

Traffic Impact Study

North Tree at Calhan

Calhan, Colorado

Prepared for:

Smith Land Development and Company, LLC

Kimley»Horn

T R A F F I C I M P A C T S T U D Y

North Tree at Calhan

Calhan, Colorado

Prepared for
Smith Land Development and Company, LLC
29415 Calhan Place
Calhan, Colorado 80808

Prepared by
Jeffrey R Planck, P.E
Kimley-Horn and Associates, Inc.
6200 South Syracuse Way
Suite 300
Greenwood Village, Colorado 80111
(303) 228-2300



June 2024

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

TABLE OF CONTENTS

TABLE OF CONTENTS	i
LIST OF TABLES	ii
LIST OF FIGURES	ii
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	3
3.0 EXISTING AND FUTURE CONDITIONS	5
3.1 Existing Study Area	5
3.2 Existing Roadway Network	5
3.3 Existing Traffic Volumes	12
3.4 Unspecified Development Traffic Growth	12
4.0 PROJECT TRAFFIC CHARACTERISTICS	16
4.1 Trip Generation	16
4.2 Trip Distribution	16
4.3 Traffic Assignment	18
4.4 Total (Background Plus Project) Traffic	18
5.0 TRAFFIC OPERATIONS ANALYSIS	22
5.1 Analysis Methodology	22
5.2 Key Intersection Operational Analysis	23
5.3 CDOT Access Permit and Turn Bay Length Analysis	29
5.4 Vehicle Queuing Analysis	31
5.5 Improvement Summary	31
6.0 CONCLUSIONS AND RECOMMENDATIONS	33

APPENDICES

- Appendix A – Conceptual Site Plan
- Appendix B – Intersection Count Sheets
- Appendix C – Future Traffic Projections
- Appendix D – Trip Generation Worksheets
- Appendix E – Intersection Analysis Worksheets

LIST OF TABLES

Table 1 – North Tree Residential Traffic Generation	16
Table 2 – Level of Service Definitions	22
Table 3 – McClasky Road and Eurich Road (#1) LOS Results.....	23
Table 4 – McClasky Road and Golden Street (#2) LOS Results	24
Table 5 – McClasky Road and Yoder Street (#3) LOS Results	25
Table 6 – 5 th Street (US-24) and Crystola Street/8 th Street (#4) LOS Results.....	26
Table 7 – Yoder Street and 5 th Street (US-24) (#5) LOS Results.....	27
Table 8 – Project Access LOS Results.....	28
Table 9 – Turn Lane Queuing Analysis Results.....	31

LIST OF FIGURES

Figure 1 – Vicinity Map.....	4
Figure 2 – Existing Geometry and Control.....	11
Figure 3 – 2024 Existing Traffic Volumes	13
Figure 4 – 2029 Background Traffic Volumes.....	14
Figure 5 – 2045 Background Traffic Volumes.....	15
Figure 6 – Project Trip Distribution	17
Figure 7 – Project Traffic Assignment	19
Figure 8 – 2029 Total Traffic Volumes	20
Figure 9 – 2045 Total Traffic Volumes	21
Figure 10 – Recommended Geometry and Control	32

1.0 EXECUTIVE SUMMARY

The North Tree at Calhan residential project is proposed to be located on the southeast corner of Eurich Road and McClasky Road intersection in Calhan, Colorado. For the purposes of this analysis, the project is anticipated to include 473 single-family detached houses. It is expected that the North Tree at Calhan project will be completed in the next few years. Therefore, analysis was conducted for the 2029 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon to determine intersection and roadway configuration needed at both planning horizons.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporating into this traffic study in accordance with the Town of Calhan and State of Colorado Department of Transportation (CDOT) standards and requirements:

- McClasky Road and Eurich Road (#1)
- McClasky Road and Golden Street (#2)
- McClasky Road and Yoder Street (#3)
- 5th Street (US-24) and Crystola Street (#4)
- 5th Street (US-24) and Yoder Street (#5)

In addition, two full movement accesses where the proposed Crystola Street and Cedar Street are planned to intersect with McClasky Road were evaluated.

Regional access to North Tree at Calhan residential project will be provided by US Highway 24 (US-24). Primary access will be provided by Crystola Street, Golden Street, Yoder Street, McClasky Road, and Eurich Road. Direct access will be provided by two full movement accesses on McClasky Road and by the Crystola Street and US-24 intersection through an extension of Crystola Street extending into the proposed development.



The North Tree at Calhan residential project is expected to generate approximately 4,214 weekday daily trips, with 306 of these trips occurring during the morning peak hour and 428 of these trips occurring during the afternoon peak hour.

Based on the analysis presented in this report, Kimley-Horn believes the North Tree at Calhan project will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

- Based on traffic projections, the addition of project traffic on the north leg of Crystola Street, and the north and south legs of Yoder Street and intersections with US-24 are anticipated to increase existing traffic by more than 20 percent. Therefore, access permits are anticipated to be needed at both intersections as development occurs.
- With completion of the North Tree at Calhan residential project, direct access is proposed from two full movement accesses along the south side of McClasky Road. An additional access is provided by the Crystola Street and US-24 intersection through an extension of Crystola Street extending into the proposed development. It is recommended that R1-1 “STOP” signs be constructed on the exiting northbound approaches of the two accesses on McClasky Road. It is anticipated that a single shared lane for all movements will be sufficient on all approaches of the access intersections along McClasky Road.
- An eastbound left turn lane along US-24 at the intersection with Crystola Street/8th Street is warranted and recommended to provide a length of 415 feet with a 160-foot taper to meet CDOT turn lane standards.
- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the Town of Calhan, CDOT, and the MUTCD – 11th Edition, 2023.

2.0 INTRODUCTION

Kimley-Horn has prepared this report to document the results of a Traffic Impact Study for North Tree at Calhan residential project proposed to be located on the southeast corner of the Eurich Road and McClasky Road intersection in Calhan, Colorado. A vicinity map illustrating the project development location is shown in **Figure 1**. The project is anticipated to include 473 single-family detached houses. A conceptual site plan is attached in **Appendix A**. It is expected that the North Tree project will be completed in the next few years. Therefore, analysis was conducted for the 2029 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon to determine intersection and roadway configuration needed at both planning horizons.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporating into this traffic study in accordance with the Town of Calhan and CDOT standards and requirements:

- McClasky Road and Eurich Road (#1)
- McClasky Road and Golden Street (#2)
- McClasky Road and Yoder Street (#3)
- 5th Street (US-24) and Crystola Street (#4)
- 5th Street (US-24) and Yoder Street (#5)

In addition, two full movement accesses where the proposed Crystola Street and Cedar Street are planned to intersect with McClasky Road were evaluated.

Regional access to North Tree residential project will be provided by US Highway 24 (US-24). Primary access will be provided by Crystola Street, Golden Street, Yoder Street, McClasky Road, and Eurich Road. Direct access will be provided by two full movement accesses on McClasky Road and by the Crystola Street and US-24 intersection through an extension of Crystola Street extending into the proposed development.



FIGURE 1
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
VICINITY MAP

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing Study Area

The existing site is comprised of vacant land. The area to the south of the site is comprised of RV park, storage, and campground land use, single-family homes, and other commercial land uses. The area east, north, and west of the site is comprised of vacant land and dispersed ranch style single-family homes.

3.2 Existing Roadway Network

McClasky Road is unpaved and extends east/west with one through lane in each direction. The posted speed limit could not be determined from Google Street View. The 2040 El Paso County Major Transportation Corridors Plan (MTCP) classifies McClasky Road as a Collector.

Golden Street extends north/south with one through lane in each direction. The road is paved with the exception of the segment from 3rd Street to McClasky Road. The posted speed limit is 25 miles per hour (mph). Golden Street is not included on the 2040 El Paso County Major Transportation Corridors Plan (MTCP).

Yoder Street extends north/south with one through lane in each direction and is paved. The posted speed limit is 25 mph south of McClasky Road and transitions to 55 mph north of McClasky Road. The 2040 El Paso County Major Transportation Corridors Plan (MTCP) classifies Yoder Street as a Collector.

Crystola Street is paved and extends north/south with one through lane in each direction. There is no speed limit currently posted along the road segment. Crystola Street is not included on the 2040 El Paso County Major Transportation Corridors Plan (MTCP).

5th Street (US-24) extends primarily in the east/west direction with one through lane in each direction. The road is paved and will be considered the east-west roadway throughout the report. The posted speed limit east of Crystola Street is 45 mph and 35 mph west of Crystola Street. The 2040 El Paso County Major Transportation Corridors Plan (MTCP) classifies 5th Street as a Principal Arterial. CDOT classifies US-24 as a Regional Highway (R-A) west of Crystola Street

and east of Yoder Street and as Non-Rural Arterial (NR-A) between Crystola Street and Yoder Street.

The unsignalized 'T'-intersection of McClasky Road and Eurich Road (#1) operates with stop-control on the southbound Eurich Road approach. All approaches at this intersection are currently unpaved. The southbound, eastbound, and westbound approaches provide a single lane shared for all movements. An aerial photo of the existing intersection configuration is below.



McClasky Road and Eurich Road (#1)

The unsignalized 'T'-intersection of McClasky Road and Golden Street (#2) operates with stop-control on the northbound Golden Street approach. All approaches at this intersection are currently unpaved. The northbound, eastbound, and westbound approaches provide a single lane shared for all movements. An aerial photo of the existing intersection configuration is below.



McClasky Road and Golden Street (#2)

The unsignalized 'T'-intersection of McClasky Road and Yoder Street (#3) operates with stop control on the eastbound McClasky Road approach. The eastbound approach is currently unpaved. The northbound, southbound, and eastbound approaches provide a single lane shared for all movements. An aerial photo of the existing intersection configuration is below.



McClasky Road and Yoder Street (#3)

The unsignalized intersection of 5th Street (US-24) and Crystola Road/8th Street (#4) operates with stop control on the Crystola Road/8th Street approaches. Of note, the 5th Street (US-24) roadway will be the east-west approach and 8th Street/Crystola Road will be the north-south approach. The northbound, southbound, and eastbound approaches provide a single lane shared for all movements. The westbound approach currently provides a dedicated right turn lane and a shared through/left turn lane. An aerial photo of the existing intersection configuration is below.



5th Street (US-24) & Crystola Street/8th Steet (#4)

The unsignalized intersection of 5th Street (US-24) and Yoder Street (#5) operates with stop control on the northbound and southbound Yoder Street approaches. The northbound, southbound, and westbound approaches provide a single lane shared for all movements. The eastbound approach currently provides a dedicated right turn lane and a shared through/left turn lane. An aerial photo of the existing intersection configuration is below.



