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January 24, 2025

Ms. Gloria Lee
Merrick & Company
5970 Greenwood Plaza Boulevard
Greenwood Village, CO 80111

Re: Horizon Uptown
Filing 9
Aurora, CO
LSC #250030

Dear Ms. Lee:

In response to your request, LSC Transportation Consultants, Inc. has prepared this site-specific traffic impact analysis for the proposed Horizon Uptown Filing 9 development. As shown on Figure 1, Horizon Uptown is located south of the I-70 Frontage Road, east of Picadilly Road, and north of Stephen D. Hogan Parkway in the City of Aurora, Colorado. The currently proposed Filing 9 is located west of the future Crossroads Boulevard between E. 6th Avenue and E. 10th Place.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements needed to mitigate the growth in background traffic or from the site's traffic impacts.

COMPARISON TO ASSUMPTIONS IN THE MASTER TRAFFIC STUDY

Matrix Design Group completed a Master Traffic Study (MTIS) for Horizon Uptown dated November 2, 2018 (Master TIA). In that study the master plan area was divided into 20 planning areas as shown in Figure 2. The Filing 9 site is within portions of Planning Areas 16, 17 and 18 as shown in Figure 2. Figure 2 also shows the location of the existing and/or approved Filings 1 through 6 as well as the existing recreation center and the location of a school site planned to be developed in the near term.

As shown in Appendix Table 1, there are currently 1,242 residential dwelling units within the Horizon Uptown development that are either existing, under construction, approved or currently under review. The MTIS assumed that about 1,477 residential dwelling units would be con-

structed in this same area. As this represents a significant reduction in density, the study area for the currently proposed Filing No. 9 only includes those intersections identified in the pre-application meeting held on August 24, 2023 that are either existing or planned to be constructed with the currently proposed Filing No. 9. Please refer to the MTIS for analysis of all intersections north of E. 10th Place.

LAND USE AND ACCESS

The Filing 9 site is proposed to include 136 residential dwelling units including a mix of single-family homes duplex dwelling units. Access is proposed from several locations as shown in the conceptual site plan in Figure 3.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **I-70 Frontage Road** is an east-west, two-lane frontage road north of the site. The intersections with Colfax Avenue and Picadilly Road are stop-sign controlled. The posted speed limit is 30 mph west of Picadilly Road and 45 mph east of Picadilly Road.
- **Picadilly Road** is a north-south, two-lane arterial roadway west of the site. The intersections with the I-70 Frontage Road and Stephen D. Hogan Parkway are stop-sign controlled. The posted speed limit is 45 mph in the vicinity of the site. It is planned to be a six-lane major arterial by 2040 per the *Aurora NEATS* study. The City of Aurora and CDOT are currently working towards constructing the I-70/Picadilly interchange.
- **Stephen D. Hogan Parkway** is an east-west, two-lane major arterial roadway south of the site. The intersection with Picadilly Road is stop-sign controlled. No speed limit is posted in the vicinity of the site. It is planned to be a six-lane major arterial by 2040 per the *Aurora NEATS* study.
- **Colfax Avenue** is an east-west, four-lane federal highway north of the site. The intersection with the Frontage Road is stop-sign controlled. The posted speed limit in the vicinity of the site is 55 mph.

Existing Traffic Conditions

Figure 4 shows the existing lane geometry, and traffic control at the intersection of Picadilly Road/E. 11th Avenue. Figure 4 also shows the existing daily traffic counts on Picadilly Road and Rome Street in the vicinity of the site based on the attached traffic counts conducted by Counter Measures in October, 2023 and February, 2024.

2026 and 2050 Background Traffic

Figure 5 shows the estimated 2026 background traffic. The 2026 background volumes are estimates by LSC based on the traffic projected to be generated with buildout of Horizon Uptown Filing Nos. 1 through 8 and about 60 percent of the traffic projected to be generated by Aurora

One at buildout taken from the recently approved *Aurora One TIS* by Fox and Tuttle Transportation Group, LLC. Key pages from the *Aurora One TIS* including the trip generation information are attached for reference. Figure 5 also shows the estimated 2026 background lane geometry and traffic control.

Figure 6 shows the estimated 2050 background traffic based on the buildout of the Horizon Uptown Master Plan (except for the currently proposed Filing No. 9), the Stafford Logistics Center, Aurora One, and the updated *Aurora NEATS* study. Figure 6 also shows the estimated 2050 background lane geometry and traffic control.

2026 and 2050 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from “A” to “F”. LOS “A” is indicative of little congestion or delay and LOS “F” is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in Figures 5 and 6 were analyzed to determine the 2026 and 2040 background levels of service using Synchro Version 11. Table 1 shows the level of service analysis results. The level of service reports are attached.

- 2. N. Ukraine Street/E. 10th Place:** All approaches at this future stop-controlled intersection are expected to operate at LOS “A” through 2050.
- 5. N. Ukraine Street/E. 8th Avenue:** All approaches at this future stop-controlled intersection are expected to operate at LOS “B” or better through 2050.
- 7. N. Ukraine Street/E. 7th Place:** All approaches at this future stop-controlled intersection are expected to operate at LOS “A” through 2050.
- 8. Rome Street/E. 6th Avenue:** This intersection is currently two-way, stop-sign controlled with stop control on the eastbound and westbound approaches. Due to the poor alignment of the northbound through lane and the existing grade on the eastbound approach, LSC recommends that this intersection be converted to all-way stop-sign control. As an all-way stop-sign controlled intersection all movements are expected to operate at LOS “B” or better through 2050.
- 9. N. Tempe Street/E. 6th Avenue:** All approaches at this future stop-controlled intersection are expected to operate at LOS “B” or better through 2050.
- 13. N. Tempe Street/E. 7th Place:** All approaches at this stop-controlled intersection are expected to operate at LOS “A” through 2050.
- 14. Crossroads Boulevard/E. 10th Place:** LSC recommends this intersection be restricted to three-quarter movement (left-in/right-in/right-out only) once Crossroads Boulevard is constructed to its final cross-section. Based on the 2050 background lane geometry, traffic control and volume shown on Figure 6 all movements at this intersection are expected to operate at LOS “B” or better through 2050.

- 15. Crossroads Boulevard/E. 8th Avenue:** This intersection is expected to be traffic signal controlled by 2050. It is expected to operate at an overall LOS “B” during both peak-hours based on the 2050 background lane geometry, traffic control and volume shown on Figure 6.
- 16. Crossroads Boulevard/E. 7th Place:** LSC recommends this intersection be restricted to three-quarter movement (left-in/right-in/right-out only) once Crossroads Boulevard is constructed to its final cross-section. Based on the 2050 background lane geometry, traffic control and volume shown on Figure 6 all movements at this intersection are expected to operate at LOS “B” or better through 2050.
- 17. Crossroads Boulevard/E. 6th Avenue:** This intersection is expected to be traffic signal controlled by 2050. It is expected to operate at an overall LOS “B” during both peak-hours based on the 2050 background lane geometry, traffic control and volume shown on Figure 6.

TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed land use based on the rates from *Trip Generation*, 11th Edition, 2021 by the Institute of Transportation Engineers (ITE). Table 2 also shows the number of these trips that were assumed to travel to/from the Horizon Uptown PK-8 school just west of the site. About 50% of the Horizon Uptown PK-8 school-generated trips taken from the traffic impact analysis by LSC, dated October 29, 2024, were assumed to be to/from the residential areas within the overall Horizon Uptown development. The residential internal trips were then calculated by balancing the residential internal trips with the school internal trips based on the number of dwelling units in each Horizon Uptown planning area.

The proposed site is projected to generate about 1,121 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour which generally occurs for one hour between 6:30 and 8:30 a.m., about 20 vehicles would enter and about 60 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 62 vehicles would enter and about 39 vehicles would exit.

DIRECTIONAL DISTRIBUTION

Figure 7 shows the estimated directional distribution of the external residential site-generated traffic volumes on the area roadways. Traffic to and from the Horizon Uptown PK-8 school just west of the site was assigned separately based on the location of the planned school access points. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use. The directional distribution estimate for Horizon Uptown was modified from what was shown in the approved Master traffic study for Horizon Uptown as part of a site-specific traffic study for Horizon Uptown Filing No. 3. This change was necessary based on the expanded study area of the Filing No. 3 study. The directional distribution estimate used in this Filing 9 report is consistent with the expanded distribution estimate assumed in the Filing No. 3 report. Key pages from that report have been attached for reference.

TRIP ASSIGNMENT

Figure 8 shows the estimated 2026 assignment of site-generated traffic volumes based on the trip generation estimate (from Table 2) and the 2026 directional distribution shown in Figure 7. The 2026 assignment assumed N. Tempe Street, N. Ukraine Street, and Crossroads Boulevard have only been constructed between E. 6th Avenue and E. 10th Place.

Figure 9 shows the estimated 2050 assignment of site-generated traffic volumes based on the trip generation estimate (from Table 2) and the 2050 directional distribution shown in Figure 7. The 2050 assignment assumes full buildout of the Horizon Uptown and Aurora One street networks.

2026 AND 2050 TOTAL TRAFFIC

Figure 10 shows the estimated 2026 total traffic which is the sum of the 2026 background traffic volumes (from Figure 5) and the 2026 site-generated traffic volumes (from Figure 8). Figure 10 also shows the recommended 2026 lane geometry and traffic control.

Figure 11 shows the estimated 2050 total traffic which is the sum of the 2040 background traffic volumes (from Figure 6) and the 2050 site-generated traffic volumes (from Figure 9). Figure 11 also shows the recommended 2050 lane geometry and traffic control.

TRAFFIC SIGNAL WARRANT ANALYSIS

The future intersections of Crossroads Boulevard/E. 8th Avenue (#15) and Crossroads Boulevard/E. 6th Avenue (#17) were analyzed to determine if the projected total traffic volumes would meet the thresholds criteria for Eight-Hour, Four-Hour, and Peak-Hour Vehicular Volume Traffic Signal Warrants in the *Manual on Uniform Traffic Control Devices* (MUTCD). The off-peak-hour volumes are estimates based on the hourly distribution of entering and exiting vehicle-trips published by the Institute of Transportation Engineers in 2021. The results of the signal warrant analysis are shown in Tables 3 and 4.

As shown in Table 3, by 2050 Crossroads Boulevard/E. 8th Avenue (#15) is expected to meet the Eight-Hour Vehicular Volume Traffic Signal Warrant, Four-Hour, and Peak-Hour Vehicular Volume Traffic Signal Warrants based on both the background and total traffic volumes.

As shown in Table 4, by 2050 Crossroads Boulevard/E. 6th Avenue (#17) is expected to meet the Four-Hour and Peak-Hour Vehicular Volume Traffic Signal Warrants based on both the background and total traffic volumes. This intersection is not projected to meet the Eight-Hour Vehicular Volume Traffic Signal Warrant based on the 2050 traffic volumes.

PROJECTED LEVELS OF SERVICE

The intersections in Figures 10 and 11 were analyzed to determine the 2026 and 2050 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- 2. N. Ukraine Street/E. 10th Place:** All approaches at this future stop-controlled intersection are expected to operate at LOS “A” through 2050.

5. **N. Ukraine Street/E. 8th Avenue:** All approaches at this future stop-controlled intersection are expected to operate at LOS “B” or better through 2050.
7. **N. Ukraine Street/E. 7th Place:** All approaches at this future stop-controlled intersection are expected to operate at LOS “A” through 2050.
8. **Rome Street/E. 6th Avenue:** This intersection is currently two-way, stop-sign controlled with stop control on the eastbound and westbound approaches. Due to the poor alignment of the northbound through lane and the existing grade on the eastbound approach, LSC recommends that this intersection be converted to all-way stop-sign control. As an all-way stop-sign controlled intersection all movements are expected to operate at LOS “B” or better through 2050.
9. **N. Tempe Street/E. 6th Avenue:** All approaches at this future stop-controlled intersection are expected to operate at LOS “B” or better through 2050.
13. **N. Tempe Street/E. 7th Place:** All approaches at this stop-controlled intersection are expected to operate at LOS “A” through 2050.
14. **Crossroads Boulevard/E. 10th Place:** This intersection is expected to operate at LOS “A” for all movements in the short-term as a full-movement stop-sign controlled intersection. LSC recommends this intersection be restricted to three-quarter movement (left-in/right-in/right-out only) once Crossroads Boulevard is constructed to its final cross-section. Based on the 2050 total lane geometry, traffic control and volume shown on Figure 11 all movements at this intersection are expected to operate at LOS “B” or better through 2050.
15. **Crossroads Boulevard/E. 8th Avenue:** Only the west half of the ultimate Crossroads Boulevard cross-section is planned to be constructed as part of the currently proposed Horizon Uptown Filing 9. The intersection of Crossroads Boulevard/E. 8th Avenue is expected to operate at a satisfactory level of service as two-way stop-sign controlled intersection in the short-term based on the 2026 lane geometry and traffic volumes shown in Figure 10. By 2050 it was assumed Crossroads Boulevard would be built to its ultimate cross-section with two northbound and southbound through lanes and a raised center median. To maintain an acceptable level of service this intersection will likely need to be converted to traffic signal control by 2050. It is expected to operate at an overall LOS “B” during both peak-hours as signal controlled intersections based on the 2050 lane geometry and traffic volumes shown in Figure 11.
16. **Crossroads Boulevard/E. 7th Place:** This intersection is expected to operate at LOS “A” for all movements in the short-term as a full-movement stop-sign controlled intersection. LSC recommends this intersection be restricted to three-quarter movement (left-in/right-in/right-out only) once Crossroads Boulevard is constructed to its final cross-section. Based on the 2050 total lane geometry, traffic control and volume shown on Figure 11 all movements at this intersection are expected to operate at LOS “B” or better through 2050.
17. **Crossroads Boulevard/E. 6th Avenue:** Only the west half of the ultimate Crossroads Boulevard cross-section is planned to be constructed as part of the currently proposed Horizon Uptown Filing 9. The intersection of Crossroads Boulevard/E. 8th Avenue is expected to operate at a satisfactory level of service as two-way stop-sign controlled intersection

in the short-term based on the 2026 lane geometry and traffic volumes shown in Figure 10. By 2050 it was assumed Crossroads Boulevard would be built to its ultimate cross-section with two northbound and southbound through lanes and a raised center median. To maintain an acceptable level of service this intersection will likely need to be converted to traffic signal control by 2050. It is expected to operate at an overall LOS “B” during both peak-hours as a signal controlled intersection based on the 2050 lane geometry and traffic volumes shown in Figure 11.

95TH PERCENTILE QUEUE LENGTHS

The estimated 2050 95th percentile queue lengths for the study area intersections are shown in Table 5. Table 5 also shows the existing and recommended turn lane lengths based on the NR-B classification criteria in the CDOT *State Highway Access Code* and the projected 95th percentile queue lengths.

RECOMMENDED IMPROVEMENTS

Table 6 and Figures 10 and 11 show the recommended improvements. The recommended turn lane lengths are based on the criteria contained in the CDOT *State Highway Access Code* for the NR-B classification, the projected total traffic volumes shown in Figure 11, and the projected 95th percentile queue lengths shown in Table 5. A design speed of 35 mph was assumed for the collector roads within the study area.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

1. Horizon Uptown Filing 9 is projected to generate about 1,121 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour about 20 vehicles would enter and about 60 vehicles would exit the site. During the afternoon peak-hour about 62 vehicles would enter and about 39 vehicles would exit.

Projected Levels of Service

2. Only the west half of the ultimate Crossroads Boulevard cross-section is planned to be constructed as part of the currently proposed Horizon Uptown Filing 9. The intersections of Crossroads Boulevard/E. 10th Place (#14), Crossroads Boulevard/E. 8th Avenue (#15), Crossroads Boulevard/E. 7th Place (#16), and Crossroads Boulevard/E. 6th Avenue (#17) are expected to operate at satisfactory levels of service as two-way stop-sign controlled intersections based on the 2026 lane geometry and traffic volumes shown in Figure 10. By 2050 it was assumed Crossroads Boulevard would be built to its ultimate cross-section with two northbound and southbound through lanes and a raised center median. To maintain an acceptable level of service, LSC recommends the intersections of Crossroads Boulevard/E. 10th Place (#14) and Crossroads Boulevard/E. 7th Place (#16) be restricted to three-quarter movement (left-in/right-in/right-out only) once Crossroads Boulevard is constructed to its final cross-section. The intersections of Crossroads Boulevard/E. 8th Avenue (#15) and Crossroads Boulevard/E. 6th Avenue (#17) will likely need to be conver-

ted to traffic signal control by 2050. Both intersections are expected to operate at an overall LOS "B" during both peak-hours as signal controlled intersections.

3. Due to the poor alignment of the northbound through lane and the existing grade on the eastbound approach LSC recommends that Intersection #8 (E. 6th Avenue/Rome Street) be converted to all-way stop-sign control. As an all-way stop-sign controlled intersection, all movements are expected to operate at LOS "B" or better through 2050.
4. All of the other study area intersections analyzed are expected to operate at acceptable levels of service through 2050 as stop controlled intersections.

Conclusions

5. The impact of the site can be accommodated by the existing and planned roadway network with the following recommended improvements.

Recommendations

6. The recommended improvements for 2026 and 2050 are shown in Figures 10 and 11 and are detailed in Tables 5 and 6.

* * * * *

We trust our findings will assist you in gaining approval of the proposed Horizon Uptown Filing 9 development. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By



Christopher S. McGranahan, PE
Principal/President



CSM/wc

1-24-25

Enclosures: Tables 1 - 6
Figures 1 - 11
Appendix Table 1
Traffic Counts
Key pages from area traffic studies
Level of Service Definitions
Level of Service Reports
Queuing Reports

Table 1 (Page 1 of 2)
Intersection Levels of Service Analysis
Horizon Uptown Filing 9
Aurora, Colorado
LSC #250030; January, 2025

Intersection Location	Traffic Control	2026 Background Traffic				2026 Total Traffic				2050 Background Traffic				2050 Total Traffic			
		Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay
2) <u>N. Ukraine Street/E. 10th Place</u>	TWSC																
NB Approach		--	--	--	--	A	0.0	A	0.0	A	7.2	A	7.2	A	7.2	A	7.2
EB Approach		--	--	--	--	A	0.0	A	0.0	A	9.0	A	8.6	A	8.9	A	8.7
WB Approach		--	--	--	--	A	0.0	A	0.0	A	9.3	A	9.0	A	9.3	A	9.0
SB Approach		--	--	--	--	--	--	--	--	A	7.2	A	7.2	A	7.2	A	7.2
5) <u>N. Ukraine Street/E. 8th Avenue</u>	TWSC																
NB Approach		A	8.6	A	8.7	A	8.8	A	9.1	B	11.9	B	10.0	B	12.6	B	10.8
EB Approach		A	7.2	A	7.2	A	7.2	A	7.3	A	7.3	A	8.0	A	7.3	A	8.0
WB Approach		A	0.0	A	0.0	A	0.0	A	7.2	A	0.0	A	0.0	A	8.3	A	7.4
SB Approach		A	8.3	A	8.3	A	8.4	A	8.4	B	10.4	B	11.2	B	10.5	B	11.4
7) <u>N. Ukraine Street/E. 7th Place</u>	TWSC																
NB Approach		A	8.8	A	8.6	A	8.9	A	8.9	A	8.9	A	9.0	A	9.0	A	9.1
EB Approach		A	7.2	A	7.2	A	7.2	A	7.2	A	0.0	A	0.0	A	7.2	A	7.3
WB Approach		A	0.0	A	0.0	A	0.0	A	7.2	A	7.2	A	7.3	A	7.3	A	7.3
SB Approach		A	8.6	A	8.6	A	8.6	A	8.7	A	9.2	A	9.4	A	8.9	A	9.2
8) <u>Rome Street/E. 6th Avenue</u>	AWSC																
NB Left		A	8.4	A	8.3	A	8.5	A	8.3	A	8.9	A	8.8	A	8.9	A	8.8
NB Through/Right		A	9.2	A	8.9	A	9.4	A	9.3	B	10.1	A	9.4	B	10.2	A	9.5
EB Approach		A	8.3	A	8.1	A	8.4	A	8.2	A	9.4	A	8.4	A	9.5	A	8.4
WB Approach		A	9.1	A	8.6	A	9.4	A	8.8	A	9.8	B	10.3	B	10.0	B	10.4
SB Approach		A	9.8	A	8.7	A	10.0	A	8.9	B	10.5	A	9.2	B	10.6	A	9.3
Entire Intersection		A	9.4	A	8.7	A	9.6	A	9.0	B	10.0	A	9.6	B	10.2	A	9.7
9) <u>N. Tempe Street/E. 6th Avenue</u>	TWSC																
NB Approach		A	8.6	A	8.8	A	8.7	A	8.9	A	9.8	A	9.7	A	9.9	A	9.7
EB Approach		A	7.3	A	7.3	A	7.3	A	7.3	A	7.3	A	7.7	A	7.3	A	7.7
WB Approach		A	7.2	A	7.3	A	7.2	A	7.3	A	7.6	A	7.3	A	7.6	A	7.3
SB Approach		A	8.4	A	8.4	A	8.5	A	8.5	A	9.5	B	10.1	A	9.4	B	10.1
13) <u>N. Tempe Street/E. 7th Place</u>	TWSC																
NB Approach		A	9.3	A	9.1	A	9.4	A	9.2	A	9.2	A	9.3	A	9.2	A	9.3
EB Approach		A	7.3	A	7.2	A	7.3	A	7.3	A	7.2	A	7.3	A	7.2	A	7.3
WB Approach		A	0.0	A	0.0	A	0.0	A	0.0	A	7.2	A	7.2	A	7.2	A	7.2
SB Approach		A	8.8	A	9.1	A	8.8	A	9.3	A	8.8	A	9.1	A	8.8	A	9.1
14) <u>Crossroads Boulevard/E. 10th Place</u>	TWSC																
NB Left	Three-Quarter Movement	--	--	--	--	--	--	--	--	A	7.8	A	9.4	A	7.8	A	9.5
EB Right		--	--	--	--	--	--	--	--	A	9.0	B	11.0	A	9.0	B	11.0
WB Right		--	--	--	--	--	--	--	--	B	10.2	B	10.1	B	10.3	B	10.1
SB Left		--	--	--	--	--	--	--	--	A	9.8	A	8.1	A	9.8	A	8.1

Table 1 (Page 2 of 2)
Intersection Levels of Service Analysis
Horizon Uptown Filing 9
Aurora, Colorado
LSC #250030; January, 2025

Intersection Location	Traffic Control	2026 Background Traffic				2026 Total Traffic				2050 Background Traffic				2050 Total Traffic			
		Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay
15) <u>Crossroads Boulevard/E. 8th Avenue</u>	TWSC	--	--	--	--	A	0.0	A	7.2	--	--	--	--	--	--	--	--
NB Left/Through		--	--	--	--	A	0.0	A	7.2	--	--	--	--	--	--	--	--
EB Left		--	--	--	--	A	0.0	A	0.0	--	--	--	--	--	--	--	--
EB Right		--	--	--	--	A	8.3	A	8.6	--	--	--	--	--	--	--	--
	Signalized																
EB Left		--	--	--	--	--	--	--	--	C	24.6	C	33.8	C	24.6	C	33.7
EB Through/Right		--	--	--	--	--	--	--	--	D	52.8	D	37.2	D	53.2	D	37.2
EB Approach & Delay		--	--	--	--	--	--	--	--	D	49.0	D	36.1	D	49.0	D	36.0
WB Left		--	--	--	--	--	--	--	--	C	27.7	D	38.9	C	27.7	D	38.9
WB Through		--	--	--	--	--	--	--	--	C	26.9	D	44.4	C	26.9	D	44.4
WB Right		--	--	--	--	--	--	--	--	C	26.7	D	35.2	C	26.7	D	35.2
WB Approach & Delay		--	--	--	--	--	--	--	--	C	27.2	D	40.8	C	27.2	D	40.8
NB Left		--	--	--	--	--	--	--	--	B	12.2	A	7.6	B	12.3	A	7.7
NB Through		--	--	--	--	--	--	--	--	A	2.9	A	0.1	A	3.0	A	0.1
NB Right		--	--	--	--	--	--	--	--	A	3.0	A	0.1	A	3.1	A	0.1
NB Approach & Delay		--	--	--	--	--	--	--	--	A	3.1	A	1.2	A	3.2	A	1.3
SB Left		--	--	--	--	--	--	--	--	B	11.6	A	8.2	B	11.7	A	8.3
SB Through		--	--	--	--	--	--	--	--	B	12.4	B	11.2	B	12.5	B	11.4
SB Right		--	--	--	--	--	--	--	--	B	11.9	A	9.3	B	12.1	A	9.5
SB Approach & Delay		--	--	--	--	--	--	--	--	B	12.1	B	10.9	B	12.2	B	11.1
Entire Intersection Delay (sec /veh)		--	--	--	--	--	--	--	--	18.1		19		18.3		19.0	
Entire Intersection LOS		--	--	--	--	--	--	--	--	B		B		B		B	
16) <u>Crossroads Boulevard/E. 7th Place</u>	TWSC																
NB Left	Three-	--	--	--	--	A	0.0	A	7.2	A	7.7	A	9.8	A	7.7	A	9.9
EB Approach or Right	Quarter	--	--	--	--	A	8.3	A	8.3	A	9.0	B	11.6	A	9.0	B	11.7
WB Right	Movement	--	--	--	--	--	--	--	--	B	11.6	A	9.4	B	11.6	A	9.4
SB Left		--	--	--	--	--	--	--	--	B	11.5	A	8.0	B	11.5	A	8.0
17) <u>Crossroads Boulevard/E. 6th Avenue</u>	Signalized																
EB Left		--	--	--	--	--	--	--	--	D	35.7	D	37.7	D	35.7	D	37.6
EB Through/Right		--	--	--	--	--	--	--	--	D	39.4	D	41.6	D	39.4	D	41.6
EB Approach & Delay		--	--	--	--	--	--	--	--	D	37.4	D	40.2	D	37.4	D	40.1
WB Left		--	--	--	--	--	--	--	--	D	39.4	D	35.6	D	39.4	D	35.6
WB Through/Right		--	--	--	--	--	--	--	--	D	42.2	D	44.2	D	42.2	D	44.2
WB Approach & Delay		--	--	--	--	--	--	--	--	D	41.2	D	40.4	D	41.2	D	40.4
NB Left		--	--	--	--	--	--	--	--	A	5.0	A	5.7	A	5.0	A	5.7
NB Through/Right		--	--	--	--	--	--	--	--	A	6.4	A	5.2	A	6.4	A	5.2
NB Approach & Delay		--	--	--	--	--	--	--	--	A	6.3	A	5.2	A	6.3	A	5.3
SB Left		--	--	--	--	--	--	--	--	A	0.0	A	0.0	A	0.0	A	0.0
SB Through/Right		--	--	--	--	--	--	--	--	A	0.2	A	1.1	A	0.2	A	1.2
SB Approach & Delay		--	--	--	--	--	--	--	--	A	0.2	A	1.1	A	0.2	A	1.2
Entire Intersection Delay (sec /veh)		--	--	--	--	--	--	--	--	10.6		11.6		10.6		11.5	
Entire Intersection LOS		--	--	--	--	--	--	--	--	B		B		B		B	

<p>Table 3</p> <p>Intersection #15 - Crossroads Boulevard/E. 8th Avenue</p> <p>Horizon Uptown Filing No. 9</p> <p>Aurora, CO</p> <p>LSC #250030; January, 2025</p>
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Warrant Analysis ⁽¹⁾																			
Traffic Volume (vph) ⁽²⁾				Warrant 1: Eight Hour Vehicular Volume Evaluation								Warrant 2: Four Hour Vehicular Volume Evaluation			Warrant 3: Peak Hour Vehicular Volume Evaluation				
				Warrant Thresholds				Warrant Threshold Met?				70% Warrant Threshold Minimum	Warrant Threshold Met?		70% Warrant Threshold Minimum	Warrant Threshold Met?			
				Condition A (70%)		Condition B (70%)		Minor EB Leg		Minor WB Leg			Minor EB Leg	Minor WB Leg		Minor EB Leg	Minor WB Leg		
				Major	Minor	Major	Minor	A	B	A	B		Minor EB Leg	Minor WB Leg		Minor EB Leg	Minor WB Leg		
Major NB&SB ⁽³⁾	Minor EB ⁽⁴⁾	Minor WB ⁽⁴⁾																	
2050 Background Traffic																			
6-7 AM	403	149	14	420	140	630	70	No	No	No	No	528	No	No	423	No	No		
7-8 AM	1070	371	42	420	140	630	70	Yes	Yes	No	No	176	Yes	No	129	Yes	No		
8-9 AM	1126	374	44	420	140	630	70	Yes	Yes	No	No	160	Yes	No	115	Yes	No		
9-10 AM	559	177	20	420	140	630	70	Yes	No	No	No	419	No	No	338	No	No		
10-11 AM	544	161	17	420	140	630	70	Yes	No	No	No	429	No	No	346	No	No		
11-12 PM	617	171	19	420	140	630	70	Yes	No	No	No	382	No	No	306	No	No		
12-1 PM	1559	113	791	420	140	630	70	No	Yes	Yes	Yes	115	No	Yes	100	Yes	Yes		
1-2 PM	1411	104	696	420	140	630	70	No	Yes	Yes	Yes	115	No	Yes	100	Yes	Yes		
2-3 PM	1335	100	641	420	140	630	70	No	Yes	Yes	Yes	115	No	Yes	100	Yes	Yes		
3-4 PM	1231	90	567	420	140	630	70	No	Yes	Yes	Yes	136	No	Yes	100	No	Yes		
4-5 PM	1040	83	418	420	140	630	70	No	Yes	Yes	Yes	186	No	Yes	138	No	Yes		
5-6 PM	861	72	312	420	140	630	70	No	Yes	Yes	Yes	254	No	Yes	195	No	Yes		
6-7 PM	496	45	130	420	140	630	70	No	No	No	No	463	No	No	372	No	No		
Numbers of hours the thresholds are met								5	8	6	6	2		6	5				6
Warrant met?								Yes				Yes		Yes		Yes			
2050 Total Traffic																			
6-7 AM	407	153	14	420	140	630	70	No	No	No	No	525	No	No	421	No	No		
7-8 AM	1076	378	42	420	140	630	70	Yes	Yes	No	No	173	Yes	No	127	Yes	No		
8-9 AM	1133	380	44	420	140	630	70	Yes	Yes	No	No	158	Yes	No	113	Yes	No		
9-10 AM	564	180	20	420	140	630	70	Yes	No	No	No	415	No	No	335	No	No		
10-11 AM	549	164	17	420	140	630	70	Yes	No	No	No	426	No	No	343	No	No		
11-12 PM	624	174	19	420	140	630	70	Yes	No	No	No	378	No	No	302	No	No		
12-1 PM	1569	117	791	420	140	630	70	No	Yes	Yes	Yes	115	Yes	Yes	100	Yes	Yes		
1-2 PM	1421	108	696	420	140	630	70	No	Yes	Yes	Yes	115	No	Yes	100	Yes	Yes		
2-3 PM	1346	104	641	420	140	630	70	No	Yes	Yes	Yes	115	No	Yes	100	Yes	Yes		
3-4 PM	1243	94	567	420	140	630	70	No	Yes	Yes	Yes	132	No	Yes	100	No	Yes		
4-5 PM	1054	89	418	420	140	630	70	No	Yes	Yes	Yes	181	No	Yes	134	No	Yes		
5-6 PM	875	78	312	420	140	630	70	No	Yes	Yes	Yes	249	No	Yes	188	No	Yes		
6-7 PM	507	49	130	420	140	630	70	No	No	No	No	455	No	No	366	No	No		
Numbers of hours the thresholds are met								5	8	6	6	3		6	5				6
Warrant met?								Yes				Yes		Yes		Yes			

Notes:

(1) Thresholds are based on 2 or more lanes on the major approach and 2 or more lanes on the minor approach with the 70% factor applied for a posted speed limit above 40 mph

(2) Off peak hour traffic volumes are estimates by LSC based on ITE Vehicle Time of Day Distribution Data

(3) The major street traffic includes all movements (left, through, and right)

(4) The minor street traffic includes left, through, and half of right-turn volumes from the minor street

Source: LSC Transportation Consultants, Inc.

