



June 10, 2021

Mr. Kevin Barden  
School District 27J  
1850 Egbert Street, Suite 150  
Brighton, CO 80601

Re: School District 27J  
Elementary School No. 14  
Commerce City, CO  
LSC #210400

Dear Mr. Barden:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the proposed School District 27J Elementary School No. 14. As shown on Figure 1, the site is located west of Walden Street and south of Southlawn Parkway in Commerce City, 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 typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected background and resulting total traffic volumes on the area roadways; and recommendations to mitigate growth in background traffic and the impact of the proposed school.

## **LAND USE AND ACCESS**

The site is proposed as a 684-student Elementary School. On opening day (Fall of 2022), the site is expected to have about 350 students. At buildout around 2026, the school is expected to reach capacity with 684 students. Full movement ingress student drop-off/pick-up access is proposed to Walden Street and full movement egress student drop-off/pick-up access is proposed to E. 100<sup>th</sup> Avenue. Service and bus access is proposed to Southlawn Parkway as shown in the conceptual site plan in Figure 2.

## **ROADWAY AND TRAFFIC CONDITIONS**

### **Area Roadways**

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

- **Southlawn Parkway** is an east-west, two-lane collector roadway north of the site. The intersection with Walden Street is all-way stop-controlled. The posted speed limit in the vicinity of the site is 25 mph.
- **Walden Street** is a north-south, two-lane collector roadway east of the site. The intersections with Southlawn Parkway and E. 100<sup>th</sup> Avenue are all-way stop-sign controlled. The posted speed limit in the vicinity of the site is 30 mph.
- **E. 100<sup>th</sup> Avenue** is an east-west, two-lane collector roadway south of the site. The intersection with Walden Street is all-way stop-sign controlled and the intersection with Uravan Street is two-way stop-sign controlled. The posted speed limit in the vicinity of the site is 30 mph.

### **Existing Traffic Conditions**

Figure 3a shows the April, 2021 existing peak-hour and daily traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic and daily traffic volumes are from the attached traffic counts conducted by Counter Measures in April, 2021.

### **Pandemic Adjustment**

Figure 3b shows the existing traffic adjusted for the ongoing pandemic. The traffic volumes from Figure 3a were adjusted higher by 25 percent or more in a few cases to adjust for the ongoing pandemic. The peak-hour factor (PHF) was assumed to be 0.85 for all movements.

### **2022, 2026, and 2041 Background Traffic**

Figure 4 shows the estimated 2022 background traffic which assumes an annual growth rate of five percent from 2021 to 2022 to maintain a conservative analysis. The peak-hour factor (PHF) was assumed to be 0.85 for all movements.

Figure 5 shows the estimated 2026 background traffic which assumes an annual growth rate of three percent from 2022 to 2026 to maintain a conservative analysis. The peak-hour factor (PHF) was assumed to be 0.85 for all movements.

Figure 6 shows the estimated 2041 background traffic. The surrounding area is expected to be built out by 2026 but the 2026 background traffic in Figure 5 was increased by five percent from 2026 to 2041 to maintain a conservative analysis. The peak-hour factor (PHF) was assumed to be 0.85 for all movements.

### **2022, 2026, and 2041 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 unsignalized intersections.

The intersections in the study area were analyzed to determine the 2022, 2026, and 2041 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

- **Walden Street/Southlawn Parkway:** All movements at this all-way stop-sign controlled intersection currently operate at LOS “A” during both morning and afternoon peak-hours and are expected to do so through 2041.
- **Walden Street/E. 100<sup>th</sup> Avenue:** All movements at this all-way stop-sign controlled intersection currently operate at LOS “A” during both morning and afternoon peak-hours and are expected to do so through 2041.
- **E. 100<sup>th</sup> Avenue/Uravan Street:** All movements at this stop-sign controlled intersection currently operate at LOS “A” during both morning and afternoon peak-hours and are expected to do so through 2041.

### TRIP GENERATION

Table 2 shows the estimated typical weekday, morning peak-hour, and afternoon peak-hour trip generation for the expansion based on the rates from *Trip Generation, 10<sup>th</sup> Edition*, 2017, by the Institute of Transportation Engineers (ITE).

In Phase 1 (Fall of 2022) with 350 students, the site is projected to generate about 662 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 127 vehicles would enter and about 108 vehicles would exit the site. During the afternoon school peak-hour, which generally occurs for one hour between 2:00 and 4:00 p.m., about 54 vehicles would enter and about 65 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:30 p.m., about 29 vehicles would enter and about 31 vehicles would exit the site.

At full capacity with 684 students, the site is projected to generate about 1,293 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 247 vehicles would enter and about 211 vehicles would exit the site. During the afternoon school peak-hour, which generally occurs for one hour between 2:00 and 4:00 p.m., about 105 vehicles would enter and about 128 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:30 p.m., about 56 vehicles would enter and about 60 vehicles would exit the site.

### TRIP DISTRIBUTION

Figure 7 shows the estimated 2022 and 2026/2041 directional distribution of the site-generated traffic volumes on the area roadways. These estimates were based on the location of the site with respect to the estimated overall service area for the school.

## **TRIP ASSIGNMENT**

Figure 8a shows the estimated 2022 site-generated traffic volumes based on the 2022 directional distribution percentages (from Figure 7) and the Phase 1 trip generation estimate (from Table 2).

Figure 8b shows the estimated 2026/2041 site-generated traffic volumes based on the 2026/2041 directional distribution percentages (from Figure 7) and the buildout trip generation estimate (from Table 2).

## **2022, 2026, AND 2041 TOTAL TRAFFIC**

Figure 9 shows the estimated 2022 weekday total traffic which is the sum of the 2022 background traffic volumes (from Figure 4) and the 2022 site-generated traffic volumes (from Figure 8a).

Figure 10 shows the estimated 2026 weekday total traffic which is the sum of the 2026 background traffic volumes (from Figure 5) and the 2026/2041 site-generated traffic volumes (from Figure 8b).

Figure 11 shows the estimated 2041 weekday total traffic which is the sum of the 2041 background traffic volumes (from Figure 6) and the 2026/2041 site-generated traffic volumes (from Figure 8b).

## **PROJECTED LEVELS OF SERVICE**

The intersections in the study area were analyzed to determine the 2022, 2026, and 2041 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- **Walden Street/Southlawn Parkway:** All movements at this all-way stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2041.
- **Walden Street/E. 100<sup>th</sup> Avenue:** All movements at this all-way stop-sign controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2041.
- **E. 100<sup>th</sup> Avenue/Uravan Street:** All movements at this stop-sign controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2041.
- **Walden Street/Site Entrance:** All movements at this stop-sign controlled intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2041.

- **E. 100<sup>th</sup> Avenue/Site Exit:** All movements at this stop-sign controlled intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2041.

## **RECOMMENDED IMPROVEMENTS**

Figure 12 shows the recommended improvements to mitigate the impact from the site.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Trip Generation**

1. In Phase 1 (Fall of 2022) with 350 students, the site is projected to generate about 662 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 127 vehicles would enter and about 108 vehicles would exit the site. During the afternoon school peak-hour, about 54 vehicles would enter and about 65 vehicles would exit the site. During the afternoon peak-hour, about 29 vehicles would enter and about 31 vehicles would exit the site.
2. At full capacity with 684 students, the site is projected to generate about 1,293 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 247 vehicles would enter and about 211 vehicles would exit the site. During the afternoon school peak-hour, about 105 vehicles would enter and about 128 vehicles would exit the site. During the afternoon peak-hour, about 56 vehicles would enter and about 60 vehicles would exit the site.

### **Projected Levels of Service**

3. All movements at the intersections analyzed are expected to operate at LOS “B” or better through 2041.

### **Conclusions**

4. The impact of the proposed School District 27J Elementary School No. 14 can be accommodated by the existing network with the following recommendations.

### **Recommendations**

5. Walden Street adjacent to the site should be signed for no on-street parking to accommodate the recommended left-turn lane and right-turn lane improvements shown in Figure 12.
6. The site egress/exit should have separate 100-foot left-turn and right-turn lanes approaching E. 100<sup>th</sup> Avenue as shown in Figure 12.
7. An enhanced pedestrian crossing is recommended on E. 100<sup>th</sup> Avenue on the west side of the intersection with Uravan Street as shown in Figure 12. The crossing is recommended to be enhanced with curb bumpouts, a marked crosswalk, and crosswalk signing.

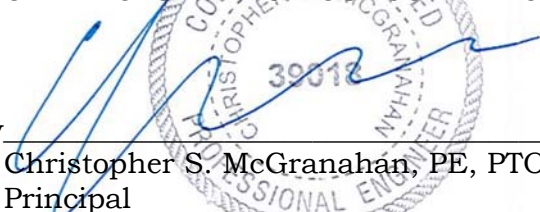
- 8. The school may need to modify drop-off/pick-up operations over time to limit vehicles from queuing out of the site. This could include shifting the drop-off/pick-up area further south on the site and/or utilizing the on-site parking lot for a second southbound drop-off/pick-up area.

\* \* \* \* \*

We trust our findings will assist you in gaining approval of the proposed School District 27J Elementary School No. 14 development. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By  \_\_\_\_\_  
 Christopher S. McGranahan, PE, PTOE  
 Principal



CSM/wc

6-10-21

- Enclosures: Tables 1 and 2  
 Figures 1 - 12  
 Traffic Counts  
 Level of Service Definitions  
 Level of Service Reports

**Table 1**  
**Intersection Levels of Service Analysis**  
**School District 27J Elementary School No. 14**  
**Commerce City, CO**  
**LSC #210400; June, 2021**

Intersection Location	Traffic Control	Existing Traffic		2022 Background Traffic		2022 Total Traffic		2026 Background Traffic		2026 Total Traffic		2041 Background Traffic		2041 Total Traffic	
		Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
<b>Walden Street/Southlawn Parkway</b>															
	AWSC	A	A	A	A	A	A	A	A	A	A	A	A	A	A
NB Approach		A	A	A	A	A	A	A	A	A	A	A	A	A	A
EB Approach		A	A	A	A	A	A	A	A	A	A	A	A	A	A
WB Approach		A	A	A	A	A	A	A	A	A	A	A	A	A	A
SB Approach		A	A	A	A	A	A	A	A	A	A	A	A	A	A
Entire Intersection Delay (sec./veh)		7.5	7.8	7.6	7.9	7.9	8.0	7.7	8.0	8.1	8.3	7.8	8.1	8.2	8.4
Entire Intersection LOS		A	A	A	A	A	A	A	A	A	A	A	A	A	A
<b>Walden Street/E. 100th Avenue</b>															
	AWSC	A	A	A	A	A	A	A	A	B	A	A	A	B	A
NB Approach		A	A	A	A	A	A	A	A	B	A	A	A	B	A
EB Approach		A	A	A	A	A	A	A	A	B	A	A	A	B	A
WB Approach		A	A	A	A	A	A	A	A	B	A	A	A	B	A
SB Approach		A	A	A	A	--	--	A	A	--	--	A	A	--	--
SB Left		--	--	--	--	A	A	--	--	A	A	--	--	B	A
SB Through/Right		--	--	--	--	A	A	--	--	B	A	--	--	B	A
Entire Intersection Delay (sec./veh)		7.4	7.7	7.4	7.8	8.7	8.4	7.5	8.0	12.4	9.5	7.6	8.1	12.7	9.7
Entire Intersection LOS		A	A	A	A	A	A	A	A	A	A	A	A	B	A
<b>E. 100th Avenue/Uravan Street</b>															
	TWSC	A	A	A	A	A	A	A	A	B	A	A	A	B	A
NB Approach		A	A	A	A	A	A	A	A	A	A	A	A	A	A
EB Approach		A	A	A	A	A	A	A	A	A	A	A	A	A	A
WB Approach		A	A	A	A	A	A	A	A	A	A	A	A	A	A
SB Approach		A	A	A	A	B	A	A	A	B	B	A	A	B	B
Critical Movement Delay (sec./veh)		9.1	9.2	9.1	9.2	10.3	9.8	9.2	9.3	10.9	10.1	9.2	9.3	10.9	10.1
<b>Walden Street/Site Entrance</b>															
	TWSC	--	--	--	--	A	A	--	--	A	A	--	--	A	A
NB Left		--	--	--	--	A	A	--	--	A	A	--	--	A	A
Critical Movement Delay (sec./veh)		--	--	--	--	7.8	7.7	--	--	8.5	7.8	--	--	8.6	7.9
<b>E. 100th Avenue/Site Exit</b>															
	TWSC	--	--	--	--	B	A	--	--	B	B	--	--	B	B
SB Left		--	--	--	--	A	A	--	--	A	A	--	--	A	A
SB Right		--	--	--	--	10.2	9.6	--	--	12.3	10.5	--	--	12.3	10.5
Critical Movement Delay (sec./veh)		--	--	--	--	10.2	9.6	--	--	12.3	10.5	--	--	12.3	10.5

**Table 2**  
**ESTIMATED TRAFFIC GENERATION**  
**School District 27J Elementary School #14**  
**Commerce City, CO**  
**LSC #210400; June, 2021**

Trip Generating Category	Quantity	Trip Generation Rates <sup>(1)</sup>							Vehicle-Trips Generated							
		Average Weekday	AM Peak-Hour In	AM Peak-Hour Out	PM School Peak-Hour In	PM School Peak-Hour Out	PM Peak-Hour In	PM Peak-Hour Out	Average Weekday	AM Peak-Hour In	AM Peak-Hour Out	PM School Peak-Hour In	PM School Peak-Hour Out	PM Peak-Hour In	PM Peak-Hour Out	
<b>PHASE 1 (2022)</b>																
Elementary School <sup>(2)</sup>	350 Students	1.89	0.362	0.308	0.153	0.187	0.082	0.088	662	127	108	54	65	29	31	
<b>BUILDOUT (2026)</b>																
Elementary School <sup>(2)</sup>	684 Students	1.89	0.362	0.308	0.153	0.187	0.082	0.088	1,293	247	211	105	128	56	60	

Notes:

(1) Source: *Trip Generation*, Institute of Transportation Engineers, 10th Edition, 2017.

(2) ITE Land Use No. 520 - Elementary School



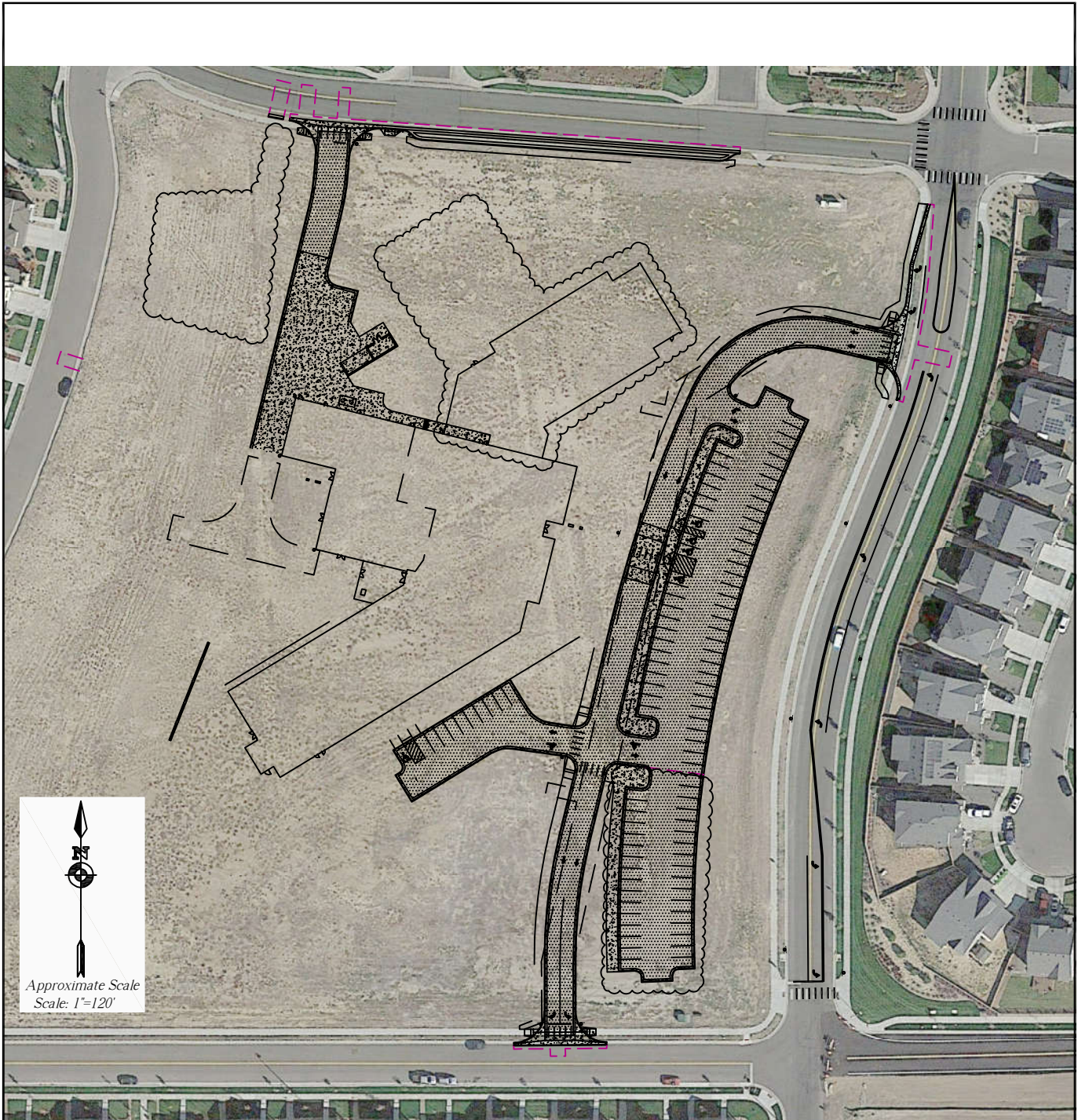


Approximate Scale  
Scale: 1"=1,200'

Figure 1

# Vicinity Map

School District 27J Elementary School #14 (LSC #210400)



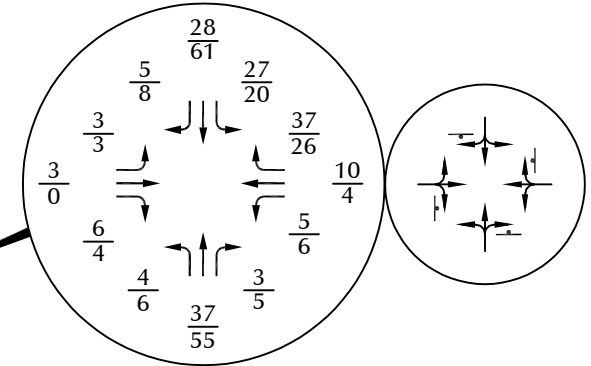
Approximate Scale  
Scale: 1"=120'

