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TRAFFIC IMPACT STUDY

PROPOSED RESIDENTIAL DEVELOPMENT

PLAINFIELD, INDIANA

PREPARED FOR



APRIL 2025

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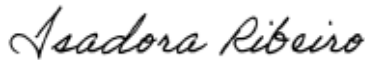
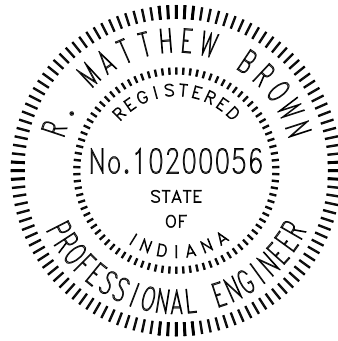
CERTIFICATION

I certify that this **TRAFFIC IMPACT STUDY** has been prepared by me and under my immediate supervision and that I have experience and training in the field of traffic and transportation engineering.

A&F ENGINEERING Co., LLC



April 24, 2025
R. Matt Brown, P.E.
Indiana Registration 10200056



Isadora Ribeiro
Traffic Engineer

INTRODUCTION

This **TRAFFIC IMPACT STUDY**, prepared on behalf of Pulte Group, is for a proposed residential development that is to be located south of US 40 between Moon Road and Miles Road in Plainfield, Indiana.

PURPOSE

The purpose of this analysis is to determine what impact the traffic generated by the proposed development will have on the existing adjacent roadway system. This analysis will identify any existing roadway deficiencies or ones that may occur when this site is developed.

Conclusions will be reached that will determine if the roadway system can accommodate the anticipated traffic volumes or will determine the modifications that will be required to the system if there are identified deficiencies.

Recommendations will be made that will address the conclusions resulting from this analysis. These recommendations will address feasible roadway system improvements to provide safe ingress and egress, to and from the proposed development, with minimal interference to traffic on the public street system.

SCOPE OF WORK

The scope of work for this analysis is as follows:

First, obtain turning movement traffic volume counts between the hours of 6:00 A.M. to 9:00 A.M. and 4:00 P.M. to 7:00 P.M. during a typical weekday at the study intersections.

Second, estimate the number of peak hour trips that will be generated by the proposed development.

Third, estimate the year 2030 background traffic volumes by applying a 1.1% per year growth rate to the existing traffic volumes.

Fourth, assign and distribute the generated traffic from the proposed development to the study intersections.

Fifth, prepare a capacity analysis/level of service analysis and turn lane analysis at the study intersections for each of the following scenarios:

Scenario 1: Existing Traffic Volumes – Based on existing peak hour traffic volumes.

Scenario 2: Year 2030 Background Traffic Volumes – Based on applying a 1.1% per year annual growth rate to the existing traffic volumes.

Scenario 3: Year 2030 Proposed Development Traffic Volumes – Based on the sum of year 2030 background traffic volumes and generated traffic volumes from the proposed development.

Sixth, prepare recommendations for the roadway geometrics that will be needed to accommodate the total traffic volumes once the proposed development is constructed.

Finally, prepare a **TRAFFIC IMPACT STUDY** report documenting all data, analyses, conclusions, and recommendations to provide for the safe and efficient movement of traffic through the study area.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The proposed development will be located south of US 40 between Moon Road and Miles Road in Plainfield, Indiana. As proposed, the development will consist of approximately 465 single-family homes. The site will be served by two full access drives along US 40, and two full access drives along CR 600 S. **Figure 1** is an area map showing the location and general layout of the proposed site. A detailed site plan is included in the **Appendix**.

STUDY AREA

The study area for this analysis has been defined to include the following intersections:

- US 40 & Miles Road
- US 40 & Moon Road
- CR 600 S & Moon Road
- CR 600 S & CR 521 E
- US 40 & Mecklenburg Drive / Vandalia Boulevard
- US 40 & Proposed West Access Drive
- US 40 & Proposed East Access Drive
- CR 600 S & Proposed North/South Access Drive

Figures 2A & 2B shows the existing intersection geometrics at the existing study intersections.

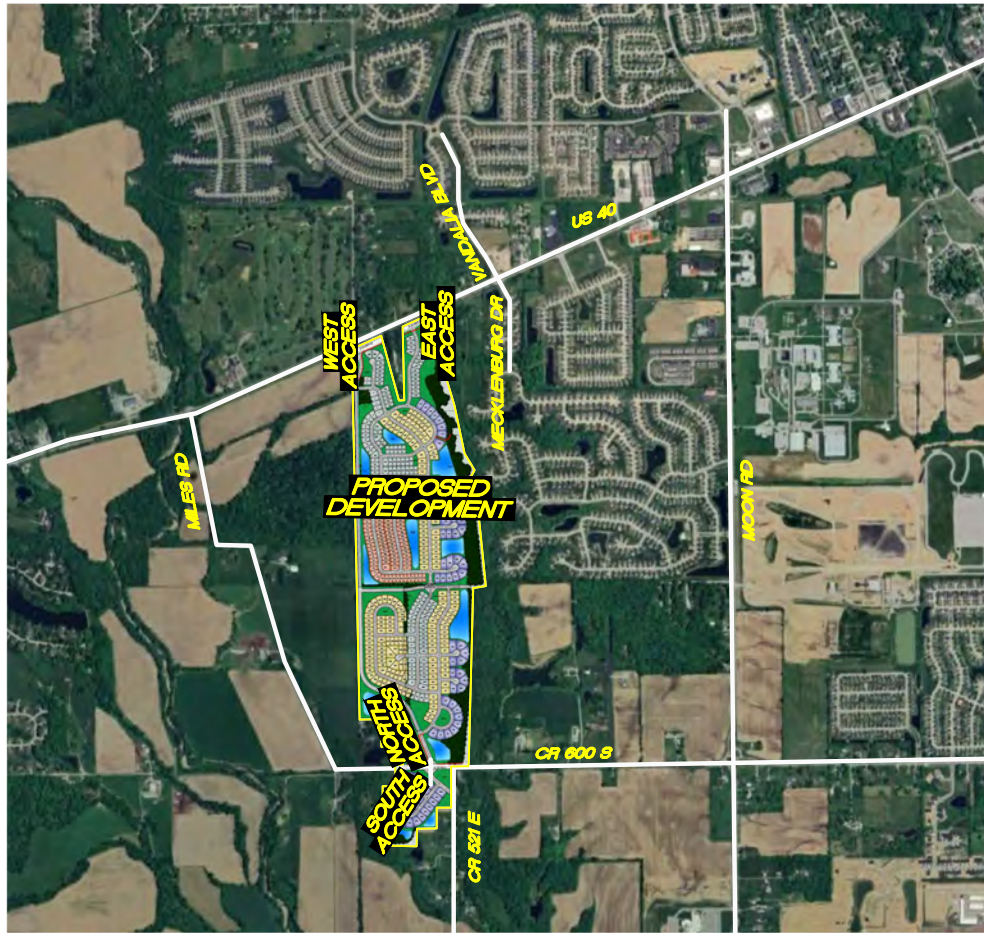
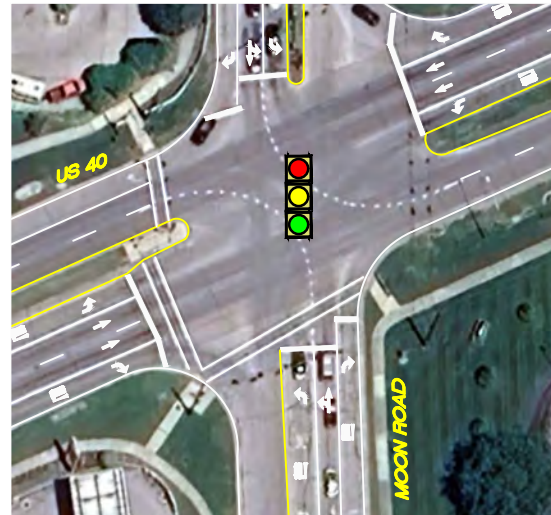


FIGURE 1
AREA MAP

TRAFFIC IMPACT STUDY
PULTE GROUP
PLAINFIELD, INDIANA



US 40 & MILES ROAD



US 40 & MOON RD



CR 600 S & CR 521 E



CR 600 S & MOON RD

FIGURE 2A

**EXISTING INTERSECTION
 GEOMETRICS**

**TRAFFIC IMPACT STUDY
 PULTE GROUP
 PLAINFIELD, INDIANA**



US 40 & MECKLENBURG DR/VANDALIA BLVD

FIGURE 2B
EXISTING INTERSECTION
GEOMETRICS

TRAFFIC IMPACT STUDY
PULTE GROUP
PLAINFIELD, INDIANA

DESCRIPTION OF ABUTTING STREET SYSTEM

The proposed development will be primarily served by the public roadway system that includes US 40, Miles Road, Moon Road, CR 600 S, CR 521 E, Mecklenburg Drive and Vandalia Boulevard.

TABLE 1 – DESCRIPTION OF THE ABUTTING STREET SYSTEM

STREET NAME	NUMBER OF LANES	SPEED LIMIT (MPH)	FUNCTIONAL CLASS
US 40	4	40	Principal Arterial
Miles Road	2	40	Local Road
Moon Road	2	35	Major Collector
CR 600 S	2	40	Local Road
CR 521 E	2	Not posted	Local Road
Mecklenburg Drive	2	Not posted	Local Road
Vandalia Boulevard	2	35	Local Road

* Functional classification based on INDOT roadway inventory.

EXISTING TRAFFIC VOLUMES

Turning movement traffic volume counts were collected by A&F Engineering at the study intersections between the hours of 6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM during a typical weekday in August 2024 & February 2025 under good weather conditions. According to the turning movement, traffic volume counts, the AM and PM peak hours vary slightly at each of the study intersections. Hence, the actual peak hours are used at each study intersection to create a “worse-case” traffic volume scenario. The intersection count output summary sheets are included in the **Appendix**, and the AM and PM peak hour traffic volumes at the study intersections are shown in **Figure 3**.

YEAR 2030 BACKGROUND TRAFFIC VOLUMES

In order to account for the annual growth in traffic volumes that would occur due to future development outside of the study area over the next 5 years, a 1.1% per year non-compounded growth rate was first applied to the existing traffic volumes to yield the total year 2030 background traffic volumes shown in **Figure 4**.

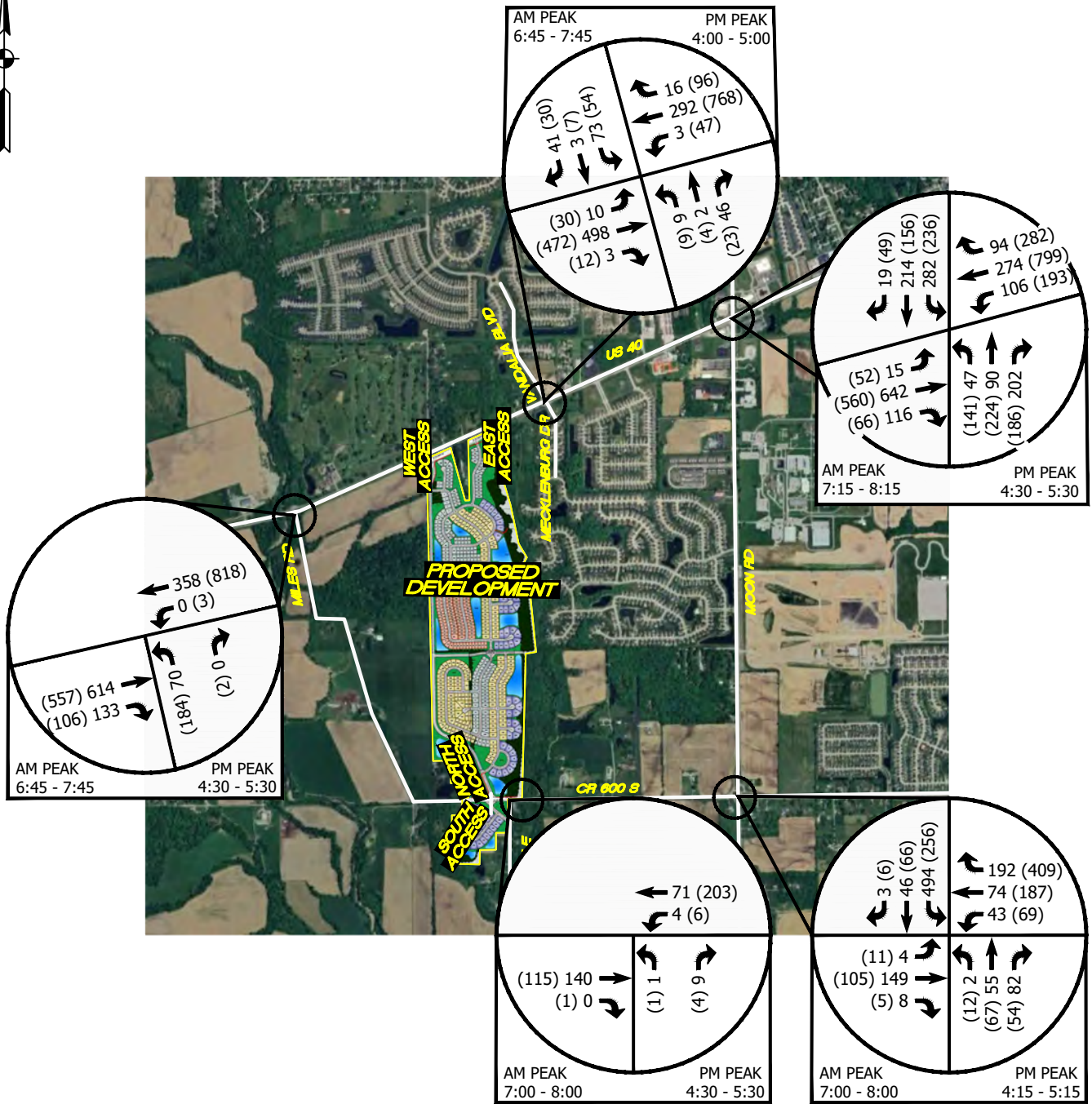
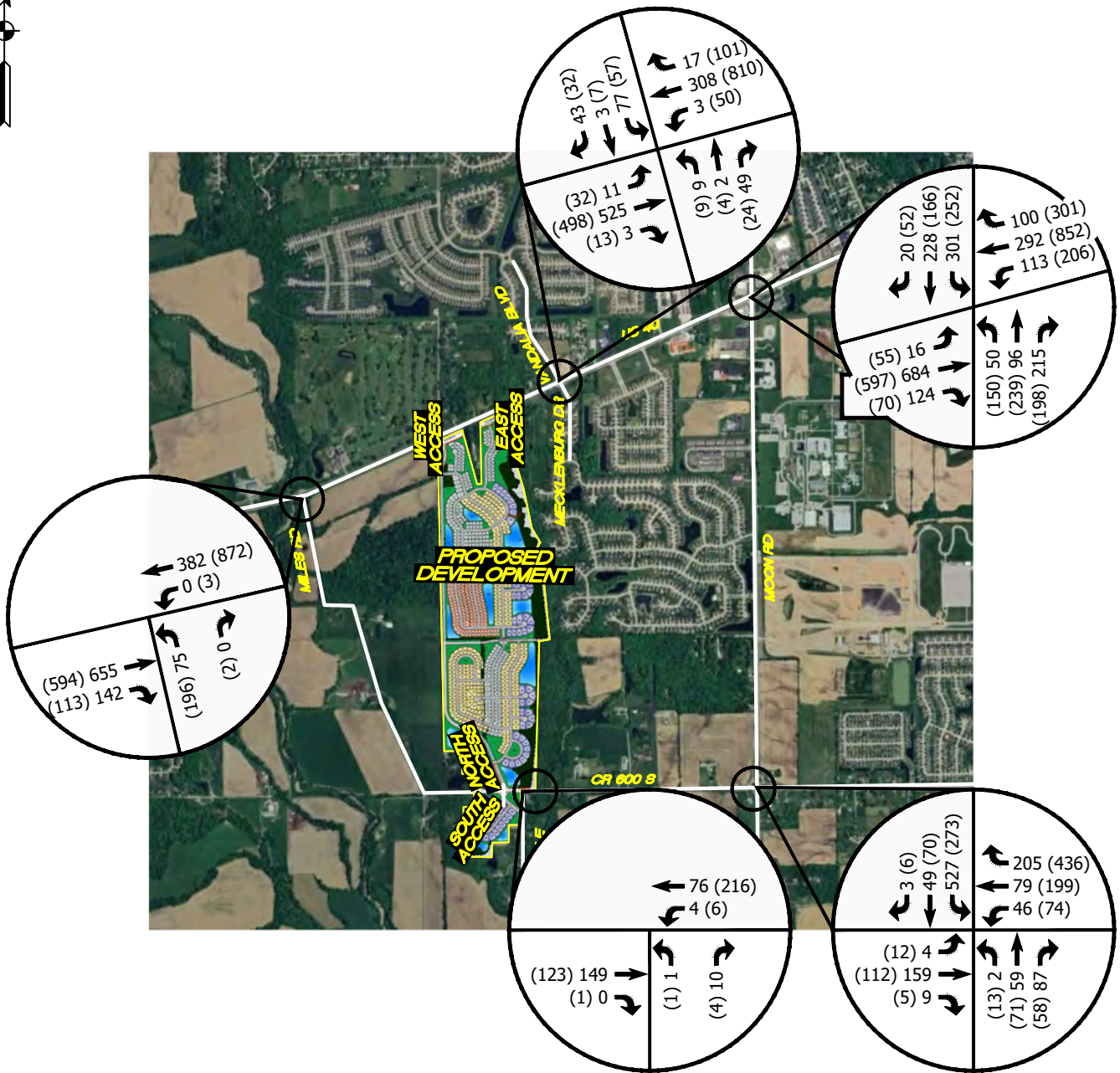


FIGURE 3

EXISTING TRAFFIC VOLUMES

**TRAFFIC IMPACT STUDY
 PULTE GROUP
 PLAINFIELD, INDIANA**



LEGEND
 XX = A.M. PEAK HOUR
 (XX) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE 4
YEAR 2030 BACKGROUND
TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY
PULTE GROUP
PLAINFIELD, INDIANA

GENERATED TRIPS FOR PROPOSED DEVELOPMENT

The estimate of newly generated traffic is a function of the development size and of the character of the land use. The ITE *Trip Generation Manual*¹ was used to calculate the number of trips that will be generated by the proposed development. This report is a compilation of trip data for various land uses as collected by transportation professionals throughout the United States in order to establish the average number of trips generated by those land uses. **Table 2** summarizes the trips that will be generated by the subject site.

TABLE 2 – TOTAL GENERATED TRIPS FOR PROPOSED DEVELOPMENT

DEVELOPMENT INFORMATION			GENERATED TRIPS			
LAND USE	ITE CODE	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Single-Family Detached Housing	210	465 DU	76	226	265	156

PASS-BY & INTERNAL TRIPS

Pass-by trips are trips that are already in the existing traffic stream along the adjacent public roadway system that enter a site, utilize the site, and then return to the existing traffic stream. Residential developments don't typically generate a significant number of pass-by trips. Therefore, pass-by trips were not considered in this study.

An internal trip results when a trip is made between two or more land uses without traversing the external public roadway system. The proposed development is a single land use. Therefore, internal trips were not considered in this study.

¹ *Trip Generation Manual*, Institute of Transportation Engineers, Eleventh Edition, 2021.

ASSIGNMENT AND DISTRIBUTION OF GENERATED TRIPS

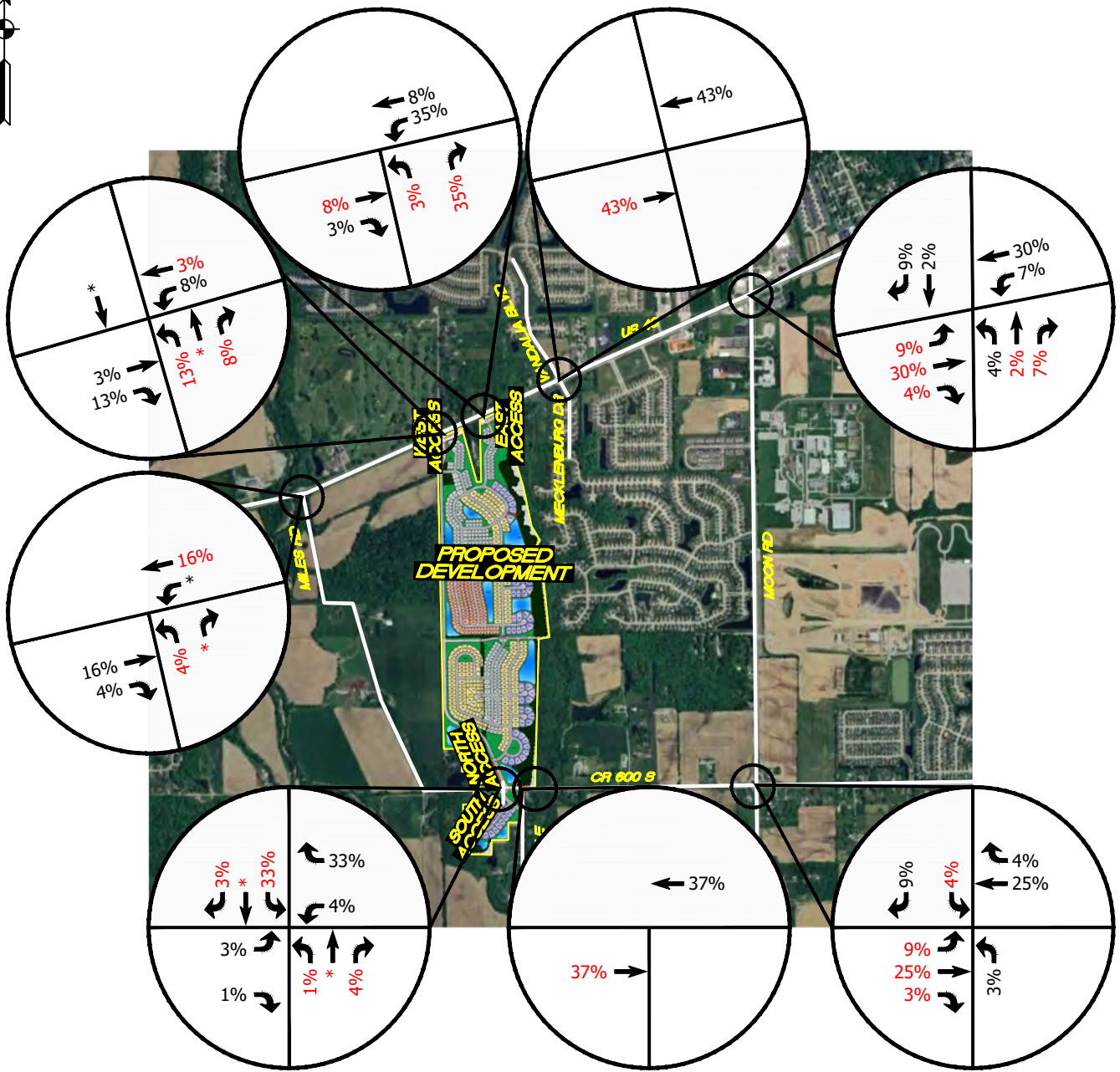
The study methodology used to determine the traffic volumes from the site that will be added to the street system is defined as follows:

1. The volume of traffic that will enter and exit the proposed development must be assigned to the access points and to the public street system. Using the traffic volume data collected for this analysis, traffic to and from the site has been assigned to the proposed driveways and to the public street system that will be serving the site.
2. To determine the volumes of traffic that will be added to the public roadway system, the generated traffic must be distributed by direction to the public roadways at their intersection with the driveways. For the proposed development, the trip distribution was based on the location of the development, the existing traffic patterns, and the assignment of generated traffic.

Figure 5 illustrates the assignment and distribution of generated traffic volumes for the proposed development.

GENERATED TRIPS ADDED TO THE STREET SYSTEM

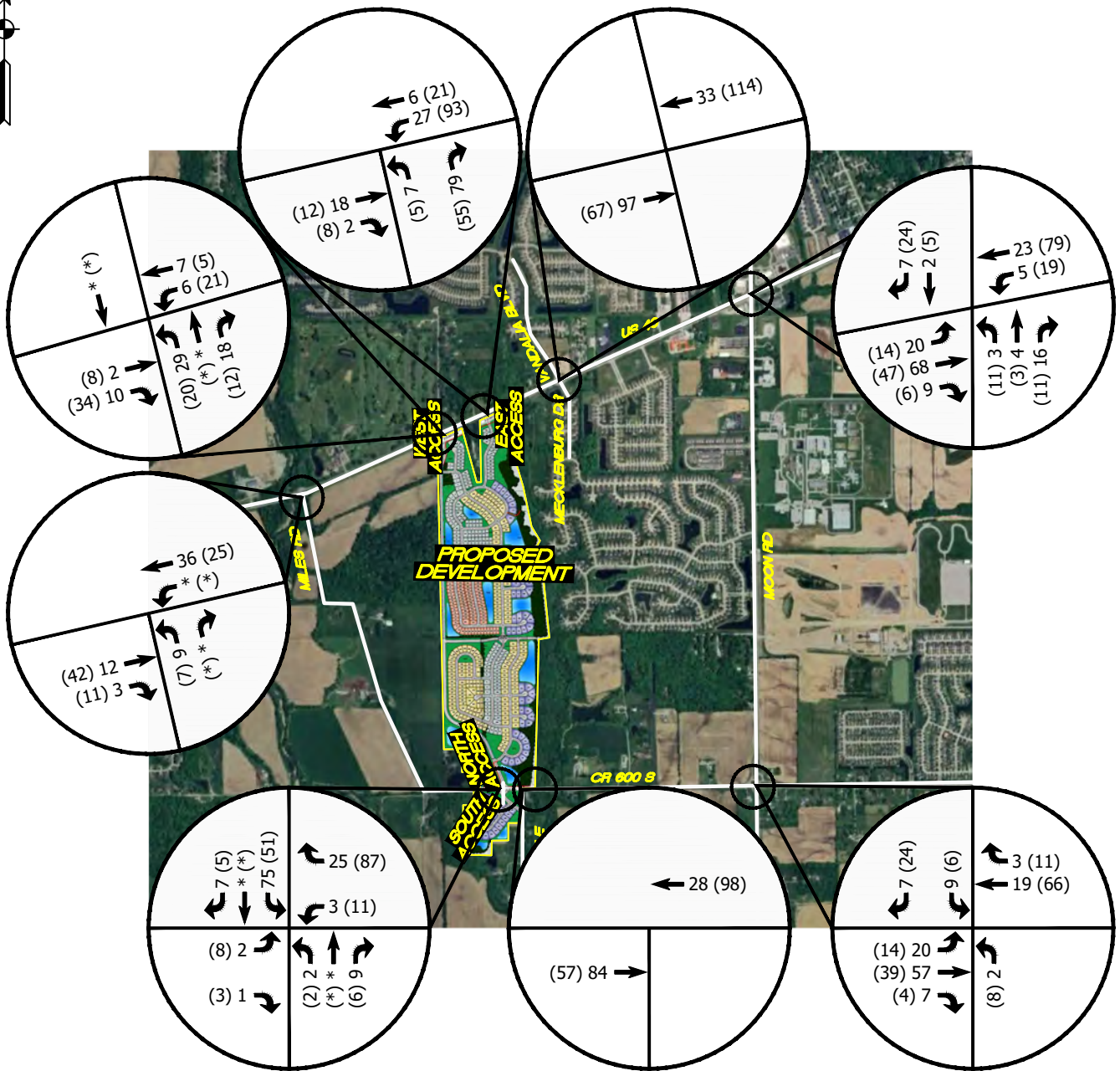
The generated traffic volumes that can be expected from the proposed development have been assigned and distributed to each of the study intersections. These volumes were determined based on the previously discussed trip generation data, assignment and distribution of generated traffic. The total peak hour generated traffic volumes from the proposed development are shown in **Figure 6**. **Figure 7** shows the sum of the year 2030 background traffic volumes and generated traffic volumes from the proposed development.



