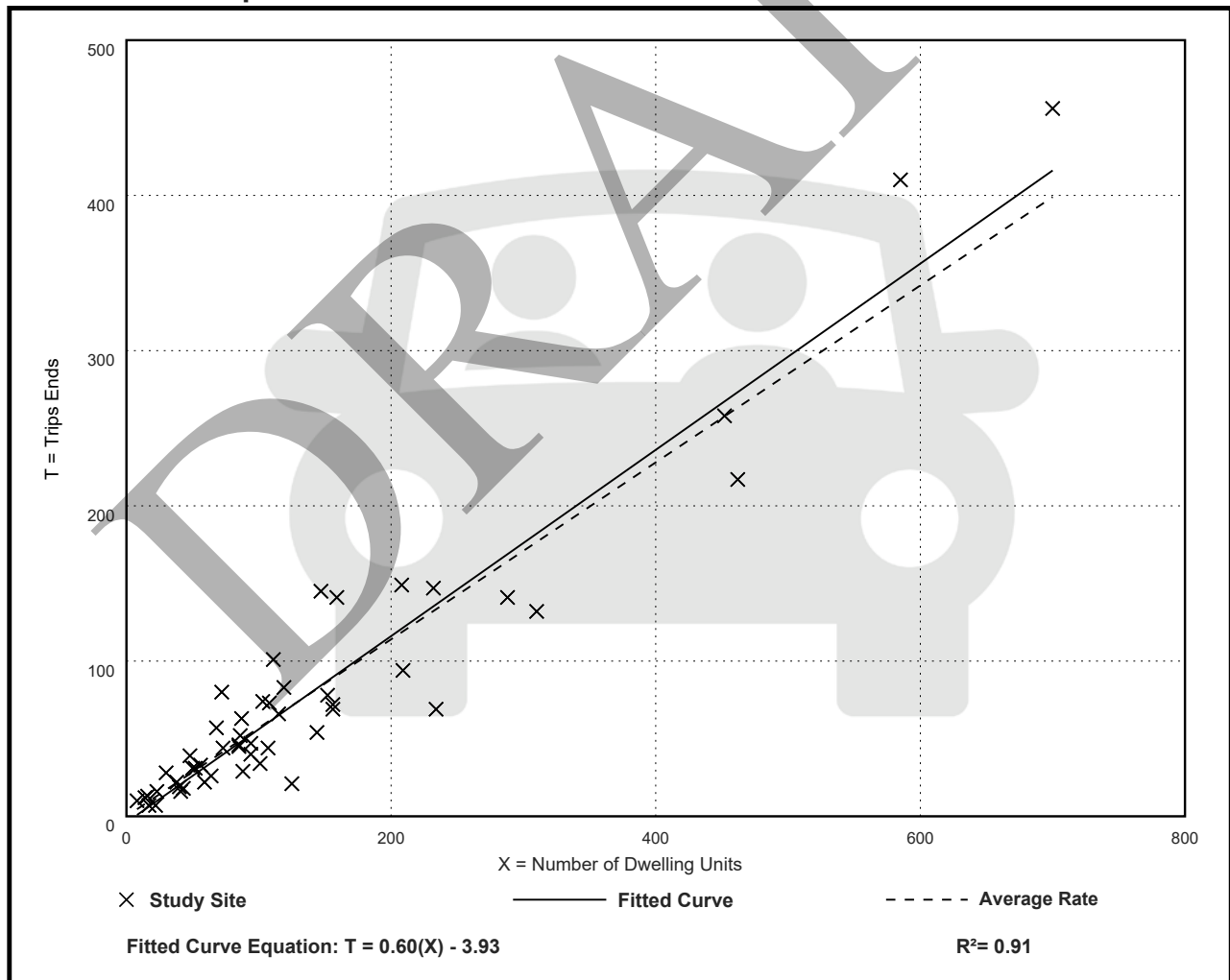
Avg. Num. of Dwelling Units: 136

Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 7

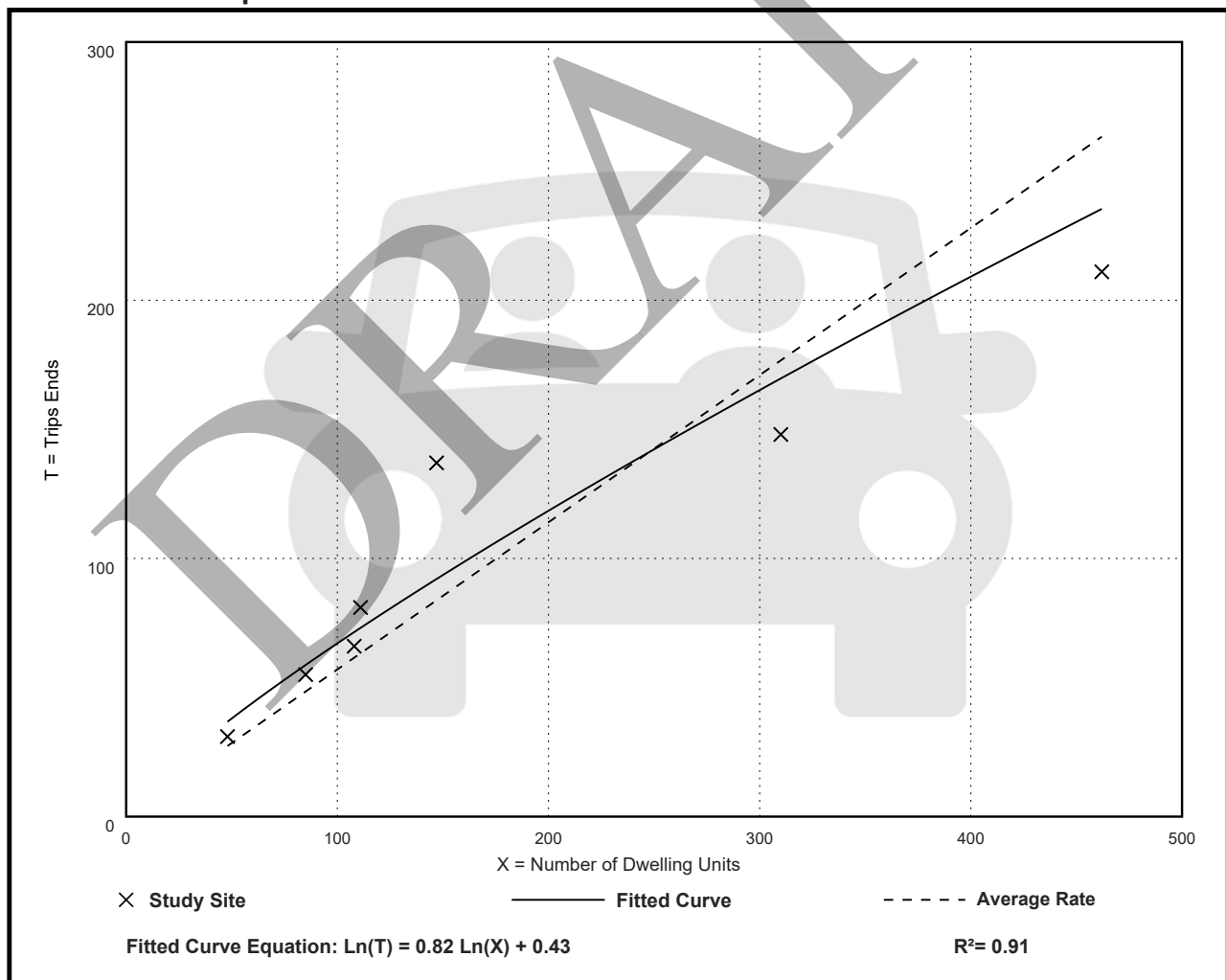
Avg. Num. of Dwelling Units: 182

Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.46 - 0.93	0.17

Data Plot and Equation



CMAP Projections Letter



July 31st, 2023

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

Subject: Plainfield Rd, County Line Rd, Madison St
IDOT

Dear Mr. Bowen:

In response to a request made on your behalf and dated July 28th, 2023, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

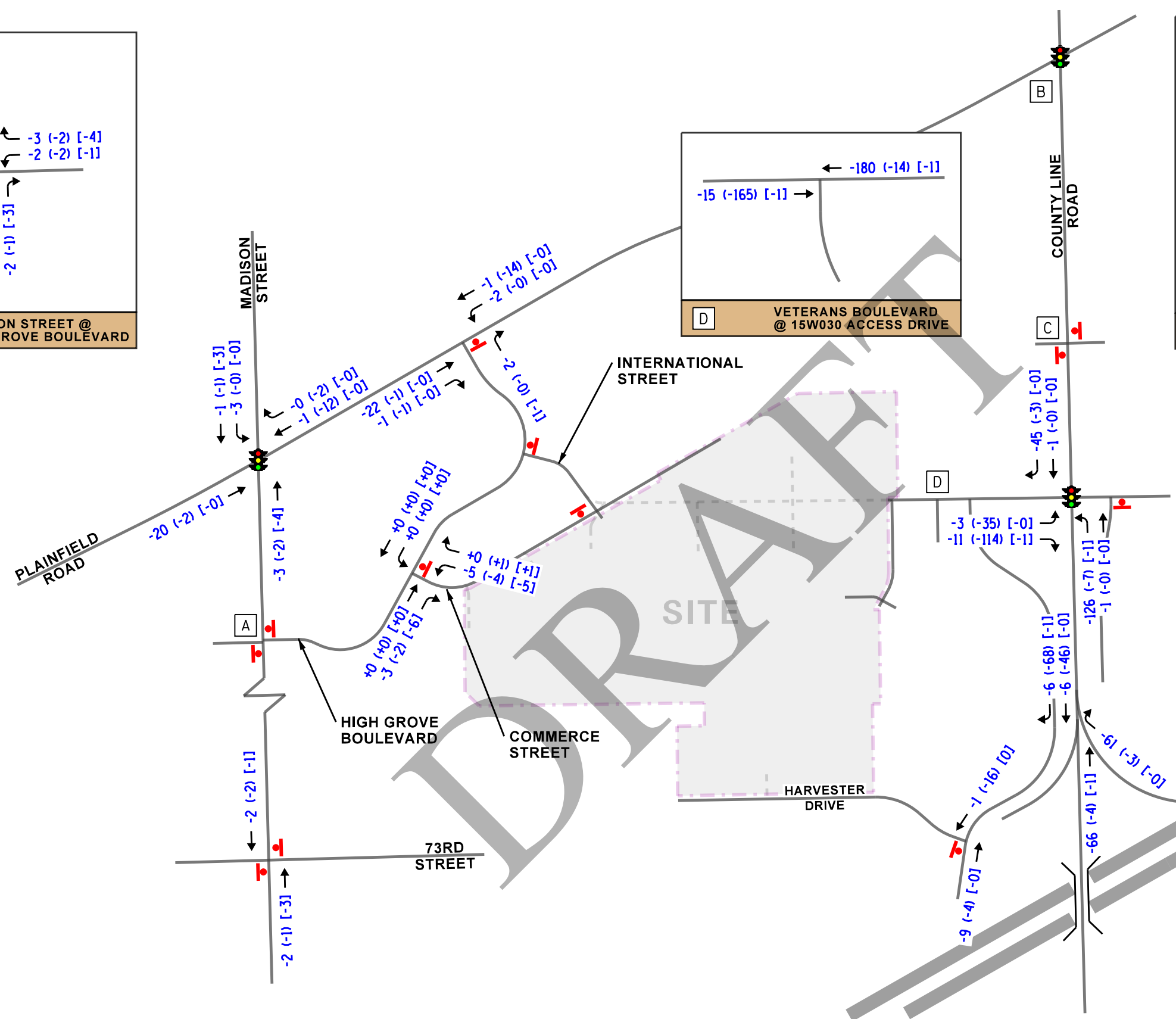
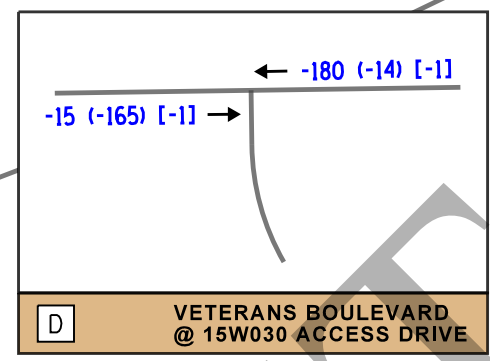
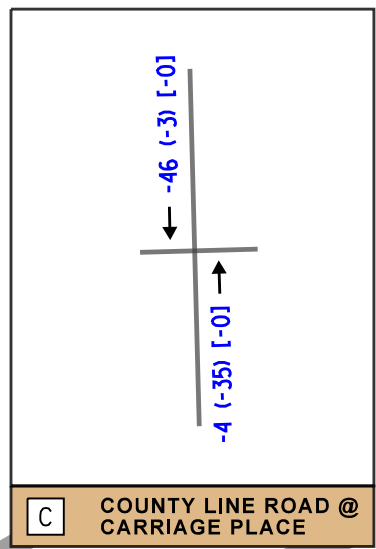
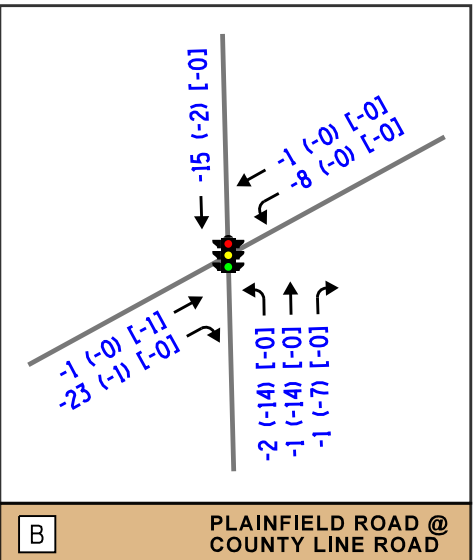
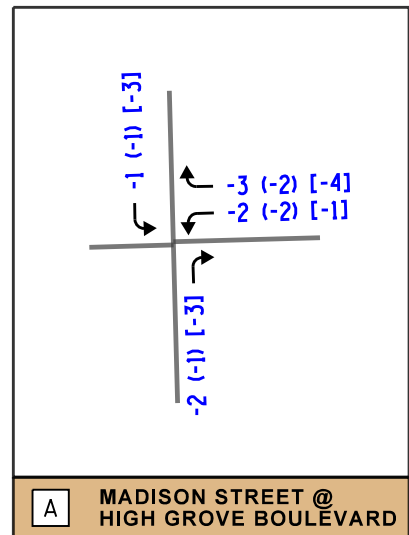
ROAD SEGMENT	Current ADT	Year 2050 ADT
Plainfield Rd east of County Line Rd	9,650	11,000
County Line Rd north of Plainfield Rd	10,700	11,900
County Line Rd south of Plainfield Rd	18,200	19,400
Madison St south of Plainfield Rd	8,800	9,400
Plainfield Rd west of County Line Rd	21,700	23,100

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

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

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

Figure A (Removal of Existing Traffic)



- LEGEND**
- 00 - WEEKDAY AM PEAK HOUR (7:45-8:45 AM)
 - (00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)
 - [00] - SATURDAY PEAK HOUR (11:30 AM-12:00 PM)

CNH INDUSTRIAL CAMPUS
BURR RIDGE, ILLINOIS

REMOVAL OF EXISTING CNH TRAFFIC, REMOVAL OF EXISTING PUBLIC WORKS BUILDING TRAFFIC,
AND VACATION OF COMMERCE STREET



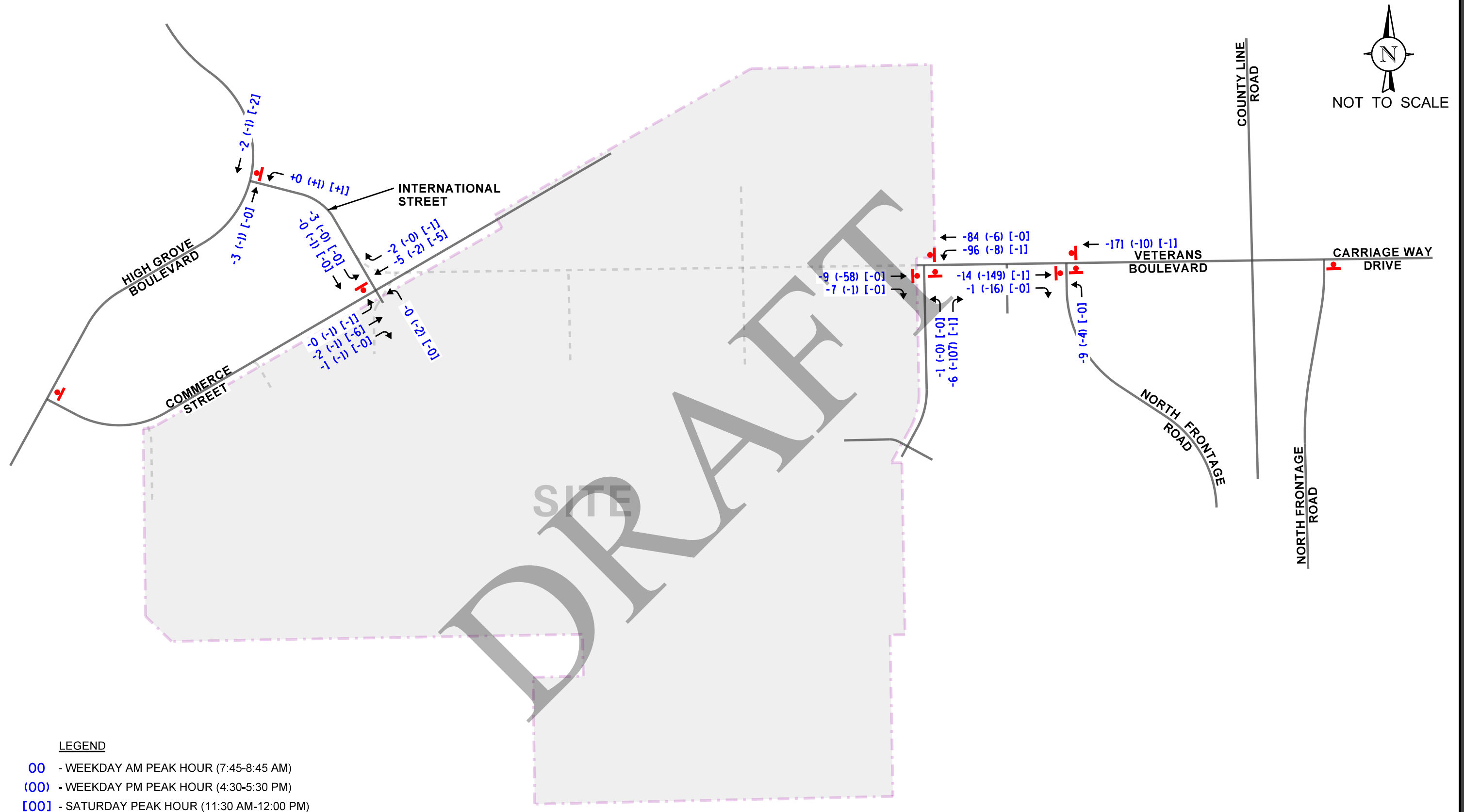
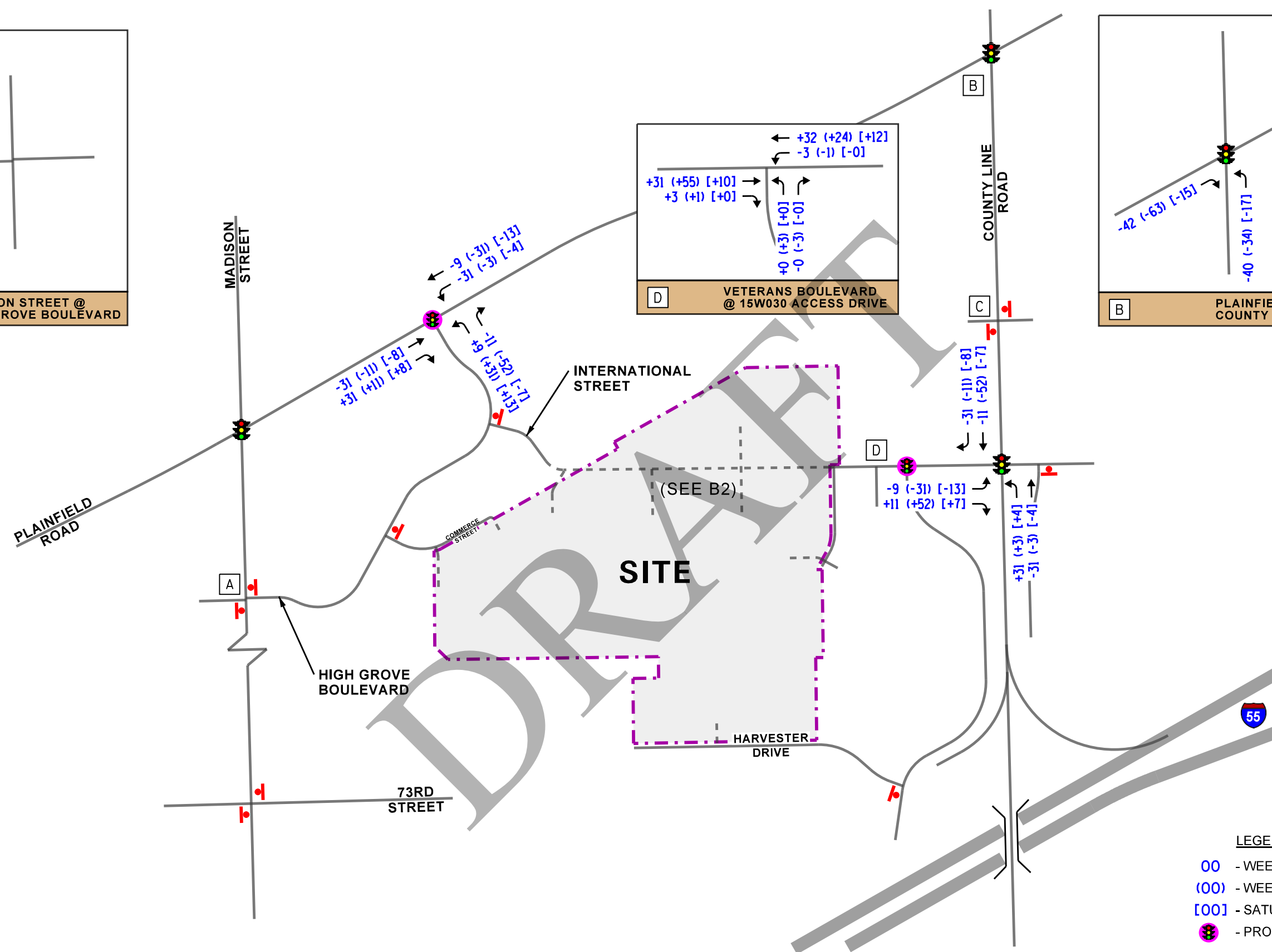
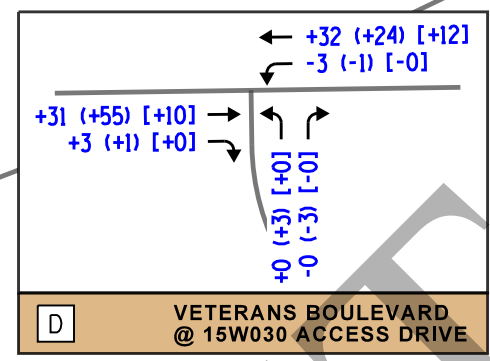
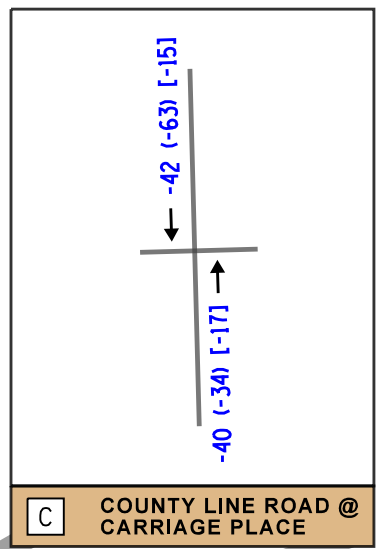
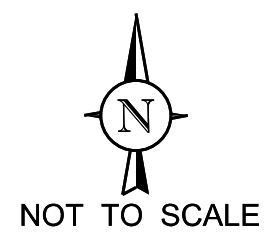
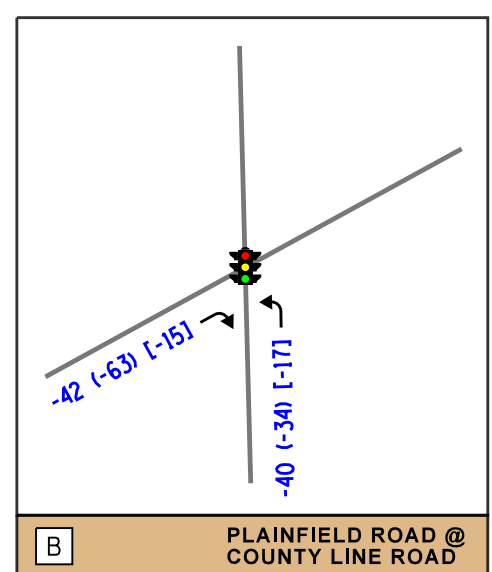
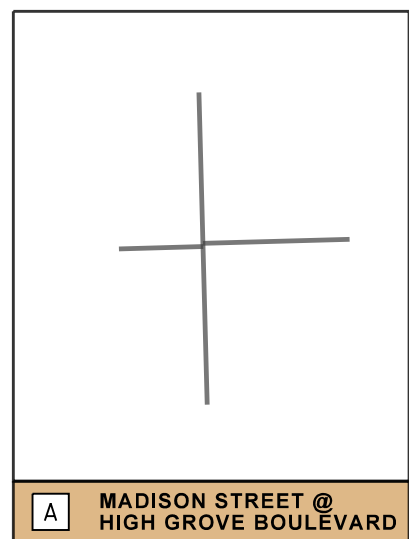


Figure B (Reassignment of Existing Traffic)



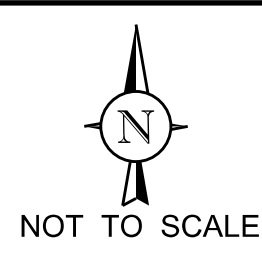
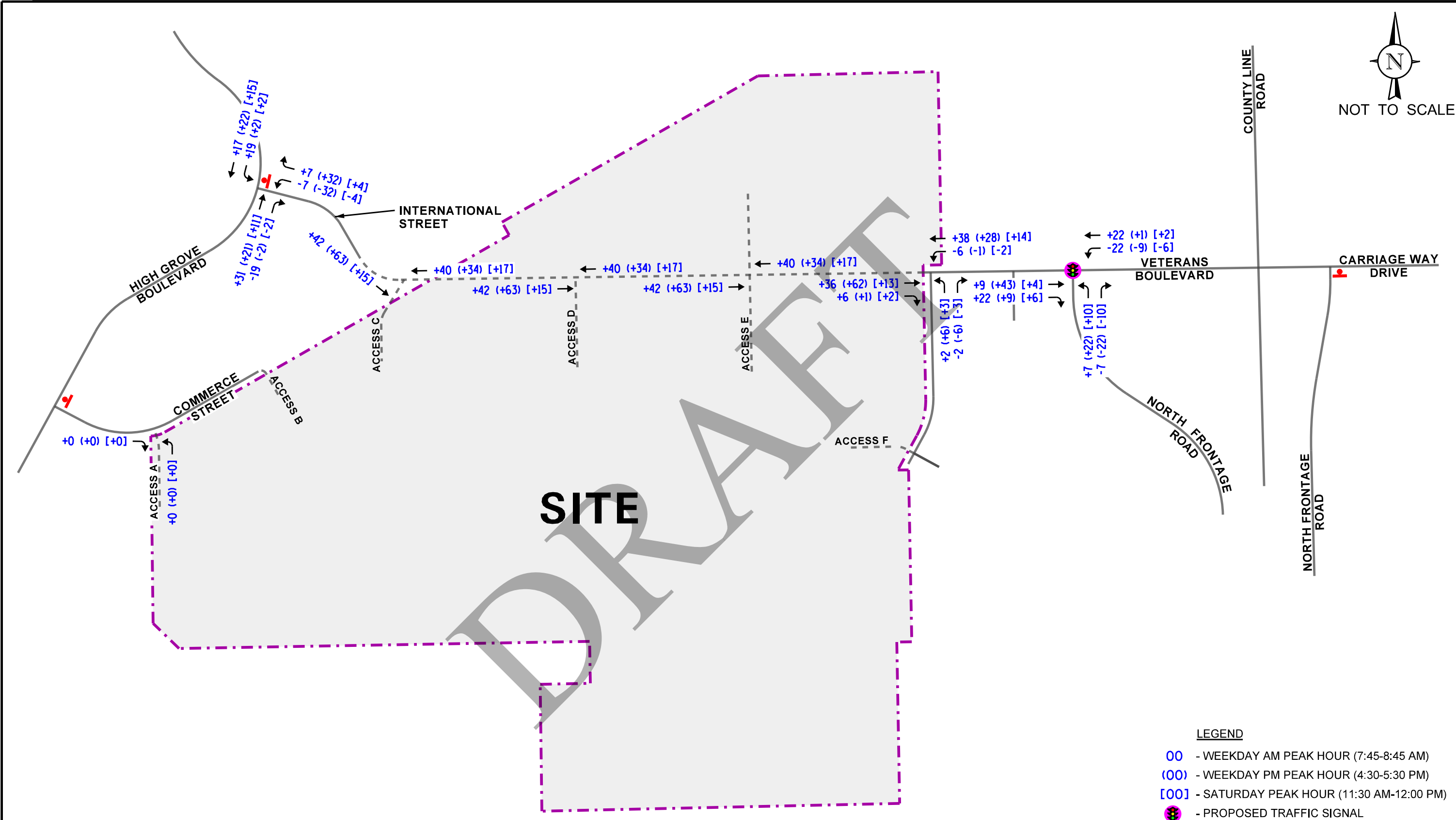
- LEGEND**
- 00** - WEEKDAY AM PEAK HOUR (7:45-8:45 AM)
 - (00)** - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)
 - [00]** - SATURDAY PEAK HOUR (11:30 AM-12:00 PM)
 - PROPOSED TRAFFIC SIGNAL