5th Street (US-24) & Yoder Steet (#5)

The intersection lane configuration and control for the study area intersections are shown in **Figure 2**.

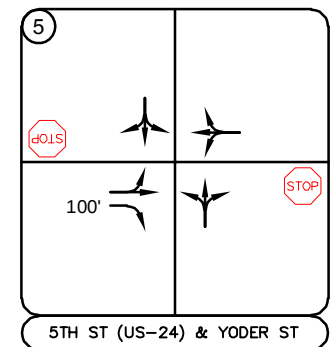
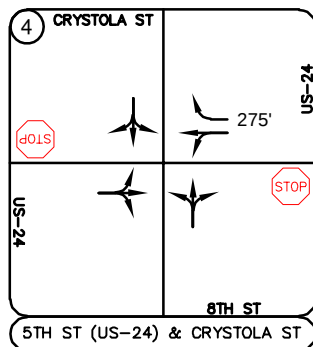
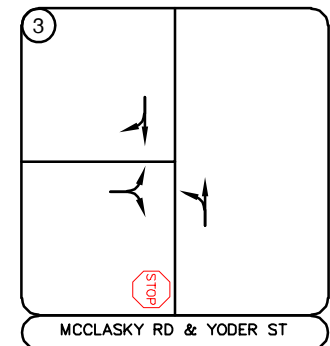
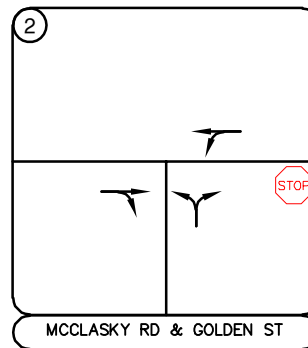
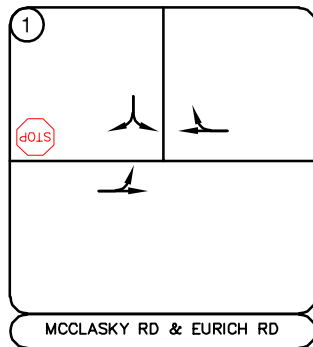
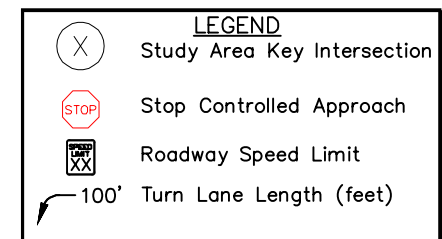


FIGURE 2
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
EXISTING GEOMETRY AND CONTROL



3.3 Existing Traffic Volumes

Existing turning movement counts were conducted at the study intersections on Tuesday, May 21, 2024 during the weekday morning and afternoon peak hours. The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on this count date. The existing intersection traffic volumes are shown in **Figure 3** with count sheets provided in **Appendix B**.

3.4 Unspecified Development Traffic Growth

According to information provided on the website for the CDOT Online Transportation Information System (OTIS), the 20-year growth factor along US-24 (5th Street) in the vicinity of the site is between 1.21 and 1.23. The 20-year growth factor equates to annual growth rate of 1.01 percent. Traffic information from the CDOT OTIS website is included in **Appendix C**. This annual growth rate was used to estimate near-term 2029 and long-term 2045 traffic volume projections at the key intersections. Background traffic volumes for 2029 and 2045 are shown in **Figure 4** and **Figure 5**, respectively.

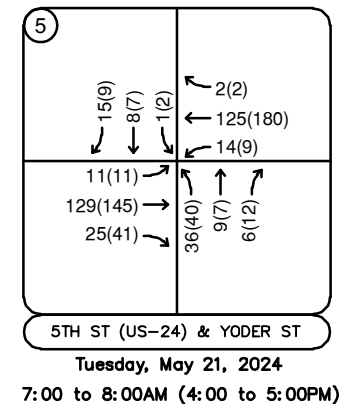
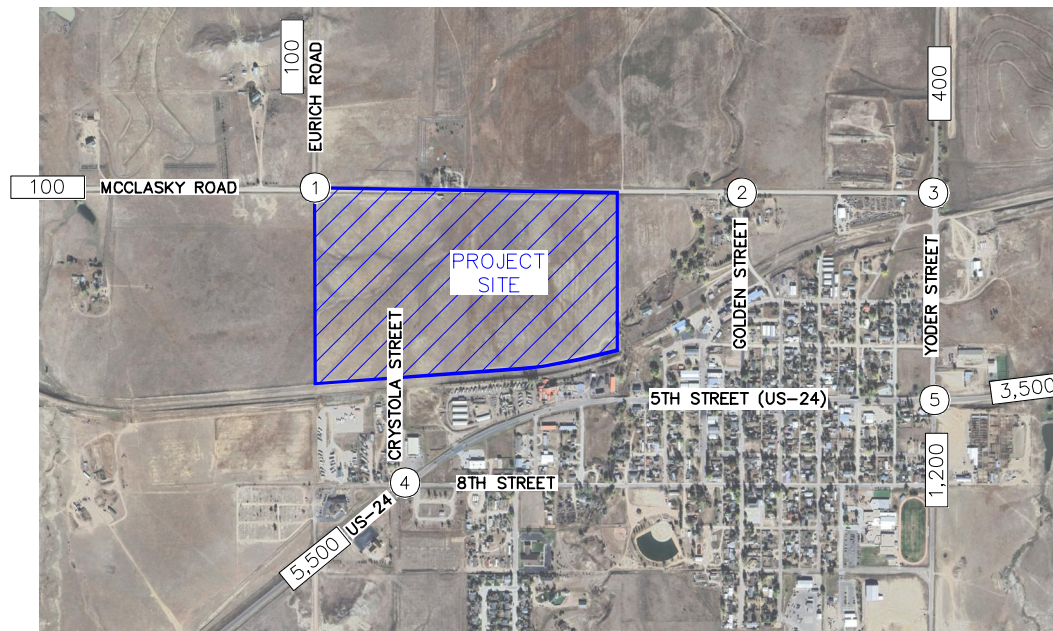
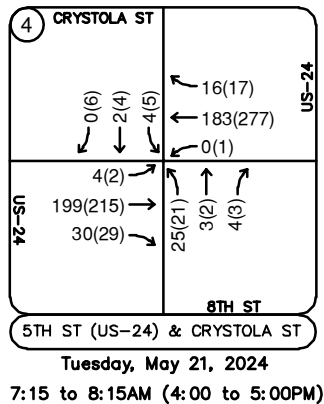
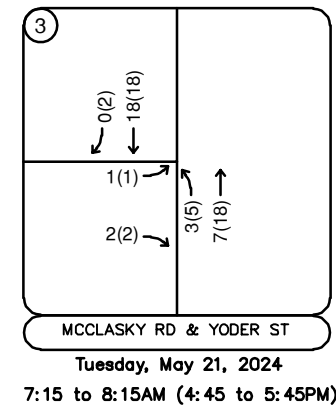
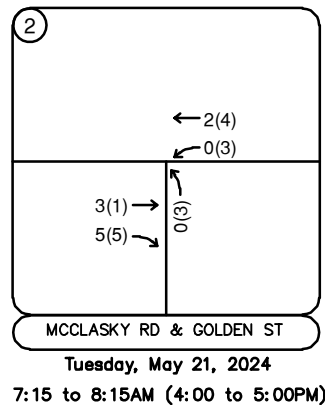
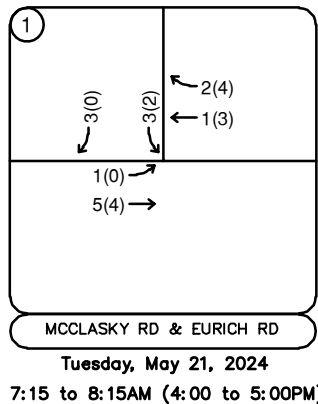


FIGURE 3
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
2024 EXISTING TRAFFIC VOLUMES

LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM)
Peak Hour Traffic Volumes

[XX,X00] Estimated Daily Traffic Volume



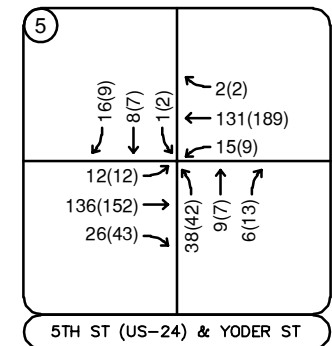
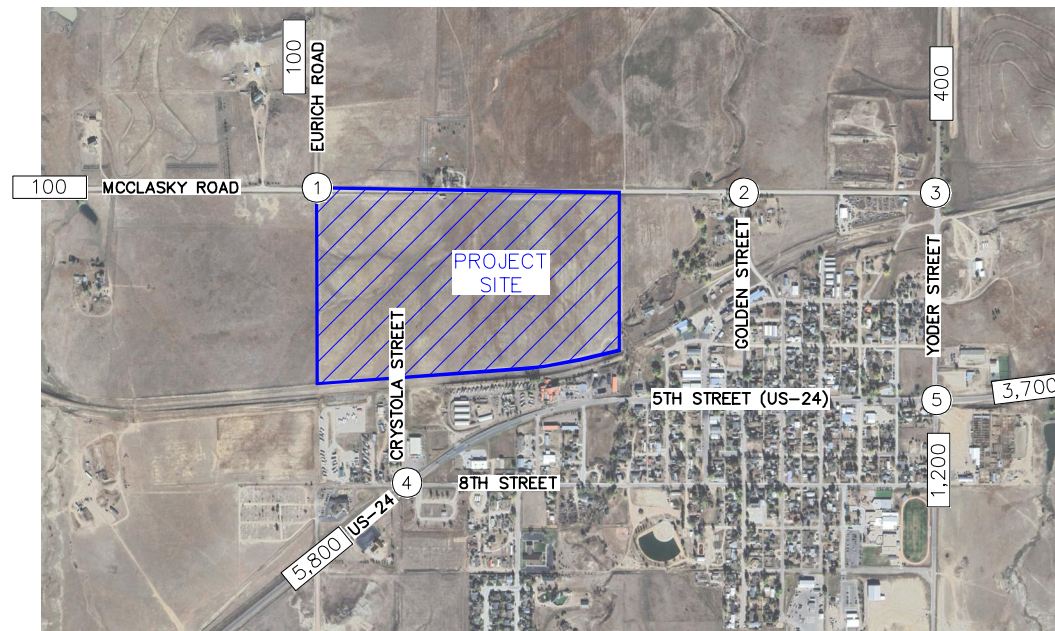
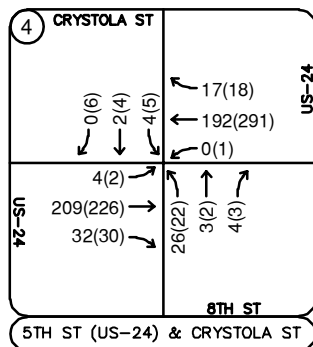
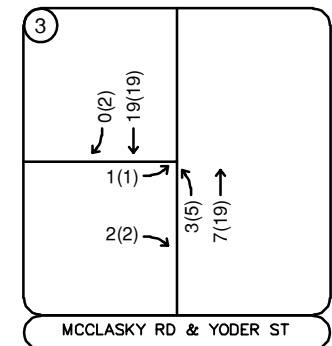
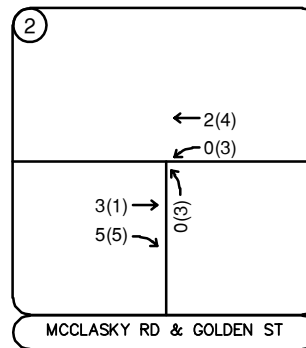
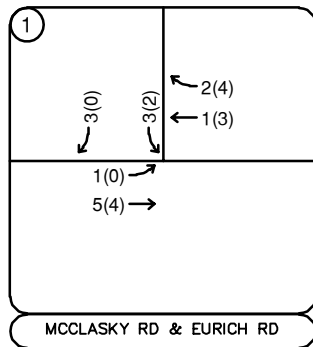