LEGEND
 XX = INBOUND TRAFFIC
 XX = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

FIGURE 5
ASSIGNMENT & DISTRIBUTION
OF GENERATED
TRAFFIC VOLUMES FROM
PROPOSED DEVELOPMENT

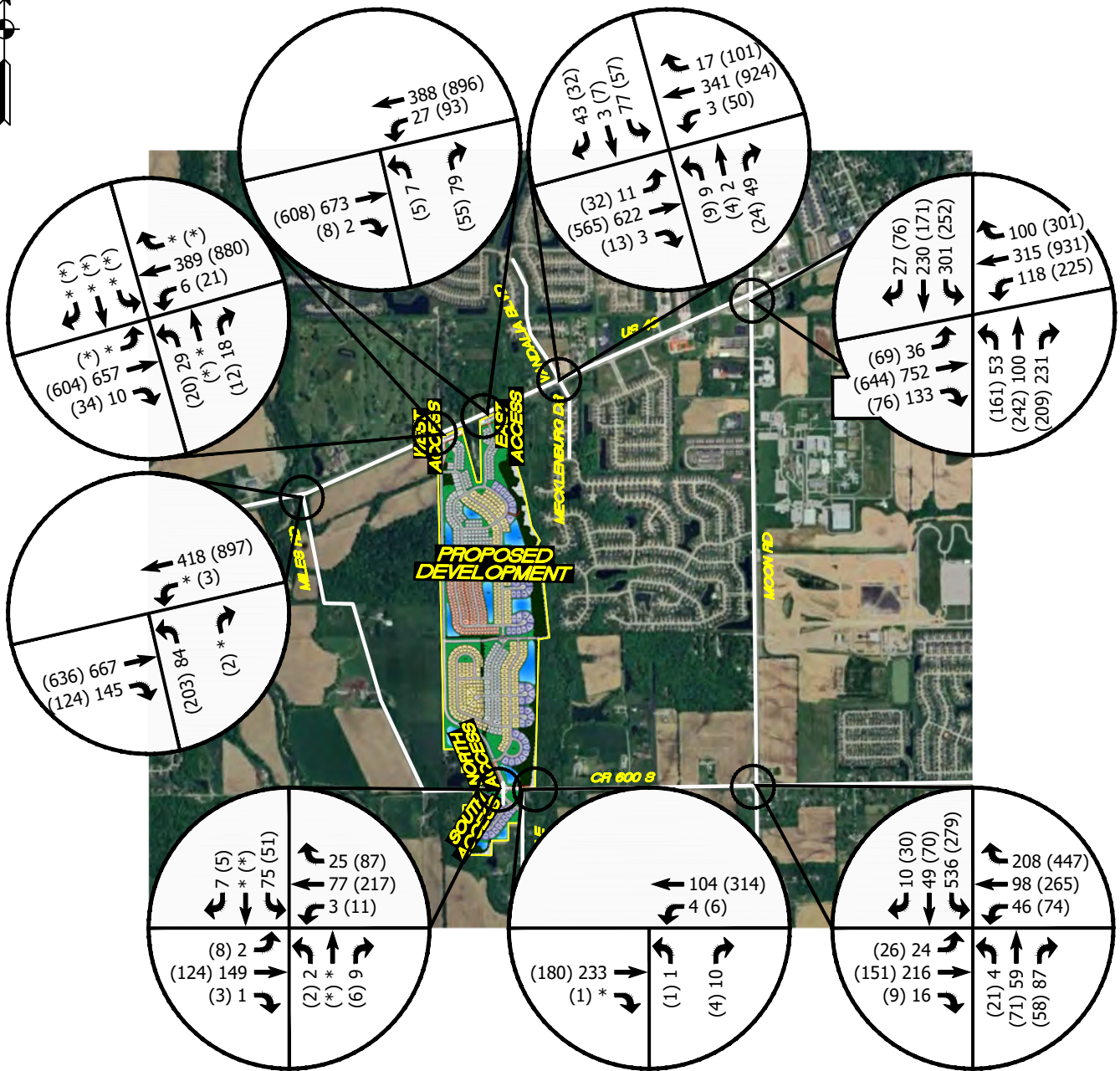
TRAFFIC IMPACT STUDY
PULTE GROUP
PLAINFIELD, INDIANA



LEGEND
 XX = A.M. PEAK HOUR
 (XX) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE 6
GENERATED TRAFFIC VOLUMES FROM PROPOSED DEVELOPMENT

TRAFFIC IMPACT STUDY
PULTE GROUP
PLAINFIELD, INDIANA



LEGEND
 XX = A.M. PEAK HOUR
 (XX) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE 7
SUM OF YEAR 2030 BACKGROUND
TRAFFIC VOLUMES & GENERATED
TRAFFIC VOLUMES FROM
PROPOSED DEVELOPMENT

TRAFFIC IMPACT STUDY
PULTE GROUP
PLAINFIELD, INDIANA

TURN LANE ANALYSIS

The year 2030 background traffic volumes were combined with the generated traffic volumes from the proposed development to determine if turn lanes would be required along US 40, and/or CR 600 S at the proposed access drive locations. This analysis was done in accordance with the INDOT *Driveway Permit Guide*² and the results are summarized in the following table.

TABLE 3 –TURN LANE WARRANT ANALYSIS SUMMARY

LOCATION	SCENARIO	RIGHT-TURN LANE	LEFT-TURN LANE
US 40 & Proposed West Access Drive	Total Year 2030 Traffic Volumes + Generated Traffic Volumes	X	✓
US 40 & Proposed East Access Drive	Total Year 2030 Traffic Volumes + Generated Traffic Volumes	X	✓
CR 600 S & Proposed North Access Drive	Total Year 2030 Traffic Volumes + Generated Traffic Volumes	✓	X
CR 600 S & Proposed South Access Drive	Total Year 2030 Traffic Volumes + Generated Traffic Volumes	X	X

✓=Turn Lane warranted; X=Turn Lane not warranted

The graphs that show the turn lane warrant criteria are shown in the **Appendix**. There are no graphical left-turn lane warrants for the proposed access drives along US 40. However, per the INDOT Permit Manual, since US 40 is a four-lane highway with a median width equal to or greater than 24 feet, a left-turn lane is warranted along US 40 at the access drive locations. Furthermore, it should be noted that where turn lanes are not shown to be warranted, turn treatments could be required based on local standards.

CAPACITY ANALYSIS

The "efficiency" of an intersection is based on its ability to accommodate the traffic volumes that approach the intersection. It is defined by the Level-of-Service (LOS) of the intersection. The LOS is determined by a series of calculations commonly called a "capacity analysis". Input data into a capacity analysis includes traffic volumes, intersection geometry, and number and use of lanes. To determine the LOS at each of the study intersections, a capacity analysis has been made using the recognized computer program *Synchro/Sim Traffic*³. This program allows intersections

² INDOT *Driveway Permit Guide, Version 1.4*, Indiana Department of Transportation, April 2024

³ *Synchro/Sim Traffic 12*, Cubic Transportation Systems, 2023.

to be analyzed and optimized using the capacity calculation methods outlined within the *Highway Capacity Manual (HCM 7th Edition)*⁴. In addition, roundabout capacity analyses were conducted using the recognized computer program *SIDRA*⁵ with INDOT *SIDRA* parameters. The following list shows the delays related to the levels of service for unsignalized & signalized/RAB intersections:

<u>Level of Service</u>	<u>Control Delay (seconds/vehicle)</u>	
	<u>UNSIGNALIZED</u>	<u>SIGNALIZED/RAB</u>
A	Less than or equal to 10	Less than or equal to 10
B	Between 10.1 and 15	Between 10.1 and 20
C	Between 15.1 and 25	Between 20.1 and 35
D	Between 25.1 and 35	Between 35.1 and 55
E	Between 35.1 and 50	Between 55.1 and 80
F	greater than 50	greater than 80

CAPACITY ANALYSIS SCENARIOS

To evaluate the proposed development's effect on the public street system, a series of traffic volume scenarios were analyzed to determine the adequacy of the existing roadway network. From this analysis, necessary recommendations can be made to improve the public street system so it will accommodate future traffic volumes. An analysis has been made for the peak hours at each of the study intersections for the following traffic volume scenarios:

Scenario 1: Existing Traffic Volumes – Based on existing peak hour traffic volumes. **Figure 3** is a summary of these traffic volumes.

Scenario 2: Year 2030 Background Traffic Volumes – Based on applying a 1.1% per year annual growth rate to the existing traffic volumes. **Figure 4** is a summary of these traffic volumes.

Scenario 3: Year 2030 Proposed Development Traffic Volumes – Based on the sum of year 2030 background traffic volumes and generated traffic volumes from the proposed development. **Figure 7** is a summary of these traffic volumes.

The following tables summarize the level of service results at each study intersection. The *Synchro (HCM 7th Edition)* and *SIDRA* intersection reports illustrating the capacity analysis results are included in the **Appendix**.

⁴ *Highway Capacity Manual (HCM), 7th Edition* Transportation Research Board, The National Academies of Sciences, Washington, DC, 2022.

⁵ *SIDRA INTERSECTION 9.1*, Akcelik and Associates Pty Ltd, 2023

TABLE 4 – LEVEL OF SERVICE SUMMARY: US 40 & MILES ROAD

APPROACH	AM PEAK				PM PEAK			
	Scenarios				Scenarios			
	1A	2A	3A	3B	1A	2A	3A	3B
Northbound Approach	C	C	C	C	D	D	E	E
Westbound Left-Turn	A	A	A	A	A	A	A	A

Scenario A considers existing intersection geometrics.

Scenario B considers construction an exclusive right-turn lane on the northbound approach.

TABLE 5 – LEVEL OF SERVICE SUMMARY: US 40 & MOON ROAD

APPROACH	AM PEAK			PM PEAK		
	Scenarios			Scenarios		
	1	2	3	1	2	3
Northbound Approach	C	C	C	C	C	C
Southbound Approach	C	C	C	C	C	D
Eastbound Approach	C	C	C	C	C	C
Westbound Approach	C	C	C	C	C	C
Intersection	C	C	C	C	C	C

TABLE 6 – LEVEL OF SERVICE SUMMARY: CR 600 S & MOON ROAD

APPROACH	AM PEAK			PM PEAK		
	Scenarios			Scenarios		
	1	2	3	1	2	3
Northbound Approach	A	A	B	A	A	A
Southbound Approach	A	A	A	A	A	B
Eastbound Approach	A	A	A	A	A	A
Westbound Approach	A	A	A	A	A	A
Intersection	A	A	A	A	A	B

TABLE 7 – LEVEL OF SERVICE SUMMARY: CR 600 S & CR 521 E

APPROACH	AM PEAK			PM PEAK		
	Scenarios			Scenarios		
	1	2	3	1	2	3
Northbound Approach	A	A	B	A	A	B
Westbound Left-Turn	A	A	A	A	A	A

TABLE 8 – LEVEL OF SERVICE SUMMARY: US 40 & MECKLENBURG DR/VANDALIA BLVD

APPROACH	AM PEAK			PM PEAK		
	Scenarios			Scenarios		
	1	2	3	1	2	3
Northbound Approach	C	C	C	C	C	C
Southbound Approach	C	C	C	C	C	C
Eastbound Approach	B	B	B	B	B	B
Westbound Approach	B	B	B	B	B	C
Intersection	B	B	B	B	B	C

TABLE 9 – LEVEL OF SERVICE SUMMARY: US 40 & PROPOSED WEST ACCESS DRIVE

APPROACH	AM PEAK	PM PEAK
	Scenario 3	Scenario 3
Northbound Approach	C	D
Southbound Approach	A	A
Eastbound Approach	---	---
Westbound Approach	A	A

Analysis considers construction of the northbound access drive with one inbound and at least one outbound lane that will stop for US 40, and installation of an exclusive westbound left-turn lane along US 40.

TABLE 10 – LEVEL OF SERVICE SUMMARY: US 40 & PROPOSED EAST ACCESS DRIVE

APPROACH	AM PEAK	PM PEAK
	Scenario 3	Scenario 3
Northbound Approach	B	B
Westbound Left-Turn	A	A

Analysis considers construction of the northbound access drive with one inbound and at least one outbound lane that will stop for US 40, and installation of an exclusive westbound left-turn lane along US 40.

TABLE 11 – LEVEL OF SERVICE SUMMARY: CR 600 S & PROPOSED NORTH/SOUTH ACCESS DRIVE

APPROACH	AM PEAK	PM PEAK
	Scenario 3	Scenario 3
Northbound Approach	A	A
Southbound Approach	B	B
Eastbound Left-Turn	A	A
Westbound Left-Turn	A	A

Analysis considers construction of the northbound and southbound access drives with one inbound and at least one outbound lane that will stop for CR 600 S, and installation of an exclusive westbound right-turn lane along CR 600 S.

CONCLUSIONS & RECOMMENDATIONS

The conclusions that follow are based on existing traffic volume data, trip generation, assignment and distribution of generated traffic, and the capacity analyses/level of service results. Based on the analysis and the resulting conclusions of this study, the following recommendations are formulated to ensure that the roadway system will accommodate the increased traffic volumes from the proposed development.

US 40 & MILES ROAD

Capacity analyses have shown that the northbound approach currently operates at acceptable levels of services during the AM and PM peak hours. However, once the generated traffic volumes from the proposed development are added to the intersection, the northbound approach will operate below acceptable levels of service during the PM peak hour. Additional capacity analyses have shown that the installation of an exclusive right-turn does not improve the level-of-service, but decreases the average delay along the northbound approach by approximately 36 seconds.

US 40 & MOON ROAD

Capacity analyses for all traffic volume scenarios have shown that this intersection currently operates and will continue to operate at acceptable levels of service during the AM and PM peak hours with existing intersection conditions. Therefore, no improvements are recommended at this intersection.

CR 600 S & MOON ROAD

Capacity analyses for all traffic volume scenarios have shown that all approaches to this intersection currently operate and will continue to operate at acceptable levels of service during the AM and PM peak hours with existing intersection conditions. Therefore, no improvements are recommended at this intersection.

CR 600 S & CR 521 E

Capacity analyses for all traffic volume scenarios have shown that all approaches to this intersection currently operate and will continue to operate at acceptable levels of service during the AM and PM peak hours with existing intersection conditions. Therefore, no improvements are recommended at this intersection.

US 40 & MECKLENBURG DRIVE /VANDALIA BOULEVARD

Capacity analyses for all traffic volume scenarios have shown that this intersection currently operates and will continue to operate at acceptable levels of service during the AM and PM peak hours with existing intersection conditions. Therefore, no improvements are recommended at this intersection.

US 40 & PROPOSED WEST ACCESS DRIVE

Capacity analyses have shown that all approaches to this intersection will operate at acceptable levels of service during the AM and PM peak hours with the following intersection conditions:

- Construction of the northbound proposed full-access drive with one inbound and at least one outbound lane.
- Construction of an exclusive westbound left-turn lane along US 40 at the access drive location.
- The intersection should be stop-controlled with the access drive stopping for US 40.

US 40 & PROPOSED EAST ACCESS DRIVE

Capacity analyses have shown that all approaches to this intersection will operate at acceptable levels of service during the AM and PM peak hours with the following intersection conditions:

- Construction of the northbound full-access access drive with one inbound and at least one outbound lane.
- Construction of an exclusive westbound left-turn lane along US 40 at the access drive location.
- The intersection should be stop-controlled with the access drive stopping for US 40.

CR 600 S & PROPOSED NORTH/SOUTH ACCESS DRIVE

Capacity analyses have shown that all approaches to this intersection will operate at acceptable levels of service during the AM and PM peak hours with the following intersection conditions:

- Construction of the northbound and southbound proposed full-access drives with one inbound and at least one outbound lane.
- Construction of an exclusive westbound right-turn lane along CR 600 S at the access drive location.
- The intersection should be stop-controlled with the access drive stopping for CR 600 S.

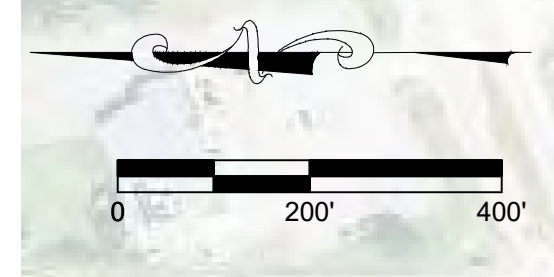
TRAFFIC IMPACT STUDY

APPENDIX



***8365 Keystone Crossing Boulevard, Suite 201
Indianapolis, IN 46240
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SITE PLAN



US 40 & MILES ROAD

TRAFFIC VOLUME COUNTS CAPACITY ANALYSIS

US 40 & MILES RD - TMC

Thu Aug 29, 2024

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220400, Location: 39.688127, -86.446109



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound				West Eastbound				East Westbound				Int
	L	R	U	App	T	R	U	App	L	T	U	App	
2024-08-29 6:00AM	9	0	0	9	76	10	0	86	0	28	0	28	123
6:15AM	10	0	0	10	106	17	0	123	0	67	0	67	200
6:30AM	5	0	0	5	125	28	0	153	0	82	0	82	240
6:45AM	18	0	0	18	177	30	0	207	0	83	0	83	308
Hourly Total	42	0	0	42	484	85	0	569	0	260	0	260	871
7:00AM	11	0	0	11	127	37	0	164	0	76	0	76	251
7:15AM	27	0	0	27	162	36	0	198	0	80	0	80	305
7:30AM	14	0	0	14	148	30	0	178	0	119	0	119	311
7:45AM	15	0	0	15	153	31	0	184	1	69	0	70	269
Hourly Total	67	0	0	67	590	134	0	724	1	344	0	345	1136
8:00AM	17	0	0	17	152	23	0	175	0	61	0	61	253
8:15AM	13	0	0	13	129	26	0	155	0	84	0	84	252
8:30AM	18	1	0	19	128	27	0	155	1	86	0	87	261
8:45AM	13	2	0	15	134	21	0	155	0	71	0	71	241
Hourly Total	61	3	0	64	543	97	0	640	1	302	0	303	1007
9:00AM	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
4:00PM	41	2	0	43	109	21	0	130	2	200	0	202	375
4:15PM	41	3	0	44	121	21	0	142	0	190	0	190	376
4:30PM	42	1	0	43	143	24	0	167	2	209	0	211	421
4:45PM	44	0	0	44	128	27	0	155	0	214	0	214	413
Hourly Total	168	6	0	174	501	93	0	594	4	813	0	817	1585
5:00PM	51	0	0	51	127	29	0	156	0	197	0	197	404
5:15PM	47	1	0	48	159	26	0	185	1	198	0	199	432
5:30PM	44	1	0	45	135	27	0	162	0	163	0	163	370
5:45PM	29	0	0	29	130	11	0	141	0	172	0	172	342
Hourly Total	171	2	0	173	551	93	0	644	1	730	0	731	1548
6:00PM	33	2	0	35	113	29	0	142	2	152	0	154	331
6:15PM	22	1	0	23	95	10	0	105	0	174	0	174	302
6:30PM	17	1	0	18	81	12	0	93	0	122	0	122	233
6:45PM	17	0	0	17	94	11	0	105	0	109	0	109	231
Hourly Total	89	4	0	93	383	62	0	445	2	557	0	559	1097
7:00PM	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
Total	598	15	0	613	3052	564	0	3616	9	3006	0	3015	7244
% Approach	97.6%	2.4%	0%	-	84.4%	15.6%	0%	-	0.3%	99.7%	0%	-	-
% Total	8.3%	0.2%	0%	8.5%	42.1%	7.8%	0%	49.9%	0.1%	41.5%	0%	41.6%	-
Lights and Motorcycles	590	14	0	604	2965	548	0	3513	9	2921	0	2930	7047
% Lights and Motorcycles	98.7%	93.3%	0%	98.5%	97.1%	97.2%	0%	97.2%	100%	97.2%	0%	97.2%	97.3%
Heavy	8	1	0	9	87	16	0	103	0	85	0	85	197
% Heavy	1.3%	6.7%	0%	1.5%	2.9%	2.8%	0%	2.8%	0%	2.8%	0%	2.8%	2.7%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MILES RD - TMC

Thu Aug 29, 2024

Full Length (6 AM-9 AM, 4 PM-7 PM)

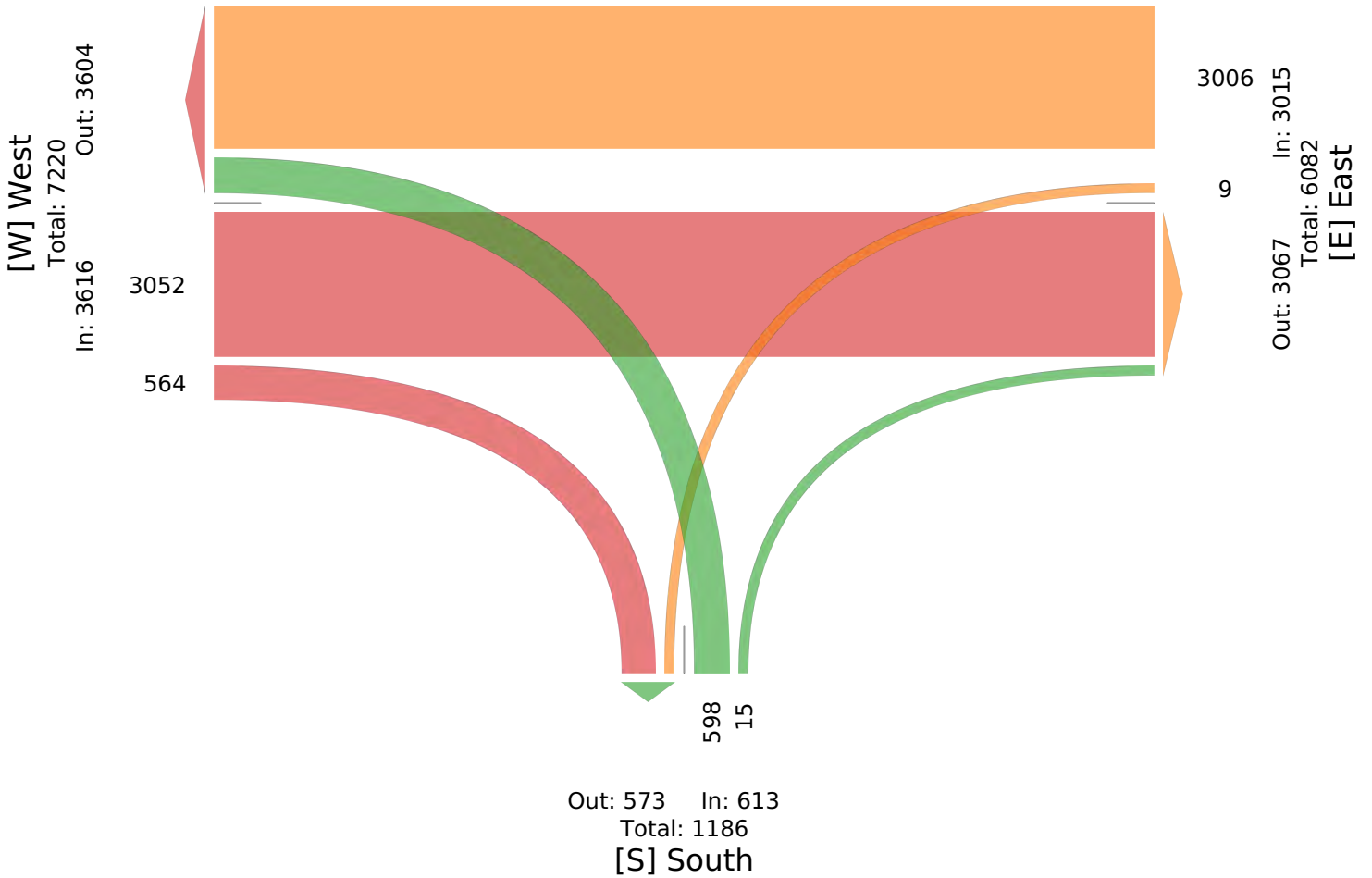
All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220400, Location: 39.688127, -86.446109



Provided by: A&F Engineering
8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



US 40 & MILES RD - TMC

Thu Aug 29, 2024

AM Peak (6:45 AM - 7:45 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220400, Location: 39.688127, -86.446109



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound				West Eastbound				East Westbound				
Time	L	R	U	App	T	R	U	App	L	T	U	App	Int
2024-08-29 6:45AM	18	0	0	18	177	30	0	207	0	83	0	83	308
7:00AM	11	0	0	11	127	37	0	164	0	76	0	76	251
7:15AM	27	0	0	27	162	36	0	198	0	80	0	80	305
7:30AM	14	0	0	14	148	30	0	178	0	119	0	119	311
Total	70	0	0	70	614	133	0	747	0	358	0	358	1175
% Approach	100%	0%	0%	-	82.2%	17.8%	0%	-	0%	100%	0%	-	-
% Total	6.0%	0%	0%	6.0%	52.3%	11.3%	0%	63.6%	0%	30.5%	0%	30.5%	-
PHF	0.648	-	-	0.648	0.867	0.899	-	0.902	-	0.752	-	0.752	0.945
Lights and Motorcycles	70	0	0	70	581	132	0	713	0	344	0	344	1127
% Lights and Motorcycles	100%	0%	0%	100%	94.6%	99.2%	0%	95.4%	0%	96.1%	0%	96.1%	95.9%
Heavy	0	0	0	0	33	1	0	34	0	14	0	14	48
% Heavy	0%	0%	0%	0%	5.4%	0.8%	0%	4.6%	0%	3.9%	0%	3.9%	4.1%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MILES RD - TMC

Thu Aug 29, 2024

AM Peak (6:45 AM - 7:45 AM)

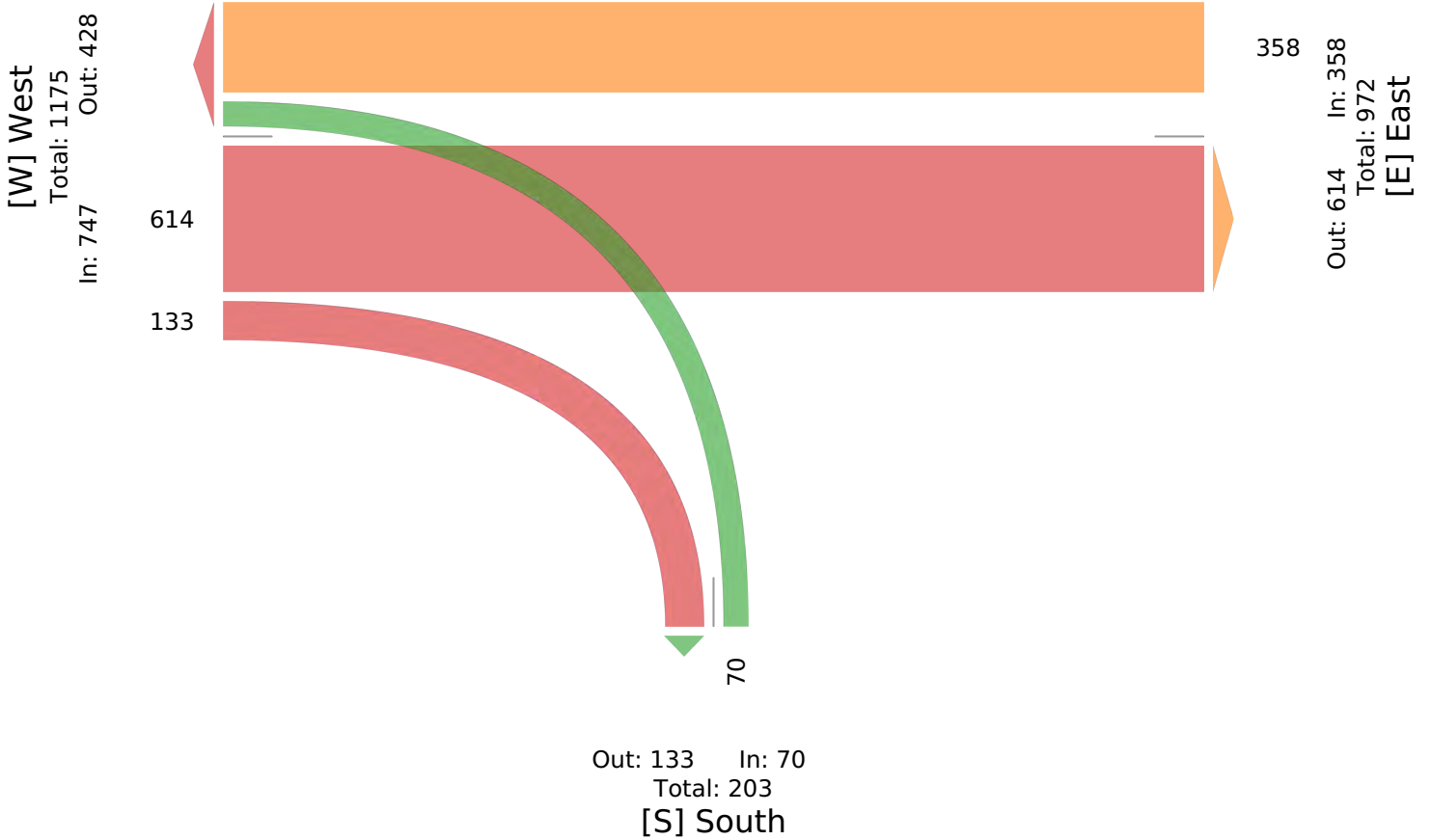
All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220400, Location: 39.688127, -86.446109



Provided by: A&F Engineering
8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



US 40 & MILES RD - TMC

Thu Aug 29, 2024

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220400, Location: 39.688127, -86.446109



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound				West Eastbound				East Westbound				Int
	L	R	U	App	T	R	U	App	L	T	U	App	
2024-08-29 4:30PM	42	1	0	43	143	24	0	167	2	209	0	211	421
4:45PM	44	0	0	44	128	27	0	155	0	214	0	214	413
5:00PM	51	0	0	51	127	29	0	156	0	197	0	197	404
5:15PM	47	1	0	48	159	26	0	185	1	198	0	199	432
Total	184	2	0	186	557	106	0	663	3	818	0	821	1670
% Approach	98.9%	1.1%	0%	-	84.0%	16.0%	0%	-	0.4%	99.6%	0%	-	-
% Total	11.0%	0.1%	0%	11.1%	33.4%	6.3%	0%	39.7%	0.2%	49.0%	0%	49.2%	-
PHF	0.902	0.500	-	0.912	0.876	0.914	-	0.896	0.375	0.956	-	0.959	0.966
Lights and Motorcycles	183	2	0	185	551	102	0	653	3	799	0	802	1640
% Lights and Motorcycles	99.5%	100%	0%	99.5%	98.9%	96.2%	0%	98.5%	100%	97.7%	0%	97.7%	98.2%
Heavy	1	0	0	1	6	4	0	10	0	19	0	19	30
% Heavy	0.5%	0%	0%	0.5%	1.1%	3.8%	0%	1.5%	0%	2.3%	0%	2.3%	1.8%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MILES RD - TMC