CNH INDUSTRIAL CAMPUS
BURR RIDGE, ILLINOIS

REASSIGNMENT OF TRAFFIC TO PROPOSED VETERANS BOULEVARD EXTENSION



Job No: 23-091 Figure: B1



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 Conditions

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	317	437	154	240	31	412	497	109	16	288	18
Future Volume (vph)	75	317	437	154	240	31	412	497	109	16	288	18
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.913			0.983			0.973			0.991	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3179	0	1752	3457	0	1752	3387	0	1703	3507	0
Flt Permitted	0.574			0.141			0.410			0.404		
Satd. Flow (perm)	1059	3179	0	260	3457	0	756	3387	0	724	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		235			10			22			4	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	6%	2%	3%	3%	0%	3%	3%	7%	6%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	811	0	166	291	0	443	651	0	17	329	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	44.6	33.5		51.8	39.8		52.5	46.3		30.6	21.8	
Actuated g/C Ratio	0.40	0.30		0.46	0.36		0.47	0.41		0.27	0.20	

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.17	0.73		0.58	0.24		0.77	0.46		0.07	0.48	
Control Delay	20.4	30.5		28.0	27.9		31.2	24.9		19.7	43.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.4	30.5		28.0	27.9		31.2	24.9		19.7	43.1	
LOS	C	C		C	C		C	C		B	D	
Approach Delay		29.6			27.9			27.4			41.9	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	32	195		68	76		218	157		6	110	
Queue Length 95th (ft)	73	341		137	135		346	265		20	176	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	525	1150		414	1396		642	1684		337	1093	
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	0.15	0.71		0.40	0.21		0.69	0.39		0.05	0.30	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 111.7

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 30.0

Intersection LOS: C

Intersection Capacity Utilization 83.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: County Line Road & Plainfield Road

↖ Ø1 25 s	→ Ø2 40 s	↖ Ø3 35 s	↓ Ø4 40 s
↗ Ø5 15 s	← Ø6 50 s	↗ Ø7 15 s	↑ Ø8 60 s

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	14	160	96	11	57	389	921	285	117	627	140
Future Volume (vph)	37	14	160	96	11	57	389	921	285	117	627	140
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		0
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850		0.874				0.850		0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1754	1468	1532	1467	0	1719	3689	1599	1770	3450	0
Flt Permitted				0.615			0.198			0.283		
Satd. Flow (perm)	1810	1754	1468	991	1467	0	358	3689	1599	527	3450	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			176		63				313		20	
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	14%	10%	10%	9%	5%	5%	3%	1%	2%	2%	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)	41	15	176	105	75	0	427	1012	313	129	843	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	6.5	14.0	6.5	6.5	14.0		6.5	21.0	6.5	6.5	21.0	
Total Split (s)	20.0	40.0	30.0	20.0	40.0		30.0	60.0	20.0	20.0	50.0	
Total Split (%)	14.3%	28.6%	21.4%	14.3%	28.6%		21.4%	42.9%	14.3%	14.3%	35.7%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	0.0	1.5	0.0	0.0	1.5		0.0	1.5	0.0	0.0	1.5	
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	6.0	3.5	3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	11.6	8.3	32.1	19.5	10.3		74.2	60.1	80.5	51.6	41.1	
Actuated g/C Ratio	0.12	0.08	0.32	0.19	0.10		0.74	0.60	0.80	0.51	0.41	

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.20	0.10	0.30	0.39	0.36		0.68	0.46	0.23	0.35	0.59	
Control Delay	38.3	49.8	5.2	39.3	20.4		19.0	13.6	1.0	10.8	25.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	38.3	49.8	5.2	39.3	20.4		19.0	13.6	1.0	10.8	25.7	
LOS	D	D	A	D	C		B	B	A	B	C	
Approach Delay		13.9			31.4			12.6			23.7	
Approach LOS		B			C			B			C	
Queue Length 50th (ft)	27	10	0	61	8		122	186	0	22	220	
Queue Length 95th (ft)	51	33	46	110	53		#287	305	23	53	325	
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	356	601	587	315	544		627	2219	1384	522	1542	
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	0.12	0.02	0.30	0.33	0.14		0.68	0.46	0.23	0.25	0.55	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 100.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 17.2

Intersection LOS: B

Intersection Capacity Utilization 68.7%

ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: County Line Road & Veterans Boulevard/Carriage Way Drive

Ø1 20 s	Ø2 60 s	Ø3 20 s	Ø4 40 s
Ø5 30 s	Ø6 50 s	Ø7 20 s	Ø8 40 s

Lanes, Volumes, Timings
5: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	530	63	131	382	200	52	259	88	169	155	72
Future Volume (vph)	96	530	63	131	382	200	52	259	88	169	155	72
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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		0.984			0.948			0.962			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3449	0	1719	3323	0	1787	1745	0	1787	1749	0
Flt Permitted	0.341			0.322			0.610			0.198		
Satd. Flow (perm)	641	3449	0	583	3323	0	1148	1745	0	372	1749	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			84			14			20	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
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 (%)	1%	3%	3%	5%	3%	3%	1%	6%	1%	1%	5%	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)	101	624	0	138	613	0	55	366	0	178	239	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	18.0	49.2		14.4	45.6		14.4	36.0		20.4	42.0	
Total Split (%)	15.0%	41.0%		12.0%	38.0%		12.0%	30.0%		17.0%	35.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	59.8	48.4		61.3	49.1		38.6	28.4		48.9	37.1	
Actuated g/C Ratio	0.50	0.40		0.51	0.41		0.32	0.24		0.41	0.31	

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

01/26/2024

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.25	0.45		0.35	0.44		0.13	0.87		0.55	0.43	
Control Delay	16.8	28.0		21.6	26.8		21.3	62.7		29.2	32.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.8	28.0		21.6	26.8		21.3	62.7		29.2	32.8	
LOS	B	C		C	C		C	E		C	C	
Approach Delay		26.5			25.9			57.3			31.3	
Approach LOS		C			C			E			C	
Queue Length 50th (ft)	40	192		49	121		24	254		84	131	
Queue Length 95th (ft)	72	250		137	281		50	#412		134	211	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	480	1397		405	1409		458	451		350	559	
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	0.21	0.45		0.34	0.44		0.12	0.81		0.51	0.43	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 32.7
 Intersection Capacity Utilization 68.9%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Madison Street & Plainfield Road

Ø1 14.4 s	Ø2 (R) 49.2 s	Ø3 14.4 s	Ø4 42 s
Ø5 18 s	Ø6 (R) 45.6 s	Ø7 20.4 s	Ø8 36 s

HCM 6th AWSC

4: Frontage Road & Veterans Boulevard

01/26/2024

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Vol, veh/h	25	2	312	228	12	186
Future Vol, veh/h	25	2	312	228	12	186
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	12	0	6	0	0	9
Mvmt Flow	29	2	363	265	14	216
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.4	10.4	10.9
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	64%	0%
Vol Thru, %	0%	0%	100%	81%	0%	36%	100%
Vol Right, %	0%	100%	0%	19%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	186	17	10	178	210	152
LT Vol	12	0	0	0	178	134	0
Through Vol	0	0	17	8	0	76	152
RT Vol	0	186	0	2	0	0	0
Lane Flow Rate	14	216	19	12	207	244	177
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.025	0.329	0.036	0.021	0.338	0.38	0.175
Departure Headway (Hd)	6.523	5.476	6.65	6.307	5.878	5.593	3.562
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	545	651	542	571	608	640	993
Service Time	4.308	3.261	4.35	4.007	3.651	3.366	1.333
HCM Lane V/C Ratio	0.026	0.332	0.035	0.021	0.34	0.381	0.178
HCM Control Delay	9.5	11	9.6	9.1	11.7	11.8	7.1
HCM Lane LOS	A	B	A	A	B	B	A
HCM 95th-tile Q	0.1	1.4	0.1	0.1	1.5	1.8	0.6

Intersection

Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑	
Traffic Vol, veh/h	9	7	132	84	1	17
Future Vol, veh/h	9	7	132	84	1	17
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	1	0	0	18
Mvmt Flow	11	9	163	104	1	21
Number of Lanes	1	1	0	2	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	7.2	9.1	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	6%	0%	0%	82%	0%
Vol Thru, %	0%	100%	0%	18%	100%
Vol Right, %	94%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	9	7	160	56
LT Vol	1	0	0	132	0
Through Vol	0	9	0	28	56
RT Vol	17	0	7	0	0
Lane Flow Rate	22	11	9	198	69
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.025	0.014	0.01	0.273	0.087
Departure Headway (Hd)	4.024	4.674	3.973	4.979	4.55
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	895	756	887	725	790
Service Time	2.024	2.46	1.758	2.693	2.263
HCM Lane V/C Ratio	0.025	0.015	0.01	0.273	0.087
HCM Control Delay	7.1	7.5	6.8	9.6	7.7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0	0	1.1	0.3

HCM 6th TWSC

2: County Line Road & Carriage Place

01/26/2024

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Vol, veh/h	4	0	15	1	0	10	8	1004	3	7	868	4
Future Vol, veh/h	4	0	15	1	0	10	8	1004	3	7	868	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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	4	0	15	1	0	10	8	1035	3	7	895	4
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1445	1965	450	1515	1966	519	899	0	0	1038	0	0
Stage 1	911	911	-	1053	1053	-	-	-	-	-	-	-
Stage 2	534	1054	-	462	913	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	94	64	562	84	64	507	764	-	-	678	-	-
Stage 1	299	356	-	245	306	-	-	-	-	-	-	-
Stage 2	503	305	-	554	355	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	91	63	562	80	63	507	764	-	-	678	-	-
Mov Cap-2 Maneuver	206	175	-	182	175	-	-	-	-	-	-	-
Stage 1	296	352	-	243	303	-	-	-	-	-	-	-
Stage 2	488	302	-	533	351	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	14			13.4			0.1			0.1		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	764	-	-	206	562	182	507	678	-	-		
HCM Lane V/C Ratio	0.011	-	-	0.02	0.028	0.006	0.02	0.011	-	-		
HCM Control Delay (s)	9.8	-	-	22.8	11.6	24.9	12.2	10.4	-	-		
HCM Lane LOS	A	-	-	C	B	C	B	B	-	-		
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	0.1	0	-	-		

HCM 6th TWSC
6: High Grove Boulevard & Plainfield Road

01/26/2024

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	747	33	57	713	4	24
Future Vol, veh/h	747	33	57	713	4	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	170	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	6	5	3	25	8
Mvmt Flow	778	34	59	743	4	25
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	812	0	1268	389
Stage 1	-	-	-	-	778	-
Stage 2	-	-	-	-	490	-
Critical Hdwy	-	-	4.2	-	7.3	7.06
Critical Hdwy Stg 1	-	-	-	-	6.3	-
Critical Hdwy Stg 2	-	-	-	-	6.3	-
Follow-up Hdwy	-	-	2.25	-	3.75	3.38
Pot Cap-1 Maneuver	-	-	791	-	132	593
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	520	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	791	-	122	593
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	481	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.7	14.8			
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	122	593	-	-	791	-
HCM Lane V/C Ratio	0.034	0.042	-	-	0.075	-
HCM Control Delay (s)	35.5	11.3	-	-	9.9	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.2	-

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	4	0	0	10	0	11	3	380	42	34	256	14
Future Vol, veh/h	4	0	0	10	0	11	3	380	42	34	256	14
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	30	0	45	0	8	2	6	2	7
Mvmt Flow	4	0	0	11	0	12	3	404	45	36	272	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	791	807	280	762	769	404	287	0	0	449	0	0
Stage 1	352	352	-	410	410	-	-	-	-	-	-	-
Stage 2	439	455	-	352	359	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.4	6.5	6.65	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.77	4	3.705	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	310	317	764	289	334	563	1287	-	-	1091	-	-
Stage 1	669	635	-	567	599	-	-	-	-	-	-	-
Stage 2	601	572	-	611	631	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	295	306	764	281	322	563	1287	-	-	1091	-	-
Mov Cap-2 Maneuver	295	306	-	281	322	-	-	-	-	-	-	-
Stage 1	668	614	-	566	598	-	-	-	-	-	-	-
Stage 2	587	571	-	591	610	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.4	14.7	0.1	0.9
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1287	-	-	295	281	563	1091
HCM Lane V/C Ratio	0.002	-	-	0.014	0.038	0.021	0.033
HCM Control Delay (s)	7.8	-	-	17.4	18.3	11.5	8.4
HCM Lane LOS	A	-	-	C	C	B	A
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	0.1

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

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	62	1	32	0	5	1	21	377	0	1	145	51
Future Vol, veh/h	62	1	32	0	5	1	21	377	0	1	145	51
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	8	0	13	0	0	100	10	7	0	0	3	6
Mvmt Flow	68	1	35	0	5	1	23	414	0	1	159	56
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	624	621	159	667	677	414	215	0	0	414	0	0
Stage 1	161	161	-	460	460	-	-	-	-	-	-	-
Stage 2	463	460	-	207	217	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.5	6.33	7.1	6.5	7.2	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.18	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4	3.417	3.5	4	4.2	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	389	406	858	375	377	472	1309	-	-	1156	-	-
Stage 1	827	769	-	585	569	-	-	-	-	-	-	-
Stage 2	568	569	-	800	727	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	378	398	858	354	370	472	1309	-	-	1156	-	-
Mov Cap-2 Maneuver	378	398	-	354	370	-	-	-	-	-	-	-
Stage 1	812	768	-	574	559	-	-	-	-	-	-	-
Stage 2	551	559	-	765	726	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.2			14.5			0.4			0		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1309	-	-	378	858	384	1156	-	-			
HCM Lane V/C Ratio	0.018	-	-	0.183	0.041	0.017	0.001	-	-			
HCM Control Delay (s)	7.8	-	-	16.6	9.4	14.5	8.1	-	-			
HCM Lane LOS	A	-	-	C	A	B	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.1	0.1	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 1.1

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations						
Traffic Vol, veh/h	33	3	1	22	7	0
Future Vol, veh/h	33	3	1	22	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	3	67	0	9	71	0
Mvmt Flow	40	4	1	27	9	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	44	0	71	42
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	29	-
Critical Hdwy	-	-	4.1	-	7.11	6.2
Critical Hdwy Stg 1	-	-	-	-	6.11	-
Critical Hdwy Stg 2	-	-	-	-	6.11	-
Follow-up Hdwy	-	-	2.2	-	4.139	3.3
Pot Cap-1 Maneuver	-	-	1577	-	787	1034
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	842	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1577	-	786	1034
Mov Cap-2 Maneuver	-	-	-	-	786	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	841	-

Approach NB SB NW

HCM Control Delay, s	0	0.3	9.6
HCM LOS			A

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	786	1577	-
HCM Lane V/C Ratio	-	-	0.011	0.001	-
HCM Control Delay (s)	-	-	9.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	3	3	56	6	13	28
Future Vol, veh/h	3	3	56	6	13	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	72	72	72	72	72	72
Heavy Vehicles, %	33	0	4	0	23	4
Mvmt Flow	4	4	78	8	18	39

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	157	82	0
Stage 1	82	-	-
Stage 2	75	-	-
Critical Hdwy	6.73	6.2	-
Critical Hdwy Stg 1	5.73	-	-
Critical Hdwy Stg 2	5.73	-	-
Follow-up Hdwy	3.797	3.3	-
Pot Cap-1 Maneuver	767	983	-
Stage 1	869	-	-
Stage 2	875	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	757	983	-
Mov Cap-2 Maneuver	757	-	-
Stage 1	869	-	-
Stage 2	864	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	2.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	855	1388
HCM Lane V/C Ratio	-	-	0.01	0.013
HCM Control Delay (s)	-	-	9.3	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

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	0	2	1	0	5	2	0	0	0	3	0	0
Future Vol, veh/h	0	2	1	0	5	2	0	0	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	50	0	0	80	0	0	0	0	0	0	0
Mvmt Flow	0	2	1	0	5	2	0	0	0	3	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	7	0	0	3	0	0	9	10	3	9	9	6
Stage 1	-	-	-	-	-	-	3	3	-	6	6	-
Stage 2	-	-	-	-	-	-	6	7	-	3	3	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1627	-	-	1632	-	-	1015	889	1087	1015	890	1083
Stage 1	-	-	-	-	-	-	1025	897	-	1021	895	-
Stage 2	-	-	-	-	-	-	1021	894	-	1025	897	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1627	-	-	1632	-	-	1015	889	1087	1015	890	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-	1015	889	-	1015	890	-
Stage 1	-	-	-	-	-	-	1025	897	-	1021	895	-
Stage 2	-	-	-	-	-	-	1021	894	-	1025	897	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			0			8.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1627	-	-	1632	-	-	1015				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.003				
HCM Control Delay (s)	0	0	-	-	0	-	-	8.6				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0				

Intersection

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑			↑↑	↑↑	
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Traffic Vol, veh/h	26	0	24	216	0	1
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Future Vol, veh/h	26	0	24	216	0	1
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	1	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	81	81	81	81	81	81
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Heavy Vehicles, %	12	0	0	0	0	0
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Mvmt Flow	32	0	30	267	0	1
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	32
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	-	-	4.1
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	-	-	2.2
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Pot Cap-1 Maneuver	-	-	1593
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	-	1593
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	NB
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HCM Control Delay, s	0	0.8	8.4
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HCM LOS			A
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	1066	-	-	1593	-
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HCM Lane V/C Ratio	0.001	-	-	0.019	-
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HCM Control Delay (s)	8.4	-	-	7.3	0.1
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HCM Lane LOS	A	-	-	A	A
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HCM 95th %tile Q(veh)	0	-	-	0.1	-
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HCM 6th TWSC
18: Veterans Boulevard & CNH Access/Office Access

01/26/2024

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	0	0	0	11	0	0	0	103	0	36
Future Vol, veh/h	7	0	0	0	0	11	0	0	0	103	0	36
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	43	0	0	0	0	0	0	0	0	0	0	1
Mvmt Flow	9	0	0	0	0	14	0	0	0	130	0	46
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	290	283	23	283	306	0	46	0	0	0	0	0
Stage 1	283	283	-	0	0	-	-	-	-	-	-	-
Stage 2	7	0	-	283	306	-	-	-	-	-	-	-
Critical Hdwy	7.53	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.53	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.53	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.887	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	588	629	1060	673	611	-	1575	-	-	-	-	-
Stage 1	643	681	-	-	-	-	-	-	-	-	-	-
Stage 2	918	-	-	728	665	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	629	1060	673	611	-	1575	-	-	-	-	-
Mov Cap-2 Maneuver	-	629	-	673	611	-	-	-	-	-	-	-
Stage 1	643	681	-	-	-	-	-	-	-	-	-	-
Stage 2	918	-	-	728	665	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1575	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 2.2

Movement NBL NBT SBT SBR SEL SER

Lane Configurations	↰	↱	↱	↰	↰	↰
Traffic Vol, veh/h	50	133	133	54	29	21
Future Vol, veh/h	50	133	133	54	29	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	14	14	0	3	0
Mvmt Flow	60	158	158	64	35	25

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	222	0	-	0	436	158
Stage 1	-	-	-	-	158	-
Stage 2	-	-	-	-	278	-
Critical Hdwy	4.1	-	-	-	6.43	6.2
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.2	-	-	-	3.527	3.3
Pot Cap-1 Maneuver	1359	-	-	-	576	893
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1359	-	-	-	551	893
Mov Cap-2 Maneuver	-	-	-	-	551	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	767	-

Approach NB SB SE

HCM Control Delay, s	2.1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt NBL NBT SELn1 SELn2 SBT SBR

Capacity (veh/h)	1359	-	551	893	-	-
HCM Lane V/C Ratio	0.044	-	0.063	0.028	-	-
HCM Control Delay (s)	7.8	-	12	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 2

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	24	392	2	46	118	1
Future Vol, veh/h	24	392	2	46	118	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	2	0	2	11	0
Mvmt Flow	28	461	2	54	139	1

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	489	0	86	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	58	-
Critical Hdwy	-	-	4.1	-	6.51	6.2
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	-	-	2.2	-	3.599	3.3
Pot Cap-1 Maneuver	-	-	1085	-	894	1053
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	942	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1085	-	892	1053
Mov Cap-2 Maneuver	-	-	-	-	892	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	940	-

Approach EB WB NB

HCM Control Delay, s	0	0.3	9.8
HCM LOS			A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	893	-	-	1085	-
HCM Lane V/C Ratio	0.157	-	-	0.002	-
HCM Control Delay (s)	9.8	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Capacity Analysis Summary Sheets
Existing Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	483	552	133	474	15	442	448	197	21	543	119
Future Volume (vph)	84	483	552	133	474	15	442	448	197	21	543	119
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.920			0.995			0.954			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3256	0	1687	3557	0	1787	3402	0	1805	3410	0
Flt Permitted	0.367			0.106			0.168			0.396		
Satd. Flow (perm)	697	3256	0	188	3557	0	316	3402	0	752	3410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		195			2			58			18	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
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 (%)	0%	2%	2%	7%	1%	0%	1%	0%	4%	0%	3%	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)	88	1078	0	139	510	0	460	672	0	22	690	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	46.1	34.3		52.3	37.7		70.3	61.8		42.5	33.7	
Actuated g/C Ratio	0.35	0.26		0.40	0.29		0.54	0.47		0.33	0.26	

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	1.08		0.63	0.50		0.89	0.41		0.07	0.77	
Control Delay	26.8	88.9		39.8	40.5		49.7	22.2		18.6	50.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.8	88.9		39.8	40.5		49.7	22.2		18.6	50.8	
LOS	C	F		D	D		D	C		B	D	
Approach Delay		84.2			40.4			33.4			49.8	
Approach LOS		F			D			C			D	
Queue Length 50th (ft)	47	~473		76	190		284	182		8	279	
Queue Length 95th (ft)	82	#642		132	251		#519	260		24	376	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	356	1001		324	1204		527	1645		368	904	
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	0.25	1.08		0.43	0.42		0.87	0.41		0.06	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 130.3

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 54.0

Intersection LOS: D

Intersection Capacity Utilization 98.4%

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: 1: County Line Road & Plainfield Road

 Ø1	 Ø2	 Ø3	 Ø4
25 s	40 s	35 s	40 s
 Ø5	 Ø6	 Ø7	 Ø8
15 s	50 s	15 s	60 s

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	151	17	476	229	13	148	98	801	87	30	1139	40
Future Volume (vph)	151	17	476	229	13	148	98	801	87	30	1139	40
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		0
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850		0.862				0.850		0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1887	1583	1652	1529	0	1671	3725	1568	1805	3487	0
Flt Permitted	0.952			0.519			0.081			0.338		
Satd. Flow (perm)	1809	1887	1583	902	1529	0	143	3725	1568	642	3487	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		154				91			3
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
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 (%)	0%	6%	2%	2%	0%	0%	8%	2%	3%	0%	3%	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)	157	18	496	239	168	0	102	834	91	31	1228	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	6.5	14.0	6.5	6.5	14.0		6.5	21.0	6.5	6.5	21.0	
Total Split (s)	20.0	40.0	30.0	20.0	40.0		30.0	60.0	20.0	20.0	50.0	
Total Split (%)	14.3%	28.6%	21.4%	14.3%	28.6%		21.4%	42.9%	14.3%	14.3%	35.7%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	0.0	1.5	0.0	0.0	1.5		0.0	1.5	0.0	0.0	1.5	
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	6.0	3.5	3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	18.1	9.2	31.8	27.7	9.6		75.5	67.2	96.8	52.8	44.1	
Actuated g/C Ratio	0.16	0.08	0.29	0.25	0.09		0.68	0.60	0.87	0.48	0.40	

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.54	0.12	0.95	0.64	0.62		0.23	0.37	0.07	0.08	0.89	
Control Delay	46.1	50.2	60.3	44.9	20.3		9.9	13.1	1.1	9.9	41.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	46.1	50.2	60.3	44.9	20.3		9.9	13.1	1.1	9.9	41.0	
LOS	D	D	E	D	C		A	B	A	A	D	
Approach Delay		56.7			34.8			11.7			40.2	
Approach LOS		E			C			B			D	
Queue Length 50th (ft)	109	12	~351	150	10		22	161	0	6	425	
Queue Length 95th (ft)	151	36	407	231	78		63	248	14	20	#637	
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	352	579	537	373	576		462	2253	1378	538	1387	
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	0.45	0.03	0.92	0.64	0.29		0.22	0.37	0.07	0.06	0.89	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 111.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 34.1

Intersection LOS: C

Intersection Capacity Utilization 86.6%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: County Line Road & Veterans Boulevard/Carriage Way Drive

 Ø1	 Ø2	 Ø3	 Ø4
20 s	60 s	20 s	40 s
 Ø5	 Ø6	 Ø7	 Ø8
30 s	50 s	20 s	40 s

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	681	35	128	725	251	117	281	132	246	141	109
Future Volume (vph)	137	681	35	128	725	251	117	281	132	246	141	109
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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			0.961			0.952			0.935	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3513	0	1770	3435	0	1770	1797	0	1805	1744	0
Flt Permitted	0.129			0.261			0.488			0.155		
Satd. Flow (perm)	240	3513	0	486	3435	0	909	1797	0	294	1744	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			50			22			36	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	2%	1%	1%	2%	1%	0%	0%	1%	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)	140	731	0	131	996	0	119	422	0	251	255	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	14.7	42.0		14.7	42.0		14.7	33.6		14.7	33.6	
Total Split (%)	14.0%	40.0%		14.0%	40.0%		14.0%	32.0%		14.0%	32.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	51.0	38.9		50.5	38.7		38.5	26.5		41.8	28.2	
Actuated g/C Ratio	0.49	0.37		0.48	0.37		0.37	0.25		0.40	0.27	

Lanes, Volumes, Timings
5: Madison Street & Plainfield Road

01/26/2024

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.55	0.56		0.38	0.77		0.29	0.90		0.90	0.52	
Control Delay	22.9	28.7		14.6	26.1		20.9	59.1		59.0	32.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.9	28.7		14.6	26.1		20.9	59.1		59.0	32.1	
LOS	C	C		B	C		C	E		E	C	
Approach Delay		27.8			24.8			50.7			45.4	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	48	205		36	306		48	258		110	123	
Queue Length 95th (ft)	86	273		60	198		86	#430		#258	207	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	282	1305		378	1297		440	488		278	498	
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	0.50	0.56		0.35	0.77		0.27	0.86		0.90	0.51	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

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

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 33.7

Intersection LOS: C

Intersection Capacity Utilization 88.8%

ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: Madison Street & Plainfield Road

Ø1 14.7 s	Ø2 (R) 42 s	Ø3 14.7 s	Ø4 33.6 s
Ø5 14.7 s	Ø6 (R) 42 s	Ø7 14.7 s	Ø8 33.6 s

HCM 6th AWSC

4: Frontage Road & Veterans Boulevard

01/26/2024

Intersection	
Intersection Delay, s/veh	21.6
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Vol, veh/h	232	25	137	14	6	412
Future Vol, veh/h	232	25	137	14	6	412
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	7	0	0	2
Mvmt Flow	301	32	178	18	8	535
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	13	12.1	30.4
HCM LOS	B	B	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	94%	0%
Vol Thru, %	0%	0%	100%	76%	0%	6%	100%
Vol Right, %	0%	100%	0%	24%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	412	155	102	69	73	9
LT Vol	6	0	0	0	69	68	0
Through Vol	0	0	155	77	0	5	9
RT Vol	0	412	0	25	0	0	0
Lane Flow Rate	8	535	201	133	89	95	12
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.015	0.836	0.384	0.248	0.192	0.201	0.018
Departure Headway (Hd)	6.795	5.623	6.881	6.706	7.777	7.622	5.404
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	524	642	520	532	458	468	655
Service Time	4.565	3.393	4.668	4.492	5.576	5.421	3.201
HCM Lane V/C Ratio	0.015	0.833	0.387	0.25	0.194	0.203	0.018
HCM Control Delay	9.7	30.7	13.9	11.7	12.4	12.4	8.3
HCM Lane LOS	A	D	B	B	B	B	A
HCM 95th-tile Q	0	9	1.8	1	0.7	0.7	0.1