Table 4
Intersection #17 - Crossroads Boulevard/E. 6th Avenue
Horizon Uptown Filing No. 9
Aurora, CO
LSC #250030; January, 2025

Warrant Analysis ⁽¹⁾																			
Traffic Volume (vph) ⁽²⁾				Warrant 1: Eight Hour Vehicular Volume Evaluation								Warrant 2: Four Hour Vehicular Volume Evaluation			Warrant 3: Peak Hour Vehicular Volume Evaluation				
				Warrant Thresholds				Warrant Threshold Met?				70% Warrant Threshold Minimum	Warrant Threshold Met?		70% Warrant Threshold Minimum	Warrant Threshold Met?			
				Condition A (70%)		Condition B (70%)		Minor EB Leg		Minor WB Leg			Minor EB Leg	Minor WB Leg		Minor EB Leg	Minor WB Leg		
Major NB&SB ⁽³⁾	Minor EB ⁽⁴⁾	Minor WB ⁽⁴⁾		Major	Minor	Major	Minor	A	B	A	B								
2050 Background Traffic																			
6-7 AM	452	68	16	420	140	630	70	No	No	No	No	494	No	No	396	No	No	No	
7-8 AM	1149	177	37	420	140	630	70	Yes	Yes	No	No	155	Yes	No	110	Yes	No	No	
8-9 AM	1191	185	38	420	140	630	70	Yes	Yes	No	No	147	Yes	No	102	Yes	No	No	
9-10 AM	606	88	17	420	140	630	70	No	No	No	No	387	No	No	312	No	No	No	
10-11 AM	593	82	15	420	140	630	70	No	No	No	No	395	No	No	319	No	No	No	
11-12 PM	668	90	17	420	140	630	70	No	Yes	No	No	356	No	No	278	No	No	No	
12-1 PM	1709	61	564	420	140	630	70	No	No	Yes	Yes	115	No	Yes	100	No	Yes	Yes	
1-2 PM	1546	58	497	420	140	630	70	No	No	Yes	Yes	115	No	Yes	100	No	Yes	Yes	
2-3 PM	1461	56	459	420	140	630	70	No	No	Yes	Yes	115	No	Yes	100	No	Yes	Yes	
3-4 PM	1345	53	406	420	140	630	70	No	No	Yes	Yes	115	No	Yes	100	No	Yes	Yes	
4-5 PM	1133	52	302	420	140	630	70	No	No	Yes	Yes	158	No	Yes	113	No	Yes	Yes	
5-6 PM	937	46	227	420	140	630	70	No	No	Yes	Yes	225	No	Yes	166	No	Yes	Yes	
6-7 PM	535	31	97	420	140	630	70	No	No	No	No	436	No	No	351	No	No	No	
Numbers of hours the thresholds are are met								2	3	6	6			2	6			2	6
Warrant met?								No						Yes				Yes	
2050 Total Traffic																			
6-7 AM	461	68	16	420	140	630	70	No	No	No	No	487	No	No	391	No	No	No	
7-8 AM	1164	178	37	420	140	630	70	Yes	Yes	No	No	152	Yes	No	107	Yes	No	No	
8-9 AM	1205	186	38	420	140	630	70	Yes	Yes	No	No	144	Yes	No	100	Yes	No	No	
9-10 AM	616	88	17	420	140	630	70	No	No	No	No	382	No	No	306	No	No	No	
10-11 AM	604	82	15	420	140	630	70	No	No	No	No	388	No	No	313	No	No	No	
11-12 PM	680	91	17	420	140	630	70	No	Yes	No	No	350	No	No	271	No	No	No	
12-1 PM	1725	62	564	420	140	630	70	No	No	Yes	Yes	115	No	Yes	100	No	Yes	Yes	
1-2 PM	1562	58	497	420	140	630	70	No	No	Yes	Yes	115	No	Yes	100	No	Yes	Yes	
2-3 PM	1481	57	459	420	140	630	70	No	No	Yes	Yes	115	No	Yes	100	No	Yes	Yes	
3-4 PM	1365	55	406	420	140	630	70	No	No	Yes	Yes	115	No	Yes	100	No	Yes	Yes	
4-5 PM	1158	53	302	420	140	630	70	No	No	Yes	Yes	153	No	Yes	108	No	Yes	Yes	
5-6 PM	961	47	227	420	140	630	70	No	No	Yes	Yes	216	No	Yes	160	No	Yes	Yes	
6-7 PM	556	31	97	420	140	630	70	No	No	No	No	421	No	No	339	No	No	No	
Numbers of hours the thresholds are are met								2	3	6	6			2	6			2	6
Warrant met?								No						Yes				Yes	

Notes:

- (1) Thresholds are based on 2 or more lanes on the major approach and 2 or more lanes on the minor approach with the 70% factor applied for a posted speed limit above 40 mph
- (2) Off peak hour traffic volumes are estimates by LSC based on ITE Vehicle Time of Day Distribution Data
- (3) The major street traffic includes all movements (left, through, and right)
- (4) The minor street traffic includes left, through, and half of right-turn volumes from the minor street

Source: LSC Transportation Consultants, Inc.

Table 5 (Page 1 of 2)
95th Percentile Queue Lengths
Horizon Uptown Filing 9
Aurora, Colorado
LSC #250030; January, 2025

Intersection No. & Location	Existing Lane Lengths (feet)	Proposed Lane Lengths (feet)	95th Percentile Queue Length 2050 Total Traffic	
			AM Peak (feet)	PM Peak (feet)
2) <u>N. Ukraine Street/E. 10th Place</u>				
NB Approach	---	---	<25	75
EB Approach	---	---	<25	50
WB Approach	---	---	<25	50
SB Approach	---	---	<25	50
5) <u>N. Ukraine Street/E. 8th Avenue</u>				
NB Approach	---	---	<25	75
EB Approach	---	---	<25	50
WB Approach	---	---	<25	50
SB Approach	---	---	<25	50
7) <u>N. Ukraine Street/E. 7th Place</u>				
NB Approach	---	---	<25	75
EB Approach	---	---	<25	50
WB Approach	---	---	<25	50
SB Approach	---	---	<25	50
8) <u>Rome Street/E. 6th Avenue</u>				
NB Left	70	---	<25	75
NB Through/Right	---	---	33	75
EB Approach	---	---	<25	75
WB Approach	---	---	<25	75
SB Approach	---	---	0	75
9) <u>N. Tempe Street/E. 6th Avenue</u>				
NB Approach	---	---	<25	75
EB Approach	---	---	<25	50
WB Approach	---	---	<25	50
SB Approach	---	---	<25	50
13) <u>N. Tempe Street/E. 7th Place</u>				
NB Approach	---	---	<25	75
EB Approach	---	---	<25	50
WB Approach	---	---	<25	50
SB Approach	---	---	<25	50

m = metered by upstream traffic signals.

Table 5 (Page 2 of 2)
95th Percentile Queue Lengths
Horizon Uptown Filing 9
Aurora, Colorado
LSC #250030; January, 2025

Intersection No. & Location	Existing Lane Lengths (feet)	Proposed Lane Lengths (feet)	95th Percentile Queue Length	
			2050 Total Traffic	
			AM Peak (feet)	PM Peak (feet)
14) <u>Crossroads Boulevard/E. 10th Place</u>				
NB Left	---	190	<25	75
EB Right	---	---	<25	50
WB Right	---	---	<25	50
SB Left	---	190	<25	50
15) <u>Crossroads Boulevard/E. 8th Avenue</u>				
EB Left ⁽¹⁾	---	75	52	36
EB Through/Right	---	---	354	53
WB Left ⁽¹⁾	---	190	19	132
WB Through	---	---	30	189
WB Right ⁽¹⁾	---	190	0	9
NB Left	---	190	m9	26
NB Through	---	---	124	50
NB Right	---	190	15	0
SB Left	---	190	45	10
SB Through	---	---	48	184
SB Right	---	190	0	7
16) <u>Crossroads Boulevard/E. 7th Place</u>				
NB Left	---	190	<25	75
EB Approach or Right	---	---	<25	50
WB Right	---	---	<25	50
SB Left	---	190	<25	50
17) <u>Crossroads Boulevard/E. 6th Avenue</u>				
EB Left	---	190	94	27
EB Through/Right	---	---	81	36
WB Left	---	190	20	104
WB Through/Right	---	---	37	156
NB Left	---	190	14	20
NB Through/Right	---	---	190	69
SB Left	---	190	0	0
SB Through/Right	---	---	m38	210

m = metered by upstream traffic signals.

- (1) The need for the eastbound and westbound auxiliary lanes at Crossroads Boulevard/E. 8th Avenue is based on the trip generation estimates for land uses east of Crossroads Boulevard shown in the *Horizon Uptown Master Traffic Study* by Matrix Design Group January 7, 2018. If the density in this area is reduced in a future master plan update these lanes may not be needed.

Table 6
Recommended Improvements to Public Street Network
Horizon Uptown Filing No. 9
Aurora, CO
LSC #250030; January, 2025

Inter-
section

No.	Intersection Location	Recommended Improvements ⁽¹⁾	Timing	Responsibility
#2	E. 10th Place/N. Ukraine Street	Construct west and south legs as single lane approaches	With Horizon Uptown Fil. 7	Horizon Uptown
		Construct east leg as a single lane approach	With Horizon Uptown Fil. 9	Horizon Uptown
		Construct north leg as a single lane approach	With future Horizon Uptown Filings	Horizon Uptown
#5	E. 8th Avenue/N. Ukraine Street	Construct intersection as a two-way, stop-sign controlled with single lane approaches on all legs	With Horizon Uptown Fil. 7	Horizon Uptown
#7	E. 7th Place/N. Ukraine Street	Construct intersection as a two-way, stop-sign controlled with single lane approaches on all legs	With Horizon Uptown Fil. 7	Horizon Uptown
#8	E. 6th Place/Rome Street	Convert to all-way, stop-sign control	With Horizon Uptown Fil. 7	Horizon Uptown
#9	E. 7th Place/N. Ukraine Street	Construct west, east and north legs as single lane approaches	With Horizon Uptown Fil. 7	Horizon Uptown
		Construct south leg as a single lane approach	With adjacent Aurora One Filings	Aurora One
#13	E. 7th Place/N. Tempe Street	No improvements anticipated		
#14	Crossroads Boulevard/E. 10th Place	Construct west half of Crossroads Boulevard between E. 8th Avenue and E. 10th Place	With Horizon Uptown Fil. 9	Horizon Uptown
		Construct west leg of E. 10th Place	With Horizon Uptown Fil. 9	Horizon Uptown
		Restrict west leg to three-quarter movement access (left-in/right-in/right-out only)	With future Horizon Uptown Filings	Horizon Uptown
		Construct east leg (restricted to three-quarter movement access)	With future Horizon Uptown Filings	Horizon Uptown
		Construct east half of Crossroads Boulevard between E. 8th Avenue and E. 10th Place	With future Horizon Uptown Filings	Horizon Uptown
		NB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		NB RT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		SB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
#15	Crossroads Boulevard/E. 8th Avenue	Construct west half of Crossroads Boulevard between E. 7th Place and E. 8th Avenue	With Horizon Uptown Fil. 9	Horizon Uptown
		SB RT - construct lane 1 @ 190 feet and 120-foot transition taper	With Horizon Uptown Fil. 9	Horizon Uptown
		EB LT ⁽²⁾ - construct lane 1 @ 75 feet and 75-foot transition taper	With Horizon Uptown Fil. 9	Horizon Uptown
		Construct east half of Crossroads Boulevard between E. 7th Place and E. 8th Avenue	With future Horizon Uptown Filings	Horizon Uptown
		NB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		NB RT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		SB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		WB LT ⁽²⁾ - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		WB RT ⁽²⁾ - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		Traffic signalization when warranted	With future Horizon Uptown Filings	Horizon Uptown
#16	Crossroads Boulevard/E. 7th Place	Construct west half of Crossroads Boulevard between E. 6th Avenue and E. 7th Place	With Horizon Uptown Fil. 9	Horizon Uptown
		SB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With Horizon Uptown Fil. 9	Horizon Uptown
		Construct west leg of E. 7th Place	With Horizon Uptown Fil. 9	Horizon Uptown
		Restrict west leg to three-quarter movement access (left-in/right-in/right-out only)	With future Horizon Uptown Filings	Horizon Uptown
		Construct east half of Crossroads Boulevard between E. 6th Avenue and E. 7th Place	With future Horizon Uptown Filings	Horizon Uptown
		NB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		NB RT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Horizon Uptown Filings	Horizon Uptown
		Construct east leg (restricted to three-quarter movement access)	With future Horizon Uptown Filings	Horizon Uptown
#17	Crossroads Boulevard/E. 6th Avenue	EB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Aurora One Filings	Aurora One
		NB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Aurora One Filings	Aurora One
		SB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With Horizon Uptown Fil. 9	Horizon Uptown
		WB LT - construct lane 1 @ 190 feet and 120-foot transition taper	With future Aurora One Filings	Aurora One
		Traffic signalization when warranted	With future Horizon Uptown and/or Aurora One Filings	Horizon Uptown/Aurora One

(1) A transition taper of 10:1 was used for all Collectors based on a posted speed limit of 35 mph (120 feet).

An appropriate redirect taper for 35 mph is 20:1

(2) The need for the eastbound and westbound auxiliary lanes at Crossroads Boulevard/E. 8th Avenue is based on the trip generation estimates for land uses east of Crossroads Boulevard shown in the Horizon Uptown Master Traffic Study by Matrix Design Group January 7, 2018. If the density in this area is reduced in a future master plan update these lanes may not be needed.

Appendix Table 1
Horizon Uptown Land Use Comparison
Horizon Uptown Filing No. 9
Aurora, CO
LSC #240020; January, 2025

Existing, Approved or Currently Proposed Land Uses					Land Uses Assumed in Horizon Uptown Master Traffic		Change in Dwelling Units
Planning Area	Filing	Status	Land Use Description	Dwelling Units	Land Use Description	Dwelling Units	
14	Filing No. 1	Existing	Single Family Detached Housing	46 DU ⁽¹⁾	Single Family Detached Housing	110 DU	-68 DU
			Townhomes	32 DU	Multi-Family Housing (Low-Rise)	94 DU	
	Filing No. 6	Approved	Duplex	74 DU	Multi-Family Housing (Mid-Rise)	105 DU	
15 ⁽³⁾			Single Family Detached Housing	89 DU			84 DU
	Filing No. 1	Existing	Multifamily Housing	246 DU	Single Family Detached Housing	112	
	Filing No. 2	Existing	Single Family Detached Housing	40 DU	Multi-Family Housing (Low-Rise)	95	
			Townhomes	28 DU	Multi-Family Housing (Mid-Rise)	106	
16			Multifamily Housing	83 DU			-87 DU
	Filing No. 5	Under Construction	Duplex	82 DU	Single Family Detached Housing	95 DU	
			Single Family Detached Housing	66 DU	Multi-Family Housing (Low-Rise)	105 DU	
	Filing No. 9	Currently Proposed	Duplex	22 DU	Multi-Family Housing (Mid-Rise)	72 DU	
17			Single Family Detached Housing	15 DU			-64 DU
	Filing No. 3	Under Construction	Townhome	109 DU	Single Family Detached Housing	118	
			Duplex	94 DU	Multi-Family Housing (Low-Rise)	132	
	Filing No. 7	Under Separate Reivew	Duplex	12 DU	Multi-Family Housing (Mid-Rise)	90	
			Single Family Detached Housing	22 DU			
18			Duplex	20 DU			-100 DU
	Filing No. 9	Currently Proposed	Single Family Detached Housing	19 DU			
	Filing No. 7	Under Separate Reivew	Duplex	42 DU	Single Family Detached Housing	85 DU	
			Single Family Detached Housing	41 DU	Single Family Attached Housing	94 DU	
Total PA-14, PA-15 ⁽³⁾ , PA-16, PA-17 & PA-18				1,242 DU		1,477 DU	-235 DU

Notes:

(1) Source: *Horizon Uptown Master Traffic Study* by Matrix 11-2-2018

(2) DU = Dwelling Unit

(3) Residential portion of PA-15 Only



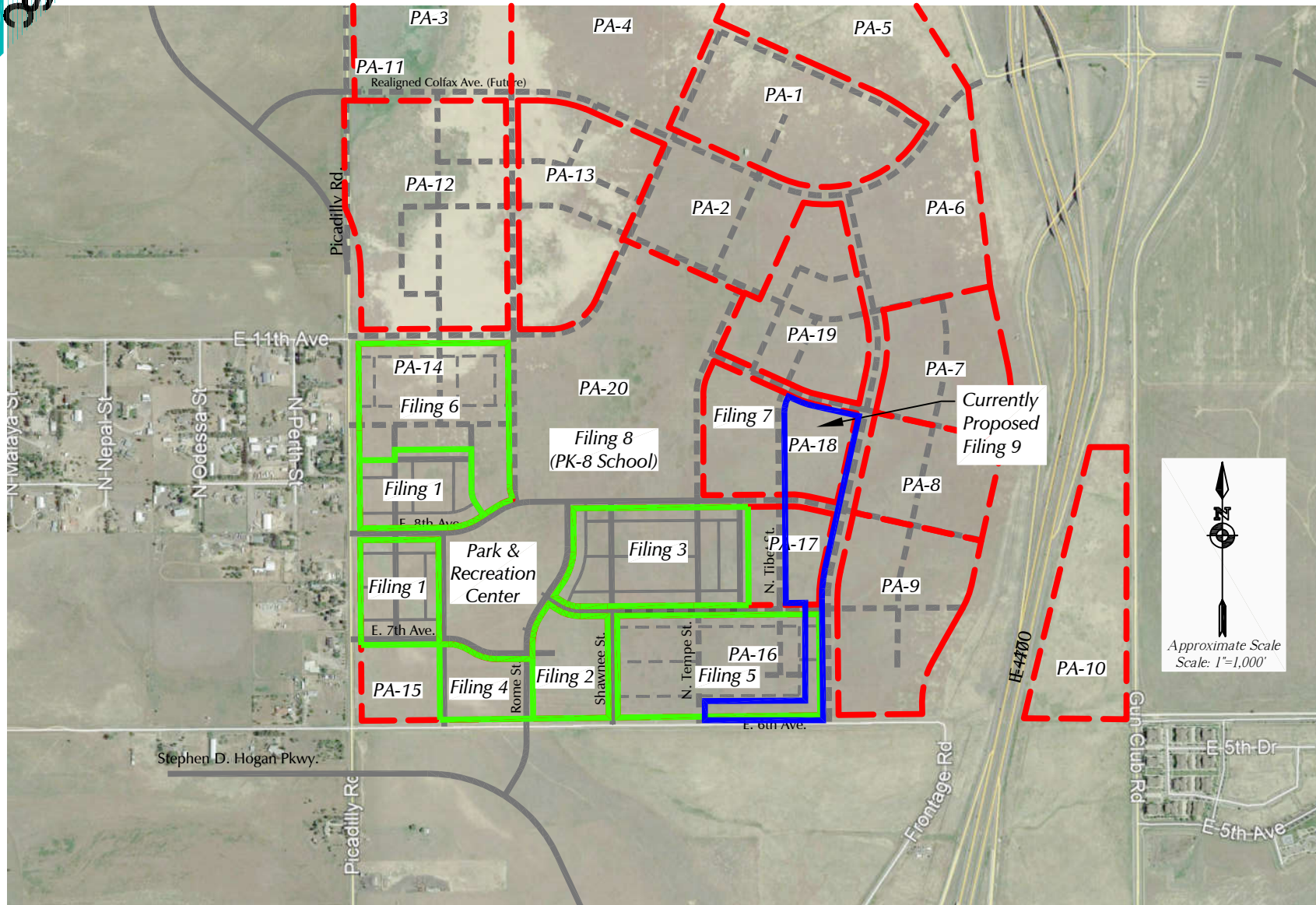


Figure 2

Planning Areas

Horizon Uptown Filing 9 (LSC #250030)