Thu Aug 29, 2024

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

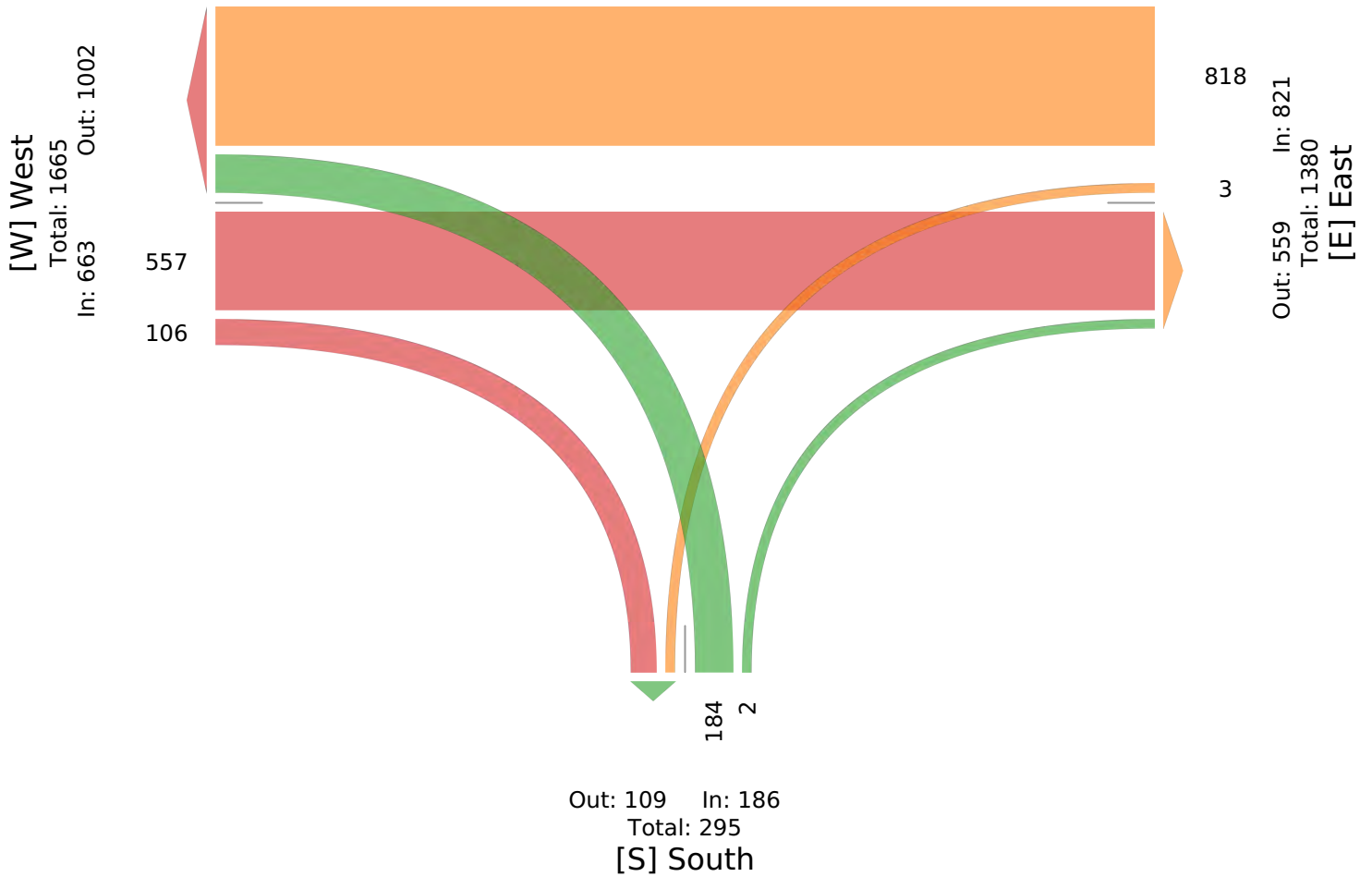
All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220400, Location: 39.688127, -86.446109



Provided by: A&F Engineering
8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	614	133	0	358	70	0
Future Vol, veh/h	614	133	0	358	70	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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	1	0	4	0	0
Mvmt Flow	653	141	0	381	74	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	795	0	914
Stage 1	-	-	-	-	724
Stage 2	-	-	-	-	190
Critical Hdwy	-	-	4.1	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	836	-	276
Stage 1	-	-	-	-	446
Stage 2	-	-	-	-	829
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	836	-	276
Mov Cap-2 Maneuver	-	-	-	-	371
Stage 1	-	-	-	-	446
Stage 2	-	-	-	-	829

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	17.13
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	371	-	-	836	-
HCM Lane V/C Ratio	0.201	-	-	-	-
HCM Ctrl Dly (s/v)	17.1	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection						
Int Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	557	106	3	818	184	2
Future Vol, veh/h	557	106	3	818	184	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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	1	4	2	2	1	0
Mvmt Flow	574	109	3	843	190	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	684	0	1057
Stage 1	-	-	-	-	629
Stage 2	-	-	-	-	428
Critical Hdwy	-	-	4.14	-	6.82
Critical Hdwy Stg 1	-	-	-	-	5.82
Critical Hdwy Stg 2	-	-	-	-	5.82
Follow-up Hdwy	-	-	2.22	-	3.51
Pot Cap-1 Maneuver	-	-	906	-	222
Stage 1	-	-	-	-	496
Stage 2	-	-	-	-	628
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	906	-	221
Mov Cap-2 Maneuver	-	-	-	-	351
Stage 1	-	-	-	-	496
Stage 2	-	-	-	-	625

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.07	26.68
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	353	-	-	13	-
HCM Lane V/C Ratio	0.543	-	-	0.003	-
HCM Ctrl Dly (s/v)	26.7	-	-	9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	3.1	-	-	0	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	655	142	0	382	75	0
Future Vol, veh/h	655	142	0	382	75	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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	1	0	4	0	0
Mvmt Flow	697	151	0	406	80	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	848	0	976
Stage 1	-	-	-	-	772
Stage 2	-	-	-	-	203
Critical Hdwy	-	-	4.1	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	798	-	252
Stage 1	-	-	-	-	421
Stage 2	-	-	-	-	817
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	798	-	252
Mov Cap-2 Maneuver	-	-	-	-	349
Stage 1	-	-	-	-	421
Stage 2	-	-	-	-	817

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	18.34
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	349	-	-	798	-
HCM Lane V/C Ratio	0.229	-	-	-	-
HCM Ctrl Dly (s/v)	18.3	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.9	-	-	0	-

Intersection						
Int Delay, s/veh	3.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	594	113	3	872	196	2
Future Vol, veh/h	594	113	3	872	196	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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	1	4	2	2	1	0
Mvmt Flow	612	116	3	899	202	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	729	0	1126
Stage 1	-	-	-	-	671
Stage 2	-	-	-	-	456
Critical Hdwy	-	-	4.14	-	6.82
Critical Hdwy Stg 1	-	-	-	-	5.82
Critical Hdwy Stg 2	-	-	-	-	5.82
Follow-up Hdwy	-	-	2.22	-	3.51
Pot Cap-1 Maneuver	-	-	871	-	~ 200
Stage 1	-	-	-	-	473
Stage 2	-	-	-	-	608
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	871	-	~ 199
Mov Cap-2 Maneuver	-	-	-	-	331
Stage 1	-	-	-	-	473
Stage 2	-	-	-	-	605

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.07	31.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	333	-	-	12	-
HCM Lane V/C Ratio	0.614	-	-	0.004	-
HCM Ctrl Dly (s/v)	31.6	-	-	9.1	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	3.8	-	-	0	-

Notes	
~: Volume exceeds capacity	\$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	667	145	0	418	84	0
Future Vol, veh/h	667	145	0	418	84	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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	1	0	4	0	0
Mvmt Flow	710	154	0	445	89	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	864	0	1009
Stage 1	-	-	-	-	787
Stage 2	-	-	-	-	222
Critical Hdwy	-	-	4.1	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	787	-	240
Stage 1	-	-	-	-	414
Stage 2	-	-	-	-	799
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	787	-	240
Mov Cap-2 Maneuver	-	-	-	-	340
Stage 1	-	-	-	-	414
Stage 2	-	-	-	-	799

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	340	-	-	787	-
HCM Lane V/C Ratio	0.263	-	-	-	-
HCM Ctrl Dly (s/v)	19.3	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1	-	-	0	-

Intersection						
Int Delay, s/veh	4.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	636	124	3	897	203	2
Future Vol, veh/h	636	124	3	897	203	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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	1	4	2	2	1	0
Mvmt Flow	656	128	3	925	209	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	784	0	1188
Stage 1	-	-	-	-	720
Stage 2	-	-	-	-	469
Critical Hdwy	-	-	4.14	-	6.82
Critical Hdwy Stg 1	-	-	-	-	5.82
Critical Hdwy Stg 2	-	-	-	-	5.82
Follow-up Hdwy	-	-	2.22	-	3.51
Pot Cap-1 Maneuver	-	-	830	-	~ 182
Stage 1	-	-	-	-	446
Stage 2	-	-	-	-	599
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	830	-	~ 181
Mov Cap-2 Maneuver	-	-	-	-	313
Stage 1	-	-	-	-	446
Stage 2	-	-	-	-	596

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.08	37.02
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	315	-	-	12	-
HCM Lane V/C Ratio	0.672	-	-	0.004	-
HCM Ctrl Dly (s/v)	37	-	-	9.4	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	4.5	-	-	0	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s
 +: Computation Not Defined *: All major volume in platoon

US 40 & MOON ROAD

TRAFFIC VOLUME COUNTS CAPACITY ANALYSIS

US 40 & MOON RD - TMC

Thu Aug 29, 2024

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220403, Location: 39.697363, -86.418764



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					Int
	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	
2024-08-29 6:00AM	8	11	15	0	34	26	22	6	0	54	1	88	20	0	109	19	40	6	0	65	262
6:15AM	11	7	27	0	45	30	35	2	0	67	2	98	32	0	132	17	44	4	0	65	309
6:30AM	6	14	26	0	46	45	62	6	0	113	2	111	22	0	135	19	66	6	0	91	385
6:45AM	10	22	23	0	55	42	48	11	0	101	2	157	29	0	188	17	66	5	0	88	432
Hourly Total	35	54	91	0	180	143	167	25	0	335	7	454	103	0	564	72	216	21	0	309	1388
7:00AM	5	10	38	0	53	72	50	7	0	129	6	128	32	0	166	20	62	8	0	90	438
7:15AM	11	23	60	0	94	74	64	7	0	145	2	163	35	0	200	34	67	14	0	115	554
7:30AM	13	17	48	0	78	83	56	6	0	145	5	166	28	0	199	26	84	24	0	134	556
7:45AM	14	26	47	0	87	65	55	2	0	122	4	142	32	0	178	23	59	29	0	111	498
Hourly Total	43	76	193	0	312	294	225	22	0	541	17	599	127	0	743	103	272	75	0	450	2046
8:00AM	9	24	47	0	80	60	39	4	0	103	4	171	21	0	196	23	64	27	0	114	493
8:15AM	17	17	41	0	75	83	52	10	0	145	8	128	25	0	161	29	66	28	0	123	504
8:30AM	19	11	53	0	83	89	26	6	0	121	7	145	15	0	167	24	86	44	0	154	525
8:45AM	16	16	37	0	69	51	24	4	0	79	5	135	15	0	155	28	71	42	0	141	444
Hourly Total	61	68	178	0	307	283	141	24	0	448	24	579	76	0	679	104	287	141	0	532	1966
9:00AM	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	0	0	0	0	0	0	0	0
4:00PM	50	44	54	0	148	48	34	11	0	93	13	101	17	1	132	42	208	115	0	365	738
4:15PM	51	63	40	0	154	52	46	16	0	114	8	123	21	0	152	40	182	85	1	308	728
4:30PM	41	65	39	0	145	39	26	13	0	78	13	140	25	0	178	46	205	71	0	322	723
4:45PM	33	45	48	0	126	69	41	21	0	131	20	127	11	0	158	40	216	80	0	336	751
Hourly Total	175	217	181	0	573	208	147	61	0	416	54	491	74	1	620	168	811	351	1	1331	2940
5:00PM	31	55	50	0	136	80	44	7	0	131	11	132	16	1	160	45	182	72	0	299	726
5:15PM	36	59	49	0	144	48	45	8	0	101	8	161	14	0	183	62	196	59	0	317	745
5:30PM	32	78	45	0	155	66	36	7	0	109	4	134	14	0	152	41	131	64	0	236	652
5:45PM	27	53	40	0	120	63	25	10	1	99	10	133	14	2	159	37	146	64	0	247	625
Hourly Total	126	245	184	0	555	257	150	32	1	440	33	560	58	3	654	185	655	259	0	1099	2748
6:00PM	19	51	47	0	117	35	30	5	0	70	16	129	10	0	155	42	154	65	0	261	603
6:15PM	11	43	51	0	105	60	23	12	0	95	9	105	7	0	121	35	152	48	0	235	556
6:30PM	19	31	38	0	88	56	15	5	0	76	4	76	3	0	83	42	118	60	0	220	467
6:45PM	7	23	26	0	56	48	24	5	0	77	13	97	5	0	115	39	114	55	0	208	456
Hourly Total	56	148	162	0	366	199	92	27	0	318	42	407	25	0	474	158	538	228	0	924	2082
7:00PM	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	0	0	0	0	0	0	0	0
Total	496	808	989	0	2293	1384	922	191	1	2498	177	3090	463	4	3734	790	2779	1075	1	4645	13170
% Approach	21.6%	35.2%	43.1%	0%	-	55.4%	36.9%	7.6%	0%	-	4.7%	82.8%	12.4%	0.1%	-	17.0%	59.8%	23.1%	0%	-	-
% Total	3.8%	6.1%	7.5%	0%	17.4%	10.5%	7.0%	1.5%	0%	19.0%	1.3%	23.5%	3.5%	0%	28.4%	6.0%	21.1%	8.2%	0%	35.3%	-
Lights and Motorcycles	473	801	962	0	2236	1347	901	188	1	2437	175	3008	435	4	3622	767	2711	1056	1	4535	12830
% Lights and Motorcycles	95.4%	99.1%	97.3%	0%	97.5%	97.3%	97.7%	98.4%	100%	97.6%	98.9%	97.3%	94.0%	100%	97.0%	97.1%	97.6%	98.2%	100%	97.6%	97.4%
Heavy	23	7	27	0	57	37	21	3	0	61	2	82	28	0	112	23	68	19	0	110	340
% Heavy	4.6%	0.9%	2.7%	0%	2.5%	2.7%	2.3%	1.6%	0%	2.4%	1.1%	2.7%	6.0%	0%	3.0%	2.9%	2.4%	1.8%	0%	2.4%	2.6%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MOON RD - TMC

Thu Aug 29, 2024

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights and Motorcycles, Heavy)

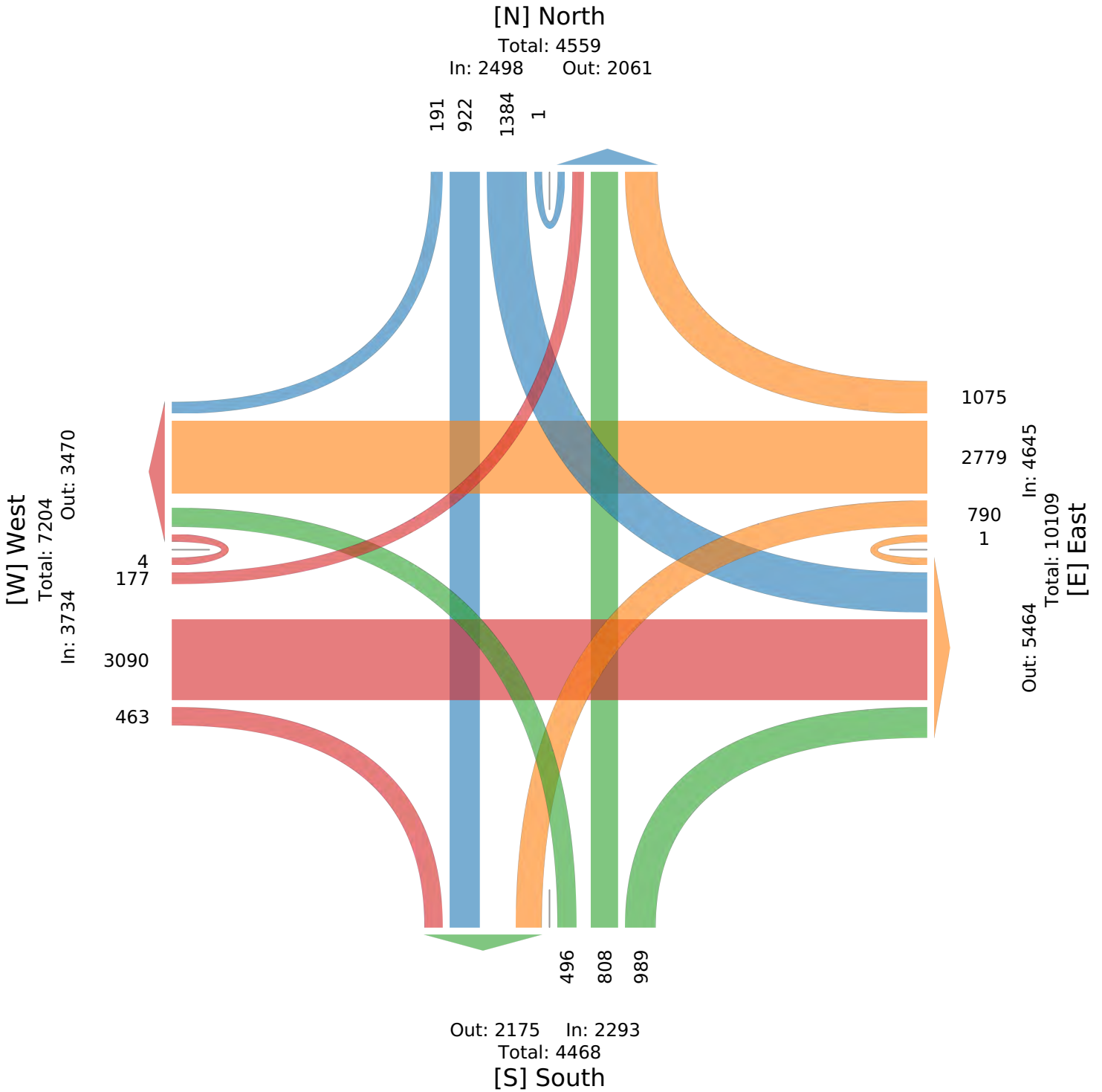
All Movements

ID: 1220403, Location: 39.697363, -86.418764



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



US 40 & MOON RD - TMC

Thu Aug 29, 2024

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220403, Location: 39.697363, -86.418764



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					Int
	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	
2024-08-29 7:15AM	11	23	60	0	94	74	64	7	0	145	2	163	35	0	200	34	67	14	0	115	554
7:30AM	13	17	48	0	78	83	56	6	0	145	5	166	28	0	199	26	84	24	0	134	556
7:45AM	14	26	47	0	87	65	55	2	0	122	4	142	32	0	178	23	59	29	0	111	498
8:00AM	9	24	47	0	80	60	39	4	0	103	4	171	21	0	196	23	64	27	0	114	493
Total	47	90	202	0	339	282	214	19	0	515	15	642	116	0	773	106	274	94	0	474	2101
% Approach	13.9%	26.5%	59.6%	0%	-	54.8%	41.6%	3.7%	0%	-	1.9%	83.1%	15.0%	0%	-	22.4%	57.8%	19.8%	0%	-	-
% Total	2.2%	4.3%	9.6%	0%	16.1%	13.4%	10.2%	0.9%	0%	24.5%	0.7%	30.6%	5.5%	0%	36.8%	5.0%	13.0%	4.5%	0%	22.6%	-
PHF	0.839	0.865	0.842	-	0.902	0.849	0.836	0.679	-	0.888	0.750	0.939	0.829	-	0.966	0.779	0.815	0.810	-	0.884	0.945
Lights and Motorcycles	45	86	196	0	327	276	212	19	0	507	15	615	109	0	739	103	259	89	0	451	2024
% Lights and Motorcycles	95.7%	95.6%	97.0%	0%	96.5%	97.9%	99.1%	100%	0%	98.4%	100%	95.8%	94.0%	0%	95.6%	97.2%	94.5%	94.7%	0%	95.1%	96.3%
Heavy	2	4	6	0	12	6	2	0	0	8	0	27	7	0	34	3	15	5	0	23	77
% Heavy	4.3%	4.4%	3.0%	0%	3.5%	2.1%	0.9%	0%	0%	1.6%	0%	4.2%	6.0%	0%	4.4%	2.8%	5.5%	5.3%	0%	4.9%	3.7%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MOON RD - TMC

Thu Aug 29, 2024

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights and Motorcycles, Heavy)

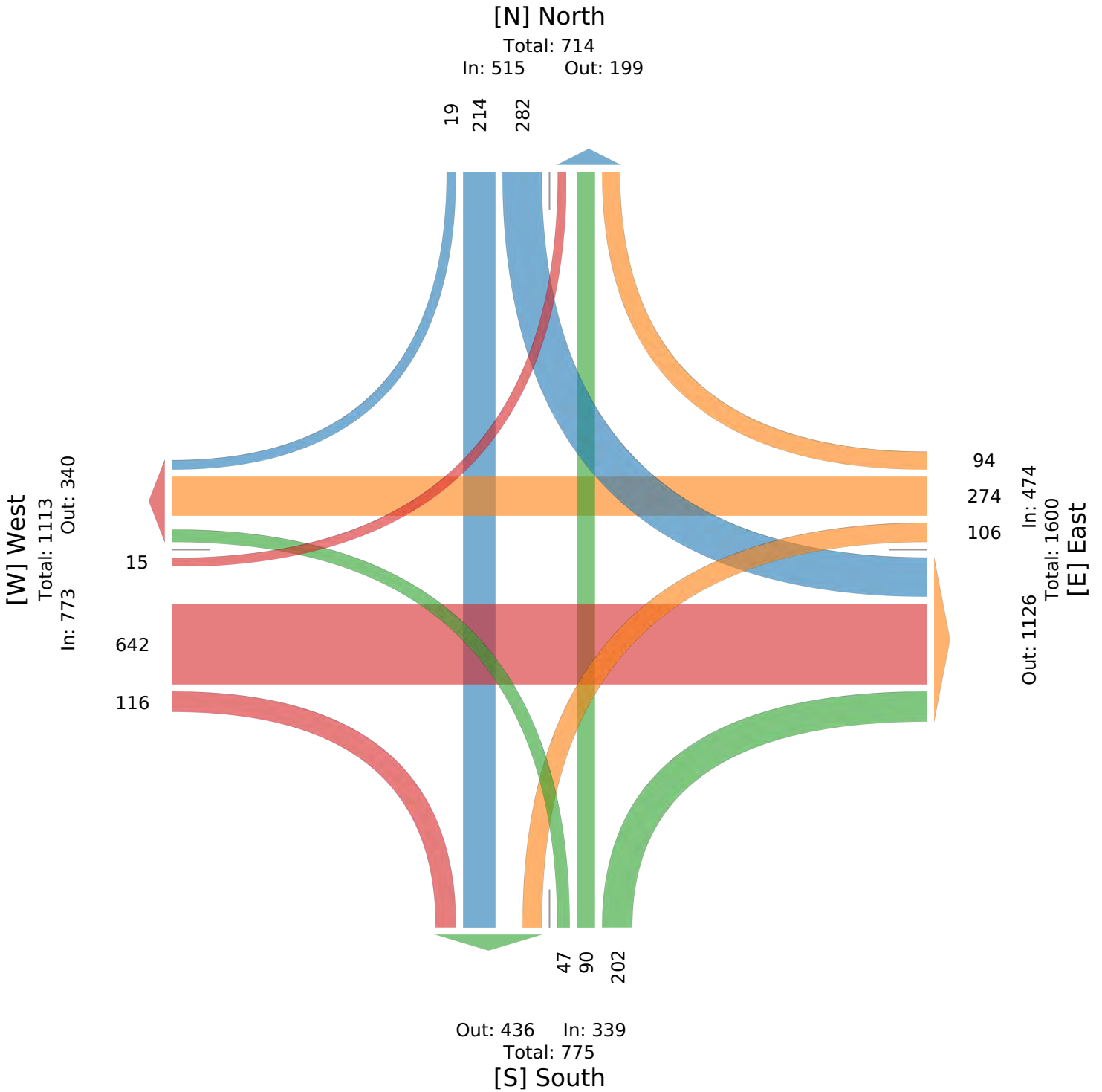
All Movements

ID: 1220403, Location: 39.697363, -86.418764



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



US 40 & MOON RD - TMC

Thu Aug 29, 2024

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220403, Location: 39.697363, -86.418764



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					Int
	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	
2024-08-29 4:30PM	41	65	39	0	145	39	26	13	0	78	13	140	25	0	178	46	205	71	0	322	723
4:45PM	33	45	48	0	126	69	41	21	0	131	20	127	11	0	158	40	216	80	0	336	751
5:00PM	31	55	50	0	136	80	44	7	0	131	11	132	16	1	160	45	182	72	0	299	726
5:15PM	36	59	49	0	144	48	45	8	0	101	8	161	14	0	183	62	196	59	0	317	745
Total	141	224	186	0	551	236	156	49	0	441	52	560	66	1	679	193	799	282	0	1274	2945
% Approach	25.6%	40.7%	33.8%	0%	-	53.5%	35.4%	11.1%	0%	-	7.7%	82.5%	9.7%	0.1%	-	15.1%	62.7%	22.1%	0%	-	-
% Total	4.8%	7.6%	6.3%	0%	18.7%	8.0%	5.3%	1.7%	0%	15.0%	1.8%	19.0%	2.2%	0%	23.1%	6.6%	27.1%	9.6%	0%	43.3%	-
PHF	0.860	0.862	0.930	-	0.950	0.738	0.867	0.583	-	0.842	0.650	0.870	0.660	0.250	0.928	0.778	0.925	0.881	-	0.948	0.980
Lights and Motorcycles	135	223	183	0	541	232	151	49	0	432	52	554	64	1	671	191	782	282	0	1255	2899
% Lights and Motorcycles	95.7%	99.6%	98.4%	0%	98.2%	98.3%	96.8%	100%	0%	98.0%	100%	98.9%	97.0%	100%	98.8%	99.0%	97.9%	100%	0%	98.5%	98.4%
Heavy	6	1	3	0	10	4	5	0	0	9	0	6	2	0	8	2	17	0	0	19	46
% Heavy	4.3%	0.4%	1.6%	0%	1.8%	1.7%	3.2%	0%	0%	2.0%	0%	1.1%	3.0%	0%	1.2%	1.0%	2.1%	0%	0%	1.5%	1.6%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MOON RD - TMC

Thu Aug 29, 2024

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

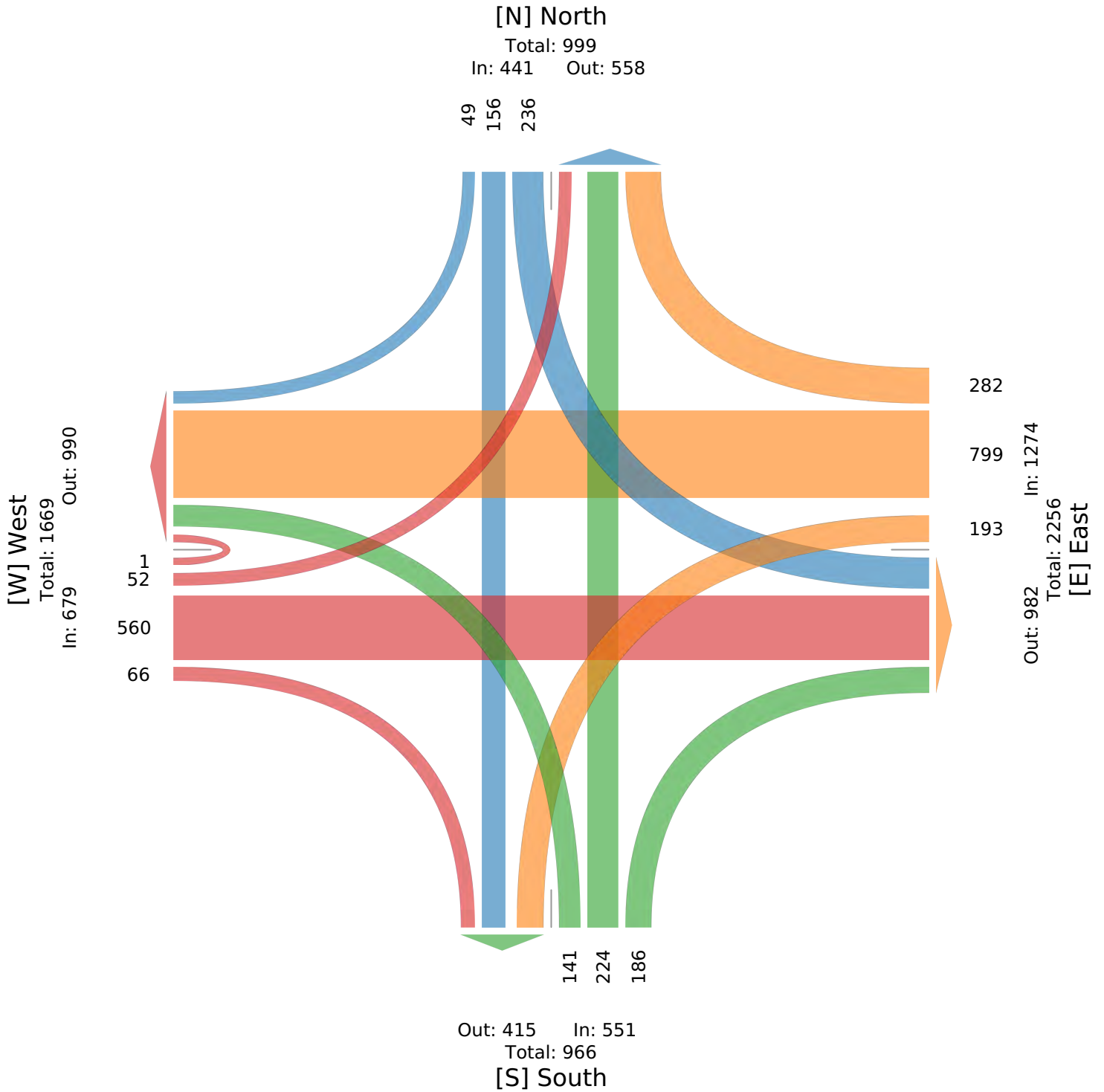
All Movements

ID: 1220403, Location: 39.697363, -86.418764



























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



















HCM 7th Signalized Intersection Summary
3: MOON RD & US 40

Existing AM Peak
02/26/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	642	116	106	274	94	47	90	202	282	214	19
Future Volume (veh/h)	15	642	116	106	274	94	47	90	202	282	214	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1811	1856	1811	1826	1841	1841	1856	1870	1885	1900
Adj Flow Rate, veh/h	16	683	123	113	291	100	50	96	215	264	278	20
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
Percent Heavy Veh, %	0	4	6	3	6	5	4	4	3	2	1	0
Cap, veh/h	48	921	664	156	1118	807	297	312	405	351	371	360
Arrive On Green	0.03	0.26	0.26	0.09	0.32	0.32	0.17	0.17	0.17	0.20	0.20	0.20
Sat Flow, veh/h	1810	3497	1535	1767	3441	1547	1753	1841	1572	1781	1885	1610
Grp Volume(v), veh/h	16	683	123	113	291	100	50	96	215	264	278	20
Grp Sat Flow(s),veh/h/ln	1810	1749	1535	1767	1721	1547	1753	1841	1572	1781	1885	1610
Q Serve(g_s), s	0.6	12.7	3.5	4.4	4.4	2.3	1.7	3.2	8.3	9.9	9.8	0.7
Cycle Q Clear(g_c), s	0.6	12.7	3.5	4.4	4.4	2.3	1.7	3.2	8.3	9.9	9.8	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	921	664	156	1118	807	297	312	405	351	371	360
V/C Ratio(X)	0.33	0.74	0.19	0.73	0.26	0.12	0.17	0.31	0.53	0.75	0.75	0.06
Avail Cap(c_a), veh/h	179	1383	867	324	1652	1047	347	364	449	629	665	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	23.9	12.4	31.5	17.6	8.7	25.2	25.8	22.6	26.8	26.8	21.6
Incr Delay (d2), s/veh	3.9	1.2	0.1	6.3	0.1	0.1	0.3	0.6	1.1	3.3	3.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.9	1.5	2.0	1.6	1.1	0.7	1.4	2.9	4.3	4.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.8	25.1	12.5	37.7	17.8	8.7	25.4	26.3	23.7	30.1	29.9	21.7
LnGrp LOS	D	C	B	D	B	A	C	C	C	C	C	C
Approach Vol, veh/h		822			504			361			562	
Approach Delay, s/veh		23.4			20.4			24.6			29.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0	11.2	23.7		18.9	6.9	28.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		14.0	13.0	28.0		25.0	7.0	34.0				
Max Q Clear Time (g_c+I1), s		10.3	6.4	14.7		11.9	2.6	6.4				
Green Ext Time (p_c), s		0.5	0.1	4.0		2.0	0.0	2.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			24.5									
HCM 7th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary
3: MOON RD & US 40