Intersection

Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑↑	
Traffic Vol, veh/h	58	1	11	6	0	131
Future Vol, veh/h	58	1	11	6	0	131
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	68	1	13	7	0	154
Number of Lanes	1	1	0	2	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8	8	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	85%	0%
Vol Thru, %	0%	100%	0%	15%	100%
Vol Right, %	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	131	58	1	13	4
LT Vol	0	0	0	11	0
Through Vol	0	58	0	2	4
RT Vol	131	0	1	0	0
Lane Flow Rate	154	68	1	15	5
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.148	0.091	0.001	0.022	0.006
Departure Headway (Hd)	3.451	4.819	4.083	5.237	4.813
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	1023	744	876	682	742
Service Time	1.526	2.548	1.811	2.979	2.554
HCM Lane V/C Ratio	0.151	0.091	0.001	0.022	0.007
HCM Control Delay	7.1	8	6.8	8.1	7.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0	0.1	0

HCM 6th TWSC

2: County Line Road & Carriage Place

01/26/2024

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Vol, veh/h	1	0	1	4	0	9	20	1077	3	20	1204	4
Future Vol, veh/h	1	0	1	4	0	9	20	1077	3	20	1204	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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	3	0
Mvmt Flow	1	0	1	4	0	9	21	1134	3	21	1267	4
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1920	2490	636	1854	2491	569	1271	0	0	1137	0	0
Stage 1	1311	1311	-	1178	1178	-	-	-	-	-	-	-
Stage 2	609	1179	-	676	1313	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	42	30	425	47	30	470	553	-	-	622	-	-
Stage 1	171	231	-	206	267	-	-	-	-	-	-	-
Stage 2	454	267	-	414	230	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	39	28	425	44	28	470	553	-	-	622	-	-
Mov Cap-2 Maneuver	121	117	-	136	116	-	-	-	-	-	-	-
Stage 1	165	223	-	198	257	-	-	-	-	-	-	-
Stage 2	428	257	-	399	222	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	24.3		18.8		0.2		0.2		0.2		0.2	
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	553	-	-	121	425	136	470	622	-	-		
HCM Lane V/C Ratio	0.038	-	-	0.009	0.002	0.031	0.02	0.034	-	-		
HCM Control Delay (s)	11.8	-	-	35	13.5	32.3	12.8	11	-	-		
HCM Lane LOS	B	-	-	E	B	D	B	B	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0.1	0.1	0.1	-	-		

HCM 6th TWSC
6: High Grove Boulevard & Plainfield Road

01/26/2024

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	1055	8	8	1093	34	105
Future Vol, veh/h	1055	8	8	1093	34	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	170	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	1	13	0	2	3	1
Mvmt Flow	1077	8	8	1115	35	107

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1085
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	4.1	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	2.2	-
Pot Cap-1 Maneuver	-	651	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	651	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	28.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	88	489	-	-	651	-
HCM Lane V/C Ratio	0.394	0.219	-	-	0.013	-
HCM Control Delay (s)	70.3	14.4	-	-	10.6	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	1.6	0.8	-	-	0	-

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	
Traffic Vol, veh/h	10	3	8	44	0	55	4	401	40	23	228	5
Future Vol, veh/h	10	3	8	44	0	55	4	401	40	23	228	5
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	13	0	0	2	0	1	3	0	2	0
Mvmt Flow	12	4	10	54	0	67	5	489	49	28	278	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	894	885	281	843	839	489	284	0	0	538	0	0
Stage 1	337	337	-	499	499	-	-	-	-	-	-	-
Stage 2	557	548	-	344	340	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.33	7.1	6.5	6.22	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.417	3.5	4	3.318	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	264	286	732	286	304	579	1290	-	-	1040	-	-
Stage 1	681	645	-	557	547	-	-	-	-	-	-	-
Stage 2	518	520	-	676	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	228	277	732	273	295	579	1290	-	-	1040	-	-
Mov Cap-2 Maneuver	228	277	-	273	295	-	-	-	-	-	-	-
Stage 1	678	628	-	555	545	-	-	-	-	-	-	-
Stage 2	456	518	-	645	626	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	16.2	0.1	0.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1290	-	-	320 273 579	1040	-	-
HCM Lane V/C Ratio	0.004	-	-	0.08 0.197 0.116	0.027	-	-
HCM Control Delay (s)	7.8	-	-	17.2 21.4 12	8.6	-	-
HCM Lane LOS	A	-	-	C C B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3 0.7 0.4	0.1	-	-

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱		↱	↱		↱	↱	↱
Traffic Vol, veh/h	59	4	28	0	0	0	48	372	1	1	161	129
Future Vol, veh/h	59	4	28	0	0	0	48	372	1	1	161	129
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	4	0	0	0	4	1	0	0	4	4
Mvmt Flow	70	5	33	0	0	0	57	443	1	1	192	154
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	752	752	192	848	906	444	346	0	0	444	0	0
Stage 1	194	194	-	558	558	-	-	-	-	-	-	-
Stage 2	558	558	-	290	348	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.24	7.1	6.5	6.2	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.3	2.236	-	-	2.2	-	-
Pot Cap-1 Maneuver	329	342	845	284	278	618	1202	-	-	1127	-	-
Stage 1	812	744	-	518	515	-	-	-	-	-	-	-
Stage 2	518	515	-	722	638	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	317	326	845	260	265	618	1202	-	-	1127	-	-
Mov Cap-2 Maneuver	317	326	-	260	265	-	-	-	-	-	-	-
Stage 1	774	743	-	494	491	-	-	-	-	-	-	-
Stage 2	493	491	-	688	637	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	16.6			0			0.9			0		
HCM LOS	C			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1202	-	-	318	845	-	1127	-	-			
HCM Lane V/C Ratio	0.048	-	-	0.236	0.039	-	0.001	-	-			
HCM Control Delay (s)	8.1	-	-	19.8	9.4	0	8.2	-	-			
HCM Lane LOS	A	-	-	C	A	A	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.1	-	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 0.5

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations						
Traffic Vol, veh/h	64	2	0	41	4	2
Future Vol, veh/h	64	2	0	41	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	82	3	0	53	5	3

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	85	0	137	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1524	-	861	981
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	975	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1524	-	861	981
Mov Cap-2 Maneuver	-	-	-	-	861	-
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	975	-

Approach NB SB NW

HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	898	1524	-
HCM Lane V/C Ratio	-	-	0.009	-	-
HCM Control Delay (s)	-	-	9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	8	15	83	0	1	13
Future Vol, veh/h	8	15	83	0	1	13
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	64	64	64	64	64	64
Heavy Vehicles, %	0	0	2	0	0	8
Mvmt Flow	13	23	130	0	2	20

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	154	130	0
Stage 1	130	-	-
Stage 2	24	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	842	925	-
Stage 1	901	-	-
Stage 2	1004	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	841	925	-
Mov Cap-2 Maneuver	841	-	-
Stage 1	901	-	-
Stage 2	1003	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	894	1468
HCM Lane V/C Ratio	-	-	0.04	0.001
HCM Control Delay (s)	-	-	9.2	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	0	2	0	2	0	0	0	1	0
Future Vol, veh/h	1	1	1	0	2	0	2	0	0	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	1	0	2	0	2	0	0	0	1	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	2	0	0	7	6	2	6	6	2
Stage 1	-	-	-	-	-	-	4	4	-	2	2	-
Stage 2	-	-	-	-	-	-	3	2	-	4	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1634	-	-	1018	893	1088	1019	893	1088
Stage 1	-	-	-	-	-	-	1024	897	-	1026	898	-
Stage 2	-	-	-	-	-	-	1025	898	-	1024	897	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1634	-	-	1634	-	-	1016	892	1088	1018	892	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	1016	892	-	1018	892	-
Stage 1	-	-	-	-	-	-	1023	896	-	1025	898	-
Stage 2	-	-	-	-	-	-	1024	898	-	1023	896	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			0			8.6			9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1016	1634	-	-	1634	-	-	892				
HCM Lane V/C Ratio	0.002	0.001	-	-	-	-	-	0.001				
HCM Control Delay (s)	8.6	7.2	0	-	0	-	-	9				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑			↑↑	↑	
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Traffic Vol, veh/h	189	0	3	17	0	68
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Future Vol, veh/h	189	0	3	17	0	68
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	1	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	85	85	85	85	85	85
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Heavy Vehicles, %	1	0	0	0	0	0
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Mvmt Flow	222	0	4	20	0	80
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	222
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	-	-	4.1
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	-	-	2.2
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Pot Cap-1 Maneuver	-	-	1359
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	-	1359
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	NB
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HCM Control Delay, s	0	1.1	9.3
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HCM LOS			A
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	927	-	-	1359	-
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HCM Lane V/C Ratio	0.086	-	-	0.003	-
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HCM Control Delay (s)	9.3	-	-	7.7	0
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HCM Lane LOS	A	-	-	A	A
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HCM 95th %tile Q(veh)	0.3	-	-	0	-
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HCM 6th TWSC
18: Veterans Boulevard & CNH Access/Office Access

01/26/2024

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	107	0	0	0	1	24	0	0	0	3	0	9
Future Vol, veh/h	107	0	0	0	1	24	0	0	0	3	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	132	0	0	0	1	30	0	0	0	4	0	11
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	30	14	6	14	19	0	11	0	0	0	0	0
Stage 1	14	14	-	0	0	-	-	-	-	-	-	-
Stage 2	16	0	-	14	19	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	984	884	1083	1007	879	-	1621	-	-	-	-	-
Stage 1	1011	888	-	-	-	-	-	-	-	-	-	-
Stage 2	1009	-	-	1011	884	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	884	1083	1007	879	-	1621	-	-	-	-	-
Mov Cap-2 Maneuver	-	884	-	1007	879	-	-	-	-	-	-	-
Stage 1	1011	888	-	-	-	-	-	-	-	-	-	-
Stage 2	1009	-	-	1011	884	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1621	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 3.1

Movement NBL NBT SBT SBR SEL SER

Lane Configurations	↰	↱	↱	↰	↰	↰
Traffic Vol, veh/h	34	243	103	31	71	41
Future Vol, veh/h	34	243	103	31	71	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	4	9	0	0	0
Mvmt Flow	44	316	134	40	92	53

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	174	0	-	0	538	134
Stage 1	-	-	-	-	134	-
Stage 2	-	-	-	-	404	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1415	-	-	-	508	920
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	679	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1415	-	-	-	492	920
Mov Cap-2 Maneuver	-	-	-	-	492	-
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	679	-

Approach NB SB SE

HCM Control Delay, s	0.9	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt NBL NBT SELn1 SELn2 SBT SBR

Capacity (veh/h)	1415	-	492	920	-	-
HCM Lane V/C Ratio	0.031	-	0.187	0.058	-	-
HCM Control Delay (s)	7.6	-	14	9.2	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	0.2	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 8.7

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	46	88	0	27	363	0
Future Vol, veh/h	46	88	0	27	363	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	5	0	0	1	0
Mvmt Flow	56	107	0	33	443	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	163	0	89	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.1	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.2	-	3.509	3.3
Pot Cap-1 Maneuver	-	-	1428	-	914	1016
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	992	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1428	-	914	1016
Mov Cap-2 Maneuver	-	-	-	-	914	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	992	-

Approach EB WB NB

HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	914	-	-	1428	-
HCM Lane V/C Ratio	0.484	-	-	-	-
HCM Control Delay (s)	12.6	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	2.7	-	-	0	-

Capacity Analysis Summary Sheets
Existing Saturday Midday Peak Hour Conditions

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	414	304	79	370	22	264	323	105	17	314	73
Future Volume (vph)	73	414	304	79	370	22	264	323	105	17	314	73
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.937			0.992			0.963			0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3363	0	1752	3538	0	1805	3408	0	1805	3481	0
Flt Permitted	0.452			0.202			0.374			0.485		
Satd. Flow (perm)	859	3363	0	373	3538	0	711	3408	0	922	3481	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		125			4			36			19	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	3%	1%	5%	0%	2%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	780	0	86	426	0	287	465	0	18	420	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	42.7	33.5		43.2	33.8		46.7	40.5		33.7	24.8	
Actuated g/C Ratio	0.43	0.34		0.43	0.34		0.47	0.41		0.34	0.25	

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.18	0.64		0.31	0.35		0.57	0.33		0.05	0.48	
Control Delay	18.5	28.3		20.5	28.0		22.0	20.6		16.4	33.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.5	28.3		20.5	28.0		22.0	20.6		16.4	33.4	
LOS	B	C		C	C		C	C		B	C	
Approach Delay		27.4			26.8			21.1			32.7	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	27	187		30	106		117	93		6	118	
Queue Length 95th (ft)	68	323		73	189		185	161		19	183	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	497	1267		478	1616		690	1924		469	1239	
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	0.16	0.62		0.18	0.26		0.42	0.24		0.04	0.34	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 99.5

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 26.3

Intersection LOS: C

Intersection Capacity Utilization 69.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: County Line Road & Plainfield Road

↖ Ø1 25 s	→ Ø2 40 s	↖ Ø3 35 s	↓ Ø4 40 s
↖ Ø5 15 s	← Ø6 50 s	↖ Ø7 15 s	↑ Ø8 60 s

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	5	162	40	7	26	84	629	56	10	662	28
Future Volume (vph)	53	5	162	40	7	26	84	629	56	10	662	28
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		0
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850		0.880				0.850		0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	2000	1568	1532	1512	0	1703	3762	1538	1805	3582	0
Flt Permitted				0.800			0.293			0.397		
Satd. Flow (perm)	1863	2000	1568	1290	1512	0	525	3762	1538	754	3582	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			172		28				60		3	
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	3%	10%	0%	4%	6%	1%	5%	0%	0%	4%
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)	56	5	172	43	35	0	89	669	60	11	734	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	6.5	14.0	6.5	6.5	14.0		6.5	21.0	6.5	6.5	21.0	
Total Split (s)	20.0	40.0	30.0	20.0	40.0		30.0	60.0	20.0	20.0	50.0	
Total Split (%)	14.3%	28.6%	21.4%	14.3%	28.6%		21.4%	42.9%	14.3%	14.3%	35.7%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	0.0	1.5	0.0	0.0	1.5		0.0	1.5	0.0	0.0	1.5	
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	6.0	3.5	3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	10.3	9.4	11.1	15.6	9.2		49.0	47.1	65.3	42.8	33.5	
Actuated g/C Ratio	0.15	0.13	0.16	0.22	0.13		0.70	0.68	0.94	0.61	0.48	

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.21	0.02	0.44	0.13	0.16		0.17	0.26	0.04	0.02	0.43	
Control Delay	31.7	36.0	8.9	24.6	19.5		6.3	8.2	1.1	6.0	14.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	31.7	36.0	8.9	24.6	19.5		6.3	8.2	1.1	6.0	14.4	
LOS	C	D	A	C	B		A	A	A	A	B	
Approach Delay		14.9			22.3			7.5			14.3	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)	26	2	0	15	3		15	76	0	2	127	
Queue Length 95th (ft)	54	13	47	45	32		34	153	11	8	188	
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	511	1103	821	481	847		876	2898	1467	811	2382	
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	0.11	0.00	0.21	0.09	0.04		0.10	0.23	0.04	0.01	0.31	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 69.7

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 11.7

Intersection LOS: B

Intersection Capacity Utilization 46.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: County Line Road & Veterans Boulevard/Carriage Way Drive

 Ø1	 Ø2	 Ø3	 Ø4
20 s	60 s	20 s	40 s
 Ø5	 Ø6	 Ø7	 Ø8
30 s	50 s	20 s	40 s

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	564	71	88	517	151	106	208	123	149	86	101
Future Volume (vph)	111	564	71	88	517	151	106	208	123	149	86	101
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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		0.983			0.966			0.944			0.919	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3502	0	1805	3460	0	1770	1787	0	1805	1737	0
Flt Permitted	0.280			0.339			0.607			0.227		
Satd. Flow (perm)	532	3502	0	644	3460	0	1131	1787	0	431	1737	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			39			28			53	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
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%	1%	4%	0%	1%	0%	2%	0%	1%	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)	114	654	0	91	689	0	109	341	0	154	193	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	17.0	36.0		17.0	36.0		20.0	30.0		17.0	27.0	
Total Split (%)	17.0%	36.0%		17.0%	36.0%		20.0%	30.0%		17.0%	27.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	51.3	41.2		49.3	38.7		33.9	22.0		38.2	24.2	
Actuated g/C Ratio	0.51	0.41		0.49	0.39		0.34	0.22		0.38	0.24	

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

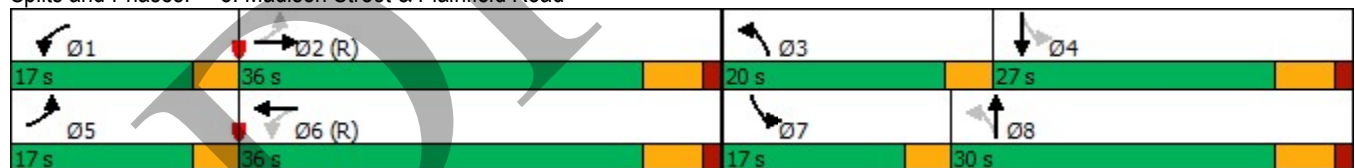
01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.30	0.45		0.22	0.51		0.25	0.82		0.48	0.42	
Control Delay	15.0	24.0		10.9	23.2		19.9	50.8		24.1	25.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.0	24.0		10.9	23.2		19.9	50.8		24.1	25.3	
LOS	B	C		B	C		B	D		C	C	
Approach Delay		22.7			21.8			43.3			24.7	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	37	166		34	182		41	184		60	70	
Queue Length 95th (ft)	68	232		26	253		75	#314		101	138	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	455	1451		498	1361		550	453		353	471	
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	0.25	0.45		0.18	0.51		0.20	0.75		0.44	0.41	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 26.7
 Intersection Capacity Utilization 68.6%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Madison Street & Plainfield Road



HCM 6th AWSC

4: Frontage Road & Veterans Boulevard

01/26/2024

Intersection

Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Vol, veh/h	27	2	110	9	6	193
Future Vol, veh/h	27	2	110	9	6	193
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	5	0	0	3
Mvmt Flow	31	2	128	10	7	224
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.2	8.9	8.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	95%	0%
Vol Thru, %	0%	0%	100%	82%	0%	5%	100%
Vol Right, %	0%	100%	0%	18%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	193	18	11	55	58	6
LT Vol	6	0	0	0	55	55	0
Through Vol	0	0	18	9	0	3	6
RT Vol	0	193	0	2	0	0	0
Lane Flow Rate	7	224	21	13	64	67	7
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.271	0.031	0.019	0.102	0.105	0.007
Departure Headway (Hd)	5.501	4.352	5.395	5.267	5.742	5.631	3.445
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	653	828	663	679	625	637	1036
Service Time	3.218	2.069	3.133	3.005	3.473	3.362	1.176
HCM Lane V/C Ratio	0.011	0.271	0.032	0.019	0.102	0.105	0.007
HCM Control Delay	8.3	8.7	8.3	8.1	9.1	9	6.2
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0	1.1	0.1	0.1	0.3	0.4	0

Intersection

Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑↑	
Traffic Vol, veh/h	0	0	14	0	0	28
Future Vol, veh/h	0	0	14	0	0	28
Peak Hour Factor	0.50	0.50	0.50	0.50	0.50	0.50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	28	0	0	56
Number of Lanes	1	1	0	2	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	0	8	6.6
HCM LOS	-	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	0%	100%
Vol Right, %	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	0	0	14	0
LT Vol	0	0	0	14	0
Through Vol	0	0	0	0	0
RT Vol	28	0	0	0	0
Lane Flow Rate	56	0	0	28	0
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.052	0	0	0.04	0
Departure Headway (Hd)	3.349	4.614	4.614	5.099	4.599
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	1067	0	0	706	0
Service Time	1.378	2.326	2.326	2.803	2.303
HCM Lane V/C Ratio	0.052	0	0	0.04	0
HCM Control Delay	6.6	7.3	7.3	8	7.3
HCM Lane LOS	A	N	N	A	N
HCM 95th-tile Q	0.2	0	0	0.1	0

HCM 6th TWSC
2: County Line Road & Carriage Place

01/26/2024

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	6	0	16	3	0	8	23	678	7	10	681	10
Future Vol, veh/h	6	0	16	3	0	8	23	678	7	10	681	10
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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	7	0	18	3	0	9	26	753	8	11	757	11
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1214	1598	384	1210	1599	381	768	0	0	761	0	0
Stage 1	785	785	-	809	809	-	-	-	-	-	-	-
Stage 2	429	813	-	401	790	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	140	107	620	141	107	623	855	-	-	860	-	-
Stage 1	356	407	-	345	396	-	-	-	-	-	-	-
Stage 2	580	395	-	602	404	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	134	102	620	133	102	623	855	-	-	860	-	-
Mov Cap-2 Maneuver	249	223	-	246	219	-	-	-	-	-	-	-
Stage 1	345	402	-	335	384	-	-	-	-	-	-	-
Stage 2	554	383	-	577	399	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.4			13.3			0.3			0.1		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	855	-	-	249	620	246	623	860	-	-		
HCM Lane V/C Ratio	0.03	-	-	0.027	0.029	0.014	0.014	0.013	-	-		
HCM Control Delay (s)	9.3	-	-	19.9	11	19.8	10.9	9.2	-	-		
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	0	0	-	-		

HCM 6th TWSC
6: High Grove Boulevard & Plainfield Road

01/26/2024

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	826	9	12	731	14	18
Future Vol, veh/h	826	9	12	731	14	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	170	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	13	0	2	3	1
Mvmt Flow	869	9	13	769	15	19

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	878
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	778
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	778
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	153	572	-	-	778	-
HCM Lane V/C Ratio	0.096	0.033	-	-	0.016	-
HCM Control Delay (s)	31	11.5	-	-	9.7	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	10	0	3	9	0	29	3	330	13	16	170	10
Future Vol, veh/h	10	0	3	9	0	29	3	330	13	16	170	10
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	11	0	0	0	1	0	0	2	0
Mvmt Flow	11	0	3	10	0	31	3	351	14	17	181	11

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	601	592	187	579	583	351	192	0
Stage 1	221	221	-	357	357	-	-	-
Stage 2	380	371	-	222	226	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.2	4.1	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.3	2.2	-
Pot Cap-1 Maneuver	415	422	860	413	427	697	1394	-
Stage 1	786	724	-	642	632	-	-	-
Stage 2	646	623	-	761	721	-	-	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	392	415	860	406	420	697	1394	-
Mov Cap-2 Maneuver	392	415	-	406	420	-	-	-
Stage 1	784	714	-	641	631	-	-	-
Stage 2	616	622	-	747	711	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	11.3	0.1	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1394	-	-	448	406	697	1205
HCM Lane V/C Ratio	0.002	-	-	0.031	0.024	0.044	0.014
HCM Control Delay (s)	7.6	-	-	13.3	14.1	10.4	8
HCM Lane LOS	A	-	-	B	B	B	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	0

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰		↰	↱		↰	↱	↱
Traffic Vol, veh/h	62	3	14	1	1	0	20	267	2	1	111	74
Future Vol, veh/h	62	3	14	1	1	0	20	267	2	1	111	74
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	100	0	0	5	2	0	100	3	1
Mvmt Flow	65	3	15	1	1	0	21	281	2	1	117	78
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	444	444	117	491	521	282	195	0	0	283	0	0
Stage 1	119	119	-	324	324	-	-	-	-	-	-	-
Stage 2	325	325	-	167	197	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.1	6.5	6.2	4.15	-	-	5.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.4	4	3.3	2.245	-	-	3.1	-	-
Pot Cap-1 Maneuver	528	511	941	360	463	762	1360	-	-	876	-	-
Stage 1	890	801	-	523	653	-	-	-	-	-	-	-
Stage 2	692	653	-	651	742	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	521	503	941	348	456	762	1360	-	-	876	-	-
Mov Cap-2 Maneuver	521	503	-	348	456	-	-	-	-	-	-	-
Stage 1	877	800	-	515	643	-	-	-	-	-	-	-
Stage 2	680	643	-	638	741	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	12.3			14.2			0.5			0		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1360	-	-	520	941	395	876	-	-			
HCM Lane V/C Ratio	0.015	-	-	0.132	0.016	0.005	0.001	-	-			
HCM Control Delay (s)	7.7	-	-	13	8.9	14.2	9.1	-	-			
HCM Lane LOS	A	-	-	B	A	B	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.5	0	0	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 1.4

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations	1			1	1	
Traffic Vol, veh/h	9	6	0	11	4	1
Future Vol, veh/h	9	6	0	11	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	7	0	13	5	1

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	17	0	27	14
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1613	-	993	1072
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	1015	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1613	-	993	1072
Mov Cap-2 Maneuver	-	-	-	-	993	-
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	1015	-

Approach NB SB NW

HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	1008	1613	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	-	-	8.6	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	10	0	1	9
Future Vol, veh/h	0	2	10	0	1	9
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	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	18	0	2	16

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	38	18	0
Stage 1	18	-	-
Stage 2	20	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	979	1066	-
Stage 1	1010	-	-
Stage 2	1008	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	978	1066	-
Mov Cap-2 Maneuver	978	-	-
Stage 1	1010	-	-
Stage 2	1007	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1066	1612
HCM Lane V/C Ratio	-	-	0.003	0.001
HCM Control Delay (s)	-	-	8.4	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	6	0	0	5	1	0	0	0	0	0	0
Future Vol, veh/h	1	6	0	0	5	1	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	6	0	0	5	1	0	0	0	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	6	0	0	6	0	0	14	14	6	14	14	6
Stage 1	-	-	-	-	-	-	8	8	-	6	6	-
Stage 2	-	-	-	-	-	-	6	6	-	8	8	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1628	-	-	1628	-	-	1007	884	1083	1007	884	1083
Stage 1	-	-	-	-	-	-	1019	893	-	1021	895	-
Stage 2	-	-	-	-	-	-	1021	895	-	1019	893	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1628	-	-	1628	-	-	1006	883	1083	1006	883	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-	1006	883	-	1006	883	-
Stage 1	-	-	-	-	-	-	1018	892	-	1020	895	-
Stage 2	-	-	-	-	-	-	1021	895	-	1018	892	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0			0			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1628	-	-	1628	-	-	-				
HCM Lane V/C Ratio	-	0.001	-	-	-	-	-	-				
HCM Control Delay (s)	0	7.2	0	-	0	-	-	0				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-				

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑			↑↑	↑↑	
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Traffic Vol, veh/h	28	0	1	14	0	1
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Future Vol, veh/h	28	0	1	14	0	1
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	1	-
--------------------------	---	---	---	---	---	---

Grade, %	0	-	-	0	0	-
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Peak Hour Factor	50	50	50	50	50	50
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Heavy Vehicles, %	0	0	0	0	0	0
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Mvmt Flow	56	0	2	28	0	2
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	56
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	-	-	4.1
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	-	-	2.2
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Pot Cap-1 Maneuver	-	-	1562
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	-	1562
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	NB
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HCM Control Delay, s	0	0.5	8.4
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HCM LOS			A
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	1047	-	-	1562	-
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HCM Lane V/C Ratio	0.002	-	-	0.001	-
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HCM Control Delay (s)	8.4	-	-	7.3	0
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HCM Lane LOS	A	-	-	A	A
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HCM 95th %tile Q(veh)	0	-	-	0	-
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Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	0	0	0	27	0	0	0	13	0	1
Future Vol, veh/h	1	0	0	0	0	27	0	0	0	13	0	1
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	56	56	56	56	56	56	56	56	56	56	56	56
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	0	0	0	48	0	0	0	23	0	2
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	71	47	1	47	48	0	2	0	0	0	0	0
Stage 1	47	47	-	0	0	-	-	-	-	-	-	-
Stage 2	24	0	-	47	48	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	925	849	1090	959	847	-	1634	-	-	-	-	-
Stage 1	972	860	-	-	-	-	-	-	-	-	-	-
Stage 2	999	-	-	972	859	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	849	1090	959	847	-	1634	-	-	-	-	-
Mov Cap-2 Maneuver	-	849	-	959	847	-	-	-	-	-	-	-
Stage 1	972	860	-	-	-	-	-	-	-	-	-	-
Stage 2	999	-	-	972	859	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1634	-	-	-	-	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	-	-					
HCM Control Delay (s)	0	-	-	-	-	-	-					
HCM Lane LOS	A	-	-	-	-	-	-					
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-					

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 3.2

Movement NBL NBT SBT SBR SEL SER

Lane Configurations	↰	↱	↱	↰	↰	↰
Traffic Vol, veh/h	22	108	55	27	53	24
Future Vol, veh/h	22	108	55	27	53	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	5	11	0	4	0
Mvmt Flow	27	132	67	33	65	29

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	100	0	-	0	253	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	186	-
Critical Hdwy	4.1	-	-	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.2	-	-	-	3.536	3.3
Pot Cap-1 Maneuver	1505	-	-	-	731	1002
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1505	-	-	-	718	1002
Mov Cap-2 Maneuver	-	-	-	-	718	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	841	-

Approach NB SB SE

HCM Control Delay, s	1.3	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt NBL NBT SELn1 SELn2 SBT SBR

Capacity (veh/h)	1505	-	718	1002	-	-
HCM Lane V/C Ratio	0.018	-	0.09	0.029	-	-
HCM Control Delay (s)	7.4	-	10.5	8.7	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.1	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	44	27	1	40	33	0
Future Vol, veh/h	44	27	1	40	33	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	11	0	0	15	0
Mvmt Flow	48	29	1	43	36	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	77
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1535
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1535
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	875	-	-	1535	-
HCM Lane V/C Ratio	0.041	-	-	0.001	-
HCM Control Delay (s)	9.3	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Capacity Analysis Summary Sheets
No Build Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings
1: County Line Road & Plainfield Road