Approximate Scale
Scale: NTS

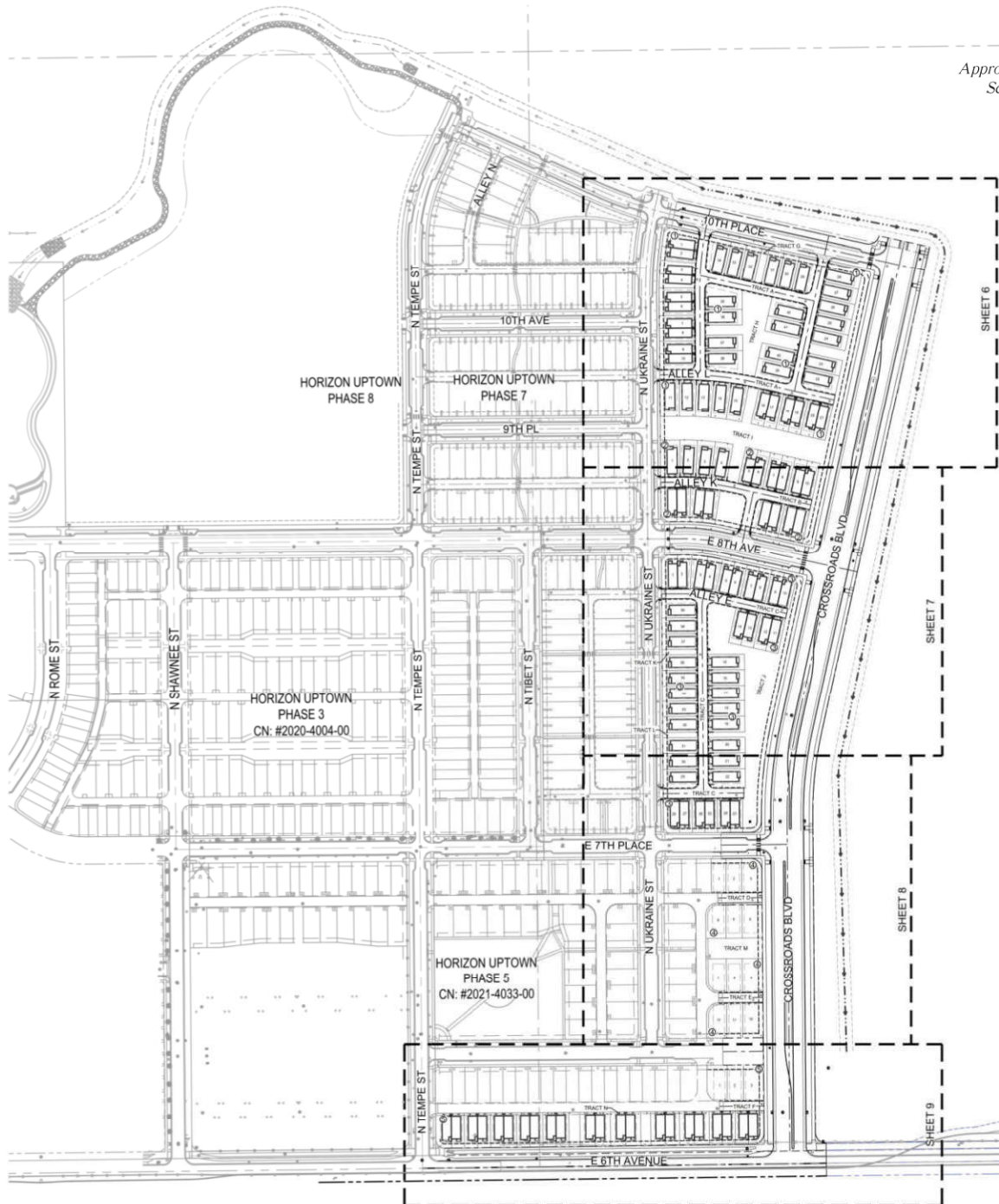


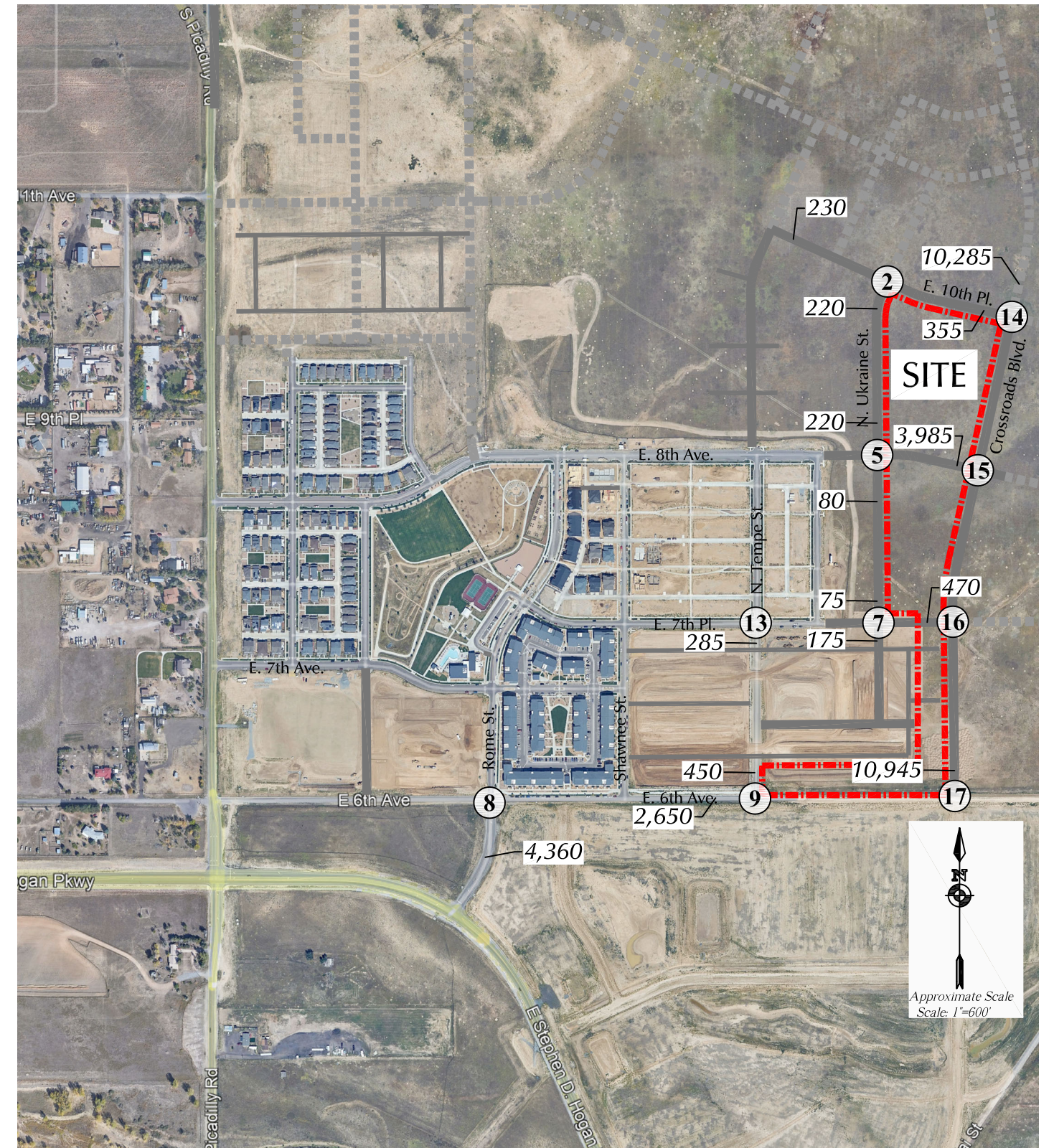
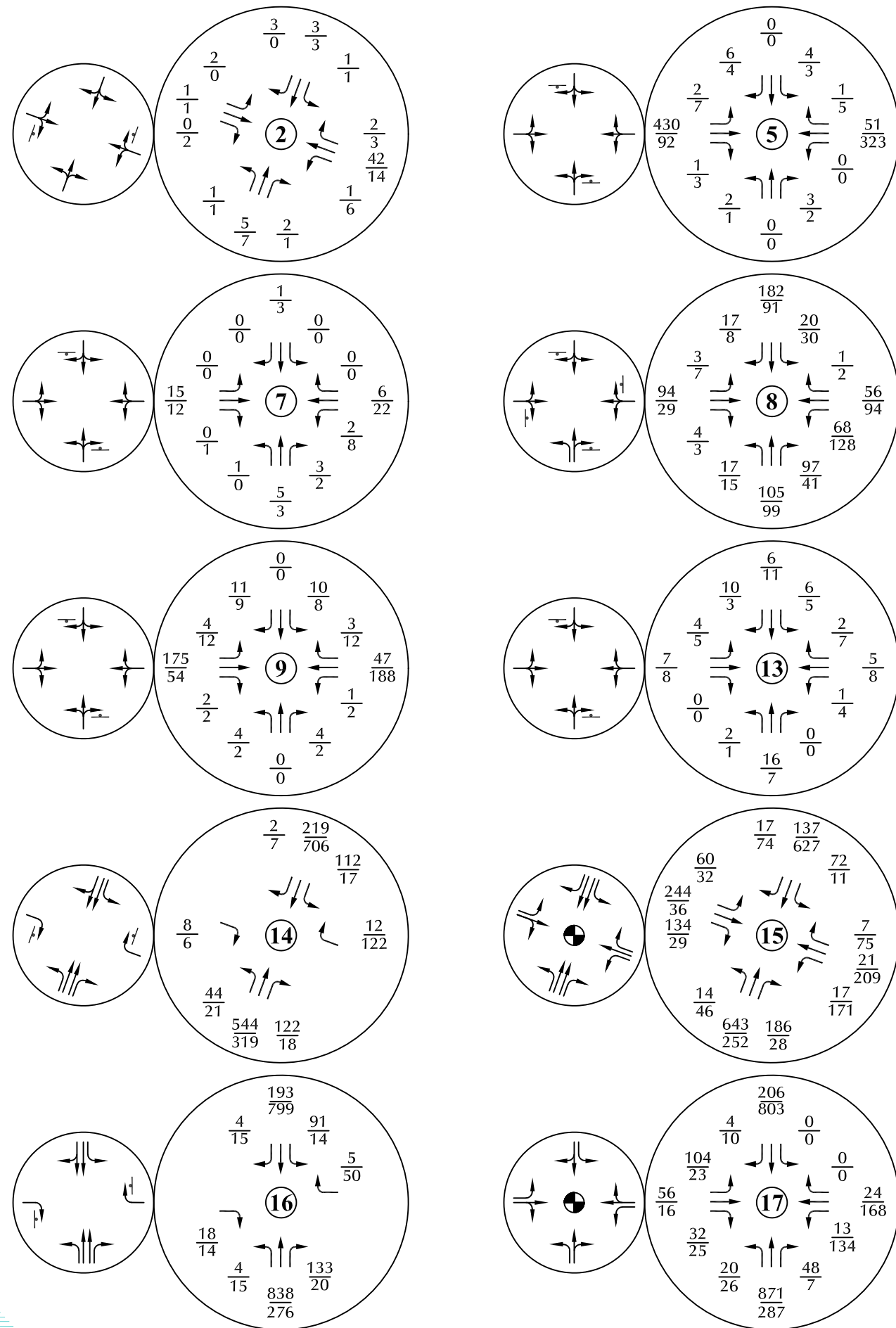
Figure 3

Site Plan

Horizon Uptown Filing 9 (LSC #250030)



Figure 5



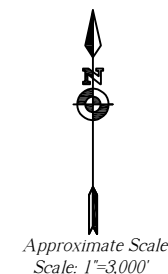
LEGEND:

- = Stop Sign
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

Figure 6

Year 2050 Background Traffic, Lane Geometry and Traffic Control

Horizon Uptown Filing 9 (LSC #250030)



LEGEND:

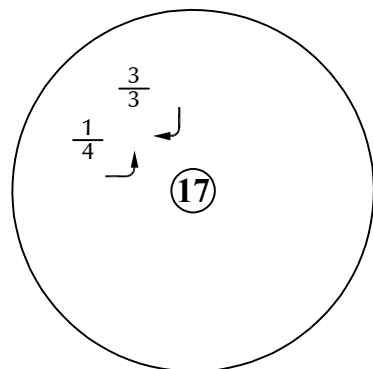
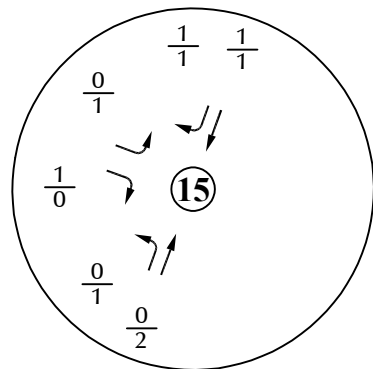
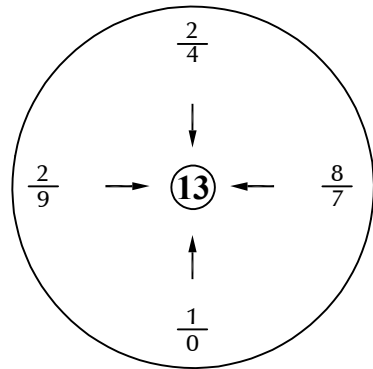
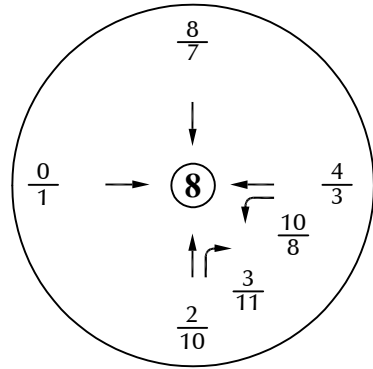
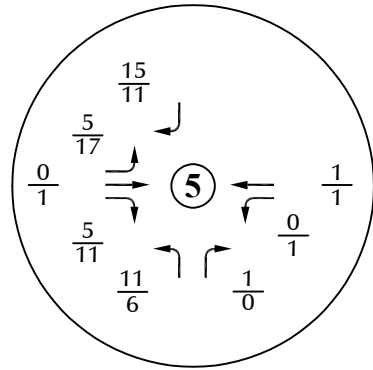
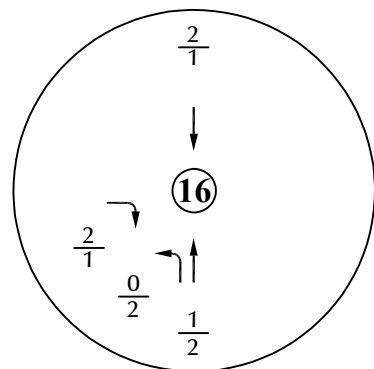
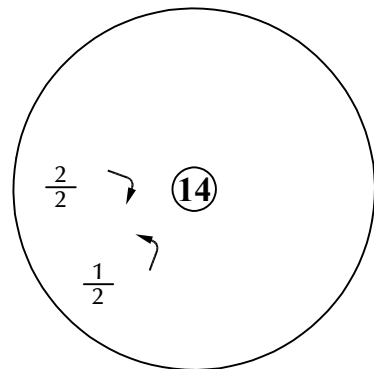
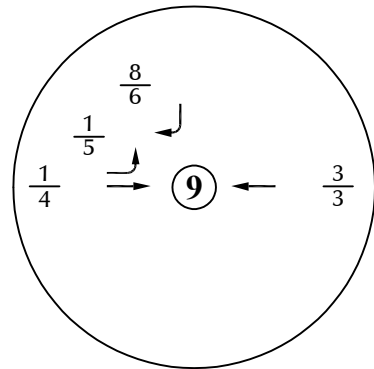
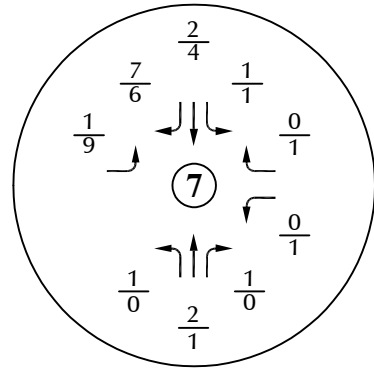
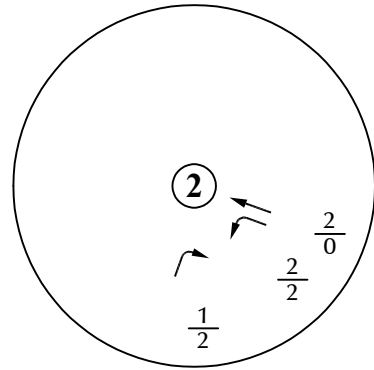
$\frac{5\%}{5\%}$ = $\frac{2026 \text{ Percent Directional Distribution}}{2050 \text{ Percent Directional Distribution}}$

* The directional distribution estimates are for site-generated traffic external to the Horizon Uptown development only. School related trips have been assigned separately based on the location of the Horizon Uptown PK-8 school access points.

*Directional Distribution of Site-Generated Traffic**

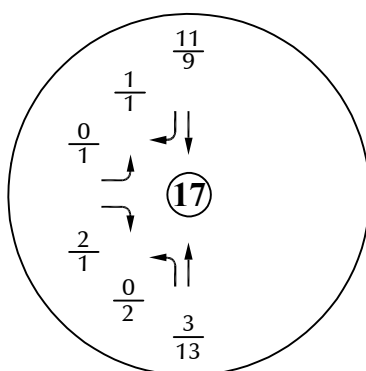
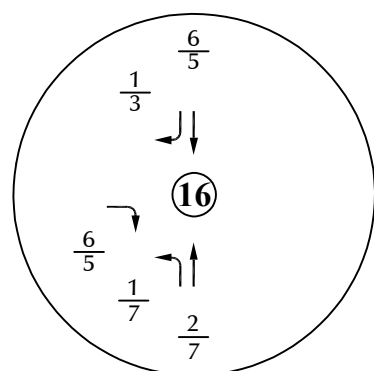
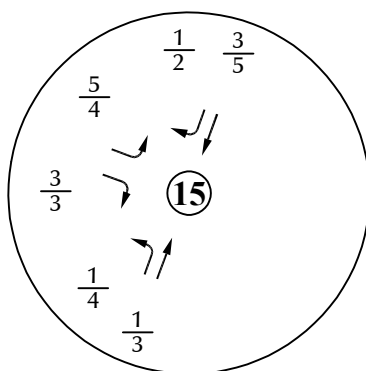
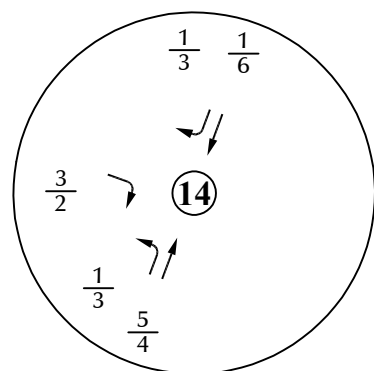
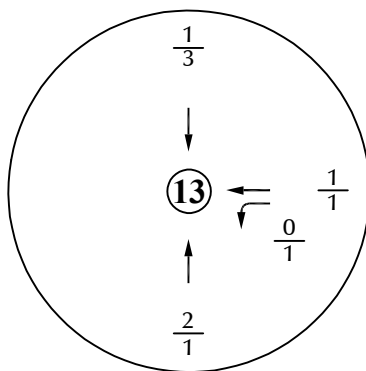
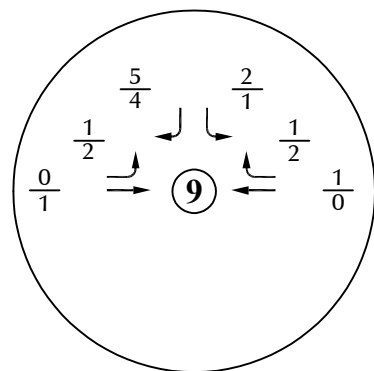
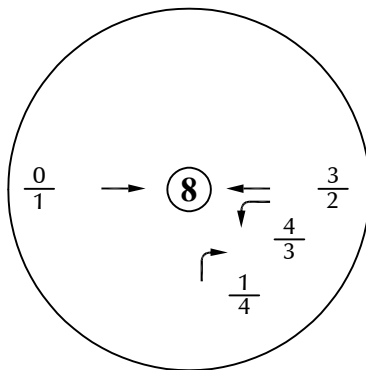
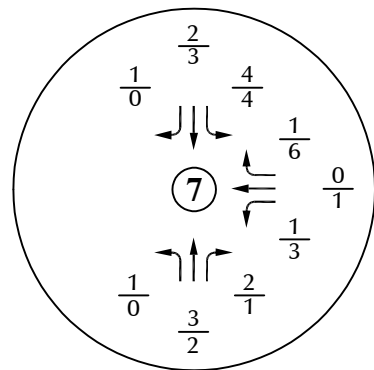
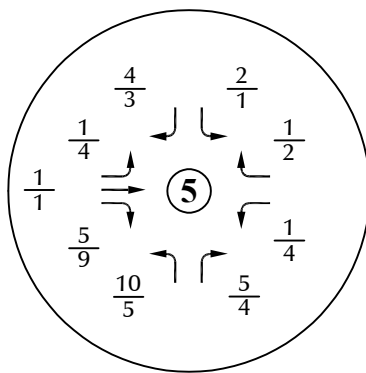
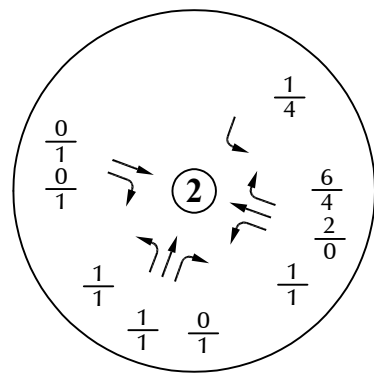
Horizon Uptown Filing 9 (LSC #250030)

Figure 7



LEGEND:
 $\frac{26}{35}$ = AM Peak Hour Traffic
 $\frac{35}{1,000}$ = PM Peak Hour Traffic
 1,000 = Average Daily Traffic

Figure 8
**Year 2026 Assignment
 of Site-Generated Traffic**
 Horizon Uptown Filing 9 (LSC #250030)



LEGEND:

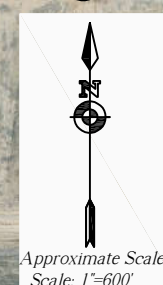
$$\frac{26}{35} = \frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$$

$$1,000 = \text{Average Daily Traffic}$$

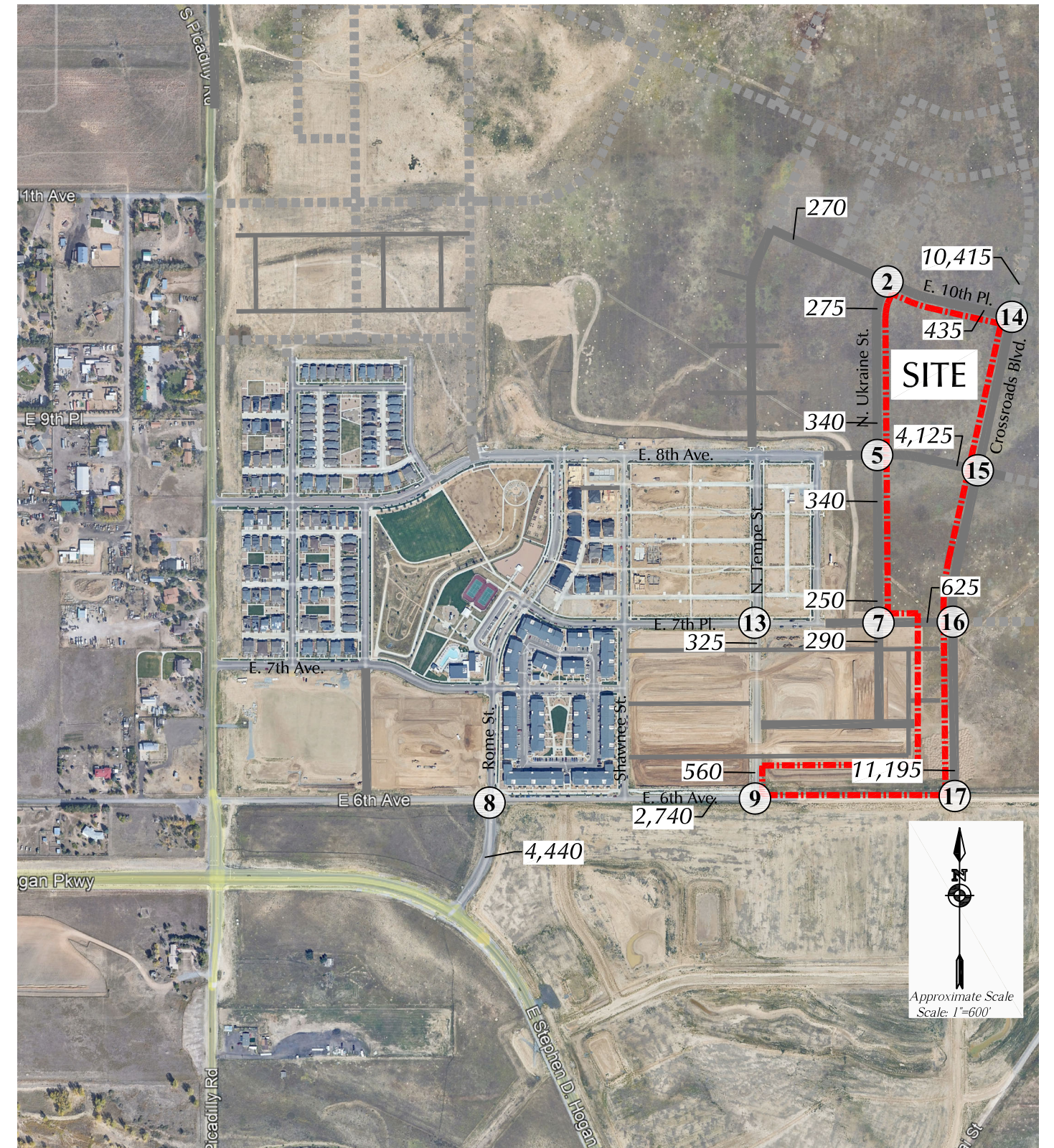
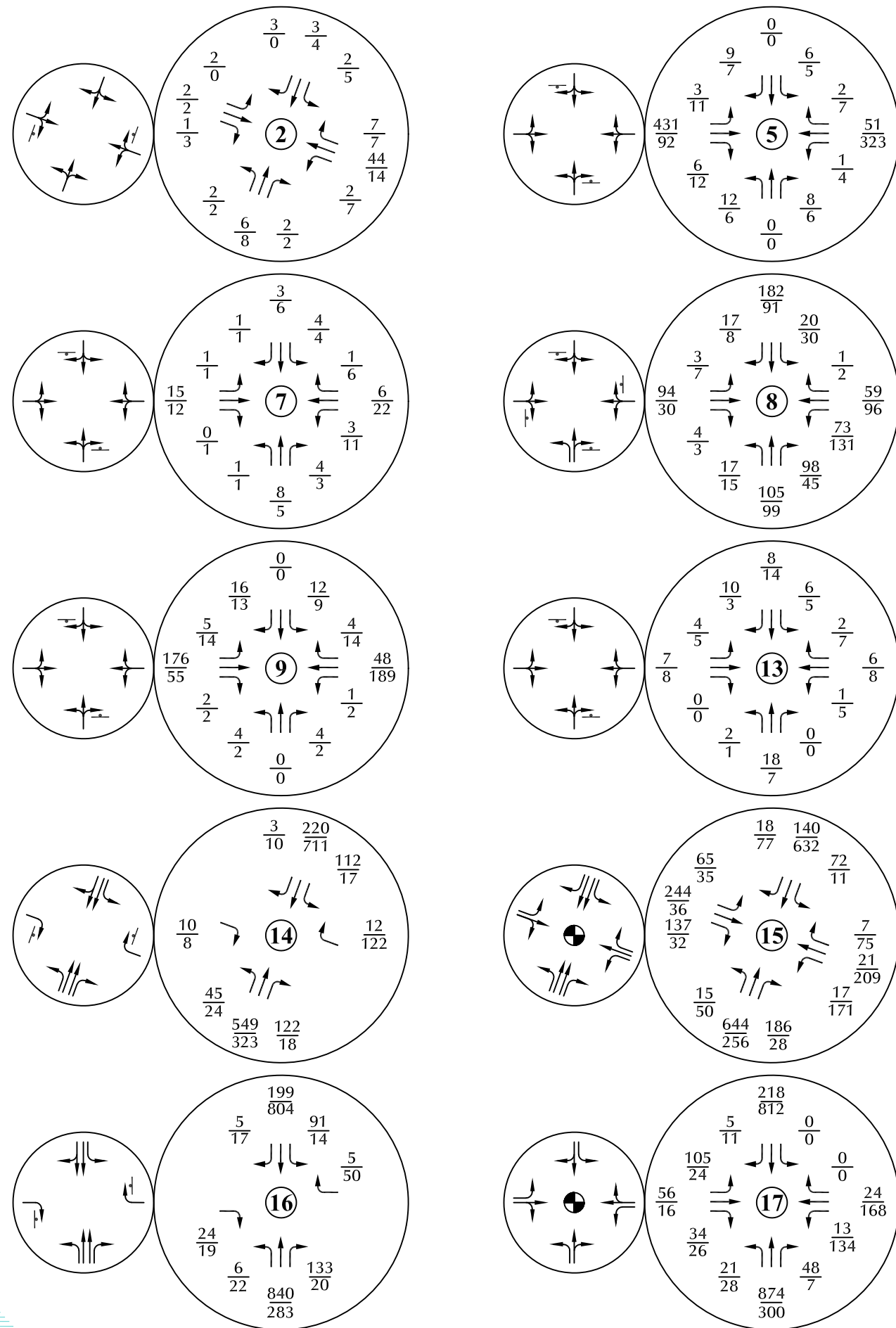
Figure 9

Year 2050 Assignment of Site-Generated Traffic

Horizon Uptown Filing 9 (LSC #250030)



*Year 2026 Total Traffic,
Lane Geometry and Traffic Control*



LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

Figure 11

Year 2050 Total Traffic, Lane Geometry and Traffic Control

Horizon Uptown Filing 9 (LSC #250030)

HORIZON UPTOWN FILING 7
 Location: ROME ST N-O SDH PKWY
 City: AURORA
 County: ARAPAHOE
 Direction: NORTH/SOUTH



Site Code: 2320304
 Station ID: 2320304
 Start Date: 10022023 10/2/2023
 End Date: 10052023 10/5/2023
 Latitude: 0.000000
 Longitude: 0.000000

10/2/2023 Time	NORTH	SOUTH	Total
12:00 AM	0	0	0
1:00	0	0	0
2:00	0	0	0
3:00	0	0	0
4:00	0	0	0
5:00	0	0	0
6:00	0	0	0
7:00	0	0	0
8:00	0	0	0
9:00	0	0	0
10:00	26	29	55
11:00	28	14	42
12:00 PM	23	17	40
1:00	26	25	51
2:00	16	24	40
3:00	19	28	47
4:00	27	37	64
5:00	38	41	79
6:00	44	46	90
7:00	25	23	48
8:00	21	18	39
9:00	17	14	31
10:00	11	11	22
11:00	9	3	12
Total	330	330	660
Percent	50.0%	50.0%	
AM Peak	11:00	10:00	10:00
Volume	28	29	55
PM Peak	6:00	6:00	6:00
Volume	44	46	90

HORIZON UPTOWN FILING 7
 Location: ROME ST N-O SDH PKWY
 City: AURORA
 County: ARAPAHOE
 Direction: NORTH/SOUTH



Site Code: 2320304
 Station ID: 2320304
 Start Date: 10022023 10/2/2023
 End Date: 10052023 10/5/2023
 Latitude: 0.000000
 Longitude: 0.000000

10/3/2023 Time	NORTH	SOUTH	Total
12:00 AM	1	1	2
1:00	1	1	2
2:00	2	0	2
3:00	4	2	6
4:00	11	3	14
5:00	18	11	29
6:00	26	18	44
7:00	42	33	75
8:00	82	57	139
9:00	51	35	86
10:00	32	24	56
11:00	24	18	42
12:00 PM	23	17	40
1:00	25	19	44
2:00	18	20	38
3:00	21	21	42
4:00	28	27	55
5:00	34	33	67
6:00	36	44	80
7:00	21	23	44
8:00	17	15	32
9:00	14	8	22
10:00	12	7	19
11:00	8	4	12
Total	551	441	992
Percent	55.5%	44.5%	
AM Peak	8:00	8:00	8:00
Volume	82	57	139
PM Peak	6:00	6:00	6:00
Volume	36	44	80

HORIZON UPTOWN FILING 7
 Location: ROME ST N-O SDH PKWY
 City: AURORA
 County: ARAPAHOE
 Direction: NORTH/SOUTH



Site Code: 2320304
 Station ID: 2320304
 Start Date: 10022023 10/2/2023
 End Date: 10052023 10/5/2023
 Latitude: 0.000000
 Longitude: 0.000000

10/4/2023 Time	NORTH	SOUTH	Total
12:00 AM	5	3	8
1:00	2	2	4
2:00	1	1	2
3:00	0	0	0
4:00	0	1	1
5:00	10	5	15
6:00	23	18	41
7:00	48	29	77
8:00	91	64	155
9:00	56	37	93
10:00	29	27	56
11:00	27	16	43
12:00 PM	25	15	40
1:00	26	22	48
2:00	16	21	37
3:00	19	24	43
4:00	24	32	56
5:00	38	37	75
6:00	42	47	89
7:00	27	22	49
8:00	21	18	39
9:00	17	10	27
10:00	11	8	19
11:00	9	3	12
Total	567	462	1029
Percent	55.1%	44.9%	
AM Peak	8:00	8:00	8:00
Volume	91	64	155
PM Peak	6:00	6:00	6:00
Volume	42	47	89
Grand Total	1448	1233	2681
Percent	54.0%	46.0%	
ADT		ADT: 894	AADT: 894

**Responses by
Christopher
McGranahan, PE, PTOE
LSC Transportation
Consultants, Inc.
April 24, 2020**



January 31, 2020

Mr. Jason Margraf
Dewberry J3
8100 E. Maplewood St
Greenwood Village, CO

Dear Mr. Margraf:

In response to your request for a specific traffic impact analysis shown on Figure 1, the east and north of Stephen I

REPORT CONTENTS

The report contains the traffic analysis of the site including the 1 week peak-hour traffic volume and weekday site-generated

Master plan considers 340 DU for this planning area, less than proposed 203 DU. Remaining for this planning area = 137 DU. Noted

The Filing No. 3 site is a duplex dwelling units. site plan in Figure 2.