Figure 2

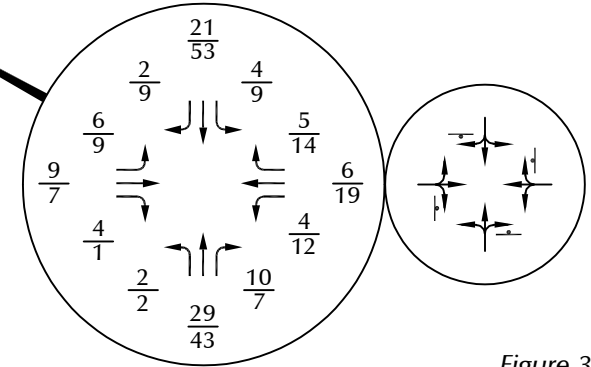
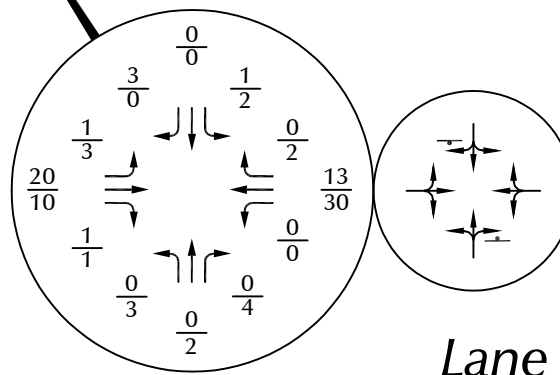
# Site Plan

School District 27J Elementary School #14 (LSC #210400)





Approximate Scale  
Scale: 1"=300'



**LEGEND:**

⊥ = Stop Sign

= Speed Limit

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

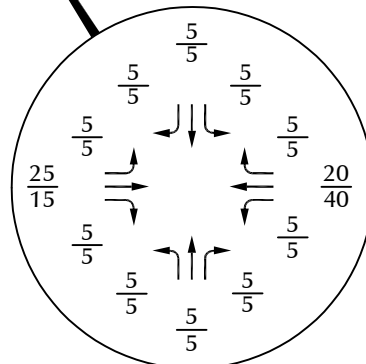
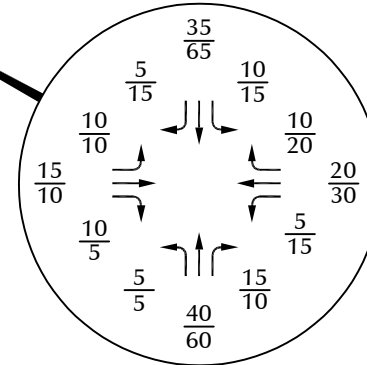
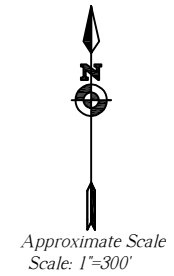
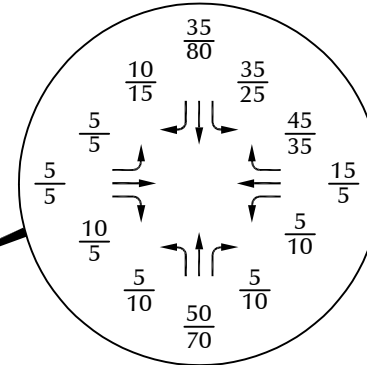
$\frac{35}{1,000}$  = PM School Peak Hour Traffic

1,000 = Average Daily Traffic

Figure 3a

# April, 2021 Existing Traffic, Lane Geometry and Traffic Control

School District 27J Elementary School #14 (LSC #210400)



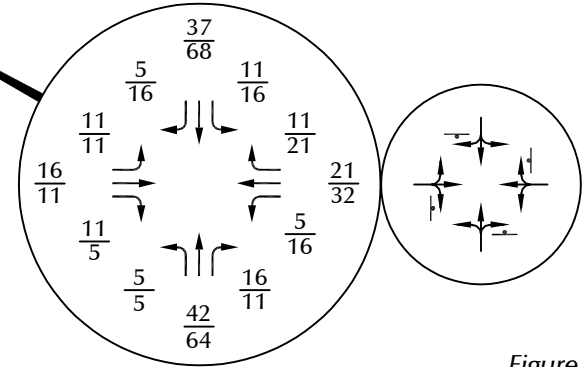
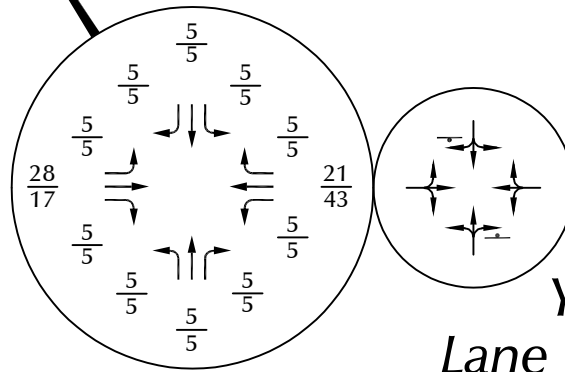
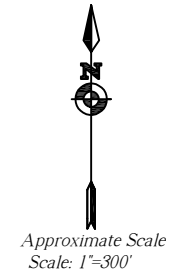
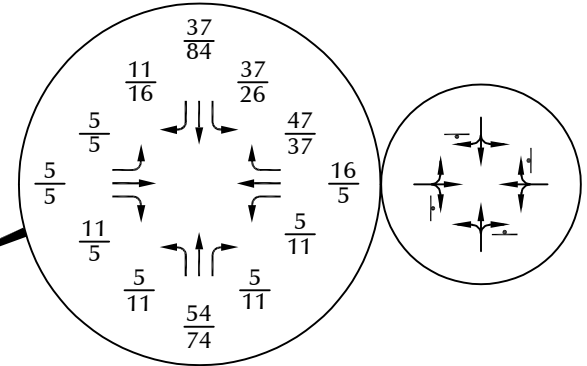
**Notes:**

1. The traffic volumes in Figure 3a were adjusted higher by 25 percent or more in a few cases to adjust for the ongoing pandemic.
2. Peak Hour Factor (PHF) was assumed to be 0.85 for all movements.

**LEGEND:**

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

Figure 3b  
**Existing Traffic  
 Adjusted for Pandemic**  
 School District 27J Elementary School #14 (LSC #210400)



**Notes:**

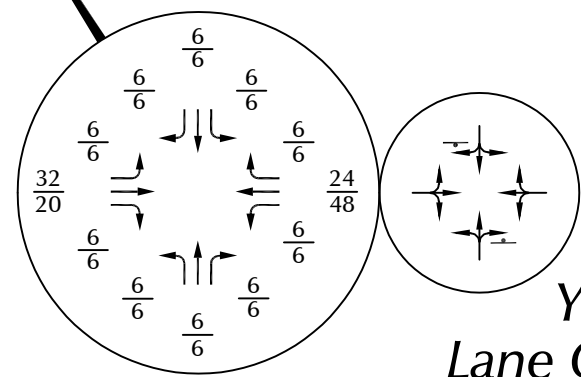
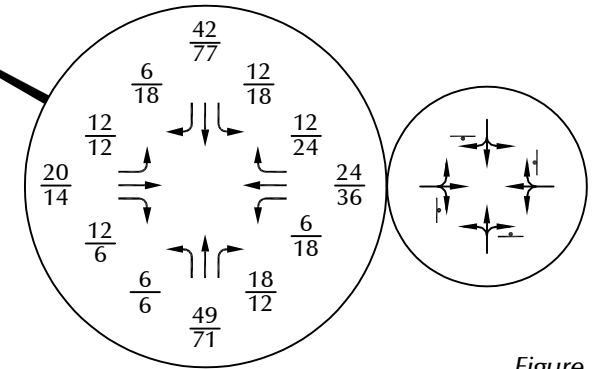
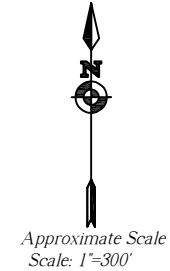
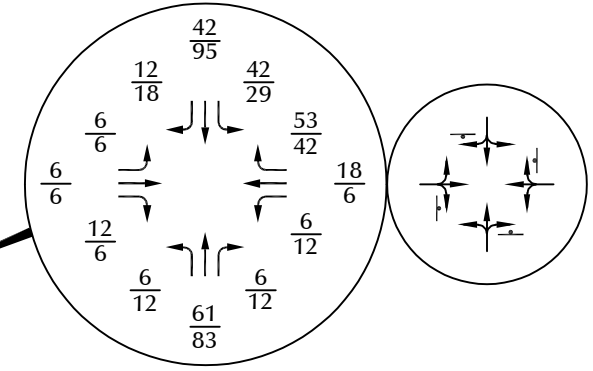
1. Assumes five percent annual growth rate from 2021 to 2022 to maintain a conservative analysis.
2. Peak Hour Factor (PHF) was assumed to be 0.85 for all movements.

**LEGEND:**

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

**Figure 4**  
**Year 2022 Background Traffic,  
Lane Geometry and Traffic Control**

School District 27J Elementary School #14 (LSC #210400)



**Notes:**

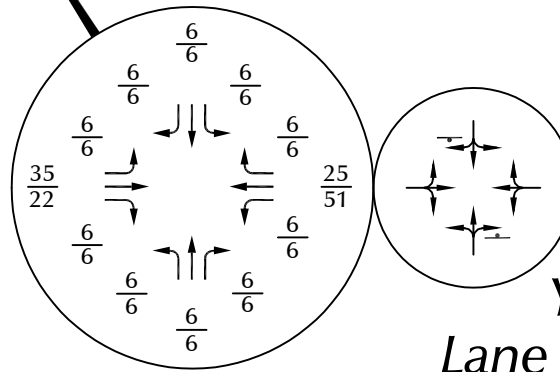
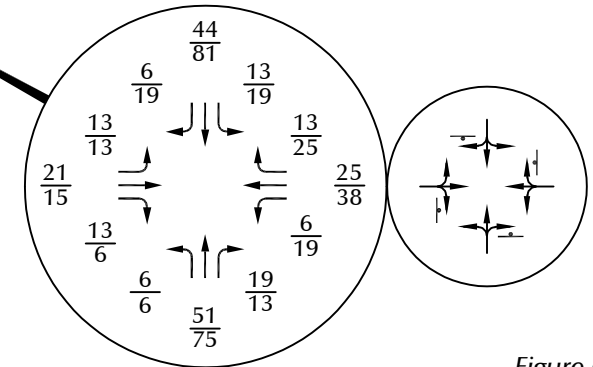
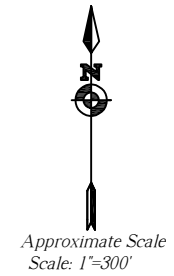
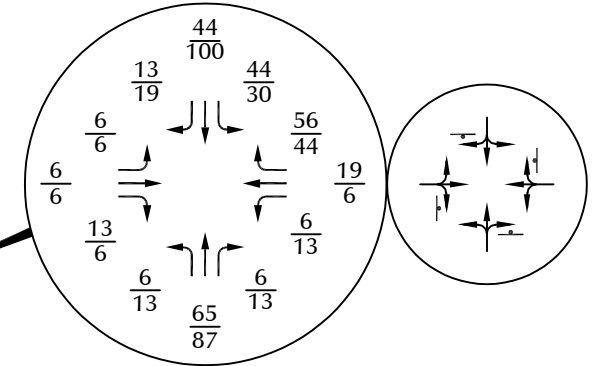
1. Assumes three percent annual growth rate from 2022 to 2026 to maintain a conservative analysis.
2. Peak Hour Factor (PHF) was assumed to be 0.85 for all movements.

**LEGEND:**

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

*Figure 5*  
**Year 2026 Background Traffic,  
Lane Geometry and Traffic Control**

School District 27J Elementary School #14 (LSC #210400)



Notes:

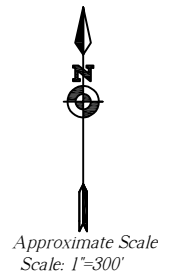
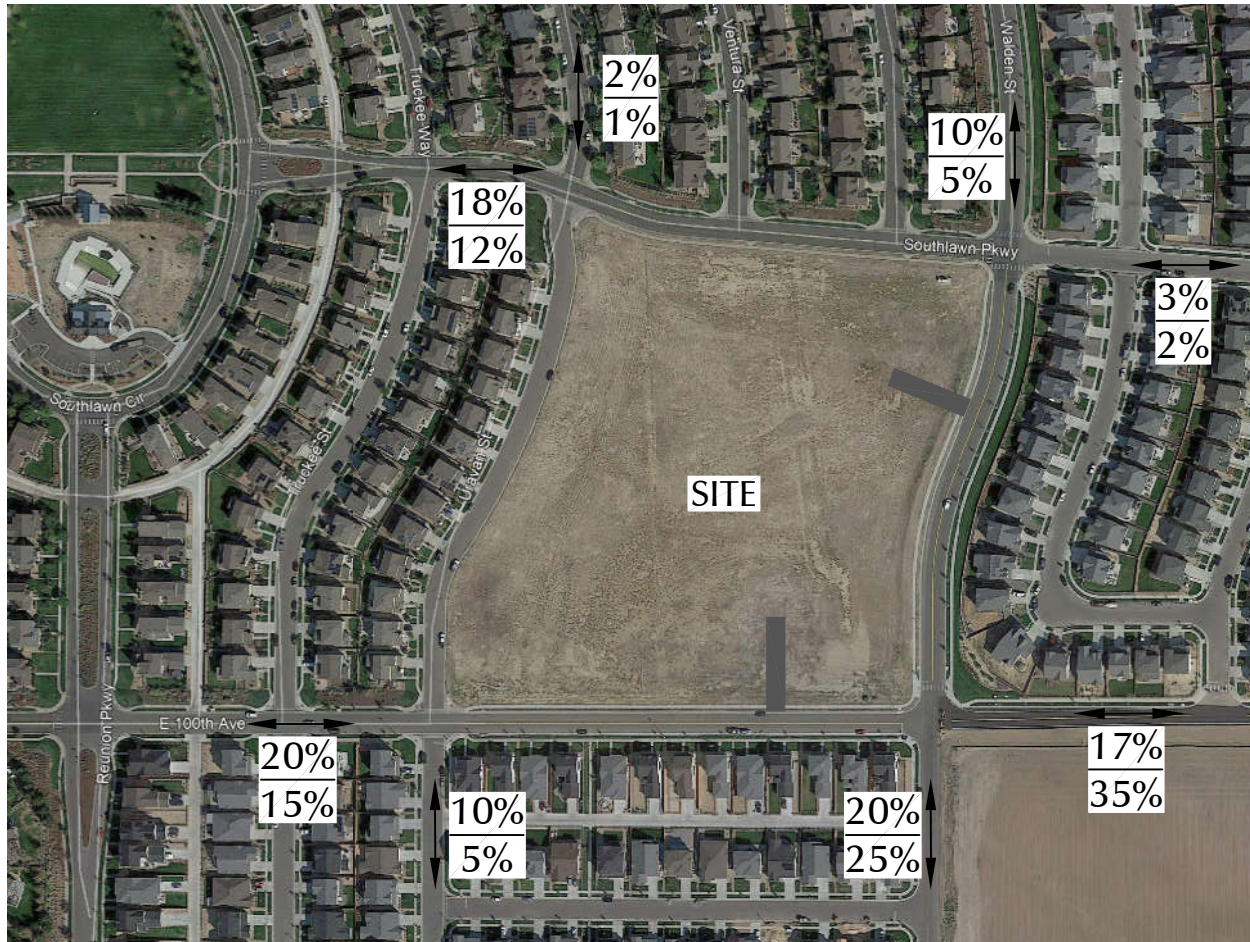
1. The surrounding area is expected to be built out by 2026 but the 2026 background traffic in Figure 5 was increased by five percent from 2026 to 2041 to maintain a conservative analysis.
2. Peak Hour Factor (PHF) was assumed to be 0.85 for all movements.

LEGEND:

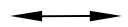
- ⊥ = Stop Sign
- $\frac{26}{35}$  = AM Peak Hour Traffic
- $\frac{35}{26}$  = PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

Figure 6  
**Year 2041 Background Traffic,  
 Lane Geometry and Traffic Control**

School District 27J Elementary School #14 (LSC #210400)



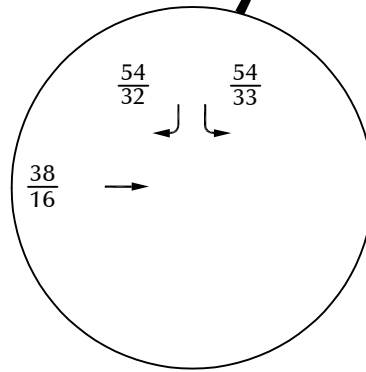
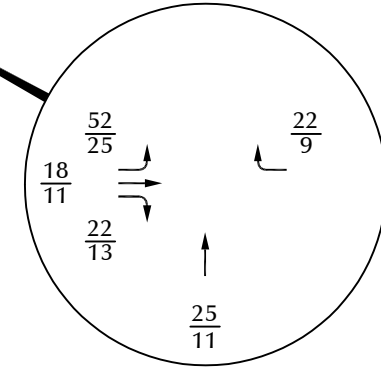
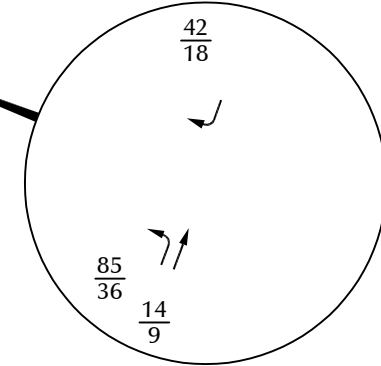
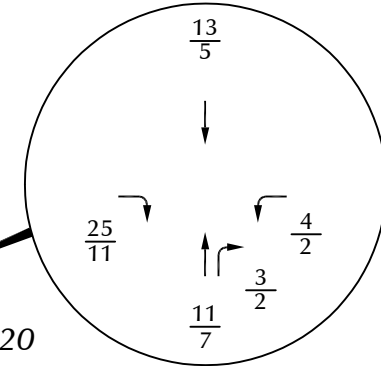
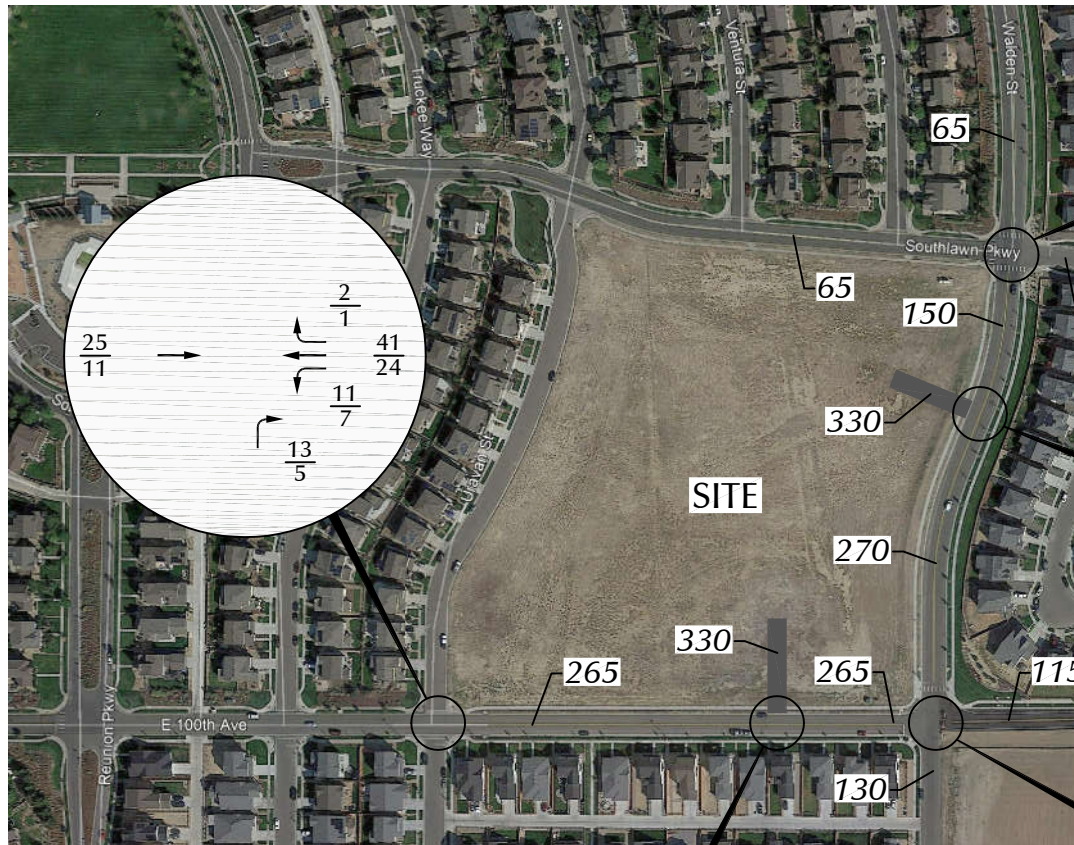
LEGEND:



$$\frac{5\%}{5\%} = \frac{2022 \text{ Percent Directional Distribution}}{2026/2041 \text{ Percent Directional Distribution}}$$