FIGURE 4
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
2029 BACKGROUND TRAFFIC VOLUMES

LEGEND

- (X) Study Area Key Intersection
- XXX(XXX) Weekday AM(PM)
Peak Hour Traffic Volumes
- [XX,X00] Estimated Daily Traffic Volume



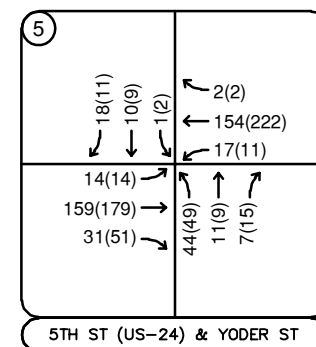
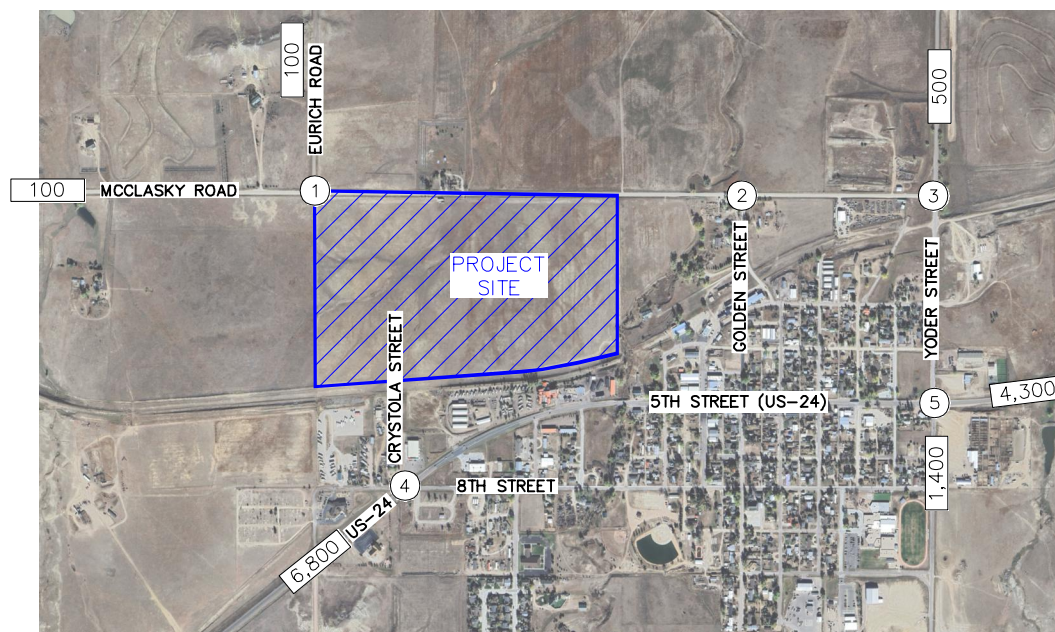
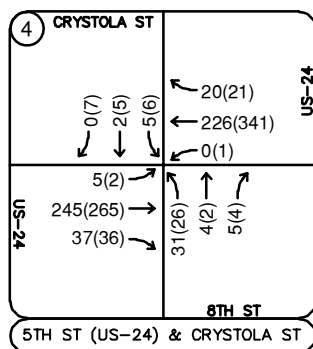
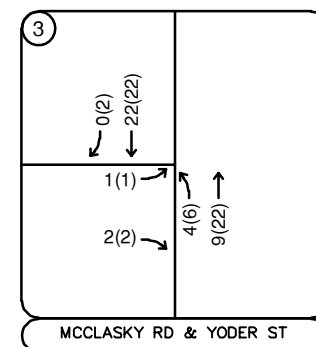
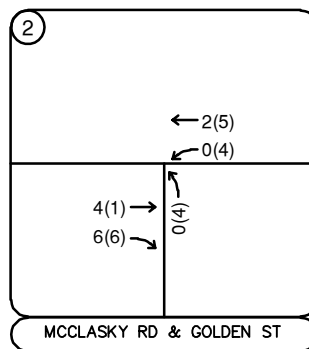
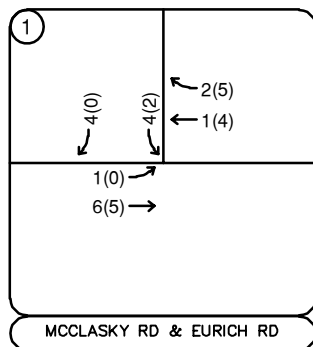


FIGURE 5
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
2045 BACKGROUND TRAFFIC VOLUMES

LEGEND

- (X) Study Area Key Intersection
- XXX(XXX) Weekday AM(PM)
Peak Hour Traffic Volumes
- [XX,X00] Estimated Daily Traffic Volume



4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report fitted curve equations that apply to Single-Family Detached Housing (ITE Land Use Code 210) for traffic associated with the development.

The North Tree at Calhan residential project is expected to generate approximately 4,214 weekday daily trips, with 306 of these trips occurring during the morning peak hour and 428 of these trips occurring during the afternoon peak hour. Calculations were based on the procedure and information provided in the ITE *Trip Generation Manual, 11th Edition – Volume 1: User's Guide and Handbook*, 2021. **Table 1** summarizes the estimated trip generation for the site. The trip generation worksheet is included in **Appendix D**.

Table 1 – North Tree Residential Traffic Generation

Land Use and Size	Weekday Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Single Family Detached Housing (ITE 210) – 473 Dwelling Units	4,214	77	229	306	270	158	428

4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic (employment, school, and attraction) information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project trip distribution for the proposed development is illustrated in **Figure 6**.

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

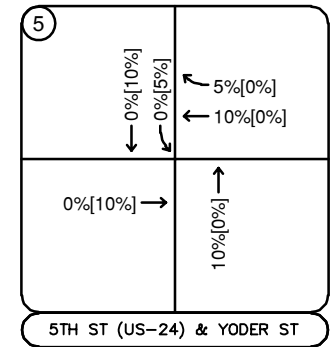
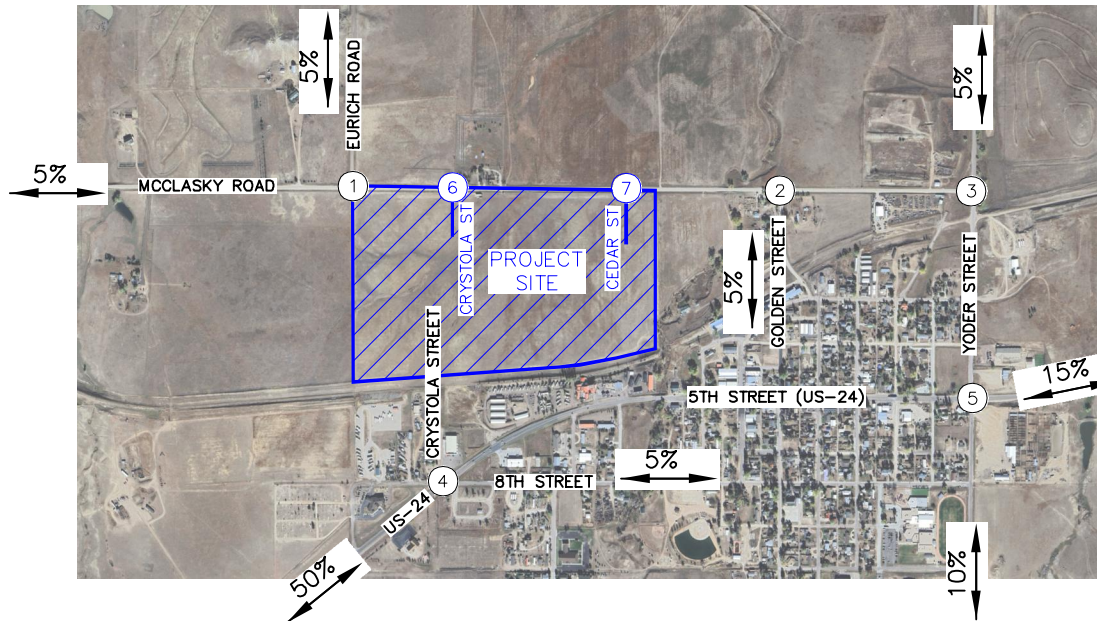
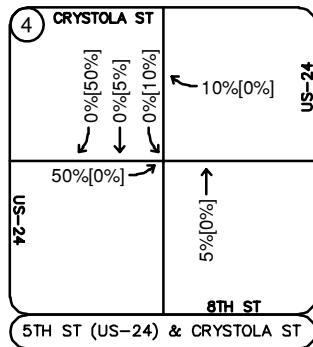
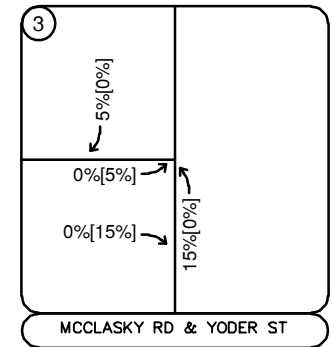
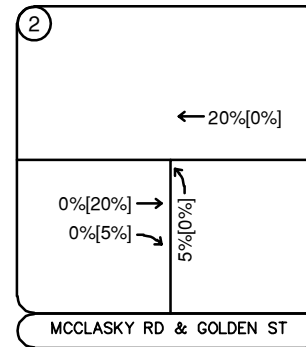
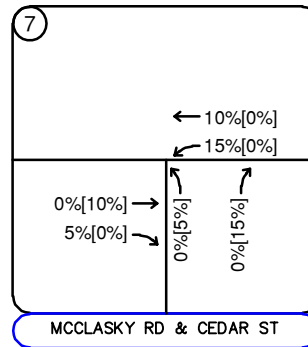
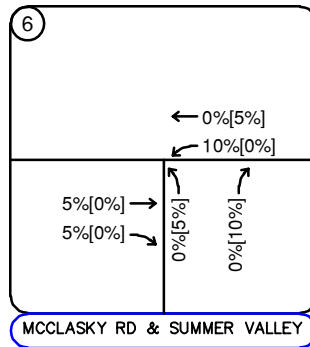
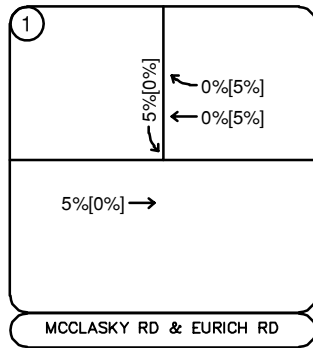
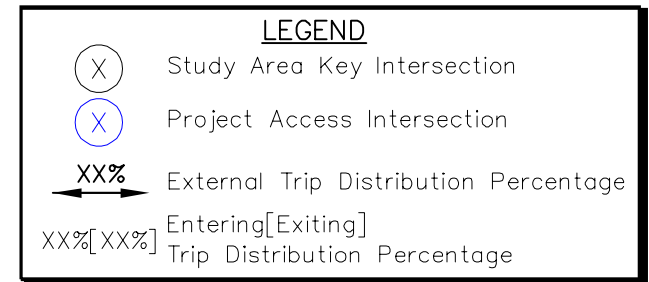