02/14/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	323	445	157	244	32	419	506	11	16	293	90
Future Volume (vph)	76	323	445	157	244	32	419	506	11	16	293	90
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.913			0.983			0.997			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3179	0	1752	3457	0	1752	3491	0	1703	3415	0
Flt Permitted	0.571			0.119			0.348			0.444		
Satd. Flow (perm)	1053	3179	0	220	3457	0	642	3491	0	796	3415	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		235			10			2			27	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	6%	2%	3%	3%	0%	3%	3%	7%	6%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	82	825	0	169	296	0	451	556	0	17	412	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	45.1	33.8		52.8	40.5		57.4	51.3		34.7	25.9	
Actuated g/C Ratio	0.38	0.29		0.45	0.34		0.49	0.44		0.30	0.22	

Lanes, Volumes, Timings
1: County Line Road & Plainfield Road

02/14/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.18	0.76		0.63	0.25		0.82	0.37		0.06	0.53	
Control Delay	22.6	34.1		33.8	30.3		33.8	23.9		19.2	41.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.6	34.1		33.8	30.3		33.8	23.9		19.2	41.4	
LOS	C	C		C	C		C	C		B	D	
Approach Delay		33.1			31.6			28.3			40.5	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	35	220		77	84		226	135		6	136	
Queue Length 95th (ft)	78	#370		157	143		357	228		21	211	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	500	1104		385	1327		617	1678		362	1027	
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	0.16	0.75		0.44	0.22		0.73	0.33		0.05	0.40	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 117.6

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 32.3

Intersection LOS: C

Intersection Capacity Utilization 84.3%

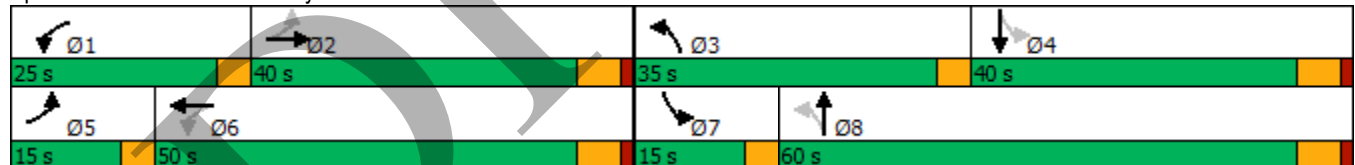
ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: County Line Road & Plainfield Road



Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

02/14/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	14	163	98	11	57	395	939	292	117	643	140
Future Volume (vph)	37	14	163	98	11	57	395	939	292	117	643	140
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		0
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850		0.874				0.850		0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1754	1468	1532	1467	0	1719	3689	1599	1770	3450	0
Flt Permitted				0.615			0.192			0.278		
Satd. Flow (perm)	1810	1754	1468	991	1467	0	347	3689	1599	518	3450	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179		63				321		19	
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	14%	10%	10%	9%	5%	5%	3%	1%	2%	2%	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)	41	15	179	108	75	0	434	1032	321	129	861	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	6.5	14.0	6.5	6.5	14.0		6.5	21.0	6.5	6.5	21.0	
Total Split (s)	20.0	40.0	30.0	20.0	40.0		30.0	60.0	20.0	20.0	50.0	
Total Split (%)	14.3%	28.6%	21.4%	14.3%	28.6%		21.4%	42.9%	14.3%	14.3%	35.7%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	0.0	1.5	0.0	0.0	1.5		0.0	1.5	0.0	0.0	1.5	
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	6.0	3.5	3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	11.6	8.3	32.1	19.6	10.4		74.5	60.4	80.9	52.1	41.5	
Actuated g/C Ratio	0.11	0.08	0.32	0.19	0.10		0.74	0.60	0.80	0.51	0.41	

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

02/14/2024

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.21	0.10	0.30	0.40	0.36		0.70	0.47	0.24	0.35	0.60	
Control Delay	38.4	49.9	5.2	39.6	20.3		20.8	13.8	1.0	10.9	26.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	38.4	49.9	5.2	39.6	20.3		20.8	13.8	1.0	10.9	26.0	
LOS	D	D	A	D	C		C	B	A	B	C	
Approach Delay		13.8			31.7			13.2			24.0	
Approach LOS		B			C			B			C	
Queue Length 50th (ft)	27	10	0	63	8		133	191	0	22	226	
Queue Length 95th (ft)	51	33	46	113	53		#325	318	23	54	334	
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	355	597	587	314	541		619	2215	1384	518	1533	
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	0.12	0.03	0.30	0.34	0.14		0.70	0.47	0.23	0.25	0.56	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 101.3

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 17.7

Intersection LOS: B

Intersection Capacity Utilization 69.6%

ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: County Line Road & Veterans Boulevard/Carriage Way Drive

Ø1 20 s	Ø2 60 s	Ø3 20 s	Ø4 40 s
Ø5 30 s	Ø6 50 s	Ø7 20 s	Ø8 40 s

Lanes, Volumes, Timings
5: Madison Street & Plainfield Road

02/14/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	540	64	133	389	204	53	264	90	172	158	73
Future Volume (vph)	98	540	64	133	389	204	53	264	90	172	158	73
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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		0.984			0.948			0.962			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3449	0	1719	3323	0	1787	1745	0	1787	1749	0
Flt Permitted	0.332			0.315			0.608			0.194		
Satd. Flow (perm)	625	3449	0	570	3323	0	1144	1745	0	365	1749	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			85			14			20	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
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 (%)	1%	3%	3%	5%	3%	3%	1%	6%	1%	1%	5%	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)	103	635	0	140	624	0	56	373	0	181	243	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	18.0	49.2		14.4	45.6		14.4	36.0		20.4	42.0	
Total Split (%)	15.0%	41.0%		12.0%	38.0%		12.0%	30.0%		17.0%	35.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	59.5	47.9		60.8	48.6		38.9	28.7		49.3	37.5	
Actuated g/C Ratio	0.50	0.40		0.51	0.40		0.32	0.24		0.41	0.31	

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

02/14/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.26	0.46		0.37	0.45		0.14	0.87		0.56	0.43	
Control Delay	17.1	28.5		22.0	27.4		21.2	63.4		29.3	32.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.1	28.5		22.0	27.4		21.2	63.4		29.3	32.8	
LOS	B	C		C	C		C	E		C	C	
Approach Delay		26.9			26.4			57.9			31.3	
Approach LOS		C			C			E			C	
Queue Length 50th (ft)	41	198		51	123		24	259		85	133	
Queue Length 95th (ft)	73	254		135	278		50	#425		136	215	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	472	1387		397	1395		460	452		350	562	
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	0.22	0.46		0.35	0.45		0.12	0.83		0.52	0.43	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 33.2
 Intersection Capacity Utilization 69.9%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Madison Street & Plainfield Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
14.4 s	49.2 s	14.4 s	42 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
18 s	45.6 s	20.4 s	36 s

HCM 6th AWSC

4: Frontage Road & Veterans Boulevard

01/26/2024

Intersection

Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Vol, veh/h	25	2	312	228	12	186
Future Vol, veh/h	25	2	312	228	12	186
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	12	0	6	0	0	9
Mvmt Flow	29	2	363	265	14	216
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.4	10.4	10.9
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	64%	0%
Vol Thru, %	0%	0%	100%	81%	0%	36%	100%
Vol Right, %	0%	100%	0%	19%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	186	17	10	178	210	152
LT Vol	12	0	0	0	178	134	0
Through Vol	0	0	17	8	0	76	152
RT Vol	0	186	0	2	0	0	0
Lane Flow Rate	14	216	19	12	207	244	177
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.025	0.329	0.036	0.021	0.338	0.38	0.175
Departure Headway (Hd)	6.523	5.476	6.65	6.307	5.878	5.593	3.562
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	545	651	542	571	608	640	993
Service Time	4.308	3.261	4.35	4.007	3.651	3.366	1.333
HCM Lane V/C Ratio	0.026	0.332	0.035	0.021	0.34	0.381	0.178
HCM Control Delay	9.5	11	9.6	9.1	11.7	11.8	7.1
HCM Lane LOS	A	B	A	A	B	B	A
HCM 95th-tile Q	0.1	1.4	0.1	0.1	1.5	1.8	0.6

Intersection

Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑	
Traffic Vol, veh/h	9	7	132	84	1	17
Future Vol, veh/h	9	7	132	84	1	17
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	1	0	0	18
Mvmt Flow	11	9	163	104	1	21
Number of Lanes	1	1	0	2	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	7.2	9.1	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	6%	0%	0%	82%	0%
Vol Thru, %	0%	100%	0%	18%	100%
Vol Right, %	94%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	9	7	160	56
LT Vol	1	0	0	132	0
Through Vol	0	9	0	28	56
RT Vol	17	0	7	0	0
Lane Flow Rate	22	11	9	198	69
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.025	0.014	0.01	0.273	0.087
Departure Headway (Hd)	4.024	4.674	3.973	4.979	4.55
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	895	756	887	725	790
Service Time	2.024	2.46	1.758	2.693	2.263
HCM Lane V/C Ratio	0.025	0.015	0.01	0.273	0.087
HCM Control Delay	7.1	7.5	6.8	9.6	7.7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0	0	1.1	0.3

HCM 6th TWSC

2: County Line Road & Carriage Place

01/26/2024

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Vol, veh/h	4	0	15	1	0	10	8	1022	3	7	884	4
Future Vol, veh/h	4	0	15	1	0	10	8	1022	3	7	884	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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	4	0	15	1	0	10	8	1054	3	7	911	4
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1470	2000	458	1542	2001	529	915	0	0	1057	0	0
Stage 1	927	927	-	1072	1072	-	-	-	-	-	-	-
Stage 2	543	1073	-	470	929	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	90	61	555	80	61	499	754	-	-	667	-	-
Stage 1	293	350	-	239	299	-	-	-	-	-	-	-
Stage 2	497	299	-	548	349	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	87	60	555	77	60	499	754	-	-	667	-	-
Mov Cap-2 Maneuver	201	171	-	177	171	-	-	-	-	-	-	-
Stage 1	290	347	-	236	296	-	-	-	-	-	-	-
Stage 2	482	296	-	527	346	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	14.1		13.6		0.1		0.1		0.1		0.1	
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	754	-	-	201	555	177	499	667	-	-		
HCM Lane V/C Ratio	0.011	-	-	0.021	0.028	0.006	0.021	0.011	-	-		
HCM Control Delay (s)	9.8	-	-	23.3	11.7	25.5	12.4	10.5	-	-		
HCM Lane LOS	A	-	-	C	B	D	B	B	-	-		
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	0.1	0	-	-		

HCM 6th TWSC
6: High Grove Boulevard & Plainfield Road

01/26/2024

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	760	33	57	726	4	24
Future Vol, veh/h	760	33	57	726	4	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	170	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	6	5	3	25	8
Mvmt Flow	792	34	59	756	4	25

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	826
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.2
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.25
Pot Cap-1 Maneuver	-	-	781
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	781
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	118	587	-	-	781	-
HCM Lane V/C Ratio	0.035	0.043	-	-	0.076	-
HCM Control Delay (s)	36.6	11.4	-	-	10	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.2	-

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	4	0	0	10	0	11	3	387	42	34	261	14
Future Vol, veh/h	4	0	0	10	0	11	3	387	42	34	261	14
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	30	0	45	0	8	2	6	2	7
Mvmt Flow	4	0	0	11	0	12	3	412	45	36	278	15
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	805	821	286	776	783	412	293	0	0	457	0	0
Stage 1	358	358	-	418	418	-	-	-	-	-	-	-
Stage 2	447	463	-	358	365	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.4	6.5	6.65	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.77	4	3.705	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	303	312	758	283	328	557	1280	-	-	1083	-	-
Stage 1	664	631	-	561	594	-	-	-	-	-	-	-
Stage 2	595	568	-	606	627	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	288	301	758	275	317	557	1280	-	-	1083	-	-
Mov Cap-2 Maneuver	288	301	-	275	317	-	-	-	-	-	-	-
Stage 1	663	610	-	560	593	-	-	-	-	-	-	-
Stage 2	581	567	-	586	606	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	17.7		14.9		0.1		0.9					
HCM LOS	C		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1280	-	-	288	275	557	1083	-	-			
HCM Lane V/C Ratio	0.002	-	-	0.015	0.039	0.021	0.033	-	-			
HCM Control Delay (s)	7.8	-	-	17.7	18.6	11.6	8.4	-	-			
HCM Lane LOS	A	-	-	C	C	B	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	0.1	-	-			

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

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	62	1	32	0	5	1	21	384	0	1	148	51
Future Vol, veh/h	62	1	32	0	5	1	21	384	0	1	148	51
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	8	0	13	0	0	100	10	7	0	0	3	6
Mvmt Flow	68	1	35	0	5	1	23	422	0	1	163	56
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	636	633	163	679	689	422	219	0	0	422	0	0
Stage 1	165	165	-	468	468	-	-	-	-	-	-	-
Stage 2	471	468	-	211	221	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.5	6.33	7.1	6.5	7.2	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.18	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4	3.417	3.5	4	4.2	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	382	400	854	368	371	467	1304	-	-	1148	-	-
Stage 1	823	766	-	579	565	-	-	-	-	-	-	-
Stage 2	562	565	-	796	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	371	392	854	347	364	467	1304	-	-	1148	-	-
Mov Cap-2 Maneuver	371	392	-	347	364	-	-	-	-	-	-	-
Stage 1	808	765	-	569	555	-	-	-	-	-	-	-
Stage 2	545	555	-	761	723	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.4			14.7			0.4			0		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1304	-	-	371	854	378	1148	-	-			
HCM Lane V/C Ratio	0.018	-	-	0.187	0.041	0.017	0.001	-	-			
HCM Control Delay (s)	7.8	-	-	16.9	9.4	14.7	8.1	-	-			
HCM Lane LOS	A	-	-	C	A	B	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.1	0.1	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 1.1

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations						
Traffic Vol, veh/h	33	3	1	22	7	0
Future Vol, veh/h	33	3	1	22	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	3	67	0	9	71	0
Mvmt Flow	40	4	1	27	9	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	44	0	71	42
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	29	-
Critical Hdwy	-	-	4.1	-	7.11	6.2
Critical Hdwy Stg 1	-	-	-	-	6.11	-
Critical Hdwy Stg 2	-	-	-	-	6.11	-
Follow-up Hdwy	-	-	2.2	-	4.139	3.3
Pot Cap-1 Maneuver	-	-	1577	-	787	1034
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	842	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1577	-	786	1034
Mov Cap-2 Maneuver	-	-	-	-	786	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	841	-

Approach NB SB NW

HCM Control Delay, s	0	0.3	9.6
HCM LOS			A

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	786	1577	-
HCM Lane V/C Ratio	-	-	0.011	0.001	-
HCM Control Delay (s)	-	-	9.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	3	3	56	6	13	28
Future Vol, veh/h	3	3	56	6	13	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	72	72	72	72	72	72
Heavy Vehicles, %	33	0	4	0	23	4
Mvmt Flow	4	4	78	8	18	39

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	157	82	0
Stage 1	82	-	-
Stage 2	75	-	-
Critical Hdwy	6.73	6.2	-
Critical Hdwy Stg 1	5.73	-	-
Critical Hdwy Stg 2	5.73	-	-
Follow-up Hdwy	3.797	3.3	-
Pot Cap-1 Maneuver	767	983	-
Stage 1	869	-	-
Stage 2	875	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	757	983	-
Mov Cap-2 Maneuver	757	-	-
Stage 1	869	-	-
Stage 2	864	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	2.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	855	1388
HCM Lane V/C Ratio	-	-	0.01	0.013
HCM Control Delay (s)	-	-	9.3	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

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	0	2	1	0	5	2	0	0	0	3	0	0
Future Vol, veh/h	0	2	1	0	5	2	0	0	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	50	0	0	80	0	0	0	0	0	0	0
Mvmt Flow	0	2	1	0	5	2	0	0	0	3	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	7	0	0	3	0	0	9	10	3	9	9	6
Stage 1	-	-	-	-	-	-	3	3	-	6	6	-
Stage 2	-	-	-	-	-	-	6	7	-	3	3	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1627	-	-	1632	-	-	1015	889	1087	1015	890	1083
Stage 1	-	-	-	-	-	-	1025	897	-	1021	895	-
Stage 2	-	-	-	-	-	-	1021	894	-	1025	897	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1627	-	-	1632	-	-	1015	889	1087	1015	890	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-	1015	889	-	1015	890	-
Stage 1	-	-	-	-	-	-	1025	897	-	1021	895	-
Stage 2	-	-	-	-	-	-	1021	894	-	1025	897	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			0			8.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1627	-	-	1632	-	-	1015				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.003				
HCM Control Delay (s)	0	0	-	-	0	-	-	8.6				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0				

Intersection

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑			↑↑	↑	
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Traffic Vol, veh/h	26	0	24	216	0	1
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Future Vol, veh/h	26	0	24	216	0	1
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	1	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	81	81	81	81	81	81
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Heavy Vehicles, %	12	0	0	0	0	0
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Mvmt Flow	32	0	30	267	0	1
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	32
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	-	-	4.1
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	-	-	2.2
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Pot Cap-1 Maneuver	-	-	1593
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	-	1593
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	NB
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HCM Control Delay, s	0	0.8	8.4
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HCM LOS			A
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	1066	-	-	1593	-
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HCM Lane V/C Ratio	0.001	-	-	0.019	-
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HCM Control Delay (s)	8.4	-	-	7.3	0.1
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HCM Lane LOS	A	-	-	A	A
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HCM 95th %tile Q(veh)	0	-	-	0.1	-
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Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	0	0	0	11	0	0	0	103	0	36
Future Vol, veh/h	7	0	0	0	0	11	0	0	0	103	0	36
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	43	0	0	0	0	0	0	0	0	0	0	1
Mvmt Flow	9	0	0	0	0	14	0	0	0	130	0	46

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	290	283	23	283	306	0	46	0	0	0	0	0
Stage 1	283	283	-	0	0	-	-	-	-	-	-	-
Stage 2	7	0	-	283	306	-	-	-	-	-	-	-
Critical Hdwy	7.53	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.53	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.53	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.887	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	588	629	1060	673	611	-	1575	-	-	-	-	-
Stage 1	643	681	-	-	-	-	-	-	-	-	-	-
Stage 2	918	-	-	728	665	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	629	1060	673	611	-	1575	-	-	-	-	-
Mov Cap-2 Maneuver	-	629	-	673	611	-	-	-	-	-	-	-
Stage 1	643	681	-	-	-	-	-	-	-	-	-	-
Stage 2	918	-	-	728	665	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1575	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	-	-
HCM Lane LOS	A	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 2.2

Movement NBL NBT SBT SBR SEL SER

Lane Configurations	↰	↱	↱	↰	↰	↰
Traffic Vol, veh/h	50	135	135	54	29	21
Future Vol, veh/h	50	135	135	54	29	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	14	14	0	3	0
Mvmt Flow	60	161	161	64	35	25

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	225	0	-	0	442	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	281	-
Critical Hdwy	4.1	-	-	-	6.43	6.2
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.2	-	-	-	3.527	3.3
Pot Cap-1 Maneuver	1356	-	-	-	571	889
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1356	-	-	-	546	889
Mov Cap-2 Maneuver	-	-	-	-	546	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	764	-

Approach NB SB SE

HCM Control Delay, s	2.1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt NBL NBT SELn1 SELn2 SBT SBR

Capacity (veh/h)	1356	-	546	889	-	-
HCM Lane V/C Ratio	0.044	-	0.063	0.028	-	-
HCM Control Delay (s)	7.8	-	12	9.2	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 2

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations      

Traffic Vol, veh/h 24 399 2 46 120 1

Future Vol, veh/h 24 399 2 46 120 1

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - 0 - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 85 85 85 85 85 85

Heavy Vehicles, % 4 2 0 2 11 0

Mvmt Flow 28 469 2 54 141 1

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 497 0 86 28

Stage 1 - - - - 28 -

Stage 2 - - - - 58 -

Critical Hdwy - - 4.1 - 6.51 6.2

Critical Hdwy Stg 1 - - - - 5.51 -

Critical Hdwy Stg 2 - - - - 5.51 -

Follow-up Hdwy - - 2.2 - 3.599 3.3

Pot Cap-1 Maneuver - - 1077 - 894 1053

Stage 1 - - - - 972 -

Stage 2 - - - - 942 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1077 - 892 1053

Mov Cap-2 Maneuver - - - - 892 -

Stage 1 - - - - 972 -

Stage 2 - - - - 940 -

Approach EB WB NB

HCM Control Delay, s 0 0.3 9.8

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 893 - - 1077 -

HCM Lane V/C Ratio 0.159 - - 0.002 -

HCM Control Delay (s) 9.8 - - 8.3 0

HCM Lane LOS A - - A A

HCM 95th %tile Q(veh) 0.6 - - 0 -

Capacity Analysis Summary Sheets
No Build Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	492	562	135	483	15	450	456	201	21	553	121
Future Volume (vph)	86	492	562	135	483	15	450	456	201	21	553	121
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.920			0.995			0.954			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3256	0	1687	3557	0	1787	3402	0	1805	3410	0
Flt Permitted	0.358			0.106			0.160			0.392		
Satd. Flow (perm)	680	3256	0	188	3557	0	301	3402	0	745	3410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		195			2			58			18	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
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 (%)	0%	2%	2%	7%	1%	0%	1%	0%	4%	0%	3%	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)	90	1098	0	141	519	0	469	684	0	22	702	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	46.2	34.4		52.5	37.8		71.5	63.0		42.8	34.0	
Actuated g/C Ratio	0.35	0.26		0.40	0.29		0.54	0.48		0.32	0.26	

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.28	1.11		0.64	0.51		0.90	0.41		0.08	0.79	
Control Delay	27.1	99.1		40.6	41.2		52.4	22.4		18.8	51.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	27.1	99.1		40.6	41.2		52.4	22.4		18.8	51.9	
LOS	C	F		D	D		D	C		B	D	
Approach Delay		93.7			41.1			34.6			50.9	
Approach LOS		F			D			C			D	
Queue Length 50th (ft)	48	~493		78	195		300	186		8	286	
Queue Length 95th (ft)	84	#661		135	255		#550	266		24	386	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	348	993		321	1190		519	1657		364	894	
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	0.26	1.11		0.44	0.44		0.90	0.41		0.06	0.79	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 131.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 57.8

Intersection LOS: E

Intersection Capacity Utilization 99.9%

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: County Line Road & Plainfield Road

 Ø1	 Ø2	 Ø3	 Ø4
25 s	40 s	35 s	40 s
 Ø5	 Ø6	 Ø7	 Ø8
15 s	50 s	15 s	60 s

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	151	17	483	236	13	148	100	821	89	30	1161	40
Future Volume (vph)	151	17	483	236	13	148	100	821	89	30	1161	40
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		0
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850		0.862				0.850		0.995	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1887	1583	1652	1529	0	1671	3725	1568	1805	3487	0
Flt Permitted	0.952			0.519			0.081			0.331		
Satd. Flow (perm)	1809	1887	1583	902	1529	0	143	3725	1568	629	3487	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91		154				93			3
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
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 (%)	0%	6%	2%	2%	0%	0%	8%	2%	3%	0%	3%	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)	157	18	503	246	168	0	104	855	93	31	1251	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	6.5	14.0	6.5	6.5	14.0		6.5	21.0	6.5	6.5	21.0	
Total Split (s)	20.0	40.0	30.0	20.0	40.0		30.0	60.0	20.0	20.0	50.0	
Total Split (%)	14.3%	28.6%	21.4%	14.3%	28.6%		21.4%	42.9%	14.3%	14.3%	35.7%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	0.0	1.5	0.0	0.0	1.5		0.0	1.5	0.0	0.0	1.5	
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	6.0	3.5	3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	18.1	9.2	32.0	27.7	9.6		75.6	67.3	96.9	52.8	44.1	
Actuated g/C Ratio	0.16	0.08	0.29	0.25	0.09		0.68	0.61	0.87	0.47	0.40	

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.54	0.12	0.97	0.66	0.62		0.23	0.38	0.07	0.09	0.90	
Control Delay	46.1	50.2	64.0	45.9	20.3		10.1	13.2	1.1	9.9	42.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	46.1	50.2	64.0	45.9	20.3		10.1	13.2	1.1	9.9	42.6	
LOS	D	D	E	D	C		B	B	A	A	D	
Approach Delay		59.5			35.6			11.8			41.9	
Approach LOS		E			D			B			D	
Queue Length 50th (ft)	109	12	~366	156	10		22	166	0	6	437	
Queue Length 95th (ft)	151	36	419	237	78		64	256	14	20	#657	
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	352	578	534	373	575		462	2254	1378	532	1385	
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	0.45	0.03	0.94	0.66	0.29		0.23	0.38	0.07	0.06	0.90	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 111.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 35.4

Intersection LOS: D

Intersection Capacity Utilization 88.0%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: County Line Road & Veterans Boulevard/Carriage Way Drive

 Ø1	 Ø2	 Ø3	 Ø4
20 s	60 s	20 s	40 s
 Ø5	 Ø6	 Ø7	 Ø8
30 s	50 s	20 s	40 s

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	693	36	130	738	256	119	286	134	250	144	111
Future Volume (vph)	139	693	36	130	738	256	119	286	134	250	144	111
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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			0.961			0.952			0.935	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3513	0	1770	3435	0	1770	1797	0	1805	1744	0
Flt Permitted	0.120			0.252			0.479			0.149		
Satd. Flow (perm)	224	3513	0	469	3435	0	892	1797	0	283	1744	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			50			22			36	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	2%	1%	1%	2%	1%	0%	0%	1%	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)	142	744	0	133	1014	0	121	429	0	255	260	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	14.7	42.0		14.7	42.0		14.7	33.6		14.7	33.6	
Total Split (%)	14.0%	40.0%		14.0%	40.0%		14.0%	32.0%		14.0%	32.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	50.8	38.7		50.4	38.5		38.7	26.7		41.8	28.3	
Actuated g/C Ratio	0.48	0.37		0.48	0.37		0.37	0.25		0.40	0.27	

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.57	0.57		0.39	0.78		0.30	0.91		0.93	0.52	
Control Delay	24.6	29.1		14.9	26.8		21.0	60.6		64.2	32.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.6	29.1		14.9	26.8		21.0	60.6		64.2	32.4	
LOS	C	C		B	C		C	E		E	C	
Approach Delay		28.4			25.4			51.9			48.2	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	49	210		37	314		49	264		112	126	
Queue Length 95th (ft)	93	279		61	212		87	#442		#268	211	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	276	1299		371	1292		436	488		275	497	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.51	0.57		0.36	0.78		0.28	0.88		0.93	0.52	

Intersection Summary

Area Type: Other
 Cycle Length: 105
 Actuated Cycle Length: 105
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 34.7
 Intersection Capacity Utilization 90.0%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Madison Street & Plainfield Road

			
Ø1	Ø2 (R)	Ø3	Ø4
14.7 s	42 s	14.7 s	33.6 s
			
Ø5	Ø6 (R)	Ø7	Ø8
14.7 s	42 s	14.7 s	33.6 s

HCM 6th AWSC

4: Frontage Road & Veterans Boulevard

01/26/2024

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Vol, veh/h	232	25	139	14	6	419
Future Vol, veh/h	232	25	139	14	6	419
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	7	0	0	2
Mvmt Flow	301	32	181	18	8	544
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	13.2	12.2	32.2
HCM LOS	B	B	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	94%	0%
Vol Thru, %	0%	0%	100%	76%	0%	6%	100%
Vol Right, %	0%	100%	0%	24%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	419	155	102	70	74	9
LT Vol	6	0	0	0	70	69	0
Through Vol	0	0	155	77	0	5	9
RT Vol	0	419	0	25	0	0	0
Lane Flow Rate	8	544	201	133	90	96	12
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.015	0.852	0.386	0.249	0.196	0.205	0.018
Departure Headway (Hd)	6.81	5.639	6.926	6.751	7.816	7.662	5.442
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	523	637	516	529	456	465	650
Service Time	4.582	3.41	4.714	4.539	5.615	5.461	3.239
HCM Lane V/C Ratio	0.015	0.854	0.39	0.251	0.197	0.206	0.018
HCM Control Delay	9.7	32.5	14.1	11.8	12.5	12.5	8.3
HCM Lane LOS	A	D	B	B	B	B	A
HCM 95th-tile Q	0	9.5	1.8	1	0.7	0.8	0.1

Intersection

Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑↑	
Traffic Vol, veh/h	58	1	11	6	0	131
Future Vol, veh/h	58	1	11	6	0	131
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	68	1	13	7	0	154
Number of Lanes	1	1	0	2	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8	8	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	85%	0%
Vol Thru, %	0%	100%	0%	15%	100%
Vol Right, %	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	131	58	1	13	4
LT Vol	0	0	0	11	0
Through Vol	0	58	0	2	4
RT Vol	131	0	1	0	0
Lane Flow Rate	154	68	1	15	5
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.148	0.091	0.001	0.022	0.006
Departure Headway (Hd)	3.451	4.819	4.083	5.237	4.813
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	1023	744	876	682	742
Service Time	1.526	2.548	1.811	2.979	2.554
HCM Lane V/C Ratio	0.151	0.091	0.001	0.022	0.007
HCM Control Delay	7.1	8	6.8	8.1	7.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0	0.1	0