Figure 7  
*Directional Distribution  
of Site-Generated Traffic*  
School District 27J Elementary School #14 (LSC #210400)



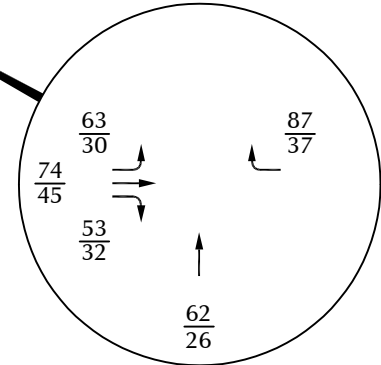
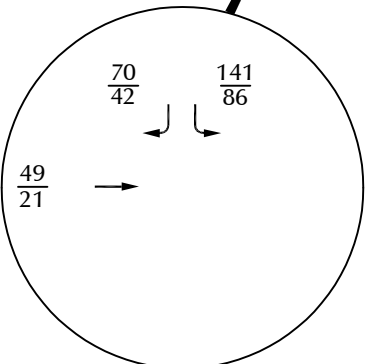
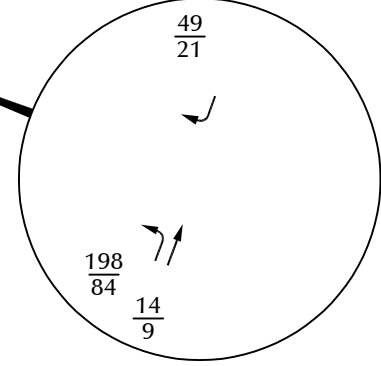
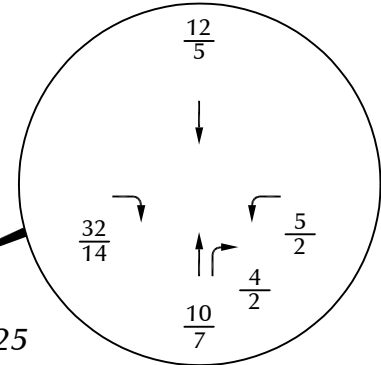
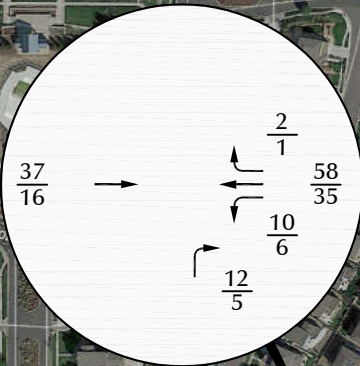
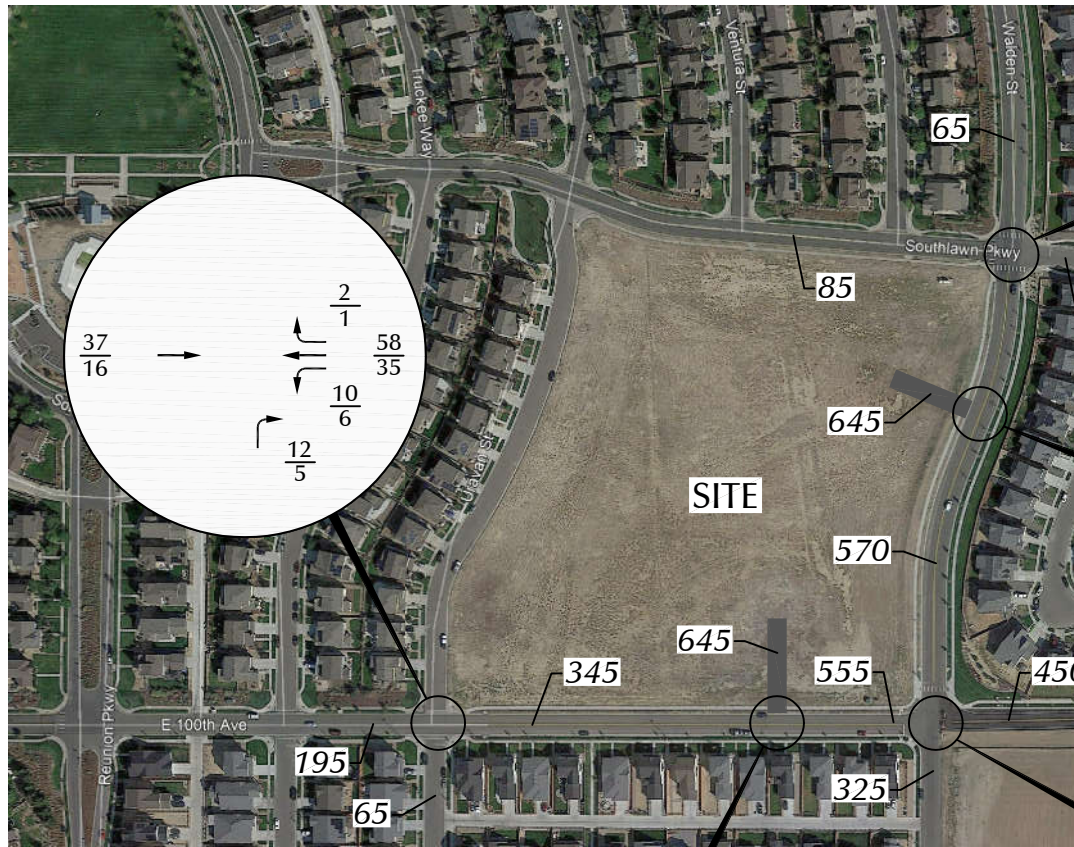


Approximate Scale  
Scale: 1"=300'

LEGEND:

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

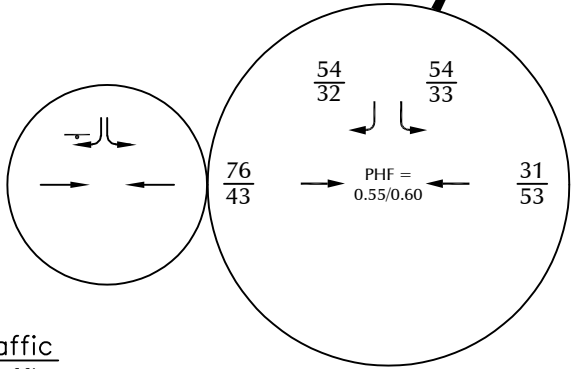
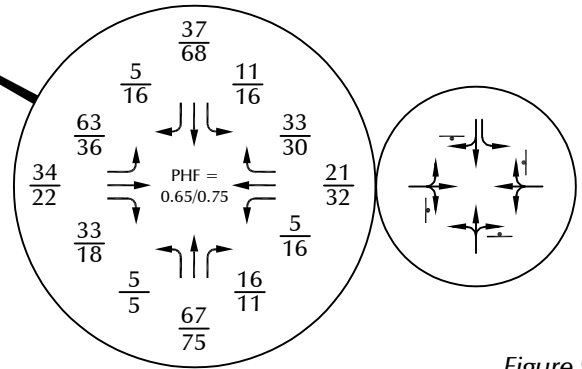
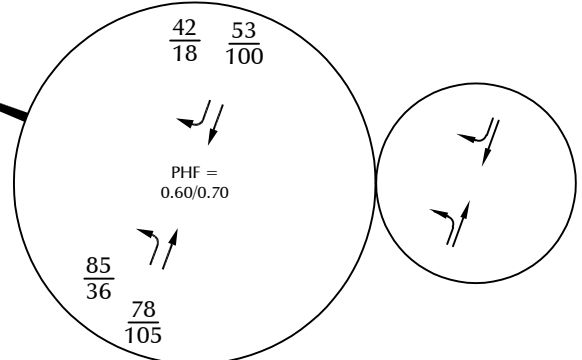
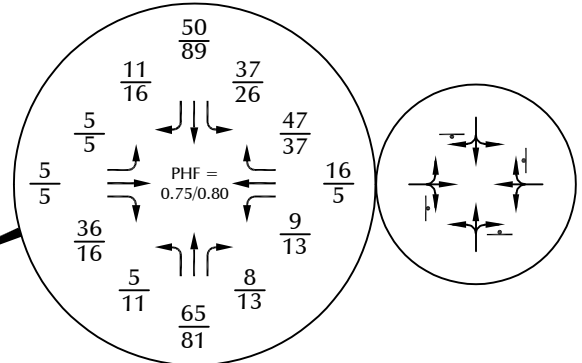
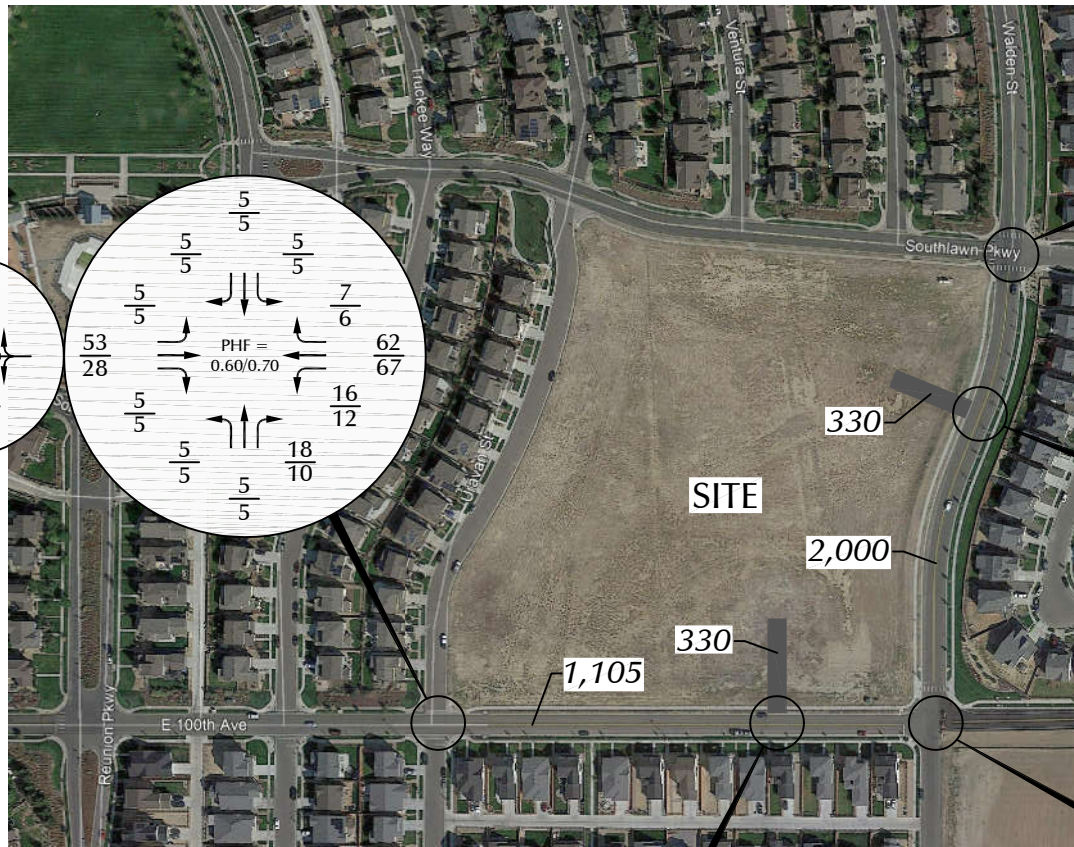
Figure 8a  
**Assignment of 2022  
Site-Generated Traffic**  
School District 27J Elementary School #14 (LSC #210400)



Approximate Scale  
Scale: 1"=300'

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

Figure 8b  
**Assignment of 2026  
 & 2041 Site-Generated Traffic**  
 School District 27J Elementary School #14 (LSC #210400)



PHF = Peak Hour Factor

LEGEND:

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

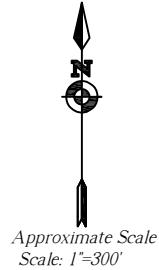
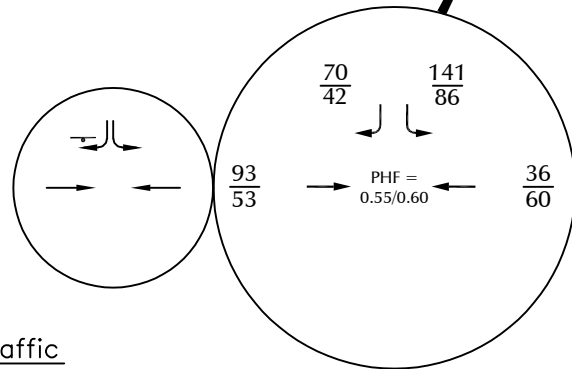
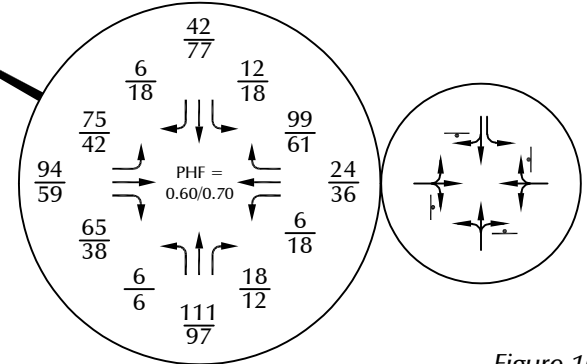
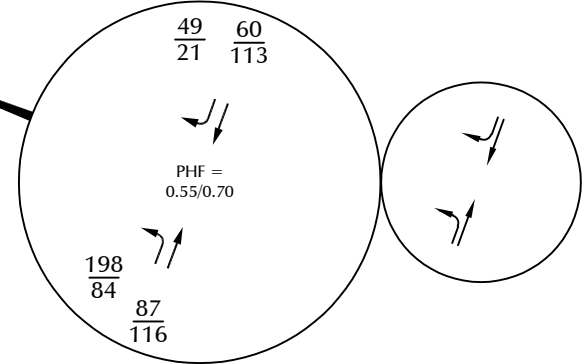
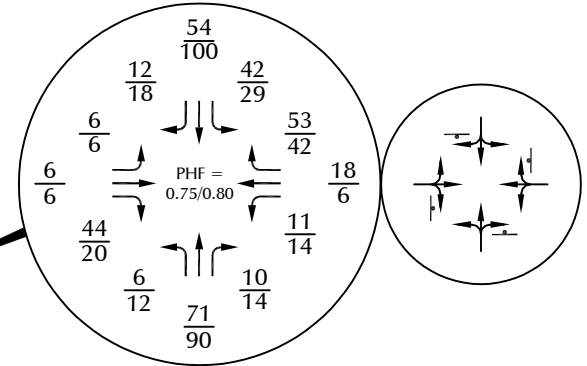
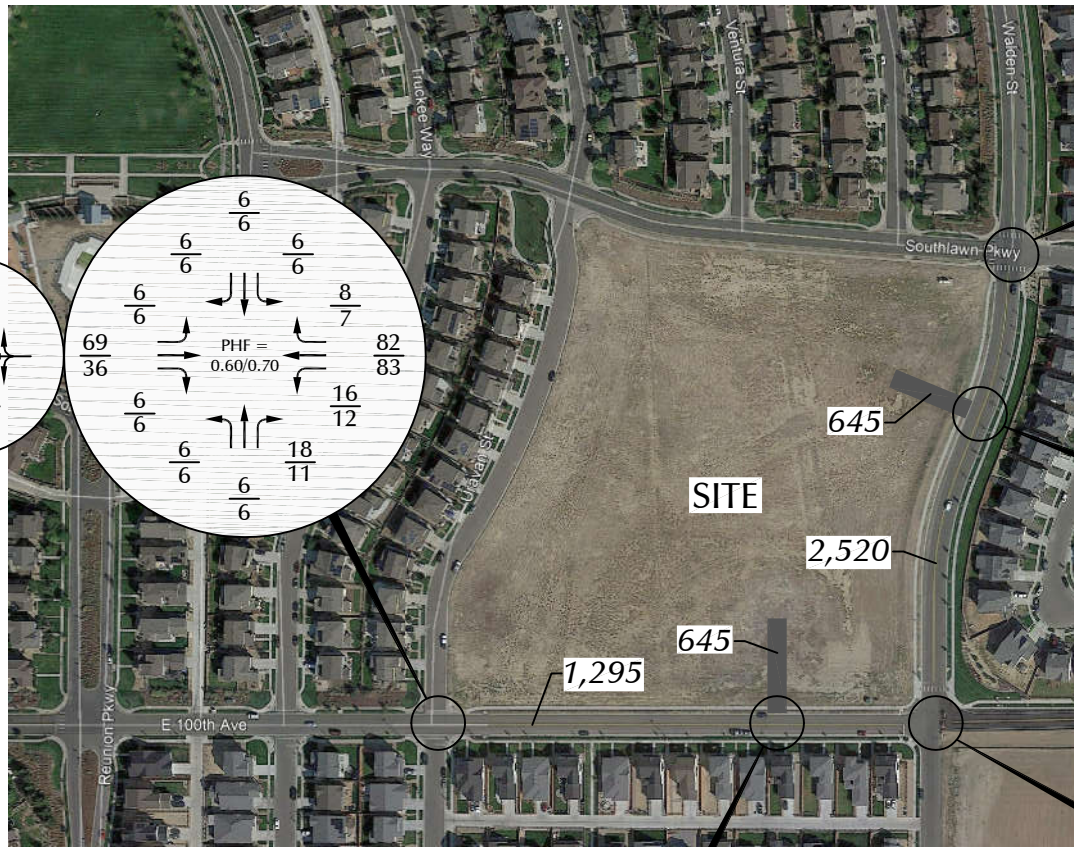


Figure 9  
**Year 2022 Total Traffic, Lane Geometry and Traffic Control**  
 School District 27J Elementary School #14 (LSC #210400)



PHF = Peak Hour Factor

LEGEND:

⊥ = Stop Sign

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

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

1,000 = Average Daily Traffic

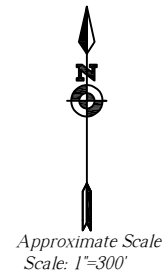
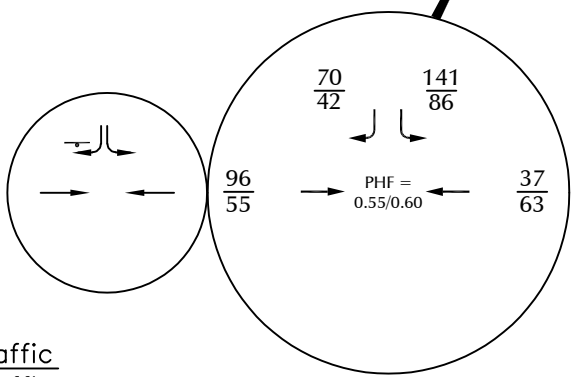
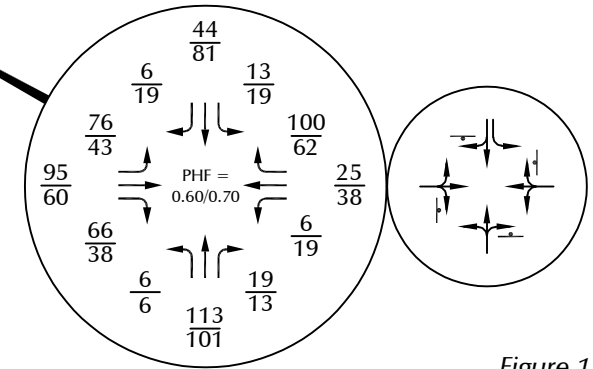
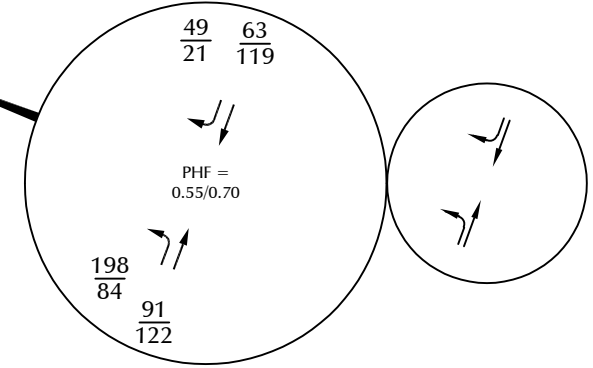
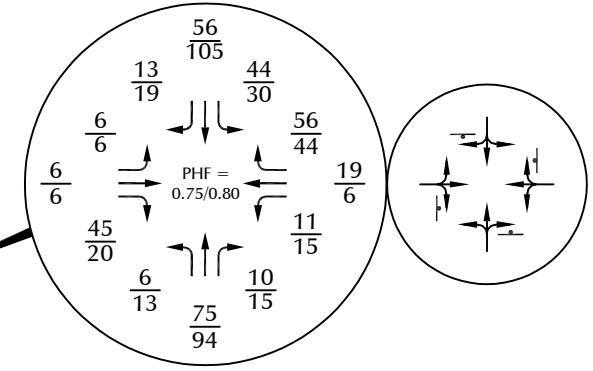
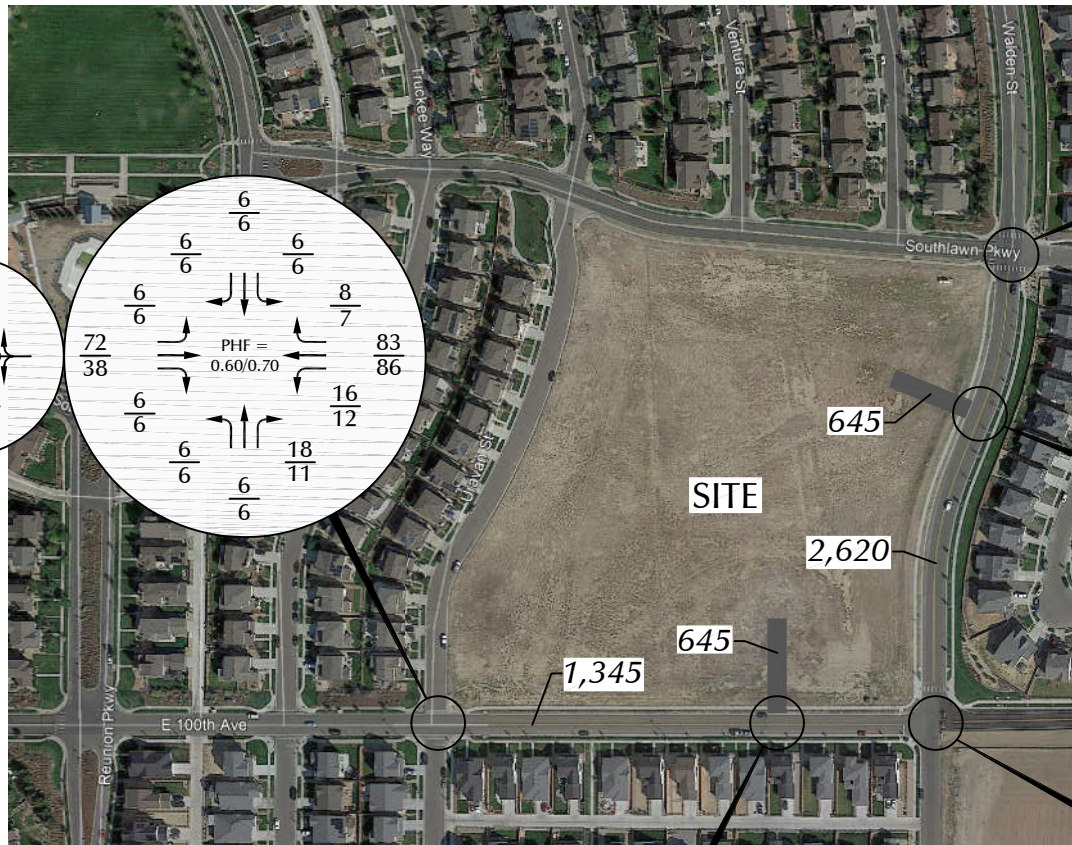


Figure 10

# Year 2026 Total Traffic, Lane Geometry and Traffic Control

School District 27J Elementary School #14 (LSC #210400)



PHF = Peak Hour Factor



Approximate Scale  
Scale: 1"=300'

LEGEND:

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

Figure 11

# Year 2041 Total Traffic, Lane Geometry and Traffic Control

School District 27J Elementary School #14 (LSC #210400)



- ① Provide curb bumpouts and marked/signed crosswalk.
- ② Provide short right-turn lane into site with 50-foot transition taper.
- ③ Restripe Walden Street to provide back to back left-turn lanes.
- ④ Provide NO PARKING signs along Walden Street adjacent to school site.

Figure 12  
**Recommended  
 Off-Site Improvements**  
 School District 27J Elementary School #14 (LSC #210400)

**COUNTER MEASURES INC.**

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: URVANA STREET  
E/W STREET: 100TH AVENUE  
CITY: COMMERCE CITY  
COUNTY: ADAMS

File Name : URVANA100TH  
Site Code : 0000022  
Start Date : 4/27/2021  
Page No : 1

Groups Printed- VEHICLES

Start Time	URVANA STREET Southbound				100TH AVENUE Westbound				URVANA STREET Northbound				100TH AVENUE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
06:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	11	0	0	13
06:45 AM	1	0	1	0	0	1	0	0	0	1	0	0	0	9	0	0	13
Total	2	0	2	0	0	1	0	0	0	1	0	0	0	20	0	0	26
07:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	6	0	0	8
07:15 AM	1	0	0	0	0	4	0	0	0	0	0	0	0	9	0	2	16
07:30 AM	0	0	2	0	0	2	0	1	0	0	0	0	1	8	0	0	14
07:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	1	0	8
Total	1	0	2	0	0	11	0	1	1	0	0	0	1	26	1	2	46
08:00 AM	1	0	0	0	0	4	0	0	0	0	0	0	0	6	0	0	11
08:15 AM	0	0	1	1	0	3	0	0	0	0	0	0	0	3	0	0	8
Total	1	0	1	1	0	7	0	0	0	0	0	0	0	9	0	0	19
02:30 PM	0	2	0	0	2	7	0	0	0	0	0	0	0	4	0	1	16
02:45 PM	0	0	0	0	0	6	1	0	1	0	0	0	0	3	0	0	11
Total	0	2	0	0	2	13	1	0	1	0	0	0	0	7	0	1	27
03:00 PM	0	0	1	0	0	9	0	0	0	1	0	0	1	6	1	0	19
03:15 PM	1	0	0	0	0	8	1	0	0	0	1	0	0	5	0	0	16
03:30 PM	0	0	0	0	0	8	0	0	1	0	2	0	1	1	0	0	13
03:45 PM	1	0	0	0	0	7	0	0	1	2	0	0	1	4	0	0	16
Total	2	0	1	0	0	32	1	0	2	3	3	0	3	16	1	0	64
04:00 PM	0	0	0	2	0	7	1	0	1	0	1	0	1	0	1	0	14
04:15 PM	0	0	0	1	0	11	1	0	1	0	1	0	0	1	0	0	16
04:30 PM	0	0	1	0	2	2	0	0	1	0	0	0	0	5	1	0	12
04:45 PM	0	0	0	0	0	7	1	1	0	1	0	1	1	4	1	0	17
Total	0	0	1	3	2	27	3	1	3	1	2	1	2	10	3	0	59
05:00 PM	0	0	1	0	1	9	1	0	1	0	0	0	2	6	2	0	23
05:15 PM	0	0	0	0	1	9	3	0	1	0	1	0	1	3	0	0	19
Grand Total	6	2	8	4	6	109	9	2	9	5	6	1	9	97	7	3	283
Apprch %	30.0	10.0	40.0	20.0	4.8	86.5	7.1	1.6	42.9	23.8	28.6	4.8	7.8	83.6	6.0	2.6	
Total %	2.1	0.7	2.8	1.4	2.1	38.5	3.2	0.7	3.2	1.8	2.1	0.4	3.2	34.3	2.5	1.1	

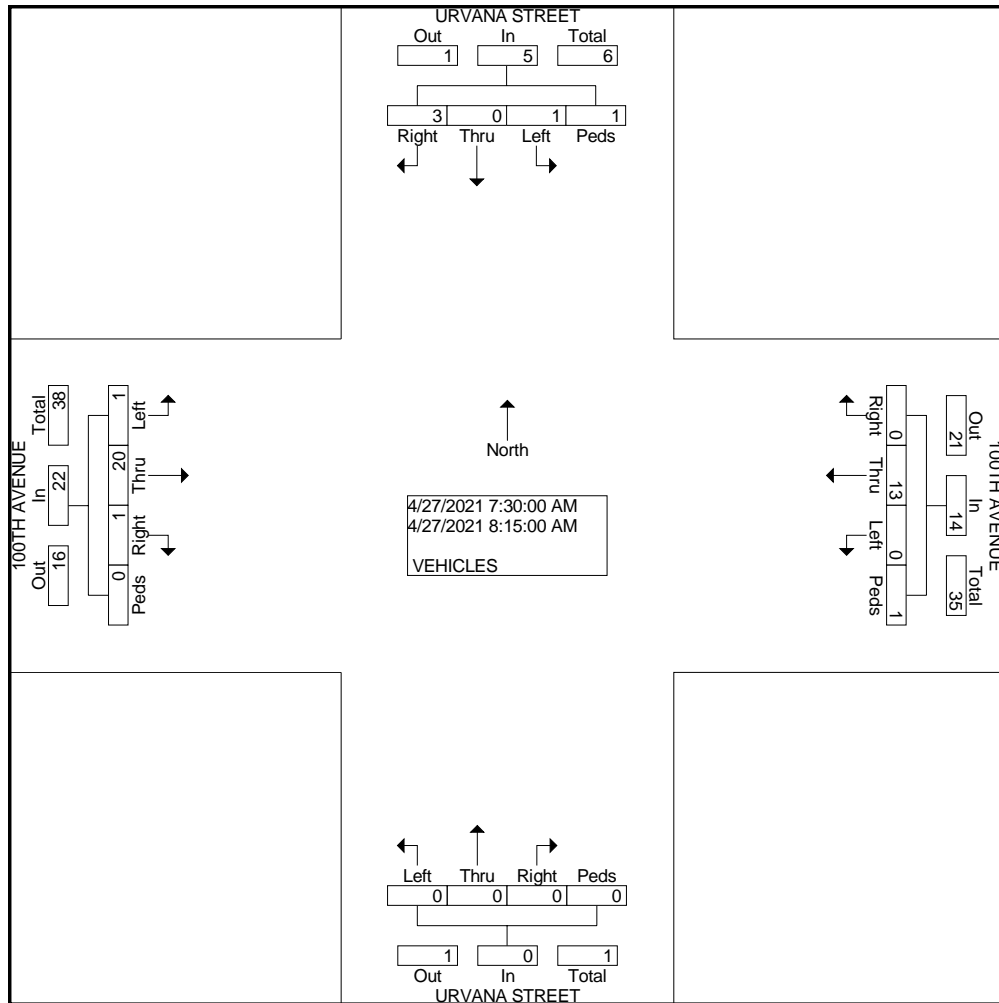
**COUNTER MEASURES INC.**

1889 YORK STREET  
DENVER, COLORADO  
303-333-7409

N/S STREET: URVANA STREET  
E/W STREET: 100TH AVENUE  
CITY: COMMERCE CITY  
COUNTY: ADAMS

File Name : URVANA100TH  
Site Code : 0000022  
Start Date : 4/27/2021  
Page No : 2

Start Time	URVANA STREET Southbound					100TH AVENUE Westbound					URVANA STREET Northbound					100TH AVENUE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	1	0	3	1	5	0	13	0	1	14	0	0	0	0	0	1	20	1	0	22	41
Percent	20.0	0.0	60.0	20.0		0.0	92.9	0.0	7.1		0.0	0.0	0.0	0.0		4.5	90.9	4.5	0.0		
07:30 Volume Peak Factor	0	0	2	0	2	0	2	0	1	3	0	0	0	0	0	1	8	0	0	9	14
High Int. Volume Peak Factor	07:30 AM					07:45 AM					07:30 AM										
	0	0	2	0	2	0	4	0	0	4	0	0	0	0	0	1	8	0	0	9	0.732
	0.62					0.87					0.61					1					
	5					5															





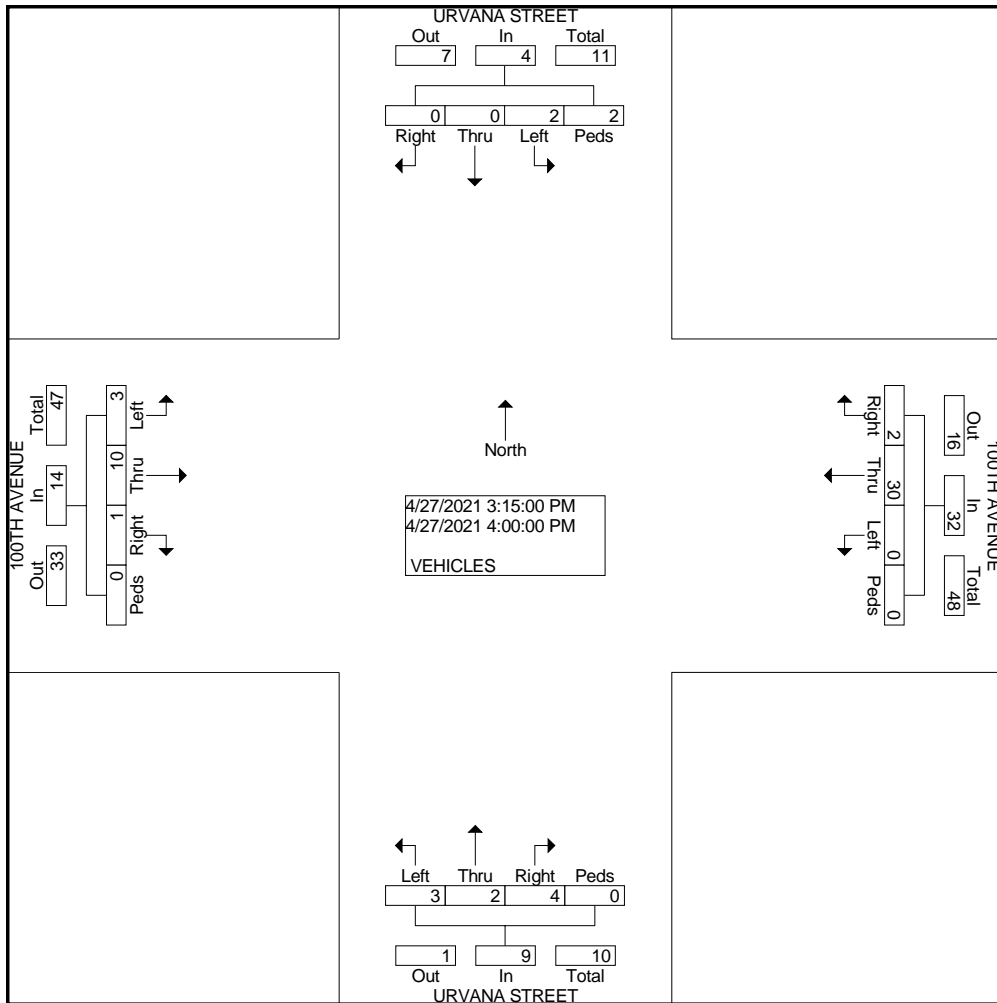
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E/W STREET: 100TH AVENUE  
CITY: COMMERCE CITY  
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File Name : URVANA100TH  
Site Code : 0000022  
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Page No : 2

Start Time	URVANA STREET Southbound					100TH AVENUE Westbound					URVANA STREET Northbound					100TH AVENUE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 03:15 PM to 04:00 PM - Peak 1 of 1																					
Intersection	03:15 PM																				
Volume	2	0	0	2	4	0	30	2	0	32	3	2	4	0	9	3	10	1	0	14	59
Percent	50.0	0.0	0.0	50.0		0.0	93.8	6.3	0.0		33.3	22.2	44.4	0.0		21.4	71.4	7.1	0.0		
03:45 Volume	1	0	0	0	1	0	7	0	0	7	1	2	0	0	3	1	4	0	0	5	16
Peak Factor	0.922																				
High Int. Volume	04:00 PM					03:15 PM					03:30 PM					03:15 PM					
Peak Factor	0.50					0.88					0.75					0.70					



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303-333-7409

N/S STREET: WALDEN STREET  
E/W STREET: 100TH AVENUE  
CITY: COMMERCE CITY  
COUNTY: ADAMS

File Name : WALD100TH  
Site Code : 00000026  
Start Date : 4/27/2021  
Page No : 1