FIGURE 6
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
PROJECT TRIP DISTRIBUTION



4.3 Traffic Assignment

The North Tree at Calhan project traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Traffic assignment is shown in **Figure 7**.

4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2029 buildout horizon and long-term 2045 twenty-year planning horizon. These total traffic volumes for the study area are illustrated for the 2029 and 2045 horizon years in **Figure 8** and **Figure 9**, respectively.

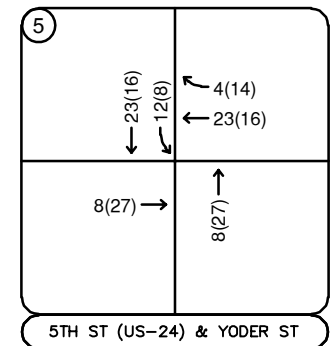
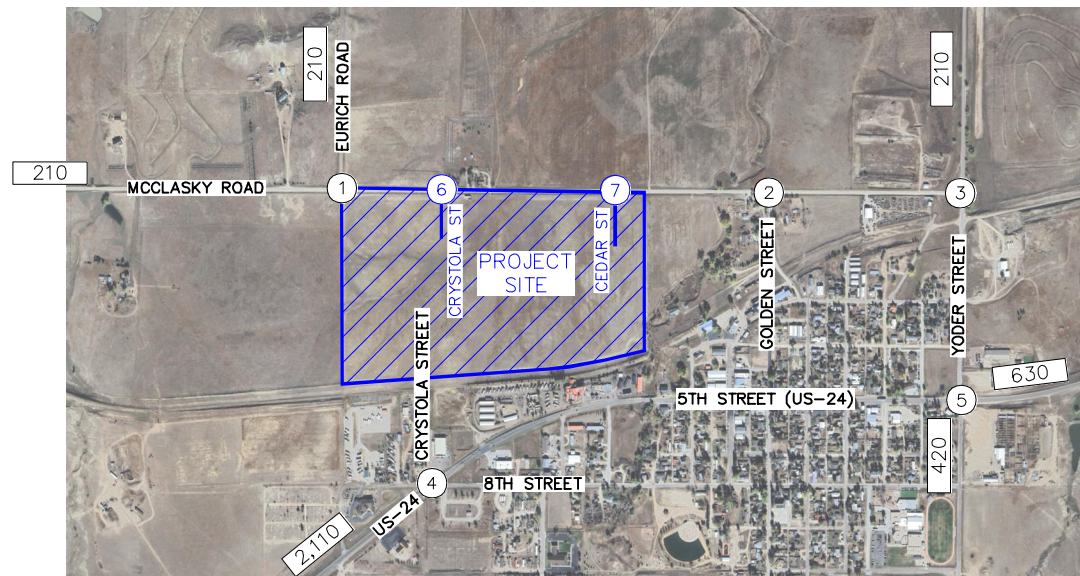
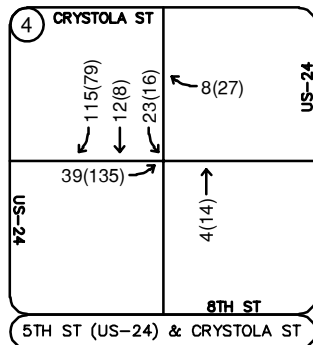
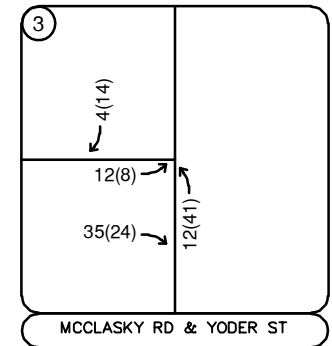
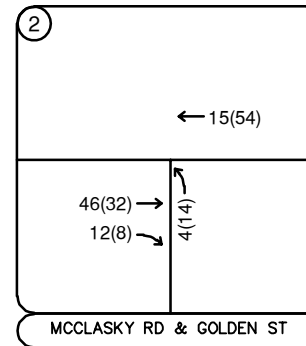
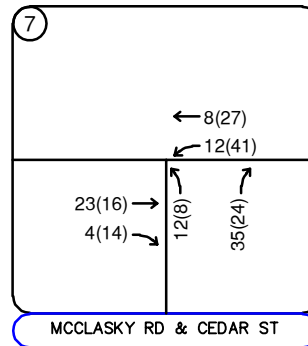
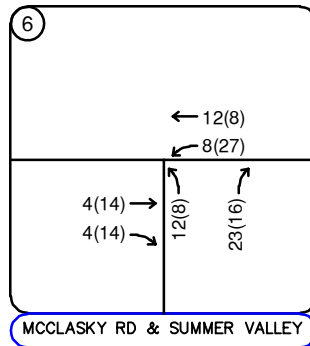
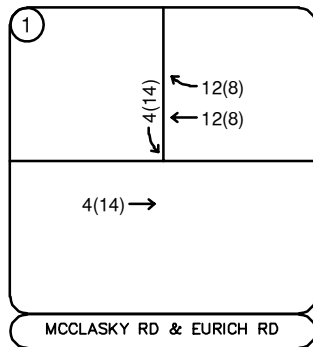


FIGURE 7
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
PROJECT TRAFFIC ASSIGNMENT

LEGEND	
(X)	Study Area Key Intersection
(X)	Project Access Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume



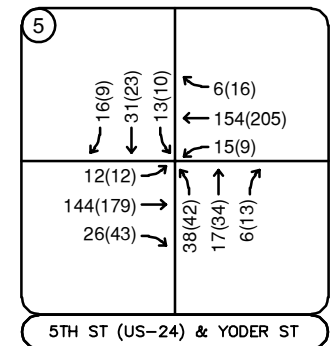
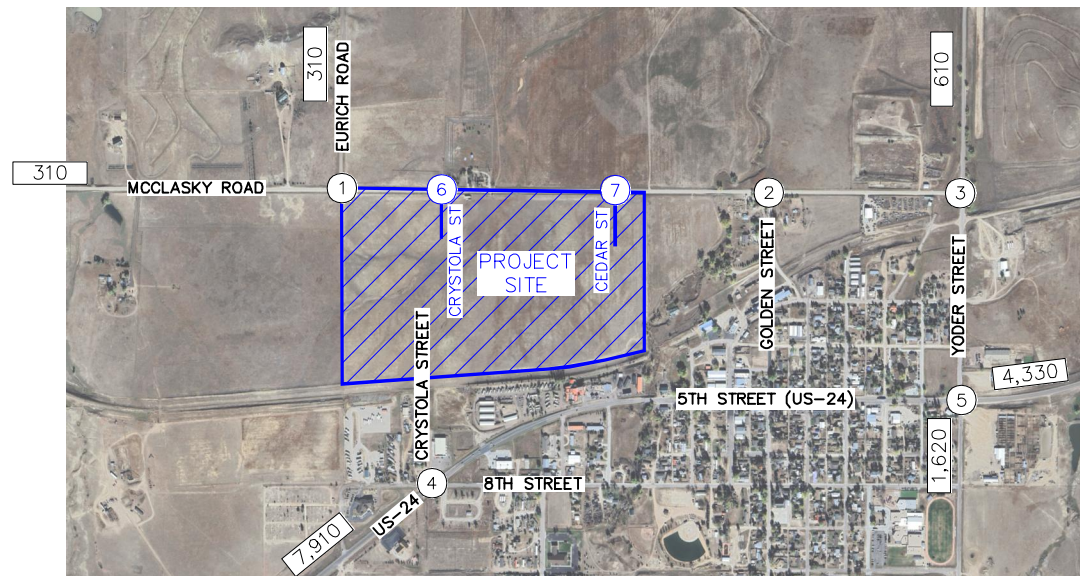
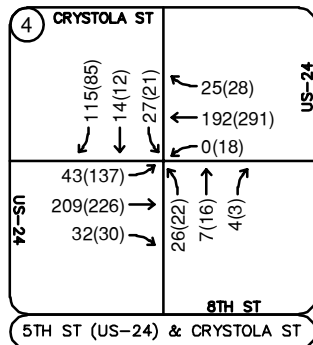
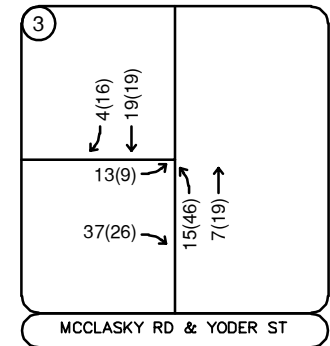
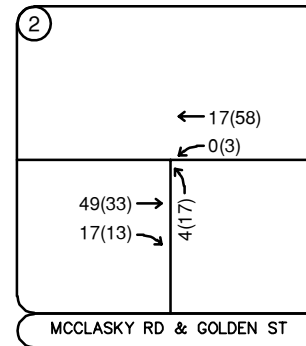
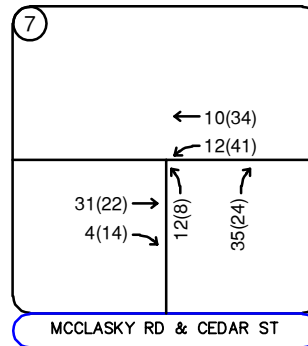
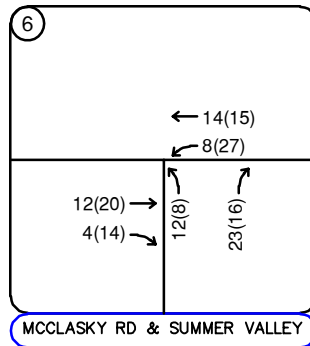
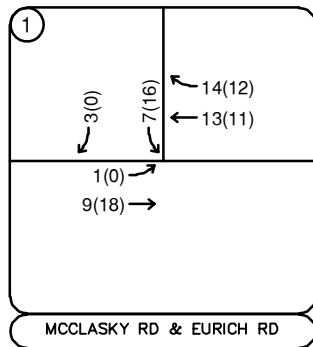