ROADWAY AND TRAFFIC

Area Roadways

The major roadways in

Review Comments 2020-02-28

1) Traffic impact study assumptions should cite and agree with assumptions made in the 1/7/2018 Horizon Uptown Master Traffic Study.

The updated TIS includes an Appendix section that identifies some of the assumptions that were made. Changes to the directional distribution estimates were necessary based on the expanded study area of the traffic impact study.

2) Background 2021/2040 trips: specify which filings are included in these estimates and include approved trip generation totals for those filings.

The 2021 background traffic volumes shown in this report are based on the existing traffic volumes shown in Figure 3 with a 6.1 percent annual growth rate applied plus the traffic projected to be generated by Horizon Uptown Filing 1 and Stafford Logistics buildings 1 and 2.

The 2040 traffic volumes assume buildout of the Horizon Uptown Master Plan and Stafford Logistics. The updated TIA includes an appendix table summarizing the land uses assumed for the adjacent Aurora One parcel.

3) Background trips do not match TIAs from previously accepted filings.

The Horizon Uptown Filing 1 TIA and Stafford Logistics Center TIA were conducted prior to the opening of Stephen D Hogan Parkway. The short-term background traffic volumes were therefore based on projections shown in the 6th Avenue Extension TIS. Since completion of those reports Hogan Parkway has been completed. The short-term traffic volumes shown in this report are based on the existing traffic counts. Further differences in the short-term background trips are due to refinements in the projected trip generation and distribution of Horizon Uptown Filing 1 TIA.

4) Directional Distribution: Which model was used to derive distributions of future 2040 regional population/employment and activity centers?

The long-term assignment is for 2040 and assumes full buildout of the street network within the Horizon Master Plan area and the realignment of Picadilly Road in the vicinity of Colfax Avenue. Changes to the directional distribution estimates were necessary based on the expanded study area.

5) Clarify the intent of using different trip assignments for short- and long-term. What analysis years are implied?

The short-term assignment is for 2021 and assumes a limited street network within Horizon Uptown with only those street sections shown in Figure 2 assumed to be constructed. The short-term assignment also assumes the existing alignment of Picadilly Road and the frontage road in the vicinity of Colfax Road.

6) Address CDOT comments dated 2/16/2020

The updated study includes recommendations for interim improvements at #2 and #3.

7) Analyze 8th & Road A as a roundabout. Does it warrant an all-way stop condition?

The previous TIA assumed the proposed school would be a private school. The background trip generation estimates were revised in the update TIA to a public school. The reduction in trip generation and a change to the assumed site access points resulted in 8th/Road A operating at a satisfactory level of service as a TWSC intersection.

8) For signal timings, anticipate 120 sec minimum for 4-leg intersection. 90 sec for 3 leg minimum

The traffic signal timing plans have been updated as requested



LSC TRANSPORTATION CONSULTANTS, INC.

1889 York Street
Denver, CO 80206
(303) 333-1105
FAX (303) 333-1107
E-mail: lsc@lscdenver.com

August 3, 2020

Mr. Jason Margraf
Dewberry J3
8100 E. Maplewood Street, Suite 150
Greenwood Village, CO 80111

Re: Horizon Uptown
Filing No. 3
Aurora, CO
LSC #191100

Dear Mr. Margraf:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated site-specific traffic impact analysis for the proposed Horizon Uptown Filing No. 3 development to address City comments. As shown on Figure 1, the site is located south of the I-70 Frontage Road, east of Picadilly Road, and north of Stephen D. Hogan Parkway in the City of Aurora, Colorado.

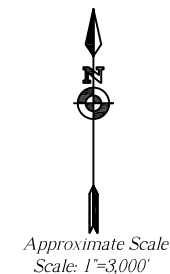
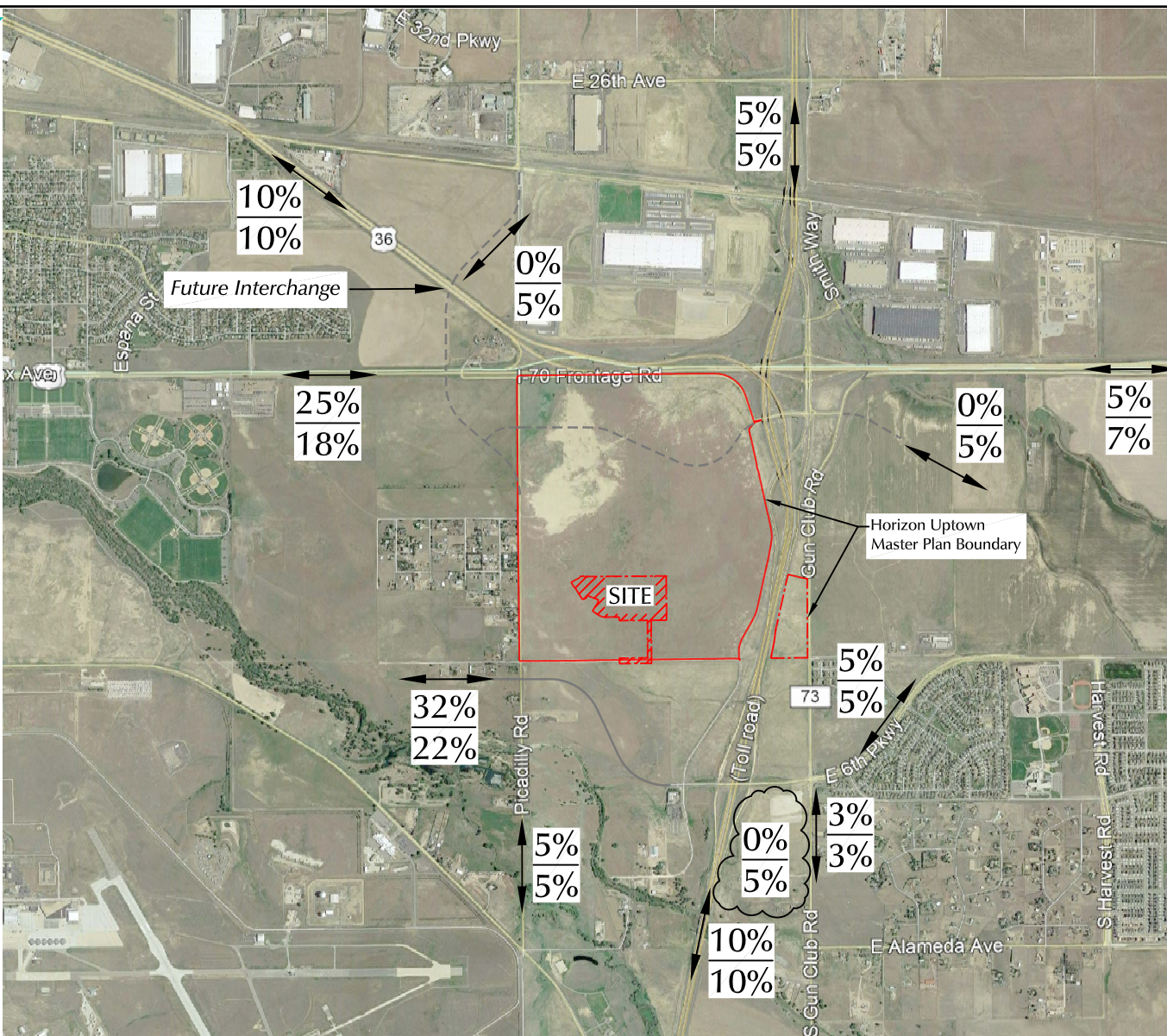
REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements needed to mitigate the growth in background traffic or from the site's traffic impacts

COMPARISON TO ASSUMPTIONS IN THE MASTER TRAFFIC STUDY

Matrix Design Group completed a Master Traffic Study for Horizon Uptown dated November 2, 2018 (Master TIA). In that study the master plan area was divided into 20 planning areas as shown in Figure 2. The only change to the proposed land use at this time is the proposed school site north of Filing 3 was assumed as a private school in the Master TIA. The school is now proposed as a public school site so the overall trip generation potential for the overall site is now slightly lower.

Appendix Table 1 shows the land uses that are planned to be built out in the short-term (by 2025) by planning area. As shown in Appendix Table 2 this includes 392 dwelling units in the



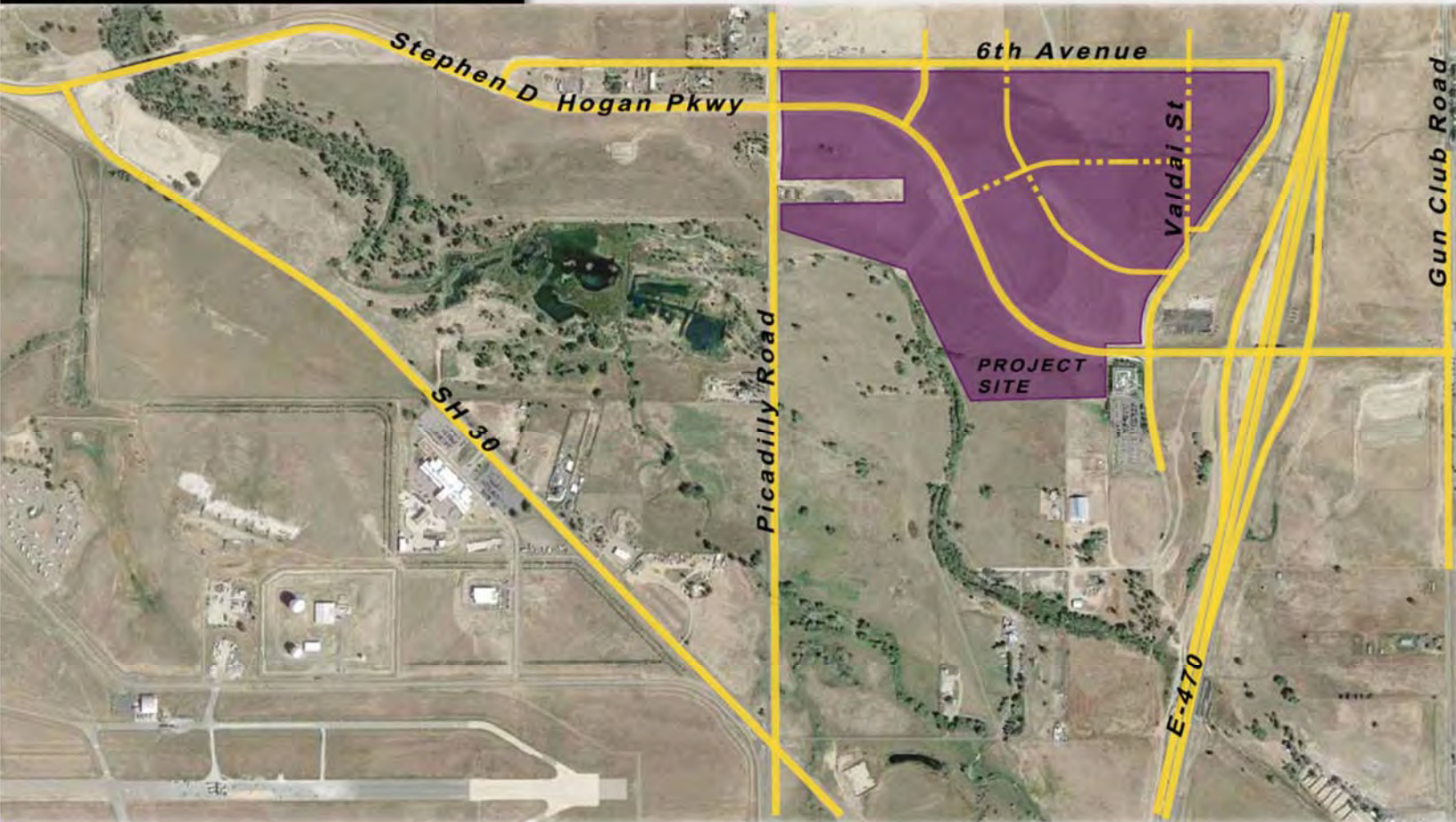
LEGEND:

$$\frac{5\%}{5\%} = \frac{2021 \text{ Percent Directional Distribution}}{2040 \text{ Percent Directional Distribution}}$$

Figure 7
**Directional Distribution
of Site-Generated Traffic**
Horizon Uptown Filing No. 3 (LSC #191100)

Aurora One

Traffic Impact Study



Previous Versions: June 26, 2020; September 21, 2020

Updated Date: January 25, 2021

Submitted To:

Ware Malcomb
990 S. Broadway Suite 230
Denver, CO 80209

Submitted By:

Fox Tuttle Transportation Group, LLC
1624 Market Street, Suite 202
Denver, CO 80202

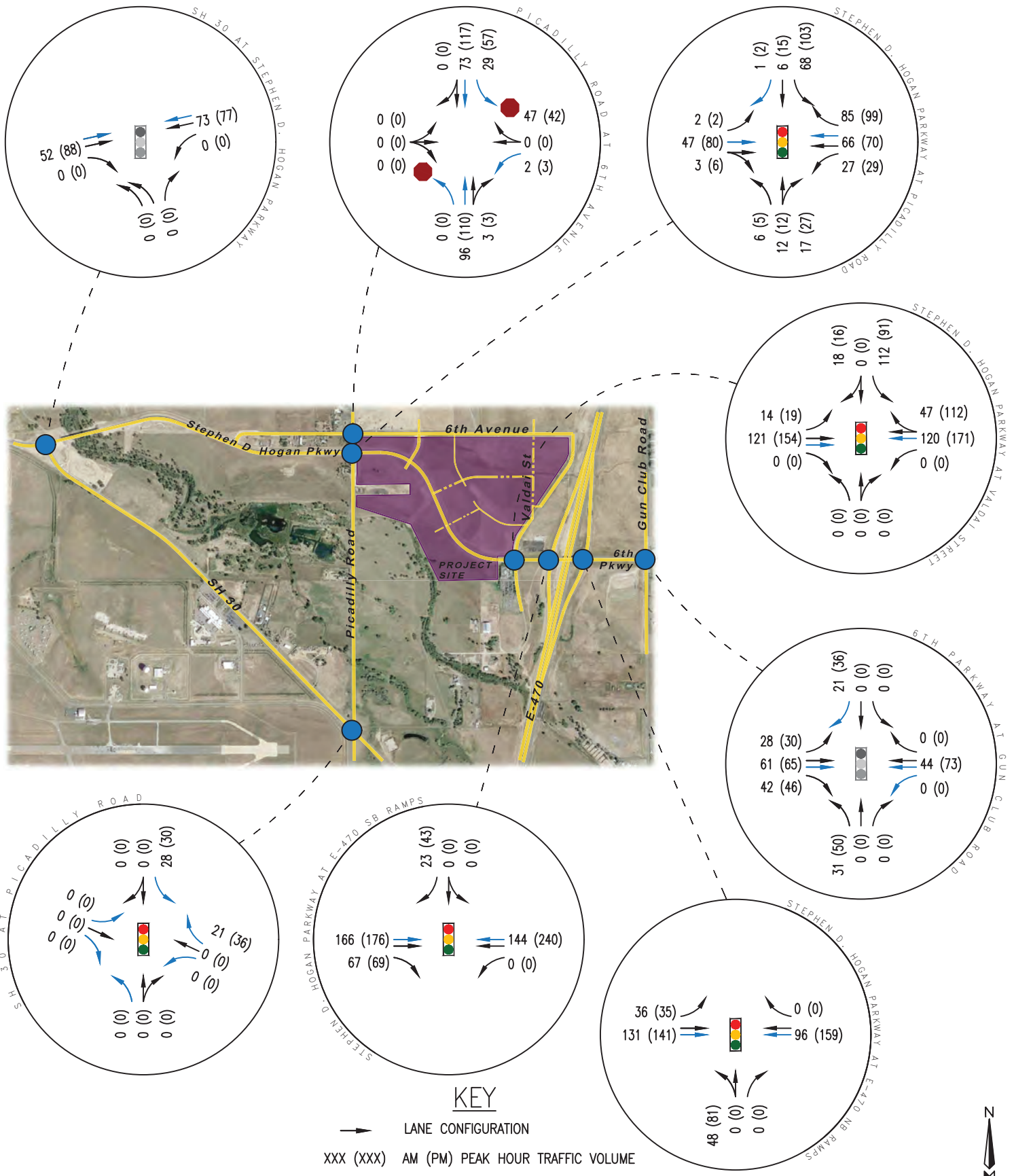


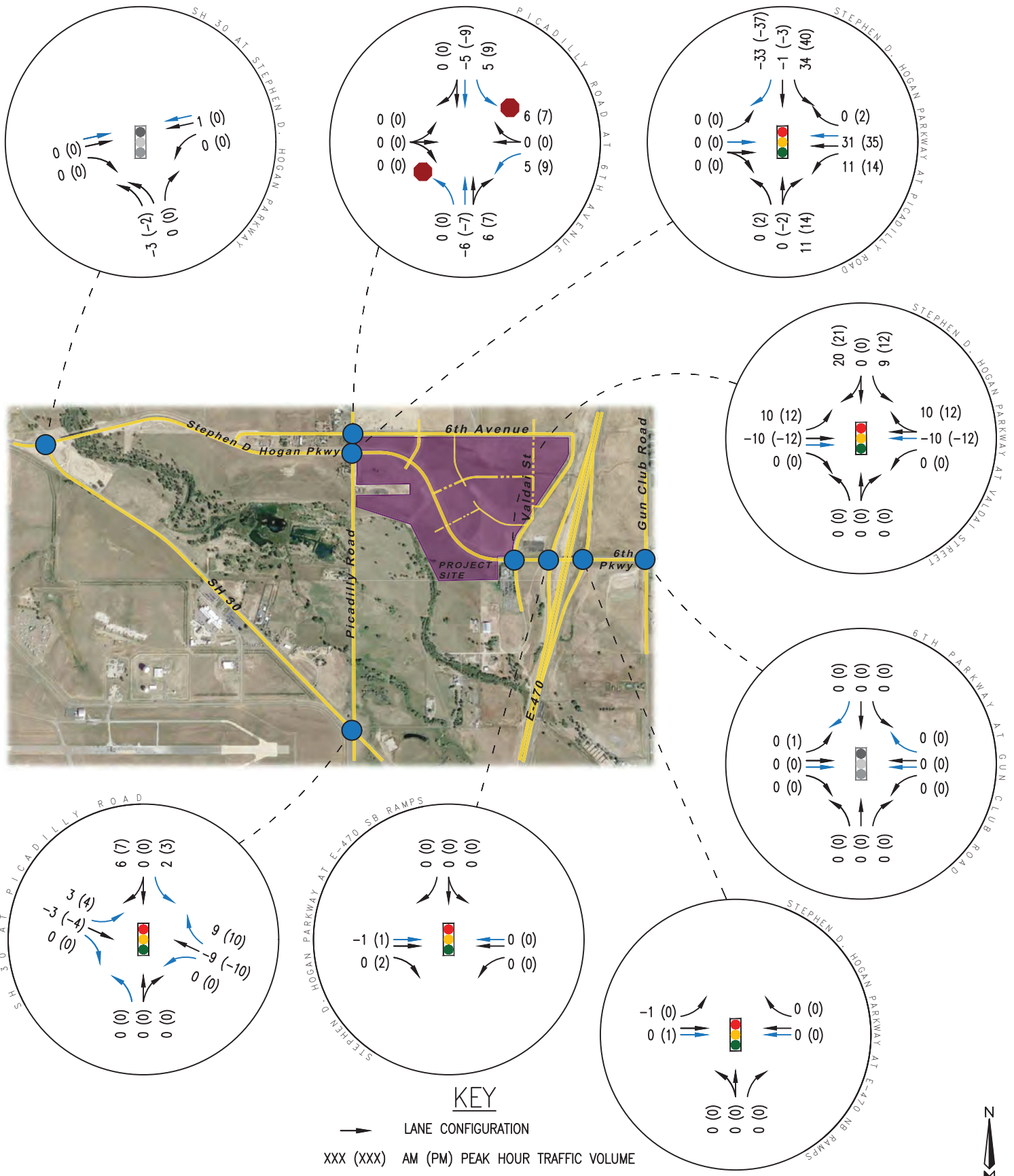
Table 5 - Trip Generation Summary

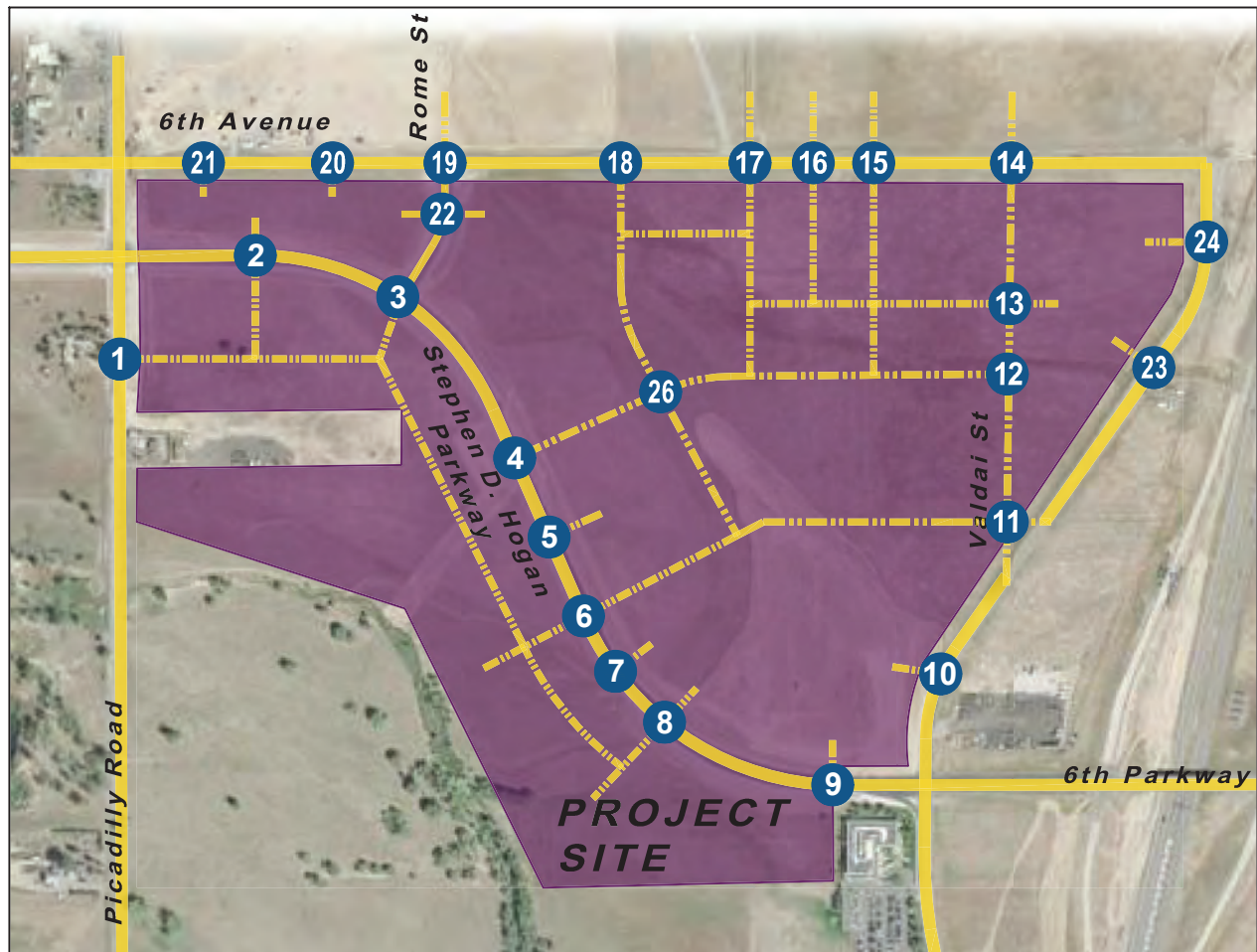
Land Use	Size	Unit	Internal Capture	Non-Auto Factor	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips			
					Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
PA-1																
ITE 720: Medical-Dental Office Building	12.0	ksf	0.90	0.95	34.80	357	179	178	2.78	29	23	6	3.46	35	10	25
ITE 820: Shopping Center	3.10	ksf	0.90	0.95	37.75	100	50	50	0.94	2	1	1	3.81	10	5	5
ITE 912: Drive-In Bank	2.8	ksf	0.90	0.95	100.03	239	120	119	9.50	23	13	10	20.45	49	25	24
ITE 934 - Fast-Food Restaurant w/ Drive-Through Window	3.00	ksf	0.90	0.95	470.95	1,208	604	604	40.19	103	53	50	32.67	84	44	40
Subtotal of Trips						1,904	953	951		157	90	67		178	84	94
Pass-by Trips: Shopping Center				34%		-34	-17	-17		0	0	0		-3	-2	-1
Pass-by Trips: Bank (AM)				29%		0	0	0		-7	-4	-3		0	0	0
Pass-by Trips: Bank (PM)				35%		-84	-42	-42		0	0	0		-17	-9	-8
Pass-by Trips: Fast-Food (AM)				49%		0	0	0		-50	-26	-24		0	0	0
Pass-by Trips: Fast-Food (PM)				50%		-604	-302	-302		0	0	0		-42	-22	-20
Subtotal of Pass-By Trips						-722	-361	-361		-57	-30	-27		-62	-33	-29
Subtotal of New Trips						1,182	592	590		100	60	40		116	51	65
PA-2																
ITE 820: Shopping Center	20.10	ksf	0.90	0.95	37.75	649	325	324	0.94	16	10	6	3.81	65	31	34
ITE 934 - Fast-Food Restaurant w/ Drive-Through Window	2.40	ksf	0.90	0.95	470.95	966	483	483	40.19	82	42	40	32.67	67	35	32
Subtotal of Trips						1,615	808	807		98	52	46		132	66	66
Pass-by Trips: Shopping Center				34%		-221	-111	-110		0	0	0		-22	-11	-11
Pass-by Trips: Fast-Food (AM)				49%		0	0	0		-40	-21	-19		0	0	0
Pass-by Trips: Fast-Food (PM)				50%		-483	-242	-241		0	0	0		-34	-18	-16
Subtotal of Pass-By Trips						-704	-353	-351		-40	-21	-19		-56	-29	-27
Subtotal of New Trips						911	455	456		58	31	27		76	37	39
PA-4																
ITE 220: Multi-Family Housing (Low-Rise)	272	DU	0.90	0.95	7.32	1,702	851	851	0.46	107	28	79	0.56	130	79	51
Subtotal of New Trips						1,702	851	851		107	28	79		130	79	51
PA-5																
ITE 221: Multi-Family Housing (Mid-Rise)	150	ksf	0.90	0.95	5.44	698	349	349	0.36	46	12	34	0.44	56	34	22
ITE 820: Shopping Center	20	ksf	0.90	0.95	37.75	646	323	323	0.94	16	10	6	3.81	65	31	34
Subtotal of Trips						1,344	672	672		62	22	40		121	65	56
Pass-by Trips: Shopping Center				34%		-220	-110	-110		0	0	0		-22	-11	-11
Subtotal of New Trips						1,124	562	562		62	22	40		99	54	45
PA-8																
ITE 820: Shopping Center	36	ksf	0.90	0.95	37.75	1,162	581	581	0.94	29	18	11	3.81	117	56	61
Pass-by Trips: Shopping Center				34%		-395	-198	-197		0	0	0		-40	-19	-21
Subtotal of New Trips						767	383	384		29	18	11		77	37	40
PA-9																
ITE 720: Medical-Dental Office Building	11.2	ksf	0.90	0.95	34.80	333	167	166	2.78	27	21	6	3.46	33	9	24
ITE 820: Shopping Center	6.20	ksf	0.90	0.95	37.75	200	100	100	0.94	5	3	2	3.81	20	10	10
ITE 934 - Fast-Food Restaurant w/ Drive-Through Window	4.80	ksf	0.90	0.95	470.95	1,933	967	966	40.19	165	84	81	32.67	134	70	64
ITE 945 - Gas/Service Station w/ Convenience Market	16	fueling stations	0.90	0.95	205.36	2,809	1,405	1,404	12.47	171	87	84	13.99	191	97	94
Subtotal of Trips						5,275	2,639	2,636		368	195	173		378	186	192
Pass-by Trips: Shopping Center				34%		-68	-34	-34		0	0	0		-7	-3	-4
Pass-by Trips: Fast-Food (AM)				49%		0	0	0		-81	-41	-40		0	0	0
Pass-by Trips: Fast-Food (PM)				50%		-967	-484	-483		0	0	0		-67	-35	-32
Pass-by Trips: Gas Station (AM)				62%		-1,742	-871	-871		-106	-54	-52		0	0	0
Pass-by Trips: Gas Station (PM)				56%		0	0	0		0	0	0		-107	-54	-53
Subtotal of Pass-By Trips						-2777	-1389	-1388		-187	-95	-92		-181	-92	-89
Subtotal of New Trips						2,498	1,250	1,248		181	100	81		197	94	103
PA-10																
ITE 221: Multi-Family Housing (Mid-Rise)	400	ksf	0.90	0.95	5.44	1,860	930	930	0.36	123	32	91	0.44	150	92	58