Groups Printed- VEHICLES

Start Time	WALDEN STREET Southbound				100TH AVENUE Westbound				WALDEN STREET Northbound				100TH AVENUE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
06:30 AM	4	3	0	0	1	0	1	0	0	6	1	0	0	8	0	0	24
06:45 AM	6	3	1	0	0	0	0	0	0	5	1	0	3	5	0	0	24
Total	10	6	1	0	1	0	1	0	0	11	2	0	3	13	0	0	48
07:00 AM	3	7	1	0	0	1	1	0	0	3	1	0	0	8	0	0	25
07:15 AM	3	6	0	0	4	1	0	0	0	6	0	0	1	7	1	0	29
07:30 AM	3	4	0	0	2	0	1	0	1	7	4	0	1	3	0	0	26
07:45 AM	0	5	1	1	0	1	2	1	0	5	2	0	2	0	1	0	21
Total	9	22	2	1	6	3	4	1	1	21	7	0	4	18	2	0	101
08:00 AM	0	8	0	0	1	4	1	0	0	8	2	0	1	3	2	0	30
08:15 AM	1	4	1	0	1	1	1	1	1	9	2	0	2	3	1	0	28
Total	1	12	1	0	2	5	2	1	1	17	4	0	3	6	3	0	58
02:30 PM	1	4	3	0	2	4	2	1	0	4	2	0	2	1	1	0	27
02:45 PM	1	6	1	0	1	5	2	2	1	3	1	0	2	1	0	0	26
Total	2	10	4	0	3	9	4	3	1	7	3	0	4	2	1	0	53
03:00 PM	1	5	2	0	1	5	4	1	2	11	1	0	1	3	1	0	38
03:15 PM	2	11	2	1	2	8	3	0	0	12	1	0	3	4	1	0	50
03:30 PM	2	13	0	0	4	5	3	0	0	8	5	1	3	0	0	1	45
03:45 PM	2	19	3	0	3	3	3	1	1	11	0	0	2	3	0	0	51
Total	7	48	7	1	10	21	13	2	3	42	7	1	9	10	2	1	184
04:00 PM	3	10	4	0	3	3	5	0	1	12	1	0	1	0	0	0	43
04:15 PM	1	2	5	0	2	4	6	0	3	11	2	0	1	1	0	0	38
04:30 PM	0	4	1	4	2	3	3	2	0	3	1	0	1	4	0	0	28
04:45 PM	0	8	5	3	2	3	2	2	1	3	5	2	1	3	0	0	40
Total	4	24	15	7	9	13	16	4	5	29	9	2	4	8	0	0	149
05:00 PM	1	8	3	1	2	9	5	0	0	12	0	2	3	2	1	0	49
05:15 PM	4	6	3	0	2	9	3	0	0	11	2	0	3	1	0	0	44
Grand Total	38	136	36	10	35	69	48	11	11	150	34	5	33	60	9	1	686
Apprch %	17.3	61.8	16.4	4.5	21.5	42.3	29.4	6.7	5.5	75.0	17.0	2.5	32.0	58.3	8.7	1.0	
Total %	5.5	19.8	5.2	1.5	5.1	10.1	7.0	1.6	1.6	21.9	5.0	0.7	4.8	8.7	1.3	0.1	

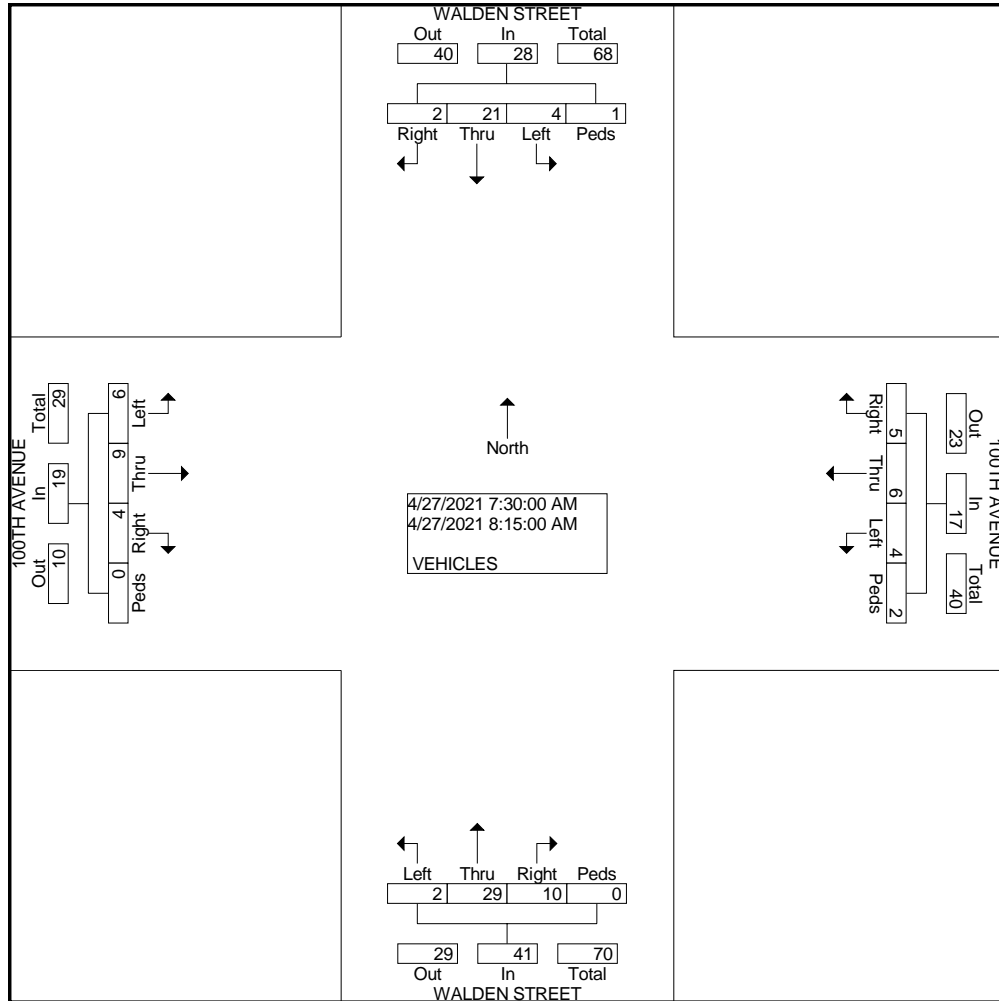
**COUNTER MEASURES INC.**

1889 YORK STREET  
DENVER, COLORADO  
303-333-7409

N/S STREET: WALDEN STREET  
E/W STREET: 100TH AVENUE  
CITY: COMMERCE CITY  
COUNTY: ADAMS

File Name : WALD100TH  
Site Code : 00000026  
Start Date : 4/27/2021  
Page No : 2

Start Time	WALDEN STREET Southbound					100TH AVENUE Westbound					WALDEN STREET Northbound					100TH AVENUE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:30 AM	Peak Hour From 07:30 AM to 08:15 AM - Peak 1 of 1																				
Volume	4	21	2	1	28	4	6	5	2	17	2	29	10	0	41	6	9	4	0	19	105
Percent	14.3	75.0	7.1	3.6		23.5	35.3	29.4	11.8		4.9	70.7	24.4	0.0		31.6	47.4	21.1	0.0		
08:00 Volume	0	8	0	0	8	1	4	1	0	6	0	8	2	0	10	1	3	2	0	6	30
Peak Factor																					
High Int. Volume	08:00 AM					08:00 AM					07:30 AM					08:00 AM					
Peak Factor	0.87					0.70					0.85					0.79					2



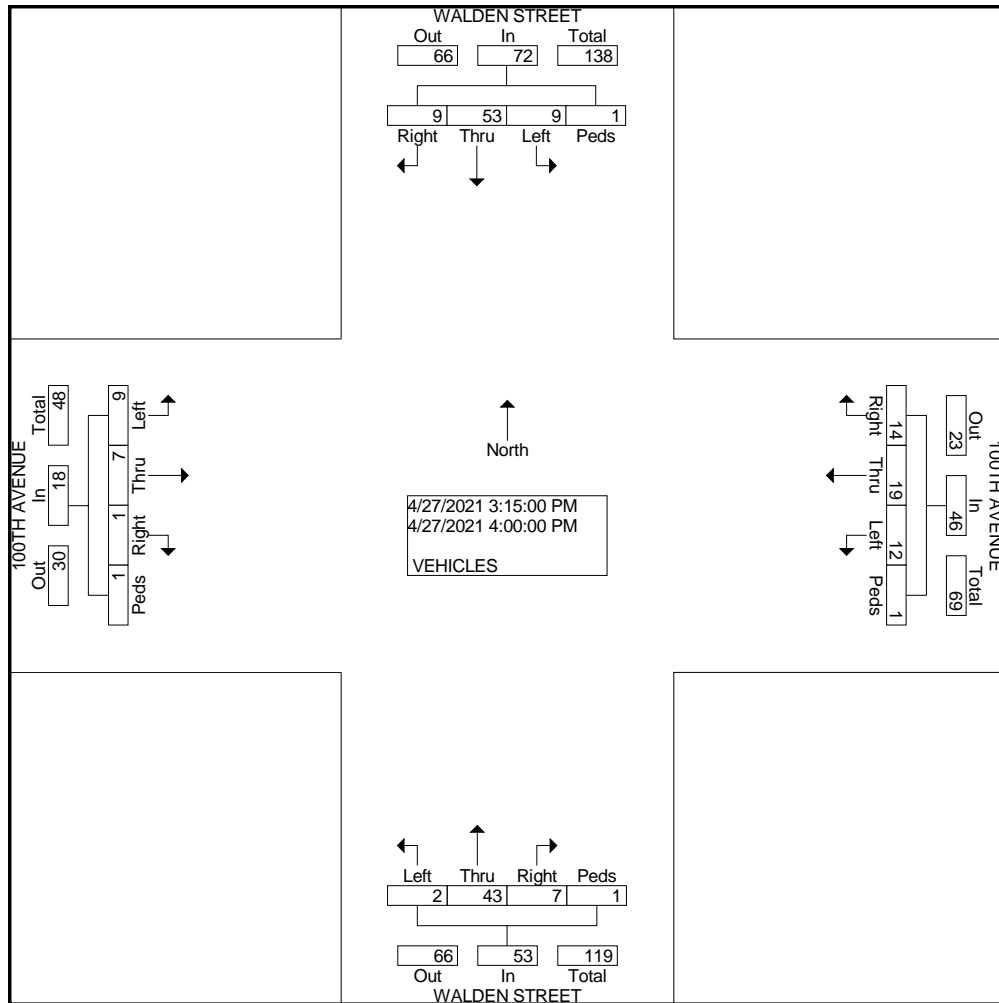
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1889 YORK STREET  
DENVER, COLORADO  
303-333-7409

N/S STREET: WALDEN STREET  
E/W STREET: 100TH AVENUE  
CITY: COMMERCE CITY  
COUNTY: ADAMS

File Name : WALD100TH  
Site Code : 00000026  
Start Date : 4/27/2021  
Page No : 2

Start Time	WALDEN STREET Southbound					100TH AVENUE Westbound					WALDEN STREET Northbound					100TH AVENUE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 02:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	03:15 PM																				
Volume	9	53	9	1	72	12	19	14	1	46	2	43	7	1	53	9	7	1	1	18	189
Percent	12.5	73.6	12.5	1.4		26.1	41.3	30.4	2.2		3.8	81.1	13.2	1.9		50.0	38.9	5.6	5.6		
03:45 Peak Factor																					
High Int. Volume	03:45 PM					03:15 PM					03:30 PM					03:15 PM					
Peak Factor																					
Volume	2	19	3	0	24	2	8	3	0	13	0	8	5	1	14	3	4	1	0	8	51
Peak Factor	0.75					0.88					0.94					0.56					0.926
Factor	0					5					6					3					



**COUNTER MEASURES INC.**

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: WALDEN STREET  
E/W STREET: SOUTHLAWN PARKWAY  
CITY: COMMERCE CITY  
COUNTY: ADAMS

File Name : WALDSOUTH  
Site Code : 00000015  
Start Date : 4/27/2021  
Page No : 1

Groups Printed- VEHICLES

Start Time	WALDEN STREET Southbound				SOUTHLAWN PKWY Westbound				WALDEN STREET Northbound				SOUTHLAWN PKWY Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
06:30 AM	3	5	0	1	1	1	8	1	0	12	0	1	3	1	0	0	37
06:45 AM	4	6	0	0	0	0	4	0	2	12	0	0	2	0	1	0	31
Total	7	11	0	1	1	1	12	1	2	24	0	1	5	1	1	0	68
07:00 AM	7	7	0	0	2	2	6	0	0	9	1	0	0	0	2	0	36
07:15 AM	2	3	1	0	0	2	9	0	1	7	0	0	1	0	2	1	29
07:30 AM	6	5	2	0	2	4	12	0	4	13	0	0	3	2	3	0	56
07:45 AM	8	7	0	0	2	4	9	1	0	10	2	0	0	1	0	1	45
Total	23	22	3	0	6	12	36	1	5	39	3	0	4	3	7	2	166
08:00 AM	7	13	1	0	0	2	7	0	0	6	1	0	0	0	2	1	40
08:15 AM	6	3	2	0	1	0	9	3	0	8	0	0	0	0	1	0	33
Total	13	16	3	0	1	2	16	3	0	14	1	0	0	0	3	1	73
02:30 PM	6	5	2	0	0	0	3	0	1	6	0	0	1	1	1	0	26
02:45 PM	4	5	2	0	1	1	10	0	0	7	0	1	5	1	4	0	41
Total	10	10	4	0	1	1	13	0	1	13	0	1	6	2	5	0	67
03:00 PM	6	4	1	0	2	1	7	0	3	13	0	0	1	2	1	2	43
03:15 PM	3	9	1	1	2	1	7	0	1	13	3	1	2	0	2	1	47
03:30 PM	8	17	4	1	0	0	10	0	3	11	2	0	0	0	0	0	56
03:45 PM	6	18	1	0	4	1	7	3	1	15	0	0	1	0	2	2	61
Total	23	48	7	2	8	3	31	3	8	52	5	1	4	2	5	5	207
04:00 PM	3	17	2	0	0	2	2	3	1	16	0	0	0	0	0	1	47
04:15 PM	6	8	1	1	0	0	4	1	3	14	1	0	3	1	0	2	45
04:30 PM	11	5	0	2	0	0	6	0	1	5	1	1	1	0	0	0	33
04:45 PM	7	13	2	0	0	0	6	0	1	3	1	0	2	1	0	5	41
Total	27	43	5	3	0	2	18	4	6	38	3	1	6	2	0	8	166
05:00 PM	5	12	4	1	0	1	10	0	2	15	3	4	2	1	0	0	60
05:15 PM	11	11	2	0	0	1	4	0	2	12	4	1	4	2	1	0	55
Grand Total	119	173	28	7	17	23	140	12	26	207	19	9	31	13	22	16	862
Apprch %	36.4	52.9	8.6	2.1	8.9	12.0	72.9	6.3	10.0	79.3	7.3	3.4	37.8	15.9	26.8	19.5	
Total %	13.8	20.1	3.2	0.8	2.0	2.7	16.2	1.4	3.0	24.0	2.2	1.0	3.6	1.5	2.6	1.9	

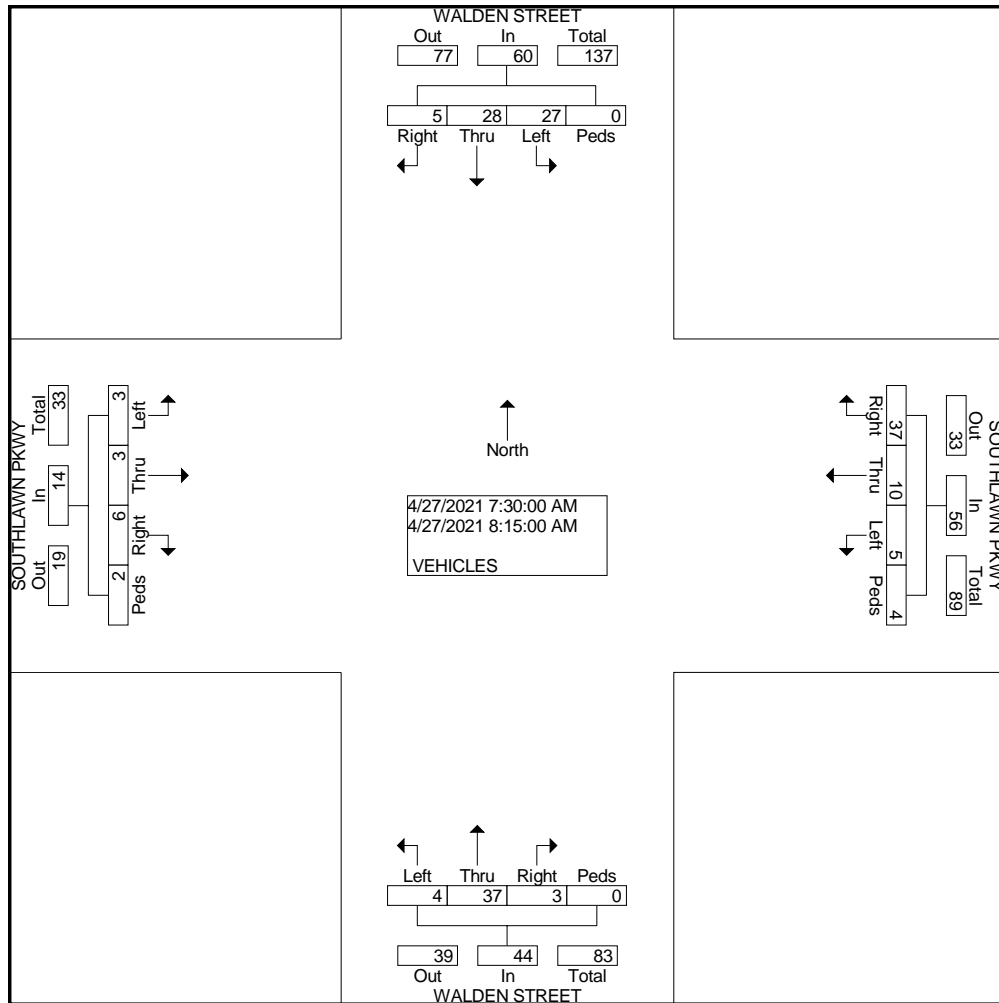
**COUNTER MEASURES INC.**

1889 YORK STREET  
DENVER, COLORADO  
303-333-7409

N/S STREET: WALDEN STREET  
E/W STREET: SOUTHLAWN PARKWAY  
CITY: COMMERCE CITY  
COUNTY: ADAMS

File Name : WALDSOUTH  
Site Code : 0000015  
Start Date : 4/27/2021  
Page No : 2

Start Time	WALDEN STREET Southbound					SOUTHLAWN PKWY Westbound					WALDEN STREET Northbound					SOUTHLAWN PKWY Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 06:30 AM to 08:30 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	27	28	5	0	60	5	10	37	4	56	4	37	3	0	44	3	3	6	2	14	174
Percent	45.0	46.7	8.3	0.0		8.9	17.9	66.1	7.1		9.1	84.1	6.8	0.0		21.4	21.4	42.9	14.3		
07:30 Peak Factor																					
High Int. Volume	6	5	2	0	13	2	4	12	0	18	4	13	0	0	17	3	2	3	0	8	56
08:00 AM	07:30 AM																				
Volume	7	13	1	0	21	2	4	12	0	18	4	13	0	0	17	3	2	3	0	8	0.777
Peak Factor	0.71					0.77					0.64					0.43					8