FIGURE 8
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
2029 TOTAL TRAFFIC VOLUMES

LEGEND	
(X)	Study Area Key Intersection
(X)	Project Access Intersection
XXX(XXX)	Weekday AM(PM)
	Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

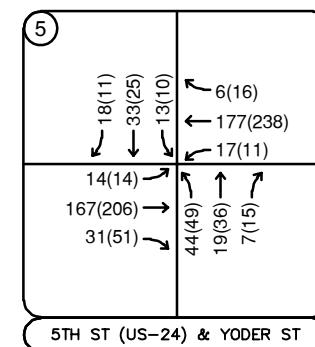
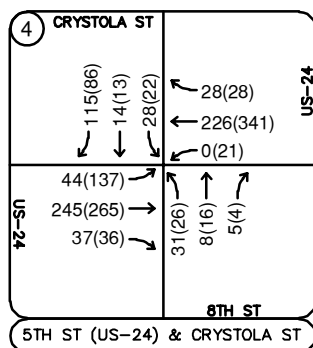
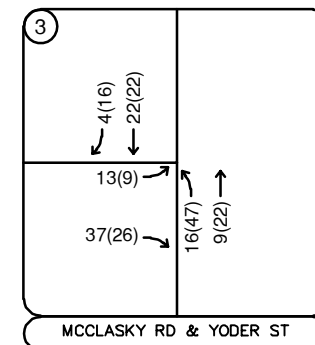
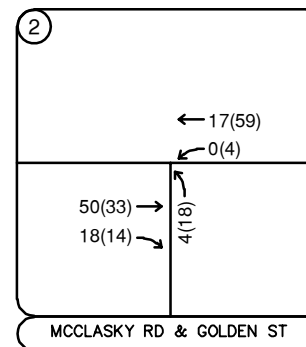
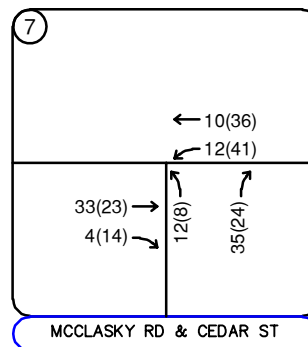
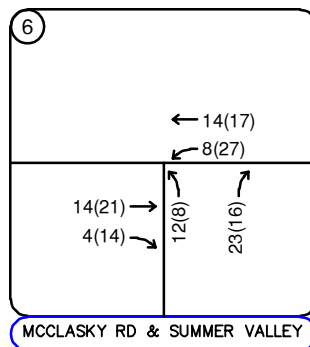
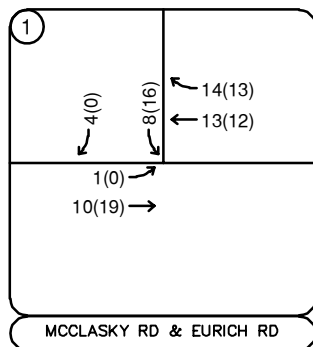
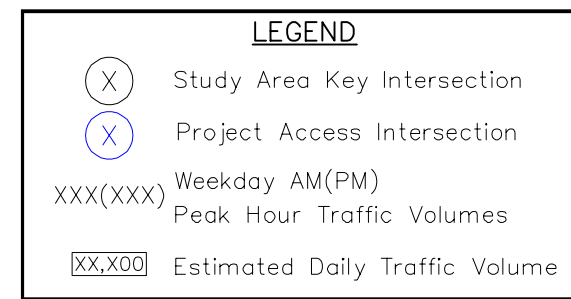


FIGURE 9
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
2045 TOTAL TRAFFIC VOLUMES



5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2029 and 2045 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the *Highway Capacity Manual (HCM)*².

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, standard traffic engineering practice recommends overall intersection LOS D and movement/approach LOS E as the minimum desirable thresholds for acceptable operations. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Definitions provided from the Highway Capacity Manual, Seventh Edition, Transportation Research Board, 2022.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole.

² Transportation Research Board, *Highway Capacity Manual*, Seventh Edition, Washington DC, 2022.

5.2 Key Intersection Operational Analysis

Calculations for the operational level of service at the key intersections for the study area are provided in **Appendix E**. The existing year analysis is based on the lane geometry and intersection control shown in **Figure 2**. Existing peak hour factors were utilized analysis. The existing heavy vehicle percentages obtained from the turning movement counts were also used in each horizon year. Synchro traffic analysis software was used to analyze the signalized and unsignalized key intersections for HCM level of service.

McClasky Road and Eurich Road (#1)

The intersection of McClasky Road and Eurich Road (#1) is unsignalized with stop control on the southbound approach. The intersection movements operate acceptably at LOS A during both peak hours under existing conditions. With project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 3** provides the results of the LOS analysis conducted at this intersection.

Table 3 –McClasky Road and Eurich Road (#1) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2024 Existing				
Eastbound Left	7.2	A	0.0	A
Southbound Approach	8.6	A	8.6	A
2029 Background				
Eastbound Left	7.2	A	0.0	A
Southbound Approach	8.6	A	8.6	A
2029 Background Plus Project				
Eastbound Left	7.3	A	0.0	A
Southbound Approach	8.8	A	9.0	A
2045 Background				
Eastbound Left	7.2	A	0.0	A
Southbound Approach	8.6	A	8.6	A
2045 Background Plus Project				
Eastbound Left	7.3	A	0.0	A
Southbound Approach	8.8	A	9.0	A

McClasky Road and Golden Street (#2)

The intersection of McClasky Road and Golden Street (#2) is unsignalized with stop control on the northbound approach. Under existing conditions, the intersection movements operate acceptably at LOS A during both peak hours. With project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 4** provides the results of the LOS analysis conducted at this intersection.

Table 4 –McClasky Road and Golden Street (#2) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2024 Existing				
Northbound Approach	0.0	A	8.9	A
Westbound Left	0.0	A	7.2	A
2029 Background				
Northbound Approach	0.0	A	8.9	A
Westbound Left	0.0	A	7.2	A
2029 Background Plus Project				
Northbound Approach	9.0	A	9.7	A
Westbound Left	0.0	A	7.3	A
2045 Background				
Northbound Approach	0.0	A	8.9	A
Westbound Left	0.0	A	7.2	A
2045 Background Plus Project				
Northbound Approach	9.0	A	9.7	A
Westbound Left	0.0	A	7.3	A

McClasky Road and Yoder Street (#3)

The intersection of McClasky Road and Yoder Street (#3) is unsignalized with stop control on the eastbound approach. The intersection movements operate acceptably at LOS A during both peak hours under 2024 existing conditions. With project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 5** provides the results of the LOS analysis conducted at this intersection.

Table 5 –McClasky Road and Yoder Street (#3) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2024 Existing				
Northbound Left	7.3	A	7.3	A
Eastbound Approach	8.5	A	8.6	A
2029 Background				
Northbound Left	7.3	A	7.3	A
Eastbound Approach	8.5	A	8.6	A
2029 Background Plus Project				
Northbound Left	7.3	A	7.4	A
Eastbound Approach	8.7	A	9.0	A
2045 Background				
Northbound Left	7.3	A	7.3	A
Eastbound Approach	8.5	A	8.6	A
2045 Background Plus Project				
Northbound Left	7.3	A	7.4	A
Eastbound Approach	8.7	A	9.0	A

5th Street (US-24) and Crystola Street/8th Street (#4)

The intersection of 5th Street (US-24) and Crystola Street/8th Street (#4) is unsignalized with stop control on the northbound and southbound approach. The intersection movements operate acceptably at LOS B or better during both peak hours under existing conditions. Based on CDOT guidelines, an eastbound left turn lane is warrant at this intersection. With this eastbound left turn lane and project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. **Table 6** provides the results of the LOS analysis conducted at this intersection.

Table 6 –5th Street (US-24) and Crystola Street/8th Street (#4) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2024 Existing				
Northbound Approach	12.6	B	13.6	B
Eastbound Left	7.7	A	8.0	A
Westbound Left	0.0	A	7.8	A
Southbound Approach	12.4	B	12.3	B
2029 Background				
Northbound Approach	12.9	B	14.0	B
Eastbound Left	7.7	A	8.1	A
Westbound Left	0.0	A	7.8	A
Southbound Approach	12.7	B	12.6	B
2029 Background Plus Project				
Northbound Approach	16.8	C	27.9	D
Eastbound Left	7.9	A	8.5	A
Westbound Left	0.0	A	7.9	A
Southbound Approach	12.9	B	17.4	C
2045 Background				
Northbound Approach	14.3	B	15.7.8	C
Eastbound Left	7.8	A	8.2	A
Westbound Left	0.0	A	7.9	A
Southbound Approach	13.8	B	13.8	B
2045 Background Plus Project				
Northbound Approach	19.3	C	35.6	E
Eastbound Left	8.0	A	8.7	A
Westbound Left	0.0	A	8.0	A
Southbound Approach	14.0	B	20.8	C

5th Street (US-24) and Yoder Street (#5)

The intersection of 5th Street (US-24) and Yoder Street (#5) is unsignalized with stop control on the northbound and southbound approach. The intersection movements operate acceptably at LOS B or better during both peak hours under 2024 existing conditions. With project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 7** provides the results of the LOS analysis conducted at this intersection.