Existing PM Peak
02/26/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	560	66	193	799	282	141	224	186	236	156	49
Future Volume (veh/h)	52	560	66	193	799	282	141	224	186	236	156	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1856	1885	1870	1900	1841	1900	1870	1870	1856	1900
Adj Flow Rate, veh/h	53	571	67	197	815	288	144	229	190	200	216	50
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
Percent Heavy Veh, %	0	1	3	1	2	0	4	0	2	2	3	0
Cap, veh/h	116	858	645	244	1107	776	299	324	486	303	316	377
Arrive On Green	0.06	0.24	0.24	0.14	0.31	0.31	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1810	3582	1572	1795	3554	1610	1753	1900	1585	1781	1856	1610
Grp Volume(v), veh/h	53	571	67	197	815	288	144	229	190	200	216	50
Grp Sat Flow(s),veh/h/ln	1810	1791	1572	1795	1777	1610	1753	1900	1585	1781	1856	1610
Q Serve(g_s), s	2.0	10.2	1.9	7.5	14.4	8.0	5.2	8.0	6.7	7.4	7.7	1.7
Cycle Q Clear(g_c), s	2.0	10.2	1.9	7.5	14.4	8.0	5.2	8.0	6.7	7.4	7.7	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	858	645	244	1107	776	299	324	486	303	316	377
V/C Ratio(X)	0.46	0.67	0.10	0.81	0.74	0.37	0.48	0.71	0.39	0.66	0.68	0.13
Avail Cap(c_a), veh/h	180	1066	737	433	1562	982	597	647	755	455	474	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	24.3	12.8	29.6	21.7	11.5	26.4	27.6	19.3	27.4	27.5	21.3
Incr Delay (d2), s/veh	2.8	1.1	0.1	6.2	1.1	0.3	1.2	2.8	0.5	2.5	2.6	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.1	0.8	3.4	5.5	3.6	2.2	3.7	2.3	3.2	3.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.6	25.4	12.9	35.7	22.8	11.8	27.6	30.4	19.8	29.8	30.1	21.5
LnGrp LOS	C	C	B	D	C	B	C	C	B	C	C	C
Approach Vol, veh/h		691			1300			563			466	
Approach Delay, s/veh		24.9			22.3			26.1			29.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0	14.6	21.9		17.0	9.5	27.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		24.0	17.0	21.0		18.0	7.0	31.0				
Max Q Clear Time (g_c+I1), s		10.0	9.5	12.2		9.7	4.0	16.4				
Green Ext Time (p_c), s		2.0	0.3	2.5		1.3	0.0	5.5				
Intersection Summary												
HCM 7th Control Delay, s/veh			24.7									
HCM 7th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary
3: MOON RD & US 40

Background 2030 AM Peak
02/26/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↖	↗	↙	↖	↗
Traffic Volume (veh/h)	16	684	124	113	292	100	50	96	215	301	228	20
Future Volume (veh/h)	16	684	124	113	292	100	50	96	215	301	228	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1811	1856	1811	1826	1841	1841	1856	1870	1885	1900
Adj Flow Rate, veh/h	17	728	132	120	311	106	53	102	229	282	297	21
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
Percent Heavy Veh, %	0	4	6	3	6	5	4	4	3	2	1	0
Cap, veh/h	51	955	669	154	1143	833	285	299	393	367	389	377
Arrive On Green	0.03	0.27	0.27	0.09	0.33	0.33	0.16	0.16	0.16	0.21	0.21	0.21
Sat Flow, veh/h	1810	3497	1535	1767	3441	1547	1753	1841	1572	1781	1885	1610
Grp Volume(v), veh/h	17	728	132	120	311	106	53	102	229	282	297	21
Grp Sat Flow(s),veh/h/ln	1810	1749	1535	1767	1721	1547	1753	1841	1572	1781	1885	1610
Q Serve(g_s), s	0.7	14.1	3.9	4.9	4.9	2.5	1.9	3.6	9.4	11.0	11.0	0.7
Cycle Q Clear(g_c), s	0.7	14.1	3.9	4.9	4.9	2.5	1.9	3.6	9.4	11.0	11.0	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	955	669	154	1143	833	285	299	393	367	389	377
V/C Ratio(X)	0.34	0.76	0.20	0.78	0.27	0.13	0.19	0.34	0.58	0.77	0.76	0.06
Avail Cap(c_a), veh/h	172	1327	832	311	1586	1032	309	324	414	628	664	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	24.6	12.9	33.0	18.1	8.4	26.7	27.4	24.3	27.6	27.6	21.9
Incr Delay (d2), s/veh	3.9	1.7	0.1	8.2	0.1	0.1	0.3	0.7	1.9	3.4	3.2	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.5	1.7	2.3	1.8	1.2	0.8	1.6	3.4	4.8	5.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.0	26.4	13.0	41.2	18.2	8.5	27.0	28.1	26.2	31.0	30.7	22.0
LnGrp LOS	D	C	B	D	B	A	C	C	C	C	C	C
Approach Vol, veh/h		877			537			384			600	
Approach Delay, s/veh		24.6			21.4			26.8			30.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.0	11.4	25.1		20.2	7.1	29.5				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		13.0	13.0	28.0		26.0	7.0	34.0				
Max Q Clear Time (g_c+I1), s		11.4	6.9	16.1		13.0	2.7	6.9				
Green Ext Time (p_c), s		0.3	0.1	4.0		2.2	0.0	2.3				
Intersection Summary												
HCM 7th Control Delay, s/veh			25.7									
HCM 7th LOS			C									

Notes
User approved volume balancing among the lanes for turning movement.

HCM 7th Signalized Intersection Summary
3: MOON RD & US 40

Background 2030 PM Peak
02/26/2025



























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↗	↘	↗↗	↗	↘	↗	↗	↘	↗	↗
Traffic Volume (veh/h)	55	597	70	206	852	301	150	239	198	252	166	52
Future Volume (veh/h)	55	597	70	206	852	301	150	239	198	252	166	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1856	1885	1870	1900	1841	1900	1870	1870	1856	1900
Adj Flow Rate, veh/h	56	609	71	210	869	307	153	244	202	213	231	53
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
Percent Heavy Veh, %	0	1	3	1	2	0	4	0	2	2	3	0
Cap, veh/h	117	882	664	256	1152	785	309	335	506	291	303	367
Arrive On Green	0.06	0.25	0.25	0.14	0.32	0.32	0.18	0.18	0.18	0.16	0.16	0.16
Sat Flow, veh/h	1810	3582	1572	1795	3554	1610	1753	1900	1585	1781	1856	1610
Grp Volume(v), veh/h	56	609	71	210	869	307	153	244	202	213	231	53
Grp Sat Flow(s),veh/h/ln	1810	1791	1572	1795	1777	1610	1753	1900	1585	1781	1856	1610
Q Serve(g_s), s	2.2	11.4	2.0	8.4	16.1	8.9	5.8	8.9	7.3	8.4	8.8	1.9
Cycle Q Clear(g_c), s	2.2	11.4	2.0	8.4	16.1	8.9	5.8	8.9	7.3	8.4	8.8	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	117	882	664	256	1152	785	309	335	506	291	303	367
V/C Ratio(X)	0.48	0.69	0.11	0.82	0.75	0.39	0.50	0.73	0.40	0.73	0.76	0.14
Avail Cap(c_a), veh/h	172	1069	746	414	1543	962	547	593	721	435	453	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	25.2	12.9	30.7	22.3	12.0	27.4	28.7	19.6	29.3	29.5	22.7
Incr Delay (d2), s/veh	3.0	1.5	0.1	6.7	1.5	0.3	1.2	3.0	0.5	3.5	4.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.6	0.9	3.8	6.3	4.1	2.4	4.1	2.5	3.7	4.1	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.3	26.7	12.9	37.3	23.8	12.3	28.6	31.7	20.1	32.8	33.7	22.9
LnGrp LOS	D	C	B	D	C	B	C	C	C	C	C	C
Approach Vol, veh/h		736			1386			599			497	
Approach Delay, s/veh		26.1			23.3			27.0			32.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.0	15.5	23.2		17.0	9.8	28.9				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		23.0	17.0	22.0		18.0	7.0	32.0				
Max Q Clear Time (g_c+I1), s		10.9	10.4	13.4		10.8	4.2	18.1				
Green Ext Time (p_c), s		2.0	0.3	2.7		1.3	0.0	5.8				

Intersection Summary		
HCM 7th Control Delay, s/veh		26.0
HCM 7th LOS		C

Notes
User approved volume balancing among the lanes for turning movement.

HCM 7th Signalized Intersection Summary
3: MOON RD & US 40

Background 2030 + Proposed AM Peak
02/26/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	752	133	118	315	100	53	100	231	301	230	27
Future Volume (veh/h)	36	752	133	118	315	100	53	100	231	301	230	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1811	1856	1811	1826	1841	1841	1856	1870	1885	1900
Adj Flow Rate, veh/h	38	800	141	126	335	106	56	106	246	283	298	29
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
Percent Heavy Veh, %	0	4	6	3	6	5	4	4	3	2	1	0
Cap, veh/h	91	1008	699	160	1130	819	294	308	406	358	379	405
Arrive On Green	0.05	0.29	0.29	0.09	0.33	0.33	0.17	0.17	0.17	0.20	0.20	0.20
Sat Flow, veh/h	1810	3497	1535	1767	3441	1547	1753	1841	1572	1781	1885	1610
Grp Volume(v), veh/h	38	800	141	126	335	106	56	106	246	283	298	29
Grp Sat Flow(s),veh/h/ln	1810	1749	1535	1767	1721	1547	1753	1841	1572	1781	1885	1610
Q Serve(g_s), s	1.6	16.7	4.4	5.5	5.7	2.7	2.2	4.0	10.9	11.9	11.9	1.1
Cycle Q Clear(g_c), s	1.6	16.7	4.4	5.5	5.7	2.7	2.2	4.0	10.9	11.9	11.9	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	1008	699	160	1130	819	294	308	406	358	379	405
V/C Ratio(X)	0.42	0.79	0.20	0.79	0.30	0.13	0.19	0.34	0.61	0.79	0.79	0.07
Avail Cap(c_a), veh/h	160	1282	820	268	1479	976	332	349	440	540	572	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	26.0	12.9	35.2	19.8	9.4	28.3	29.1	25.8	30.0	30.0	22.6
Incr Delay (d2), s/veh	3.1	2.7	0.1	8.4	0.1	0.1	0.3	0.7	2.1	4.6	4.2	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.8	1.9	2.6	2.1	1.3	0.9	1.8	4.0	5.3	5.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.5	28.7	13.0	43.6	19.9	9.5	28.6	29.7	27.9	34.6	34.1	22.7
LnGrp LOS	D	C	B	D	B	A	C	C	C	C	C	C
Approach Vol, veh/h		979			567			408			610	
Approach Delay, s/veh		26.9			23.2			28.5			33.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.3	12.2	27.8		20.9	9.0	31.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		15.0	12.0	29.0		24.0	7.0	34.0				
Max Q Clear Time (g_c+I1), s		12.9	7.5	18.7		13.9	3.6	7.7				
Green Ext Time (p_c), s		0.4	0.1	4.1		2.0	0.0	2.4				
Intersection Summary												
HCM 7th Control Delay, s/veh			28.0									
HCM 7th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 7th Signalized Intersection Summary
3: MOON RD & US 40

Background 2030 + Proposed PM Peak
02/26/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↗	↗	↙	↗	↗
Traffic Volume (veh/h)	69	644	76	225	931	301	161	242	209	252	171	76
Future Volume (veh/h)	69	644	76	225	931	301	161	242	209	252	171	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1856	1885	1870	1900	1841	1900	1870	1870	1856	1900
Adj Flow Rate, veh/h	70	657	78	230	950	307	164	247	213	216	232	78
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
Percent Heavy Veh, %	0	1	3	1	2	0	4	0	2	2	3	0
Cap, veh/h	126	928	679	275	1216	811	303	328	516	287	299	372
Arrive On Green	0.07	0.26	0.26	0.15	0.34	0.34	0.17	0.17	0.17	0.16	0.16	0.16
Sat Flow, veh/h	1810	3582	1572	1795	3554	1610	1753	1900	1585	1781	1856	1610
Grp Volume(v), veh/h	70	657	78	230	950	307	164	247	213	216	232	78
Grp Sat Flow(s),veh/h/ln	1810	1791	1572	1795	1777	1610	1753	1900	1585	1781	1856	1610
Q Serve(g_s), s	2.9	13.1	2.3	9.8	18.9	9.2	6.7	9.7	8.2	9.1	9.4	3.1
Cycle Q Clear(g_c), s	2.9	13.1	2.3	9.8	18.9	9.2	6.7	9.7	8.2	9.1	9.4	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	928	679	275	1216	811	303	328	516	287	299	372
V/C Ratio(X)	0.56	0.71	0.11	0.84	0.78	0.38	0.54	0.75	0.41	0.75	0.78	0.21
Avail Cap(c_a), veh/h	161	1046	731	410	1534	955	468	507	665	407	424	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	26.5	13.4	32.4	23.2	12.0	29.7	31.0	20.7	31.5	31.7	24.5
Incr Delay (d2), s/veh	3.8	1.9	0.1	9.3	2.1	0.3	1.5	3.5	0.5	4.8	5.7	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.4	1.1	4.7	7.5	4.2	2.8	4.6	2.9	4.1	4.5	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.2	28.4	13.5	41.7	25.3	12.3	31.2	34.5	21.2	36.3	37.3	24.7
LnGrp LOS	D	C	B	D	C	B	C	C	C	D	D	C
Approach Vol, veh/h		805			1487			624			526	
Approach Delay, s/veh		27.9			25.2			29.1			35.1	
Approach LOS		C			C			C			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.6	17.0	25.4		17.7	10.5	32.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		21.0	18.0	23.0		18.0	7.0	34.0				
Max Q Clear Time (g_c+I1), s		11.7	11.8	15.1		11.4	4.9	20.9				
Green Ext Time (p_c), s		1.9	0.3	2.7		1.3	0.0	6.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			28.0									
HCM 7th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

CR 600 S & MOON ROAD

TURN VOLUME COUNTS CAPACITY ANALYSIS

CR 600 S & MOON RD - TMC

Thu Aug 29, 2024

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220408, Location: 39.67457, -86.418573



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					Int
	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	
2024-08-29 6:00AM	0	2	2	0	4	64	1	0	0	65	0	19	1	0	20	1	7	24	0	32	121
6:15AM	2	2	7	0	11	87	0	0	0	87	0	25	0	0	25	5	8	29	1	43	166
6:30AM	0	9	8	0	17	92	11	0	0	103	1	31	1	0	33	6	7	28	0	41	194
6:45AM	0	10	9	0	19	80	9	0	0	89	2	30	1	0	33	8	17	46	0	71	212
Hourly Total	2	23	26	0	51	323	21	0	0	344	3	105	3	0	111	20	39	127	1	187	693
7:00AM	0	10	18	0	28	103	9	0	0	112	0	40	0	0	40	9	12	39	0	60	240
7:15AM	2	16	22	0	40	141	13	3	0	157	1	43	1	0	45	7	24	38	0	69	311
7:30AM	0	19	20	0	39	124	10	0	0	134	1	33	1	0	35	14	15	52	0	81	289
7:45AM	0	10	22	0	32	126	14	0	0	140	2	33	6	0	41	13	23	63	0	99	312
Hourly Total	2	55	82	0	139	494	46	3	0	543	4	149	8	0	161	43	74	192	0	309	1152
8:00AM	1	12	17	0	30	59	14	1	0	74	3	22	0	0	25	12	10	61	0	83	212
8:15AM	1	11	6	0	18	77	35	0	0	112	2	28	5	0	35	19	15	37	0	71	236
8:30AM	5	58	35	0	98	55	42	1	0	98	0	24	3	0	27	14	17	40	0	71	294
8:45AM	3	13	14	0	30	50	7	0	0	57	4	19	1	0	24	12	13	35	1	61	172
Hourly Total	10	94	72	0	176	241	98	2	0	341	9	93	9	0	111	57	55	173	1	286	914
9:00AM	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	0	0	0	0	0	0	0	0
4:00PM	0	20	12	0	32	64	10	2	0	76	3	15	4	0	22	15	45	82	0	142	272
4:15PM	3	21	10	0	34	81	14	1	0	96	2	26	1	0	29	18	40	105	0	163	322
4:30PM	2	9	14	0	25	60	21	1	0	82	2	25	2	0	29	12	47	106	0	165	301
4:45PM	4	21	11	0	36	58	21	2	0	81	2	27	1	0	30	17	50	104	0	171	318
Hourly Total	9	71	47	0	127	263	66	6	0	335	9	93	8	0	110	62	182	397	0	641	1213
5:00PM	3	16	19	0	38	57	10	2	0	69	5	27	1	0	33	22	50	94	0	166	306
5:15PM	1	22	8	0	31	63	15	0	0	78	2	26	1	0	29	15	48	111	0	174	312
5:30PM	1	14	12	0	27	73	10	2	0	85	1	27	2	0	30	13	38	109	0	160	302
5:45PM	0	9	9	0	18	56	18	2	0	76	2	15	2	0	19	8	37	82	0	127	240
Hourly Total	5	61	48	0	114	249	53	6	0	308	10	95	6	0	111	58	173	396	0	627	1160
6:00PM	2	10	6	0	18	54	14	1	0	69	1	32	2	0	35	23	27	76	0	126	248
6:15PM	0	11	4	0	15	58	5	0	0	63	1	9	2	0	12	11	23	62	0	96	186
6:30PM	1	7	10	0	18	27	9	0	0	36	0	9	0	0	9	4	20	54	0	78	141
6:45PM	2	10	4	0	16	33	8	2	0	43	1	16	0	0	17	11	11	49	0	71	147
Hourly Total	5	38	24	0	67	172	36	3	0	211	3	66	4	0	73	49	81	241	0	371	722
7:00PM	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	0	0	0	0	0	0	0	0
Total	33	342	299	0	674	1742	320	20	0	2082	38	601	38	0	677	289	604	1526	2	2421	5854
% Approach	4.9%	50.7%	44.4%	0%	-	83.7%	15.4%	1.0%	0%	-	5.6%	88.8%	5.6%	0%	-	11.9%	24.9%	63.0%	0.1%	-	-
% Total	0.6%	5.8%	5.1%	0%	11.5%	29.8%	5.5%	0.3%	0%	35.6%	0.6%	10.3%	0.6%	0%	11.6%	4.9%	10.3%	26.1%	0%	41.4%	-
Lights and Motorcycles	32	337	288	0	657	1701	307	19	0	2027	37	585	34	0	656	284	594	1487	1	2366	5706
% Lights and Motorcycles	97.0%	98.5%	96.3%	0%	97.5%	97.6%	95.9%	95.0%	0%	97.4%	97.4%	97.3%	89.5%	0%	96.9%	98.3%	98.3%	97.4%	50.0%	97.7%	97.5%
Heavy	1	5	11	0	17	41	13	1	0	55	1	16	4	0	21	5	10	39	1	55	148
% Heavy	3.0%	1.5%	3.7%	0%	2.5%	2.4%	4.1%	5.0%	0%	2.6%	2.6%	2.7%	10.5%	0%	3.1%	1.7%	1.7%	2.6%	50.0%	2.3%	2.5%

*L: Left, R: Right, T: Thru, U: U-Turn

CR 600 S & MOON RD - TMC

Thu Aug 29, 2024

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights and Motorcycles, Heavy)

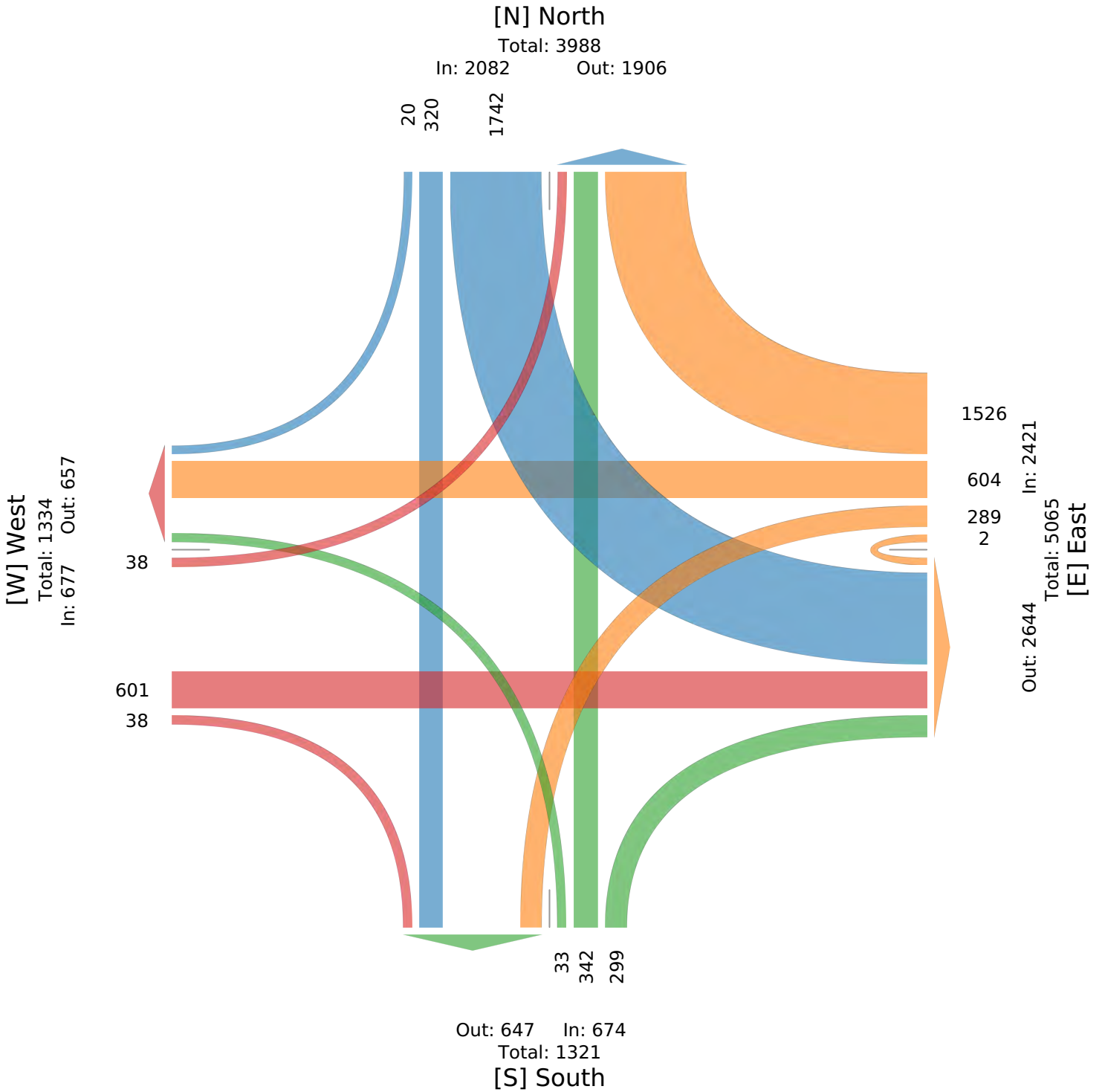
All Movements

ID: 1220408, Location: 39.67457, -86.418573



Provided by: A&F Engineering

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CR 600 S & MOON RD - TMC

Thu Aug 29, 2024

AM Peak (7 AM - 8 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220408, Location: 39.67457, -86.418573



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					Int
	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	
2024-08-29 7:00AM	0	10	18	0	28	103	9	0	0	112	0	40	0	0	40	9	12	39	0	60	240
7:15AM	2	16	22	0	40	141	13	3	0	157	1	43	1	0	45	7	24	38	0	69	311
7:30AM	0	19	20	0	39	124	10	0	0	134	1	33	1	0	35	14	15	52	0	81	289
7:45AM	0	10	22	0	32	126	14	0	0	140	2	33	6	0	41	13	23	63	0	99	312
Total	2	55	82	0	139	494	46	3	0	543	4	149	8	0	161	43	74	192	0	309	1152
% Approach	1.4%	39.6%	59.0%	0%	-	91.0%	8.5%	0.6%	0%	-	2.5%	92.5%	5.0%	0%	-	13.9%	23.9%	62.1%	0%	-	-
% Total	0.2%	4.8%	7.1%	0%	12.1%	42.9%	4.0%	0.3%	0%	47.1%	0.3%	12.9%	0.7%	0%	14.0%	3.7%	6.4%	16.7%	0%	26.8%	-
PHF	0.250	0.724	0.932	-	0.869	0.876	0.821	0.250	-	0.865	0.500	0.866	0.333	-	0.894	0.768	0.771	0.762	-	0.780	0.923
Lights and Motorcycles	2	54	80	0	136	487	43	2	0	532	4	145	8	0	157	43	74	182	0	299	1124
% Lights and Motorcycles	100%	98.2%	97.6%	0%	97.8%	98.6%	93.5%	66.7%	0%	98.0%	100%	97.3%	100%	0%	97.5%	100%	100%	94.8%	0%	96.8%	97.6%
Heavy	0	1	2	0	3	7	3	1	0	11	0	4	0	0	4	0	0	10	0	10	28
% Heavy	0%	1.8%	2.4%	0%	2.2%	1.4%	6.5%	33.3%	0%	2.0%	0%	2.7%	0%	0%	2.5%	0%	0%	5.2%	0%	3.2%	2.4%

*L: Left, R: Right, T: Thru, U: U-Turn

CR 600 S & MOON RD - TMC

Thu Aug 29, 2024

AM Peak (7 AM - 8 AM)

All Classes (Lights and Motorcycles, Heavy)