HCM 6th TWSC

2: County Line Road & Carriage Place

01/26/2024

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱		↰	↱	
Traffic Vol, veh/h	1	0	1	4	0	9	20	1097	3	20	1226	4
Future Vol, veh/h	1	0	1	4	0	9	20	1097	3	20	1226	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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	3	0
Mvmt Flow	1	0	1	4	0	9	21	1155	3	21	1291	4
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1955	2535	648	1887	2536	579	1295	0	0	1158	0	0
Stage 1	1335	1335	-	1199	1199	-	-	-	-	-	-	-
Stage 2	620	1200	-	688	1337	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	39	28	418	44	28	463	542	-	-	611	-	-
Stage 1	165	225	-	200	261	-	-	-	-	-	-	-
Stage 2	447	261	-	407	224	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	36	26	418	41	26	463	542	-	-	611	-	-
Mov Cap-2 Maneuver	117	114	-	132	112	-	-	-	-	-	-	-
Stage 1	159	217	-	192	251	-	-	-	-	-	-	-
Stage 2	421	251	-	392	216	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	24.8			19.1			0.2			0.2		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	542	-	-	117	418	132	463	611	-	-		
HCM Lane V/C Ratio	0.039	-	-	0.009	0.003	0.032	0.02	0.034	-	-		
HCM Control Delay (s)	11.9	-	-	36	13.6	33.2	12.9	11.1	-	-		
HCM Lane LOS	B	-	-	E	B	D	B	B	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0.1	0.1	0.1	-	-		

HCM 6th TWSC
6: High Grove Boulevard & Plainfield Road

01/26/2024

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	1074	8	8	1113	34	105
Future Vol, veh/h	1074	8	8	1113	34	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	170	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	1	13	0	2	3	1
Mvmt Flow	1096	8	8	1136	35	107

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1104
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	640
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	640
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	29.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	84	483	-	-	640	-
HCM Lane V/C Ratio	0.413	0.222	-	-	0.013	-
HCM Control Delay (s)	75.2	14.6	-	-	10.7	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	1.7	0.8	-	-	0	-

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↕	↗	↖	↕	↗	↖	↕	
Traffic Vol, veh/h	10	3	8	44	0	55	4	408	40	23	232	5
Future Vol, veh/h	10	3	8	44	0	55	4	408	40	23	232	5
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	13	0	0	2	0	1	3	0	2	0
Mvmt Flow	12	4	10	54	0	67	5	498	49	28	283	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	908	899	286	857	853	498	289	0	0	547	0	0
Stage 1	342	342	-	508	508	-	-	-	-	-	-	-
Stage 2	566	557	-	349	345	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.33	7.1	6.5	6.22	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.417	3.5	4	3.318	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	258	281	728	280	299	572	1284	-	-	1033	-	-
Stage 1	677	642	-	551	542	-	-	-	-	-	-	-
Stage 2	513	515	-	671	640	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	222	272	728	267	290	572	1284	-	-	1033	-	-
Mov Cap-2 Maneuver	222	272	-	267	290	-	-	-	-	-	-	-
Stage 1	674	625	-	549	540	-	-	-	-	-	-	-
Stage 2	451	513	-	640	623	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	17.5		16.4			0.1			0.8			
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1284	-	-	313	267	572	1033	-	-			
HCM Lane V/C Ratio	0.004	-	-	0.082	0.201	0.117	0.027	-	-			
HCM Control Delay (s)	7.8	-	-	17.5	21.8	12.1	8.6	-	-			
HCM Lane LOS	A	-	-	C	C	B	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.3	0.7	0.4	0.1	-	-			

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱		↱	↱		↱	↱	↱
Traffic Vol, veh/h	59	4	28	0	0	0	48	379	1	1	164	129
Future Vol, veh/h	59	4	28	0	0	0	48	379	1	1	164	129
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	4	0	0	0	4	1	0	0	4	4
Mvmt Flow	70	5	33	0	0	0	57	451	1	1	195	154
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	763	763	195	859	917	452	349	0	0	452	0	0
Stage 1	197	197	-	566	566	-	-	-	-	-	-	-
Stage 2	566	566	-	293	351	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.24	7.1	6.5	6.2	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.3	2.236	-	-	2.2	-	-
Pot Cap-1 Maneuver	324	337	841	279	274	612	1199	-	-	1119	-	-
Stage 1	809	742	-	513	511	-	-	-	-	-	-	-
Stage 2	513	511	-	719	636	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	312	320	841	255	261	612	1199	-	-	1119	-	-
Mov Cap-2 Maneuver	312	320	-	255	261	-	-	-	-	-	-	-
Stage 1	770	741	-	488	486	-	-	-	-	-	-	-
Stage 2	489	486	-	685	635	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	16.9			0			0.9			0		
HCM LOS	C			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1199	-	-	312	841	-	1119	-	-			
HCM Lane V/C Ratio	0.048	-	-	0.24	0.04	-	0.001	-	-			
HCM Control Delay (s)	8.2	-	-	20.2	9.5	0	8.2	-	-			
HCM Lane LOS	A	-	-	C	A	A	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.1	-	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 0.5

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations						
Traffic Vol, veh/h	64	2	0	41	4	2
Future Vol, veh/h	64	2	0	41	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	82	3	0	53	5	3

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	85	0	137	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1524	-	861	981
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	975	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1524	-	861	981
Mov Cap-2 Maneuver	-	-	-	-	861	-
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	975	-

Approach NB SB NW

HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	898	1524	-
HCM Lane V/C Ratio	-	-	0.009	-	-
HCM Control Delay (s)	-	-	9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	15	83	0	1	13
Future Vol, veh/h	8	15	83	0	1	13
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	64	64	64	64	64	64
Heavy Vehicles, %	0	0	2	0	0	8
Mvmt Flow	13	23	130	0	2	20

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	154	130	0
Stage 1	130	-	-
Stage 2	24	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	842	925	-
Stage 1	901	-	-
Stage 2	1004	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	841	925	-
Mov Cap-2 Maneuver	841	-	-
Stage 1	901	-	-
Stage 2	1003	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	894	1468
HCM Lane V/C Ratio	-	-	0.04	0.001
HCM Control Delay (s)	-	-	9.2	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	0	2	0	2	0	0	0	1	0
Future Vol, veh/h	1	1	1	0	2	0	2	0	0	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	1	0	2	0	2	0	0	0	1	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	2	0	0	7	6	2	6	6	2
Stage 1	-	-	-	-	-	-	4	4	-	2	2	-
Stage 2	-	-	-	-	-	-	3	2	-	4	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1634	-	-	1018	893	1088	1019	893	1088
Stage 1	-	-	-	-	-	-	1024	897	-	1026	898	-
Stage 2	-	-	-	-	-	-	1025	898	-	1024	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1634	-	-	1634	-	-	1016	892	1088	1018	892	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	1016	892	-	1018	892	-
Stage 1	-	-	-	-	-	-	1023	896	-	1025	898	-
Stage 2	-	-	-	-	-	-	1024	898	-	1023	896	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			0			8.6			9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1016	1634	-	-	1634	-	-	892				
HCM Lane V/C Ratio	0.002	0.001	-	-	-	-	-	0.001				
HCM Control Delay (s)	8.6	7.2	0	-	0	-	-	9				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑			↑↑	↑	
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Traffic Vol, veh/h	189	0	3	17	0	68
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Future Vol, veh/h	189	0	3	17	0	68
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	1	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	85	85	85	85	85	85
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Heavy Vehicles, %	1	0	0	0	0	0
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Mvmt Flow	222	0	4	20	0	80
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	222
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	-	-	4.1
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	-	-	2.2
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Pot Cap-1 Maneuver	-	-	1359
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	-	1359
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	NB
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HCM Control Delay, s	0	1.1	9.3
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HCM LOS			A
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	927	-	-	1359	-
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HCM Lane V/C Ratio	0.086	-	-	0.003	-
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HCM Control Delay (s)	9.3	-	-	7.7	0
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HCM Lane LOS	A	-	-	A	A
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HCM 95th %tile Q(veh)	0.3	-	-	0	-
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HCM 6th TWSC
18: Veterans Boulevard & CNH Access/Office Access

01/26/2024

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	107	0	0	0	1	24	0	0	0	3	0	9
Future Vol, veh/h	107	0	0	0	1	24	0	0	0	3	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	132	0	0	0	1	30	0	0	0	4	0	11
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	30	14	6	14	19	0	11	0	0	0	0	0
Stage 1	14	14	-	0	0	-	-	-	-	-	-	-
Stage 2	16	0	-	14	19	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	984	884	1083	1007	879	-	1621	-	-	-	-	-
Stage 1	1011	888	-	-	-	-	-	-	-	-	-	-
Stage 2	1009	-	-	1011	884	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	884	1083	1007	879	-	1621	-	-	-	-	-
Mov Cap-2 Maneuver	-	884	-	1007	879	-	-	-	-	-	-	-
Stage 1	1011	888	-	-	-	-	-	-	-	-	-	-
Stage 2	1009	-	-	1011	884	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1621	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 3.1

Movement NBL NBT SBT SBR SEL SER

Lane Configurations	↰	↱	↱	↰	↰	↰
Traffic Vol, veh/h	34	247	105	31	71	41
Future Vol, veh/h	34	247	105	31	71	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	4	9	0	0	0
Mvmt Flow	44	321	136	40	92	53

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	176	0	-	0	545	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	409	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1412	-	-	-	503	918
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	675	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1412	-	-	-	487	918
Mov Cap-2 Maneuver	-	-	-	-	487	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	675	-

Approach NB SB SE

HCM Control Delay, s	0.9	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt NBL NBT SELn1 SELn2 SBT SBR

Capacity (veh/h)	1412	-	487	918	-	-
HCM Lane V/C Ratio	0.031	-	0.189	0.058	-	-
HCM Control Delay (s)	7.6	-	14.1	9.2	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	0.2	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 8.8

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	46	90	0	27	370	0
Future Vol, veh/h	46	90	0	27	370	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	5	0	0	1	0
Mvmt Flow	56	110	0	33	451	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	166	0	89	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.1	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.2	-	3.509	3.3
Pot Cap-1 Maneuver	-	-	1424	-	914	1016
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	992	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1424	-	914	1016
Mov Cap-2 Maneuver	-	-	-	-	914	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	992	-

Approach EB WB NB

HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	914	-	-	1424	-
HCM Lane V/C Ratio	0.494	-	-	-	-
HCM Control Delay (s)	12.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	2.8	-	-	0	-

Capacity Analysis Summary Sheets
No Build Saturday Midday Peak Hour Conditions

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	421	309	80	377	22	269	329	107	17	320	74
Future Volume (vph)	74	421	309	80	377	22	269	329	107	17	320	74
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.937			0.992			0.963			0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3363	0	1752	3538	0	1805	3408	0	1805	3481	0
Flt Permitted	0.444			0.193			0.368			0.481		
Satd. Flow (perm)	844	3363	0	356	3538	0	699	3408	0	914	3481	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		125			4			37			19	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	3%	1%	5%	0%	2%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	794	0	87	434	0	292	474	0	18	428	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	42.9	33.7		43.5	34.0		47.3	41.2		34.1	25.2	
Actuated g/C Ratio	0.43	0.34		0.43	0.34		0.47	0.41		0.34	0.25	

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.18	0.66		0.32	0.36		0.58	0.33		0.05	0.48	
Control Delay	18.8	29.0		21.0	28.5		22.2	20.6		16.4	33.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.8	29.0		21.0	28.5		22.2	20.6		16.4	33.6	
LOS	B	C		C	C		C	C		B	C	
Approach Delay		28.1			27.2			21.2			32.9	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	28	198		31	112		120	95		6	122	
Queue Length 95th (ft)	69	333		74	194		190	164		19	187	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	490	1256		470	1602		687	1907		466	1228	
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	0.16	0.63		0.19	0.27		0.43	0.25		0.04	0.35	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 100.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 26.7

Intersection LOS: C

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: County Line Road & Plainfield Road

↖ Ø1 25 s	→ Ø2 40 s	↖ Ø3 35 s	↓ Ø4 40 s
↖ Ø5 15 s	← Ø6 50 s	↖ Ø7 15 s	↑ Ø8 60 s

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	5	165	41	7	26	86	642	56	10	674	28
Future Volume (vph)	53	5	165	41	7	26	86	642	56	10	674	28
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		0
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850		0.880				0.850		0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	2000	1568	1532	1512	0	1703	3762	1538	1805	3583	0
Flt Permitted				0.800			0.288			0.392		
Satd. Flow (perm)	1863	2000	1568	1290	1512	0	516	3762	1538	745	3583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			176		28				60		3	
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	3%	10%	0%	4%	6%	1%	5%	0%	0%	4%
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)	56	5	176	44	35	0	91	683	60	11	747	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	7	4	5	3	8		5	2	3	1	6	
Permitted Phases	4		4	8			2		2	6		
Detector Phase	7	4	5	3	8		5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	3.0	8.0	3.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	
Minimum Split (s)	6.5	14.0	6.5	6.5	14.0		6.5	21.0	6.5	6.5	21.0	
Total Split (s)	20.0	40.0	30.0	20.0	40.0		30.0	60.0	20.0	20.0	50.0	
Total Split (%)	14.3%	28.6%	21.4%	14.3%	28.6%		21.4%	42.9%	14.3%	14.3%	35.7%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	
All-Red Time (s)	0.0	1.5	0.0	0.0	1.5		0.0	1.5	0.0	0.0	1.5	
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	6.0	3.5	3.5	6.0		3.5	6.0	3.5	3.5	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	10.3	9.4	11.2	15.7	9.3		49.9	48.0	66.1	43.5	34.3	
Actuated g/C Ratio	0.15	0.13	0.16	0.22	0.13		0.71	0.68	0.94	0.62	0.49	

Lanes, Volumes, Timings

3: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.22	0.02	0.44	0.13	0.16		0.18	0.27	0.04	0.02	0.43	
Control Delay	32.1	36.4	8.9	25.0	19.6		6.3	8.2	1.1	6.0	14.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	32.1	36.4	8.9	25.0	19.6		6.3	8.2	1.1	6.0	14.3	
LOS	C	D	A	C	B		A	A	A	A	B	
Approach Delay		15.0			22.6			7.5			14.2	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)	26	2	0	16	3		16	78	0	2	129	
Queue Length 95th (ft)	54	13	47	46	32		35	156	11	8	192	
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	506	1091	816	476	838		870	2872	1467	807	2358	
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	0.11	0.00	0.22	0.09	0.04		0.10	0.24	0.04	0.01	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 70.5

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 11.7

Intersection LOS: B

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: County Line Road & Veterans Boulevard/Carriage Way Drive

Ø1 20 s	Ø2 60 s	Ø3 20 s	Ø4 40 s
Ø5 30 s	Ø6 50 s	Ø7 20 s	Ø8 40 s

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	574	72	90	526	154	108	212	125	152	88	103
Future Volume (vph)	113	574	72	90	526	154	108	212	125	152	88	103
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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		0.983			0.966			0.944			0.919	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3502	0	1805	3461	0	1770	1787	0	1805	1737	0
Flt Permitted	0.271			0.330			0.603			0.218		
Satd. Flow (perm)	515	3502	0	627	3461	0	1123	1787	0	414	1737	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			39			28			53	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
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%	1%	4%	0%	1%	0%	2%	0%	1%	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)	116	666	0	93	701	0	111	348	0	157	197	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	17.0	36.0		17.0	36.0		20.0	30.0		17.0	27.0	
Total Split (%)	17.0%	36.0%		17.0%	36.0%		20.0%	30.0%		17.0%	27.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	50.9	40.8		48.9	38.2		34.2	22.3		38.6	24.5	
Actuated g/C Ratio	0.51	0.41		0.49	0.38		0.34	0.22		0.39	0.24	

Lanes, Volumes, Timings

5: Madison Street & Plainfield Road

01/26/2024

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.31	0.46		0.23	0.52		0.25	0.83		0.49	0.42	
Control Delay	15.3	24.4		10.8	23.4		19.8	51.2		24.2	25.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.3	24.4		10.8	23.4		19.8	51.2		24.2	25.5	
LOS	B	C		B	C		B	D		C	C	
Approach Delay		23.1			21.9			43.6			24.9	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	38	172		35	188		42	188		60	72	
Queue Length 95th (ft)	70	238		26	257		76	#325		103	141	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	447	1437		489	1347		552	455		350	473	
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	0.26	0.46		0.19	0.52		0.20	0.76		0.45	0.42	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 26.9
 Intersection Capacity Utilization 69.6%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Madison Street & Plainfield Road

Ø1 17 s	Ø2 (R) 36 s	Ø3 20 s	Ø4 27 s
Ø5 17 s	Ø6 (R) 36 s	Ø7 17 s	Ø8 30 s

HCM 6th AWSC

4: Frontage Road & Veterans Boulevard

01/26/2024

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Vol, veh/h	27	2	112	9	6	196
Future Vol, veh/h	27	2	112	9	6	196
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	5	0	0	3
Mvmt Flow	31	2	130	10	7	228
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.2	9	8.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	95%	0%
Vol Thru, %	0%	0%	100%	82%	0%	5%	100%
Vol Right, %	0%	100%	0%	18%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	196	18	11	56	59	6
LT Vol	6	0	0	0	56	56	0
Through Vol	0	0	18	9	0	3	6
RT Vol	0	196	0	2	0	0	0
Lane Flow Rate	7	228	21	13	65	69	7
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.276	0.031	0.019	0.104	0.107	0.007
Departure Headway (Hd)	5.508	4.359	5.409	5.281	5.751	5.64	3.454
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	652	825	661	677	623	635	1033
Service Time	3.225	2.076	3.15	3.022	3.484	3.373	1.186
HCM Lane V/C Ratio	0.011	0.276	0.032	0.019	0.104	0.109	0.007
HCM Control Delay	8.3	8.7	8.3	8.1	9.2	9.1	6.2
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0	1.1	0.1	0.1	0.3	0.4	0

Intersection

Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑↑	
Traffic Vol, veh/h	0	0	14	0	0	28
Future Vol, veh/h	0	0	14	0	0	28
Peak Hour Factor	0.50	0.50	0.50	0.50	0.50	0.50
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	28	0	0	56
Number of Lanes	1	1	0	2	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	0	8	6.6
HCM LOS	-	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	0%	100%
Vol Right, %	100%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	0	0	14	0
LT Vol	0	0	0	14	0
Through Vol	0	0	0	0	0
RT Vol	28	0	0	0	0
Lane Flow Rate	56	0	0	28	0
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.052	0	0	0.04	0
Departure Headway (Hd)	3.349	4.614	4.614	5.099	4.599
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	1067	0	0	706	0
Service Time	1.378	2.326	2.326	2.803	2.303
HCM Lane V/C Ratio	0.052	0	0	0.04	0
HCM Control Delay	6.6	7.3	7.3	8	7.3
HCM Lane LOS	A	N	N	A	N
HCM 95th-tile Q	0.2	0	0	0.1	0

HCM 6th TWSC
2: County Line Road & Carriage Place

01/26/2024

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	6	0	16	3	0	8	23	691	7	10	693	10
Future Vol, veh/h	6	0	16	3	0	8	23	691	7	10	693	10
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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	7	0	18	3	0	9	26	768	8	11	770	11
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1234	1626	391	1231	1627	388	781	0	0	776	0	0
Stage 1	798	798	-	824	824	-	-	-	-	-	-	-
Stage 2	436	828	-	407	803	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	135	103	614	136	103	616	845	-	-	849	-	-
Stage 1	350	401	-	338	390	-	-	-	-	-	-	-
Stage 2	574	389	-	597	399	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	129	98	614	128	98	616	845	-	-	849	-	-
Mov Cap-2 Maneuver	244	218	-	240	215	-	-	-	-	-	-	-
Stage 1	339	396	-	328	378	-	-	-	-	-	-	-
Stage 2	548	377	-	572	394	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.5			13.4			0.3			0.1		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	845	-	-	244	614	240	616	849	-	-		
HCM Lane V/C Ratio	0.03	-	-	0.027	0.029	0.014	0.014	0.013	-	-		
HCM Control Delay (s)	9.4	-	-	20.2	11	20.2	10.9	9.3	-	-		
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	0	0	-	-		

HCM 6th TWSC
6: High Grove Boulevard & Plainfield Road

01/26/2024

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	841	9	12	744	14	18
Future Vol, veh/h	841	9	12	744	14	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	170	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	13	0	2	3	1
Mvmt Flow	885	9	13	783	15	19

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	894
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	767
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	767
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	148	565	-	-	767	-
HCM Lane V/C Ratio	0.1	0.034	-	-	0.016	-
HCM Control Delay (s)	32	11.6	-	-	9.8	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	
Traffic Vol, veh/h	10	0	3	9	0	29	3	336	13	16	173	10
Future Vol, veh/h	10	0	3	9	0	29	3	336	13	16	173	10
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	11	0	0	0	1	0	0	2	0
Mvmt Flow	11	0	3	10	0	31	3	357	14	17	184	11

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	610	601	190	588	592	357	195	0	0	371	0	0
Stage 1	224	224	-	363	363	-	-	-	-	-	-	-
Stage 2	386	377	-	225	229	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	409	417	857	407	422	692	1390	-	-	1199	-	-
Stage 1	783	722	-	638	628	-	-	-	-	-	-	-
Stage 2	641	619	-	758	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	386	410	857	400	415	692	1390	-	-	1199	-	-
Mov Cap-2 Maneuver	386	410	-	400	415	-	-	-	-	-	-	-
Stage 1	781	712	-	637	627	-	-	-	-	-	-	-
Stage 2	611	618	-	744	708	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	11.3	0.1	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1390	-	-	442 400 692	1199	-	-
HCM Lane V/C Ratio	0.002	-	-	0.031 0.024 0.045	0.014	-	-
HCM Control Delay (s)	7.6	-	-	13.4 14.2 10.4	8	-	-
HCM Lane LOS	A	-	-	B B B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.1 0.1	0	-	-

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰		↰	↱		↰	↱	↱
Traffic Vol, veh/h	62	3	14	1	1	0	20	272	2	1	113	74
Future Vol, veh/h	62	3	14	1	1	0	20	272	2	1	113	74
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	100	0	0	5	2	0	100	3	1
Mvmt Flow	65	3	15	1	1	0	21	286	2	1	119	78
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	451	451	119	498	528	287	197	0	0	288	0	0
Stage 1	121	121	-	329	329	-	-	-	-	-	-	-
Stage 2	330	330	-	169	199	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.1	6.5	6.2	4.15	-	-	5.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.4	4	3.3	2.245	-	-	3.1	-	-
Pot Cap-1 Maneuver	522	507	938	356	459	757	1358	-	-	872	-	-
Stage 1	888	800	-	519	650	-	-	-	-	-	-	-
Stage 2	687	649	-	649	740	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	515	499	938	344	452	757	1358	-	-	872	-	-
Mov Cap-2 Maneuver	515	499	-	344	452	-	-	-	-	-	-	-
Stage 1	875	799	-	511	640	-	-	-	-	-	-	-
Stage 2	675	639	-	636	739	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	12.4			14.3			0.5			0		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1358	-	-	514	938	391	872	-	-			
HCM Lane V/C Ratio	0.016	-	-	0.133	0.016	0.005	0.001	-	-			
HCM Control Delay (s)	7.7	-	-	13.1	8.9	14.3	9.1	-	-			
HCM Lane LOS	A	-	-	B	A	B	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.5	0	0	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 1.4

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations						
Traffic Vol, veh/h	9	6	0	11	4	1
Future Vol, veh/h	9	6	0	11	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	7	0	13	5	1

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	17	0	27	14
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1613	-	993	1072
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	1015	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1613	-	993	1072
Mov Cap-2 Maneuver	-	-	-	-	993	-
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	1015	-

Approach NB SB NW

HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	1008	1613	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	-	-	8.6	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	0	2	10	0	1	9
Future Vol, veh/h	0	2	10	0	1	9
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	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	18	0	2	16

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	38	18	0
Stage 1	18	-	-
Stage 2	20	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	979	1066	-
Stage 1	1010	-	-
Stage 2	1008	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	978	1066	-
Mov Cap-2 Maneuver	978	-	-
Stage 1	1010	-	-
Stage 2	1007	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1066	1612
HCM Lane V/C Ratio	-	-	0.003	0.001
HCM Control Delay (s)	-	-	8.4	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	6	0	0	5	1	0	0	0	0	0	0
Future Vol, veh/h	1	6	0	0	5	1	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	6	0	0	5	1	0	0	0	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	6	0	0	6	0	0	14	14	6	14	14	6
Stage 1	-	-	-	-	-	-	8	8	-	6	6	-
Stage 2	-	-	-	-	-	-	6	6	-	8	8	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1628	-	-	1628	-	-	1007	884	1083	1007	884	1083
Stage 1	-	-	-	-	-	-	1019	893	-	1021	895	-
Stage 2	-	-	-	-	-	-	1021	895	-	1019	893	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1628	-	-	1628	-	-	1006	883	1083	1006	883	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-	1006	883	-	1006	883	-
Stage 1	-	-	-	-	-	-	1018	892	-	1020	895	-
Stage 2	-	-	-	-	-	-	1021	895	-	1018	892	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0			0			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1628	-	-	1628	-	-	-				
HCM Lane V/C Ratio	-	0.001	-	-	-	-	-	-				
HCM Control Delay (s)	0	7.2	0	-	0	-	-	0				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-				

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑			↑↑	↑	
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Traffic Vol, veh/h	28	0	1	14	0	1
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Future Vol, veh/h	28	0	1	14	0	1
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	1	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	50	50	50	50	50	50
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Heavy Vehicles, %	0	0	0	0	0	0
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Mvmt Flow	56	0	2	28	0	2
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	56
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	-	-	4.1
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	-	-	2.2
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Pot Cap-1 Maneuver	-	-	1562
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	-	1562
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	NB
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HCM Control Delay, s	0	0.5	8.4
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HCM LOS			A
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	1047	-	-	1562	-
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HCM Lane V/C Ratio	0.002	-	-	0.001	-
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HCM Control Delay (s)	8.4	-	-	7.3	0
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HCM Lane LOS	A	-	-	A	A
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HCM 95th %tile Q(veh)	0	-	-	0	-
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HCM 6th TWSC
18: Veterans Boulevard & CNH Access/Office Access

01/26/2024

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	0	0	27	0	0	0	13	0	1
Future Vol, veh/h	1	0	0	0	0	27	0	0	0	13	0	1
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	56	56	56	56	56	56	56	56	56	56	56	56
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	0	0	0	48	0	0	0	23	0	2
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	71	47	1	47	48	0	2	0	0	0	0	0
Stage 1	47	47	-	0	0	-	-	-	-	-	-	-
Stage 2	24	0	-	47	48	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	925	849	1090	959	847	-	1634	-	-	-	-	-
Stage 1	972	860	-	-	-	-	-	-	-	-	-	-
Stage 2	999	-	-	972	859	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	849	1090	959	847	-	1634	-	-	-	-	-
Mov Cap-2 Maneuver	-	849	-	959	847	-	-	-	-	-	-	-
Stage 1	972	860	-	-	-	-	-	-	-	-	-	-
Stage 2	999	-	-	972	859	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1634	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 3.2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	↰	↱	↱	↰	↰	↰
Traffic Vol, veh/h	22	110	56	27	53	24
Future Vol, veh/h	22	110	56	27	53	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	5	11	0	4	0
Mvmt Flow	27	134	68	33	65	29

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	101	0	0 256 68
Stage 1	-	-	- 68 -
Stage 2	-	-	- 188 -
Critical Hdwy	4.1	-	- 6.44 6.2
Critical Hdwy Stg 1	-	-	- 5.44 -
Critical Hdwy Stg 2	-	-	- 5.44 -
Follow-up Hdwy	2.2	-	- 3.536 3.3
Pot Cap-1 Maneuver	1504	-	- 728 1001
Stage 1	-	-	- 950 -
Stage 2	-	-	- 839 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1504	-	- 715 1001
Mov Cap-2 Maneuver	-	-	- 715 -
Stage 1	-	-	- 933 -
Stage 2	-	-	- 839 -

Approach	NB	SB	SE
HCM Control Delay, s	1.2	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SELn2	SBT	SBR
Capacity (veh/h)	1504	-	715	1001	-	-
HCM Lane V/C Ratio	0.018	-	0.09	0.029	-	-
HCM Control Delay (s)	7.4	-	10.5	8.7	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.1	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	44	27	1	40	34	0
Future Vol, veh/h	44	27	1	40	34	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	11	0	0	15	0
Mvmt Flow	48	29	1	43	37	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	77
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1535
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1535
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	875	-	-	1535	-
HCM Lane V/C Ratio	0.042	-	-	0.001	-
HCM Control Delay (s)	9.3	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Capacity Analysis Summary Sheets
Projected Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	328	380	191	276	32	377	517	117	16	334	108
Future Volume (vph)	78	328	380	191	276	32	377	517	117	16	334	108
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.919			0.985			0.972			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3195	0	1752	3463	0	1752	3376	0	1703	3434	0
Flt Permitted	0.552			0.142			0.310			0.392		
Satd. Flow (perm)	1018	3195	0	262	3463	0	572	3376	0	703	3434	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		198			9			23			29	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	6%	2%	3%	3%	0%	3%	3%	8%	6%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	762	0	205	331	0	405	682	0	17	475	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	44.6	33.1		54.1	41.6		58.1	51.9		37.4	28.5	
Actuated g/C Ratio	0.37	0.28		0.45	0.35		0.49	0.43		0.31	0.24	