Table 7 – Yoder Street and 5th Street (US-24) (#5) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2024 Existing				
Northbound Approach	12.2	B	12.3	B
Eastbound Left	7.6	A	7.8	A
Westbound Left	7.8	A	7.7	A
Southbound Approach	10.4	B	11.3	B
2029 Background				
Northbound Approach	12.6	B	12.6	B
Eastbound Left	7.6	A	7.8	A
Westbound Left	7.8	A	7.7	A
Southbound Approach	10.5	B	11.5	B
2029 Background Plus Project				
Northbound Approach	13.9	B	14.6	B
Eastbound Left	7.7	A	7.9	A
Westbound Left	7.8	A	7.8	A
Southbound Approach	12.9	B	13.9	B
2045 Background				
Northbound Approach	13.8	B	14.0	B
Eastbound Left	7.7	A	7.9	A
Westbound Left	7.9	A	7.8	A
Southbound Approach	11.1	B	12.3	B
2045 Background Plus Project				
Northbound Approach	15.5	C	16.7	C
Eastbound Left	7.8	A	8.0	A
Westbound Left	7.9	A	7.9	A
Southbound Approach	13.8	B	15.2	C

Project Accesses

With completion of the North Tree at Calhan residential project, two accesses are proposed along McClasky Road to serve the residential neighborhood development with one access is located at Crystola Street and the other at Cedar Street. Another access is provided by the Crystola Street and US-24 intersection through an extension of Crystola Street extending into the proposed development; however, this was previously evaluated as the 5th Street (US-24) and Crystola Street/8th Street intersection. It is recommended that R1-1 “STOP” signs be constructed on the exiting northbound approaches of the accesses on McClasky Road. **Table 8** provides the results of the level of service for the intersection of McClasky Road and Crystola Street (#6 – West Access) and the intersection of McClasky Road and Cedar Street (#7 – East Access). As shown in the table, the project access intersections are anticipated to have all movements operating with acceptable LOS A during the peak hours in both the buildout year 2029 and the 2045 long-term horizons.

Table 8 – Project Access LOS Results

Intersection	2025 Total				2045 Total			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
McClasky West Access (Crystola Street)								
Northbound Approach	9.1	A	9.5	A	9.2	A	9.5	A
Westbound Left	7.4	A	7.7	A	7.4	A	7.7	A
McClasky East Access (Cedar Street)								
Northbound Approach	9.9	A	9.8	A	9.9	A	9.9	A
Westbound Left	7.6	A	7.8	A	7.6	A	7.8	A

5.3 CDOT Access Permit and Turn Bay Length Analysis

The threshold for requiring an access permit along CDOT roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent. Based on traffic projections, the addition of project traffic on the north leg of Crystola Street, north and south legs of Yoder Street are anticipated to increase existing traffic by more than 20 percent. Therefore, access permits are anticipated to be needed at both intersections as development occurs.

Auxiliary turn lanes along CDOT controlled highways are to be implemented based on volume threshold requirements set forth in the State Highway Access Code. Further, turn lane lengths should be designed based on the State Highway Access Code. US-24 is categorized as a Regional Highway (R-A) west of Crystola Street and east of Yoder Street and as Non-Rural Principal Highway (NR-A) between Crystola Street and Yoder Street. The speed limit on the east leg of the intersection of US-24 and Crystola Street is 45 mph and 35 mph on the west leg. It should be noted that the CDOT OTIS straight line diagram notes the westbound speed limit to be 65 mph on the west leg, but the speed limit is posted as 35 mph based on Google Streetview. The speed limit along US-24 approaching the intersection of US-24 and Yoder Street from both directions is 35 mph.

According to the State Highway Access Code for category Non-Rural Arterial (NR-A) and Regional Highway (R-A) roadways, the turn lane warrants are as follows:

- A left turn deceleration lane and taper is required for any access with a projected peak hour ingress turning volume greater than 10 vehicles per hour (vph). The taper length will be included within the required deceleration length.
- A right turn deceleration lane and taper is required for any access with a projected peak hour ingress turning volume greater than 25 vph. The taper length will be included within the required deceleration length.
- Right turn acceleration lane and taper is required for any access with a projected peak hour right turning volume greater than 50 vph when the posted speed on the highway is greater than 40 mph. The taper length will be included within the required acceleration length.

Based on the 2029 traffic volume projections, turn lane requirements at the project intersections where project traffic is expected to contribute were evaluated along US-24 are as follows:

5th Street (US-24) & Crystola Street/8th Street

- An eastbound left turn lane is warranted at the 5th Street (US-24) and Crystola Street/8th Street intersection based on the 2029 background plus project projected peak traffic volume being 137 in the afternoon peak hour and threshold being 10 vph. Based upon the 45-mph speed limit, the required deceleration length is 275 feet with approximately 140 feet is required for storage and a 160-foot taper (13.5:1). Therefore, the eastbound left turn lane is recommended to provide a length of 415 feet with a 160-foot taper.
- A westbound right turn lane exists and is warranted at the 5th Street (US-24) and Crystola Street/8th Street intersection based on the 2029 background plus project projected traffic volumes being 28 in the afternoon peak hour and the threshold being 25 vph. Based upon the 35-mph speed limit, the required deceleration length is 190 feet with 30 feet for storage and a 120-foot taper (10:1). However, the existing right turn lane provides approximately 275 feet of storage and 150 feet of taper, which meets CDOT access code requirements.
- A southbound to westbound right turn acceleration lane is warranted at the 5th Street (US-24) and Crystola Street/8th Street intersection based on the 2029 background plus project projected traffic volumes being 115 and 85 in the morning and afternoon peak hour, respectively and the threshold being 50 vph. As the existing acceleration lane is continuous, the existing acceleration lane meets CDOT access code requirements.

5th Street (US-24) & Yoder Street

- A westbound right turn lane is not warranted at the 5th Street (US-24) and Yoder Street intersection based on the 2029 background plus project projected traffic volumes being six (6) and 16 in the morning and afternoon peak hour, respectively, and the threshold being 25 vph.

5.4 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 9** with calculations provided within the level of service operational sheets of **Appendix E**.

Table 9 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2029 Calculated Queue (feet)	2029 Recommended Length (feet)	2045 Calculated Queue (feet)	2045 Recommended Length (feet)
Crystola Street and 5th Street (US-24)					
Eastbound Left	DNE	25'	415'+160'T	25'	415'+160'T
Westbound Right	275'	25'	275'	25'	275'
Yoder Street and 5th Street (US-24)					
Eastbound Right	100'	25'	100'	25'	100'

DNE = Does Not Exist; **Blue** Text = Recommendation; T = Taper

The vehicle queues are all anticipated to remain within the existing or recommended turn lane lengths through 2045.

5.5 Improvement Summary

Based on the results of the intersection operational, CDOT turn bay, and vehicle queuing analysis, the key intersection recommended improvements and control are shown in **Figure 10**.

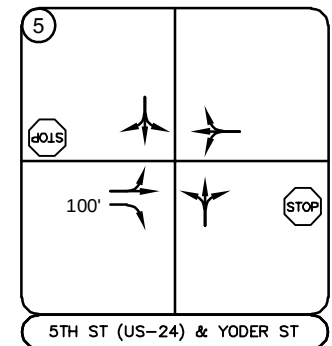
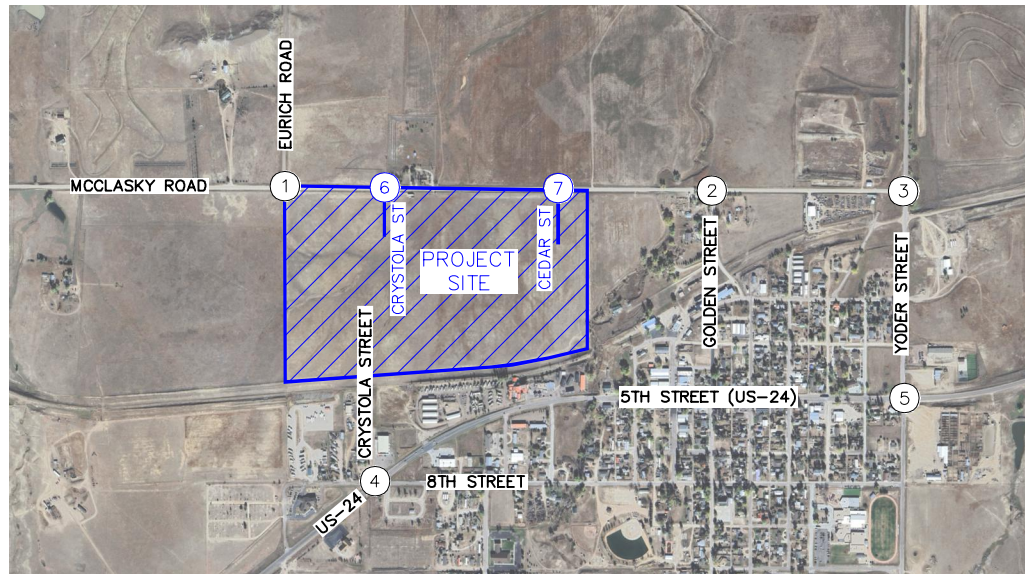
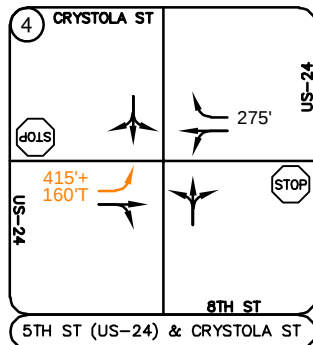
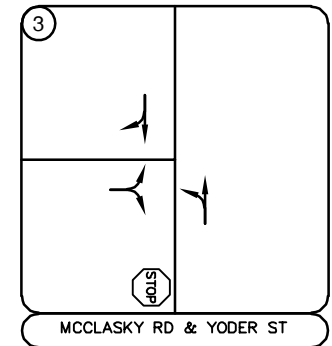
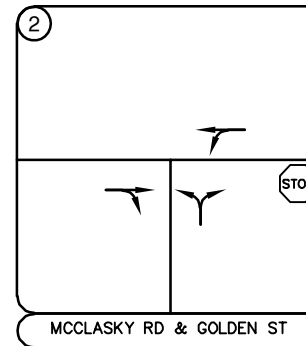
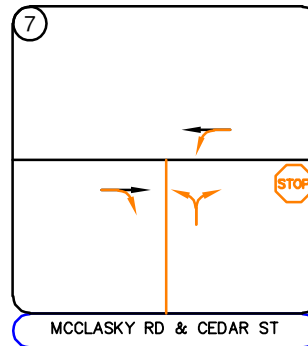
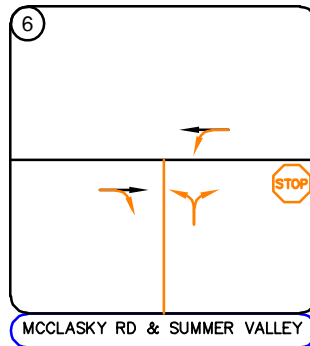
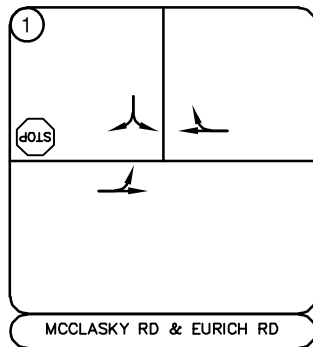
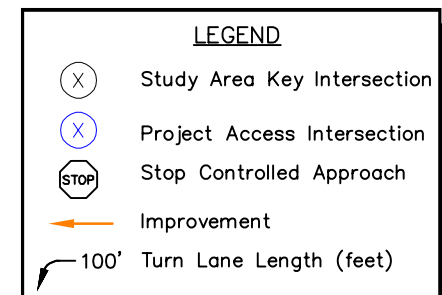