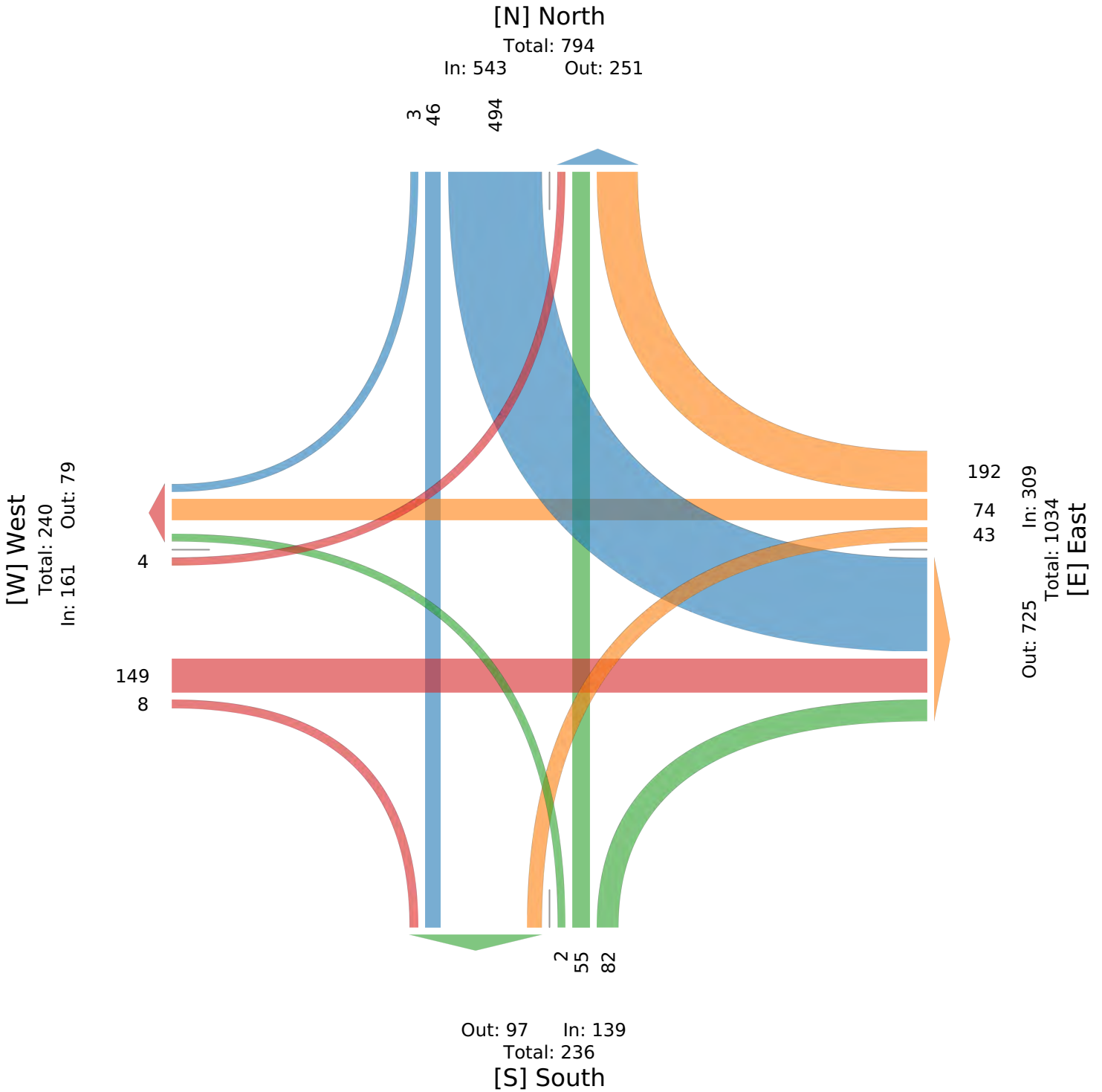
All Movements

ID: 1220408, Location: 39.67457, -86.418573



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



CR 600 S & MOON RD - TMC

Thu Aug 29, 2024

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220408, Location: 39.67457, -86.418573



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					Int
	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	
2024-08-29 4:15PM	3	21	10	0	34	81	14	1	0	96	2	26	1	0	29	18	40	105	0	163	322
4:30PM	2	9	14	0	25	60	21	1	0	82	2	25	2	0	29	12	47	106	0	165	301
4:45PM	4	21	11	0	36	58	21	2	0	81	2	27	1	0	30	17	50	104	0	171	318
5:00PM	3	16	19	0	38	57	10	2	0	69	5	27	1	0	33	22	50	94	0	166	306
Total	12	67	54	0	133	256	66	6	0	328	11	105	5	0	121	69	187	409	0	665	1247
% Approach	9.0%	50.4%	40.6%	0%	-	78.0%	20.1%	1.8%	0%	-	9.1%	86.8%	4.1%	0%	-	10.4%	28.1%	61.5%	0%	-	-
% Total	1.0%	5.4%	4.3%	0%	10.7%	20.5%	5.3%	0.5%	0%	26.3%	0.9%	8.4%	0.4%	0%	9.7%	5.5%	15.0%	32.8%	0%	53.3%	-
PHF	0.750	0.798	0.711	-	0.875	0.790	0.786	0.750	-	0.854	0.550	0.972	0.625	-	0.917	0.784	0.935	0.965	-	0.972	0.968
Lights and Motorcycles	12	67	54	0	133	247	62	6	0	315	11	101	5	0	117	68	184	397	0	649	1214
% Lights and Motorcycles	100%	100%	100%	0%	100%	96.5%	93.9%	100%	0%	96.0%	100%	96.2%	100%	0%	96.7%	98.6%	98.4%	97.1%	0%	97.6%	97.4%
Heavy	0	0	0	0	0	9	4	0	0	13	0	4	0	0	4	1	3	12	0	16	33
% Heavy	0%	0%	0%	0%	0%	3.5%	6.1%	0%	0%	4.0%	0%	3.8%	0%	0%	3.3%	1.4%	1.6%	2.9%	0%	2.4%	2.6%

*L: Left, R: Right, T: Thru, U: U-Turn

CR 600 S & MOON RD - TMC

Thu Aug 29, 2024

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

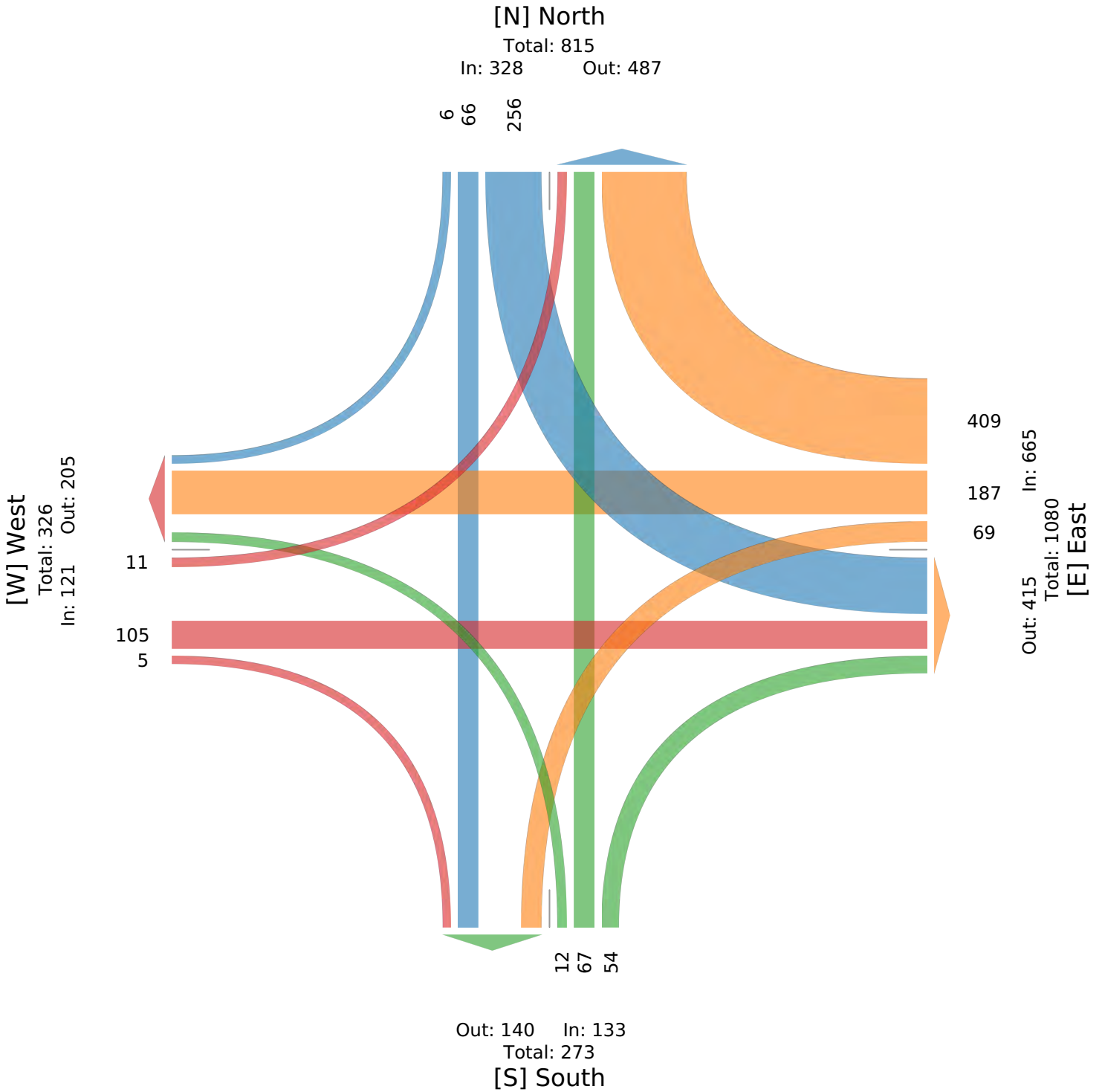
All Movements

ID: 1220408, Location: 39.67457, -86.418573



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



MOVEMENT SUMMARY

Site: 101 [Existing AM Peak (Site Folder: CR 600 S & Moon Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
 Site Category: Proposed Design 1
 Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				mph
			veh/h		veh/h					ft					
South: Moon Road - Northbound															
3	L2	All MCs	2	0.0	2	0.0	0.215	13.1	LOS B	1.2	31.4	0.69	0.70	0.69	33.1
8	T1	All MCs	60	22.0	60	22.0	0.215	10.1	LOS B	1.2	31.4	0.69	0.70	0.69	33.2
18	R2	All MCs	89	2.0	89	2.0	0.215	8.2	LOS A	1.2	31.4	0.69	0.70	0.69	33.4
Approach			151	9.9	151	9.9	0.215	9.0	LOS A	1.2	31.4	0.69	0.70	0.69	33.3
East: CR 600 S - Westbound															
1	L2	All MCs	47	0.0	47	0.0	0.265	9.6	LOS A	1.6	40.9	0.27	0.50	0.27	34.5
6	T1	All MCs	80	0.0	80	0.0	0.265	4.8	LOS A	1.6	40.9	0.27	0.50	0.27	35.2
16	R2	All MCs	209	5.0	209	5.0	0.265	4.7	LOS A	1.6	40.9	0.27	0.50	0.27	34.7
Approach			336	3.1	336	3.1	0.265	5.4	LOS A	1.6	40.9	0.27	0.50	0.27	34.8
North: Moon Road - Southbound															
7	L2	All MCs	537	1.0	537	1.0	0.473	10.1	LOS B	3.2	81.7	0.39	0.61	0.39	32.5
4	T1	All MCs	50	7.0	50	7.0	0.473	5.4	LOS A	3.2	81.7	0.39	0.61	0.39	32.9
14	R2	All MCs	3	33.0	3	33.0	0.473	6.0	LOS A	3.2	81.7	0.39	0.61	0.39	32.0
Approach			590	1.7	590	1.7	0.473	9.7	LOS A	3.2	81.7	0.39	0.61	0.39	32.5
West: CR 600 S - Eastbound															
5	L2	All MCs	4	0.0	4	0.0	0.211	12.5	LOS B	1.2	30.7	0.66	0.65	0.66	33.4
2	T1	All MCs	162	3.0	162	3.0	0.211	7.9	LOS A	1.2	30.7	0.66	0.65	0.66	34.0
12	R2	All MCs	9	0.0	9	0.0	0.211	7.5	LOS A	1.2	30.7	0.66	0.65	0.66	33.8
Approach			175	2.8	175	2.8	0.211	8.0	LOS A	1.2	30.7	0.66	0.65	0.66	34.0
All Vehicles			1252	3.2	1252	3.2	0.473	8.2	LOS A	3.2	81.7	0.43	0.59	0.43	33.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Existing PM Peak (Site Folder: CR 600 S & Moon Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
 Site Category: Proposed Design 1
 Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				mph
South: Moon Road - Northbound															
3	L2	All MCs	12	0.0	12	0.0	0.130	10.9	LOS B	0.7	16.5	0.49	0.58	0.49	34.0
8	T1	All MCs	69	0.0	69	0.0	0.130	6.1	LOS A	0.7	16.5	0.49	0.58	0.49	34.7
18	R2	All MCs	56	0.0	56	0.0	0.130	5.9	LOS A	0.7	16.5	0.49	0.58	0.49	34.4
Approach			137	0.0	137	0.0	0.130	6.4	LOS A	0.7	16.5	0.49	0.58	0.49	34.5
East: CR 600 S - Westbound															
1	L2	All MCs	71	1.0	71	1.0	0.541	9.9	LOS A	4.3	110.8	0.38	0.49	0.38	34.3
6	T1	All MCs	193	2.0	193	2.0	0.541	5.1	LOS A	4.3	110.8	0.38	0.49	0.38	34.9
16	R2	All MCs	422	3.0	422	3.0	0.541	5.0	LOS A	4.3	110.8	0.38	0.49	0.38	34.6
Approach			686	2.5	686	2.5	0.541	5.5	LOS A	4.3	110.8	0.38	0.49	0.38	34.7
North: Moon Road - Southbound															
7	L2	All MCs	264	4.0	264	4.0	0.315	10.8	LOS B	1.8	46.1	0.48	0.64	0.48	32.5
4	T1	All MCs	68	6.0	68	6.0	0.315	6.0	LOS A	1.8	46.1	0.48	0.64	0.48	33.1
14	R2	All MCs	6	0.0	6	0.0	0.315	5.6	LOS A	1.8	46.1	0.48	0.64	0.48	32.9
Approach			338	4.3	338	4.3	0.315	9.8	LOS A	1.8	46.1	0.48	0.64	0.48	32.6
West: CR 600 S - Eastbound															
5	L2	All MCs	11	0.0	11	0.0	0.127	11.0	LOS B	0.6	16.6	0.51	0.58	0.51	33.8
2	T1	All MCs	108	4.0	108	4.0	0.127	6.4	LOS A	0.6	16.6	0.51	0.58	0.51	34.3
12	R2	All MCs	5	0.0	5	0.0	0.127	6.0	LOS A	0.6	16.6	0.51	0.58	0.51	34.1
Approach			125	3.5	125	3.5	0.127	6.8	LOS A	0.6	16.6	0.51	0.58	0.51	34.3
All Vehicles			1286	2.8	1286	2.8	0.541	6.9	LOS A	4.3	110.8	0.43	0.55	0.43	34.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Background 2030 AM Peak (Site Folder: CR 600 S & Moon Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
 Site Category: Proposed Design 1
 Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				mph
			veh/h		veh/h					ft					
South: Moon Road - Northbound															
3	L2	All MCs	2	0.0	2	0.0	0.240	13.5	LOS B	1.3	36.3	0.73	0.72	0.73	32.8
8	T1	All MCs	64	22.0	64	22.0	0.240	10.7	LOS B	1.3	36.3	0.73	0.72	0.73	32.9
18	R2	All MCs	95	2.0	95	2.0	0.240	8.7	LOS A	1.3	36.3	0.73	0.72	0.73	33.1
Approach			161	9.9	161	9.9	0.240	9.6	LOS A	1.3	36.3	0.73	0.72	0.73	33.0
East: CR 600 S - Westbound															
1	L2	All MCs	50	0.0	50	0.0	0.285	9.7	LOS A	1.8	45.2	0.29	0.50	0.29	34.5
6	T1	All MCs	86	0.0	86	0.0	0.285	4.8	LOS A	1.8	45.2	0.29	0.50	0.29	35.1
16	R2	All MCs	223	5.0	223	5.0	0.285	4.7	LOS A	1.8	45.2	0.29	0.50	0.29	34.7
Approach			359	3.1	359	3.1	0.285	5.4	LOS A	1.8	45.2	0.29	0.50	0.29	34.8
North: Moon Road - Southbound															
7	L2	All MCs	573	1.0	573	1.0	0.508	10.2	LOS B	3.6	92.0	0.42	0.61	0.42	32.4
4	T1	All MCs	53	7.0	53	7.0	0.508	5.5	LOS A	3.6	92.0	0.42	0.61	0.42	32.9
14	R2	All MCs	3	33.0	3	33.0	0.508	6.2	LOS A	3.6	92.0	0.42	0.61	0.42	31.9
Approach			629	1.7	629	1.7	0.508	9.8	LOS A	3.6	92.0	0.42	0.61	0.42	32.4
West: CR 600 S - Eastbound															
5	L2	All MCs	4	0.0	4	0.0	0.235	12.9	LOS B	1.4	35.4	0.70	0.67	0.70	33.3
2	T1	All MCs	173	3.0	173	3.0	0.235	8.3	LOS A	1.4	35.4	0.70	0.67	0.70	33.9
12	R2	All MCs	10	0.0	10	0.0	0.235	7.9	LOS A	1.4	35.4	0.70	0.67	0.70	33.7
Approach			187	2.8	187	2.8	0.235	8.4	LOS A	1.4	35.4	0.70	0.67	0.70	33.8
All Vehicles			1336	3.2	1336	3.2	0.508	8.4	LOS A	3.6	92.0	0.46	0.60	0.46	33.3

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Background 2030 PM Peak (Site Folder: CR 600 S & Moon Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
 Site Category: Proposed Design 1
 Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				mph
			veh/h		veh/h					veh	ft				
South: Moon Road - Northbound															
3	L2	All MCs	13	0.0	13	0.0	0.142	11.1	LOS B	0.7	18.4	0.51	0.59	0.51	33.9
8	T1	All MCs	73	0.0	73	0.0	0.142	6.2	LOS A	0.7	18.4	0.51	0.59	0.51	34.6
18	R2	All MCs	60	0.0	60	0.0	0.142	6.0	LOS A	0.7	18.4	0.51	0.59	0.51	34.3
Approach			146	0.0	146	0.0	0.142	6.6	LOS A	0.7	18.4	0.51	0.59	0.51	34.4
East: CR 600 S - Westbound															
1	L2	All MCs	76	1.0	76	1.0	0.580	10.0	LOS B	5.0	126.5	0.42	0.50	0.42	34.2
6	T1	All MCs	205	2.0	205	2.0	0.580	5.2	LOS A	5.0	126.5	0.42	0.50	0.42	34.8
16	R2	All MCs	449	3.0	449	3.0	0.580	5.1	LOS A	5.0	126.5	0.42	0.50	0.42	34.5
Approach			731	2.5	731	2.5	0.580	5.6	LOS A	5.0	126.5	0.42	0.50	0.42	34.6
North: Moon Road - Southbound															
7	L2	All MCs	281	4.0	281	4.0	0.340	11.0	LOS B	2.0	51.5	0.51	0.65	0.51	32.4
4	T1	All MCs	72	6.0	72	6.0	0.340	6.2	LOS A	2.0	51.5	0.51	0.65	0.51	33.0
14	R2	All MCs	6	0.0	6	0.0	0.340	5.7	LOS A	2.0	51.5	0.51	0.65	0.51	32.9
Approach			360	4.3	360	4.3	0.340	9.9	LOS A	2.0	51.5	0.51	0.65	0.51	32.5
West: CR 600 S - Eastbound															
5	L2	All MCs	12	0.0	12	0.0	0.139	11.2	LOS B	0.7	18.6	0.54	0.59	0.54	33.7
2	T1	All MCs	115	4.0	115	4.0	0.139	6.5	LOS A	0.7	18.6	0.54	0.59	0.54	34.2
12	R2	All MCs	5	0.0	5	0.0	0.139	6.1	LOS A	0.7	18.6	0.54	0.59	0.54	34.0
Approach			133	3.5	133	3.5	0.139	6.9	LOS A	0.7	18.6	0.54	0.59	0.54	34.2
All Vehicles			1370	2.8	1370	2.8	0.580	7.0	LOS A	5.0	126.5	0.47	0.56	0.47	33.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Background 2030 + Proposed AM Peak (Site Folder: CR 600 S & Moon Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
 Site Category: Proposed Design 1
 Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				mph
			veh/h		veh/h					ft					
South: Moon Road - Northbound															
3	L2	All MCs	4	0.0	4	0.0	0.267	14.6	LOS B	1.6	42.0	0.78	0.75	0.78	32.2
8	T1	All MCs	64	22.0	64	22.0	0.267	12.0	LOS B	1.6	42.0	0.78	0.75	0.78	32.4
18	R2	All MCs	95	2.0	95	2.0	0.267	9.8	LOS A	1.6	42.0	0.78	0.75	0.78	32.5
Approach			163	9.8	163	9.8	0.267	10.8	LOS B	1.6	42.0	0.78	0.75	0.78	32.4
East: CR 600 S - Westbound															
1	L2	All MCs	50	0.0	50	0.0	0.309	9.8	LOS A	1.9	48.6	0.32	0.50	0.32	34.4
6	T1	All MCs	107	0.0	107	0.0	0.309	4.9	LOS A	1.9	48.6	0.32	0.50	0.32	35.1
16	R2	All MCs	226	5.0	226	5.0	0.309	4.9	LOS A	1.9	48.6	0.32	0.50	0.32	34.6
Approach			383	3.0	383	3.0	0.309	5.5	LOS A	1.9	48.6	0.32	0.50	0.32	34.7
North: Moon Road - Southbound															
7	L2	All MCs	583	1.0	583	1.0	0.534	10.4	LOS B	3.9	100.2	0.47	0.61	0.47	32.3
4	T1	All MCs	53	7.0	53	7.0	0.534	5.7	LOS A	3.9	100.2	0.47	0.61	0.47	32.8
14	R2	All MCs	11	33.0	11	33.0	0.534	6.5	LOS A	3.9	100.2	0.47	0.61	0.47	31.8
Approach			647	2.0	647	2.0	0.534	9.9	LOS A	3.9	100.2	0.47	0.61	0.47	32.3
West: CR 600 S - Eastbound															
5	L2	All MCs	26	0.0	26	0.0	0.356	13.3	LOS B	2.3	58.0	0.76	0.71	0.76	33.0
2	T1	All MCs	235	3.0	235	3.0	0.356	8.7	LOS A	2.3	58.0	0.76	0.71	0.76	33.5
12	R2	All MCs	17	0.0	17	0.0	0.356	8.3	LOS A	2.3	58.0	0.76	0.71	0.76	33.3
Approach			278	2.5	278	2.5	0.356	9.1	LOS A	2.3	58.0	0.76	0.71	0.76	33.5
All Vehicles			1471	3.2	1471	3.2	0.534	8.7	LOS A	3.9	100.2	0.52	0.62	0.52	33.1

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Background 2030 + Proposed PM Peak (Site Folder: CR 600 S & Moon Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
 Site Category: Proposed Design 1
 Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				mph
			veh/h		veh/h					ft					
South: Moon Road - Northbound															
3	L2	All MCs	22	0.0	22	0.0	0.157	11.4	LOS B	0.8	21.1	0.56	0.62	0.56	33.7
8	T1	All MCs	73	0.0	73	0.0	0.157	6.6	LOS A	0.8	21.1	0.56	0.62	0.56	34.4
18	R2	All MCs	60	0.0	60	0.0	0.157	6.4	LOS A	0.8	21.1	0.56	0.62	0.56	34.1
Approach			155	0.0	155	0.0	0.157	7.2	LOS A	0.8	21.1	0.56	0.62	0.56	34.2
East: CR 600 S - Westbound															
1	L2	All MCs	76	1.0	76	1.0	0.654	10.3	LOS B	6.2	158.4	0.52	0.52	0.52	34.0
6	T1	All MCs	273	2.0	273	2.0	0.654	5.5	LOS A	6.2	158.4	0.52	0.52	0.52	34.6
16	R2	All MCs	461	3.0	461	3.0	0.654	5.4	LOS A	6.2	158.4	0.52	0.52	0.52	34.3
Approach			810	2.5	810	2.5	0.654	5.9	LOS A	6.2	158.4	0.52	0.52	0.52	34.3
North: Moon Road - Southbound															
7	L2	All MCs	288	4.0	288	4.0	0.393	11.5	LOS B	2.5	63.5	0.60	0.67	0.60	32.4
4	T1	All MCs	72	6.0	72	6.0	0.393	6.8	LOS A	2.5	63.5	0.60	0.67	0.60	32.9
14	R2	All MCs	31	0.0	31	0.0	0.393	6.3	LOS A	2.5	63.5	0.60	0.67	0.60	32.8
Approach			391	4.1	391	4.1	0.393	10.2	LOS B	2.5	63.5	0.60	0.67	0.60	32.5
West: CR 600 S - Eastbound															
5	L2	All MCs	27	0.0	27	0.0	0.202	11.3	LOS B	1.1	28.7	0.57	0.61	0.57	33.5
2	T1	All MCs	156	4.0	156	4.0	0.202	6.7	LOS A	1.1	28.7	0.57	0.61	0.57	34.0
12	R2	All MCs	9	0.0	9	0.0	0.202	6.3	LOS A	1.1	28.7	0.57	0.61	0.57	33.9
Approach			192	3.2	192	3.2	0.202	7.3	LOS A	1.1	28.7	0.57	0.61	0.57	34.0
All Vehicles			1547	2.7	1547	2.7	0.654	7.3	LOS A	6.2	158.4	0.55	0.58	0.55	33.8

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA HCM.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

CR 600 S & CR 521 E

TURN VOLUME COUNTS CAPACITY ANALYSIS

CR 600 S & CR 521 E - TMC

Thu Aug 29, 2024

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220399, Location: 39.674123, -86.432652



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound				West Eastbound				East Westbound				Int
	L	R	U	App	T	R	U	App	L	T	U	App	
2024-08-29 6:00AM	0	0	0	0	14	0	0	14	0	3	0	3	17
6:15AM	0	1	0	1	20	0	0	20	1	7	0	8	29
6:30AM	0	1	0	1	32	1	0	33	0	8	0	8	42
6:45AM	0	3	0	3	30	0	0	30	0	18	0	18	51
Hourly Total	0	5	0	5	96	1	0	97	1	36	0	37	139
7:00AM	1	2	0	3	36	0	0	36	0	14	0	14	53
7:15AM	0	0	0	0	40	0	0	40	1	23	0	24	64
7:30AM	0	3	0	3	35	0	0	35	1	14	0	15	53
7:45AM	0	4	0	4	29	0	0	29	2	20	0	22	55
Hourly Total	1	9	0	10	140	0	0	140	4	71	0	75	225
8:00AM	0	2	0	2	22	0	0	22	0	10	0	10	34
8:15AM	1	3	0	4	32	0	0	32	1	16	0	17	53
8:30AM	0	1	0	1	27	1	0	28	1	20	0	21	50
8:45AM	1	2	0	3	17	0	0	17	3	13	0	16	36
Hourly Total	2	8	0	10	98	1	0	99	5	59	0	64	173
9:00AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Hourly Total	0	0	0	0	1	0	0	1	0	0	0	0	1
4:00PM	0	3	0	3	20	1	0	21	0	50	0	50	74
4:15PM	1	2	0	3	25	0	0	25	2	40	0	42	70
4:30PM	0	1	0	1	27	0	0	27	2	50	0	52	80
4:45PM	1	2	0	3	31	1	0	32	1	49	0	50	85
Hourly Total	2	8	0	10	103	2	0	105	5	189	0	194	309
5:00PM	0	0	0	0	28	0	0	28	3	50	0	53	81
5:15PM	0	1	0	1	29	0	0	29	0	54	0	54	84
5:30PM	0	1	0	1	26	0	0	26	0	41	0	41	68
5:45PM	0	3	0	3	15	0	0	15	2	34	0	36	54
Hourly Total	0	5	0	5	98	0	0	98	5	179	0	184	287
6:00PM	0	1	0	1	34	1	0	35	0	32	0	32	68
6:15PM	0	0	0	0	10	0	0	10	0	24	0	24	34
6:30PM	0	0	0	0	11	0	0	11	0	22	0	22	33
6:45PM	0	0	0	0	14	0	0	14	1	14	0	15	29
Hourly Total	0	1	0	1	69	1	0	70	1	92	0	93	164
7:00PM	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
Total	5	36	0	41	605	5	0	610	21	626	0	647	1298
% Approach	12.2%	87.8%	0%	-	99.2%	0.8%	0%	-	3.2%	96.8%	0%	-	-
% Total	0.4%	2.8%	0%	3.2%	46.6%	0.4%	0%	47.0%	1.6%	48.2%	0%	49.8%	-
Lights and Motorcycles	5	31	0	36	589	3	0	592	16	615	0	631	1259
% Lights and Motorcycles	100%	86.1%	0%	87.8%	97.4%	60.0%	0%	97.0%	76.2%	98.2%	0%	97.5%	97.0%
Heavy	0	5	0	5	16	2	0	18	5	11	0	16	39
% Heavy	0%	13.9%	0%	12.2%	2.6%	40.0%	0%	3.0%	23.8%	1.8%	0%	2.5%	3.0%

*L: Left, R: Right, T: Thru, U: U-Turn

CR 600 S & CR 521 E - TMC

Thu Aug 29, 2024

Full Length (6 AM-9 AM, 4 PM-7 PM)

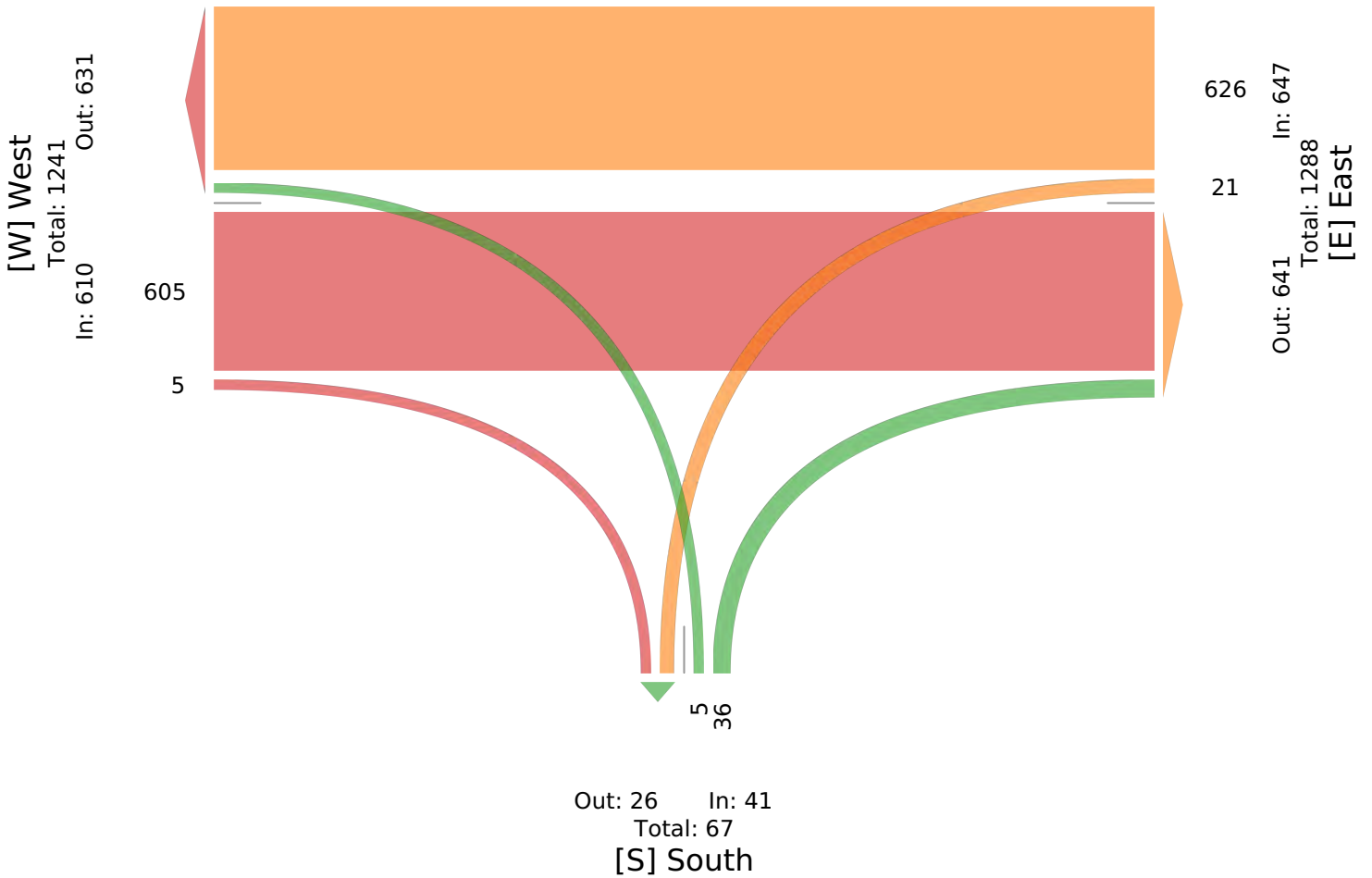
All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220399, Location: 39.674123, -86.432652