Land Use	Size	Unit	Internal Capture	Non-Auto Factor	Average Daily Trips				AM Peak Hour Trips				PM Peak Hour Trips			
					Rate	Total	In	Out	Rate	Total	In	Out	Rate	Total	In	Out
Subtotal of New Trips					1,860	930	930		123	32	91		150	92	58	
PA-11																
ITE 820: Shopping Center	24.6	ksf	0.90	0.95	37.75	794	397	397	0.94	20	12	8	3.81	80	38	42
Subtotal of Trips						794	397	397		20	12	8		80	38	42
Pass-by Trips: Shopping Center 34%						-270	-135	-135		0	0	0		-27	-13	-14
Subtotal of New Trips						524	262	262		20	12	8		53	25	28
PA-13																
ITE 220: Multi-Family Housing (Low-Rise)	322	DU	0.90	0.95	7.32	2,015	1,008	1,007	0.46	127	33	94	0.56	154	94	60
Subtotal of New Trips						2,015	1,008	1,007		127	33	94		154	94	60
PA-14																
ITE 820: Shopping Center	12.2	ksf	0.90	0.95	37.75	394	197	197	0.94	10	6	4	3.81	40	19	21
Subtotal of Trips						394	197	197		10	6	4		40	19	21
Pass-by Trips: Shopping Center 34%						-134	-67	-67		0	0	0		-14	-6	-8
Subtotal of New Trips						260	130	130		10	6	4		26	13	13
Total New Trips:						12,843	6,423	6,420	AM >	817	342	475	PM >	1,078	576	502
Total Pass-By Trips:						5,222	2,613	2,609	AM >	284	146	138	PM >	402	203	199
Total Trips:						18,065	9,036	9,029	AM >	1,101	488	613	PM >	1,480	779	701
Total of Internal Capture & Non-Auto Reductions:						3,067	1,535	1,532	AM >	186	83	103	PM >	255	135	120

Source: ITE Trip Generation 10th Edition, 2017.



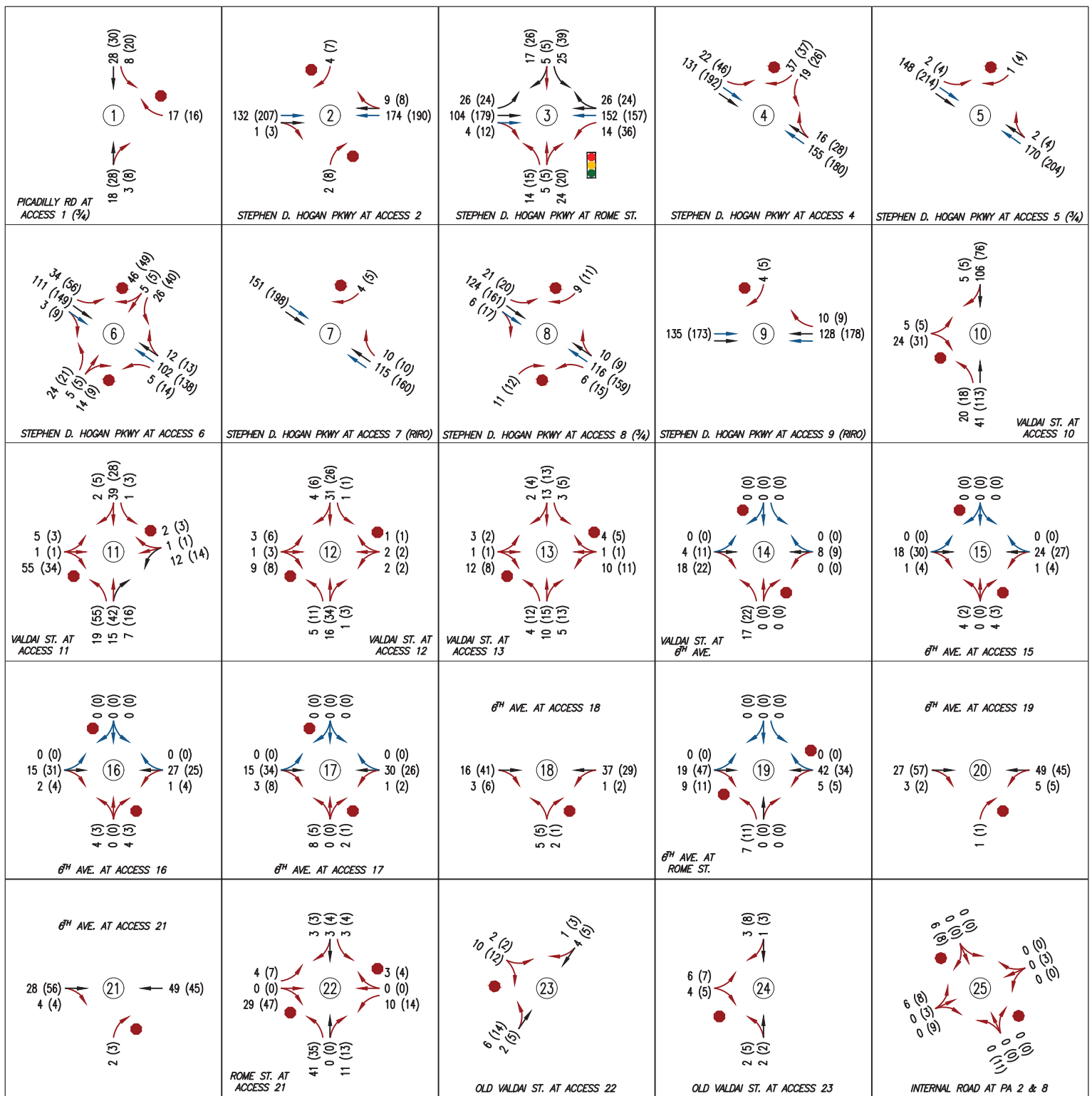


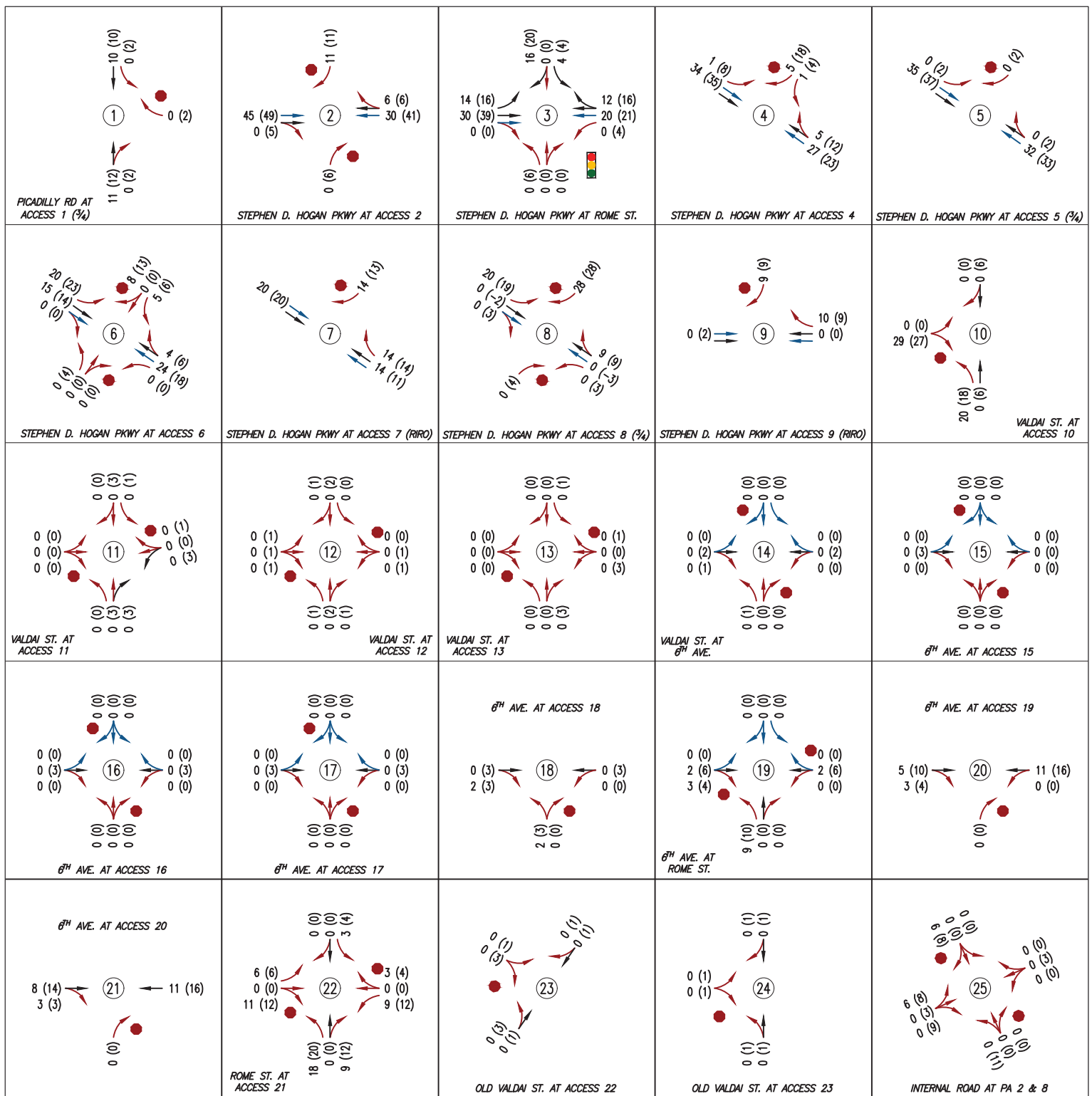


NOTE: FOR INTERNAL INTERSECTIONS NOT ANALYZED IN THIS STUDY, ANTICIPATED VOLUMES ARE LOW AND SIDE-STREET STOP-CONTROL SHALL BE CONSIDERED ACCEPTABLE UNLESS STUDIED BY A LATER TRAFFIC IMPACT STUDY. ALL-WAY STOP-CONTROL SHALL NOT BE USED UNLESS AN ALL-WAY STOP WARRANT HAS BEEN MET PER CRITERIA SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

KEY

- PROPOSED PROJECT ROADWAY NETWORK
- # ACCESS INTERSECTION ID NUMBER





KEY

- XX (XX) AM (PM) PEAK HOUR TRIPS
- EXISTING LANE CONFIGURATION
- NEW BACKGROUND LANE CONFIGURATION
- NEW PROJECT LANE CONFIGURATION
- EXISTING / BKGRD TRAFFIC CONTROL
- NEW PROJECT TRAFFIC CONTROL



LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

LOS	<u>Average Vehicle Delay</u> sec/vehicle	<u>Operational Characteristics</u>
A	<10 seconds	Describes operations with low control delay, up to 10 sec/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	10 to 20 seconds	Describes operations with control delay greater than 10 seconds and up to 20 sec/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20 to 35 seconds	Describes operations with control delay greater than 20 and up to 35 sec/veh. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35 to 55 seconds	Describes operations with control delay greater than 35 and up to 55 sec/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55 to 80 seconds	Describes operations with control delay greater than 55 and up to 80 sec/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
F	>80 seconds	Describes operations with control delay in excess of 80 sec/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.





LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)






Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	Operational Characteristics
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. <u>The delay could be up to 15 seconds.</u> Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. <u>Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.</u>
D	25 to 35 seconds	<u>This is the point at which a traffic signal may be warranted for this intersection.</u> The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. <u>There is a high probability that this intersection will meet traffic signal warrants.</u> The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. <u>The only remedy for these long delays is installing a traffic signal or restricting the accesses.</u> The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

Intersection												
Int Delay, s/veh	7.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	1	0	0	0	3	0	0	0	0	8
Future Vol, veh/h	2	0	1	0	0	0	3	0	0	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	0	1	0	0	0	3	0	0	0	0	9
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	11	6	1	6	6	1
Stage 1	-	-	-	-	-	-	5	5	-	1	1	-
Stage 2	-	-	-	-	-	-	6	1	-	5	5	-
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	1622	-	-	1622	-	-	1007	889	1084	1014	889	1084
Stage 1	-	-	-	-	-	-	1017	892	-	1022	895	-
Stage 2	-	-	-	-	-	-	1016	895	-	1017	892	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	998	888	1084	1013	888	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	998	888	-	1013	888	-
Stage 1	-	-	-	-	-	-	1016	891	-	1021	895	-
Stage 2	-	-	-	-	-	-	1008	895	-	1016	891	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.8			0			8.6			8.3		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	998	1622	-	-	1622	-	-	1084				
HCM Lane V/C Ratio	0.003	0.001	-	-	-	-	-	0.008				
HCM Control Delay (s)	8.6	7.2	0	-	0	-	-	8.3				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	0	0	0	2	2	0	0	1	2
Future Vol, veh/h	1	0	1	0	0	0	2	2	0	0	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	1	0	1	0	0	0	2	2	0	0	1	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	6	4	1	5	4	1
Stage 1	-	-	-	-	-	-	3	3	-	1	1	-
Stage 2	-	-	-	-	-	-	3	1	-	4	3	-
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	1622	-	-	1622	-	-	1014	891	1084	1016	891	1084
Stage 1	-	-	-	-	-	-	1020	893	-	1022	895	-
Stage 2	-	-	-	-	-	-	1020	895	-	1018	893	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	1010	890	1084	1013	890	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1010	890	-	1013	890	-
Stage 1	-	-	-	-	-	-	1019	892	-	1021	895	-
Stage 2	-	-	-	-	-	-	1017	895	-	1015	892	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.6			0			8.8			8.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	946	1622	-	-	1622	-	-	1011				
HCM Lane V/C Ratio	0.005	0.001	-	-	-	-	-	0.003				
HCM Control Delay (s)	8.8	7.2	0	-	0	-	-	8.6				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				





Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	7	0	68	35	0	10	129	32	11	211	16
Future Vol, veh/h	3	7	0	68	35	0	10	129	32	11	211	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	8	0	74	38	0	11	140	35	12	229	17
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0





Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	8.3	9.1	9.2	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	30%	66%	5%
Vol Thru, %	0%	80%	70%	34%	89%
Vol Right, %	0%	20%	0%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	161	10	103	238
LT Vol	10	0	3	68	11
Through Vol	0	129	7	35	211
RT Vol	0	32	0	0	16
Lane Flow Rate	11	175	11	112	259
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.017	0.239	0.016	0.159	0.327
Departure Headway (Hd)	5.568	4.925	5.198	5.114	4.545
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	643	730	686	701	792
Service Time	3.299	2.656	3.249	3.153	2.574
HCM Lane V/C Ratio	0.017	0.24	0.016	0.16	0.327
HCM Control Delay	8.4	9.2	8.3	9.1	9.8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0	0.6	1.4






Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	9	1	1	16	0	2	0	2	0	0	14
Future Vol, veh/h	4	9	1	1	16	0	2	0	2	0	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	4	10	1	1	17	0	2	0	2	0	0	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	17	0	0	11	0	0	46	38	11	39	38	17
Stage 1	-	-	-	-	-	-	19	19	-	19	19	-
Stage 2	-	-	-	-	-	-	27	19	-	20	19	-
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	1600	-	-	1608	-	-	955	854	1070	966	854	1062
Stage 1	-	-	-	-	-	-	1000	880	-	1000	880	-
Stage 2	-	-	-	-	-	-	990	880	-	999	880	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1600	-	-	1608	-	-	939	851	1070	961	851	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	939	851	-	961	851	-
Stage 1	-	-	-	-	-	-	997	877	-	997	879	-
Stage 2	-	-	-	-	-	-	975	879	-	994	877	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.1			0.4			8.6			8.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1000	1600	-	-	1608	-	-	1062				
HCM Lane V/C Ratio	0.004	0.003	-	-	0.001	-	-	0.014				
HCM Control Delay (s)	8.6	7.3	0	-	7.2	0	-	8.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	2	1	0	9	0	3	22	0	0	10	20
Future Vol, veh/h	11	2	1	0	9	0	3	22	0	0	10	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	12	2	1	0	10	0	3	24	0	0	11	22
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	3	0	0	54	37	3	49	37	10
Stage 1	-	-	-	-	-	-	27	27	-	10	10	-
Stage 2	-	-	-	-	-	-	27	10	-	39	27	-
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	1610	-	-	1619	-	-	944	855	1081	951	855	1071
Stage 1	-	-	-	-	-	-	990	873	-	1011	887	-
Stage 2	-	-	-	-	-	-	990	887	-	976	873	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1610	-	-	1619	-	-	911	849	1081	925	849	1071
Mov Cap-2 Maneuver	-	-	-	-	-	-	911	849	-	925	849	-
Stage 1	-	-	-	-	-	-	983	867	-	1004	887	-
Stage 2	-	-	-	-	-	-	958	887	-	942	867	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.7			0			9.3			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	856	1610	-	-	1619	-	-	985				
HCM Lane V/C Ratio	0.032	0.007	-	-	-	-	-	0.033				
HCM Control Delay (s)	9.3	7.3	0	-	0	-	-	8.8				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	3	0	0	0	1	0	0	0	0	6
Future Vol, veh/h	9	0	3	0	0	0	1	0	0	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	10	0	3	0	0	0	1	0	0	0	0	7
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	3	0	0	27	23	2	23	24	1
Stage 1	-	-	-	-	-	-	22	22	-	1	1	-
Stage 2	-	-	-	-	-	-	5	1	-	22	23	-
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	1622	-	-	1619	-	-	983	870	1082	989	869	1084
Stage 1	-	-	-	-	-	-	996	877	-	1022	895	-
Stage 2	-	-	-	-	-	-	1017	895	-	996	876	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1619	-	-	972	865	1082	984	864	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	972	865	-	984	864	-
Stage 1	-	-	-	-	-	-	990	872	-	1016	895	-
Stage 2	-	-	-	-	-	-	1011	895	-	990	871	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.4			0			8.7			8.3		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	972	1622	-	-	1619	-	-	1084				
HCM Lane V/C Ratio	0.001	0.006	-	-	-	-	-	0.006				
HCM Control Delay (s)	8.7	7.2	0	-	0	-	-	8.3				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	3	0	0	0	1	0	0	0	1	2
Future Vol, veh/h	2	0	3	0	0	0	1	0	0	0	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	0	3	0	0	0	1	0	0	0	1	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	3	0	0	9	7	2	7	8	1
Stage 1	-	-	-	-	-	-	6	6	-	1	1	-
Stage 2	-	-	-	-	-	-	3	1	-	6	7	-
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	1622	-	-	1619	-	-	1010	888	1082	1013	887	1084
Stage 1	-	-	-	-	-	-	1016	891	-	1022	895	-
Stage 2	-	-	-	-	-	-	1020	895	-	1016	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1619	-	-	1006	887	1082	1012	886	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1006	887	-	1012	886	-
Stage 1	-	-	-	-	-	-	1015	890	-	1021	895	-
Stage 2	-	-	-	-	-	-	1017	895	-	1015	889	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			0			8.6			8.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1006	1622	-	-	1619	-	-	1009				
HCM Lane V/C Ratio	0.001	0.001	-	-	-	-	-	0.003				
HCM Control Delay (s)	8.6	7.2	0	-	0	-	-	8.6				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				





Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	16	0	52	26	0	13	117	55	29	108	7
Future Vol, veh/h	6	16	0	52	26	0	13	117	55	29	108	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	17	0	57	28	0	14	127	60	32	117	8
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	8.1	8.6	8.9	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	27%	67%	20%
Vol Thru, %	0%	68%	73%	33%	75%
Vol Right, %	0%	32%	0%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	172	22	78	144
LT Vol	13	0	6	52	29
Through Vol	0	117	16	26	108
RT Vol	0	55	0	0	7
Lane Flow Rate	14	187	24	85	157
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.021	0.244	0.033	0.116	0.198
Departure Headway (Hd)	5.434	4.708	4.938	4.932	4.547
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	660	765	725	727	790
Service Time	3.156	2.429	2.969	2.957	2.568
HCM Lane V/C Ratio	0.021	0.244	0.033	0.117	0.199
HCM Control Delay	8.3	8.9	8.1	8.6	8.7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	1	0.1	0.4	0.7

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	20	2	2	17	0	2	0	2	0	0	15
Future Vol, veh/h	18	20	2	2	17	0	2	0	2	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	20	22	2	2	18	0	2	0	2	0	0	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	24	0	0	93	85	23	86	86	18
Stage 1	-	-	-	-	-	-	63	63	-	22	22	-
Stage 2	-	-	-	-	-	-	30	22	-	64	64	-
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	1599	-	-	1591	-	-	891	805	1054	900	804	1061
Stage 1	-	-	-	-	-	-	948	842	-	996	877	-
Stage 2	-	-	-	-	-	-	987	877	-	947	842	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1591	-	-	868	794	1054	888	793	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	868	794	-	888	793	-
Stage 1	-	-	-	-	-	-	936	831	-	983	876	-
Stage 2	-	-	-	-	-	-	971	876	-	933	831	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.3			0.8			8.8			8.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	952	1599	-	-	1591	-	-	1061				
HCM Lane V/C Ratio	0.005	0.012	-	-	0.001	-	-	0.015				
HCM Control Delay (s)	8.8	7.3	0	-	7.3	0	-	8.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				





Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	9	0	0	7	0	2	4	1	0	16	7
Future Vol, veh/h	11	9	0	0	7	0	2	4	1	0	16	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	-	-	-	-	-	-	-	-	-	-	-	-
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	12	10	0	0	8	0	2	4	1	0	17	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	10	0	0	55	42	10	45	42	8
Stage 1	-	-	-	-	-	-	34	34	-	8	8	-
Stage 2	-	-	-	-	-	-	21	8	-	37	34	-
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	1612	-	-	1610	-	-	943	850	1071	957	850	1074
Stage 1	-	-	-	-	-	-	982	867	-	1013	889	-
Stage 2	-	-	-	-	-	-	998	889	-	978	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1610	-	-	917	844	1071	947	844	1074
Mov Cap-2 Maneuver	-	-	-	-	-	-	917	844	-	947	844	-
Stage 1	-	-	-	-	-	-	975	861	-	1006	889	-
Stage 2	-	-	-	-	-	-	972	889	-	965	861	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4			0			9.1			9.1		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	891	1612	-	-	1610	-	-	903				
HCM Lane V/C Ratio	0.009	0.007	-	-	-	-	-	0.028				
HCM Control Delay (s)	9.1	7.2	0	-	0	-	-	9.1				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				





Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↰			↰↱				
Traffic Vol, veh/h	0	0	0	2	2	0	0	0	1	0	0	0
Future Vol, veh/h	0	0	0	2	2	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	0	0	2	2	0	0	0	1	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	-	1	0	1	1	-	0	0	0	
Stage 1	-	0	-	1	1	-	-	-	-	
Stage 2	-	1	-	0	0	-	-	-	-	
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12	-	-	
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218	-	-	
Pot Cap-1 Maneuver	0	895	-	1022	895	0	-	-	-	
Stage 1	0	-	-	1022	895	0	-	-	-	
Stage 2	0	895	-	-	-	0	-	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	-	895	-	-	895	-	-	-	-	
Mov Cap-2 Maneuver	-	895	-	-	895	-	-	-	-	
Stage 1	-	-	-	1022	895	-	-	-	-	
Stage 2	-	895	-	-	-	-	-	-	-	






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

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

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	6	0	1	0	14	0	1	0	0	22
Future Vol, veh/h	8	0	6	0	1	0	14	0	1	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	0	7	0	1	0	15	0	1	0	0	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	7	0	0	35	23	4	23	26	1
Stage 1	-	-	-	-	-	-	22	22	-	1	1	-
Stage 2	-	-	-	-	-	-	13	1	-	22	25	-
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	1622	-	-	1614	-	-	971	870	1080	989	867	1084
Stage 1	-	-	-	-	-	-	996	877	-	1022	895	-
Stage 2	-	-	-	-	-	-	1007	895	-	996	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1614	-	-	945	865	1080	983	862	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	945	865	-	983	862	-
Stage 1	-	-	-	-	-	-	990	872	-	1016	895	-
Stage 2	-	-	-	-	-	-	985	895	-	989	869	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.1			0			8.8			8.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	953	1622	-	-	1614	-	-	1084				
HCM Lane V/C Ratio	0.017	0.005	-	-	-	-	-	0.022				
HCM Control Delay (s)	8.8	7.2	0	-	0	-	-	8.4				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	7.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	1	0	0	0	2	4	1	1	3	9
Future Vol, veh/h	2	0	1	0	0	0	2	4	1	1	3	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	0	1	0	0	0	2	4	1	1	3	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	1	0	0	13	6	1	8	6	1
Stage 1	-	-	-	-	-	-	5	5	-	1	1	-
Stage 2	-	-	-	-	-	-	8	1	-	7	5	-
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	1622	-	-	1622	-	-	1004	889	1084	1011	889	1084
Stage 1	-	-	-	-	-	-	1017	892	-	1022	895	-
Stage 2	-	-	-	-	-	-	1013	895	-	1015	892	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1622	-	-	991	888	1084	1006	888	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	991	888	-	1006	888	-
Stage 1	-	-	-	-	-	-	1016	891	-	1021	895	-
Stage 2	-	-	-	-	-	-	1000	895	-	1008	891	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.8			0			8.9			8.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	940	1622	-	-	1622	-	-	1026				
HCM Lane V/C Ratio	0.008	0.001	-	-	-	-	-	0.014				
HCM Control Delay (s)	8.9	7.2	0	-	0	-	-	8.6				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				





Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	8	0	79	39	0	10	131	35	11	219	16
Future Vol, veh/h	3	8	0	79	39	0	10	131	35	11	219	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	9	0	86	42	0	11	142	38	12	238	17
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	8.4	9.4	9.3	10
HCM LOS	A	A	A	A





Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	27%	67%	4%
Vol Thru, %	0%	79%	73%	33%	89%
Vol Right, %	0%	21%	0%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	166	11	118	246
LT Vol	10	0	3	79	11
Through Vol	0	131	8	39	219
RT Vol	0	35	0	0	16
Lane Flow Rate	11	180	12	128	267
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.017	0.249	0.017	0.184	0.342
Departure Headway (Hd)	5.627	4.976	5.259	5.156	4.602
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	635	720	677	694	781
Service Time	3.367	2.714	3.32	3.2	2.638
HCM Lane V/C Ratio	0.017	0.25	0.018	0.184	0.342
HCM Control Delay	8.5	9.4	8.4	9.4	10
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	1	0.1	0.7	1.5




Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	10	1	1	19	0	2	0	2	0	0	22
Future Vol, veh/h	5	10	1	1	19	0	2	0	2	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	5	11	1	1	21	0	2	0	2	0	0	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	12	0	0	57	45	12	46	45	21
Stage 1	-	-	-	-	-	-	22	22	-	23	23	-
Stage 2	-	-	-	-	-	-	35	23	-	23	22	-
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	1595	-	-	1607	-	-	940	847	1069	955	847	1056
Stage 1	-	-	-	-	-	-	996	877	-	995	876	-
Stage 2	-	-	-	-	-	-	981	876	-	995	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1595	-	-	1607	-	-	916	844	1069	950	844	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	916	844	-	950	844	-
Stage 1	-	-	-	-	-	-	993	874	-	992	875	-
Stage 2	-	-	-	-	-	-	958	875	-	990	874	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.3			0.4			8.7			8.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	987	1595	-	-	1607	-	-	1056				
HCM Lane V/C Ratio	0.004	0.003	-	-	0.001	-	-	0.023				
HCM Control Delay (s)	8.7	7.3	0	-	7.2	0	-	8.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	4	1	0	17	0	3	22	0	0	11	20
Future Vol, veh/h	11	4	1	0	17	0	3	22	0	0	11	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	12	4	1	0	18	0	3	24	0	0	12	22
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	5	0	0	64	47	5	59	47	18
Stage 1	-	-	-	-	-	-	29	29	-	18	18	-
Stage 2	-	-	-	-	-	-	35	18	-	41	29	-
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	1599	-	-	1616	-	-	930	845	1078	937	845	1061
Stage 1	-	-	-	-	-	-	988	871	-	1001	880	-
Stage 2	-	-	-	-	-	-	981	880	-	974	871	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1616	-	-	896	838	1078	911	838	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	896	838	-	911	838	-
Stage 1	-	-	-	-	-	-	980	864	-	993	880	-
Stage 2	-	-	-	-	-	-	948	880	-	939	864	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5			0			9.4			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	845	1599	-	-	1616	-	-	969				
HCM Lane V/C Ratio	0.032	0.007	-	-	-	-	-	0.035				
HCM Control Delay (s)	9.4	7.3	0	-	0	-	-	8.8				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

HCM 6th TWSC
15: Crossroads Blvd & E 8th Ave

2026 Total Traffic
AM Peak Hour

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	0	1	1
Future Vol, veh/h	0	1	0	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	-
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	0	1	0	0	1	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2	2	2	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1021	1082	1620	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1082	1620	-	-	-
Mov Cap-2 Maneuver	1021	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.3	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1620	-	-	1082	-	-
HCM Lane V/C Ratio	-	-	-	0.001	-	-
HCM Control Delay (s)	0	-	0	8.3	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	-





Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	0	1	2	0
Future Vol, veh/h	0	2	0	1	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	1	2	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	3	2	2	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1019	1082	1620	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1019	1082	1620	-	-	-
Mov Cap-2 Maneuver	1019	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.3	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1620	-	1082	-	-	
HCM Lane V/C Ratio	-	-	0.002	-	-	
HCM Control Delay (s)	0	-	8.3	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↱			↱				
Traffic Vol, veh/h	0	0	0	2	0	0	0	0	2	0	0	0
Future Vol, veh/h	0	0	0	2	0	0	0	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	0	0	2	0	0	0	0	2	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	-	2	0	1	1	-	0	0	0	
Stage 1	-	0	-	1	1	-	-	-	-	
Stage 2	-	2	-	0	0	-	-	-	-	
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12	-	-	
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-	-	-	-	
Critical Hdwy Stg 2	-	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218	-	-	
Pot Cap-1 Maneuver	0	894	-	1022	895	0	-	-	-	
Stage 1	0	-	-	1022	895	0	-	-	-	
Stage 2	0	894	-	-	-	0	-	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	-	894	-	-	895	-	-	-	-	
Mov Cap-2 Maneuver	-	894	-	-	895	-	-	-	-	
Stage 1	-	-	-	1022	895	-	-	-	-	
Stage 2	-	894	-	-	-	-	-	-	-	

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

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

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1	13	1	1	0	7	0	0	0	0	17
Future Vol, veh/h	26	1	13	1	1	0	7	0	0	0	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	28	1	14	1	1	0	8	0	0	0	0	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	15	0	0	76	67	8	67	74	1
Stage 1	-	-	-	-	-	-	64	64	-	3	3	-
Stage 2	-	-	-	-	-	-	12	3	-	64	71	-
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	1622	-	-	1603	-	-	914	824	1074	926	816	1084
Stage 1	-	-	-	-	-	-	947	842	-	1020	893	-
Stage 2	-	-	-	-	-	-	1009	893	-	947	836	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1603	-	-	886	809	1074	913	801	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	886	809	-	913	801	-
Stage 1	-	-	-	-	-	-	931	828	-	1003	892	-
Stage 2	-	-	-	-	-	-	991	892	-	931	822	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.7			3.6			9.1			8.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	886	1622	-	-	1603	-	-	1084				
HCM Lane V/C Ratio	0.009	0.017	-	-	0.001	-	-	0.017				
HCM Control Delay (s)	9.1	7.3	0	-	7.2	0	-	8.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1				






Intersection												
Int Delay, s/veh	7.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	0	3	1	0	1	2	1	0	1	4	8
Future Vol, veh/h	11	0	3	1	0	1	2	1	0	1	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	12	0	3	1	0	1	2	1	0	1	4	9
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	3	0	0	35	29	2	29	30	1
Stage 1	-	-	-	-	-	-	26	26	-	3	3	-
Stage 2	-	-	-	-	-	-	9	3	-	26	27	-
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	1622	-	-	1619	-	-	971	864	1082	980	863	1084
Stage 1	-	-	-	-	-	-	992	874	-	1020	893	-
Stage 2	-	-	-	-	-	-	1012	893	-	992	873	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1619	-	-	954	857	1082	973	856	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	954	857	-	973	856	-
Stage 1	-	-	-	-	-	-	985	868	-	1013	892	-
Stage 2	-	-	-	-	-	-	998	892	-	984	867	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.7			3.6			8.9			8.7		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	919	1622	-	-	1619	-	-	994				
HCM Lane V/C Ratio	0.004	0.007	-	-	0.001	-	-	0.014				
HCM Control Delay (s)	8.9	7.2	0	-	7.2	0	-	8.7				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

HCM 6th AWSC
8: Rome St & E 6th Ave

2026 Total Traffic
PM Peak Hour

Intersection





Intersection Delay, s/veh 9
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	17	0	59	29	0	13	127	66	29	114	7
Future Vol, veh/h	6	17	0	59	29	0	13	127	66	29	114	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	18	0	64	32	0	14	138	72	32	124	8
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	8.2	8.8	9.2	8.9
HCM LOS	A	A	A	A





Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	26%	67%	19%
Vol Thru, %	0%	66%	74%	33%	76%
Vol Right, %	0%	34%	0%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	193	23	88	150
LT Vol	13	0	6	59	29
Through Vol	0	127	17	29	114
RT Vol	0	66	0	0	7
Lane Flow Rate	14	210	25	96	163
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.022	0.276	0.035	0.133	0.209
Departure Headway (Hd)	5.478	4.735	5.025	5.005	4.61
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	654	759	711	715	779
Service Time	3.203	2.46	3.066	3.039	2.636
HCM Lane V/C Ratio	0.021	0.277	0.035	0.134	0.209
HCM Control Delay	8.3	9.3	8.2	8.8	8.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	1.1	0.1	0.5	0.8




Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	24	2	2	20	0	2	0	2	0	0	21
Future Vol, veh/h	23	24	2	2	20	0	2	0	2	0	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	25	26	2	2	22	0	2	0	2	0	0	23
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	28	0	0	115	103	27	104	104	22
Stage 1	-	-	-	-	-	-	77	77	-	26	26	-
Stage 2	-	-	-	-	-	-	38	26	-	78	78	-
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	1593	-	-	1585	-	-	862	787	1048	876	786	1055
Stage 1	-	-	-	-	-	-	932	831	-	992	874	-
Stage 2	-	-	-	-	-	-	977	874	-	931	830	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1593	-	-	1585	-	-	833	774	1048	863	773	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	833	774	-	863	773	-
Stage 1	-	-	-	-	-	-	917	818	-	976	873	-
Stage 2	-	-	-	-	-	-	955	873	-	914	817	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.4			0.7			8.9			8.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	928	1593	-	-	1585	-	-	1055				
HCM Lane V/C Ratio	0.005	0.016	-	-	0.001	-	-	0.022				
HCM Control Delay (s)	8.9	7.3	0	-	7.3	0	-	8.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	18	0	0	14	0	2	4	1	0	20	7
Future Vol, veh/h	11	18	0	0	14	0	2	4	1	0	20	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	-	-	-	-	-	-	-	-	-	-	-	-
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	12	20	0	0	15	0	2	4	1	0	22	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	15	0	0	20	0	0	74	59	20	62	59	15
Stage 1	-	-	-	-	-	-	44	44	-	15	15	-
Stage 2	-	-	-	-	-	-	30	15	-	47	44	-
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	1603	-	-	1596	-	-	916	832	1058	933	832	1065
Stage 1	-	-	-	-	-	-	970	858	-	1005	883	-
Stage 2	-	-	-	-	-	-	987	883	-	967	858	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1603	-	-	1596	-	-	886	825	1058	923	825	1065
Mov Cap-2 Maneuver	-	-	-	-	-	-	886	825	-	923	825	-
Stage 1	-	-	-	-	-	-	962	851	-	997	883	-
Stage 2	-	-	-	-	-	-	956	883	-	953	851	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.8			0			9.2			9.3		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	869	1603	-	-	1596	-	-	876				
HCM Lane V/C Ratio	0.009	0.007	-	-	-	-	-	0.034				
HCM Control Delay (s)	9.2	7.3	0	-	0	-	-	9.3				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

HCM 6th TWSC
15: Crossroads Blvd & E 8th Ave

2026 Total Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	1	2	1	1
Future Vol, veh/h	1	0	1	2	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	-
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	1	0	1	2	1	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	6	2	2	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	4	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1015	1082	1620	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1014	1082	1620	-	-	-
Mov Cap-2 Maneuver	1014	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	2.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1620	-	1014	-	-	-
HCM Lane V/C Ratio	0.001	-	0.001	-	-	-
HCM Control Delay (s)	7.2	0	8.6	0	-	-
HCM Lane LOS	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-	-





Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	2	2	1	0
Future Vol, veh/h	0	1	2	2	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	2	2	1	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	7	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	6	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1014	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1013	1084	1622	-	-	-
Mov Cap-2 Maneuver	1013	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.3	3.6		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1622	-	1084	-	-	
HCM Lane V/C Ratio	0.001	-	0.001	-	-	
HCM Control Delay (s)	7.2	0	8.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	





Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	1	0	1	42	2	1	5	2	1	3	3
Future Vol, veh/h	2	1	0	1	42	2	1	5	2	1	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	1	0	1	46	2	1	5	2	1	3	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	39	16	5	15	16	6	6	0	0	7	0	0
Stage 1	7	7	-	8	8	-	-	-	-	-	-	-
Stage 2	32	9	-	7	8	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	966	878	1078	1001	878	1077	1615	-	-	1614	-	-
Stage 1	1015	890	-	1013	889	-	-	-	-	-	-	-
Stage 2	984	888	-	1015	889	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	924	876	1078	999	876	1077	1615	-	-	1614	-	-
Mov Cap-2 Maneuver	924	876	-	999	876	-	-	-	-	-	-	-
Stage 1	1014	889	-	1012	888	-	-	-	-	-	-	-
Stage 2	931	887	-	1013	888	-	-	-	-	-	-	-






Approach	EB	WB	NB	SB
HCM Control Delay, s	9	9.3	0.9	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1615	-	-	907 886	1614	-	-
HCM Lane V/C Ratio	0.001	-	-	0.004 0.055	0.001	-	-
HCM Control Delay (s)	7.2	0	-	9 9.3	7.2	0	-
HCM Lane LOS	A	A	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.2	0	-	-

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	430	1	0	51	1	2	0	3	4	0	6
Future Vol, veh/h	2	430	1	0	51	1	2	0	3	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	467	1	0	55	1	2	0	3	4	0	7
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	468	0	0	531	528	468	529	528	56
Stage 1	-	-	-	-	-	-	472	472	-	56	56	-
Stage 2	-	-	-	-	-	-	59	56	-	473	472	-
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	1549	-	-	1094	-	-	459	456	595	460	456	1011
Stage 1	-	-	-	-	-	-	573	559	-	956	848	-
Stage 2	-	-	-	-	-	-	953	848	-	572	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1094	-	-	455	455	595	457	455	1011
Mov Cap-2 Maneuver	-	-	-	-	-	-	455	455	-	457	455	-
Stage 1	-	-	-	-	-	-	572	558	-	954	848	-
Stage 2	-	-	-	-	-	-	947	848	-	568	558	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			11.9			10.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	530	1549	-	-	1094	-	-	681				
HCM Lane V/C Ratio	0.01	0.001	-	-	-	-	-	0.016				
HCM Control Delay (s)	11.9	7.3	0	-	0	-	-	10.4				
HCM Lane LOS	B	A	A	-	A	-	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	15	0	2	6	0	1	5	3	0	1	0
Future Vol, veh/h	0	15	0	2	6	0	1	5	3	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	16	0	2	7	0	1	5	3	0	1	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	7	0	0	16	0	0	28	27	16	31	27	7
Stage 1	-	-	-	-	-	-	16	16	-	11	11	-
Stage 2	-	-	-	-	-	-	12	11	-	20	16	-
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	1614	-	-	1602	-	-	981	866	1063	977	866	1075
Stage 1	-	-	-	-	-	-	1004	882	-	1010	886	-
Stage 2	-	-	-	-	-	-	1009	886	-	999	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1602	-	-	979	865	1063	968	865	1075
Mov Cap-2 Maneuver	-	-	-	-	-	-	979	865	-	968	865	-
Stage 1	-	-	-	-	-	-	1004	882	-	1010	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	990	882	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.8			8.9			9.2		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	935	1614	-	-	1602	-	-	865				
HCM Lane V/C Ratio	0.01	-	-	-	0.001	-	-	0.001				
HCM Control Delay (s)	8.9	0	-	-	7.2	0	-	9.2				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				





Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A








Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	94	4	68	56	1	17	105	97	20	182	17
Future Vol, veh/h	3	94	4	68	56	1	17	105	97	20	182	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	102	4	74	61	1	18	114	105	22	198	18
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	9.4	9.8	10	10.5
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	3%	54%	9%
Vol Thru, %	0%	52%	93%	45%	83%
Vol Right, %	0%	48%	4%	1%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	202	101	125	219
LT Vol	17	0	3	68	20
Through Vol	0	105	94	56	182
RT Vol	0	97	4	1	17
Lane Flow Rate	18	220	110	136	238
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.03	0.309	0.161	0.202	0.328
Departure Headway (Hd)	5.917	5.074	5.274	5.35	4.955
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	601	703	672	663	719
Service Time	3.698	2.854	3.369	3.442	3.035
HCM Lane V/C Ratio	0.03	0.313	0.164	0.205	0.331
HCM Control Delay	8.9	10.1	9.4	9.8	10.5
HCM Lane LOS	A	B	A	A	B
HCM 95th-tile Q	0.1	1.3	0.6	0.8	1.4

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	175	2	1	47	3	4	0	4	10	0	11
Future Vol, veh/h	4	175	2	1	47	3	4	0	4	10	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	4	190	2	1	51	3	4	0	4	11	0	12
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	192	0	0	260	255	191	256	255	53
Stage 1	-	-	-	-	-	-	199	199	-	55	55	-
Stage 2	-	-	-	-	-	-	61	56	-	201	200	-
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	1551	-	-	1381	-	-	693	649	851	697	649	1014
Stage 1	-	-	-	-	-	-	803	736	-	957	849	-
Stage 2	-	-	-	-	-	-	950	848	-	801	736	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1551	-	-	1381	-	-	683	646	851	691	646	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	683	646	-	691	646	-
Stage 1	-	-	-	-	-	-	801	734	-	954	848	-
Stage 2	-	-	-	-	-	-	938	847	-	795	734	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			9.8			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	758	1551	-	-	1381	-	-	829				
HCM Lane V/C Ratio	0.011	0.003	-	-	0.001	-	-	0.028				
HCM Control Delay (s)	9.8	7.3	0	-	7.6	0	-	9.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	7	0	1	5	2	2	16	0	6	6	10
Future Vol, veh/h	4	7	0	1	5	2	2	16	0	6	6	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	4	8	0	1	5	2	2	17	0	7	7	11
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	7	0	0	8	0	0	33	25	8	33	24	6
Stage 1	-	-	-	-	-	-	16	16	-	8	8	-
Stage 2	-	-	-	-	-	-	17	9	-	25	16	-
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	1614	-	-	1612	-	-	974	868	1074	974	869	1077
Stage 1	-	-	-	-	-	-	1004	882	-	1013	889	-
Stage 2	-	-	-	-	-	-	1002	888	-	993	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1612	-	-	956	865	1074	956	866	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	956	865	-	956	866	-
Stage 1	-	-	-	-	-	-	1002	880	-	1011	888	-
Stage 2	-	-	-	-	-	-	984	887	-	971	880	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.6			0.9			9.2			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	874	1614	-	-	1612	-	-	978				
HCM Lane V/C Ratio	0.022	0.003	-	-	0.001	-	-	0.024				
HCM Control Delay (s)	9.2	7.2	0	-	7.2	0	-	8.8				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	0	0	12	44	544	122	112	219	2
Future Vol, veh/h	0	0	8	0	0	12	44	544	122	112	219	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	200	-	200	200	-	-
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	0	9	0	0	13	48	591	133	122	238	2























Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	120	-	-	296	240	0	0	724	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	909	0	0	700	1324	-	-	874	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	909	-	-	700	1324	-	-	874	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	10.2	0.5	3.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1324	-	-	909 700	874	-	-
HCM Lane V/C Ratio	0.036	-	-	0.01 0.019	0.139	-	-
HCM Control Delay (s)	7.8	-	-	9 10.2	9.8	-	-
HCM Lane LOS	A	-	-	A B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0 0.1	0.5	-	-

Timings
15: Crossroads Blvd & E 8th Ave

2050 Background Traffic
AM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	60	244	17	21	7	14	643	186	72	137	17
Future Volume (vph)	60	244	17	21	7	14	643	186	72	137	17
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	9.5	23.0	9.5	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	15.0	30.0	10.0	25.0	25.0	10.0	40.0	40.0	10.0	40.0	40.0
Total Split (%)	16.7%	33.3%	11.1%	27.8%	27.8%	11.1%	44.4%	44.4%	11.1%	44.4%	44.4%
Yellow Time (s)	3.5	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	27.1	22.9	19.4	15.8	15.8	48.6	44.4	44.4	52.1	51.1	51.1
Actuated g/C Ratio	0.30	0.25	0.22	0.18	0.18	0.54	0.49	0.49	0.58	0.57	0.57
v/c Ratio	0.16	0.87	0.10	0.07	0.02	0.02	0.40	0.23	0.20	0.07	0.02
Control Delay	20.6	49.3	20.2	29.2	0.1	9.5	13.4	1.7	11.5	11.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	49.3	20.2	29.2	0.1	9.5	13.4	1.7	11.5	11.7	0.1
LOS	C	D	C	C	A	A	B	A	B	B	A
Approach Delay		45.4		21.2			10.8			10.8	
Approach LOS		D		C			B			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

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

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 20.9

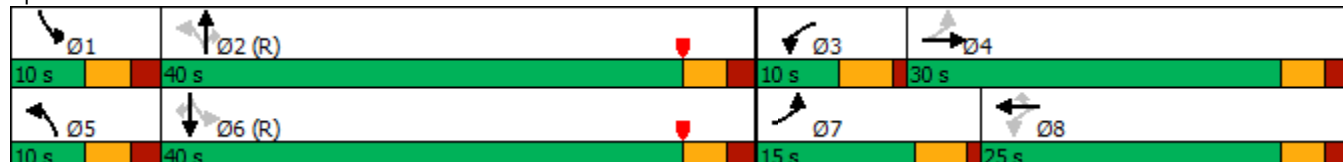
Intersection LOS: C

Intersection Capacity Utilization 55.5%

ICU Level of Service B
























Analysis Period (min) 15









Splits and Phases: 15: Crossroads Blvd & E 8th Ave



HCM 6th Signalized Intersection Summary 15: Crossroads Blvd & E 8th Ave

2050 Background Traffic
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	244	134	17	21	7	14	643	186	72	137	17
Future Volume (veh/h)	60	244	134	17	21	7	14	643	186	72	137	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	265	146	18	23	8	15	699	202	78	149	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	468	291	160	145	434	368	679	1631	727	488	1739	775
Arrive On Green	0.04	0.26	0.26	0.02	0.23	0.23	0.03	0.92	0.92	0.05	0.49	0.49
Sat Flow, veh/h	1781	1133	624	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	65	0	411	18	23	8	15	699	202	78	149	18
Grp Sat Flow(s),veh/h/ln	1781	0	1758	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.5	0.0	20.4	0.7	0.9	0.4	0.4	2.4	1.3	2.0	2.0	0.5
Cycle Q Clear(g_c), s	2.5	0.0	20.4	0.7	0.9	0.4	0.4	2.4	1.3	2.0	2.0	0.5
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	468	0	451	145	434	368	679	1631	727	488	1739	775
V/C Ratio(X)	0.14	0.00	0.91	0.12	0.05	0.02	0.02	0.43	0.28	0.16	0.09	0.02
Avail Cap(c_a), veh/h	597	0	488	218	434	368	747	1631	727	502	1739	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	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	24.4	0.0	32.5	27.3	26.9	26.7	12.2	2.1	2.1	11.5	12.3	11.9
Incr Delay (d2), s/veh	0.1	0.0	20.4	0.4	0.1	0.0	0.0	0.8	0.9	0.2	0.1	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	1.1	0.0	11.1	0.3	0.4	0.1	0.2	0.8	0.5	0.8	0.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	52.8	27.7	26.9	26.7	12.2	2.9	3.0	11.6	12.4	11.9
LnGrp LOS	C	A	D	C	C	C	B	A	A	B	B	B
Approach Vol, veh/h	476			49			916			245		
Approach Delay, s/veh	49.0			27.2			3.1			12.1		
Approach LOS	D			C			A			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	46.3	6.3	28.1	6.6	49.0	8.5	25.9				
Change Period (Y+Rc), s	5.0	5.0	4.5	5.0	5.0	5.0	4.5	5.0				
Max Green Setting (Gmax), s	5.0	35.0	5.5	25.0	5.0	35.0	10.5	20.0				
Max Q Clear Time (g_c+I1), s	4.0	4.4	2.7	22.4	2.4	4.0	4.5	2.9				
Green Ext Time (p_c), s	0.0	6.3	0.0	0.7	0.0	1.0	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay	18.1											
HCM 6th LOS	B											

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	18	0	0	5	4	838	133	91	193	4
Future Vol, veh/h	0	0	18	0	0	5	4	838	133	91	193	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	200	-	200	200	-	-
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	0	20	0	0	5	4	911	145	99	210	4















Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	107	-	-	456	214	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-
Pot Cap-1 Maneuver	0	0	926	0	0	551	1353	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	926	-	-	551	1353	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	11.6	0	3.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1353	-	-	926	551	655	-
HCM Lane V/C Ratio	0.003	-	-	0.021	0.01	0.151	-
HCM Control Delay (s)	7.7	-	-	9	11.6	11.5	-
HCM Lane LOS	A	-	-	A	B	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.5	-

Timings
17: Crossroads Blvd & E 6th Ave









2050 Background Traffic
AM Peak Hour

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	104	56	13	24	20	871	206	
Future Volume (vph)	104	56	13	24	20	871	206	
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	4		8		2			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	10.0	23.0	10.0	23.0	10.0	23.0	23.0	10.0
Total Split (s)	12.0	25.0	12.0	25.0	10.0	43.0	43.0	10.0
Total Split (%)	13.3%	27.8%	13.3%	27.8%	11.1%	47.8%	47.8%	11%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	12.4	10.7	10.2	7.7	69.0	70.0	65.4	
Actuated g/C Ratio	0.14	0.12	0.11	0.09	0.77	0.78	0.73	
v/c Ratio	0.60	0.41	0.07	0.16	0.03	0.37	0.09	
Control Delay	46.3	30.0	29.1	39.0	5.3	5.5	5.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.3	30.0	29.1	39.0	5.3	5.5	5.7	
LOS	D	C	C	D	A	A	A	
Approach Delay		38.8		35.5		5.5	5.7	
Approach LOS		D		D		A	A	

Intersection Summary






















Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 46.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Crossroads Blvd & E 6th Ave

			
Ø1	Ø2 (R)	Ø3	Ø4
10 s	43 s	12 s	25 s
			
Ø5	Ø6 (R)	Ø7	Ø8
10 s	43 s	12 s	25 s

HCM 6th Signalized Intersection Summary 17: Crossroads Blvd & E 6th Ave

2050 Background Traffic
AM Peak Hour





												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	56	32	13	24	0	20	871	48	0	206	4
Future Volume (veh/h)	104	56	32	13	24	0	20	871	48	0	206	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	61	35	14	26	0	22	947	52	0	224	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	269	125	72	179	100	0	843	2414	133	416	2235	40
Arrive On Green	0.08	0.11	0.11	0.02	0.05	0.00	0.02	0.70	0.70	0.00	1.00	1.00
Sat Flow, veh/h	1781	1115	640	1781	1870	0	1781	3425	188	1781	3572	64
Grp Volume(v), veh/h	113	0	96	14	26	0	22	491	508	0	111	117
Grp Sat Flow(s),veh/h/ln	1781	0	1755	1781	1870	0	1781	1777	1837	1781	1777	1859
Q Serve(g_s), s	5.2	0.0	4.6	0.7	1.2	0.0	0.4	10.2	10.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	4.6	0.7	1.2	0.0	0.4	10.2	10.2	0.0	0.0	0.0
Prop In Lane	1.00		0.36	1.00		0.00	1.00		0.10	1.00		0.03
Lane Grp Cap(c), veh/h	269	0	197	179	100	0	843	1252	1294	416	1112	1163
V/C Ratio(X)	0.42	0.00	0.49	0.08	0.26	0.00	0.03	0.39	0.39	0.00	0.10	0.10
Avail Cap(c_a), veh/h	274	0	390	288	416	0	900	1252	1294	513	1112	1163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	37.5	39.2	40.9	0.0	4.9	5.4	5.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.9	0.2	1.3	0.0	0.0	0.9	0.9	0.0	0.2	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	2.3	0.0	2.1	0.3	0.6	0.0	0.1	3.4	3.5	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	0.0	39.4	39.4	42.2	0.0	5.0	6.4	6.3	0.0	0.2	0.2
LnGrp LOS	D	A	D	D	D	A	A	A	A	A	A	A
Approach Vol, veh/h		209			40			1021			228	
Approach Delay, s/veh		37.4			41.2			6.3			0.2	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	68.4	6.5	15.1	7.1	61.3	11.8	9.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	5.0	38.0	7.0	20.0	5.0	38.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s	0.0	12.2	2.7	6.6	2.4	2.0	7.2	3.2				
Green Ext Time (p_c), s	0.0	7.3	0.0	0.3	0.0	1.4	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			10.6									
HCM 6th LOS			B									