FIGURE 10
NORTH TREE RESIDENTIAL
CALHAN, COLORADO
RECOMMENDED GEOMETRY AND CONTROL



6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes the North Tree at Calhan project will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

- Based on traffic projections, the addition of project traffic on the north leg of Crystola Street, and the north and south legs of Yoder Street and intersections with US-24 are anticipated to increase existing traffic by more than 20 percent. Therefore, access permits are anticipated to be needed at both intersections as development occurs.
- With completion of the North Tree at Calhan residential project, direct access is proposed from two full movement accesses along the south side of McClasky Road. An additional access is provided by the Crystola Street and US-24 intersection through an extension of Crystola Street extending into the proposed development. It is recommended that R1-1 “STOP” signs be constructed on the exiting northbound approaches of the two accesses on McClasky Road. It is anticipated that a single shared lane for all movements will be sufficient on all approaches of the access intersections along McClasky Road.
- An eastbound left turn lane along US-24 at the intersection with Crystola Street/8th Street is warranted and recommended to provide a length of 415 feet with a 160-foot taper to meet CDOT turn lane standards.
- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the Town of Calhan, CDOT, and the MUTCD – 11th Edition, 2023.

APPENDICES

APPENDIX A

Conceptual Site Plan

APPENDIX B

Intersection Count Sheets

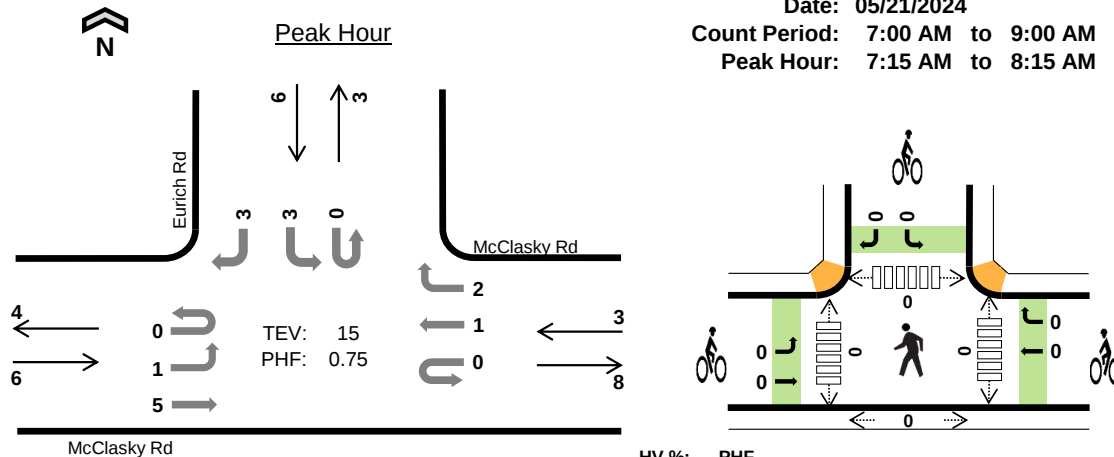
Eurich Rd McClasky Rd



Date: 05/21/2024

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	0.0%	0.75
WB	0.0%	0.75
NB	-	-
SB	16.7%	0.50
TOTAL	6.7%	0.75

Two-Hour Count Summaries

Interval Start		McClasky Rd				McClasky Rd				n/a				Eurich Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
7:15 AM		0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	4	0
7:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0
7:45 AM		0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	3	11
8:00 AM		0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	2	5	15
8:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	10
8:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	8
Count Total		0	1	5	0	0	0	1	3	0	0	0	0	0	6	0	3	19	0
Peak Hour	All	0	1	5	0	0	0	1	2	0	0	0	0	0	3	0	3	15	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
	HV%	-	0%	0%	-	-	-	0%	0%	-	-	-	-	-	33%	-	0%	7%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Peak Hr	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	McClasky Rd				McClasky Rd				n/a				Eurich Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0

Two-Hour Count Summaries - Bikes

Interval Start	McClasky Rd			McClasky Rd			n/a			Eurich Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

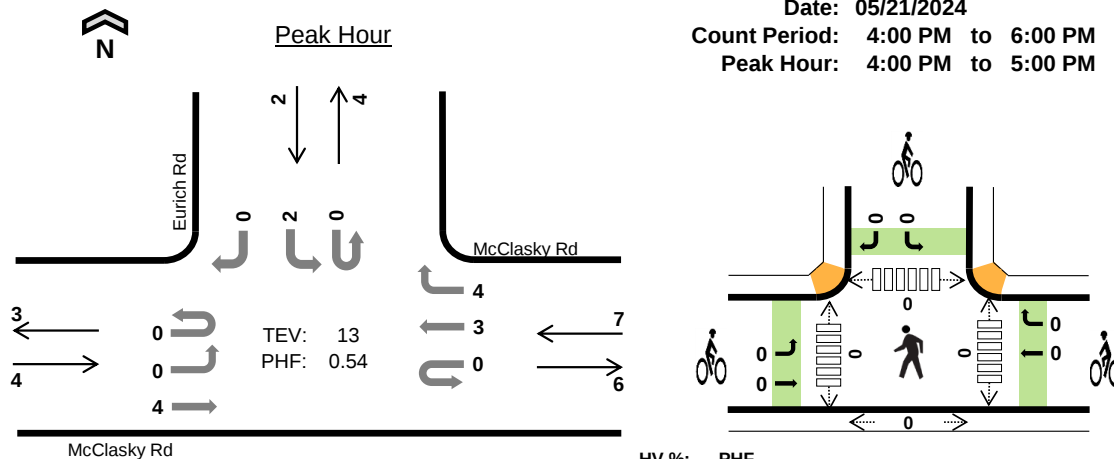
Eurich Rd McClasky Rd



Date: 05/21/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	25.0%	0.33
WB	14.3%	0.58
NB	-	-
SB	0.0%	0.25
TOTAL	15.4%	0.54

Two-Hour Count Summaries

Interval Start	McClasky Rd				McClasky Rd				n/a				Eurich Rd				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	0
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
4:45 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	2	0	0	6	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3	11
5:30 PM	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	3	12
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	9
Count Total	0	2	5	0	0	0	3	7	0	0	0	0	0	2	0	3	22	0
Peak Hour	All	0	0	4	0	0	0	3	4	0	0	0	0	0	2	0	13	0
	HV	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0
	HV%	-	-	25%	-	-	-	33%	0%	-	-	-	-	-	0%	-	15%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
Peak Hr	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	McClasky Rd				McClasky Rd				n/a				Eurich Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes

Interval Start	McClasky Rd			McClasky Rd			n/a			Eurich Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Golden St McClasky Rd

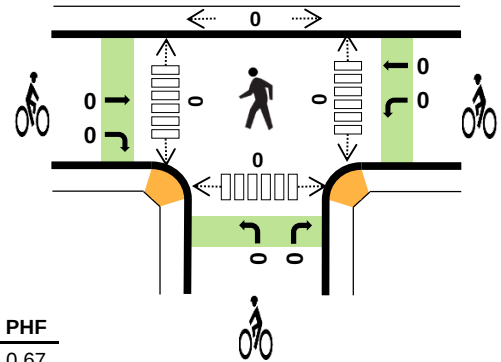
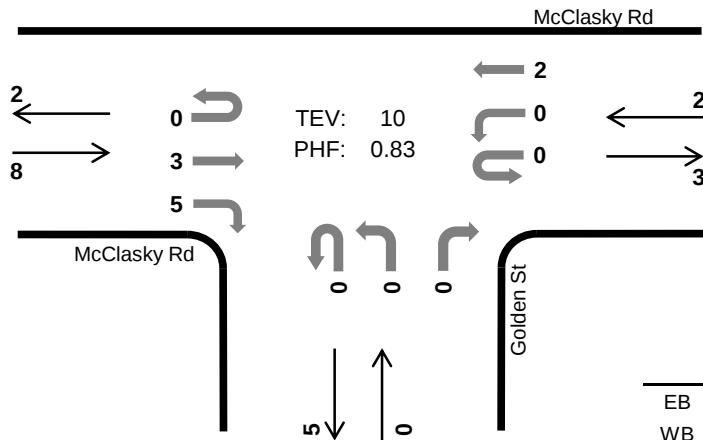


Peak Hour

Date: 05/21/2024

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	12.5%	0.67
WB	0.0%	0.50
NB	-	-
SB	-	-
TOTAL	10.0%	0.83

Two-Hour Count Summaries

Interval Start		McClasky Rd				McClasky Rd				Golden St				n/a				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
7:15 AM		0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
7:30 AM		0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:45 AM		0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	8
8:00 AM		0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	3	10
8:15 AM		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	9
8:30 AM		0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	8
8:45 AM		0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	8
Count Total		0	0	3	8	0	0	2	0	0	1	0	2	0	0	0	0	16	0
Peak Hour	All	0	0	3	5	0	0	2	0	0	0	0	0	0	0	0	0	10	0
	HV	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	HV%	-	-	0%	20%	-	-	0%	-	-	-	-	-	-	-	-	-	10%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
Peak Hr	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	McClasky Rd				McClasky Rd				Golden St				n/a				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	