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.19	0.74		0.67	0.27		0.80	0.46		0.06	0.56	
Control Delay	22.8	35.6		34.7	30.8		33.1	25.2		19.6	41.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.8	35.6		34.7	30.8		33.1	25.2		19.6	41.6	
LOS	C	D		C	C		C	C		B	D	
Approach Delay		34.3			32.3			28.2			40.8	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	37	215		98	98		204	175		7	161	
Queue Length 95th (ft)	79	346		187	160		317	286		21	247	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	476	1073		393	1314		597	1628		351	1023	
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	0.18	0.71		0.52	0.25		0.68	0.42		0.05	0.46	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 119.4

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 32.8

Intersection LOS: C

Intersection Capacity Utilization 82.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: County Line Road & Plainfield Road

Ø1 25 s	Ø2 40 s	Ø3 35 s	Ø4 40 s
Ø5 15 s	Ø6 50 s	Ø7 15 s	Ø8 60 s

Lanes, Volumes, Timings

2: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	15	227	98	11	57	720	907	292	117	631	162
Future Volume (vph)	44	15	227	98	11	57	720	907	292	117	631	162
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.868	0.850		0.874				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1656	1471	1382	1532	1467	0	1736	3689	1599	1770	3539	1599
Flt Permitted	0.708			0.292			0.209			0.287		
Satd. Flow (perm)	1234	1471	1382	471	1467	0	382	3689	1599	535	3539	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		117	132		63				321			178
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	20%	11%	10%	9%	5%	4%	3%	1%	2%	2%	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 (%)			47%									
Lane Group Flow (vph)	48	133	132	108	75	0	791	997	321	129	693	178
Turn Type	pm+pt	NA	Prot	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4	4	3	8		5	2	3	1	6	7
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4	4	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	8.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	6.5	14.0	14.0	6.5	14.0		6.5	21.0	6.5	6.5	21.0	6.5
Total Split (s)	7.0	22.0	22.0	16.0	31.0		52.0	92.0	16.0	10.0	50.0	7.0
Total Split (%)	5.0%	15.7%	15.7%	11.4%	22.1%		37.1%	65.7%	11.4%	7.1%	35.7%	5.0%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		0.0	1.5	0.0	0.0	1.5	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	0.0
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		3.5	6.0	3.5	3.5	6.0	3.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	None	None	C-Max	None
Act Effect Green (s)	16.2	10.2	10.2	27.8	18.3		105.2	91.6	109.2	54.1	44.0	53.5
Actuated g/C Ratio	0.12	0.07	0.07	0.20	0.13		0.75	0.65	0.78	0.39	0.31	0.38

Lanes, Volumes, Timings

2: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.32	0.62	0.59	0.59	0.30		0.96	0.41	0.24	0.47	0.62	0.25
Control Delay	53.5	26.2	20.8	61.2	18.9		50.9	12.6	0.9	23.1	43.9	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	26.2	20.8	61.2	18.9		50.9	12.6	0.9	23.1	43.9	4.7
LOS	D	C	C	E	B		D	B	A	C	D	A
Approach Delay		28.1			43.9			25.2			34.2	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	37	15	4	87	10		539	208	0	44	283	0
Queue Length 95th (ft)	70	71	56	138	55		#915	286	22	63	352	48
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	152	271	274	188	313		820	2413	1325	273	1112	721
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.49	0.48	0.57	0.24		0.96	0.41	0.24	0.47	0.62	0.25

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 28.9

Intersection LOS: C

Intersection Capacity Utilization 82.8%

ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 2: County Line Road & Veterans Boulevard/Carriage Way Drive

Ø1	Ø2 (R)	Ø3	Ø4
10 s	92 s	16 s	22 s
Ø5	Ø6 (R)	Ø7	Ø8
52 s	50 s	7 s	31 s

Lanes, Volumes, Timings

3: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	584	76	133	402	209	54	262	90	201	163	73
Future Volume (vph)	98	584	76	133	402	209	54	262	90	201	163	73
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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		0.983			0.949			0.962			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3445	0	1719	3337	0	1656	1720	0	1787	1764	0
Flt Permitted	0.319			0.277			0.605			0.191		
Satd. Flow (perm)	600	3445	0	501	3337	0	1055	1720	0	359	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			83			14			19	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
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 (%)	1%	3%	3%	5%	3%	2%	9%	5%	10%	1%	4%	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)	103	695	0	140	643	0	57	371	0	212	249	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	18.0	49.2		14.4	45.6		14.4	36.0		20.4	42.0	
Total Split (%)	15.0%	41.0%		12.0%	38.0%		12.0%	30.0%		17.0%	35.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	58.8	47.2		60.2	47.9		38.8	28.4		50.0	37.9	
Actuated g/C Ratio	0.49	0.39		0.50	0.40		0.32	0.24		0.42	0.32	

Lanes, Volumes, Timings

3: Madison Street & Plainfield Road

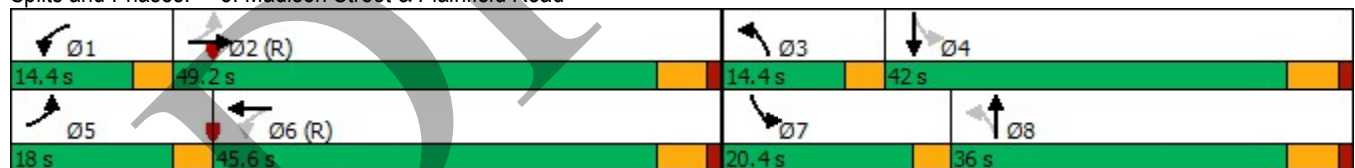
01/26/2024

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	0.51		0.40	0.46		0.15	0.89		0.63	0.44	
Control Delay	17.3	29.7		22.2	26.1		21.4	66.3		31.6	33.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.3	29.7		22.2	26.1		21.4	66.3		31.6	33.0	
LOS	B	C		C	C		C	E		C	C	
Approach Delay		28.1			25.4			60.3			32.3	
Approach LOS		C			C			E			C	
Queue Length 50th (ft)	41	220		48	114		25	265		102	138	
Queue Length 95th (ft)	73	282		128	267		52	#429		159	222	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	458	1364		365	1383		422	440		350	570	
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	0.22	0.51		0.38	0.46		0.14	0.84		0.61	0.44	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 33.6
 Intersection Capacity Utilization 73.0%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Madison Street & Plainfield Road



Lanes, Volumes, Timings

4: Frontage Road & Veterans Boulevard

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Volume (vph)	97	27	313	580	19	189
Future Volume (vph)	97	27	313	580	19	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	145		120	0
Storage Lanes		0	1		0	1
Taper Length (ft)			180		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.968					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3171	0	1703	3539	1805	1455
Flt Permitted			0.621		0.950	
Satd. Flow (perm)	3171	0	1113	3539	1805	1455
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	28					199
Link Speed (mph)	35			35	45	
Link Distance (ft)	309			577	734	
Travel Time (s)	6.0			11.2	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	0%	6%	2%	0%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	130	0	329	611	20	199
Turn Type	NA		pm+pt	NA	Prot	pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases			6			8
Detector Phase	2		1	6	8	1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	8.0	3.0
Minimum Split (s)	21.0		6.5	21.0	14.0	6.5
Total Split (s)	27.0		27.0	54.0	16.0	27.0
Total Split (%)	38.6%		38.6%	77.1%	22.9%	38.6%
Yellow Time (s)	4.5		3.5	4.5	4.5	3.5
All-Red Time (s)	1.5		0.0	1.5	1.5	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		3.5	6.0	6.0	3.5
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	C-Min		None	C-Min	None	None
Act Effect Green (s)	49.5		63.6	65.9	8.1	11.0
Actuated g/C Ratio	0.71		0.91	0.94	0.12	0.16

Lanes, Volumes, Timings

4: Frontage Road & Veterans Boulevard

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.06		0.31	0.18	0.10	0.50
Control Delay	4.6		0.9	0.6	28.7	7.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	4.6		0.9	0.6	28.7	7.8
LOS	A		A	A	C	A
Approach Delay	4.6			0.7	9.7	
Approach LOS	A			A	A	
Queue Length 50th (ft)	3		0	0	8	0
Queue Length 95th (ft)	26		m21	m28	26	35
Internal Link Dist (ft)	229			497	654	
Turn Bay Length (ft)			145		120	
Base Capacity (vph)	2249		1208	3330	257	673
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.06		0.27	0.18	0.08	0.30

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

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

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 2.6

Intersection LOS: A

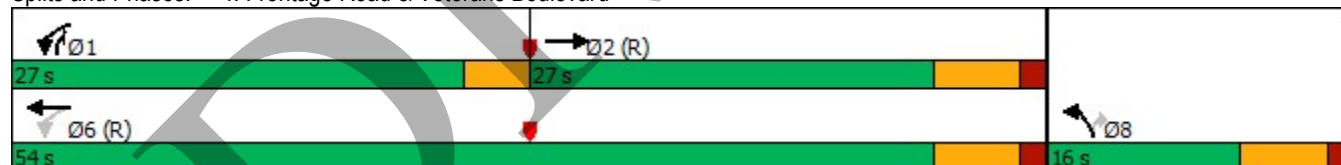
Intersection Capacity Utilization 49.8%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 4: Frontage Road & Veterans Boulevard



Lanes, Volumes, Timings
6: High Grove Boulevard & Plainfield Road

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↓
Traffic Volume (vph)	707	159	75	716	32	19
Future Volume (vph)	707	159	75	716	32	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Grade (%)	0%			0%	0%	
Storage Length (ft)		150	170		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			145		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3471	1568	1787	3505	1877	1649
Flt Permitted			0.350		0.950	
Satd. Flow (perm)	3471	1568	658	3505	1877	1649
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		166				20
Link Speed (mph)	45			45	25	
Link Distance (ft)	1534			1457	204	
Travel Time (s)	23.2			22.1	5.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	3%	1%	3%	9%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	736	166	78	746	33	20
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	2	8	1	6	8	1
Permitted Phases		2	6			8
Detector Phase	2	8	1	6	8	1
Switch Phase						
Minimum Initial (s)	15.0	8.0	3.0	15.0	8.0	3.0
Minimum Split (s)	21.0	14.0	6.5	21.0	14.0	6.5
Total Split (s)	82.0	20.0	18.0	100.0	20.0	18.0
Total Split (%)	68.3%	16.7%	15.0%	83.3%	16.7%	15.0%
Yellow Time (s)	4.0	4.0	3.5	4.0	4.0	3.5
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	3.5	6.0	6.0	3.5
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?						
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effect Green (s)	91.0	107.2	101.5	99.0	9.0	21.3
Actuated g/C Ratio	0.76	0.89	0.85	0.82	0.08	0.18

Lanes, Volumes, Timings 6: High Grove Boulevard & Plainfield Road

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.28	0.12	0.13	0.26	0.24	0.06
Control Delay	2.7	0.1	1.8	2.1	56.0	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.7	0.1	1.8	2.1	56.0	16.5
LOS	A	A	A	A	E	B
Approach Delay	2.2			2.1	41.1	
Approach LOS	A			A	D	
Queue Length 50th (ft)	50	0	6	37	25	0
Queue Length 95th (ft)	m32	m0	13	45	m56	m22
Internal Link Dist (ft)	1454			1377	124	
Turn Bay Length (ft)		150	170			
Base Capacity (vph)	2631	1462	693	2891	218	420
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.11	0.11	0.26	0.15	0.05

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 3.3

Intersection LOS: A

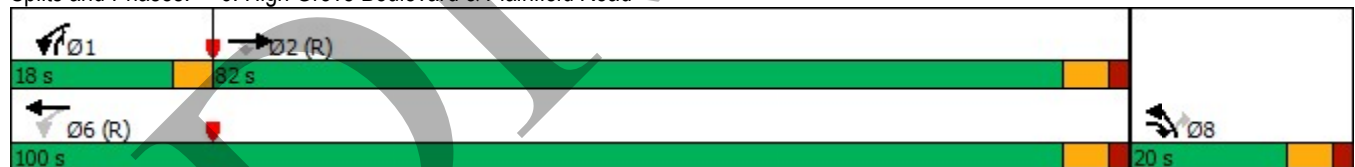
Intersection Capacity Utilization 43.7%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 6: High Grove Boulevard & Plainfield Road



HCM 6th TWSC
5: County Line Road & Carriage Place

01/26/2024

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↱		↰	↱↲		↰	↱↲	
Traffic Vol, veh/h	4	0	15	1	0	10	8	997	3	7	894	4
Future Vol, veh/h	4	0	15	1	0	10	8	997	3	7	894	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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	4	0	0	2	0
Mvmt Flow	4	0	15	1	0	10	8	1028	3	7	922	4
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1468	1985	463	1521	1986	516	926	0	0	1031	0	0
Stage 1	938	938	-	1046	1046	-	-	-	-	-	-	-
Stage 2	530	1047	-	475	940	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	91	62	551	83	62	509	746	-	-	682	-	-
Stage 1	288	346	-	248	308	-	-	-	-	-	-	-
Stage 2	506	308	-	545	345	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	88	61	551	79	61	509	746	-	-	682	-	-
Mov Cap-2 Maneuver	200	173	-	182	173	-	-	-	-	-	-	-
Stage 1	285	343	-	245	305	-	-	-	-	-	-	-
Stage 2	490	305	-	524	342	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.2			13.4			0.1			0.1		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	746	-	-	200	551	182	509	682	-	-		
HCM Lane V/C Ratio	0.011	-	-	0.021	0.028	0.006	0.02	0.011	-	-		
HCM Control Delay (s)	9.9	-	-	23.4	11.7	24.9	12.2	10.3	-	-		
HCM Lane LOS	A	-	-	C	B	C	B	B	-	-		
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	0.1	0	-	-		

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	4	0	0	16	0	10	3	387	104	51	261	14
Future Vol, veh/h	4	0	0	16	0	10	3	387	104	51	261	14
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	6	0	30	0	9	1	2	2	7
Mvmt Flow	4	0	0	17	0	11	3	412	111	54	278	15

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	873	923	286	812	819	412	293	0	0	523	0	0
Stage 1	394	394	-	418	418	-	-	-	-	-	-	-
Stage 2	479	529	-	394	401	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.16	6.5	6.5	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.16	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.16	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.554	4	3.57	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	273	272	758	293	312	584	1280	-	-	1043	-	-
Stage 1	635	609	-	605	594	-	-	-	-	-	-	-
Stage 2	571	530	-	623	604	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	257	257	758	281	295	584	1280	-	-	1043	-	-
Mov Cap-2 Maneuver	257	257	-	281	295	-	-	-	-	-	-	-
Stage 1	634	577	-	604	593	-	-	-	-	-	-	-
Stage 2	559	529	-	591	573	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.2	15.8	0	1.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	257 281 584	1043	-	-
HCM Lane V/C Ratio	0.002	-	-	0.017 0.061 0.018	0.052	-	-
HCM Control Delay (s)	7.8	-	-	19.2 18.6 11.3	8.6	-	-
HCM Lane LOS	A	-	-	C C B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.2 0.1	0.2	-	-

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

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	98	1	32	0	5	1	21	410	1	1	150	55
Future Vol, veh/h	98	1	32	0	5	1	21	410	1	1	150	55
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	0	13	0	0	100	10	7	0	0	2	6
Mvmt Flow	108	1	35	0	5	1	23	451	1	1	165	60
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	668	665	165	713	725	452	225	0	0	452	0	0
Stage 1	167	167	-	498	498	-	-	-	-	-	-	-
Stage 2	501	498	-	215	227	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.33	7.1	6.5	7.2	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.417	3.5	4	4.2	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	365	383	852	349	354	447	1298	-	-	1119	-	-
Stage 1	823	764	-	558	548	-	-	-	-	-	-	-
Stage 2	543	548	-	792	720	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	355	376	852	329	347	447	1298	-	-	1119	-	-
Mov Cap-2 Maneuver	355	376	-	329	347	-	-	-	-	-	-	-
Stage 1	808	763	-	548	538	-	-	-	-	-	-	-
Stage 2	527	538	-	758	719	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	17.1			15.2			0.4			0		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1298	-	-	355	852	360	1119	-	-			
HCM Lane V/C Ratio	0.018	-	-	0.306	0.041	0.018	0.001	-	-			
HCM Control Delay (s)	7.8	-	-	19.6	9.4	15.2	8.2	-	-			
HCM Lane LOS	A	-	-	C	A	C	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	1.3	0.1	0.1	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 3.6

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations						
Traffic Vol, veh/h	85	30	96	29	5	13
Future Vol, veh/h	85	30	96	29	5	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	1	3	2	7	20	23
Mvmt Flow	104	37	117	35	6	16

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	141	0	392	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	269	-
Critical Hdwy	-	-	4.12	-	6.6	6.43
Critical Hdwy Stg 1	-	-	-	-	5.6	-
Critical Hdwy Stg 2	-	-	-	-	5.6	-
Follow-up Hdwy	-	-	2.218	-	3.68	3.507
Pot Cap-1 Maneuver	-	-	1442	-	579	874
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	736	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1442	-	531	874
Mov Cap-2 Maneuver	-	-	-	-	531	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	675	-

Approach NB SB NW

HCM Control Delay, s	0	5.9	10
HCM LOS			B

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	741	1442	-
HCM Lane V/C Ratio	-	-	0.03	0.081	-
HCM Control Delay (s)	-	-	10	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 7.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	98	41	22	74	162	35
Future Vol, veh/h	98	41	22	74	162	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	7	5	4	2	3
Mvmt Flow	103	43	23	78	171	37

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	441	62	0
Stage 1	62	-	-
Stage 2	379	-	-
Critical Hdwy	6.43	6.27	-
Critical Hdwy Stg 1	5.43	-	-
Critical Hdwy Stg 2	5.43	-	-
Follow-up Hdwy	3.527	3.363	-
Pot Cap-1 Maneuver	572	989	-
Stage 1	958	-	-
Stage 2	690	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	505	989	-
Mov Cap-2 Maneuver	505	-	-
Stage 1	958	-	-
Stage 2	609	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	6.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	590	1491
HCM Lane V/C Ratio	-	-	0.248	0.114
HCM Control Delay (s)	-	-	13.1	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.4

HCM 6th TWSC
11: Access A & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 0.2

Movement EBT EBR WBL WBT NWL NWR

Lane Configurations	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Vol, veh/h	123	2	0	13	3	0
Future Vol, veh/h	123	2	0	13	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	100	0	0	100	0
Mvmt Flow	129	2	0	14	3	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	131	0	144	130
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	14	-
Critical Hdwy	-	-	4.1	-	7.4	6.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	-	-	2.2	-	4.4	3.3
Pot Cap-1 Maneuver	-	-	1467	-	664	925
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1467	-	664	925
Mov Cap-2 Maneuver	-	-	-	-	664	-
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	805	-

Approach EB WB NW

HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt NWLn1 EBT EBR WBL WBT

Capacity (veh/h)	664	-	-	1467	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	10.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
12: Access B & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 0.8

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	0	123	0	0	13	0
Future Vol, veh/h	0	123	0	0	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	129	0	0	14	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	129	0	66	65
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1469	-	944	1005
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	1028	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1469	-	944	1005
Mov Cap-2 Maneuver	-	-	-	-	944	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	1028	-

Approach EB WB NB

HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	944	-	-	1469	-
HCM Lane V/C Ratio	0.014	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 1.7

Movement EBT EBR WBL WBT NBL NBRLane Configurations 

Traffic Vol, veh/h 142 82 73 130 9 7

Future Vol, veh/h 142 82 73 130 9 7

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - 145 - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 3 0 0 4 0 0

Mvmt Flow 149 86 77 137 9 7

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 235 0 415 118

Stage 1 - - - - 192 -

Stage 2 - - - - 223 -

Critical Hdwy - - 4.1 - 6.8 6.9

Critical Hdwy Stg 1 - - - - 5.8 -

Critical Hdwy Stg 2 - - - - 5.8 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 1344 - 571 918

Stage 1 - - - - 828 -

Stage 2 - - - - 799 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1344 - 538 918

Mov Cap-2 Maneuver - - - - 538 -

Stage 1 - - - - 828 -

Stage 2 - - - - 753 -

Approach EB WB NB

HCM Control Delay, s 0 2.8 10.6

HCM LOS B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 657 - - 1344 -

HCM Lane V/C Ratio 0.026 - - 0.057 -

HCM Control Delay (s) 10.6 - - 7.8 -

HCM Lane LOS B - - A -

HCM 95th %tile Q(veh) 0.1 - - 0.2 -

Intersection

Int Delay, s/veh 1.1

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations ↑↑ ↑ ↘ ↑↑ ↘

Traffic Vol, veh/h 125 24 51 200 3 5

Future Vol, veh/h 125 24 51 200 3 5

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - 145 - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 3 0 0 3 0 0

Mvmt Flow 132 25 54 211 3 5

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 157 0 359 79

Stage 1 - - - - 145 -

Stage 2 - - - - 214 -

Critical Hdwy - - 4.1 - 6.8 6.9

Critical Hdwy Stg 1 - - - - 5.8 -

Critical Hdwy Stg 2 - - - - 5.8 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 1435 - 618 972

Stage 1 - - - - 873 -

Stage 2 - - - - 807 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1435 - 595 972

Mov Cap-2 Maneuver - - - - 595 -

Stage 1 - - - - 873 -

Stage 2 - - - - 776 -

Approach EB WB NB

HCM Control Delay, s 0 1.5 9.6

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 785 - - 1435 -

HCM Lane V/C Ratio 0.011 - - 0.037 -

HCM Control Delay (s) 9.6 - - 7.6 -

HCM Lane LOS A - - A -

HCM 95th %tile Q(veh) 0 - - 0.1 -

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	82	46	206	236	6	7	0	30	16	0	8
Future Vol, veh/h	2	82	46	206	236	6	7	0	30	16	0	8
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	145	-	-	145	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	4	2	5	1	0	29	0	33	0	0	0
Mvmt Flow	2	86	48	217	248	6	7	0	32	17	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	254	0	0	134	0	0	672	802	67	732	823	127
Stage 1	-	-	-	-	-	-	114	114	-	685	685	-
Stage 2	-	-	-	-	-	-	558	688	-	47	138	-
Critical Hdwy	4.1	-	-	4.2	-	-	8.08	6.5	7.56	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	7.08	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.08	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.25	-	-	3.79	4	3.63	3.5	4	3.3
Pot Cap-1 Maneuver	1323	-	-	1427	-	-	293	320	891	313	311	906
Stage 1	-	-	-	-	-	-	806	805	-	409	451	-
Stage 2	-	-	-	-	-	-	419	450	-	967	786	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1323	-	-	1427	-	-	256	271	891	266	263	906
Mov Cap-2 Maneuver	-	-	-	-	-	-	256	271	-	266	263	-
Stage 1	-	-	-	-	-	-	804	803	-	408	382	-
Stage 2	-	-	-	-	-	-	352	382	-	931	784	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	3.7	11.1	15.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	256	891	1323	-	-	1427	-	-	266	906
HCM Lane V/C Ratio	0.029	0.035	0.002	-	-	0.152	-	-	0.063	0.009
HCM Control Delay (s)	19.5	9.2	7.7	-	-	8	-	-	19.4	9
HCM Lane LOS	C	A	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0.5	-	-	0.2	0

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	106	22	134	444	4	20
Future Vol, veh/h	106	22	134	444	4	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	145	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	12	0	0	3	0	0
Mvmt Flow	131	27	165	548	5	25

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	158
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1434
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1434
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	719	-	-	1434	-
HCM Lane V/C Ratio	0.041	-	-	0.115	-
HCM Control Delay (s)	10.2	-	-	7.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	123	3	21	578	0	1
Future Vol, veh/h	123	3	21	578	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	11	0	0	2	0	0
Mvmt Flow	129	3	22	608	0	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	132
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1466
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1466
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	991	-	-	1466	-
HCM Lane V/C Ratio	0.001	-	-	0.015	-
HCM Control Delay (s)	8.6	-	-	7.5	0.1
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
18: Veterans Boulevard & Office Access/Access F

01/26/2024

Intersection												
Int Delay, s/veh	0											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	0	0	0	0	11	0	0	0	36	0	120
Future Vol, veh/h	13	0	0	0	0	11	0	0	0	36	0	120
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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	0	0	0	0	12	0	0	0	38	0	126
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	145	139	63	139	202	0	126	0	0	0	0	0
Stage 1	139	139	-	0	0	-	-	-	-	-	-	-
Stage 2	6	0	-	139	202	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	828	756	1007	836	698	-	1473	-	-	-	-	-
Stage 1	869	785	-	-	-	-	-	-	-	-	-	-
Stage 2	1021	-	-	869	738	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	756	1007	836	698	-	1473	-	-	-	-	-
Mov Cap-2 Maneuver	-	756	-	836	698	-	-	-	-	-	-	-
Stage 1	869	785	-	-	-	-	-	-	-	-	-	-
Stage 2	1021	-	-	869	738	-	-	-	-	-	-	-
Approach	SE		NW			NE			SW			
HCM Control Delay, s	0											
HCM LOS	-											
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1473	-	-	-	-	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	-	-					
HCM Control Delay (s)	0	-	-	-	-	-	-					
HCM Lane LOS	A	-	-	-	-	-	-					
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-					

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 2.4

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations	↰	↱	↱	↰	↰	↰
Traffic Vol, veh/h	52	134	135	74	37	23
Future Vol, veh/h	52	134	135	74	37	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	14	14	0	11	9
Mvmt Flow	62	160	161	88	44	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	249	0	0 445 161
Stage 1	-	-	- 161 -
Stage 2	-	-	- 284 -
Critical Hdwy	4.1	-	- 6.51 6.29
Critical Hdwy Stg 1	-	-	- 5.51 -
Critical Hdwy Stg 2	-	-	- 5.51 -
Follow-up Hdwy	2.2	-	- 3.599 3.381
Pot Cap-1 Maneuver	1328	-	- 554 866
Stage 1	-	-	- 846 -
Stage 2	-	-	- 744 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1328	-	- 528 866
Mov Cap-2 Maneuver	-	-	- 528 -
Stage 1	-	-	- 806 -
Stage 2	-	-	- 744 -

Approach	NB	SB	SE
HCM Control Delay, s	2.2	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SELn2	SBT	SBR
Capacity (veh/h)	1328	-	528	866	-	-
HCM Lane V/C Ratio	0.047	-	0.083	0.032	-	-
HCM Control Delay (s)	7.8	-	12.4	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	0.1	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	25	399	2	46	120	1
Future Vol, veh/h	25	399	2	46	120	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	8	2	0	2	11	0
Mvmt Flow	29	469	2	54	141	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	498
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1076
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1076
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	891	-	-	1076	-
HCM Lane V/C Ratio	0.16	-	-	0.002	-
HCM Control Delay (s)	9.8	-	-	8.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Capacity Analysis Summary Sheets
Projected Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	524	498	144	489	15	402	496	234	21	564	124
Future Volume (vph)	103	524	498	144	489	15	402	496	234	21	564	124
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.927			0.995			0.952			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3281	0	1687	3557	0	1787	3404	0	1805	3410	0
Flt Permitted	0.359			0.106			0.159			0.363		
Satd. Flow (perm)	682	3281	0	188	3557	0	299	3404	0	690	3410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		162			2			65			18	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
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 (%)	0%	2%	2%	7%	1%	0%	1%	0%	3%	0%	3%	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)	107	1065	0	150	525	0	419	761	0	22	717	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	46.8	34.5		52.8	37.9		68.5	60.1		42.9	34.1	
Actuated g/C Ratio	0.36	0.27		0.41	0.29		0.53	0.47		0.33	0.26	

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.32	1.07		0.66	0.50		0.86	0.47		0.08	0.79	
Control Delay	27.1	88.2		40.5	40.2		46.9	23.7		19.0	51.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	27.1	88.2		40.5	40.2		46.9	23.7		19.0	51.1	
LOS	C	F		D	D		D	C		B	D	
Approach Delay		82.7			40.3			32.0			50.2	
Approach LOS		F			D			C			D	
Queue Length 50th (ft)	57	~485		83	199		249	215		8	295	
Queue Length 95th (ft)	97	#657		145	258		#457	307		24	#401	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	356	994		328	1217		522	1617		356	914	
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	0.30	1.07		0.46	0.43		0.80	0.47		0.06	0.78	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 129.2

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 52.8

Intersection LOS: D

Intersection Capacity Utilization 96.9%

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: County Line Road & Plainfield Road

			
Ø1	Ø2	Ø3	Ø4
25 s	40 s	35 s	40 s
			
Ø5	Ø6	Ø7	Ø8
15 s	50 s	15 s	60 s

Lanes, Volumes, Timings

2: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	17	814	236	14	148	174	818	89	30	1109	48
Future Volume (vph)	179	17	814	236	14	148	174	818	89	30	1109	48
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.856	0.850		0.863				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1548	1461	1652	1521	0	1530	3725	1568	1805	3505	1495
Flt Permitted	0.650			0.137			0.082			0.294		
Satd. Flow (perm)	1223	1548	1461	238	1521	0	132	3725	1568	559	3505	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		187	187		154				93			123
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
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 (%)	1%	6%	5%	2%	7%	0%	18%	2%	3%	0%	3%	8%
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 (%)			49%									
Lane Group Flow (vph)	186	434	432	246	169	0	181	852	93	31	1155	50
Turn Type	pm+pt	NA	Prot	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	7	4	4	3	8		5	2	3	1	6	7
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4	4	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.0	8.0	8.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	6.5	14.0	14.0	6.5	14.0		6.5	21.0	6.5	6.5	21.0	6.5
Total Split (s)	13.0	33.0	33.0	19.0	39.0		16.0	60.0	19.0	8.0	52.0	13.0
Total Split (%)	10.8%	27.5%	27.5%	15.8%	32.5%		13.3%	50.0%	15.8%	6.7%	43.3%	10.8%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		0.0	1.5	0.0	0.0	1.5	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	0.0
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		3.5	6.0	3.5	3.5	6.0	3.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Max	None
Act Effect Green (s)	37.7	25.7	25.7	47.1	31.6		65.9	58.6	80.0	55.1	47.9	63.4
Actuated g/C Ratio	0.31	0.21	0.21	0.39	0.26		0.55	0.49	0.67	0.46	0.40	0.53