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	2	6	14	3	1	7	1	1	3	0
Future Vol, veh/h	0	1	2	6	14	3	1	7	1	1	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	1	2	7	15	3	1	8	1	1	3	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	25	16	3	18	16	9	3	0	0	9	0	0
Stage 1	5	5	-	11	11	-	-	-	-	-	-	-
Stage 2	20	11	-	7	5	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	986	878	1081	996	878	1073	1619	-	-	1611	-	-
Stage 1	1017	892	-	1010	886	-	-	-	-	-	-	-
Stage 2	999	886	-	1015	892	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	968	876	1081	992	876	1073	1619	-	-	1611	-	-
Mov Cap-2 Maneuver	968	876	-	992	876	-	-	-	-	-	-	-
Stage 1	1016	891	-	1009	885	-	-	-	-	-	-	-
Stage 2	978	885	-	1011	891	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	9	0.8	1.8
HCM LOS	A	A		





Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1619	-	-	1003 926	1611	-	-
HCM Lane V/C Ratio	0.001	-	-	0.003 0.027	0.001	-	-
HCM Control Delay (s)	7.2	0	-	8.6 9	7.2	0	-
HCM Lane LOS	A	A	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.1	0	-	-

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	92	3	0	323	5	1	0	2	3	0	4
Future Vol, veh/h	7	92	3	0	323	5	1	0	2	3	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	8	100	3	0	351	5	1	0	2	3	0	4






Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	356	0	0	103	0	0	474	474	102	473	473	354
Stage 1	-	-	-	-	-	-	118	118	-	354	354	-
Stage 2	-	-	-	-	-	-	356	356	-	119	119	-
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	1203	-	-	1489	-	-	501	489	953	501	490	690
Stage 1	-	-	-	-	-	-	887	798	-	663	630	-
Stage 2	-	-	-	-	-	-	661	629	-	885	797	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1203	-	-	1489	-	-	495	486	953	497	487	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	486	-	497	487	-
Stage 1	-	-	-	-	-	-	881	792	-	658	630	-
Stage 2	-	-	-	-	-	-	657	629	-	877	791	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0			10			11.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	728	1203	-	-	1489	-	-	592
HCM Lane V/C Ratio	0.004	0.006	-	-	-	-	-	0.013
HCM Control Delay (s)	10	8	0	-	0	-	-	11.2
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0





Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	1	8	22	0	0	3	2	0	3	0
Future Vol, veh/h	0	12	1	8	22	0	0	3	2	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	13	1	9	24	0	0	3	2	0	3	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	24	0	0	14	0	0	58	56	14	58	56	24
Stage 1	-	-	-	-	-	-	14	14	-	42	42	-
Stage 2	-	-	-	-	-	-	44	42	-	16	14	-
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	1591	-	-	1604	-	-	939	835	1066	939	835	1052
Stage 1	-	-	-	-	-	-	1006	884	-	972	860	-
Stage 2	-	-	-	-	-	-	970	860	-	1004	884	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1591	-	-	1604	-	-	931	830	1066	930	830	1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	931	830	-	930	830	-
Stage 1	-	-	-	-	-	-	1006	884	-	972	855	-
Stage 2	-	-	-	-	-	-	961	855	-	998	884	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.9			9			9.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	911	1591	-	-	1604	-	-	830				
HCM Lane V/C Ratio	0.006	-	-	-	0.005	-	-	0.004				
HCM Control Delay (s)	9	0	-	-	7.3	0	-	9.4				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A









Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	29	3	128	94	2	15	99	41	30	91	8
Future Vol, veh/h	7	29	3	128	94	2	15	99	41	30	91	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	32	3	139	102	2	16	108	45	33	99	9
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	8.4	10.3	9.3	9.2
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	18%	57%	23%
Vol Thru, %	0%	71%	74%	42%	71%
Vol Right, %	0%	29%	8%	1%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	140	39	224	129
LT Vol	15	0	7	128	30
Through Vol	0	99	29	94	91
RT Vol	0	41	3	2	8
Lane Flow Rate	16	152	42	243	140
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.027	0.219	0.059	0.329	0.194
Departure Headway (Hd)	5.895	5.184	5.02	4.868	4.983
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	605	689	708	735	717
Service Time	3.65	2.939	3.088	2.917	3.04
HCM Lane V/C Ratio	0.026	0.221	0.059	0.331	0.195
HCM Control Delay	8.8	9.4	8.4	10.3	9.2
HCM Lane LOS	A	A	A	B	A
HCM 95th-tile Q	0.1	0.8	0.2	1.4	0.7

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	54	2	2	188	12	2	0	2	8	0	9
Future Vol, veh/h	12	54	2	2	188	12	2	0	2	8	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	13	59	2	2	204	13	2	0	2	9	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	61	0	0	306	307	60	302	302	211
Stage 1	-	-	-	-	-	-	86	86	-	215	215	-
Stage 2	-	-	-	-	-	-	220	221	-	87	87	-
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	1353	-	-	1542	-	-	646	607	1005	650	611	829
Stage 1	-	-	-	-	-	-	922	824	-	787	725	-
Stage 2	-	-	-	-	-	-	782	720	-	921	823	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1353	-	-	1542	-	-	633	600	1005	643	604	829
Mov Cap-2 Maneuver	-	-	-	-	-	-	633	600	-	643	604	-
Stage 1	-	-	-	-	-	-	913	816	-	779	724	-
Stage 2	-	-	-	-	-	-	772	719	-	910	815	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.1			9.7			10.1		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	777	1353	-	-	1542	-	-	730				
HCM Lane V/C Ratio	0.006	0.01	-	-	0.001	-	-	0.025				
HCM Control Delay (s)	9.7	7.7	0	-	7.3	0	-	10.1				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	8	0	4	8	7	1	7	0	5	11	3
Future Vol, veh/h	5	8	0	4	8	7	1	7	0	5	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	5	9	0	4	9	8	1	8	0	5	12	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	17	0	0	9	0	0	48	44	9	44	40	13
Stage 1	-	-	-	-	-	-	19	19	-	21	21	-
Stage 2	-	-	-	-	-	-	29	25	-	23	19	-
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	1600	-	-	1611	-	-	953	848	1073	958	852	1067
Stage 1	-	-	-	-	-	-	1000	880	-	998	878	-
Stage 2	-	-	-	-	-	-	988	874	-	995	880	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1600	-	-	1611	-	-	936	843	1073	947	847	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	936	843	-	947	847	-
Stage 1	-	-	-	-	-	-	997	877	-	995	875	-
Stage 2	-	-	-	-	-	-	969	871	-	983	877	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.8			1.5			9.3			9.1		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	854	1600	-	-	1611	-	-	901				
HCM Lane V/C Ratio	0.01	0.003	-	-	0.003	-	-	0.023				
HCM Control Delay (s)	9.3	7.3	0	-	7.2	0	-	9.1				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	6	0	0	122	21	319	18	17	706	7
Future Vol, veh/h	0	0	6	0	0	122	21	319	18	17	706	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	200	-	200	200	-	-
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	0	7	0	0	133	23	347	20	18	767	8























Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	388	-	-	174	775	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-
Pot Cap-1 Maneuver	0	0	611	0	0	839	837	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	611	-	-	839	837	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	10.1	0.6	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	837	-	-	611	839	1188	-
HCM Lane V/C Ratio	0.027	-	-	0.011	0.158	0.016	-
HCM Control Delay (s)	9.4	-	-	11	10.1	8.1	-
HCM Lane LOS	A	-	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.6	0	-

Timings
15: Crossroads Blvd & E 8th Ave

2050 Background Traffic
PM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	32	36	171	209	75	46	252	28	11	627	74
Future Volume (vph)	32	36	171	209	75	46	252	28	11	627	74
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	9.5	23.0	9.5	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	10.0	25.0	10.0	25.0	25.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (%)	11.1%	27.8%	11.1%	27.8%	27.8%	11.1%	50.0%	50.0%	11.1%	50.0%	50.0%
Yellow Time (s)	3.5	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	18.8	14.9	20.8	17.0	17.0	56.0	55.0	55.0	53.7	50.4	50.4
Actuated g/C Ratio	0.21	0.17	0.23	0.19	0.19	0.62	0.61	0.61	0.60	0.56	0.56
v/c Ratio	0.14	0.23	0.63	0.65	0.20	0.11	0.13	0.03	0.02	0.34	0.08
Control Delay	23.0	20.5	37.3	42.4	2.2	8.3	8.5	0.0	8.7	13.9	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	20.5	37.3	42.4	2.2	8.3	8.5	0.0	8.7	13.9	0.7
LOS	C	C	D	D	A	A	A	A	A	B	A
Approach Delay		21.4		33.8			7.8			12.4	
Approach LOS		C		C			A			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

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

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 18.1

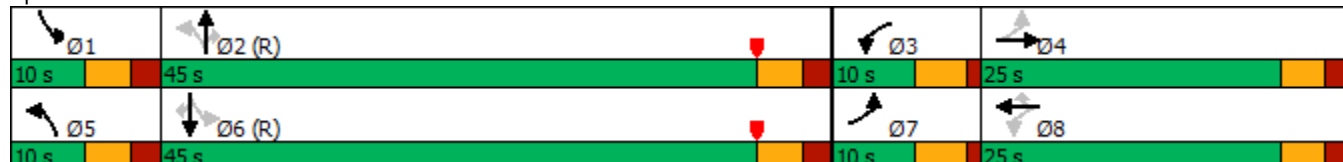
Intersection LOS: B

Intersection Capacity Utilization 55.6%

ICU Level of Service B
























Analysis Period (min) 15








Splits and Phases: 15: Crossroads Blvd & E 8th Ave



HCM 6th Signalized Intersection Summary 15: Crossroads Blvd & E 8th Ave

2050 Background Traffic
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	36	29	171	209	75	46	252	28	11	627	74
Future Volume (veh/h)	32	36	29	171	209	75	46	252	28	11	627	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	39	32	186	227	82	50	274	30	12	682	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	115	94	300	280	237	498	2086	930	726	1996	890
Arrive On Green	0.03	0.12	0.12	0.06	0.15	0.15	0.08	1.00	1.00	0.01	0.56	0.56
Sat Flow, veh/h	1781	950	780	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	35	0	71	186	227	82	50	274	30	12	682	80
Grp Sat Flow(s),veh/h/ln	1781	0	1730	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.5	0.0	3.4	5.5	10.6	4.2	1.0	0.0	0.0	0.3	9.4	2.1
Cycle Q Clear(g_c), s	1.5	0.0	3.4	5.5	10.6	4.2	1.0	0.0	0.0	0.3	9.4	2.1
Prop In Lane	1.00		0.45	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	0	209	300	280	237	498	2086	930	726	1996	890
V/C Ratio(X)	0.20	0.00	0.34	0.62	0.81	0.35	0.10	0.13	0.03	0.02	0.34	0.09
Avail Cap(c_a), veh/h	226	0	384	300	416	352	526	2086	930	800	1996	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	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	0.0	36.3	35.0	37.0	34.3	7.6	0.0	0.0	8.1	10.7	9.1
Incr Delay (d2), s/veh	0.6	0.0	1.0	3.9	7.3	0.9	0.1	0.1	0.1	0.0	0.5	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	0.7	0.0	1.5	1.5	5.3	1.6	0.4	0.0	0.0	0.1	3.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	37.2	38.9	44.4	35.2	7.6	0.1	0.1	8.2	11.2	9.3
LnGrp LOS	C	A	D	D	D	D	A	A	A	A	B	A
Approach Vol, veh/h	106				495				354		774	
Approach Delay, s/veh	36.1				40.8				1.2		10.9	
Approach LOS	D				D				A		B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	57.8	10.0	15.9	8.6	55.6	7.4	18.5				
Change Period (Y+Rc), s	5.0	5.0	4.5	5.0	5.0	5.0	4.5	5.0				
Max Green Setting (Gmax), s	5.0	40.0	5.5	20.0	5.0	40.0	5.5	20.0				
Max Q Clear Time (g_c+I1), s	2.3	2.0	7.5	5.4	3.0	11.4	3.5	12.6				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.2	0.0	5.5	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	19.0											
HCM 6th LOS	B											

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	0	14	0	0	50	15	276	20	14	799	15
Future Vol, veh/h	0	0	14	0	0	50	15	276	20	14	799	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	200	-	200	200	-	-
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	0	15	0	0	54	16	300	22	15	868	16















Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	442	-	-	150	884	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-
Pot Cap-1 Maneuver	0	0	563	0	0	870	761	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	563	-	-	870	761	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	9.4	0.5	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	761	-	-	563	870	1235	-
HCM Lane V/C Ratio	0.021	-	-	0.027	0.062	0.012	-
HCM Control Delay (s)	9.8	-	-	11.6	9.4	8	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.2	0	-

Timings
17: Crossroads Blvd & E 6th Ave

2050 Background Traffic
PM Peak Hour

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	23	16	134	168	26	287	803	
Future Volume (vph)	23	16	134	168	26	287	803	
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	4		8		2			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	10.0	23.0	10.0	23.0	10.0	23.0	23.0	10.0
Total Split (s)	12.0	25.0	12.0	25.0	10.0	43.0	43.0	10.0
Total Split (%)	13.3%	27.8%	13.3%	27.8%	11.1%	47.8%	47.8%	11%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effect Green (s)	14.7	10.5	17.7	14.9	60.3	60.3	55.8	
Actuated g/C Ratio	0.16	0.12	0.20	0.17	0.67	0.67	0.62	
v/c Ratio	0.11	0.20	0.57	0.59	0.07	0.14	0.40	
Control Delay	24.2	19.1	37.0	42.2	8.3	7.0	19.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	24.2	19.1	37.0	42.2	8.3	7.0	19.0	
LOS	C	B	D	D	A	A	B	
Approach Delay		21.0		39.9		7.1	19.0	
Approach LOS		C		D		A	B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

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

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 20.7

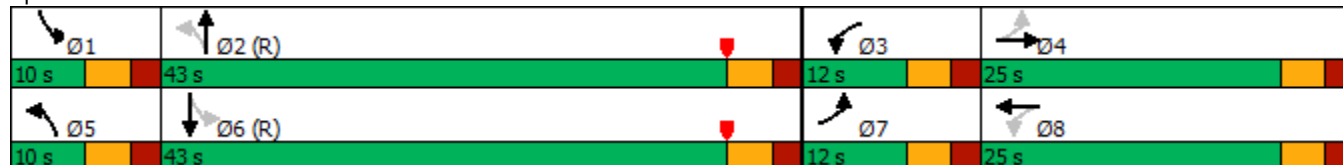
Intersection LOS: C

Intersection Capacity Utilization 48.0%

ICU Level of Service A






















Analysis Period (min) 15

Splits and Phases: 17: Crossroads Blvd & E 6th Ave











HCM 6th Signalized Intersection Summary 17: Crossroads Blvd & E 6th Ave

2050 Background Traffic
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	16	25	134	168	0	26	287	7	0	803	10
Future Volume (veh/h)	23	16	25	134	168	0	26	287	7	0	803	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	17	27	146	183	0	28	312	8	0	873	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	47	74	283	232	0	507	2420	62	718	2156	27
Arrive On Green	0.03	0.07	0.07	0.08	0.12	0.00	0.03	0.68	0.68	0.00	1.00	1.00
Sat Flow, veh/h	1781	651	1034	1781	1870	0	1781	3540	91	1781	3594	45
Grp Volume(v), veh/h	25	0	44	146	183	0	28	156	164	0	432	452
Grp Sat Flow(s),veh/h/ln	1781	0	1684	1781	1870	0	1781	1777	1854	1781	1777	1862
Q Serve(g_s), s	1.2	0.0	2.2	6.7	8.6	0.0	0.5	2.7	2.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	2.2	6.7	8.6	0.0	0.5	2.7	2.8	0.0	0.0	0.0
Prop In Lane	1.00		0.61	1.00		0.00	1.00		0.05	1.00		0.02
Lane Grp Cap(c), veh/h	161	0	121	283	232	0	507	1215	1267	718	1066	1117
V/C Ratio(X)	0.16	0.00	0.36	0.52	0.79	0.00	0.06	0.13	0.13	0.00	0.40	0.40
Avail Cap(c_a), veh/h	253	0	374	283	416	0	556	1215	1267	815	1066	1117
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	0.0	39.8	34.0	38.3	0.0	5.6	4.9	4.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.8	1.6	5.9	0.0	0.0	0.2	0.2	0.0	1.1	1.1
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	0.5	0.0	1.0	3.0	4.2	0.0	0.2	0.9	1.0	0.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	41.6	35.6	44.2	0.0	5.7	5.2	5.2	0.0	1.1	1.1
LnGrp LOS	D	A	D	D	D	A	A	A	A	A	A	A
Approach Vol, veh/h	69			329			348			884		
Approach Delay, s/veh	40.2			40.4			5.2			1.1		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	66.5	12.0	11.5	7.5	59.0	7.3	16.2				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	5.0	38.0	7.0	20.0	5.0	38.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s	0.0	4.8	8.7	4.2	2.5	2.0	3.2	10.6				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.1	0.0	6.7	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay	11.6											
HCM 6th LOS	B											

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	2	1	2	44	7	2	6	2	2	3	3
Future Vol, veh/h	2	2	1	2	44	7	2	6	2	2	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	2	1	2	48	8	2	7	2	2	3	3
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	49	22	5	22	22	8	6	0	0	9	0	0
Stage 1	9	9	-	12	12	-	-	-	-	-	-	-
Stage 2	40	13	-	10	10	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	951	872	1078	990	872	1074	1615	-	-	1611	-	-
Stage 1	1012	888	-	1009	886	-	-	-	-	-	-	-
Stage 2	975	885	-	1011	887	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	903	870	1078	986	870	1074	1615	-	-	1611	-	-
Mov Cap-2 Maneuver	903	870	-	986	870	-	-	-	-	-	-	-
Stage 1	1011	887	-	1008	885	-	-	-	-	-	-	-
Stage 2	915	884	-	1006	886	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.9		9.3			1.4			1.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1615	-	-	919	896	1611	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.006	0.064	0.001	-	-				
HCM Control Delay (s)	7.2	0	-	8.9	9.3	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-				

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	431	6	1	51	2	12	0	8	6	0	9
Future Vol, veh/h	3	431	6	1	51	2	12	0	8	6	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	3	468	7	1	55	2	13	0	9	7	0	10
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	57	0	0	475	0	0	541	537	472	540	539	56
Stage 1	-	-	-	-	-	-	478	478	-	58	58	-
Stage 2	-	-	-	-	-	-	63	59	-	482	481	-
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	1547	-	-	1087	-	-	452	450	592	453	449	1011
Stage 1	-	-	-	-	-	-	568	556	-	954	847	-
Stage 2	-	-	-	-	-	-	948	846	-	565	554	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1547	-	-	1087	-	-	446	448	592	445	447	1011
Mov Cap-2 Maneuver	-	-	-	-	-	-	446	448	-	445	447	-
Stage 1	-	-	-	-	-	-	566	554	-	951	846	-
Stage 2	-	-	-	-	-	-	938	845	-	555	552	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			12.6			10.5		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	495	1547	-	-	1087	-	-	670				
HCM Lane V/C Ratio	0.044	0.002	-	-	0.001	-	-	0.024				
HCM Control Delay (s)	12.6	7.3	0	-	8.3	0	-	10.5				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				






Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	15	0	3	6	1	1	8	4	4	3	1
Future Vol, veh/h	1	15	0	3	6	1	1	8	4	4	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	1	16	0	3	7	1	1	9	4	4	3	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	8	0	0	16	0	0	34	32	16	39	32	8
Stage 1	-	-	-	-	-	-	18	18	-	14	14	-
Stage 2	-	-	-	-	-	-	16	14	-	25	18	-
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	1612	-	-	1602	-	-	973	861	1063	966	861	1074
Stage 1	-	-	-	-	-	-	1001	880	-	1006	884	-
Stage 2	-	-	-	-	-	-	1004	884	-	993	880	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1602	-	-	967	858	1063	952	858	1074
Mov Cap-2 Maneuver	-	-	-	-	-	-	967	858	-	952	858	-
Stage 1	-	-	-	-	-	-	1000	879	-	1005	882	-
Stage 2	-	-	-	-	-	-	997	882	-	978	879	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			2.2			9			8.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	921	1612	-	-	1602	-	-	927				
HCM Lane V/C Ratio	0.015	0.001	-	-	0.002	-	-	0.009				
HCM Control Delay (s)	9	7.2	0	-	7.3	0	-	8.9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

HCM 6th AWSC
8: Rome St & E 6th Ave

2050 Total Traffic
AM Peak Hour





Intersection





Intersection Delay, s/veh 10.2
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	94	4	73	59	1	17	105	98	20	182	17
Future Vol, veh/h	3	94	4	73	59	1	17	105	98	20	182	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	102	4	79	64	1	18	114	107	22	198	18
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	9.5	10	10.1	10.6
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	3%	55%	9%
Vol Thru, %	0%	52%	93%	44%	83%
Vol Right, %	0%	48%	4%	1%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	203	101	133	219
LT Vol	17	0	3	73	20
Through Vol	0	105	94	59	182
RT Vol	0	98	4	1	17
Lane Flow Rate	18	221	110	145	238
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.031	0.313	0.165	0.219	0.33
Departure Headway (Hd)	5.945	5.1	5.397	5.46	4.984
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	596	695	669	662	712
Service Time	3.744	2.898	3.402	3.46	3.083
HCM Lane V/C Ratio	0.03	0.318	0.164	0.219	0.334
HCM Control Delay	8.9	10.2	9.5	10	10.6
HCM Lane LOS	A	B	A	A	B
HCM 95th-tile Q	0.1	1.3	0.6	0.8	1.4

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	176	2	1	48	4	4	0	4	12	0	16
Future Vol, veh/h	5	176	2	1	48	4	4	0	4	12	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	5	191	2	1	52	4	4	0	4	13	0	17
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	193	0	0	267	260	192	260	259	54
Stage 1	-	-	-	-	-	-	202	202	-	56	56	-
Stage 2	-	-	-	-	-	-	65	58	-	204	203	-
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	1549	-	-	1380	-	-	686	645	850	693	645	1013
Stage 1	-	-	-	-	-	-	800	734	-	956	848	-
Stage 2	-	-	-	-	-	-	946	847	-	798	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1380	-	-	672	642	850	687	642	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	672	642	-	687	642	-
Stage 1	-	-	-	-	-	-	797	731	-	952	847	-
Stage 2	-	-	-	-	-	-	929	846	-	791	730	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			9.9			9.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	751	1549	-	-	1380	-	-	842				
HCM Lane V/C Ratio	0.012	0.004	-	-	0.001	-	-	0.036				
HCM Control Delay (s)	9.9	7.3	0	-	7.6	0	-	9.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	7	0	1	6	2	2	18	0	6	8	10
Future Vol, veh/h	4	7	0	1	6	2	2	18	0	6	8	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	4	8	0	1	7	2	2	20	0	7	9	11
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	9	0	0	8	0	0	36	27	8	36	26	8
Stage 1	-	-	-	-	-	-	16	16	-	10	10	-
Stage 2	-	-	-	-	-	-	20	11	-	26	16	-
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	1611	-	-	1612	-	-	970	866	1074	970	867	1074
Stage 1	-	-	-	-	-	-	1004	882	-	1011	887	-
Stage 2	-	-	-	-	-	-	999	886	-	992	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1611	-	-	1612	-	-	951	863	1074	951	864	1074
Mov Cap-2 Maneuver	-	-	-	-	-	-	951	863	-	951	864	-
Stage 1	-	-	-	-	-	-	1002	880	-	1009	886	-
Stage 2	-	-	-	-	-	-	978	885	-	968	880	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.6			0.8			9.2			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	871	1611	-	-	1612	-	-	965				
HCM Lane V/C Ratio	0.025	0.003	-	-	0.001	-	-	0.027				
HCM Control Delay (s)	9.2	7.2	0	-	7.2	0	-	8.8				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				























HCM 6th TWSC
14: Crossroads Blvd & E. 10th Place

2050 Total Traffic
AM Peak Hour

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↗	↗	↗	↗↗	
Traffic Vol, veh/h	0	0	10	0	0	12	45	549	122	112	220	3
Future Vol, veh/h	0	0	10	0	0	12	45	549	122	112	220	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	200	-	200	200	-	-
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	0	11	0	0	13	49	597	133	122	239	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	121	-	-	299	242	0	0	730	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	908	0	0	697	1322	-	-	870	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	908	-	-	697	1322	-	-	870	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9		10.3		0.5		3.3					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1322	-	-	908	697	870	-	-				
HCM Lane V/C Ratio	0.037	-	-	0.012	0.019	0.14	-	-				
HCM Control Delay (s)	7.8	-	-	9	10.3	9.8	-	-				
HCM Lane LOS	A	-	-	A	B	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0	0.1	0.5	-	-				

Timings
15: Crossroads Blvd & E 8th Ave

2050 Total Traffic
AM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	65	244	17	21	7	15	644	186	72	140	18
Future Volume (vph)	65	244	17	21	7	15	644	186	72	140	18
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	9.5	23.0	9.5	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	15.0	30.0	10.0	25.0	25.0	10.0	40.0	40.0	10.0	40.0	40.0
Total Split (%)	16.7%	33.3%	11.1%	27.8%	27.8%	11.1%	44.4%	44.4%	11.1%	44.4%	44.4%
Yellow Time (s)	3.5	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	27.3	23.1	19.3	15.7	15.7	48.5	44.2	44.2	51.9	50.9	50.9
Actuated g/C Ratio	0.30	0.26	0.21	0.17	0.17	0.54	0.49	0.49	0.58	0.57	0.57
v/c Ratio	0.17	0.87	0.10	0.07	0.02	0.02	0.40	0.23	0.20	0.08	0.02
Control Delay	20.9	49.7	20.2	29.4	0.1	9.5	13.5	1.8	11.5	11.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	49.7	20.2	29.4	0.1	9.5	13.5	1.8	11.5	11.7	0.1
LOS	C	D	C	C	A	A	B	A	B	B	A
Approach Delay		45.5		21.3			10.9			10.7	
Approach LOS		D		C			B			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