Provided by: A&F Engineering
8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



CR 600 S & CR 521 E - TMC

Thu Aug 29, 2024

AM Peak (7 AM - 8 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220399, Location: 39.674123, -86.432652



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound				West Eastbound				East Westbound				Int
	L	R	U	App	T	R	U	App	L	T	U	App	
2024-08-29 7:00AM	1	2	0	3	36	0	0	36	0	14	0	14	53
7:15AM	0	0	0	0	40	0	0	40	1	23	0	24	64
7:30AM	0	3	0	3	35	0	0	35	1	14	0	15	53
7:45AM	0	4	0	4	29	0	0	29	2	20	0	22	55
Total	1	9	0	10	140	0	0	140	4	71	0	75	225
% Approach	10.0%	90.0%	0%	-	100%	0%	0%	-	5.3%	94.7%	0%	-	-
% Total	0.4%	4.0%	0%	4.4%	62.2%	0%	0%	62.2%	1.8%	31.6%	0%	33.3%	-
PHF	0.250	0.563	-	0.625	0.875	-	-	0.875	0.500	0.772	-	0.781	0.879
Lights and Motorcycles	1	7	0	8	138	0	0	138	3	70	0	73	219
% Lights and Motorcycles	100%	77.8%	0%	80.0%	98.6%	0%	0%	98.6%	75.0%	98.6%	0%	97.3%	97.3%
Heavy	0	2	0	2	2	0	0	2	1	1	0	2	6
% Heavy	0%	22.2%	0%	20.0%	1.4%	0%	0%	1.4%	25.0%	1.4%	0%	2.7%	2.7%

*L: Left, R: Right, T: Thru, U: U-Turn

CR 600 S & CR 521 E - TMC

Thu Aug 29, 2024

AM Peak (7 AM - 8 AM)

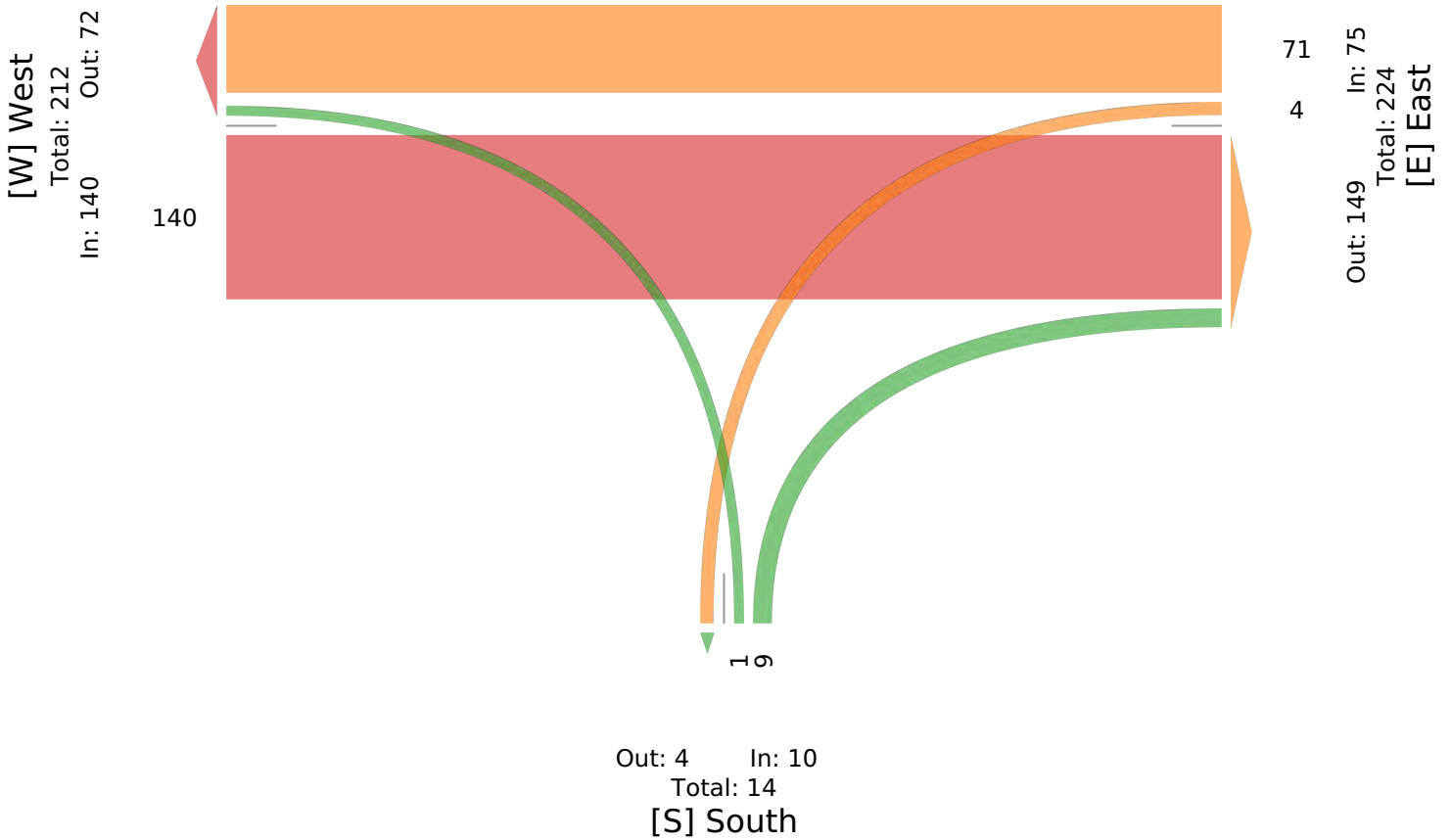
All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220399, Location: 39.674123, -86.432652



Provided by: A&F Engineering
8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



CR 600 S & CR 521 E - TMC

Thu Aug 29, 2024

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220399, Location: 39.674123, -86.432652



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound				West Eastbound				East Westbound				Int
	L	R	U	App	T	R	U	App	L	T	U	App	
2024-08-29 4:30PM	0	1	0	1	27	0	0	27	2	50	0	52	80
4:45PM	1	2	0	3	31	1	0	32	1	49	0	50	85
5:00PM	0	0	0	0	28	0	0	28	3	50	0	53	81
5:15PM	0	1	0	1	29	0	0	29	0	54	0	54	84
Total	1	4	0	5	115	1	0	116	6	203	0	209	330
% Approach	20.0%	80.0%	0%	-	99.1%	0.9%	0%	-	2.9%	97.1%	0%	-	-
% Total	0.3%	1.2%	0%	1.5%	34.8%	0.3%	0%	35.2%	1.8%	61.5%	0%	63.3%	-
PHF	0.250	0.500	-	0.417	0.927	0.250	-	0.906	0.500	0.940	-	0.968	0.971
Lights and Motorcycles	1	3	0	4	111	1	0	112	4	201	0	205	321
% Lights and Motorcycles	100%	75.0%	0%	80.0%	96.5%	100%	0%	96.6%	66.7%	99.0%	0%	98.1%	97.3%
Heavy	0	1	0	1	4	0	0	4	2	2	0	4	9
% Heavy	0%	25.0%	0%	20.0%	3.5%	0%	0%	3.4%	33.3%	1.0%	0%	1.9%	2.7%

*L: Left, R: Right, T: Thru, U: U-Turn

CR 600 S & CR 521 E - TMC

Thu Aug 29, 2024

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

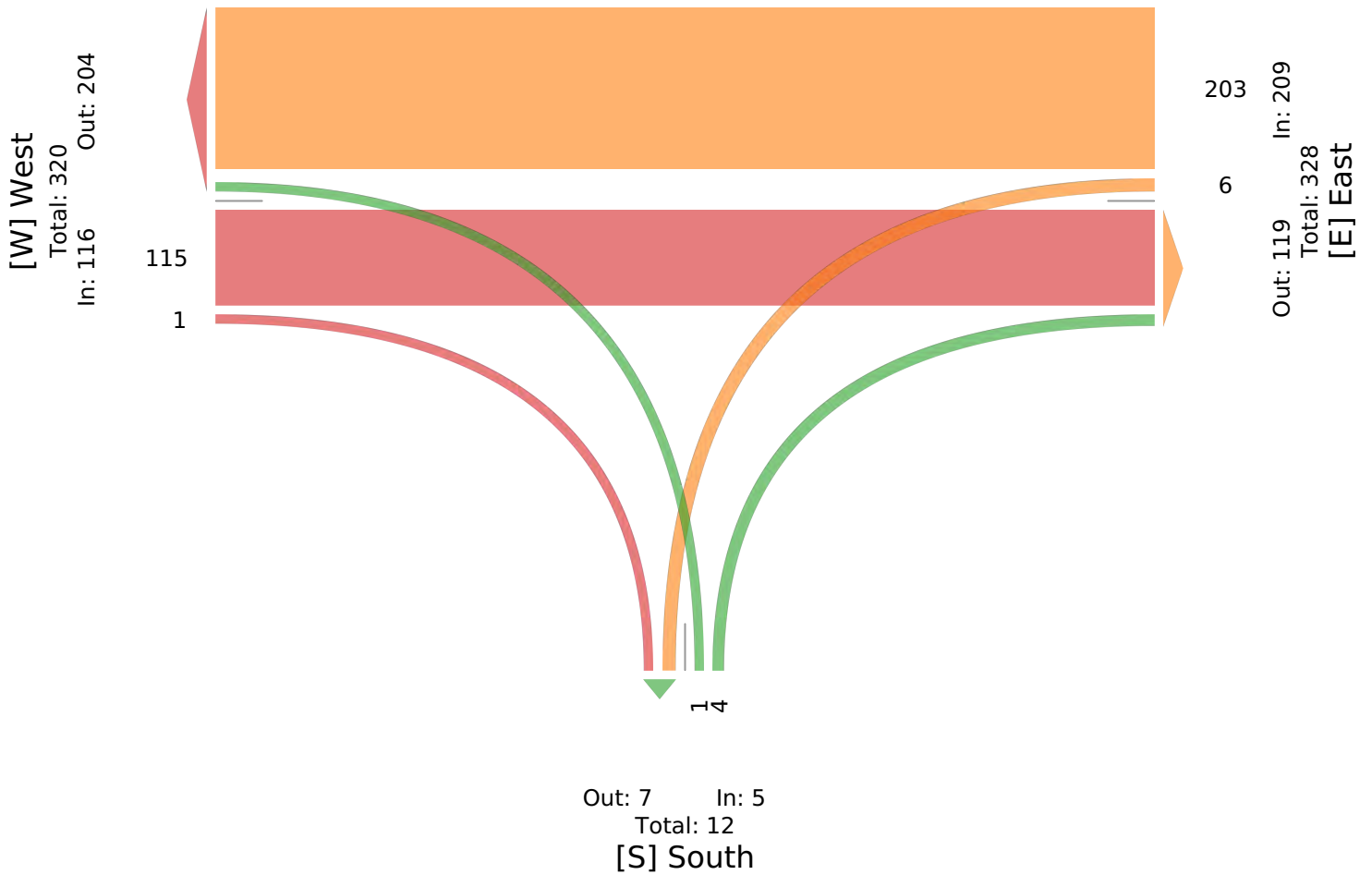
All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1220399, Location: 39.674123, -86.432652



Provided by: A&F Engineering
8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	140	0	4	71	1	9
Future Vol, veh/h	140	0	4	71	1	9
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	88	88	88	88	88	88
Heavy Vehicles, %	1	0	25	1	0	22
Mvmt Flow	159	0	5	81	1	10

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	159	0
Stage 1	-	-	-	159
Stage 2	-	-	-	90
Critical Hdwy	-	-	4.35	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.425	-
Pot Cap-1 Maneuver	-	-	1292	-
Stage 1	-	-	-	874
Stage 2	-	-	-	939
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1292	-
Mov Cap-2 Maneuver	-	-	-	741
Stage 1	-	-	-	874
Stage 2	-	-	-	935

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.42	9.42
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	826	-	-	96	-
HCM Lane V/C Ratio	0.014	-	-	0.004	-
HCM Ctrl Dly (s/v)	9.4	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	115	1	6	203	1	4
Future Vol, veh/h	115	1	6	203	1	4
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	97	97	97	97	97	97
Heavy Vehicles, %	4	0	33	1	0	25
Mvmt Flow	119	1	6	209	1	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	120	0	341
Stage 1	-	-	-	-	119
Stage 2	-	-	-	-	222
Critical Hdwy	-	-	4.43	-	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.497	-	3.5
Pot Cap-1 Maneuver	-	-	1297	-	659
Stage 1	-	-	-	-	911
Stage 2	-	-	-	-	820
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1297	-	656
Mov Cap-2 Maneuver	-	-	-	-	656
Stage 1	-	-	-	-	911
Stage 2	-	-	-	-	816

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.22	9.42
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	820	-	-	52	-
HCM Lane V/C Ratio	0.006	-	-	0.005	-
HCM Ctrl Dly (s/v)	9.4	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	149	0	4	76	1	10
Future Vol, veh/h	149	0	4	76	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	25	1	0	22
Mvmt Flow	169	0	5	86	1	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	169	0	265
Stage 1	-	-	-	-	169
Stage 2	-	-	-	-	95
Critical Hdwy	-	-	4.35	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.425	-	3.5
Pot Cap-1 Maneuver	-	-	1280	-	729
Stage 1	-	-	-	-	865
Stage 2	-	-	-	-	933
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1280	-	726
Mov Cap-2 Maneuver	-	-	-	-	726
Stage 1	-	-	-	-	865
Stage 2	-	-	-	-	930

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.39	9.49
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	815	-	-	90	-
HCM Lane V/C Ratio	0.015	-	-	0.004	-
HCM Ctrl Dly (s/v)	9.5	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	123	1	6	216	1	4
Future Vol, veh/h	123	1	6	216	1	4
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	97	97	97	97	97	97
Heavy Vehicles, %	4	0	33	1	0	25
Mvmt Flow	127	1	6	223	1	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	128	0	362 127
Stage 1	-	-	-	-	127 -
Stage 2	-	-	-	-	235 -
Critical Hdwy	-	-	4.43	-	6.4 6.45
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.497	-	3.5 3.525
Pot Cap-1 Maneuver	-	-	1287	-	641 865
Stage 1	-	-	-	-	903 -
Stage 2	-	-	-	-	809 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1287	-	637 865
Mov Cap-2 Maneuver	-	-	-	-	637 -
Stage 1	-	-	-	-	903 -
Stage 2	-	-	-	-	804 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.21	9.49
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	807	-	-	49	-
HCM Lane V/C Ratio	0.006	-	-	0.005	-
HCM Ctrl Dly (s/v)	9.5	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	233	0	4	104	1	10
Future Vol, veh/h	233	0	4	104	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	25	1	0	22
Mvmt Flow	265	0	5	118	1	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	265	0	392 265
Stage 1	-	-	-	-	265 -
Stage 2	-	-	-	-	127 -
Critical Hdwy	-	-	4.35	-	6.4 6.42
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.425	-	3.5 3.498
Pot Cap-1 Maneuver	-	-	1177	-	616 728
Stage 1	-	-	-	-	784 -
Stage 2	-	-	-	-	903 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1177	-	614 728
Mov Cap-2 Maneuver	-	-	-	-	614 -
Stage 1	-	-	-	-	784 -
Stage 2	-	-	-	-	900 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.3	10.12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	716	-	-	67	-
HCM Lane V/C Ratio	0.017	-	-	0.004	-
HCM Ctrl Dly (s/v)	10.1	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	180	1	6	314	1	4
Future Vol, veh/h	180	1	6	314	1	4
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	97	97	97	97	97	97
Heavy Vehicles, %	4	0	33	1	0	25
Mvmt Flow	186	1	6	324	1	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	187	0	522 186
Stage 1	-	-	-	-	186 -
Stage 2	-	-	-	-	336 -
Critical Hdwy	-	-	4.43	-	6.4 6.45
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.497	-	3.5 3.525
Pot Cap-1 Maneuver	-	-	1222	-	518 800
Stage 1	-	-	-	-	851 -
Stage 2	-	-	-	-	728 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1222	-	515 800
Mov Cap-2 Maneuver	-	-	-	-	515 -
Stage 1	-	-	-	-	851 -
Stage 2	-	-	-	-	724 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.15	10.03
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	721	-	-	34	-
HCM Lane V/C Ratio	0.007	-	-	0.005	-
HCM Ctrl Dly (s/v)	10	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

***US 40 & MECKLENBURG DR/VANDALIA
BLVD***

***TURN VOLUME COUNTS
CAPACITY ANALYSIS***

US 40 & MECKLENBURG DR - TMC

Thu Feb 20, 2025

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1270786, Location: 39.693405, -86.430398



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					Int
	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	
2025-02-20 6:00AM	0	0	1	0	1	10	0	4	0	14	0	102	0	0	102	1	42	2	0	45	162
6:15AM	2	0	3	0	5	9	0	5	0	14	2	114	0	0	116	1	65	1	0	67	202
6:30AM	0	1	1	0	2	14	0	4	0	18	3	126	0	0	129	0	78	3	0	81	230
6:45AM	0	1	5	0	6	18	1	5	0	24	2	163	1	0	166	0	87	5	1	93	289
Hourly Total	2	2	10	0	14	51	1	18	0	70	7	505	1	0	513	2	272	11	1	286	883
7:00AM	2	0	12	0	14	14	1	4	0	19	2	114	1	0	117	2	46	2	1	51	201
7:15AM	0	1	16	0	17	23	0	13	0	36	2	111	0	0	113	0	70	2	1	73	239
7:30AM	7	0	13	0	20	18	1	19	0	38	4	110	1	0	115	1	89	7	0	97	270
7:45AM	2	0	10	0	12	17	0	7	0	24	3	108	1	0	112	4	72	7	0	83	231
Hourly Total	11	1	51	0	63	72	2	43	0	117	11	443	3	0	457	7	277	18	2	304	941
8:00AM	3	1	7	0	11	14	0	6	0	20	6	145	2	0	153	3	51	6	1	61	245
8:15AM	2	0	7	0	9	20	1	9	0	30	5	113	0	0	118	4	73	8	0	85	242
8:30AM	5	1	3	0	9	14	0	2	0	16	1	123	1	0	125	1	80	10	0	91	241
8:45AM	3	2	5	0	10	18	1	9	0	28	2	133	0	0	135	4	77	13	0	94	267
Hourly Total	13	4	22	0	39	66	2	26	0	94	14	514	3	0	531	12	281	37	1	331	995
9:00AM	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	0	0	0	0	0	0	0	0
4:00PM	4	0	5	0	9	16	4	10	0	30	8	124	4	0	136	9	187	25	1	222	397
4:15PM	1	1	8	0	10	11	0	5	0	16	7	106	3	0	116	14	212	24	1	251	393
4:30PM	2	1	7	0	10	8	1	8	0	17	4	101	4	0	109	10	195	18	1	224	360
4:45PM	2	2	3	0	7	19	2	7	0	28	11	141	1	0	153	14	174	29	2	219	407
Hourly Total	9	4	23	0	36	54	7	30	0	91	30	472	12	0	514	47	768	96	5	916	1557
5:00PM	3	0	8	0	11	11	1	7	0	19	6	110	3	0	119	11	190	26	2	229	378
5:15PM	0	2	4	0	6	14	1	5	0	20	7	131	3	0	141	10	183	22	1	216	383
5:30PM	1	0	9	0	10	18	1	4	0	23	11	129	1	0	141	13	151	15	1	180	354
5:45PM	1	2	8	0	11	11	2	7	0	20	8	131	3	0	142	8	123	22	1	154	327
Hourly Total	5	4	29	0	38	54	5	23	0	82	32	501	10	0	543	42	647	85	5	779	1442
6:00PM	2	2	6	0	10	17	1	6	0	24	4	93	0	0	97	10	161	14	1	186	317
6:15PM	0	1	10	0	11	8	2	1	0	11	2	59	2	0	63	9	121	12	4	146	231
6:30PM	0	1	4	0	5	8	1	2	0	11	5	62	2	0	69	5	109	14	0	128	213
6:45PM	2	0	4	0	6	10	1	0	0	11	4	48	3	0	55	5	73	13	0	91	163
Hourly Total	4	4	24	0	32	43	5	9	0	57	15	262	7	0	284	29	464	53	5	551	924
7:00PM	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	0	0	0	0	0	0	0	0
Total	44	19	159	0	222	340	22	149	0	511	109	2697	36	0	2842	139	2709	300	19	3167	6742
% Approach	19.8%	8.6%	71.6%	0%	-	66.5%	4.3%	29.2%	0%	-	3.8%	94.9%	1.3%	0%	-	4.4%	85.5%	9.5%	0.6%	-	-
% Total	0.7%	0.3%	2.4%	0%	3.3%	5.0%	0.3%	2.2%	0%	7.6%	1.6%	40.0%	0.5%	0%	42.2%	2.1%	40.2%	4.4%	0.3%	47.0%	-
Lights and Motorcycles	43	18	153	0	214	336	22	144	0	502	105	2601	34	0	2740	139	2642	295	19	3095	6551
% Lights and Motorcycles	97.7%	94.7%	96.2%	0%	96.4%	98.8%	100%	96.6%	0%	98.2%	96.3%	96.4%	94.4%	0%	96.4%	100%	97.5%	98.3%	100%	97.7%	97.2%
Heavy	1	1	6	0	8	4	0	5	0	9	4	96	2	0	102	0	67	5	0	72	191
% Heavy	2.3%	5.3%	3.8%	0%	3.6%	1.2%	0%	3.4%	0%	1.8%	3.7%	3.6%	5.6%	0%	3.6%	0%	2.5%	1.7%	0%	2.3%	2.8%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MECKLENBURG DR - TMC

Thu Feb 20, 2025

Full Length (6 AM-9 AM, 4 PM-7 PM)

All Classes (Lights and Motorcycles, Heavy)

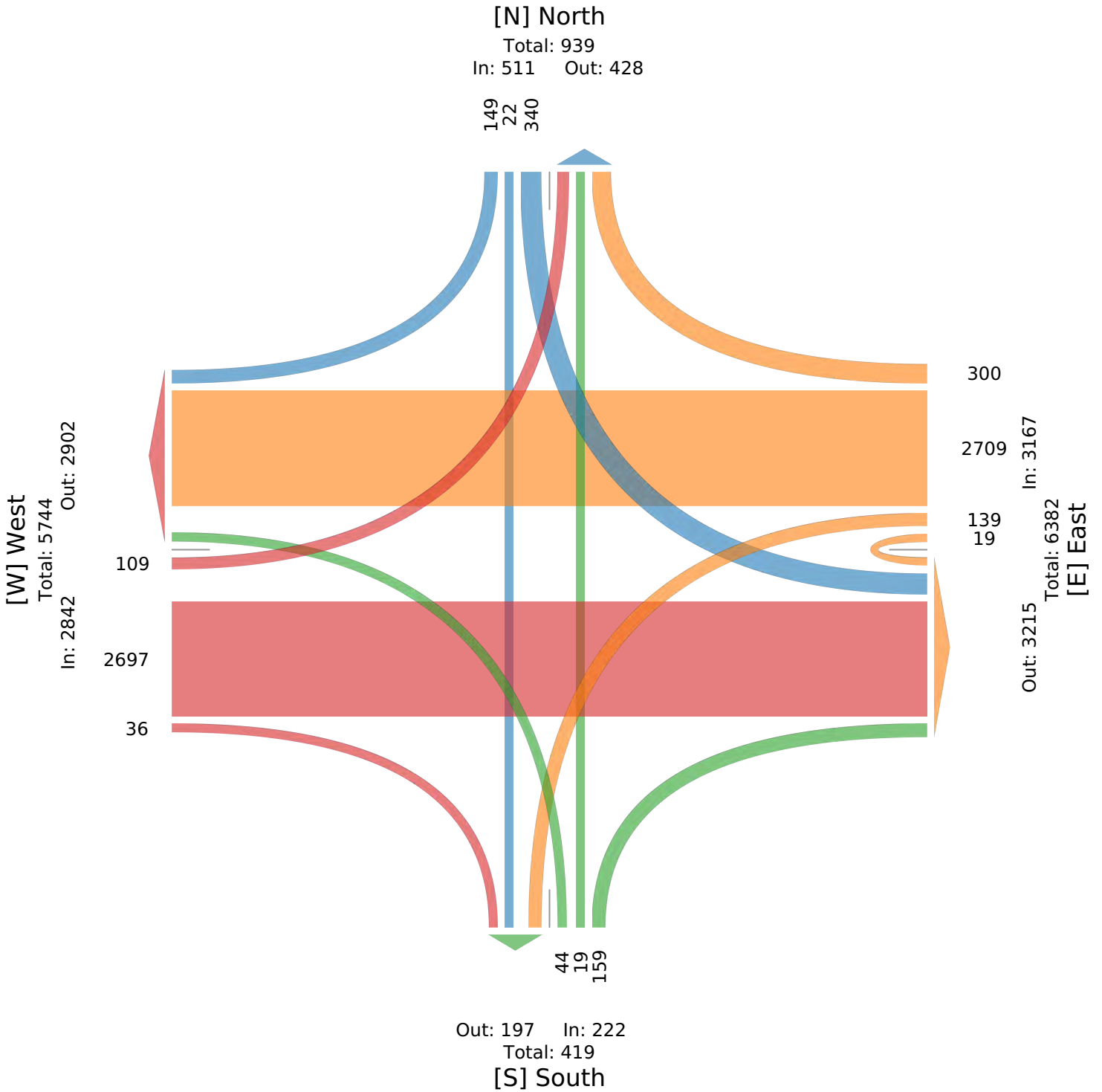
All Movements

ID: 1270786, Location: 39.693405, -86.430398



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



US 40 & MECKLENBURG DR - TMC

Thu Feb 20, 2025

AM Peak (6:45 AM - 7:45 AM)

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1270786, Location: 39.693405, -86.430398



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2025-02-20 6:45AM	0	1	5	0	6	18	1	5	0	24	2	163	1	0	166	0	87	5	1	93	289
7:00AM	2	0	12	0	14	14	1	4	0	19	2	114	1	0	117	2	46	2	1	51	201
7:15AM	0	1	16	0	17	23	0	13	0	36	2	111	0	0	113	0	70	2	1	73	239
7:30AM	7	0	13	0	20	18	1	19	0	38	4	110	1	0	115	1	89	7	0	97	270
Total	9	2	46	0	57	73	3	41	0	117	10	498	3	0	511	3	292	16	3	314	999
% Approach	15.8%	3.5%	80.7%	0%	-	62.4%	2.6%	35.0%	0%	-	2.0%	97.5%	0.6%	0%	-	1.0%	93.0%	5.1%	1.0%	-	-
% Total	0.9%	0.2%	4.6%	0%	5.7%	7.3%	0.3%	4.1%	0%	11.7%	1.0%	49.8%	0.3%	0%	51.2%	0.3%	29.2%	1.6%	0.3%	31.4%	-
PHF	0.321	0.500	0.719	-	0.713	0.793	0.750	0.539	-	0.770	0.625	0.764	0.750	-	0.770	0.375	0.820	0.571	0.750	0.809	0.864
Lights and Motorcycles	9	2	43	0	54	72	3	40	0	115	10	468	2	0	480	3	288	15	3	309	958
% Lights and Motorcycles	100%	100%	93.5%	0%	94.7%	98.6%	100%	97.6%	0%	98.3%	100%	94.0%	66.7%	0%	93.9%	100%	98.6%	93.8%	100%	98.4%	95.9%
Heavy	0	0	3	0	3	1	0	1	0	2	0	30	1	0	31	0	4	1	0	5	41
% Heavy	0%	0%	6.5%	0%	5.3%	1.4%	0%	2.4%	0%	1.7%	0%	6.0%	33.3%	0%	6.1%	0%	1.4%	6.3%	0%	1.6%	4.1%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MECKLENBURG DR - TMC

Thu Feb 20, 2025

AM Peak (6:45 AM - 7:45 AM)

All Classes (Lights and Motorcycles, Heavy)