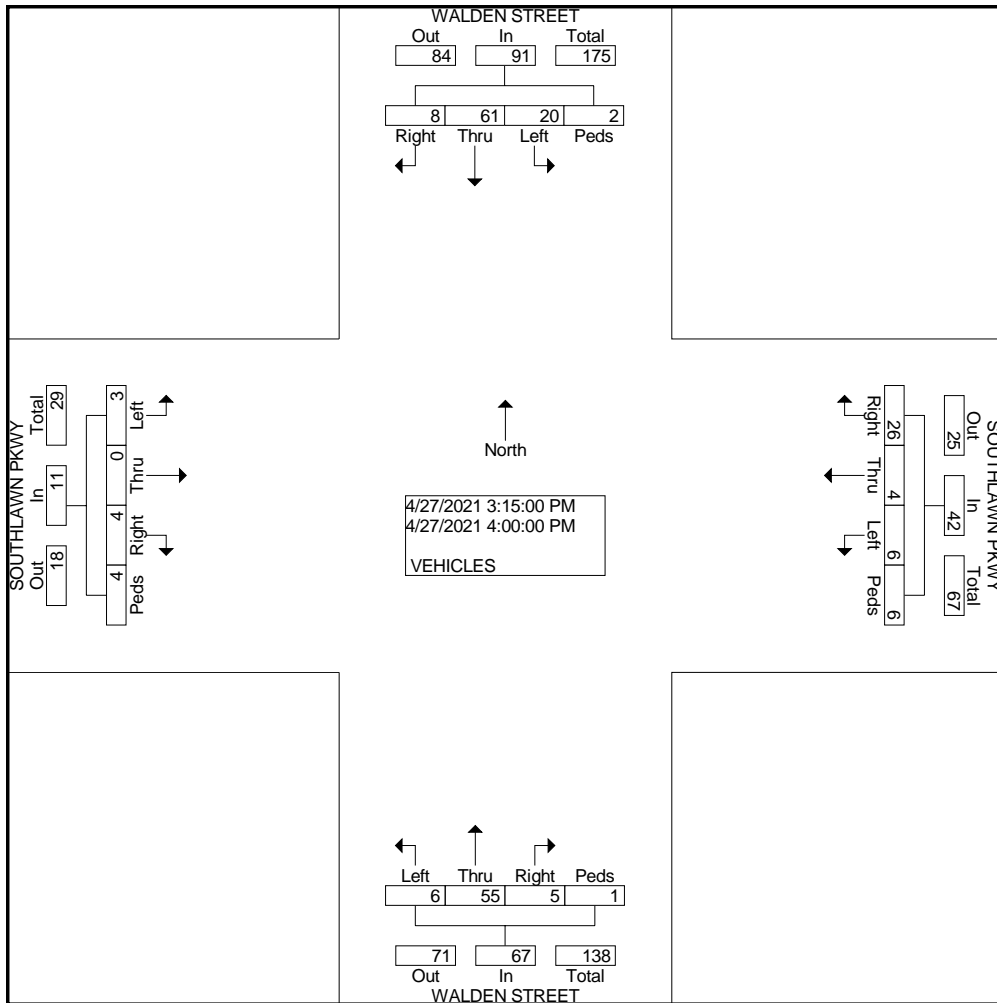
**COUNTER MEASURES INC.**

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: WALDEN STREET  
E/W STREET: SOUTHLAWN PARKWAY  
CITY: COMMERCE CITY  
COUNTY: ADAMS

File Name : WALDSOUTH  
Site Code : 0000015  
Start Date : 4/27/2021  
Page No : 2

Start Time	WALDEN STREET Southbound					SOUTHLAWN PKWY Westbound					WALDEN STREET Northbound					SOUTHLAWN PKWY Eastbound					Int. Total
	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Ped s	App. Total	
Peak Hour From 02:30 PM to 05:15 PM - Peak 1 of 1																					
Intersecti on	03:15 PM																				
Volume	20	61	8	2	91	6	4	26	6	42	6	55	5	1	67	3	0	4	4	11	211
Percent	22.0	67.0	8.8	2.2		14.3	9.5	61.9	14.3		9.0	82.1	7.5	1.5		27.3	0.0	36.4	36.4		
03:45 Peak Factor																					
High Int. Volume	03:30 PM					03:45 PM					03:15 PM					03:15 PM					
Peak Factor																					
Volume	8	17	4	1	30	4	1	7	3	15	1	13	3	1	18	2	0	2	1	5	61
Peak Factor	0.75					0.70					0.93					0.55					0.865
Factor	8					0					1					0					



**COUNTER MEASURES INC.**  
**1889 YORK STREET**  
**DENVER, COLORADO 80206**  
**303-333-7409**

Location: WALDEN AVENUE S-O SOUTHLAWN PKWY  
 City: COMMERCE CITY  
 County: ADAMS  
 Direction: NORTH/SOUTH

Site Code: 212614  
 Station ID: 212614

Start Time	27-Apr-21 Tue	NORTHBOU	SOUTHBOU							Total
12:00 AM		0	3							3
01:00		0	1							1
02:00		1	3							4
03:00		2	1							3
04:00		1	1							2
05:00		17	14							31
06:00		35	22							57
07:00		<b>47</b>	35							<b>82</b>
08:00		33	41							74
09:00		31	<b>42</b>							73
10:00		33	34							67
11:00		42	31							73
12:00 PM		52	42							94
01:00		37	47							84
02:00		30	34							64
03:00		67	<b>59</b>							<b>126</b>
04:00		49	46							95
05:00		<b>68</b>	52							120
06:00		47	44							91
07:00		36	32							68
08:00		23	22							45
09:00		11	17							28
10:00		5	9							14
11:00		5	5							10
Total		672	637							1309
Percent		51.3%	48.7%							
AM Peak	-	07:00	09:00	-	-	-	-	-	-	07:00
Vol.	-	47	42	-	-	-	-	-	-	82
PM Peak	-	17:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	68	59	-	-	-	-	-	-	126
Grand Total		672	637							1309
Percent		51.3%	48.7%							
ADT		ADT 1,309	AADT 1,309							



**COUNTER MEASURES INC.**  
**1889 YORK STREET**  
**DENVER, COLORADO 80206**  
**303-333-7409**

Location: 100TH AVENUE W-O WALDEN STREET  
 City: COMMERCE CITY  
 County: ADAMS  
 Direction: EAST/WEST

Site Code: 212610  
 Station ID: 212610

Start Time	27-Apr-21 Tue	EASTBOUN	WESTBOUN							Total
12:00 AM		0	2							2
01:00		0	2							2
02:00		0	0							0
03:00		3	2							5
04:00		4	1							5
05:00		14	5							19
06:00		<b>39</b>	3							<b>42</b>
07:00		27	14							41
08:00		20	14							34
09:00		10	13							23
10:00		17	<b>15</b>							32
11:00		18	6							24
12:00 PM		14	26							40
01:00		16	14							30
02:00		13	32							45
03:00		<b>19</b>	33							52
04:00		13	33							46
05:00		18	<b>42</b>							<b>60</b>
06:00		15	32							47
07:00		14	21							35
08:00		6	19							25
09:00		7	12							19
10:00		1	8							9
11:00		0	2							2
Total		288	351							639
Percent		45.1%	54.9%							
AM Peak	-	06:00	10:00	-	-	-	-	-	-	06:00
Vol.	-	39	15	-	-	-	-	-	-	42
PM Peak	-	15:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	19	42	-	-	-	-	-	-	60
Grand Total		288	351							639
Percent		45.1%	54.9%							
ADT		ADT 639	AADT 639							

## LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2016, 6th Edition

### UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

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

LOS	Average Vehicle Control Delay	<u>Operational Characteristics</u>
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.

HCM 6th AWSC  
1: Walden Street & Southlawn Parkway

Existing  
AM Peak

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	10	5	15	45	5	50	5	35	35	10
Future Vol, veh/h	5	5	10	5	15	45	5	50	5	35	35	10
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	12	6	18	53	6	59	6	41	41	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.3	7.6	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	25%	8%	44%
Vol Thru, %	83%	25%	23%	44%
Vol Right, %	8%	50%	69%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	20	65	80
LT Vol	5	5	5	35
Through Vol	50	5	15	35
RT Vol	5	10	45	10
Lane Flow Rate	71	24	76	94
Geometry Grp	1	1	1	1
Degree of Util (X)	0.081	0.026	0.081	0.109
Departure Headway (Hd)	4.147	4.029	3.836	4.175
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	873	919	854
Service Time	2.205	2.124	1.923	2.226
HCM Lane V/C Ratio	0.083	0.027	0.083	0.11
HCM Control Delay	7.6	7.2	7.3	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.3	0.4

HCM 6th AWSC  
2: Walden Street & E. 100th Avenue

Existing  
AM Peak

Intersection

Intersection Delay, s/veh 7.4

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	15	10	5	20	10	5	40	15	10	35	5
Future Vol, veh/h	10	15	10	5	20	10	5	40	15	10	35	5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	18	12	6	24	12	6	47	18	12	41	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.3	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	29%	14%	20%
Vol Thru, %	67%	43%	57%	70%
Vol Right, %	25%	29%	29%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	35	35	50
LT Vol	5	10	5	10
Through Vol	40	15	20	35
RT Vol	15	10	10	5
Lane Flow Rate	71	41	41	59
Geometry Grp	1	1	1	1
Degree of Util (X)	0.078	0.047	0.046	0.067
Departure Headway (Hd)	3.99	4.075	4.047	4.113
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	892	870	876	866
Service Time	2.04	2.141	2.114	2.163
HCM Lane V/C Ratio	0.08	0.047	0.047	0.068
HCM Control Delay	7.4	7.3	7.3	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.1	0.2

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

Existing  
AM Peak

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	25	5	5	20	5	5	5	5	5	5	5
Future Vol, veh/h	5	25	5	5	20	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	29	6	6	24	6	6	6	6	6	6	6

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	30	0	0	35	0	0	89	86	32	89	86	27
Stage 1	-	-	-	-	-	-	44	44	-	39	39	-
Stage 2	-	-	-	-	-	-	45	42	-	50	47	-
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	1583	-	-	1576	-	-	896	804	1042	896	804	1048
Stage 1	-	-	-	-	-	-	970	858	-	976	862	-
Stage 2	-	-	-	-	-	-	969	860	-	963	856	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1583	-	-	1576	-	-	881	798	1042	881	798	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	881	798	-	881	798	-
Stage 1	-	-	-	-	-	-	966	855	-	972	859	-
Stage 2	-	-	-	-	-	-	953	857	-	947	853	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	1		1.2		9.1		9.1	
HCM LOS					A		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	896	1583	-	-	1576	-	-	898
HCM Lane V/C Ratio	0.02	0.004	-	-	0.004	-	-	0.02
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th AWSC  
1: Walden Street & Southlawn Parkway

Existing  
PM Peak

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	5	10	5	35	10	70	10	25	80	15
Future Vol, veh/h	5	5	5	10	5	35	10	70	10	25	80	15
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	6	12	6	41	12	82	12	29	94	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.4	7.8	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	33%	20%	21%
Vol Thru, %	78%	33%	10%	67%
Vol Right, %	11%	33%	70%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	15	50	120
LT Vol	10	5	10	25
Through Vol	70	5	5	80
RT Vol	10	5	35	15
Lane Flow Rate	106	18	59	141
Geometry Grp	1	1	1	1
Degree of Util (X)	0.121	0.022	0.067	0.161
Departure Headway (Hd)	4.13	4.403	4.112	4.114
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	858	818	876	864
Service Time	2.203	2.405	2.113	2.18
HCM Lane V/C Ratio	0.124	0.022	0.067	0.163
HCM Control Delay	7.8	7.5	7.4	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.2	0.6

HCM 6th AWSC  
2: Walden Street & E. 100th Avenue

Existing  
PM Peak

Intersection												
Intersection Delay, s/veh	7.7											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	5	15	30	20	5	60	10	15	65	15
Future Vol, veh/h	10	10	5	15	30	20	5	60	10	15	65	15
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	12	6	18	35	24	6	71	12	18	76	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.7	7.7	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	40%	23%	16%
Vol Thru, %	80%	40%	46%	68%
Vol Right, %	13%	20%	31%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	25	65	95
LT Vol	5	10	15	15
Through Vol	60	10	30	65
RT Vol	10	5	20	15
Lane Flow Rate	88	29	76	112
Geometry Grp	1	1	1	1
Degree of Util (X)	0.101	0.036	0.091	0.128
Departure Headway (Hd)	4.137	4.417	4.268	4.122
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	852	815	844	857
Service Time	2.228	2.42	2.269	2.207
HCM Lane V/C Ratio	0.103	0.036	0.09	0.131
HCM Control Delay	7.7	7.6	7.7	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.3	0.4

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

Existing  
PM Peak

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	15	5	5	40	5	5	5	5	5	5	5
Future Vol, veh/h	5	15	5	5	40	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	18	6	6	47	6	6	6	6	6	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	53	0	0	24	0	0	101	98	21	101	98	50
Stage 1	-	-	-	-	-	-	33	33	-	62	62	-
Stage 2	-	-	-	-	-	-	68	65	-	39	36	-
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	1553	-	-	1591	-	-	880	792	1056	880	792	1018
Stage 1	-	-	-	-	-	-	983	868	-	949	843	-
Stage 2	-	-	-	-	-	-	942	841	-	976	865	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1553	-	-	1591	-	-	865	786	1056	865	786	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	865	786	-	865	786	-
Stage 1	-	-	-	-	-	-	979	865	-	945	840	-
Stage 2	-	-	-	-	-	-	926	838	-	960	862	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.7			9.1			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	889	1553	-	-	1591	-	-	880
HCM Lane V/C Ratio	0.02	0.004	-	-	0.004	-	-	0.02
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)	0.1	0	-	-	0	-	-	0.1



Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	11	5	16	47	5	54	5	37	37	11
Future Vol, veh/h	5	5	11	5	16	47	5	54	5	37	37	11
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	13	6	19	55	6	64	6	44	44	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.3	7.6	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	24%	7%	44%
Vol Thru, %	84%	24%	24%	44%
Vol Right, %	8%	52%	69%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	21	68	85
LT Vol	5	5	5	37
Through Vol	54	5	16	37
RT Vol	5	11	47	11
Lane Flow Rate	75	25	80	100
Geometry Grp	1	1	1	1
Degree of Util (X)	0.087	0.028	0.086	0.116
Departure Headway (Hd)	4.162	4.137	3.855	4.183
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	853	871	913	850
Service Time	2.227	2.137	1.95	2.242
HCM Lane V/C Ratio	0.088	0.029	0.088	0.118
HCM Control Delay	7.6	7.3	7.3	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.3	0.4

Intersection												
Intersection Delay, s/veh	7.4											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	16	11	5	21	11	5	42	16	11	37	5
Future Vol, veh/h	11	16	11	5	21	11	5	42	16	11	37	5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	19	13	6	25	13	6	49	19	13	44	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.3	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	29%	14%	21%
Vol Thru, %	67%	42%	57%	70%
Vol Right, %	25%	29%	30%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	63	38	37	53
LT Vol	5	11	5	11
Through Vol	42	16	21	37
RT Vol	16	11	11	5
Lane Flow Rate	74	45	44	62
Geometry Grp	1	1	1	1
Degree of Util (X)	0.082	0.051	0.049	0.072
Departure Headway (Hd)	3.999	4.087	4.053	4.13
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	889	866	873	861
Service Time	2.055	2.16	2.126	2.185
HCM Lane V/C Ratio	0.083	0.052	0.05	0.072
HCM Control Delay	7.4	7.4	7.3	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.2	0.2

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2022 Background  
AM Peak

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	28	5	5	21	5	5	5	5	5	5	5
Future Vol, veh/h	5	28	5	5	21	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	33	6	6	25	6	6	6	6	6	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	39	0	0	94	91	36	94	91	28
Stage 1	-	-	-	-	-	-	48	48	-	40	40	-
Stage 2	-	-	-	-	-	-	46	43	-	54	51	-
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	-	-	1571	-	-	889	799	1037	889	799	1047
Stage 1	-	-	-	-	-	-	965	855	-	975	862	-
Stage 2	-	-	-	-	-	-	968	859	-	958	852	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1582	-	-	1571	-	-	874	793	1037	874	793	1047
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	793	-	874	793	-
Stage 1	-	-	-	-	-	-	961	852	-	971	859	-
Stage 2	-	-	-	-	-	-	952	856	-	942	849	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			1.2			9.1			9.1		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	890	1582	-	-	1571	-	-	893
HCM Lane V/C Ratio	0.02	0.004	-	-	0.004	-	-	0.02
HCM Control Delay (s)	9.1	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	5	11	5	37	11	74	11	26	84	16
Future Vol, veh/h	5	5	5	11	5	37	11	74	11	26	84	16
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	6	13	6	44	13	87	13	31	99	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.5	7.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	33%	21%	21%
Vol Thru, %	77%	33%	9%	67%
Vol Right, %	11%	33%	70%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	15	53	126
LT Vol	11	5	11	26
Through Vol	74	5	5	84
RT Vol	11	5	37	16
Lane Flow Rate	113	18	62	148
Geometry Grp	1	1	1	1
Degree of Util (X)	0.13	0.022	0.072	0.17
Departure Headway (Hd)	4.141	4.442	4.148	4.124
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	855	810	869	860
Service Time	2.22	2.444	2.149	2.196
HCM Lane V/C Ratio	0.132	0.022	0.071	0.172
HCM Control Delay	7.8	7.5	7.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.2	0.6

Intersection												
Intersection Delay, s/veh	7.8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	11	5	16	32	21	5	64	11	16	68	16
Future Vol, veh/h	11	11	5	16	32	21	5	64	11	16	68	16
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	13	6	19	38	25	6	75	13	19	80	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.8	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	41%	23%	16%
Vol Thru, %	80%	41%	46%	68%
Vol Right, %	14%	19%	30%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	27	69	100
LT Vol	5	11	16	16
Through Vol	64	11	32	68
RT Vol	11	5	21	16
Lane Flow Rate	94	32	81	118
Geometry Grp	1	1	1	1
Degree of Util (X)	0.109	0.039	0.097	0.135
Departure Headway (Hd)	4.151	4.462	4.302	4.138
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	807	838	853
Service Time	2.249	2.465	2.303	2.231
HCM Lane V/C Ratio	0.111	0.04	0.097	0.138
HCM Control Delay	7.8	7.6	7.8	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.3	0.5

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2022 Background  
PM Peak

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	17	5	5	43	5	5	5	5	5	5	5
Future Vol, veh/h	5	17	5	5	43	5	5	5	5	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	20	6	6	51	6	6	6	6	6	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	57	0	0	26	0	0	107	104	23	107	104	54
Stage 1	-	-	-	-	-	-	35	35	-	66	66	-
Stage 2	-	-	-	-	-	-	72	69	-	41	38	-
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	-	-	1588	-	-	872	786	1054	872	786	1013
Stage 1	-	-	-	-	-	-	981	866	-	945	840	-
Stage 2	-	-	-	-	-	-	938	837	-	974	863	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1547	-	-	1588	-	-	856	780	1054	857	780	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	856	780	-	857	780	-
Stage 1	-	-	-	-	-	-	977	863	-	941	837	-
Stage 2	-	-	-	-	-	-	922	834	-	958	860	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.7			9.2			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	883	1547	-	-	1588	-	-	873
HCM Lane V/C Ratio	0.02	0.004	-	-	0.004	-	-	0.02
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th AWSC  
1: Walden Street & Southlawn Parkway

2022 Total  
AM Peak

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	36	9	16	47	5	65	8	37	50	11
Future Vol, veh/h	5	5	36	9	16	47	5	65	8	37	50	11
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	7	48	12	21	63	7	87	11	49	67	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.7	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	11%	12%	38%
Vol Thru, %	83%	11%	22%	51%
Vol Right, %	10%	78%	65%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	46	72	98
LT Vol	5	5	9	37
Through Vol	65	5	16	50
RT Vol	8	36	47	11
Lane Flow Rate	104	61	96	131
Geometry Grp	1	1	1	1
Degree of Util (X)	0.126	0.07	0.111	0.16
Departure Headway (Hd)	4.366	4.121	4.165	4.408
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	823	871	863	819
Service Time	2.382	2.139	2.18	2.408
HCM Lane V/C Ratio	0.126	0.07	0.111	0.16
HCM Control Delay	8	7.5	7.7	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.4	0.6