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

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 21.0

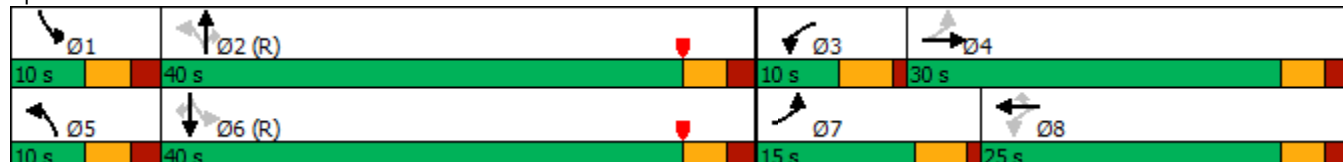
Intersection LOS: C

Intersection Capacity Utilization 55.7%

ICU Level of Service B























Analysis Period (min) 15

Splits and Phases: 15: Crossroads Blvd & E 8th Ave



HCM 6th Signalized Intersection Summary 15: Crossroads Blvd & E 8th Ave

2050 Total Traffic
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	244	137	17	21	7	15	644	186	72	140	18
Future Volume (veh/h)	65	244	137	17	21	7	15	644	186	72	140	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	265	149	18	23	8	16	700	202	78	152	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	471	290	163	144	434	368	678	1625	725	485	1730	771
Arrive On Green	0.05	0.26	0.26	0.02	0.23	0.23	0.04	0.91	0.91	0.05	0.49	0.49
Sat Flow, veh/h	1781	1124	632	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	71	0	414	18	23	8	16	700	202	78	152	20
Grp Sat Flow(s),veh/h/ln	1781	0	1757	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.7	0.0	20.6	0.7	0.9	0.4	0.4	2.5	1.3	2.0	2.1	0.6
Cycle Q Clear(g_c), s	2.7	0.0	20.6	0.7	0.9	0.4	0.4	2.5	1.3	2.0	2.1	0.6
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	471	0	453	144	434	368	678	1625	725	485	1730	771
V/C Ratio(X)	0.15	0.00	0.91	0.12	0.05	0.02	0.02	0.43	0.28	0.16	0.09	0.03
Avail Cap(c_a), veh/h	597	0	488	217	434	368	744	1625	725	500	1730	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	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	24.4	0.0	32.4	27.3	26.9	26.7	12.2	2.2	2.1	11.6	12.4	12.0
Incr Delay (d2), s/veh	0.1	0.0	20.8	0.4	0.1	0.0	0.0	0.8	1.0	0.2	0.1	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	1.2	0.0	11.2	0.3	0.4	0.1	0.2	0.8	0.5	0.8	0.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	53.2	27.7	26.9	26.7	12.3	3.0	3.1	11.7	12.5	12.1
LnGrp LOS	C	A	D	C	C	C	B	A	A	B	B	B
Approach Vol, veh/h	485			49			918			250		
Approach Delay, s/veh	49.0			27.2			3.2			12.2		
Approach LOS	D			C			A			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	46.2	6.3	28.2	6.6	48.8	8.7	25.9				
Change Period (Y+Rc), s	5.0	5.0	4.5	5.0	5.0	5.0	4.5	5.0				
Max Green Setting (Gmax), s	5.0	35.0	5.5	25.0	5.0	35.0	10.5	20.0				
Max Q Clear Time (g_c+I1), s	4.0	4.5	2.7	22.6	2.4	4.1	4.7	2.9				
Green Ext Time (p_c), s	0.0	6.3	0.0	0.6	0.0	1.0	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay	18.3											
HCM 6th LOS	B											















HCM 6th TWSC
16: Crossroads Blvd & E 7th PI

2050 Total Traffic
AM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↘	↕	↗	↘	↕	
Traffic Vol, veh/h	0	0	24	0	0	5	6	840	133	91	199	5
Future Vol, veh/h	0	0	24	0	0	5	6	840	133	91	199	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	200	-	200	200	-	-
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	0	26	0	0	5	7	913	145	99	216	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	111	-	-	457	221	0	0	1058	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	921	0	0	551	1345	-	-	654	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	921	-	-	551	1345	-	-	654	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9		11.6		0		3.5					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1345	-	-	921	551	654	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.028	0.01	0.151	-	-				
HCM Control Delay (s)	7.7	-	-	9	11.6	11.5	-	-				
HCM Lane LOS	A	-	-	A	B	B	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.5	-	-				

Timings
17: Crossroads Blvd & E 6th Ave









2050 Total Traffic
AM Peak Hour

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	105	56	13	24	21	874	218	
Future Volume (vph)	105	56	13	24	21	874	218	
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	4		8		2			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	10.0	23.0	10.0	23.0	10.0	23.0	23.0	10.0
Total Split (s)	12.0	25.0	12.0	25.0	10.0	43.0	43.0	10.0
Total Split (%)	13.3%	27.8%	13.3%	27.8%	11.1%	47.8%	47.8%	11%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effect Green (s)	12.4	10.8	10.2	7.7	68.9	69.9	65.4	
Actuated g/C Ratio	0.14	0.12	0.11	0.09	0.77	0.78	0.73	
v/c Ratio	0.61	0.41	0.08	0.16	0.03	0.37	0.09	
Control Delay	46.6	29.9	29.1	39.0	5.3	5.5	5.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.6	29.9	29.1	39.0	5.3	5.5	5.8	
LOS	D	C	C	D	A	A	A	
Approach Delay		38.9		35.5		5.5	5.8	
Approach LOS		D		D		A	A	

Intersection Summary






















Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 46.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Crossroads Blvd & E 6th Ave

 Ø1	 Ø2 (R)	 Ø3	 Ø4
10 s	43 s	12 s	25 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
10 s	43 s	12 s	25 s

HCM 6th Signalized Intersection Summary
17: Crossroads Blvd & E 6th Ave

2050 Total Traffic
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	56	34	13	24	0	21	874	48	0	218	5
Future Volume (veh/h)	105	56	34	13	24	0	21	874	48	0	218	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	61	37	14	26	0	23	950	52	0	237	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	123	75	179	101	0	834	2412	132	414	2221	47
Arrive On Green	0.08	0.11	0.11	0.02	0.05	0.00	0.02	0.70	0.70	0.00	1.00	1.00
Sat Flow, veh/h	1781	1090	661	1781	1870	0	1781	3426	188	1781	3559	75
Grp Volume(v), veh/h	114	0	98	14	26	0	23	493	509	0	118	124
Grp Sat Flow(s),veh/h/ln	1781	0	1751	1781	1870	0	1781	1777	1837	1781	1777	1857
Q Serve(g_s), s	5.2	0.0	4.7	0.7	1.2	0.0	0.4	10.2	10.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	4.7	0.7	1.2	0.0	0.4	10.2	10.2	0.0	0.0	0.0
Prop In Lane	1.00		0.38	1.00		0.00	1.00		0.10	1.00		0.04
Lane Grp Cap(c), veh/h	271	0	198	179	101	0	834	1251	1293	414	1109	1159
V/C Ratio(X)	0.42	0.00	0.50	0.08	0.26	0.00	0.03	0.39	0.39	0.00	0.11	0.11
Avail Cap(c_a), veh/h	275	0	389	288	416	0	889	1251	1293	511	1109	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	37.5	39.2	40.9	0.0	5.0	5.5	5.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.9	0.2	1.3	0.0	0.0	0.9	0.9	0.0	0.2	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	2.3	0.0	2.1	0.3	0.6	0.0	0.1	3.4	3.5	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	0.0	39.4	39.4	42.2	0.0	5.0	6.4	6.4	0.0	0.2	0.2
LnGrp LOS	D	A	D	D	D	A	A	A	A	A	A	A
Approach Vol, veh/h		212			40			1025			242	
Approach Delay, s/veh		37.4			41.2			6.3			0.2	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	68.4	6.5	15.2	7.2	61.2	11.8	9.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	5.0	38.0	7.0	20.0	5.0	38.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s	0.0	12.2	2.7	6.7	2.4	2.0	7.2	3.2				
Green Ext Time (p_c), s	0.0	7.3	0.0	0.3	0.0	1.5	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			10.6									
HCM 6th LOS			B									

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	2	3	7	14	7	2	8	2	5	4	0
Future Vol, veh/h	0	2	3	7	14	7	2	8	2	5	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	2	3	8	15	8	2	9	2	5	4	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	40	29	4	31	28	10	4	0	0	11	0	0
Stage 1	14	14	-	14	14	-	-	-	-	-	-	-
Stage 2	26	15	-	17	14	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	964	864	1080	977	865	1071	1618	-	-	1608	-	-
Stage 1	1006	884	-	1006	884	-	-	-	-	-	-	-
Stage 2	992	883	-	1002	884	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	942	861	1080	969	862	1071	1618	-	-	1608	-	-
Mov Cap-2 Maneuver	942	861	-	969	862	-	-	-	-	-	-	-
Stage 1	1005	881	-	1005	883	-	-	-	-	-	-	-
Stage 2	967	882	-	994	881	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.7	9	1.2	4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1618	-	-	980	933	1608	-	-
HCM Lane V/C Ratio	0.001	-	-	0.006	0.033	0.003	-	-
HCM Control Delay (s)	7.2	0	-	8.7	9	7.2	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	92	12	4	323	7	6	0	6	5	0	7
Future Vol, veh/h	11	92	12	4	323	7	6	0	6	5	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	-	-	-	-	-	-	-	-	-	-	-	-
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	12	100	13	4	351	8	7	0	7	5	0	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	359	0	0	113	0	0	498	498	107	497	500	355
Stage 1	-	-	-	-	-	-	131	131	-	363	363	-
Stage 2	-	-	-	-	-	-	367	367	-	134	137	-
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	1200	-	-	1476	-	-	483	474	947	483	473	689
Stage 1	-	-	-	-	-	-	873	788	-	656	625	-
Stage 2	-	-	-	-	-	-	653	622	-	869	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1200	-	-	1476	-	-	472	467	947	475	466	689
Mov Cap-2 Maneuver	-	-	-	-	-	-	472	467	-	475	466	-
Stage 1	-	-	-	-	-	-	863	779	-	649	623	-
Stage 2	-	-	-	-	-	-	644	620	-	854	774	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.1			10.8			11.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	630	1200	-	-	1476	-	-	580				
HCM Lane V/C Ratio	0.021	0.01	-	-	0.003	-	-	0.022				
HCM Control Delay (s)	10.8	8	0	-	7.4	0	-	11.4				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				






Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	12	1	11	22	6	1	5	3	4	6	1
Future Vol, veh/h	1	12	1	11	22	6	1	5	3	4	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	1	13	1	12	24	7	1	5	3	4	7	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	14	0	0	72	71	14	72	68	28
Stage 1	-	-	-	-	-	-	16	16	-	52	52	-
Stage 2	-	-	-	-	-	-	56	55	-	20	16	-
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	1582	-	-	1604	-	-	919	819	1066	919	823	1047
Stage 1	-	-	-	-	-	-	1004	882	-	961	852	-
Stage 2	-	-	-	-	-	-	956	849	-	999	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1582	-	-	1604	-	-	906	812	1066	905	816	1047
Mov Cap-2 Maneuver	-	-	-	-	-	-	906	812	-	905	816	-
Stage 1	-	-	-	-	-	-	1003	881	-	960	845	-
Stage 2	-	-	-	-	-	-	940	842	-	989	881	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			2			9.1			9.2		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	893	1582	-	-	1604	-	-	864				
HCM Lane V/C Ratio	0.011	0.001	-	-	0.007	-	-	0.014				
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	9.2				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

HCM 6th AWSC
8: Rome St & E 6th Ave

2050 Total Traffic
PM Peak Hour





Intersection

Intersection Delay, s/veh 9.7
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	30	3	131	96	2	15	99	45	30	91	8
Future Vol, veh/h	7	30	3	131	96	2	15	99	45	30	91	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	33	3	142	104	2	16	108	49	33	99	9
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	8.4	10.4	9.4	9.3
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	17%	57%	23%
Vol Thru, %	0%	69%	75%	42%	71%
Vol Right, %	0%	31%	7%	1%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	144	40	229	129
LT Vol	15	0	7	131	30
Through Vol	0	99	30	96	91
RT Vol	0	45	3	2	8
Lane Flow Rate	16	157	43	249	140
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.027	0.226	0.061	0.338	0.195
Departure Headway (Hd)	5.913	5.188	5.043	4.884	5.006
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	603	689	705	734	712
Service Time	3.674	2.948	3.113	2.934	3.069
HCM Lane V/C Ratio	0.027	0.228	0.061	0.339	0.197
HCM Control Delay	8.8	9.5	8.4	10.4	9.3
HCM Lane LOS	A	A	A	B	A
HCM 95th-tile Q	0.1	0.9	0.2	1.5	0.7

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	55	2	2	189	14	2	0	2	9	0	13
Future Vol, veh/h	14	55	2	2	189	14	2	0	2	9	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	15	60	2	2	205	15	2	0	2	10	0	14
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	220	0	0	62	0	0	315	315	61	309	309	213
Stage 1	-	-	-	-	-	-	91	91	-	217	217	-
Stage 2	-	-	-	-	-	-	224	224	-	92	92	-
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	1349	-	-	1541	-	-	638	601	1004	643	605	827
Stage 1	-	-	-	-	-	-	916	820	-	785	723	-
Stage 2	-	-	-	-	-	-	779	718	-	915	819	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1349	-	-	1541	-	-	621	593	1004	635	597	827
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	593	-	635	597	-
Stage 1	-	-	-	-	-	-	905	810	-	776	722	-
Stage 2	-	-	-	-	-	-	765	717	-	902	809	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.1			9.7			10.1		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	767	1349	-	-	1541	-	-	736				
HCM Lane V/C Ratio	0.006	0.011	-	-	0.001	-	-	0.032				
HCM Control Delay (s)	9.7	7.7	0	-	7.3	0	-	10.1				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	8	0	5	8	7	1	7	0	5	14	3
Future Vol, veh/h	5	8	0	5	8	7	1	7	0	5	14	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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	5	9	0	5	9	8	1	8	0	5	15	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	17	0	0	9	0	0	51	46	9	46	42	13
Stage 1	-	-	-	-	-	-	19	19	-	23	23	-
Stage 2	-	-	-	-	-	-	32	27	-	23	19	-
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	1600	-	-	1611	-	-	948	846	1073	955	850	1067
Stage 1	-	-	-	-	-	-	1000	880	-	995	876	-
Stage 2	-	-	-	-	-	-	984	873	-	995	880	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1600	-	-	1611	-	-	928	841	1073	944	845	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	928	841	-	944	845	-
Stage 1	-	-	-	-	-	-	997	877	-	992	873	-
Stage 2	-	-	-	-	-	-	961	870	-	983	877	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.8			1.8			9.3			9.1		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	851	1600	-	-	1611	-	-	892				
HCM Lane V/C Ratio	0.01	0.003	-	-	0.003	-	-	0.027				
HCM Control Delay (s)	9.3	7.3	0	-	7.2	0	-	9.1				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				























HCM 6th TWSC
14: Crossroads Blvd & E. 10th Place

2050 Total Traffic
PM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↗	↗	↗	↗↗	
Traffic Vol, veh/h	0	0	8	0	0	122	24	323	18	17	711	10
Future Vol, veh/h	0	0	8	0	0	122	24	323	18	17	711	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	200	-	200	200	-	-
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	0	9	0	0	133	26	351	20	18	773	11
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	-	-	392	-	-	176	784	0	0	371	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	0	0	607	0	0	837	830	-	-	1184	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	607	-	-	837	830	-	-	1184	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	11		10.1		0.6		0.2		0.2		0.2	
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL		NBT		NBR		EBLn1WBLn1		SBL		SBT	
Capacity (veh/h)	830		-		-		607		837		1184	
HCM Lane V/C Ratio	0.031		-		-		0.014		0.158		0.016	
HCM Control Delay (s)	9.5		-		-		11		10.1		8.1	
HCM Lane LOS	A		-		-		B		B		A	
HCM 95th %tile Q(veh)	0.1		-		-		0		0.6		0	

Timings
15: Crossroads Blvd & E 8th Ave

2050 Total Traffic
PM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	35	36	171	209	75	50	256	28	11	632	77
Future Volume (vph)	35	36	171	209	75	50	256	28	11	632	77
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	9.5	23.0	9.5	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	10.0	25.0	10.0	25.0	25.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (%)	11.1%	27.8%	11.1%	27.8%	27.8%	11.1%	50.0%	50.0%	11.1%	50.0%	50.0%
Yellow Time (s)	3.5	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	18.8	14.9	20.8	17.0	17.0	56.0	55.0	55.0	52.6	48.2	48.2
Actuated g/C Ratio	0.21	0.17	0.23	0.19	0.19	0.62	0.61	0.61	0.58	0.54	0.54
v/c Ratio	0.15	0.23	0.63	0.65	0.20	0.12	0.13	0.03	0.02	0.36	0.09
Control Delay	23.3	20.0	37.3	42.4	2.2	8.2	8.2	0.0	8.7	14.9	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	20.0	37.3	42.4	2.2	8.2	8.2	0.0	8.7	14.9	0.8
LOS	C	B	D	D	A	A	A	A	A	B	A
Approach Delay		21.1		33.8			7.5			13.3	
Approach LOS		C		C			A			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

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

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 18.4

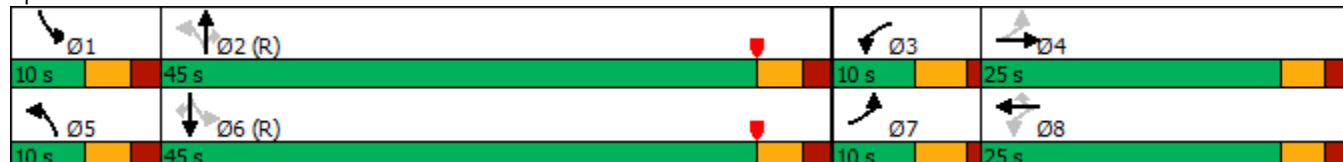
Intersection LOS: B

Intersection Capacity Utilization 55.7%

ICU Level of Service B
























Analysis Period (min) 15

Splits and Phases: 15: Crossroads Blvd & E 8th Ave



HCM 6th Signalized Intersection Summary 15: Crossroads Blvd & E 8th Ave

2050 Total Traffic
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	36	32	171	209	75	50	256	28	11	632	77
Future Volume (veh/h)	35	36	32	171	209	75	50	256	28	11	632	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	39	35	186	227	82	54	278	30	12	687	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	111	100	299	280	237	469	2080	928	704	1985	885
Arrive On Green	0.03	0.12	0.12	0.06	0.15	0.15	0.08	1.00	1.00	0.01	0.56	0.56
Sat Flow, veh/h	1781	908	815	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	0	74	186	227	82	54	278	30	12	687	84
Grp Sat Flow(s),veh/h/ln	1781	0	1724	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.7	0.0	3.5	5.5	10.6	4.2	1.1	0.0	0.0	0.3	9.5	2.2
Cycle Q Clear(g_c), s	1.7	0.0	3.5	5.5	10.6	4.2	1.1	0.0	0.0	0.3	9.5	2.2
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	0	211	299	280	237	469	2080	928	704	1985	885
V/C Ratio(X)	0.22	0.00	0.35	0.62	0.81	0.35	0.12	0.13	0.03	0.02	0.35	0.09
Avail Cap(c_a), veh/h	223	0	383	299	416	352	495	2080	928	777	1985	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	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	33.1	0.0	36.2	34.9	37.0	34.3	7.6	0.0	0.0	8.3	10.9	9.3
Incr Delay (d2), s/veh	0.6	0.0	1.0	3.9	7.3	0.9	0.1	0.1	0.1	0.0	0.5	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	0.7	0.0	1.5	1.5	5.3	1.6	0.4	0.0	0.0	0.1	3.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	37.2	38.9	44.4	35.2	7.7	0.1	0.1	8.3	11.4	9.5
LnGrp LOS	C	A	D	D	D	D	A	A	A	A	B	A
Approach Vol, veh/h	112				495				362			
Approach Delay, s/veh	36.0				40.8				1.3			
Approach LOS	D				D				A			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	57.7	10.0	16.0	8.7	55.3	7.6	18.5				
Change Period (Y+Rc), s	5.0	5.0	4.5	5.0	5.0	5.0	4.5	5.0				
Max Green Setting (Gmax), s	5.0	40.0	5.5	20.0	5.0	40.0	5.5	20.0				
Max Q Clear Time (g_c+I1), s	2.3	2.0	7.5	5.5	3.1	11.5	3.7	12.6				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.3	0.0	5.3	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	19.0											
HCM 6th LOS	B											

HCM 6th TWSC
16: Crossroads Blvd & E 7th PI

2050 Total Traffic
PM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗↗	↗	↗	↗↗	
Traffic Vol, veh/h	0	0	19	0	0	50	22	283	20	14	804	17
Future Vol, veh/h	0	0	19	0	0	50	22	283	20	14	804	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	200	-	200	200	-	-
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	0	21	0	0	54	24	308	22	15	874	18















Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	446	-	-	154	892	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.22	-
Pot Cap-1 Maneuver	0	0	560	0	0	864	756	-
Stage 1	0	0	-	0	0	-	-	-
Stage 2	0	0	-	0	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	560	-	-	864	756	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	9.4	0.7	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	756	-	-	560	864	1226	-
HCM Lane V/C Ratio	0.032	-	-	0.037	0.063	0.012	-
HCM Control Delay (s)	9.9	-	-	11.7	9.4	8	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.2	0	-

Timings
17: Crossroads Blvd & E 6th Ave

2050 Total Traffic
PM Peak Hour

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	24	16	134	168	28	300	812	
Future Volume (vph)	24	16	134	168	28	300	812	
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	4		8		2			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	5.0
Minimum Split (s)	10.0	23.0	10.0	23.0	10.0	23.0	23.0	10.0
Total Split (s)	12.0	25.0	12.0	25.0	10.0	43.0	43.0	10.0
Total Split (%)	13.3%	27.8%	13.3%	27.8%	11.1%	47.8%	47.8%	11%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effect Green (s)	14.7	10.5	17.7	14.9	60.3	60.3	53.7	
Actuated g/C Ratio	0.16	0.12	0.20	0.17	0.67	0.67	0.60	
v/c Ratio	0.11	0.20	0.57	0.59	0.08	0.14	0.42	
Control Delay	24.4	18.9	37.0	42.2	8.3	7.1	15.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	24.4	18.9	37.0	42.2	8.3	7.1	15.2	
LOS	C	B	D	D	A	A	B	
Approach Delay		20.9		39.9		7.2	15.2	
Approach LOS		C		D		A	B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

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

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 18.6

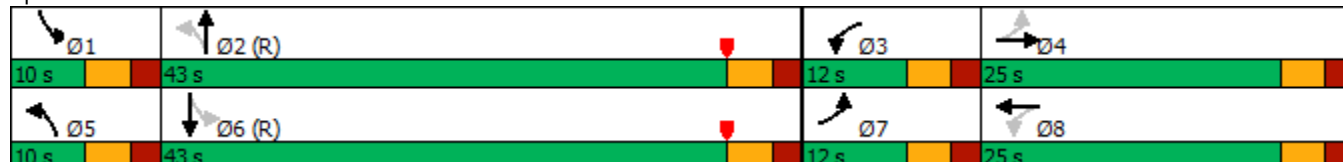
Intersection LOS: B

Intersection Capacity Utilization 48.8%

ICU Level of Service A






















Analysis Period (min) 15

Splits and Phases: 17: Crossroads Blvd & E 6th Ave



HCM 6th Signalized Intersection Summary 17: Crossroads Blvd & E 6th Ave

2050 Total Traffic
PM Peak Hour












												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	16	26	134	168	0	28	300	7	0	812	11
Future Volume (veh/h)	24	16	26	134	168	0	28	300	7	0	812	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	17	28	146	183	0	30	326	8	0	883	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	46	76	283	232	0	504	2420	59	708	2146	29
Arrive On Green	0.03	0.07	0.07	0.08	0.12	0.00	0.03	0.68	0.68	0.00	1.00	1.00
Sat Flow, veh/h	1781	635	1047	1781	1870	0	1781	3545	87	1781	3590	49
Grp Volume(v), veh/h	26	0	45	146	183	0	30	163	171	0	437	458
Grp Sat Flow(s),veh/h/ln	1781	0	1682	1781	1870	0	1781	1777	1855	1781	1777	1862
Q Serve(g_s), s	1.2	0.0	2.3	6.7	8.6	0.0	0.5	2.9	2.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	2.3	6.7	8.6	0.0	0.5	2.9	2.9	0.0	0.0	0.0
Prop In Lane	1.00		0.62	1.00		0.00	1.00		0.05	1.00		0.03
Lane Grp Cap(c), veh/h	162	0	122	283	232	0	504	1213	1266	708	1062	1113
V/C Ratio(X)	0.16	0.00	0.37	0.52	0.79	0.00	0.06	0.13	0.13	0.00	0.41	0.41
Avail Cap(c_a), veh/h	253	0	374	283	416	0	551	1213	1266	805	1062	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	39.8	34.0	38.3	0.0	5.6	5.0	5.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	1.8	1.6	5.9	0.0	0.0	0.2	0.2	0.0	1.2	1.1
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	0.5	0.0	1.0	3.0	4.2	0.0	0.2	0.9	1.0	0.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	41.6	35.6	44.2	0.0	5.7	5.2	5.2	0.0	1.2	1.1
LnGrp LOS	D	A	D	D	D	A	A	A	A	A	A	A
Approach Vol, veh/h	71			329			364			895		
Approach Delay, s/veh	40.1			40.4			5.3			1.2		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	66.5	12.0	11.5	7.6	58.8	7.4	16.2				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	5.0	38.0	7.0	20.0	5.0	38.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s	0.0	4.9	8.7	4.3	2.5	2.0	3.2	10.6				
Green Ext Time (p_c), s	0.0	1.9	0.0	0.1	0.0	6.4	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay	11.5											
HCM 6th LOS	B											

Queues

15: Crossroads Blvd & E 8th Ave

2050 Total Traffic

AM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	71	414	18	23	8	16	700	202	78	152	20
v/c Ratio	0.17	0.87	0.10	0.07	0.02	0.02	0.40	0.23	0.20	0.08	0.02
Control Delay	20.9	49.7	20.2	29.4	0.1	9.5	13.5	1.8	11.5	11.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	49.7	20.2	29.4	0.1	9.5	13.5	1.8	11.5	11.7	0.1
Queue Length 50th (ft)	30	202	7	12	0	3	99	0	17	16	0
Queue Length 95th (ft)	52	#354	19	30	0	m9	124	15	45	48	0
Internal Link Dist (ft)		374		374			591			614	
Turn Bay Length (ft)	75		200		200	200		200	200		200
Base Capacity (vph)	428	513	186	423	509	691	1739	881	387	2003	980
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.81	0.10	0.05	0.02	0.02	0.40	0.23	0.20	0.08	0.02

Intersection Summary

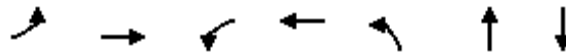
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Queues
17: Crossroads Blvd & E 6th Ave

2050 Total Traffic
AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	114	98	14	26	23	1002	242
v/c Ratio	0.61	0.41	0.08	0.16	0.03	0.37	0.09
Control Delay	46.6	29.9	29.1	39.0	5.3	5.5	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	29.9	29.1	39.0	5.3	5.5	5.3
Queue Length 50th (ft)	64	36	8	14	2	64	6
Queue Length 95th (ft)	94	81	20	37	14	190	m38
Internal Link Dist (ft)		816		747		490	672
Turn Bay Length (ft)	200		200		200		
Base Capacity (vph)	188	414	203	414	835	2729	2563
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.24	0.07	0.06	0.03	0.37	0.09

Intersection Summary












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

Queues

15: Crossroads Blvd & E 8th Ave

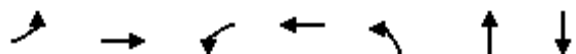
2050 Total Traffic

PM Peak Hour

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	74	186	227	82	54	278	30	12	687	84
v/c Ratio	0.15	0.23	0.63	0.65	0.20	0.12	0.13	0.03	0.02	0.36	0.09
Control Delay	23.3	20.0	37.3	42.4	2.2	8.2	8.2	0.0	8.7	14.9	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	20.0	37.3	42.4	2.2	8.2	8.2	0.0	8.7	14.9	0.8
Queue Length 50th (ft)	16	19	83	122	0	10	27	0	3	130	0
Queue Length 95th (ft)	36	53	132	189	9	26	50	0	10	184	7
Internal Link Dist (ft)		374		374			591			614	
Turn Bay Length (ft)	75		200		200	200		200	200		200
Base Capacity (vph)	250	411	297	414	459	439	2163	1021	674	1894	911
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.18	0.63	0.55	0.18	0.12	0.13	0.03	0.02	0.36	0.09
Intersection Summary											

Queues
17: Crossroads Blvd & E 6th Ave

2050 Total Traffic
PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	26	45	146	183	30	334	895
v/c Ratio	0.11	0.20	0.57	0.59	0.08	0.14	0.42
Control Delay	24.4	18.9	37.0	42.2	8.3	7.1	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	18.9	37.0	42.2	8.3	7.1	12.0
Queue Length 50th (ft)	12	9	73	93	5	30	106
Queue Length 95th (ft)	27	36	104	156	20	69	210
Internal Link Dist (ft)		816		747		490	672
Turn Bay Length (ft)	200		200		200		
Base Capacity (vph)	248	397	256	414	375	2362	2106
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.11	0.57	0.44	0.08	0.14	0.42
Intersection Summary							