Lanes, Volumes, Timings

2: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.43	0.91	0.94	0.89	0.33		0.85	0.47	0.09	0.10	0.83	0.06
Control Delay	26.1	43.5	49.5	63.1	8.6		60.3	22.4	1.9	14.5	39.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	43.5	49.5	63.1	8.6		60.3	22.4	1.9	14.5	39.1	0.1
LOS	C	D	D	E	A		E	C	A	B	D	A
Approach Delay		42.9			40.9			26.8			36.9	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	88	130	131	134	9		91	242	0	11	428	0
Queue Length 95th (ft)	m122	m#331	m#351	#284	62		#218	301	19	26	523	0
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	428	493	473	275	529		218	1819	1077	305	1397	847
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.88	0.91	0.89	0.32		0.83	0.47	0.09	0.10	0.83	0.06

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 36.0

Intersection LOS: D

Intersection Capacity Utilization 90.7%

ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 2: County Line Road & Veterans Boulevard/Carriage Way Drive

Ø1	Ø2(R)	Ø3	Ø4
8 s	60 s	19 s	33 s
Ø5	Ø6(R)	Ø7	Ø8
16 s	52 s	13 s	39 s

Lanes, Volumes, Timings

3: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	706	38	130	787	285	130	290	134	256	144	111
Future Volume (vph)	139	706	38	130	787	285	130	290	134	256	144	111
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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			0.960			0.953			0.935	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3509	0	1770	3431	0	1770	1798	0	1805	1744	0
Flt Permitted	0.103			0.244			0.473			0.144		
Satd. Flow (perm)	192	3509	0	455	3431	0	881	1798	0	274	1744	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			53			22			36	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	2%	1%	1%	2%	1%	0%	0%	1%	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)	142	759	0	133	1094	0	133	433	0	261	260	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	14.7	42.0		14.7	42.0		14.7	33.6		14.7	33.6	
Total Split (%)	14.0%	40.0%		14.0%	40.0%		14.0%	32.0%		14.0%	32.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	50.8	38.7		50.4	38.5		39.0	26.7		41.7	28.1	
Actuated g/C Ratio	0.48	0.37		0.48	0.37		0.37	0.25		0.40	0.27	

Lanes, Volumes, Timings

3: Madison Street & Plainfield Road

01/26/2024

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.60	0.59		0.40	0.85		0.32	0.92		0.96	0.53	
Control Delay	27.7	29.3		16.2	29.3		21.4	61.6		71.7	32.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	27.7	29.3		16.2	29.3		21.4	61.6		71.7	32.6	
LOS	C	C		B	C		C	E		E	C	
Approach Delay		29.1			27.9			52.2			52.2	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	49	215		32	186		54	267		117	127	
Queue Length 95th (ft)	103	286		76	#308		95	#447		#282	211	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	263	1296		365	1291		434	488		272	494	
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	0.59		0.36	0.85		0.31	0.89		0.96	0.53	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

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

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 36.4

Intersection LOS: D

Intersection Capacity Utilization 92.8%

ICU Level of Service F

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Madison Street & Plainfield Road

↖ Ø1 14.7 s	↗ Ø2 (R) 42 s	↖ Ø3 14.7 s	↓ Ø4 33.6 s
↗ Ø5 14.7 s	↖ Ø6 (R) 42 s	↗ Ø7 14.7 s	↑ Ø8 33.6 s

Lanes, Volumes, Timings

4: Frontage Road & Veterans Boulevard

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Volume (vph)	596	27	137	99	28	414
Future Volume (vph)	596	27	137	99	28	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	145		120	0
Storage Lanes		0	1		0	1
Taper Length (ft)			180		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3554	0	1656	3471	1805	1583
Flt Permitted			0.385		0.950	
Satd. Flow (perm)	3554	0	671	3471	1805	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	7					46
Link Speed (mph)	35			35	45	
Link Distance (ft)	309			577	734	
Travel Time (s)	6.0			11.2	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	9%	4%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	655	0	144	104	29	436
Turn Type	NA		pm+pt	NA	Prot	pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases			6			8
Detector Phase	2		1	6	8	1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	15.0	3.0
Minimum Split (s)	21.0		6.5	21.0	21.0	6.5
Total Split (s)	22.0		17.0	39.0	21.0	17.0
Total Split (%)	36.7%		28.3%	65.0%	35.0%	28.3%
Yellow Time (s)	4.5		3.5	4.5	4.5	3.5
All-Red Time (s)	1.5		0.0	1.5	1.5	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		3.5	6.0	6.0	3.5
Lead/Lag	Lead		Lag			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	C-Min		None	C-Min	None	None
Act Effect Green (s)	33.0		52.3	54.6	15.0	17.5
Actuated g/C Ratio	0.55		0.87	0.91	0.25	0.29

Lanes, Volumes, Timings

4: Frontage Road & Veterans Boulevard

01/26/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.34		0.18	0.03	0.06	0.88
Control Delay	10.2		2.4	1.2	17.7	39.3
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	10.2		2.4	1.2	17.7	39.3
LOS	B		A	A	B	D
Approach Delay	10.2			1.9	37.9	
Approach LOS	B			A	D	
Queue Length 50th (ft)	49		6	0	8	~173
Queue Length 95th (ft)	161		m18	m7	25	129
Internal Link Dist (ft)	229			497	654	
Turn Bay Length (ft)			145		120	
Base Capacity (vph)	1955		808	3159	451	499
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.34		0.18	0.03	0.06	0.87

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 42 (70%), Referenced to phase 2:EBT and 6:WBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 18.1

Intersection LOS: B

Intersection Capacity Utilization 51.3%

ICU Level of Service A

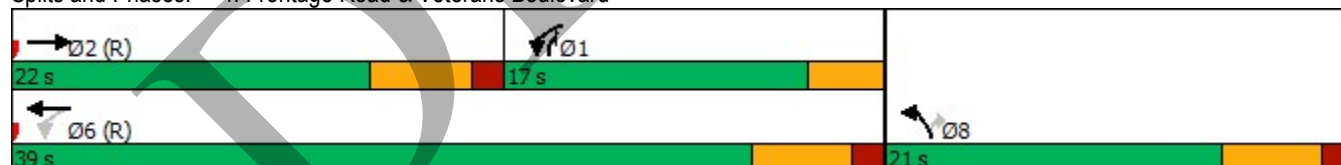
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Frontage Road & Veterans Boulevard



Lanes, Volumes, Timings
6: High Grove Boulevard & Plainfield Road

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗
Traffic Volume (vph)	1062	39	14	1068	157	102
Future Volume (vph)	1062	39	14	1068	157	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Grade (%)	0%			0%	0%	
Storage Length (ft)		150	170		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			145		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3574	1538	1805	3539	2025	1830
Flt Permitted			0.213		0.950	
Satd. Flow (perm)	3574	1538	405	3539	2025	1830
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		40				95
Link Speed (mph)	45			45	25	
Link Distance (ft)	1534			1457	204	
Travel Time (s)	23.2			22.1	5.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	5%	0%	2%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1084	40	14	1090	160	104
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	2	8	1	6	8	1
Permitted Phases		2	6			8
Detector Phase	2	8	1	6	8	1
Switch Phase						
Minimum Initial (s)	15.0	8.0	3.0	15.0	8.0	3.0
Minimum Split (s)	21.0	14.0	6.5	21.0	14.0	6.5
Total Split (s)	68.0	26.0	11.0	79.0	26.0	11.0
Total Split (%)	64.8%	24.8%	10.5%	75.2%	24.8%	10.5%
Yellow Time (s)	4.0	4.0	3.5	4.0	4.0	3.5
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	3.5	6.0	6.0	3.5
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?						
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effect Green (s)	69.3	89.8	81.0	78.5	14.5	26.2
Actuated g/C Ratio	0.66	0.86	0.77	0.75	0.14	0.25

Lanes, Volumes, Timings
6: High Grove Boulevard & Plainfield Road

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.46	0.03	0.04	0.41	0.57	0.20
Control Delay	7.4	0.1	2.1	5.6	50.0	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	0.1	2.1	5.6	50.0	8.0
LOS	A	A	A	A	D	A
Approach Delay	7.2			5.5	33.4	
Approach LOS	A			A	C	
Queue Length 50th (ft)	121	0	2	206	101	4
Queue Length 95th (ft)	m141	m0	m3	287	160	43
Internal Link Dist (ft)	1454			1377	124	
Turn Bay Length (ft)		150	170			
Base Capacity (vph)	2360	1400	412	2647	385	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.03	0.03	0.41	0.42	0.19

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 7 (7%), Referenced to phase 2:EBT and 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 9.2

Intersection LOS: A

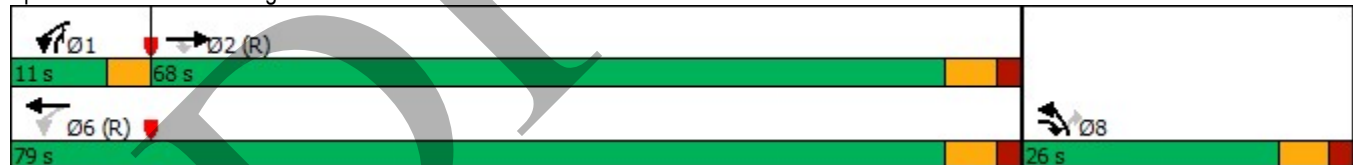
Intersection Capacity Utilization 48.2%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 6: High Grove Boulevard & Plainfield Road



HCM 6th TWSC
5: County Line Road & Carriage Place

01/26/2024

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	1	4	0	9	20	1122	3	20	1182	4
Future Vol, veh/h	1	0	1	4	0	9	20	1122	3	20	1182	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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	3	0
Mvmt Flow	1	0	1	4	0	9	21	1181	3	21	1244	4
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1921	2514	624	1889	2515	592	1248	0	0	1184	0	0
Stage 1	1288	1288	-	1225	1225	-	-	-	-	-	-	-
Stage 2	633	1226	-	664	1290	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	42	29	433	44	29	454	565	-	-	597	-	-
Stage 1	176	237	-	193	254	-	-	-	-	-	-	-
Stage 2	439	253	-	421	236	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	39	27	433	41	27	454	565	-	-	597	-	-
Mov Cap-2 Maneuver	122	115	-	130	115	-	-	-	-	-	-	-
Stage 1	169	229	-	186	245	-	-	-	-	-	-	-
Stage 2	414	244	-	405	228	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	24.1			19.4			0.2			0.2		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	565	-	-	122	433	130	454	597	-	-		
HCM Lane V/C Ratio	0.037	-	-	0.009	0.002	0.032	0.021	0.035	-	-		
HCM Control Delay (s)	11.6	-	-	34.8	13.3	33.6	13.1	11.2	-	-		
HCM Lane LOS	B	-	-	D	B	D	B	B	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0.1	0.1	0.1	-	-		

Intersection

Int Delay, s/veh 5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	
Traffic Vol, veh/h	10	3	8	102	0	70	4	408	49	25	232	5
Future Vol, veh/h	10	3	8	102	0	70	4	408	49	25	232	5
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	13	0	0	1	0	1	2	0	2	0
Mvmt Flow	12	4	10	124	0	85	5	498	60	30	283	6

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	927	914	286	861	857	498	289	0	0	558	0	0
Stage 1	346	346	-	508	508	-	-	-	-	-	-	-
Stage 2	581	568	-	353	349	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.33	7.1	6.5	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.417	3.5	4	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	251	275	728	278	297	574	1284	-	-	1023	-	-
Stage 1	674	639	-	551	542	-	-	-	-	-	-	-
Stage 2	503	510	-	668	637	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	208	266	728	265	287	574	1284	-	-	1023	-	-
Mov Cap-2 Maneuver	208	266	-	265	287	-	-	-	-	-	-	-
Stage 1	671	620	-	549	540	-	-	-	-	-	-	-
Stage 2	427	508	-	636	619	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.2	22.9	0.1	0.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1284	-	-	299 265 574	1023	-	-
HCM Lane V/C Ratio	0.004	-	-	0.086 0.469 0.149	0.03	-	-
HCM Control Delay (s)	7.8	-	-	18.2 30.1 12.4	8.6	-	-
HCM Lane LOS	A	-	-	C D B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3 2.3 0.5	0.1	-	-

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰		↰	↱		↰	↱	↱
Traffic Vol, veh/h	64	4	28	0	0	0	48	383	1	1	188	163
Future Vol, veh/h	64	4	28	0	0	0	48	383	1	1	188	163
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	4	0	0	0	4	1	0	0	3	3
Mvmt Flow	76	5	33	0	0	0	57	456	1	1	224	194
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	797	797	224	913	991	457	418	0	0	457	0	0
Stage 1	226	226	-	571	571	-	-	-	-	-	-	-
Stage 2	571	571	-	342	420	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.24	7.1	6.5	6.2	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.336	3.5	4	3.3	2.236	-	-	2.2	-	-
Pot Cap-1 Maneuver	307	322	810	256	248	608	1130	-	-	1114	-	-
Stage 1	781	721	-	509	508	-	-	-	-	-	-	-
Stage 2	509	508	-	677	593	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	295	306	810	233	235	608	1130	-	-	1114	-	-
Mov Cap-2 Maneuver	295	306	-	233	235	-	-	-	-	-	-	-
Stage 1	742	720	-	484	483	-	-	-	-	-	-	-
Stage 2	483	483	-	644	592	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	18.2			0			0.9			0		
HCM LOS	C			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1130	-	-	296	810	-	1114	-	-			
HCM Lane V/C Ratio	0.051	-	-	0.273	0.041	-	0.001	-	-			
HCM Control Delay (s)	8.4	-	-	21.7	9.6	0	8.2	-	-			
HCM Lane LOS	A	-	-	C	A	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	1.1	0.1	-	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 4.2

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations						
Traffic Vol, veh/h	72	5	15	95	23	96
Future Vol, veh/h	72	5	15	95	23	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	1	0	7	1	0	1
Mvmt Flow	92	6	19	122	29	123

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	98	0	255	95
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	160	-
Critical Hdwy	-	-	4.17	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.263	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1464	-	738	964
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1464	-	728	964
Mov Cap-2 Maneuver	-	-	-	-	728	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	862	-

Approach NB SB NW

HCM Control Delay, s	0	1	9.8
HCM LOS			A

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	907	1464	-
HCM Lane V/C Ratio	-	-	0.168	0.013	-
HCM Control Delay (s)	-	-	9.8	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	75	154	75	110	47	15
Future Vol, veh/h	75	154	75	110	47	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	2	2	7
Mvmt Flow	79	162	79	116	49	16

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	251	137	0
Stage 1	137	-	-
Stage 2	114	-	-
Critical Hdwy	6.41	6.21	-
Critical Hdwy Stg 1	5.41	-	-
Critical Hdwy Stg 2	5.41	-	-
Follow-up Hdwy	3.509	3.309	-
Pot Cap-1 Maneuver	740	914	-
Stage 1	892	-	-
Stage 2	913	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	713	914	-
Mov Cap-2 Maneuver	713	-	-
Stage 1	892	-	-
Stage 2	880	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	5.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	837	1378
HCM Lane V/C Ratio	-	-	0.288	0.036
HCM Control Delay (s)	-	-	11	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0.1

HCM 6th TWSC
11: Access A & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 0.1

Movement EBT EBR WBL WBT NWL NWR

Lane Configurations	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Vol, veh/h	19	1	0	115	1	0
Future Vol, veh/h	19	1	0	115	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	100	0	0	100	0
Mvmt Flow	20	1	0	121	1	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	21	0	142	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	-	-	4.1	-	7.4	6.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	-	-	2.2	-	4.4	3.3
Pot Cap-1 Maneuver	-	-	1608	-	666	1062
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	710	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1608	-	666	1062
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	710	-

Approach EB WB NW

HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt NWLn1 EBT EBR WBL WBT

Capacity (veh/h)	666	-	-	1608	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
12: Access B & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 7.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	1			1	2	
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Traffic Vol, veh/h	0	19	0	0	115	0
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Future Vol, veh/h	0	19	0	0	115	0
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	0	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	95	95	95	95	95	95
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Heavy Vehicles, %	0	0	0	0	0	0
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Mvmt Flow	0	20	0	0	121	0
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	20
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Stage 1	-	-	-
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Stage 2	-	-	-
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Critical Hdwy	-	-	4.1
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	-	-	2.2
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Pot Cap-1 Maneuver	-	-	1609
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Stage 1	-	-	-
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Stage 2	-	-	-
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	-	1609
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Mov Cap-2 Maneuver	-	-	-
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Stage 1	-	-	-
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Stage 2	-	-	-
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Approach	EB	WB	NB
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HCM Control Delay, s	0	0	9
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HCM LOS			A
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	1014	-	-	1609	-
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HCM Lane V/C Ratio	0.119	-	-	-	-
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HCM Control Delay (s)	9	-	-	0	-
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HCM Lane LOS	A	-	-	A	-
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HCM 95th %tile Q(veh)	0.4	-	-	0	-
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Intersection

Int Delay, s/veh 3.6

Movement EBT EBR WBL WBT NBL NBRLane Configurations 

Traffic Vol, veh/h 155 12 11 136 81 69

Future Vol, veh/h 155 12 11 136 81 69

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - 145 - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 2 0 0 1 0 0

Mvmt Flow 163 13 12 143 85 73

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 176 0 266 88

Stage 1 - - - - 170 -

Stage 2 - - - - 96 -

Critical Hdwy - - 4.1 - 6.8 6.9

Critical Hdwy Stg 1 - - - - 5.8 -

Critical Hdwy Stg 2 - - - - 5.8 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 1412 - 706 959

Stage 1 - - - - 849 -

Stage 2 - - - - 923 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1412 - 700 959

Mov Cap-2 Maneuver - - - - 700 -

Stage 1 - - - - 849 -

Stage 2 - - - - 916 -

Approach EB WB NB

HCM Control Delay, s 0 0.6 10.6

HCM LOS B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 799 - - 1412 -

HCM Lane V/C Ratio 0.198 - - 0.008 -

HCM Control Delay (s) 10.6 - - 7.6 -

HCM Lane LOS B - - A -

HCM 95th %tile Q(veh) 0.7 - - 0 -

Intersection

Int Delay, s/veh 1.8

Movement EBT EBR WBL WBT NBL NBRLane Configurations 

Traffic Vol, veh/h 221 3 8 124 23 47

Future Vol, veh/h 221 3 8 124 23 47

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - 145 - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 1 0 0 2 0 0

Mvmt Flow 233 3 8 131 24 49

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 236 0 317 118

Stage 1 - - - - 235 -

Stage 2 - - - - 82 -

Critical Hdwy - - 4.1 - 6.8 6.9

Critical Hdwy Stg 1 - - - - 5.8 -

Critical Hdwy Stg 2 - - - - 5.8 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 1343 - 657 918

Stage 1 - - - - 788 -

Stage 2 - - - - 938 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1343 - 653 918

Mov Cap-2 Maneuver - - - - 653 -

Stage 1 - - - - 788 -

Stage 2 - - - - 932 -

Approach EB WB NB

HCM Control Delay, s 0 0.5 9.9

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 810 - - 1343 -

HCM Lane V/C Ratio 0.091 - - 0.006 -

HCM Control Delay (s) 9.9 - - 7.7 -

HCM Lane LOS A - - A -

HCM 95th %tile Q(veh) 0.3 - - 0 -

Intersection

Int Delay, s/veh 4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	252	8	34	82	15	45	0	183	11	0	5
Future Vol, veh/h	8	252	8	34	82	15	45	0	183	11	0	5
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	145	-	-	145	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	13	9	1	0	2	0	2	0	0	0
Mvmt Flow	8	265	8	36	86	16	47	0	193	12	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	102	0	0	273	0	0	400	459	137	315	455	51
Stage 1	-	-	-	-	-	-	285	285	-	166	166	-
Stage 2	-	-	-	-	-	-	115	174	-	149	289	-
Critical Hdwy	4.1	-	-	4.28	-	-	7.54	6.5	6.94	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.29	-	-	3.52	4	3.32	3.5	4	3.3
Pot Cap-1 Maneuver	1503	-	-	1238	-	-	535	502	886	619	504	1013
Stage 1	-	-	-	-	-	-	698	679	-	825	765	-
Stage 2	-	-	-	-	-	-	877	759	-	844	677	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1503	-	-	1238	-	-	518	485	886	472	487	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	518	485	-	472	487	-
Stage 1	-	-	-	-	-	-	695	676	-	821	743	-
Stage 2	-	-	-	-	-	-	847	737	-	657	674	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.1	10.7	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	518	886	1503	-	-	1238	-	-	472	1013
HCM Lane V/C Ratio	0.091	0.217	0.006	-	-	0.029	-	-	0.025	0.005
HCM Control Delay (s)	12.6	10.2	7.4	-	-	8	-	-	12.8	8.6
HCM Lane LOS	B	B	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.3	0.8	0	-	-	0.1	-	-	0.1	0

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑		↑	↑↑	↑	
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Traffic Vol, veh/h	443	3	18	110	21	116
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Future Vol, veh/h	443	3	18	110	21	116
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	145	-	0	-
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Veh in Median Storage, #	0	-	-	0	0	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	95	95	95	95	95	95
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Heavy Vehicles, %	1	0	0	4	0	0
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Mvmt Flow	466	3	19	116	22	122
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	469
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Stage 1	-	-	468
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Stage 2	-	-	96
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Critical Hdwy	-	4.1	6.8
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Critical Hdwy Stg 1	-	-	5.8
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Critical Hdwy Stg 2	-	-	5.8
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Follow-up Hdwy	-	2.2	3.5
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Pot Cap-1 Maneuver	-	1103	460
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Stage 1	-	-	602
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Stage 2	-	-	923
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	1103	452
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Mov Cap-2 Maneuver	-	-	452
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Stage 1	-	-	602
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Stage 2	-	-	907
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Approach	EB	WB	NB
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HCM Control Delay, s	0	1.2	11.5
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HCM LOS			B
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	697	-	-	1103	-
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HCM Lane V/C Ratio	0.207	-	-	0.017	-
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HCM Control Delay (s)	11.5	-	-	8.3	-
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HCM Lane LOS	B	-	-	A	-
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HCM 95th %tile Q(veh)	0.8	-	-	0.1	-
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HCM 6th TWSC
17: 15W030 Access & Veterans Boulevard

01/26/2024

Intersection

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑			↑↑	↑↑	
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Traffic Vol, veh/h	558	1	2	125	3	65
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Future Vol, veh/h	558	1	2	125	3	65
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	1	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	95	95	95	95	95	95
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Heavy Vehicles, %	1	0	0	3	0	0
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Mvmt Flow	587	1	2	132	3	68
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	588
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Stage 1	-	-	588
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Stage 2	-	-	70
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Critical Hdwy	-	4.1	6.8
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Critical Hdwy Stg 1	-	-	5.8
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Critical Hdwy Stg 2	-	-	5.8
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Follow-up Hdwy	-	2.2	3.5
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Pot Cap-1 Maneuver	-	997	402
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Stage 1	-	-	524
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Stage 2	-	-	950
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	997	401
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Mov Cap-2 Maneuver	-	-	458
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Stage 1	-	-	524
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Stage 2	-	-	948
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Approach	EB	WB	NB
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HCM Control Delay, s	0	0.1	10.8
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HCM LOS			B
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	691	-	-	997	-
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HCM Lane V/C Ratio	0.104	-	-	0.002	-
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HCM Control Delay (s)	10.8	-	-	8.6	0
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HCM Lane LOS	B	-	-	A	A
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HCM 95th %tile Q(veh)	0.3	-	-	0	-
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HCM 6th TWSC
18: Veterans Boulevard & Office Access/Access F

01/26/2024

Intersection												
Int Delay, s/veh	0											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	113	0	0	0	0	24	0	0	0	3	0	18
Future Vol, veh/h	113	0	0	0	0	24	0	0	0	3	0	18
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	140	0	0	0	0	30	0	0	0	4	0	22
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	34	19	11	19	30	0	22	0	0	0	0	0
Stage 1	19	19	-	0	0	-	-	-	-	-	-	-
Stage 2	15	0	-	19	30	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	978	879	1076	1000	867	-	1607	-	-	-	-	-
Stage 1	1005	884	-	-	-	-	-	-	-	-	-	-
Stage 2	1010	-	-	1005	874	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	879	1076	1000	867	-	1607	-	-	-	-	-
Mov Cap-2 Maneuver	-	879	-	1000	867	-	-	-	-	-	-	-
Stage 1	1005	884	-	-	-	-	-	-	-	-	-	-
Stage 2	1010	-	-	1005	874	-	-	-	-	-	-	-
Approach	SE		NW			NE			SW			
HCM Control Delay, s	0											
HCM LOS	-											
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1607	-	-	-	-	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	-	-					
HCM Control Delay (s)	0	-	-	-	-	-	-					
HCM Lane LOS	A	-	-	-	-	-	-					
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-					

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 3.6

Movement NBL NBT SBT SBR SEL SER

Lane Configurations	↰	↱	↱	↰	↰	↰
Traffic Vol, veh/h	36	244	97	39	91	43
Future Vol, veh/h	36	244	97	39	91	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	6	4	9	8	0	0
Mvmt Flow	47	317	126	51	118	56

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	177	0	-	0	537	126
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	411	-
Critical Hdwy	4.16	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1375	-	-	-	508	930
Stage 1	-	-	-	-	905	-
Stage 2	-	-	-	-	674	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1375	-	-	-	491	930
Mov Cap-2 Maneuver	-	-	-	-	491	-
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	674	-

Approach NB SB SE

HCM Control Delay, s	1	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt NBL NBT SELn1 SELn2 SBT SBR

Capacity (veh/h)	1375	-	491	930	-	-
HCM Lane V/C Ratio	0.034	-	0.241	0.06	-	-
HCM Control Delay (s)	7.7	-	14.6	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	0.2	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 8.8

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	46	90	0	28	370	0
Future Vol, veh/h	46	90	0	28	370	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	4	0	0	1	0
Mvmt Flow	56	110	0	34	451	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	166	0	90	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	34	-
Critical Hdwy	-	-	4.1	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.2	-	3.509	3.3
Pot Cap-1 Maneuver	-	-	1424	-	913	1016
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	991	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1424	-	913	1016
Mov Cap-2 Maneuver	-	-	-	-	913	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	991	-

Approach EB WB NB

HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	913	-	-	1424	-
HCM Lane V/C Ratio	0.494	-	-	-	-
HCM Control Delay (s)	12.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	2.8	-	-	0	-

Capacity Analysis Summary Sheets
Projected Saturday Midday Peak Hour Conditions

Lanes, Volumes, Timings

1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	425	294	87	382	22	252	340	114	17	331	76
Future Volume (vph)	76	425	294	87	382	22	252	340	114	17	331	76
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	180		0	305		0	135		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	220			175			175			160		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.939			0.992			0.962			0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3370	0	1770	3538	0	1805	3405	0	1805	3481	0
Flt Permitted	0.465			0.187			0.354			0.471		
Satd. Flow (perm)	884	3370	0	348	3538	0	673	3405	0	895	3481	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118			4			38			19	
Link Speed (mph)		45			45			45			35	
Link Distance (ft)		2837			2462			1996			3285	
Travel Time (s)		43.0			37.3			30.2			64.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	2%	1%	5%	0%	2%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	782	0	95	439	0	274	494	0	18	443	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	21.0		6.5	21.0	
Total Split (s)	15.0	40.0		25.0	50.0		35.0	60.0		15.0	40.0	
Total Split (%)	10.7%	28.6%		17.9%	35.7%		25.0%	42.9%		10.7%	28.6%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	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	None		None	None		None	None		None	None	
Act Effect Green (s)	44.2	33.2		46.0	36.1		47.2	41.0		34.4	25.7	
Actuated g/C Ratio	0.43	0.32		0.45	0.35		0.46	0.40		0.34	0.25	

Lanes, Volumes, Timings
1: County Line Road & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.18	0.67		0.34	0.35		0.57	0.36		0.05	0.50	
Control Delay	18.4	29.9		20.9	28.1		22.7	21.4		16.5	34.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.4	29.9		20.9	28.1		22.7	21.4		16.5	34.1	
LOS	B	C		C	C		C	C		B	C	
Approach Delay		28.8			26.8			21.8			33.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	29	195		34	113		112	101		6	125	
Queue Length 95th (ft)	70	326		79	194		178	173		19	193	
Internal Link Dist (ft)		2757			2382			1916			3205	
Turn Bay Length (ft)	160			180			305			135		
Base Capacity (vph)	510	1214		466	1546		663	1841		452	1186	
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	0.16	0.64		0.20	0.28		0.41	0.27		0.04	0.37	