HCM 6th AWSC  
2: Walden Street & E. 100th Avenue

2022 Total  
AM Peak

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	63	34	33	5	21	33	5	67	16	11	37	5
Future Vol, veh/h	63	34	33	5	21	33	5	67	16	11	37	5
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	97	52	51	8	32	51	8	103	25	17	57	8
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	9.1	8	8.8	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	6%	48%	8%	100%	0%
Vol Thru, %	76%	26%	36%	0%	88%
Vol Right, %	18%	25%	56%	0%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	130	59	11	42
LT Vol	5	63	5	11	0
Through Vol	67	34	21	0	37
RT Vol	16	33	33	0	5
Lane Flow Rate	135	200	91	17	65
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.177	0.251	0.111	0.027	0.094
Departure Headway (Hd)	4.711	4.515	4.383	5.833	5.245
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	760	794	816	613	682
Service Time	2.751	2.546	2.42	3.576	2.988
HCM Lane V/C Ratio	0.178	0.252	0.112	0.028	0.095
HCM Control Delay	8.8	9.1	8	8.7	8.5
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.6	1	0.4	0.1	0.3



HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2022 Total  
AM Peak

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	5	53	5	16	62	7	5	5	18	5	5	5
Future Vol, veh/h	5	53	5	16	62	7	5	5	18	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	88	8	27	103	12	8	8	30	8	8	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	115	0	0	96	0	0	279	277	92	290	275	109
Stage 1	-	-	-	-	-	-	108	108	-	163	163	-
Stage 2	-	-	-	-	-	-	171	169	-	127	112	-
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	1474	-	-	1498	-	-	673	631	965	662	632	945
Stage 1	-	-	-	-	-	-	897	806	-	839	763	-
Stage 2	-	-	-	-	-	-	831	759	-	877	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1474	-	-	1498	-	-	647	615	965	623	616	945
Mov Cap-2 Maneuver	-	-	-	-	-	-	647	615	-	623	616	-
Stage 1	-	-	-	-	-	-	892	801	-	834	749	-
Stage 2	-	-	-	-	-	-	799	745	-	836	798	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			1.4			9.7			10.3		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	811	1474	-	-	1498	-	-	700
HCM Lane V/C Ratio	0.058	0.006	-	-	0.018	-	-	0.036
HCM Control Delay (s)	9.7	7.5	0	-	7.4	0	-	10.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

HCM 6th TWSC  
4: Walden Street & Site Entrance

2022 Total  
AM Peak

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑	↑	↘
Traffic Vol, veh/h	0	0	85	78	53	42
Future Vol, veh/h	0	0	85	78	53	42
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	-	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	142	130	88	70

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	502	88	158	0	-	0
Stage 1	88	-	-	-	-	-
Stage 2	414	-	-	-	-	-
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	529	970	1422	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	476	970	1422	-	-	-
Mov Cap-2 Maneuver	476	-	-	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	4.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1422	-	-	-	-
HCM Lane V/C Ratio	0.1	-	-	-	-
HCM Control Delay (s)	7.8	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

HCM 6th TWSC  
5: E. 100th Avenue & Site Exit

2022 Total  
AM Peak

Intersection

Int Delay, s/veh 4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	76	31	0	54	54
Future Vol, veh/h	0	76	31	0	54	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	138	56	0	98	98

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	194 56
Stage 1	-	-	-	-	56 -
Stage 2	-	-	-	-	138 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	0	-	-	0	795 1011
Stage 1	0	-	-	0	967 -
Stage 2	0	-	-	0	889 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	795 1011
Mov Cap-2 Maneuver	-	-	-	-	795 -
Stage 1	-	-	-	-	967 -
Stage 2	-	-	-	-	889 -

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	795	1011
HCM Lane V/C Ratio	-	-	0.123	0.097
HCM Control Delay (s)	-	-	10.2	8.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.3

HCM 6th AWSC  
1: Walden Street & Southlawn Parkway

2022 Total  
PM Peak

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	16	13	5	37	11	81	13	26	89	16
Future Vol, veh/h	5	5	16	13	5	37	11	81	13	26	89	16
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	20	16	6	46	14	101	16	33	111	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	8.1	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	19%	24%	20%
Vol Thru, %	77%	19%	9%	68%
Vol Right, %	12%	62%	67%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	26	55	131
LT Vol	11	5	13	26
Through Vol	81	5	5	89
RT Vol	13	16	37	16
Lane Flow Rate	131	32	69	164
Geometry Grp	1	1	1	1
Degree of Util (X)	0.153	0.039	0.081	0.19
Departure Headway (Hd)	4.183	4.332	4.266	4.178
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	843	831	845	845
Service Time	2.282	2.335	2.267	2.269
HCM Lane V/C Ratio	0.155	0.039	0.082	0.194
HCM Control Delay	8.1	7.5	7.6	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.1	0.3	0.7

HCM 6th AWSC  
2: Walden Street & E. 100th Avenue

2022 Total  
PM Peak

Intersection												
Intersection Delay, s/veh	8.4											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	36	22	18	16	32	30	5	75	11	16	68	16
Future Vol, veh/h	36	22	18	16	32	30	5	75	11	16	68	16
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	29	24	21	43	40	7	100	15	21	91	21
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	8.3	8.2	8.5	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	5%	47%	21%	100%	0%
Vol Thru, %	82%	29%	41%	0%	81%
Vol Right, %	12%	24%	38%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	76	78	16	84
LT Vol	5	36	16	16	0
Through Vol	75	22	32	0	68
RT Vol	11	18	30	0	16
Lane Flow Rate	121	101	104	21	112
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.156	0.13	0.129	0.033	0.155
Departure Headway (Hd)	4.617	4.625	4.482	5.621	4.984
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	777	775	800	637	720
Service Time	2.646	2.655	2.513	3.35	2.713
HCM Lane V/C Ratio	0.156	0.13	0.13	0.033	0.156
HCM Control Delay	8.5	8.3	8.2	8.5	8.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.6	0.4	0.4	0.1	0.5

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2022 Total  
PM Peak

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	28	5	12	67	6	5	5	10	5	5	5
Future Vol, veh/h	5	28	5	12	67	6	5	5	10	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	40	7	17	96	9	7	7	14	7	7	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	47	0	0	200	197	44	203	196	101
Stage 1	-	-	-	-	-	-	58	58	-	135	135	-
Stage 2	-	-	-	-	-	-	142	139	-	68	61	-
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	1486	-	-	1560	-	-	759	699	1026	755	699	954
Stage 1	-	-	-	-	-	-	954	847	-	868	785	-
Stage 2	-	-	-	-	-	-	861	782	-	942	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1486	-	-	1560	-	-	738	687	1026	729	687	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	738	687	-	729	687	-
Stage 1	-	-	-	-	-	-	949	843	-	864	776	-
Stage 2	-	-	-	-	-	-	837	773	-	916	840	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			1			9.4			9.8		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	840	1486	-	-	1560	-	-	774
HCM Lane V/C Ratio	0.034	0.005	-	-	0.011	-	-	0.028
HCM Control Delay (s)	9.4	7.4	0	-	7.3	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th TWSC  
4: Walden Street & Site Entrance

2022 Total  
PM Peak

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘		↘	↑	↑	↘
Traffic Vol, veh/h	0	0	36	105	100	18
Future Vol, veh/h	0	0	36	105	100	18
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	-	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	51	150	143	26

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	395	143	169	0	-	0
Stage 1	143	-	-	-	-	-
Stage 2	252	-	-	-	-	-
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	610	905	1409	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	588	905	1409	-	-	-
Mov Cap-2 Maneuver	588	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1409	-	-	-	-
HCM Lane V/C Ratio	0.037	-	-	-	-
HCM Control Delay (s)	7.7	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection

Int Delay, s/veh 3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	43	53	0	33	32
Future Vol, veh/h	0	43	53	0	33	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	72	88	0	55	53

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	160 88
Stage 1	-	-	-	-	88 -
Stage 2	-	-	-	-	72 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	0	-	-	0	831 970
Stage 1	0	-	-	0	935 -
Stage 2	0	-	-	0	951 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	831 970
Mov Cap-2 Maneuver	-	-	-	-	831 -
Stage 1	-	-	-	-	935 -
Stage 2	-	-	-	-	951 -

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

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	831	970
HCM Lane V/C Ratio	-	-	0.066	0.055
HCM Control Delay (s)	-	-	9.6	8.9
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2



Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	6	12	6	18	53	6	61	6	42	42	12
Future Vol, veh/h	6	6	12	6	18	53	6	61	6	42	42	12
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	7	14	7	21	62	7	72	7	49	49	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.5	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	25%	8%	44%
Vol Thru, %	84%	25%	23%	44%
Vol Right, %	8%	50%	69%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	24	77	96
LT Vol	6	6	6	42
Through Vol	61	6	18	42
RT Vol	6	12	53	12
Lane Flow Rate	86	28	91	113
Geometry Grp	1	1	1	1
Degree of Util (X)	0.1	0.033	0.101	0.132
Departure Headway (Hd)	4.196	4.221	4.011	4.22
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	843	853	899	839
Service Time	2.279	2.224	2.012	2.296
HCM Lane V/C Ratio	0.102	0.033	0.101	0.135
HCM Control Delay	7.8	7.4	7.5	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.3	0.5

Intersection												
Intersection Delay, s/veh	7.5											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	20	12	6	24	12	6	49	18	12	42	6
Future Vol, veh/h	12	20	12	6	24	12	6	49	18	12	42	6
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	24	14	7	28	14	7	58	21	14	49	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.4	7.5	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	27%	14%	20%
Vol Thru, %	67%	45%	57%	70%
Vol Right, %	25%	27%	29%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	44	42	60
LT Vol	6	12	6	12
Through Vol	49	20	24	42
RT Vol	18	12	12	6
Lane Flow Rate	86	52	49	71
Geometry Grp	1	1	1	1
Degree of Util (X)	0.096	0.059	0.056	0.081
Departure Headway (Hd)	4.032	4.133	4.101	4.155
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	880	854	861	853
Service Time	2.097	2.218	2.186	2.222
HCM Lane V/C Ratio	0.098	0.061	0.057	0.083
HCM Control Delay	7.5	7.5	7.4	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.2	0.3

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2026 Background  
AM Peak

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	32	6	6	24	6	6	6	6	6	6	6
Future Vol, veh/h	6	32	6	6	24	6	6	6	6	6	6	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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	38	7	7	28	7	7	7	7	7	7	7

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	35	0	0	45	0	0	109	105	42	109	105	32
Stage 1	-	-	-	-	-	-	56	56	-	46	46	-
Stage 2	-	-	-	-	-	-	53	49	-	63	59	-
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	1576	-	-	1563	-	-	870	785	1029	870	785	1042
Stage 1	-	-	-	-	-	-	956	848	-	968	857	-
Stage 2	-	-	-	-	-	-	960	854	-	948	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1576	-	-	1563	-	-	852	777	1029	852	777	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	852	777	-	852	777	-
Stage 1	-	-	-	-	-	-	951	844	-	963	853	-
Stage 2	-	-	-	-	-	-	941	850	-	929	842	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	1		1.2		9.2		9.2	
HCM LOS					A		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	874	1576	-	-	1563	-	-	877
HCM Lane V/C Ratio	0.024	0.004	-	-	0.005	-	-	0.024
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	6	6	12	6	42	12	83	12	29	95	18
Future Vol, veh/h	6	6	6	12	6	42	12	83	12	29	95	18
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	7	7	14	7	49	14	98	14	34	112	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.6	8	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	33%	20%	20%
Vol Thru, %	78%	33%	10%	67%
Vol Right, %	11%	33%	70%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	18	60	142
LT Vol	12	6	12	29
Through Vol	83	6	6	95
RT Vol	12	6	42	18
Lane Flow Rate	126	21	71	167
Geometry Grp	1	1	1	1
Degree of Util (X)	0.146	0.027	0.083	0.193
Departure Headway (Hd)	4.178	4.526	4.223	4.156
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	845	795	853	850
Service Time	2.273	2.529	2.224	2.242
HCM Lane V/C Ratio	0.149	0.026	0.083	0.196
HCM Control Delay	8	7.7	7.6	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.1	0.3	0.7

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	14	6	18	36	24	6	71	12	18	77	18
Future Vol, veh/h	12	14	6	18	36	24	6	71	12	18	77	18
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	16	7	21	42	28	7	84	14	21	91	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.9	7.9	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	38%	23%	16%
Vol Thru, %	80%	44%	46%	68%
Vol Right, %	13%	19%	31%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	89	32	78	113
LT Vol	6	12	18	18
Through Vol	71	14	36	77
RT Vol	12	6	24	18
Lane Flow Rate	105	38	92	133
Geometry Grp	1	1	1	1
Degree of Util (X)	0.125	0.047	0.111	0.158
Departure Headway (Hd)	4.304	4.529	4.368	4.279
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	836	792	823	842
Service Time	2.316	2.546	2.382	2.29
HCM Lane V/C Ratio	0.126	0.048	0.112	0.158
HCM Control Delay	7.9	7.8	7.9	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.4	0.6

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2026 Background  
PM Peak

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	20	6	6	48	6	6	6	6	6	6	6
Future Vol, veh/h	6	20	6	6	48	6	6	6	6	6	6	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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	24	7	7	56	7	7	7	7	7	7	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	31	0	0	123	119	28	123	119	60
Stage 1	-	-	-	-	-	-	42	42	-	74	74	-
Stage 2	-	-	-	-	-	-	81	77	-	49	45	-
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	1540	-	-	1582	-	-	852	771	1047	852	771	1005
Stage 1	-	-	-	-	-	-	972	860	-	935	833	-
Stage 2	-	-	-	-	-	-	927	831	-	964	857	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1540	-	-	1582	-	-	833	763	1047	834	763	1005
Mov Cap-2 Maneuver	-	-	-	-	-	-	833	763	-	834	763	-
Stage 1	-	-	-	-	-	-	967	856	-	930	829	-
Stage 2	-	-	-	-	-	-	908	827	-	945	853	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.7			9.3			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	865	1540	-	-	1582	-	-	856
HCM Lane V/C Ratio	0.024	0.005	-	-	0.004	-	-	0.025
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th AWSC  
1: Walden Street & Southlawn Parkway

2026 Total  
AM Peak

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	6	44	11	18	53	6	71	10	42	54	12
Future Vol, veh/h	6	6	44	11	18	53	6	71	10	42	54	12
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	8	59	15	24	71	8	95	13	56	72	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.9	8.2	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	11%	13%	39%
Vol Thru, %	82%	11%	22%	50%
Vol Right, %	11%	79%	65%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	56	82	108
LT Vol	6	6	11	42
Through Vol	71	6	18	54
RT Vol	10	44	53	12
Lane Flow Rate	116	75	109	144
Geometry Grp	1	1	1	1
Degree of Util (X)	0.143	0.087	0.129	0.179
Departure Headway (Hd)	4.44	4.201	4.25	4.474
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	809	853	844	804
Service Time	2.462	2.223	2.271	2.495
HCM Lane V/C Ratio	0.143	0.088	0.129	0.179
HCM Control Delay	8.2	7.6	7.9	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.4	0.6

HCM 6th AWSC  
2: Walden Street & E. 100th Avenue

2026 Total  
AM Peak

Intersection												
Intersection Delay, s/veh	12.4											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	75	94	65	6	24	99	6	111	18	12	42	6
Future Vol, veh/h	75	94	65	6	24	99	6	111	18	12	42	6
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	125	157	108	10	40	165	10	185	30	20	70	10
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	14.4	10.3	12	10.2
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	4%	32%	5%	100%	0%
Vol Thru, %	82%	40%	19%	0%	88%
Vol Right, %	13%	28%	77%	0%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	234	129	12	48
LT Vol	6	75	6	12	0
Through Vol	111	94	24	0	42
RT Vol	18	65	99	0	6
Lane Flow Rate	225	390	215	20	80
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.358	0.555	0.302	0.039	0.142
Departure Headway (Hd)	5.731	5.126	5.053	6.99	6.391
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	626	702	709	511	559
Service Time	3.778	3.165	3.099	4.746	4.147
HCM Lane V/C Ratio	0.359	0.556	0.303	0.039	0.143
HCM Control Delay	12	14.4	10.3	10	10.2
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	1.6	3.4	1.3	0.1	0.5



HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2026 Total  
AM Peak

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	69	6	16	82	8	6	6	18	6	6	6
Future Vol, veh/h	6	69	6	16	82	8	6	6	18	6	6	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	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	115	10	27	137	13	10	10	30	10	10	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	150	0	0	125	0	0	348	344	120	358	343	144
Stage 1	-	-	-	-	-	-	140	140	-	198	198	-
Stage 2	-	-	-	-	-	-	208	204	-	160	145	-
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	1431	-	-	1462	-	-	607	579	931	597	579	903
Stage 1	-	-	-	-	-	-	863	781	-	804	737	-
Stage 2	-	-	-	-	-	-	794	733	-	842	777	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1431	-	-	1462	-	-	580	563	931	558	563	903
Mov Cap-2 Maneuver	-	-	-	-	-	-	580	563	-	558	563	-
Stage 1	-	-	-	-	-	-	856	775	-	798	722	-
Stage 2	-	-	-	-	-	-	759	718	-	798	771	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			1.1			10.2			10.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	744	1431	-	-	1462	-	-	642
HCM Lane V/C Ratio	0.067	0.007	-	-	0.018	-	-	0.047
HCM Control Delay (s)	10.2	7.5	0	-	7.5	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

HCM 6th TWSC  
4: Walden Street & Site Entrance

2026 Total  
AM Peak

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	198	87	60	49
Future Vol, veh/h	0	0	198	87	60	49
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	-	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	360	158	109	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	987	109	198	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	878	-	-	-	-	-
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	274	945	1375	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	202	945	1375	-	-	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	406	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	5.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1375	-	-	-	-
HCM Lane V/C Ratio	0.262	-	-	-	-
HCM Control Delay (s)	8.5	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-	-

HCM 6th TWSC  
5: E. 100th Avenue & Site Exit

2026 Total  
AM Peak

Intersection

Int Delay, s/veh 6.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	↑
Traffic Vol, veh/h	0	96	36	0	141	70
Future Vol, veh/h	0	96	36	0	141	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	175	65	0	256	127

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	240 65
Stage 1	-	-	-	-	65 -
Stage 2	-	-	-	-	175 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	0	-	-	0	748 999
Stage 1	0	-	-	0	958 -
Stage 2	0	-	-	0	855 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	748 999
Mov Cap-2 Maneuver	-	-	-	-	748 -
Stage 1	-	-	-	-	958 -
Stage 2	-	-	-	-	855 -

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt

	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	748	999
HCM Lane V/C Ratio	-	-	0.343	0.127
HCM Control Delay (s)	-	-	12.3	9.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.5	0.4