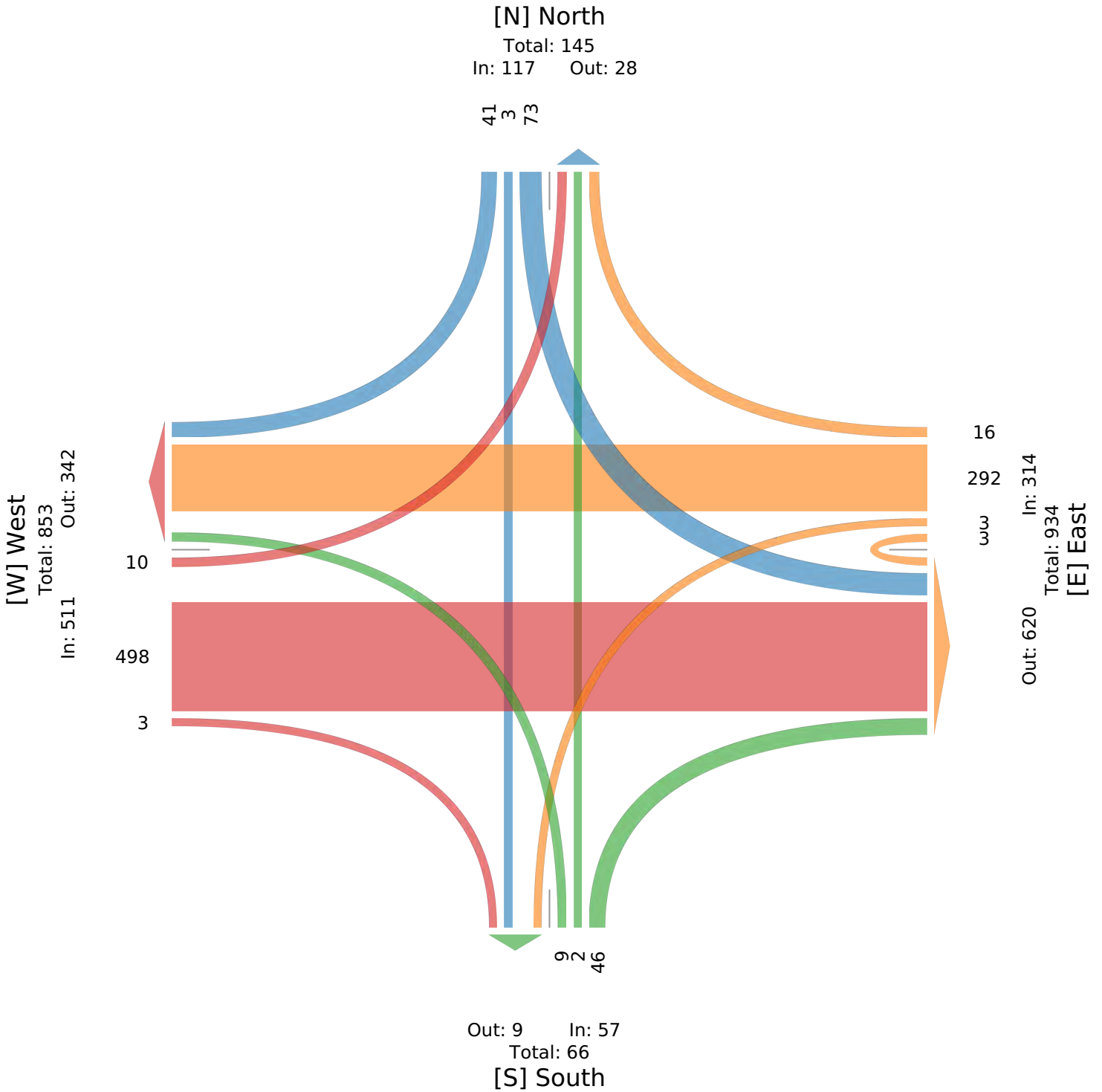
All Movements

ID: 1270786, Location: 39.693405, -86.430398



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



US 40 & MECKLENBURG DR - TMC

Thu Feb 20, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1270786, Location: 39.693405, -86.430398



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US

Leg Direction	South Northbound					North Southbound					West Eastbound					East Westbound					Int
	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	
2025-02-20 4:00PM	4	0	5	0	9	16	4	10	0	30	8	124	4	0	136	9	187	25	1	222	397
4:15PM	1	1	8	0	10	11	0	5	0	16	7	106	3	0	116	14	212	24	1	251	393
4:30PM	2	1	7	0	10	8	1	8	0	17	4	101	4	0	109	10	195	18	1	224	360
4:45PM	2	2	3	0	7	19	2	7	0	28	11	141	1	0	153	14	174	29	2	219	407
Total	9	4	23	0	36	54	7	30	0	91	30	472	12	0	514	47	768	96	5	916	1557
% Approach	25.0%	11.1%	63.9%	0%	-	59.3%	7.7%	33.0%	0%	-	5.8%	91.8%	2.3%	0%	-	5.1%	83.8%	10.5%	0.5%	-	-
% Total	0.6%	0.3%	1.5%	0%	2.3%	3.5%	0.4%	1.9%	0%	5.8%	1.9%	30.3%	0.8%	0%	33.0%	3.0%	49.3%	6.2%	0.3%	58.8%	-
PHF	0.563	0.500	0.719	-	0.900	0.711	0.438	0.750	-	0.758	0.682	0.837	0.750	-	0.840	0.839	0.906	0.828	0.625	0.912	0.956
Lights and Motorcycles	9	4	21	0	34	54	7	28	0	89	29	460	12	0	501	47	754	94	5	900	1524
% Lights and Motorcycles	100%	100%	91.3%	0%	94.4%	100%	100%	93.3%	0%	97.8%	96.7%	97.5%	100%	0%	97.5%	100%	98.2%	97.9%	100%	98.3%	97.9%
Heavy	0	0	2	0	2	0	0	2	0	2	1	12	0	0	13	0	14	2	0	16	33
% Heavy	0%	0%	8.7%	0%	5.6%	0%	0%	6.7%	0%	2.2%	3.3%	2.5%	0%	0%	2.5%	0%	1.8%	2.1%	0%	1.7%	2.1%

*L: Left, R: Right, T: Thru, U: U-Turn

US 40 & MECKLENBURG DR - TMC

Thu Feb 20, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

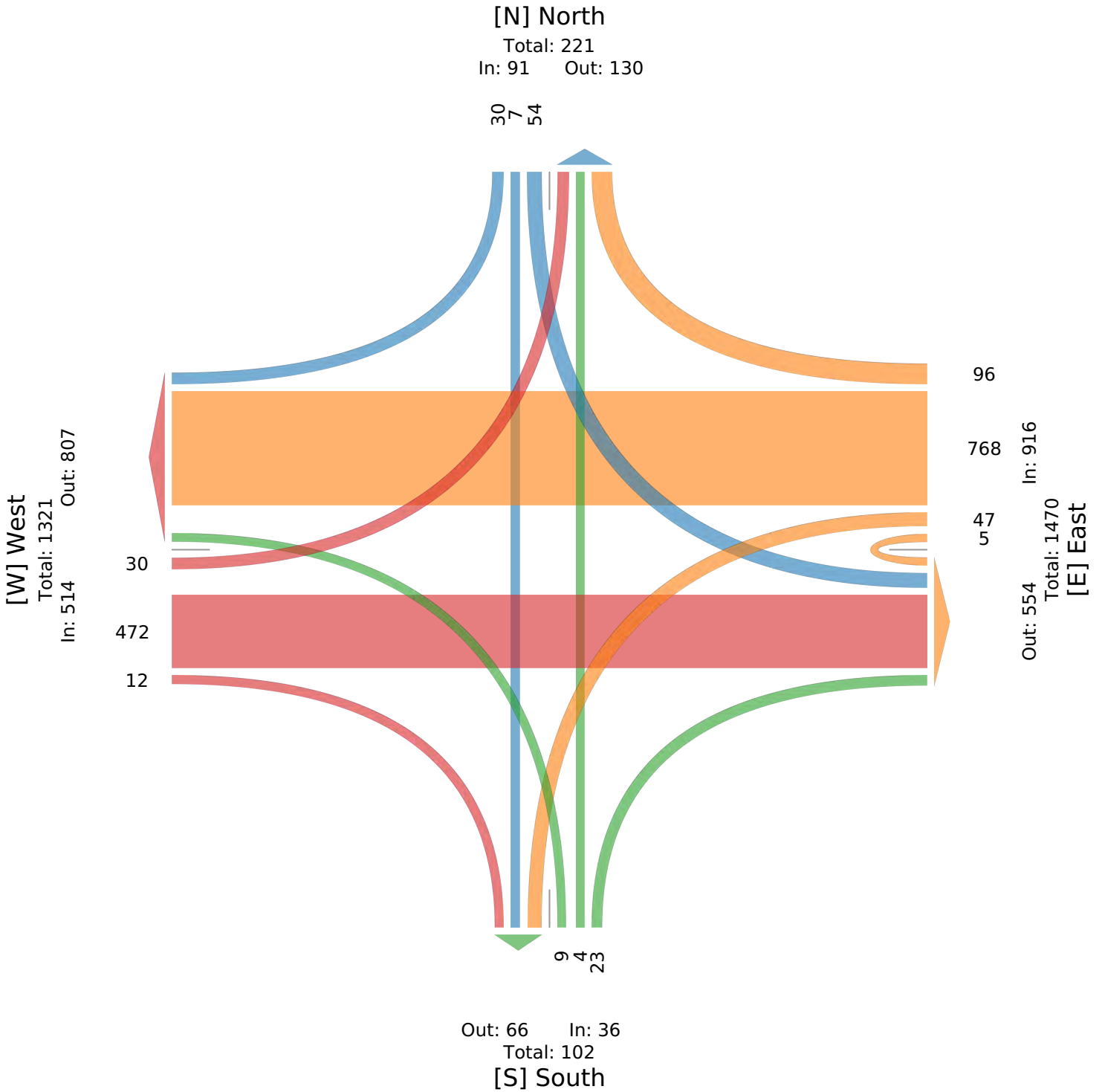
All Movements

ID: 1270786, Location: 39.693405, -86.430398



Provided by: A&F Engineering

8365 Keystone Crossing, Suite 201, Indianapolis, IN, 46240, US



HCM 7th Signalized Intersection Summary
 13: MECKLENBURG DR/VANDALIA BLVD & US 40

Existing AM Peak
 02/26/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕		↘	↕	↗		↖	↗	↘	↖	↗
Traffic Volume (veh/h)	10	498	3	3	292	16	9	2	46	73	3	41
Future Volume (veh/h)	10	498	3	3	292	16	9	2	46	73	3	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1811	1411	1900	1885	1811	1900	1900	1796	1885	1900	1870
Adj Flow Rate, veh/h	12	579	3	3	340	19	10	2	53	87	0	48
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	6	33	0	1	6	0	0	7	1	0	2
Cap, veh/h	104	1264	7	104	1290	553	175	35	175	414	0	183
Arrive On Green	0.06	0.36	0.36	0.06	0.36	0.36	0.12	0.12	0.12	0.12	0.00	0.12
Sat Flow, veh/h	1810	3510	18	1810	3582	1535	1520	304	1522	3591	0	1585
Grp Volume(v), veh/h	12	284	298	3	340	19	12	0	53	87	0	48
Grp Sat Flow(s),veh/h/ln	1810	1721	1808	1810	1791	1535	1824	0	1522	1795	0	1585
Q Serve(g_s), s	0.4	8.8	8.8	0.1	4.7	0.6	0.4	0.0	2.2	1.5	0.0	1.9
Cycle Q Clear(g_c), s	0.4	8.8	8.8	0.1	4.7	0.6	0.4	0.0	2.2	1.5	0.0	1.9
Prop In Lane	1.00		0.01	1.00		1.00	0.83		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	620	651	104	1290	553	210	0	175	414	0	183
V/C Ratio(X)	0.12	0.46	0.46	0.03	0.26	0.03	0.06	0.00	0.30	0.21	0.00	0.26
Avail Cap(c_a), veh/h	159	855	899	159	1781	763	263	0	219	517	0	228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	17.0	17.0	30.9	15.7	14.4	27.3	0.0	28.1	27.8	0.0	28.0
Incr Delay (d2), s/veh	0.5	0.5	0.5	0.1	0.1	0.0	0.1	0.0	1.0	0.2	0.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.1	3.3	0.0	1.7	0.2	0.2	0.0	0.8	0.6	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.5	17.5	17.5	31.0	15.8	14.4	27.5	0.0	29.1	28.1	0.0	28.8
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		594			362			65				135
Approach Delay, s/veh		17.8			15.9			28.8				28.3
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	31.5		14.0	9.9	31.5		14.0				
Change Period (Y+Rc), s	5.9	6.5		6.0	5.9	6.5		6.0				
Max Green Setting (Gmax), s	6.1	34.5		10.0	6.1	34.5		10.0				
Max Q Clear Time (g_c+I1), s	2.1	10.8		3.9	2.4	6.7		4.2				
Green Ext Time (p_c), s	0.0	3.3		0.2	0.0	2.2		0.1				

Intersection Summary		
HCM 7th Control Delay, s/veh		19.0
HCM 7th LOS		B

Notes
 User approved volume balancing among the lanes for turning movement.

HCM 7th Signalized Intersection Summary
 13: MECKLENBURG DR/VANDALIA BLVD & US 40

Existing PM Peak
 02/26/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	472	12	47	768	96	9	4	23	54	7	30
Future Volume (veh/h)	30	472	12	47	768	96	9	4	23	54	7	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1900	1870	1870	1900	1900	1767	1900	1900	1796
Adj Flow Rate, veh/h	31	492	12	49	800	100	9	4	24	61	0	31
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
Percent Heavy Veh, %	3	3	0	0	2	2	0	0	9	0	0	7
Cap, veh/h	102	1267	31	104	1280	571	147	65	173	417	0	175
Arrive On Green	0.06	0.36	0.36	0.06	0.36	0.36	0.12	0.12	0.12	0.12	0.00	0.12
Sat Flow, veh/h	1767	3517	86	1810	3554	1585	1271	565	1497	3619	0	1522
Grp Volume(v), veh/h	31	246	258	49	800	100	13	0	24	61	0	31
Grp Sat Flow(s),veh/h/ln	1767	1763	1840	1810	1777	1585	1836	0	1497	1810	0	1522
Q Serve(g_s), s	1.2	7.2	7.2	1.8	12.9	3.0	0.4	0.0	1.0	1.1	0.0	1.3
Cycle Q Clear(g_c), s	1.2	7.2	7.2	1.8	12.9	3.0	0.4	0.0	1.0	1.1	0.0	1.3
Prop In Lane	1.00		0.05	1.00		1.00	0.69		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	635	663	104	1280	571	212	0	173	417	0	175
V/C Ratio(X)	0.30	0.39	0.39	0.47	0.62	0.18	0.06	0.00	0.14	0.15	0.00	0.18
Avail Cap(c_a), veh/h	181	902	941	211	1869	834	212	0	173	469	0	197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	16.5	16.5	31.7	18.3	15.2	27.4	0.0	27.6	27.6	0.0	27.7
Incr Delay (d2), s/veh	1.7	0.4	0.4	3.3	0.5	0.1	0.1	0.0	0.4	0.2	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.6	2.8	0.8	4.7	1.0	0.2	0.0	0.4	0.4	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.0	16.9	16.9	34.9	18.8	15.3	27.5	0.0	28.0	27.8	0.0	28.2
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		535			949			37				92
Approach Delay, s/veh		17.8			19.3			27.8				27.9
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	31.5		14.0	9.9	31.5		14.0				
Change Period (Y+Rc), s	5.9	6.5		6.0	5.9	6.5		6.0				
Max Green Setting (Gmax), s	8.1	35.5		9.0	7.1	36.5		8.0				
Max Q Clear Time (g_c+I1), s	3.8	9.2		3.3	3.2	14.9		3.0				
Green Ext Time (p_c), s	0.0	2.9		0.1	0.0	5.7		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh	19.5
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 7th Signalized Intersection Summary
 13: MECKLENBURG DR/VANDALIA BLVD & US 40

Background 2030 AM Peak
 02/26/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕	↔		↕	↔	↕	↔	↕
Traffic Volume (veh/h)	11	525	3	3	308	17	9	2	49	77	3	43
Future Volume (veh/h)	11	525	3	3	308	17	9	2	49	77	3	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1811	1411	1900	1885	1811	1900	1900	1796	1885	1900	1870
Adj Flow Rate, veh/h	13	610	3	3	358	20	10	2	57	92	0	50
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	6	33	0	1	6	0	0	7	1	0	2
Cap, veh/h	104	1265	6	104	1290	553	175	35	175	414	0	183
Arrive On Green	0.06	0.36	0.36	0.06	0.36	0.36	0.12	0.12	0.12	0.12	0.00	0.12
Sat Flow, veh/h	1810	3511	17	1810	3582	1535	1520	304	1522	3591	0	1585
Grp Volume(v), veh/h	13	299	314	3	358	20	12	0	57	92	0	50
Grp Sat Flow(s),veh/h/ln	1810	1721	1808	1810	1791	1535	1824	0	1522	1795	0	1585
Q Serve(g_s), s	0.5	9.3	9.3	0.1	4.9	0.6	0.4	0.0	2.4	1.6	0.0	2.0
Cycle Q Clear(g_c), s	0.5	9.3	9.3	0.1	4.9	0.6	0.4	0.0	2.4	1.6	0.0	2.0
Prop In Lane	1.00		0.01	1.00		1.00	0.83		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	620	651	104	1290	553	210	0	175	414	0	183
V/C Ratio(X)	0.12	0.48	0.48	0.03	0.28	0.04	0.06	0.00	0.32	0.22	0.00	0.27
Avail Cap(c_a), veh/h	159	855	899	159	1781	763	263	0	219	517	0	228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	17.2	17.2	30.9	15.8	14.4	27.3	0.0	28.2	27.9	0.0	28.0
Incr Delay (d2), s/veh	0.5	0.6	0.6	0.1	0.1	0.0	0.1	0.0	1.1	0.3	0.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.3	3.5	0.0	1.8	0.2	0.2	0.0	0.9	0.7	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.6	17.8	17.7	31.0	15.9	14.4	27.5	0.0	29.3	28.1	0.0	28.8
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		626			381			69				142
Approach Delay, s/veh		18.0			15.9			29.0				28.4
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	31.5		14.0	9.9	31.5		14.0				
Change Period (Y+Rc), s	5.9	6.5		6.0	5.9	6.5		6.0				
Max Green Setting (Gmax), s	6.1	34.5		10.0	6.1	34.5		10.0				
Max Q Clear Time (g_c+I1), s	2.1	11.3		4.0	2.5	6.9		4.4				
Green Ext Time (p_c), s	0.0	3.5		0.2	0.0	2.3		0.1				

Intersection Summary												
HCM 7th Control Delay, s/veh											19.2	
HCM 7th LOS											B	

Notes
 User approved volume balancing among the lanes for turning movement.

HCM 7th Signalized Intersection Summary
 13: MECKLENBURG DR/VANDALIA BLVD & US 40

Background 2030 PM Peak
 02/26/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	498	13	50	810	101	9	4	24	57	7	32
Future Volume (veh/h)	32	498	13	50	810	101	9	4	24	57	7	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1900	1870	1870	1900	1900	1767	1900	1900	1796
Adj Flow Rate, veh/h	33	519	14	52	844	105	9	4	25	64	0	33
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
Percent Heavy Veh, %	3	3	0	0	2	2	0	0	9	0	0	7
Cap, veh/h	102	1263	34	104	1280	571	147	65	173	417	0	175
Arrive On Green	0.06	0.36	0.36	0.06	0.36	0.36	0.12	0.12	0.12	0.12	0.00	0.12
Sat Flow, veh/h	1767	3507	95	1810	3554	1585	1271	565	1497	3619	0	1522
Grp Volume(v), veh/h	33	261	272	52	844	105	13	0	25	64	0	33
Grp Sat Flow(s),veh/h/ln	1767	1763	1839	1810	1777	1585	1836	0	1497	1810	0	1522
Q Serve(g_s), s	1.2	7.7	7.7	1.9	13.8	3.1	0.4	0.0	1.0	1.1	0.0	1.4
Cycle Q Clear(g_c), s	1.2	7.7	7.7	1.9	13.8	3.1	0.4	0.0	1.0	1.1	0.0	1.4
Prop In Lane	1.00		0.05	1.00		1.00	0.69		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	635	662	104	1280	571	212	0	173	417	0	175
V/C Ratio(X)	0.32	0.41	0.41	0.50	0.66	0.18	0.06	0.00	0.14	0.15	0.00	0.19
Avail Cap(c_a), veh/h	181	927	967	211	1920	856	212	0	173	417	0	175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	16.7	16.7	31.7	18.6	15.2	27.4	0.0	27.6	27.7	0.0	27.8
Incr Delay (d2), s/veh	1.8	0.4	0.4	3.6	0.6	0.2	0.1	0.0	0.4	0.2	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.8	3.0	0.9	5.1	1.0	0.2	0.0	0.4	0.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.2	17.1	17.1	35.4	19.2	15.4	27.5	0.0	28.0	27.8	0.0	28.3
LnGrp LOS	C	B	B	D	B	B	C		C	C		C
Approach Vol, veh/h		566			1001			38				97
Approach Delay, s/veh		18.0			19.6			27.8				28.0
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	31.5		14.0	9.9	31.5		14.0				
Change Period (Y+Rc), s	5.9	6.5		6.0	5.9	6.5		6.0				
Max Green Setting (Gmax), s	8.1	36.5		8.0	7.1	37.5		8.0				
Max Q Clear Time (g_c+I1), s	3.9	9.7		3.4	3.2	15.8		3.0				
Green Ext Time (p_c), s	0.0	3.1		0.1	0.0	6.1		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh	19.8
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 7th Signalized Intersection Summary
 13: MECKLENBURG DR/VANDALIA BLVD & US 40

Background 2030 + Proposed AM Peak
 02/26/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕	↔		↕	↔	↕	↔	↕
Traffic Volume (veh/h)	11	622	3	3	341	17	9	2	49	77	3	43
Future Volume (veh/h)	11	622	3	3	341	17	9	2	49	77	3	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1811	1411	1900	1885	1811	1900	1900	1796	1885	1900	1870
Adj Flow Rate, veh/h	13	723	3	3	397	20	10	2	57	92	0	50
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	6	33	0	1	6	0	0	7	1	0	2
Cap, veh/h	104	1266	5	104	1290	553	175	35	175	414	0	183
Arrive On Green	0.06	0.36	0.36	0.06	0.36	0.36	0.12	0.12	0.12	0.12	0.00	0.12
Sat Flow, veh/h	1810	3514	15	1810	3582	1535	1520	304	1522	3591	0	1585
Grp Volume(v), veh/h	13	354	372	3	397	20	12	0	57	92	0	50
Grp Sat Flow(s),veh/h/ln	1810	1721	1808	1810	1791	1535	1824	0	1522	1795	0	1585
Q Serve(g_s), s	0.5	11.5	11.5	0.1	5.5	0.6	0.4	0.0	2.4	1.6	0.0	2.0
Cycle Q Clear(g_c), s	0.5	11.5	11.5	0.1	5.5	0.6	0.4	0.0	2.4	1.6	0.0	2.0
Prop In Lane	1.00		0.01	1.00		1.00	0.83		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	620	651	104	1290	553	210	0	175	414	0	183
V/C Ratio(X)	0.12	0.57	0.57	0.03	0.31	0.04	0.06	0.00	0.32	0.22	0.00	0.27
Avail Cap(c_a), veh/h	133	880	925	133	1832	785	263	0	219	517	0	228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	17.9	17.9	30.9	16.0	14.4	27.3	0.0	28.2	27.9	0.0	28.0
Incr Delay (d2), s/veh	0.5	0.8	0.8	0.1	0.1	0.0	0.1	0.0	1.1	0.3	0.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.1	4.3	0.0	2.0	0.2	0.2	0.0	0.9	0.7	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.6	18.7	18.7	31.0	16.1	14.4	27.5	0.0	29.3	28.1	0.0	28.8
LnGrp LOS	C	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		739			420			69			142	
Approach Delay, s/veh		18.9			16.1			29.0			28.4	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	31.5		14.0	9.9	31.5		14.0				
Change Period (Y+Rc), s	5.9	6.5		6.0	5.9	6.5		6.0				
Max Green Setting (Gmax), s	5.1	35.5		10.0	5.1	35.5		10.0				
Max Q Clear Time (g_c+I1), s	2.1	13.5		4.0	2.5	7.5		4.4				
Green Ext Time (p_c), s	0.0	4.2		0.2	0.0	2.6		0.1				

Intersection Summary												
HCM 7th Control Delay, s/veh				19.6								
HCM 7th LOS				B								

Notes
 User approved volume balancing among the lanes for turning movement.

HCM 7th Signalized Intersection Summary
 13: MECKLENBURG DR/VANDALIA BLVD & US 40

Background 2030 + Proposed PM Peak
 02/26/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕↔		↔	↕↔	↔		↕	↔	↔	↕	↔
Traffic Volume (veh/h)	32	565	13	50	924	101	9	4	24	57	7	32
Future Volume (veh/h)	32	565	13	50	924	101	9	4	24	57	7	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1900	1870	1870	1900	1900	1767	1900	1900	1796
Adj Flow Rate, veh/h	33	589	14	52	962	105	9	4	25	64	0	33
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
Percent Heavy Veh, %	3	3	0	0	2	2	0	0	9	0	0	7
Cap, veh/h	101	1278	30	104	1290	575	146	65	172	415	0	175
Arrive On Green	0.06	0.36	0.36	0.06	0.36	0.36	0.11	0.11	0.11	0.11	0.00	0.11
Sat Flow, veh/h	1767	3520	84	1810	3554	1585	1271	565	1497	3619	0	1522
Grp Volume(v), veh/h	33	295	308	52	962	105	13	0	25	64	0	33
Grp Sat Flow(s),veh/h/ln	1767	1763	1840	1810	1777	1585	1836	0	1497	1810	0	1522
Q Serve(g_s), s	1.3	8.9	8.9	1.9	16.5	3.1	0.4	0.0	1.0	1.1	0.0	1.4
Cycle Q Clear(g_c), s	1.3	8.9	8.9	1.9	16.5	3.1	0.4	0.0	1.0	1.1	0.0	1.4
Prop In Lane	1.00		0.05	1.00		1.00	0.69		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	640	668	104	1290	575	211	0	172	415	0	175
V/C Ratio(X)	0.33	0.46	0.46	0.50	0.75	0.18	0.06	0.00	0.15	0.15	0.00	0.19
Avail Cap(c_a), veh/h	155	948	990	184	1963	875	211	0	172	415	0	175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	17.0	17.0	31.9	19.4	15.1	27.5	0.0	27.8	27.8	0.0	27.9
Incr Delay (d2), s/veh	1.8	0.5	0.5	3.7	0.9	0.2	0.1	0.0	0.4	0.2	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.3	3.4	0.9	6.1	1.0	0.2	0.0	0.4	0.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.4	17.5	17.5	35.6	20.3	15.3	27.6	0.0	28.2	28.0	0.0	28.4
LnGrp LOS	C	B	B	D	C	B	C		C	C		C
Approach Vol, veh/h		636			1119			38				97
Approach Delay, s/veh		18.3			20.5			28.0				28.1
Approach LOS		B			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	31.8		14.0	9.9	31.8		14.0				
Change Period (Y+Rc), s	5.9	6.5		6.0	5.9	6.5		6.0				
Max Green Setting (Gmax), s	7.1	37.5		8.0	6.1	38.5		8.0				
Max Q Clear Time (g_c+I1), s	3.9	10.9		3.4	3.3	18.5		3.0				
Green Ext Time (p_c), s	0.0	3.5		0.1	0.0	6.8		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh				20.3								
HCM 7th LOS				C								

Notes
 User approved volume balancing among the lanes for turning movement.

US 40 & PROPOSED WEST ACCESS DRIVE

TURN LANE WARRANTS CAPACITY ANALYSIS

Total Approach Volume	Right-Turn Volume
0	90
500	90
1200	40
1600	40

AM Peak Hour Traffic Volume Input		PM Peak Hour Traffic Volume Input	
Total Approach Volume	667	Total Approach Volume	638
Right-Turn Volume	10	Right-Turn Volume	34
WARRANTED?	NO	WARRANTED?	NO

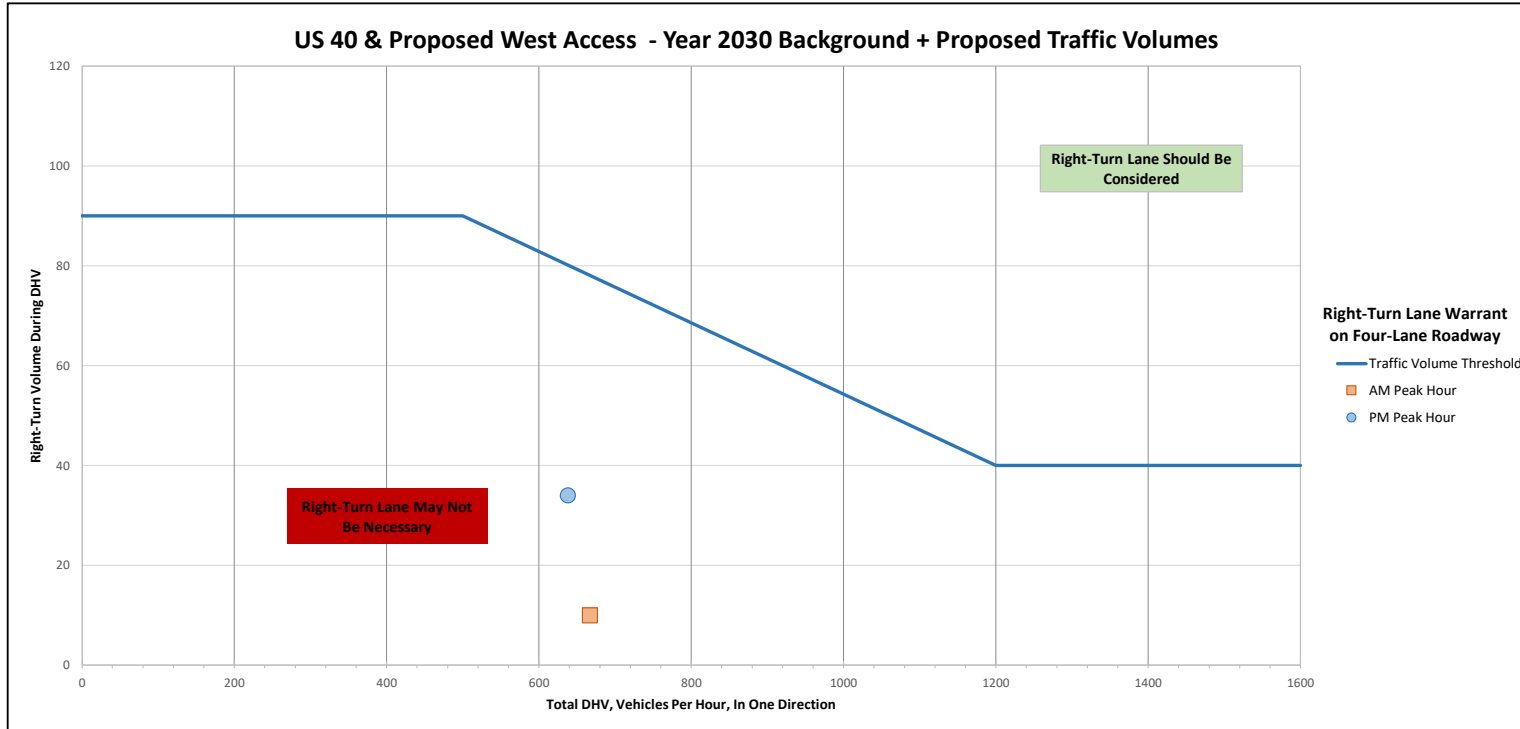


Figure is only applicable on highways with a design speed of 80 km/h (50 mph) or greater. For speeds less than 80 km/h (50 mph) - see Section 18 (b.c).