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 102.5

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 27.2

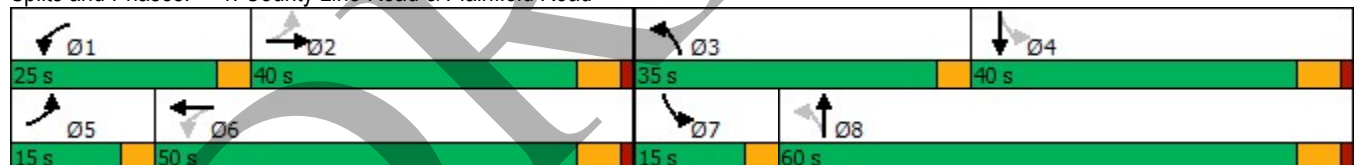
Intersection LOS: C

Intersection Capacity Utilization 69.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: County Line Road & Plainfield Road



Lanes, Volumes, Timings

2: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	5	225	41	7	26	142	638	56	10	667	38
Future Volume (vph)	58	5	225	41	7	26	142	638	56	10	667	38
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	2000	1900	1900	1900	1900
Lane Width (ft)	12	12	12	10	10	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		145	85		0	455		270	255		0
Storage Lanes	1		0	0		0	1		1	1		1
Taper Length (ft)	135			0			165			170		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.856	0.850		0.880				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1566	1475	1532	1512	0	1703	3762	1538	1805	3610	1568
Flt Permitted	0.520			0.675			0.338			0.393		
Satd. Flow (perm)	969	1566	1475	1088	1512	0	606	3762	1538	747	3610	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		117	123		28				60			123
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		577			202			4111			829	
Travel Time (s)		11.2			5.5			62.3			12.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	4%	10%	0%	4%	6%	1%	5%	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 (%)			49%									
Lane Group Flow (vph)	62	122	122	44	35	0	151	679	60	11	710	40
Turn Type	pm+pt	NA	Prot	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4	4	3	8		5	2	3	1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4	4	3	8		5	2	3	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	8.0	8.0	3.0	8.0		3.0	15.0	3.0	3.0	15.0	15.0
Minimum Split (s)	6.5	14.0	14.0	6.5	14.0		6.5	21.0	6.5	6.5	21.0	21.0
Total Split (s)	10.0	31.0	31.0	10.0	31.0		21.0	71.0	10.0	8.0	58.0	58.0
Total Split (%)	8.3%	25.8%	25.8%	8.3%	25.8%		17.5%	59.2%	8.3%	6.7%	48.3%	48.3%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	4.5	3.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		0.0	1.5	0.0	0.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		3.5	6.0	3.5	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	C-Min	C-Min
Act Effect Green (s)	19.3	9.5	9.5	15.8	9.1		92.0	87.5	100.9	85.8	77.6	77.6
Actuated g/C Ratio	0.16	0.08	0.08	0.13	0.08		0.77	0.73	0.84	0.72	0.65	0.65

Lanes, Volumes, Timings

2: County Line Road & Veterans Boulevard/Carriage Way Drive

01/26/2024

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	0.53	0.53	0.26	0.25		0.28	0.25	0.05	0.02	0.30	0.04
Control Delay	41.9	16.8	15.8	45.0	26.5		5.5	6.5	1.0	4.6	10.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	16.8	15.8	45.0	26.5		5.5	6.5	1.0	4.6	10.6	0.1
LOS	D	B	B	D	C		A	A	A	A	B	A
Approach Delay		21.5			36.8			6.0			10.0	
Approach LOS		C			D			A			A	
Queue Length 50th (ft)	42	5	4	29	5		28	80	0	2	124	0
Queue Length 95th (ft)	77	56	51	62	37		51	148	11	7	177	0
Internal Link Dist (ft)		497			122			4031			749	
Turn Bay Length (ft)	145		145	85			455		270	255		
Base Capacity (vph)	227	418	404	171	337		624	2744	1305	584	2333	1057
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.29	0.30	0.26	0.10		0.24	0.25	0.05	0.02	0.30	0.04

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 11.0

Intersection LOS: B

Intersection Capacity Utilization 49.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: County Line Road & Veterans Boulevard/Carriage Way Drive

Ø1	Ø2 (R)	Ø3	Ø4
8 s	71 s	10 s	31 s
Ø5	Ø6 (R)	Ø7	Ø8
21 s	58 s	10 s	31 s

Lanes, Volumes, Timings

3: Madison Street & Plainfield Road

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	586	73	90	538	160	109	209	125	158	86	103
Future Volume (vph)	113	586	73	90	538	160	109	209	125	158	86	103
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)	280		0	190		0	200		0	250		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			160			75			65		
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		0.983			0.966			0.944			0.918	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3502	0	1805	3461	0	1770	1787	0	1805	1735	0
Flt Permitted	0.261			0.322			0.610			0.220		
Satd. Flow (perm)	496	3502	0	612	3461	0	1136	1787	0	418	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			40			28			54	
Link Speed (mph)		35			45			40			35	
Link Distance (ft)		2891			1534			1066			2233	
Travel Time (s)		56.3			23.2			18.2			43.5	
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%	1%	4%	0%	1%	0%	2%	0%	1%	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)	116	679	0	93	720	0	112	344	0	163	195	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	6.5	21.0		6.5	21.0		6.5	14.0		6.5	21.0	
Total Split (s)	17.0	36.0		17.0	36.0		20.0	30.0		17.0	27.0	
Total Split (%)	17.0%	36.0%		17.0%	36.0%		20.0%	30.0%		17.0%	27.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effect Green (s)	51.0	40.8		48.9	38.2		34.1	22.1		38.7	24.4	
Actuated g/C Ratio	0.51	0.41		0.49	0.38		0.34	0.22		0.39	0.24	

Lanes, Volumes, Timings

3: Madison Street & Plainfield Road

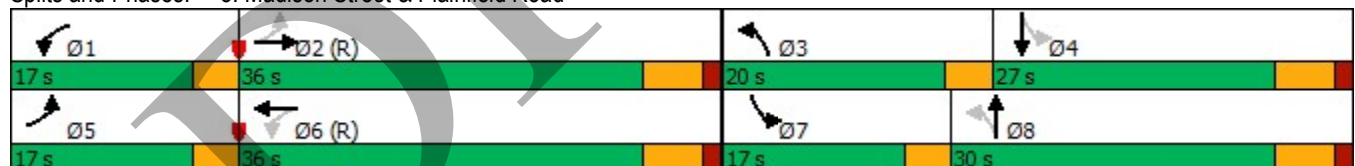
01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.31	0.47		0.23	0.53		0.25	0.82		0.50	0.42	
Control Delay	15.4	24.6		12.0	24.8		19.8	51.0		24.5	25.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.4	24.6		12.0	24.8		19.8	51.0		24.5	25.2	
LOS	B	C		B	C		B	D		C	C	
Approach Delay		23.3			23.3			43.4			24.9	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	38	176		34	187		42	186		63	70	
Queue Length 95th (ft)	70	243		31	270		76	#318		107	140	
Internal Link Dist (ft)		2811			1454			986			2153	
Turn Bay Length (ft)	280			190			200			250		
Base Capacity (vph)	439	1437		483	1348		555	453		351	473	
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	0.26	0.47		0.19	0.53		0.20	0.76		0.46	0.41	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 27.3
 Intersection Capacity Utilization 70.3%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Madison Street & Plainfield Road



Lanes, Volumes, Timings

4: Frontage Road & Veterans Boulevard

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Volume (vph)	98	10	110	77	18	190
Future Volume (vph)	98	10	110	77	18	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	145		120	0
Storage Lanes		0	1		0	1
Taper Length (ft)			180		0	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.986					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3466	0	1719	3471	1805	1568
Flt Permitted			0.680		0.950	
Satd. Flow (perm)	3466	0	1230	3471	1805	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	11					200
Link Speed (mph)	35			35	45	
Link Distance (ft)	309			577	734	
Travel Time (s)	6.0			11.2	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	0%	5%	4%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	114	0	116	81	19	200
Turn Type	NA		pm+pt	NA	Prot	pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases			6			8
Detector Phase	2		1	6	8	1
Switch Phase						
Minimum Initial (s)	15.0		3.0	15.0	8.0	3.0
Minimum Split (s)	24.0		9.5	24.0	24.0	9.5
Total Split (s)	25.0		11.0	36.0	24.0	11.0
Total Split (%)	41.7%		18.3%	60.0%	40.0%	18.3%
Yellow Time (s)	4.5		3.5	4.5	4.5	3.5
All-Red Time (s)	1.5		0.0	1.5	1.5	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0		3.5	6.0	6.0	3.5
Lead/Lag	Lead		Lag			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	C-Min		None	C-Min	None	None
Act Effect Green (s)	40.9		53.7	56.0	8.0	9.6
Actuated g/C Ratio	0.68		0.90	0.93	0.13	0.16

Lanes, Volumes, Timings

4: Frontage Road & Veterans Boulevard

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.05		0.10	0.03	0.08	0.48
Control Delay	4.9		1.2	1.2	23.8	6.9
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	4.9		1.2	1.2	23.8	6.9
LOS	A		A	A	C	A
Approach Delay	4.9			1.2	8.4	
Approach LOS	A			A	A	
Queue Length 50th (ft)	3		0	0	6	0
Queue Length 95th (ft)	22		17	7	23	33
Internal Link Dist (ft)	229			497	654	
Turn Bay Length (ft)			145		120	
Base Capacity (vph)	2364		1191	3240	541	447
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.05		0.10	0.03	0.04	0.45

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 5.0

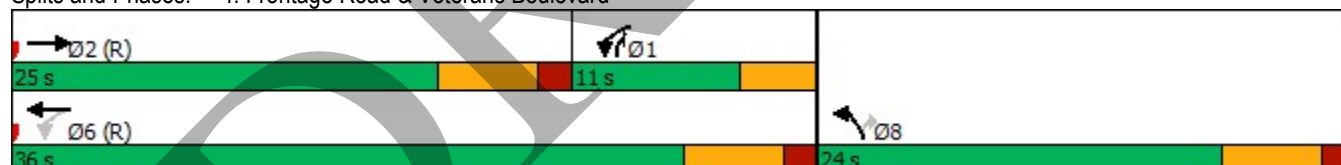
Intersection LOS: A

Intersection Capacity Utilization 32.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Frontage Road & Veterans Boulevard



Lanes, Volumes, Timings
6: High Grove Boulevard & Plainfield Road

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↓
Traffic Volume (vph)	833	35	15	731	45	17
Future Volume (vph)	833	35	15	731	45	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16
Grade (%)	0%			0%	0%	
Storage Length (ft)		150	170		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			145		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3610	1615	1805	3610	2006	1830
Flt Permitted			0.306		0.950	
Satd. Flow (perm)	3610	1615	581	3610	2006	1830
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		37				18
Link Speed (mph)	45			45	25	
Link Distance (ft)	1534			1457	204	
Travel Time (s)	23.2			22.1	5.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	877	37	16	769	47	18
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	2	8	1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	8	1	6	8	8
Switch Phase						
Minimum Initial (s)	15.0	8.0	3.0	15.0	8.0	8.0
Minimum Split (s)	21.0	14.0	6.5	21.0	14.0	14.0
Total Split (s)	71.0	20.0	9.0	80.0	20.0	20.0
Total Split (%)	71.0%	20.0%	9.0%	80.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	2.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	2.0	6.0	6.0	6.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effect Green (s)	79.7	94.5	85.7	82.9	9.1	9.1
Actuated g/C Ratio	0.80	0.94	0.86	0.83	0.09	0.09

Lanes, Volumes, Timings

6: High Grove Boulevard & Plainfield Road

01/26/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
v/c Ratio	0.30	0.02	0.03	0.26	0.26	0.10
Control Delay	4.7	1.2	1.4	2.3	45.5	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	1.2	1.4	2.3	45.5	18.6
LOS	A	A	A	A	D	B
Approach Delay	4.6			2.2	38.1	
Approach LOS	A			A	D	
Queue Length 50th (ft)	38	0	1	45	28	0
Queue Length 95th (ft)	256	m10	m3	54	m63	m21
Internal Link Dist (ft)	1454			1377	124	
Turn Bay Length (ft)		150	170			
Base Capacity (vph)	2878	1547	583	2991	280	271
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.02	0.03	0.26	0.17	0.07

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 44 (44%), Referenced to phase 2:EBT and 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 4.8

Intersection LOS: A

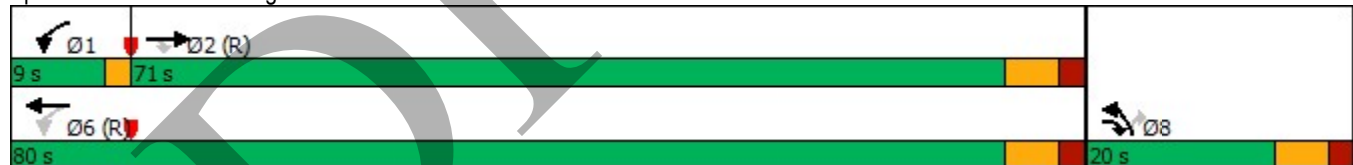
Intersection Capacity Utilization 39.7%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 6: High Grove Boulevard & Plainfield Road



HCM 6th TWSC
5: County Line Road & Carriage Place

01/26/2024

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	6	0	16	3	0	8	23	692	7	10	696	6
Future Vol, veh/h	6	0	16	3	0	8	23	692	7	10	696	6
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	0	-	-	0	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	7	0	18	3	0	9	26	769	8	11	773	7
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1236	1628	390	1234	1627	389	780	0	0	777	0	0
Stage 1	799	799	-	825	825	-	-	-	-	-	-	-
Stage 2	437	829	-	409	802	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	135	103	614	135	103	615	846	-	-	848	-	-
Stage 1	350	401	-	337	390	-	-	-	-	-	-	-
Stage 2	574	388	-	596	399	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	129	98	614	127	98	615	846	-	-	848	-	-
Mov Cap-2 Maneuver	244	218	-	239	215	-	-	-	-	-	-	-
Stage 1	339	396	-	327	378	-	-	-	-	-	-	-
Stage 2	548	376	-	571	394	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.5			13.5			0.3			0.1		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	846	-	-	244	614	239	615	848	-	-		
HCM Lane V/C Ratio	0.03	-	-	0.027	0.029	0.014	0.014	0.013	-	-		
HCM Control Delay (s)	9.4	-	-	20.2	11	20.3	10.9	9.3	-	-		
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	0	0	-	-		

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	3	17	0	27	3	336	19	15	173	10
Future Vol, veh/h	10	0	3	17	0	27	3	336	19	15	173	10
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	-	-	-	-	-	200	150	-	170	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	6	0	0	0	1	0	0	2	0
Mvmt Flow	11	0	3	18	0	29	3	357	20	16	184	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	610	605	190	586	590	357	195	0	0	377	0	0
Stage 1	222	222	-	363	363	-	-	-	-	-	-	-
Stage 2	388	383	-	223	227	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.16	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.16	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.16	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.554	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	409	415	857	416	423	692	1390	-	-	1193	-	-
Stage 1	785	723	-	648	628	-	-	-	-	-	-	-
Stage 2	640	616	-	771	720	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	387	409	857	409	417	692	1390	-	-	1193	-	-
Mov Cap-2 Maneuver	387	409	-	409	417	-	-	-	-	-	-	-
Stage 1	783	714	-	647	627	-	-	-	-	-	-	-
Stage 2	612	615	-	758	711	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13.4		11.9		0.1		0.6					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1390	-	-	443	409	692	1193	-	-			
HCM Lane V/C Ratio	0.002	-	-	0.031	0.044	0.042	0.013	-	-			
HCM Control Delay (s)	7.6	-	-	13.4	14.2	10.4	8.1	-	-			
HCM Lane LOS	A	-	-	B	B	B	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	0	-	-			

HCM 6th TWSC
8: Madison Street & 73rd Street

01/26/2024

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰		↰	↱		↰	↱	↱
Traffic Vol, veh/h	67	3	14	1	1	0	20	273	2	1	116	79
Future Vol, veh/h	67	3	14	1	1	0	20	273	2	1	116	79
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	-	-	235	-	-	-	110	-	-	160	-	390
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	100	0	0	5	2	0	100	3	1
Mvmt Flow	71	3	15	1	1	0	21	287	2	1	122	83
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	455	455	122	505	537	288	205	0	0	289	0	0
Stage 1	124	124	-	330	330	-	-	-	-	-	-	-
Stage 2	331	331	-	175	207	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.1	6.5	6.2	4.15	-	-	5.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.4	4	3.3	2.245	-	-	3.1	-	-
Pot Cap-1 Maneuver	519	504	935	352	453	756	1349	-	-	871	-	-
Stage 1	885	797	-	519	649	-	-	-	-	-	-	-
Stage 2	687	649	-	644	734	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	511	495	935	340	445	756	1349	-	-	871	-	-
Mov Cap-2 Maneuver	511	495	-	340	445	-	-	-	-	-	-	-
Stage 1	871	796	-	511	639	-	-	-	-	-	-	-
Stage 2	675	639	-	631	733	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	12.5			14.4			0.5			0		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1349	-	-	510	935	385	871	-	-			
HCM Lane V/C Ratio	0.016	-	-	0.144	0.016	0.005	0.001	-	-			
HCM Control Delay (s)	7.7	-	-	13.2	8.9	14.4	9.1	-	-			
HCM Lane LOS	A	-	-	B	A	B	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.5	0	0	0	-	-			

HCM 6th TWSC
9: High Grove Boulevard & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 3.3

Movement NBT NBR SBL SBT NWL NWR

Lane Configurations						
Traffic Vol, veh/h	17	3	11	19	3	13
Future Vol, veh/h	17	3	11	19	3	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	9	0	0	8
Mvmt Flow	20	3	13	22	3	15

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	23	0	70	22
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	48	-
Critical Hdwy	-	-	4.19	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.281	-	3.5	3.372
Pot Cap-1 Maneuver	-	-	1548	-	939	1038
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	980	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1548	-	931	1038
Mov Cap-2 Maneuver	-	-	-	-	931	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	971	-

Approach NB SB NW

HCM Control Delay, s	0	2.7	8.6
HCM LOS			A

Minor Lane/Major Mvmt NBT NBRNWLn1 SBL SBT

Capacity (veh/h)	-	-	1016	1548	-
HCM Lane V/C Ratio	-	-	0.018	0.008	-
HCM Control Delay (s)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 6th TWSC
10: High Grove Boulevard & International Street

01/26/2024

Intersection

Int Delay, s/veh 5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	18	37	10	20	34	10
Future Vol, veh/h	18	37	10	20	34	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	95	95	95	95	95	95
Heavy Vehicles, %	6	0	0	5	0	0
Mvmt Flow	19	39	11	21	36	11

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	105	22	0
Stage 1	22	-	-
Stage 2	83	-	-
Critical Hdwy	6.46	6.2	4.1
Critical Hdwy Stg 1	5.46	-	-
Critical Hdwy Stg 2	5.46	-	-
Follow-up Hdwy	3.554	3.3	2.2
Pot Cap-1 Maneuver	883	1061	1593
Stage 1	990	-	-
Stage 2	930	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	863	1061	1593
Mov Cap-2 Maneuver	863	-	-
Stage 1	990	-	-
Stage 2	909	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	5.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	987	1593
HCM Lane V/C Ratio	-	-	0.059	0.022
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 6th TWSC
11: Access A & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 0.3

Movement EBT EBR WBL WBT NWL NWR

Lane Configurations	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Vol, veh/h	13	1	0	13	1	0
Future Vol, veh/h	13	1	0	13	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	100	0	0	100	0
Mvmt Flow	14	1	0	14	1	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	15	0	29	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	14	-
Critical Hdwy	-	-	4.1	-	7.4	6.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	-	-	2.2	-	4.4	3.3
Pot Cap-1 Maneuver	-	-	1616	-	785	1070
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1616	-	785	1070
Mov Cap-2 Maneuver	-	-	-	-	785	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	805	-

Approach EB WB NW

HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt NWLn1 EBT EBR WBL WBT

Capacity (veh/h)	785	-	-	1616	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	9.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
12: Access B & Commerce Street

01/26/2024

Intersection

Int Delay, s/veh 4.1

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	0	13	0	0	13	0
Future Vol, veh/h	0	13	0	0	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	14	0	0	14	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	14	0	8	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1617	-	1018	1081
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1028	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1617	-	1018	1081
Mov Cap-2 Maneuver	-	-	-	-	1018	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1028	-

Approach EB WB NB

HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	1018	-	-	1617	-
HCM Lane V/C Ratio	0.013	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 1.6

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations ↑↑ ↑ ↘ ↑↑ ↘

Traffic Vol, veh/h 44 9 7 46 9 7

Future Vol, veh/h 44 9 7 46 9 7

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - 145 - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 2 0 0 2 0 0

Mvmt Flow 46 9 7 48 9 7

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 55 0 89 28

Stage 1 - - - - 51 -

Stage 2 - - - - 38 -

Critical Hdwy - - 4.1 - 6.8 6.9

Critical Hdwy Stg 1 - - - - 5.8 -

Critical Hdwy Stg 2 - - - - 5.8 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 1563 - 908 1047

Stage 1 - - - - 971 -

Stage 2 - - - - 985 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1563 - 904 1047

Mov Cap-2 Maneuver - - - - 904 -

Stage 1 - - - - 971 -

Stage 2 - - - - 981 -

Approach EB WB NB

HCM Control Delay, s 0 1 8.8

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 961 - - 1563 -

HCM Lane V/C Ratio 0.018 - - 0.005 -

HCM Control Delay (s) 8.8 - - 7.3 -

HCM Lane LOS A - - A -

HCM 95th %tile Q(veh) 0.1 - - 0 -

Intersection

Int Delay, s/veh 0.9

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations ↑↑ ↑ ↘ ↑↑ ↘

Traffic Vol, veh/h 48 3 5 50 3 5

Future Vol, veh/h 48 3 5 50 3 5

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - 145 - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 2 0 0 2 0 0

Mvmt Flow 51 3 5 53 3 5

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 54 0 90 27

Stage 1 - - - - 53 -

Stage 2 - - - - 37 -

Critical Hdwy - - 4.1 - 6.8 6.9

Critical Hdwy Stg 1 - - - - 5.8 -

Critical Hdwy Stg 2 - - - - 5.8 -

Follow-up Hdwy - - 2.2 - 3.5 3.3

Pot Cap-1 Maneuver - - 1564 - 906 1049

Stage 1 - - - - 969 -

Stage 2 - - - - 987 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1564 - 903 1049

Mov Cap-2 Maneuver - - - - 903 -

Stage 1 - - - - 969 -

Stage 2 - - - - 984 -

Approach EB WB NB

HCM Control Delay, s 0 0.7 8.7

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 989 - - 1564 -

HCM Lane V/C Ratio 0.009 - - 0.003 -

HCM Control Delay (s) 8.7 - - 7.3 -

HCM Lane LOS A - - A -

HCM 95th %tile Q(veh) 0 - - 0 -

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	38	5	22	40	15	5	0	22	16	0	10
Future Vol, veh/h	10	38	5	22	40	15	5	0	22	16	0	10
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	145	-	-	145	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	3	0	9	3	0	0	0	9	0	0	0
Mvmt Flow	11	40	5	23	42	16	5	0	23	17	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	45	0	0	132	169	23	138	163	29
Stage 1	-	-	-	-	-	-	65	65	-	96	96	-
Stage 2	-	-	-	-	-	-	67	104	-	42	67	-
Critical Hdwy	4.1	-	-	4.28	-	-	7.5	6.5	7.08	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.29	-	-	3.5	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	1559	-	-	1512	-	-	832	728	1026	824	733	1046
Stage 1	-	-	-	-	-	-	944	845	-	906	819	-
Stage 2	-	-	-	-	-	-	941	813	-	973	843	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1559	-	-	1512	-	-	810	712	1026	792	717	1046
Mov Cap-2 Maneuver	-	-	-	-	-	-	810	712	-	792	717	-
Stage 1	-	-	-	-	-	-	937	839	-	900	807	-
Stage 2	-	-	-	-	-	-	917	801	-	944	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	2.1	8.8	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	810	1026	1559	-	-	1512	-	-	792	1046
HCM Lane V/C Ratio	0.006	0.023	0.007	-	-	0.015	-	-	0.021	0.01
HCM Control Delay (s)	9.5	8.6	7.3	-	-	7.4	-	-	9.6	8.5
HCM Lane LOS	A	A	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.1	0	-	-	0	-	-	0.1	0

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	443	3	18	110	21	116
Future Vol, veh/h	443	3	18	110	21	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	145	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	4	0	0
Mvmt Flow	466	3	19	116	22	122

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	469
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1103
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1103
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	697	-	-	1103	-
HCM Lane V/C Ratio	0.207	-	-	0.017	-
HCM Control Delay (s)	11.5	-	-	8.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

HCM 6th TWSC
17: 15W030 Access & Veterans Boulevard

01/26/2024

Intersection

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations	↑↑			↑↑	↑↑	
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Traffic Vol, veh/h	558	1	2	125	3	65
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Future Vol, veh/h	558	1	2	125	3	65
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Stop	Stop
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	-	-	-	0	-
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Veh in Median Storage, #	0	-	-	0	1	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	95	95	95	95	95	95
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Heavy Vehicles, %	1	0	0	3	0	0
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Mvmt Flow	587	1	2	132	3	68
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Major/Minor	Major1	Major2	Minor1
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Conflicting Flow All	0	0	588
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Stage 1	-	-	588
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Stage 2	-	-	70
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Critical Hdwy	-	4.1	6.8
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Critical Hdwy Stg 1	-	-	5.8
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Critical Hdwy Stg 2	-	-	5.8
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Follow-up Hdwy	-	2.2	3.5
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Pot Cap-1 Maneuver	-	997	402
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Stage 1	-	-	524
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Stage 2	-	-	950
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	997	401
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Mov Cap-2 Maneuver	-	-	458
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Stage 1	-	-	524
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Stage 2	-	-	948
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Approach	EB	WB	NB
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HCM Control Delay, s	0	0.1	10.8
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HCM LOS			B
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Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
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Capacity (veh/h)	691	-	-	997	-
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HCM Lane V/C Ratio	0.104	-	-	0.002	-
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HCM Control Delay (s)	10.8	-	-	8.6	0
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HCM Lane LOS	B	-	-	A	A
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HCM 95th %tile Q(veh)	0.3	-	-	0	-
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HCM 6th TWSC
18: Veterans Boulevard & Office Access/Access F

01/26/2024

Intersection												
Int Delay, s/veh	0											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	113	0	0	0	0	24	0	0	0	3	0	18
Future Vol, veh/h	113	0	0	0	0	24	0	0	0	3	0	18
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	140	0	0	0	0	30	0	0	0	4	0	22
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	34	19	11	19	30	0	22	0	0	0	0	0
Stage 1	19	19	-	0	0	-	-	-	-	-	-	-
Stage 2	15	0	-	19	30	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	978	879	1076	1000	867	-	1607	-	-	-	-	-
Stage 1	1005	884	-	-	-	-	-	-	-	-	-	-
Stage 2	1010	-	-	1005	874	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	879	1076	1000	867	-	1607	-	-	-	-	-
Mov Cap-2 Maneuver	-	879	-	1000	867	-	-	-	-	-	-	-
Stage 1	1005	884	-	-	-	-	-	-	-	-	-	-
Stage 2	1010	-	-	1005	874	-	-	-	-	-	-	-
Approach	SE		NW			NE			SW			
HCM Control Delay, s	0											
HCM LOS	-											
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1607	-	-	-	-	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	-	-					
HCM Control Delay (s)	0	-	-	-	-	-	-					
HCM Lane LOS	A	-	-	-	-	-	-					
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-					

HCM 6th TWSC
19: Frontage Road & Harvester Drive

01/26/2024

Intersection

Int Delay, s/veh 3.6

Movement NBL NBT SBT SBR SEL SER

Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	36	244	97	39	91	43
Future Vol, veh/h	36	244	97	39	91	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	145	175	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	6	4	9	8	0	0
Mvmt Flow	47	317	126	51	118	56

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	177	0	-	0	537	126
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	411	-
Critical Hdwy	4.16	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1375	-	-	-	508	930
Stage 1	-	-	-	-	905	-
Stage 2	-	-	-	-	674	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1375	-	-	-	491	930
Mov Cap-2 Maneuver	-	-	-	-	491	-
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	674	-

Approach NB SB SE

HCM Control Delay, s	1	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt NBL NBT SELn1 SELn2 SBT SBR

Capacity (veh/h)	1375	-	491	930	-	-
HCM Lane V/C Ratio	0.034	-	0.241	0.06	-	-
HCM Control Delay (s)	7.7	-	14.6	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	0.2	-	-

HCM 6th TWSC
20: Frontage Road & Carriage Way Drive

01/26/2024

Intersection

Int Delay, s/veh 8.8

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	46	90	0	28	370	0
Future Vol, veh/h	46	90	0	28	370	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	4	0	0	1	0
Mvmt Flow	56	110	0	34	451	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	166	0	90	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	34	-
Critical Hdwy	-	-	4.1	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.2	-	3.509	3.3
Pot Cap-1 Maneuver	-	-	1424	-	913	1016
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	991	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1424	-	913	1016
Mov Cap-2 Maneuver	-	-	-	-	913	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	991	-

Approach EB WB NB

HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	913	-	-	1424	-
HCM Lane V/C Ratio	0.494	-	-	-	-
HCM Control Delay (s)	12.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	2.8	-	-	0	-