HCM 6th AWSC  
1: Walden Street & Southlawn Parkway

2026 Total  
PM Peak

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	6	20	14	6	42	12	90	14	29	100	18
Future Vol, veh/h	6	6	20	14	6	42	12	90	14	29	100	18
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	8	25	18	8	53	15	113	18	36	125	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.8	8.3	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	19%	23%	20%
Vol Thru, %	78%	19%	10%	68%
Vol Right, %	12%	62%	68%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	116	32	62	147
LT Vol	12	6	14	29
Through Vol	90	6	6	100
RT Vol	14	20	42	18
Lane Flow Rate	145	40	78	184
Geometry Grp	1	1	1	1
Degree of Util (X)	0.175	0.049	0.094	0.221
Departure Headway (Hd)	4.34	4.417	4.348	4.334
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	828	811	825	834
Service Time	2.358	2.442	2.371	2.334
HCM Lane V/C Ratio	0.175	0.049	0.095	0.221
HCM Control Delay	8.3	7.7	7.8	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.2	0.3	0.8

HCM 6th AWSC  
2: Walden Street & E. 100th Avenue

2026 Total  
PM Peak

Intersection

Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	42	59	38	18	36	61	6	97	12	18	77	18
Future Vol, veh/h	42	59	38	18	36	61	6	97	12	18	77	18
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	84	54	26	51	87	9	139	17	26	110	26
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	9.8	9.1	9.7	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	5%	30%	16%	100%	0%
Vol Thru, %	84%	42%	31%	0%	81%
Vol Right, %	10%	27%	53%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	139	115	18	95
LT Vol	6	42	18	18	0
Through Vol	97	59	36	0	77
RT Vol	12	38	61	0	18
Lane Flow Rate	164	199	164	26	136
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.232	0.269	0.216	0.043	0.205
Departure Headway (Hd)	5.075	4.871	4.74	6.077	5.438
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	700	731	749	584	654
Service Time	3.161	2.943	2.817	3.865	3.226
HCM Lane V/C Ratio	0.234	0.272	0.219	0.045	0.208
HCM Control Delay	9.7	9.8	9.1	9.1	9.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.9	1.1	0.8	0.1	0.8

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2026 Total  
PM Peak

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	36	6	12	83	7	6	6	11	6	6	6
Future Vol, veh/h	6	36	6	12	83	7	6	6	11	6	6	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	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	51	9	17	119	10	9	9	16	9	9	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	129	0	0	60	0	0	241	237	56	244	236	124
Stage 1	-	-	-	-	-	-	74	74	-	158	158	-
Stage 2	-	-	-	-	-	-	167	163	-	86	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	1457	-	-	1544	-	-	713	664	1011	710	665	927
Stage 1	-	-	-	-	-	-	935	833	-	844	767	-
Stage 2	-	-	-	-	-	-	835	763	-	922	830	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1457	-	-	1544	-	-	689	652	1011	682	653	927
Mov Cap-2 Maneuver	-	-	-	-	-	-	689	652	-	682	653	-
Stage 1	-	-	-	-	-	-	929	828	-	839	758	-
Stage 2	-	-	-	-	-	-	808	754	-	893	825	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.9			9.7			10.1		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	799	1457	-	-	1544	-	-	736
HCM Lane V/C Ratio	0.041	0.006	-	-	0.011	-	-	0.035
HCM Control Delay (s)	9.7	7.5	0	-	7.4	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th TWSC  
4: Walden Street & Site Entrance

2026 Total  
PM Peak

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑	↑	↘
Traffic Vol, veh/h	0	0	84	116	113	21
Future Vol, veh/h	0	0	84	116	113	21
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	-	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	120	166	161	30

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	567	161	191	0	-	0
Stage 1	161	-	-	-	-	-
Stage 2	406	-	-	-	-	-
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	485	884	1383	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	443	884	1383	-	-	-
Mov Cap-2 Maneuver	443	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	673	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	3.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1383	-	-	-	-
HCM Lane V/C Ratio	0.087	-	-	-	-
HCM Control Delay (s)	7.8	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

HCM 6th TWSC  
5: E. 100th Avenue & Site Exit

2026 Total  
PM Peak

Intersection

Int Delay, s/veh 5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	53	60	0	86	42
Future Vol, veh/h	0	53	60	0	86	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	88	100	0	143	70

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	188 100
Stage 1	-	-	-	-	100 -
Stage 2	-	-	-	-	88 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	0	-	-	0	801 956
Stage 1	0	-	-	0	924 -
Stage 2	0	-	-	0	935 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	801 956
Mov Cap-2 Maneuver	-	-	-	-	801 -
Stage 1	-	-	-	-	924 -
Stage 2	-	-	-	-	935 -

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt

	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	801	956
HCM Lane V/C Ratio	-	-	0.179	0.073
HCM Control Delay (s)	-	-	10.5	9.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2



Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	6	13	6	19	56	6	65	6	44	44	13
Future Vol, veh/h	6	6	13	6	19	56	6	65	6	44	44	13
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	7	15	7	22	66	7	76	7	52	52	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.5	7.8	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	24%	7%	44%
Vol Thru, %	84%	24%	23%	44%
Vol Right, %	8%	52%	69%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	25	81	101
LT Vol	6	6	6	44
Through Vol	65	6	19	44
RT Vol	6	13	56	13
Lane Flow Rate	91	29	95	119
Geometry Grp	1	1	1	1
Degree of Util (X)	0.106	0.035	0.107	0.14
Departure Headway (Hd)	4.212	4.24	4.037	4.232
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	849	893	837
Service Time	2.304	2.243	2.038	2.315
HCM Lane V/C Ratio	0.109	0.034	0.106	0.142
HCM Control Delay	7.8	7.4	7.5	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.4	0.5

Intersection												
Intersection Delay, s/veh	7.6											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	21	13	6	25	13	6	51	19	13	44	6
Future Vol, veh/h	13	21	13	6	25	13	6	51	19	13	44	6
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	25	15	7	29	15	7	60	22	15	52	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.5	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	28%	14%	21%
Vol Thru, %	67%	45%	57%	70%
Vol Right, %	25%	28%	30%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	47	44	63
LT Vol	6	13	6	13
Through Vol	51	21	25	44
RT Vol	19	13	13	6
Lane Flow Rate	89	55	52	74
Geometry Grp	1	1	1	1
Degree of Util (X)	0.1	0.064	0.059	0.086
Departure Headway (Hd)	4.042	4.145	4.108	4.172
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	876	850	858	849
Service Time	2.114	2.236	2.201	2.246
HCM Lane V/C Ratio	0.102	0.065	0.061	0.087
HCM Control Delay	7.6	7.5	7.5	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.2	0.3

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2041 Background  
AM Peak

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	35	6	6	25	6	6	6	6	6	6	6
Future Vol, veh/h	6	35	6	6	25	6	6	6	6	6	6	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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	41	7	7	29	7	7	7	7	7	7	7

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	36	0	0	48	0	0	113	109	45	113	109	33
Stage 1	-	-	-	-	-	-	59	59	-	47	47	-
Stage 2	-	-	-	-	-	-	54	50	-	66	62	-
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	1575	-	-	1559	-	-	864	781	1025	864	781	1041
Stage 1	-	-	-	-	-	-	953	846	-	967	856	-
Stage 2	-	-	-	-	-	-	958	853	-	945	843	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1575	-	-	1559	-	-	846	773	1025	846	773	1041
Mov Cap-2 Maneuver	-	-	-	-	-	-	846	773	-	846	773	-
Stage 1	-	-	-	-	-	-	948	842	-	962	852	-
Stage 2	-	-	-	-	-	-	939	849	-	926	839	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	1.2	9.2	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	869	1575	-	-	1559	-	-	873
HCM Lane V/C Ratio	0.024	0.004	-	-	0.005	-	-	0.024
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	6	6	13	6	44	13	87	13	30	100	19
Future Vol, veh/h	6	6	6	13	6	44	13	87	13	30	100	19
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	7	7	15	7	52	15	102	15	35	118	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.7	8.1	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	33%	21%	20%
Vol Thru, %	77%	33%	10%	67%
Vol Right, %	12%	33%	70%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	113	18	63	149
LT Vol	13	6	13	30
Through Vol	87	6	6	100
RT Vol	13	6	44	19
Lane Flow Rate	133	21	74	175
Geometry Grp	1	1	1	1
Degree of Util (X)	0.158	0.027	0.088	0.203
Departure Headway (Hd)	4.291	4.566	4.26	4.166
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	787	845	847
Service Time	2.291	2.575	2.267	2.261
HCM Lane V/C Ratio	0.158	0.027	0.088	0.207
HCM Control Delay	8.1	7.7	7.7	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.1	0.3	0.8

Intersection												
Intersection Delay, s/veh	8.1											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	15	6	19	38	25	6	75	13	19	81	19
Future Vol, veh/h	13	15	6	19	38	25	6	75	13	19	81	19
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	18	7	22	45	29	7	88	15	22	95	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	8	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	38%	23%	16%
Vol Thru, %	80%	44%	46%	68%
Vol Right, %	14%	18%	30%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	34	82	119
LT Vol	6	13	19	19
Through Vol	75	15	38	81
RT Vol	13	6	25	19
Lane Flow Rate	111	40	96	140
Geometry Grp	1	1	1	1
Degree of Util (X)	0.133	0.051	0.118	0.167
Departure Headway (Hd)	4.327	4.574	4.403	4.303
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	831	784	816	836
Service Time	2.343	2.593	2.42	2.318
HCM Lane V/C Ratio	0.134	0.051	0.118	0.167
HCM Control Delay	8	7.8	8	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.4	0.6

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2041 Background  
PM Peak

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	22	6	6	51	6	6	6	6	6	6	6
Future Vol, veh/h	6	22	6	6	51	6	6	6	6	6	6	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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	26	7	7	60	7	7	7	7	7	7	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	67	0	0	33	0	0	129	125	30	129	125	64
Stage 1	-	-	-	-	-	-	44	44	-	78	78	-
Stage 2	-	-	-	-	-	-	85	81	-	51	47	-
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	1535	-	-	1579	-	-	844	765	1044	844	765	1000
Stage 1	-	-	-	-	-	-	970	858	-	931	830	-
Stage 2	-	-	-	-	-	-	923	828	-	962	856	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1535	-	-	1579	-	-	825	757	1044	826	757	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	825	757	-	826	757	-
Stage 1	-	-	-	-	-	-	965	854	-	926	826	-
Stage 2	-	-	-	-	-	-	904	824	-	943	852	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.7			9.3			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	859	1535	-	-	1579	-	-	849
HCM Lane V/C Ratio	0.025	0.005	-	-	0.004	-	-	0.025
HCM Control Delay (s)	9.3	7.4	0	-	7.3	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th AWSC  
1: Walden Street & Southlawn Parkway

2041 Total  
AM Peak

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	6	45	11	19	56	6	75	10	44	56	13
Future Vol, veh/h	6	6	45	11	19	56	6	75	10	44	56	13
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	8	60	15	25	75	8	100	13	59	75	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	8	8.3	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	11%	13%	39%
Vol Thru, %	82%	11%	22%	50%
Vol Right, %	11%	79%	65%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	57	86	113
LT Vol	6	6	11	44
Through Vol	75	6	19	56
RT Vol	10	45	56	13
Lane Flow Rate	121	76	115	151
Geometry Grp	1	1	1	1
Degree of Util (X)	0.151	0.089	0.136	0.188
Departure Headway (Hd)	4.466	4.235	4.278	4.494
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	803	846	838	799
Service Time	2.491	2.26	2.301	2.518
HCM Lane V/C Ratio	0.151	0.09	0.137	0.189
HCM Control Delay	8.3	7.7	8	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.5	0.7

HCM 6th AWSC  
2: Walden Street & E. 100th Avenue

2041 Total  
AM Peak

Intersection

Intersection Delay, s/veh 12.7

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	76	95	66	6	25	100	6	113	19	13	44	6
Future Vol, veh/h	76	95	66	6	25	100	6	113	19	13	44	6
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	127	158	110	10	42	167	10	188	32	22	73	10
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	14.8	10.5	12.2	10.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	4%	32%	5%	100%	0%
Vol Thru, %	82%	40%	19%	0%	88%
Vol Right, %	14%	28%	76%	0%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	138	237	131	13	50
LT Vol	6	76	6	13	0
Through Vol	113	95	25	0	44
RT Vol	19	66	100	0	6
Lane Flow Rate	230	395	218	22	83
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.369	0.567	0.31	0.042	0.149
Departure Headway (Hd)	5.772	5.17	5.107	7.038	6.442
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	621	695	701	507	555
Service Time	3.824	3.214	3.158	4.799	4.203
HCM Lane V/C Ratio	0.37	0.568	0.311	0.043	0.15
HCM Control Delay	12.2	14.8	10.5	10.1	10.3
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.7	3.6	1.3	0.1	0.5



HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2041 Total  
AM Peak

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	72	6	16	83	8	6	6	18	6	6	6
Future Vol, veh/h	6	72	6	16	83	8	6	6	18	6	6	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	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	120	10	27	138	13	10	10	30	10	10	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	151	0	0	130	0	0	354	350	125	364	349	145
Stage 1	-	-	-	-	-	-	145	145	-	199	199	-
Stage 2	-	-	-	-	-	-	209	205	-	165	150	-
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	1430	-	-	1455	-	-	601	574	926	592	575	902
Stage 1	-	-	-	-	-	-	858	777	-	803	736	-
Stage 2	-	-	-	-	-	-	793	732	-	837	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1430	-	-	1455	-	-	574	558	926	553	559	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	574	558	-	553	559	-
Stage 1	-	-	-	-	-	-	851	771	-	797	721	-
Stage 2	-	-	-	-	-	-	758	717	-	793	767	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			1.1			10.2			10.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	738	1430	-	-	1455	-	-	638
HCM Lane V/C Ratio	0.068	0.007	-	-	0.018	-	-	0.047
HCM Control Delay (s)	10.2	7.5	0	-	7.5	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

HCM 6th TWSC  
4: Walden Street & Site Entrance

2041 Total  
AM Peak

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	198	91	63	49
Future Vol, veh/h	0	0	198	91	63	49
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	-	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	360	165	115	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1000	115	204	0	-	0
Stage 1	115	-	-	-	-	-
Stage 2	885	-	-	-	-	-
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	270	937	1368	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	199	937	1368	-	-	-
Mov Cap-2 Maneuver	199	-	-	-	-	-
Stage 1	671	-	-	-	-	-
Stage 2	403	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	5.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1368	-	-	-	-
HCM Lane V/C Ratio	0.263	-	-	-	-
HCM Control Delay (s)	8.6	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	-	-

HCM 6th TWSC  
5: E. 100th Avenue & Site Exit

2041 Total  
AM Peak

Intersection

Int Delay, s/veh 6.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	↑
Traffic Vol, veh/h	0	96	37	0	141	70
Future Vol, veh/h	0	96	37	0	141	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	175	67	0	256	127

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	242 67
Stage 1	-	-	-	-	67 -
Stage 2	-	-	-	-	175 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	0	-	-	0	746 997
Stage 1	0	-	-	0	956 -
Stage 2	0	-	-	0	855 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	746 997
Mov Cap-2 Maneuver	-	-	-	-	746 -
Stage 1	-	-	-	-	956 -
Stage 2	-	-	-	-	855 -

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt

	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	746	997
HCM Lane V/C Ratio	-	-	0.344	0.128
HCM Control Delay (s)	-	-	12.3	9.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.5	0.4

HCM 6th AWSC  
1: Walden Street & Southlawn Parkway

2041 Total  
PM Peak

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	6	20	15	6	44	13	94	15	30	105	19
Future Vol, veh/h	6	6	20	15	6	44	13	94	15	30	105	19
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	8	25	19	8	55	16	118	19	38	131	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.9	8.4	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	19%	23%	19%
Vol Thru, %	77%	19%	9%	68%
Vol Right, %	12%	62%	68%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	32	65	154
LT Vol	13	6	15	30
Through Vol	94	6	6	105
RT Vol	15	20	44	19
Lane Flow Rate	152	40	81	192
Geometry Grp	1	1	1	1
Degree of Util (X)	0.185	0.05	0.099	0.232
Departure Headway (Hd)	4.36	4.461	4.389	4.336
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	825	803	817	830
Service Time	2.379	2.486	2.412	2.354
HCM Lane V/C Ratio	0.184	0.05	0.099	0.231
HCM Control Delay	8.4	7.7	7.9	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.2	0.3	0.9

HCM 6th AWSC  
2: Walden Street & E. 100th Avenue

2041 Total  
PM Peak

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	43	60	38	19	38	62	6	101	13	19	81	19
Future Vol, veh/h	43	60	38	19	38	62	6	101	13	19	81	19
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	86	54	27	54	89	9	144	19	27	116	27
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	9.9	9.3	9.9	9.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	5%	30%	16%	100%	0%
Vol Thru, %	84%	43%	32%	0%	81%
Vol Right, %	11%	27%	52%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	141	119	19	100
LT Vol	6	43	19	19	0
Through Vol	101	60	38	0	81
RT Vol	13	38	62	0	19
Lane Flow Rate	171	201	170	27	143
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.243	0.276	0.226	0.046	0.217
Departure Headway (Hd)	5.112	4.928	4.796	6.115	5.475
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	694	723	741	580	649
Service Time	3.207	3.005	2.879	3.909	3.269
HCM Lane V/C Ratio	0.246	0.278	0.229	0.047	0.22
HCM Control Delay	9.9	9.9	9.3	9.2	9.8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.9	1.1	0.9	0.1	0.8

HCM 6th TWSC  
3: Uravan Street & E. 100th Avenue

2041 Total  
PM Peak

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	38	6	12	86	7	6	6	11	6	6	6
Future Vol, veh/h	6	38	6	12	86	7	6	6	11	6	6	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	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	54	9	17	123	10	9	9	16	9	9	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	133	0	0	63	0	0	248	244	59	251	243	128
Stage 1	-	-	-	-	-	-	77	77	-	162	162	-
Stage 2	-	-	-	-	-	-	171	167	-	89	81	-
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	1452	-	-	1540	-	-	706	658	1007	702	659	922
Stage 1	-	-	-	-	-	-	932	831	-	840	764	-
Stage 2	-	-	-	-	-	-	831	760	-	918	828	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1452	-	-	1540	-	-	683	646	1007	675	647	922
Mov Cap-2 Maneuver	-	-	-	-	-	-	683	646	-	675	647	-
Stage 1	-	-	-	-	-	-	926	826	-	835	755	-
Stage 2	-	-	-	-	-	-	804	751	-	889	823	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.8			9.7			10.1		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	793	1452	-	-	1540	-	-	730
HCM Lane V/C Ratio	0.041	0.006	-	-	0.011	-	-	0.035
HCM Control Delay (s)	9.7	7.5	0	-	7.4	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 6th TWSC  
4: Walden Street & Site Entrance

2041 Total  
PM Peak

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘		↘	↑	↑	↘
Traffic Vol, veh/h	0	0	84	122	119	21
Future Vol, veh/h	0	0	84	122	119	21
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	-	50	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	120	174	170	30

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	584	170	200	0	-	0
Stage 1	170	-	-	-	-	-
Stage 2	414	-	-	-	-	-
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	474	874	1372	-	-	-
Stage 1	860	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	433	874	1372	-	-	-
Mov Cap-2 Maneuver	433	-	-	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	3.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1372	-	-	-	-
HCM Lane V/C Ratio	0.087	-	-	-	-
HCM Control Delay (s)	7.9	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	55	63	0	86	42
Future Vol, veh/h	0	55	63	0	86	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	92	105	0	143	70

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	-	0	-	0	197	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	792	949
Stage 1	0	-	-	0	919	-
Stage 2	0	-	-	0	932	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	792	949
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	932	-

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

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
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Capacity (veh/h)	-	-	792	949
HCM Lane V/C Ratio	-	-	0.181	0.074
HCM Control Delay (s)	-	-	10.5	9.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.2