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑			↔			↔	
Traffic Vol, veh/h	0	657	10	6	389	0	29	0	18	0	0	0
Future Vol, veh/h	0	657	10	6	389	0	29	0	18	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	-	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	714	11	7	423	0	32	0	20	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	725	0	0	944	1155	362	793	1161	211
Stage 1	-	-	-	-	-	-	720	720	-	436	436	-
Stage 2	-	-	-	-	-	-	224	436	-	357	725	-
Critical Hdwy	-	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	874	-	-	217	195	634	279	194	794
Stage 1	0	-	-	-	-	-	385	431	-	569	578	-
Stage 2	0	-	-	-	-	-	758	578	-	633	428	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	874	-	-	215	194	634	269	192	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	215	194	-	269	192	-
Stage 1	-	-	-	-	-	-	385	431	-	565	574	-
Stage 2	-	-	-	-	-	-	752	574	-	614	428	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.14	20.17	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	288	-	-	874	-	-	-
HCM Lane V/C Ratio	0.177	-	-	0.007	-	-	-
HCM Ctrl Dly (s/v)	20.2	-	-	9.2	-	-	0
HCM Lane LOS	C	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	8	124	3	11	217	87	2	0	6	51	0	5
Future Vol, veh/h	8	124	3	11	217	87	2	0	6	51	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	-	-	-	-	-	75	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	135	3	12	236	95	2	0	7	55	0	5

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	330	0	0	138	0	0	414	508	136	412	415	236
Stage 1	-	-	-	-	-	-	154	154	-	260	260	-
Stage 2	-	-	-	-	-	-	260	354	-	152	155	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1229	-	-	1446	-	-	549	468	912	550	528	803
Stage 1	-	-	-	-	-	-	849	770	-	745	693	-
Stage 2	-	-	-	-	-	-	745	630	-	850	769	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1229	-	-	1446	-	-	536	459	912	537	518	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	536	459	-	537	518	-
Stage 1	-	-	-	-	-	-	842	764	-	737	686	-
Stage 2	-	-	-	-	-	-	732	624	-	838	763	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0.47		0.26		9.69		12.31	
HCM LOS					A		B	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	776	106	-	-	87	-	-	553
HCM Lane V/C Ratio	0.011	0.007	-	-	0.008	-	-	0.11
HCM Ctrl Dly (s/v)	9.7	7.9	0	-	7.5	0	-	12.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

US 40 & PROPOSED EAST RI/RO ACCESS DRIVE

TURN LANE WARRANTS CAPACITY ANALYSIS

Total Approach Volume	Right-Turn Volume
0	90
500	90
1200	40
1600	40

AM Peak Hour Traffic Volume Input		PM Peak Hour Traffic Volume Input	
Total Approach Volume	675	Total Approach Volume	616
Right-Turn Volume	2	Right-Turn Volume	8
WARRANTED?	NO	WARRANTED?	NO

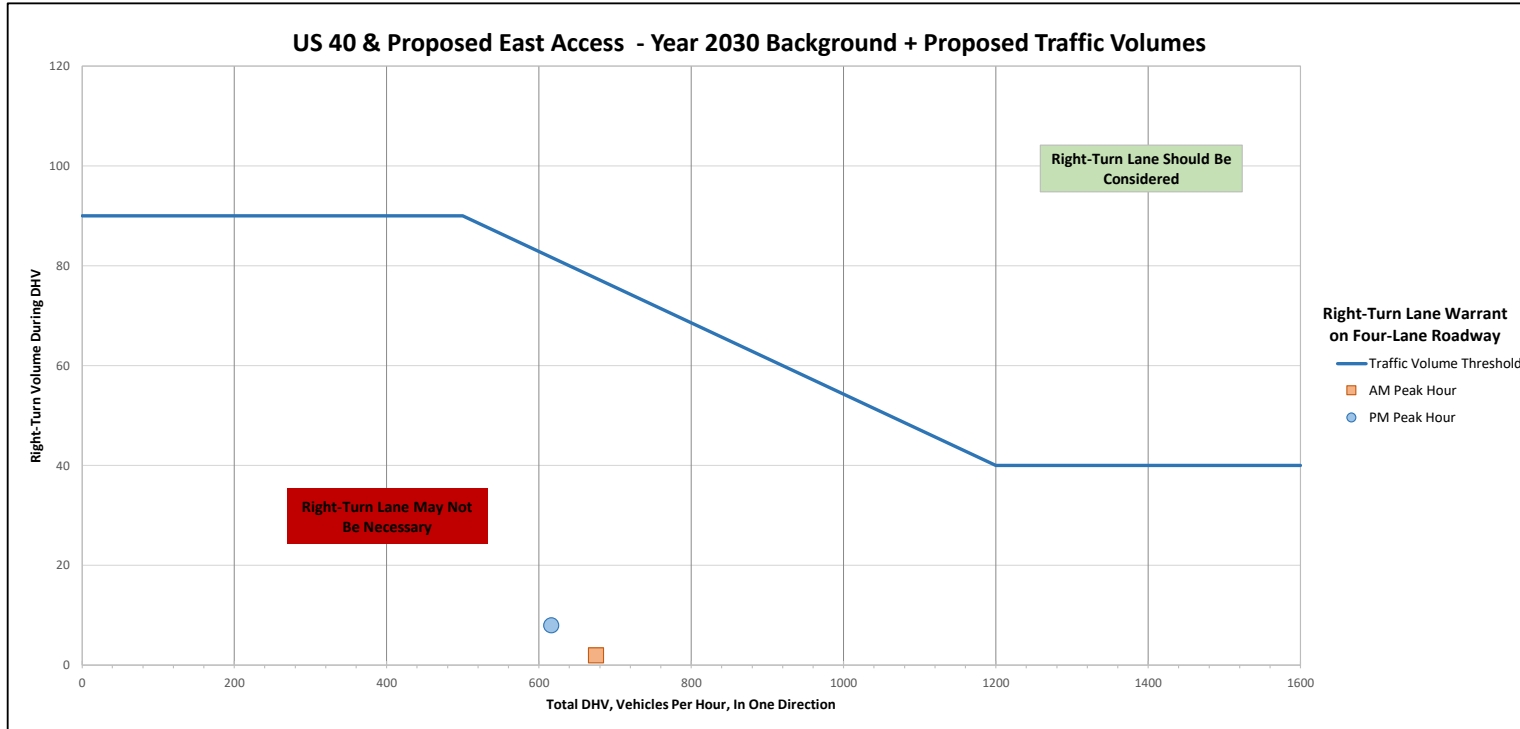


Figure is only applicable on highways with a design speed of 80 km/h (50 mph) or greater. For speeds less than 80 km/h (50 mph) - see Section 18 (b.c).

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	673	2	27	388	7	79
Future Vol, veh/h	673	2	27	388	7	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	732	2	29	422	8	86

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	734	0	1002 367
Stage 1	-	-	-	-	733 -
Stage 2	-	-	-	-	270 -
Critical Hdwy	-	-	4.14	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	2.22	-	3.52 3.32
Pot Cap-1 Maneuver	-	-	867	-	239 630
Stage 1	-	-	-	-	436 -
Stage 2	-	-	-	-	751 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	867	-	231 630
Mov Cap-2 Maneuver	-	-	-	-	231 -
Stage 1	-	-	-	-	436 -
Stage 2	-	-	-	-	726 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.6	12.84
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	552	-	-	867	-
HCM Lane V/C Ratio	0.169	-	-	0.034	-
HCM Ctrl Dly (s/v)	12.8	-	-	9.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑			↔			↔	
Traffic Vol, veh/h	0	604	34	21	880	0	20	0	12	0	0	0
Future Vol, veh/h	0	604	34	21	880	0	20	0	12	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	-	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	657	37	23	957	0	22	0	13	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	693	0	0	1199	1677	347	1330	1696	478
Stage 1	-	-	-	-	-	-	675	675	-	1002	1002	-
Stage 2	-	-	-	-	-	-	524	1002	-	328	693	-
Critical Hdwy	-	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	898	-	-	141	94	649	113	92	533
Stage 1	0	-	-	-	-	-	410	451	-	260	318	-
Stage 2	0	-	-	-	-	-	505	318	-	659	443	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	898	-	-	137	92	649	108	89	533
Mov Cap-2 Maneuver	-	-	-	-	-	-	137	92	-	108	89	-
Stage 1	-	-	-	-	-	-	410	451	-	253	310	-
Stage 2	-	-	-	-	-	-	492	310	-	645	443	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.21	27.42	0
HCM LOS			D	A

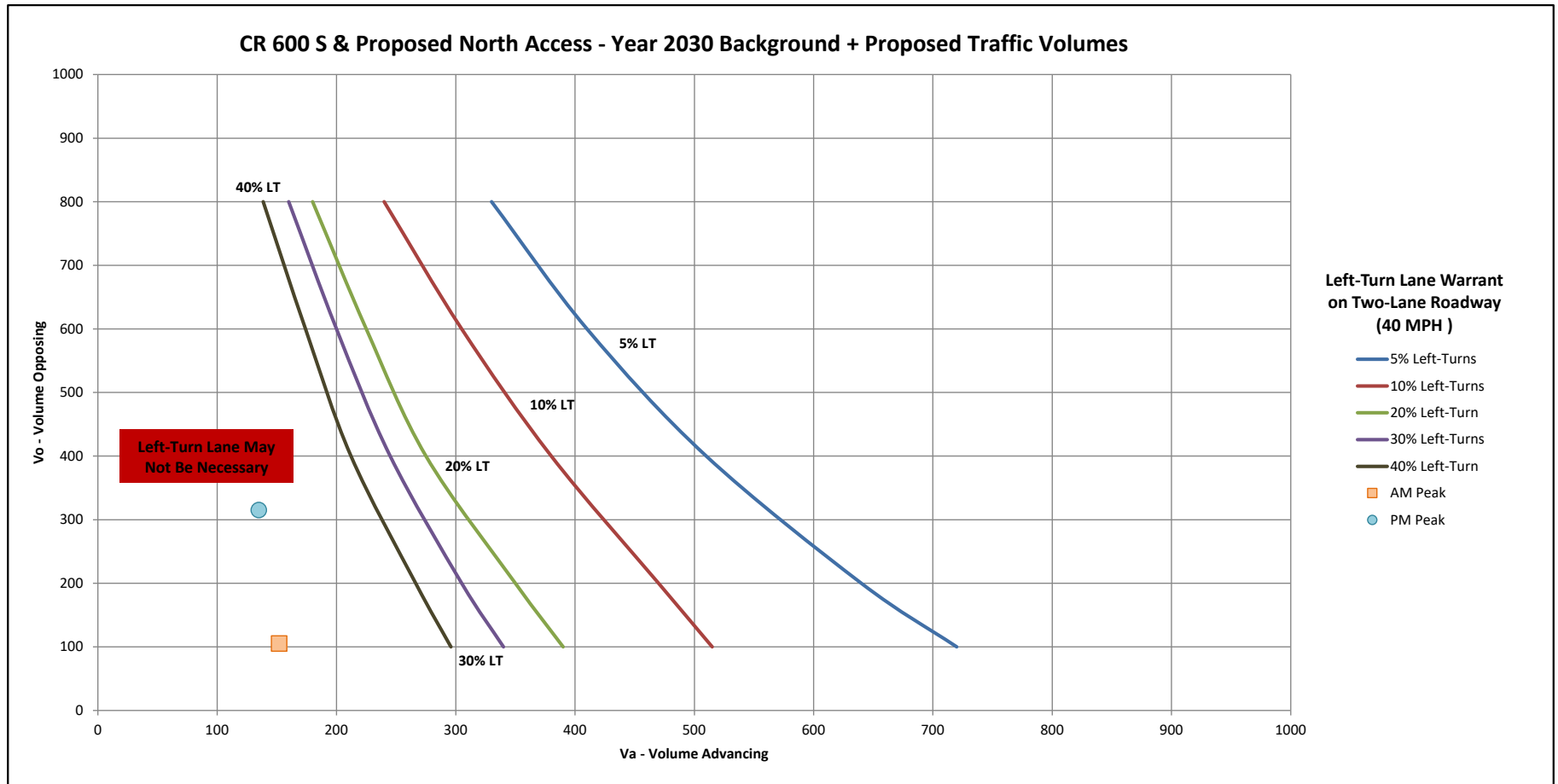
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	195	-	-	898	-	-	-
HCM Lane V/C Ratio	0.178	-	-	0.025	-	-	-
HCM Ctrl Dly (s/v)	27.4	-	-	9.1	-	-	0
HCM Lane LOS	D	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	-	-

***CR 600 S & PROPOSED NORTH/SOUTH ACCESS
DRIVE***

***TURN LANE WARRANTS
CAPACITY ANALYSIS***

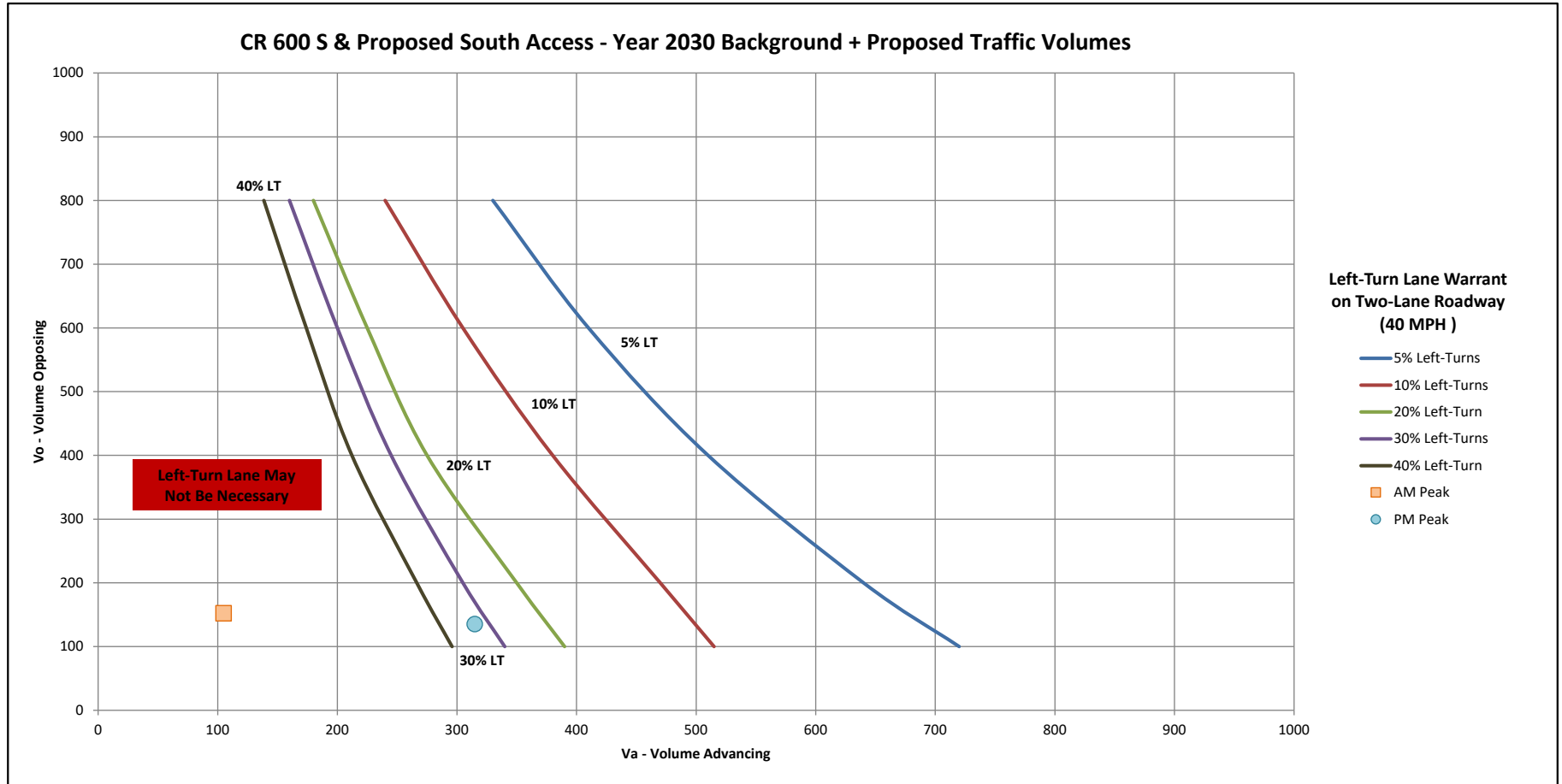
Operating Speed (mph)	Opposing Volume (veh/h)	Advancing Volume (veh/h)							
		5% Left Turns	10% Left Turns	15% Left Turns	20% Left Turns	25% Left Turns	30% Left Turns	35% Left Turns	40% Left Turns
40	800	330	240	207	180	168	160	146	139
	600	410	305	260	225	211	200	184	174
	400	510	380	320	275	258	245	224	212
	200	640	470	401	350	324	305	282	266
	100	720	515	446	390	360	340	313	296

AM Peak Hour Traffic Volume Input		PM Peak Hour Traffic Volume Input	
Advancing Volume (Va)	152	Advancing Volume (Va)	135
Opposing Volume (Vo)	105	Opposing Volume (Vo)	315
Left-Turn Volume	2	Left-Turn Volume	8
% Left-Turn	1%	% Left-Turn	6%
WARRANTED?	NO	WARRANTED?	NO



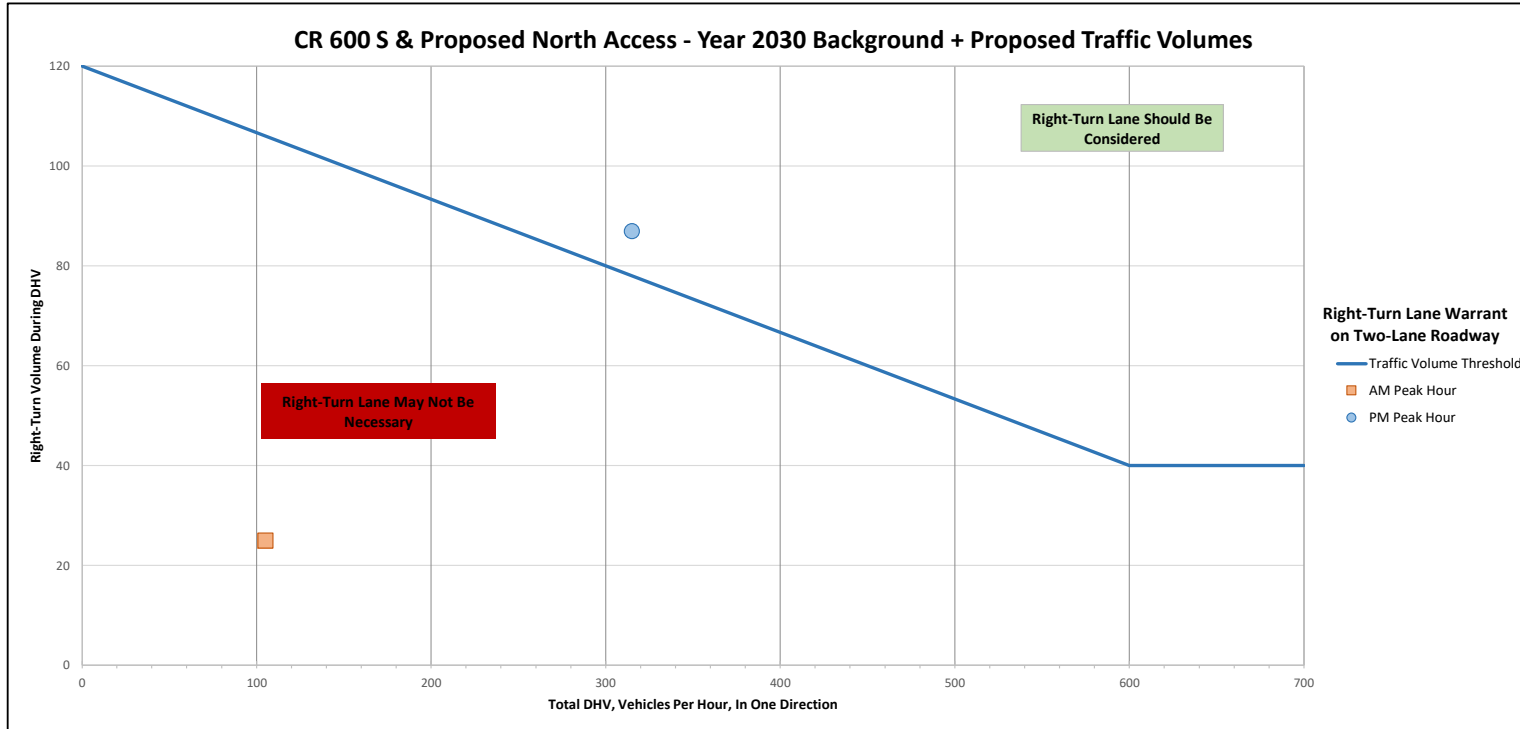
Operating Speed (mph)	Opposing Volume (veh/h)	Advancing Volume (veh/h)							
		5% Left Turns	10% Left Turns	15% Left Turns	20% Left Turns	25% Left Turns	30% Left Turns	35% Left Turns	40% Left Turns
40	800	330	240	207	180	168	160	146	139
	600	410	305	260	225	211	200	184	174
	400	510	380	320	275	258	245	224	212
	200	640	470	401	350	324	305	282	266
	100	720	515	446	390	360	340	313	296

AM Peak Hour Traffic Volume Input		PM Peak Hour Traffic Volume Input	
Advancing Volume (Va)	105	Advancing Volume (Va)	315
Opposing Volume (Vo)	152	Opposing Volume (Vo)	135
Left-Turn Volume	3	Left-Turn Volume	11
% Left-Turn	3%	% Left-Turn	3%
WARRANTED?	NO	WARRANTED?	NO



Total Approach Volume	Right-Turn Volume
0	120
600	40
700	40

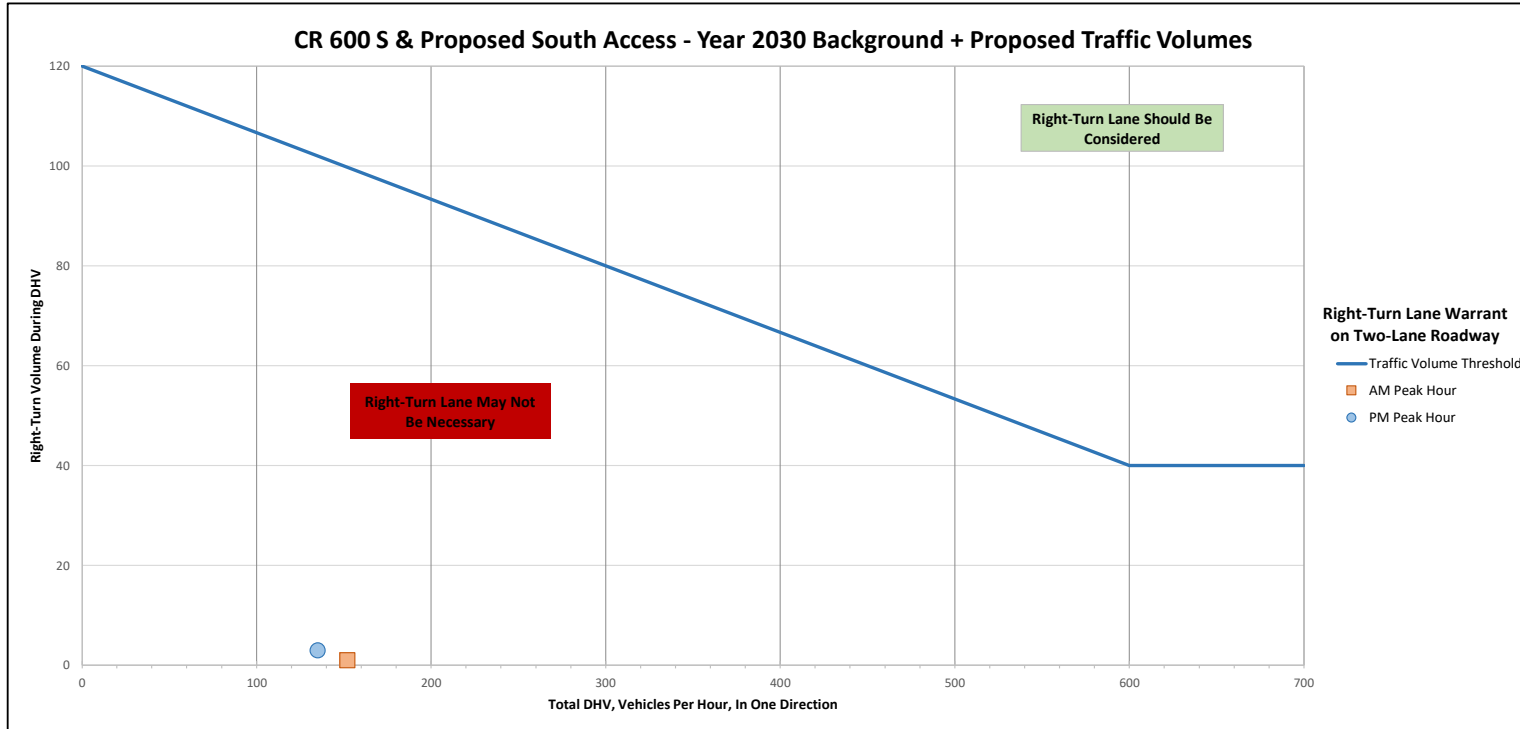
AM Peak Hour Traffic Volume Input		PM Peak Hour Traffic Volume Input	
Total Approach Volume	105	Total Approach Volume	315
Right-Turn Volume	25	Right-Turn Volume	87
WARRANTED?	NO	WARRANTED?	YES



NOTE : For highways with a design speed below 80 km/h (50 mph) with a DHV < 300 and where right-turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20

Total Approach Volume	Right-Turn Volume
0	120
600	40
700	40

AM Peak Hour Traffic Volume Input		PM Peak Hour Traffic Volume Input	
Total Approach Volume	152	Total Approach Volume	135
Right-Turn Volume	1	Right-Turn Volume	3
WARRANTED?	NO	WARRANTED?	NO



NOTE : For highways with a design speed below 80 km/h (50 mph) with a DHV < 300 and where right-turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	2	149	1	3	77	25	2	0	9	75	0	7
Future Vol, veh/h	2	149	1	3	77	25	2	0	9	75	0	7
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	-	-	-	-	-	75	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	162	1	3	84	27	2	0	10	82	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	163	0	0	257	284	163	257	258	84
Stage 1	-	-	-	-	-	-	167	167	-	90	90	-
Stage 2	-	-	-	-	-	-	90	117	-	166	167	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1416	-	-	696	625	882	697	647	976
Stage 1	-	-	-	-	-	-	835	760	-	917	820	-
Stage 2	-	-	-	-	-	-	917	798	-	836	760	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1479	-	-	1416	-	-	688	622	882	686	644	976
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	622	-	686	644	-
Stage 1	-	-	-	-	-	-	834	759	-	915	818	-
Stage 2	-	-	-	-	-	-	908	797	-	825	759	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.1			0.22			9.35			10.85		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	839	24	-	-	68	-	-	704
HCM Lane V/C Ratio	0.014	0.001	-	-	0.002	-	-	0.127
HCM Ctrl Dly (s/v)	9.4	7.4	0	-	7.5	0	-	10.9
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	608	8	93	896	5	55
Future Vol, veh/h	608	8	93	896	5	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	661	9	101	974	5	60

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	670	0	1354 335
Stage 1	-	-	-	-	665 -
Stage 2	-	-	-	-	689 -
Critical Hdwy	-	-	4.14	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	2.22	-	3.52 3.32
Pot Cap-1 Maneuver	-	-	916	-	141 661
Stage 1	-	-	-	-	473 -
Stage 2	-	-	-	-	460 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	916	-	125 661
Mov Cap-2 Maneuver	-	-	-	-	125 -
Stage 1	-	-	-	-	473 -
Stage 2	-	-	-	-	409 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.89	13.53
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	487	-	-	916	-
HCM Lane V/C Ratio	0.134	-	-	0.11	-
HCM Ctrl Dly (s/v)	13.5	-	-	9.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.4	-