Two-Hour Count Summaries - Bikes

Interval Start	McClasky Rd			McClasky Rd			Golden St			n/a			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Golden St McClasky Rd

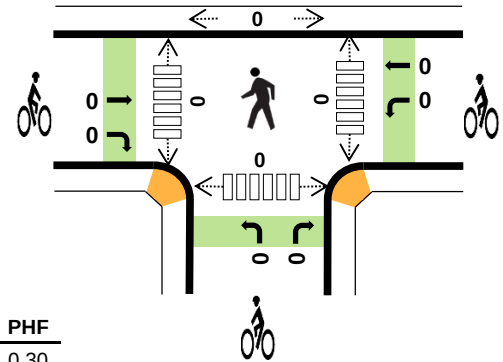
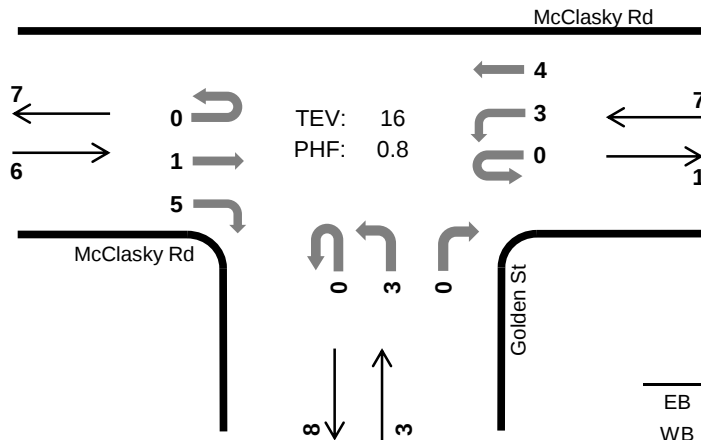


Peak Hour

Date: 05/21/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	16.7%	0.30
WB	0.0%	0.44
NB	33.3%	0.75
SB	-	-
TOTAL	12.5%	0.80

Two-Hour Count Summaries

Interval Start	McClasky Rd Eastbound				McClasky Rd Westbound				Golden St Northbound				Golden St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	2	2	0	0	1	0	0	0	0	0	0	5	0
4:15 PM	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	3	0
4:30 PM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	3	0
4:45 PM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	16
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
5:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	10
5:30 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	10
5:45 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	7
Count Total	0	0	1	6	0	5	7	0	0	4	0	0	0	0	0	0	23	0
Peak Hour	All	0	0	1	5	0	3	4	0	0	3	0	0	0	0	0	16	0
	HV	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	0
	HV%	-	-	100%	0%	-	0%	0%	-	-	33%	-	-	-	-	-	13%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0
Peak Hr	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0

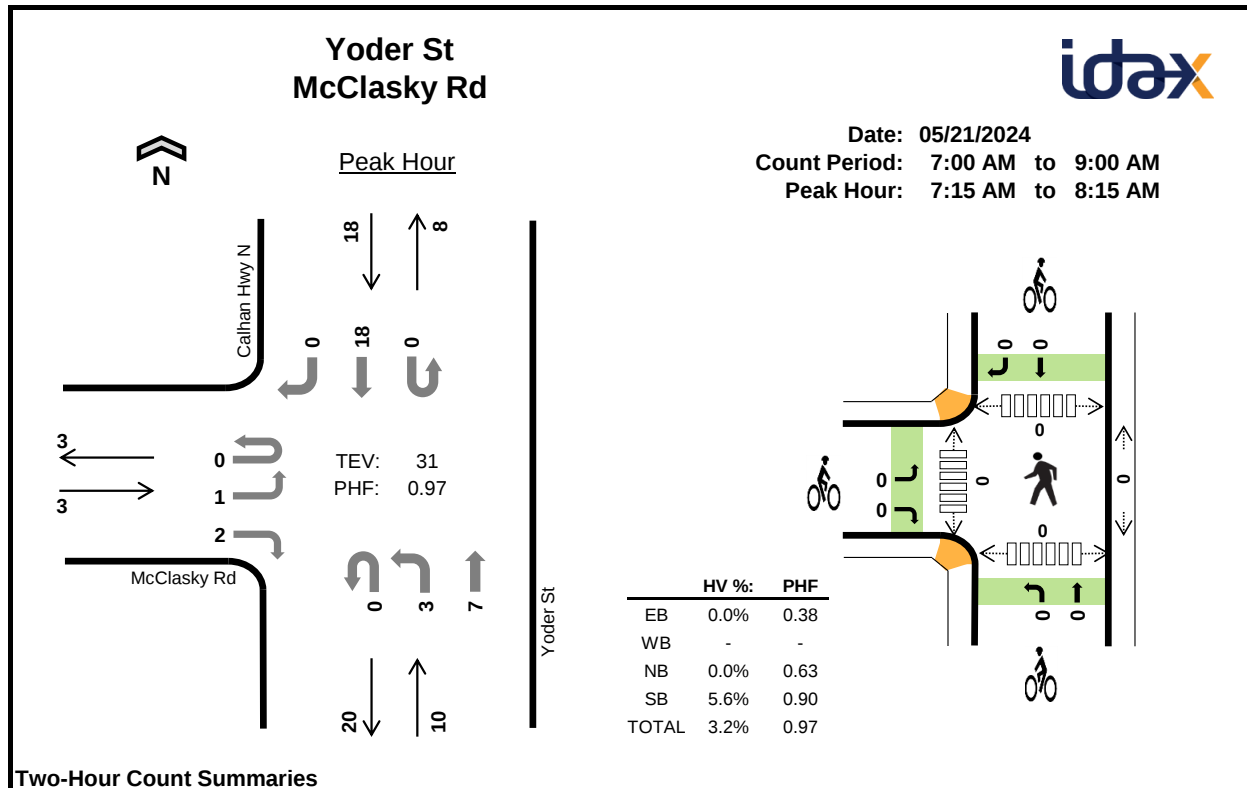
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	McClasky Rd				McClasky Rd				Golden St				n/a				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0
Peak Hour	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0

Two-Hour Count Summaries - Bikes

Interval Start	McClasky Rd			McClasky Rd			Golden St			n/a			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		McClasky Rd				n/a				Yoder St				Calhan Hwy N				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	0
7:15 AM		0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	0
7:30 AM		0	1	0	1	0	0	0	0	0	0	1	0	0	0	5	0	8	0
7:45 AM		0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	0	8	29
8:00 AM		0	0	0	1	0	0	0	0	0	1	1	0	0	0	4	0	7	31
8:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	26
8:30 AM		0	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	8	26
8:45 AM		0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	23
Count Total		0	1	0	2	0	0	0	0	0	3	17	0	0	0	29	0	52	0
Peak Hour	All	0	1	0	2	0	0	0	0	0	3	7	0	0	0	18	0	31	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
	HV%	-	0%	-	0%	-	-	-	-	-	0%	0%	-	-	-	6%	-	3%	0

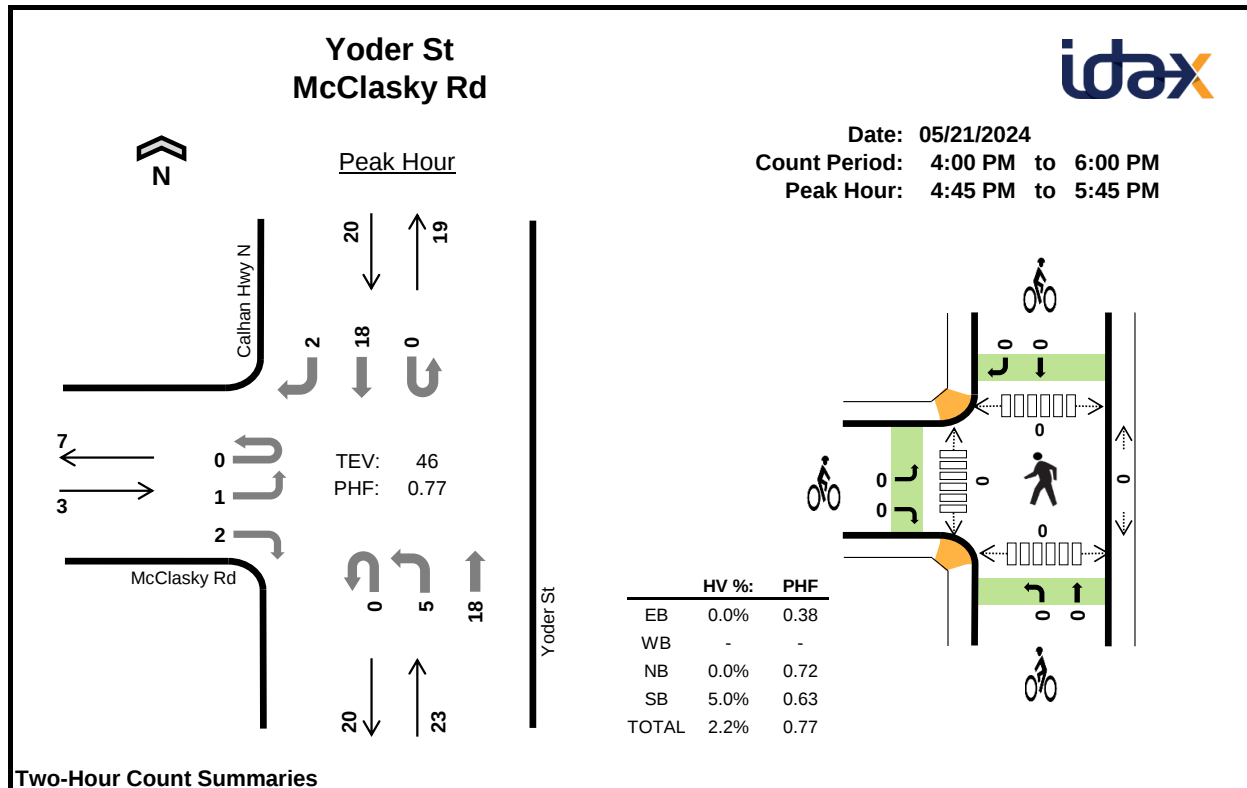
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Peak Hr	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	McClasky Rd				n/a				Yoder St				Calhan Hwy N				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	

Two-Hour Count Summaries - Bikes																		
Interval Start	McClasky Rd				n/a				Yoder St				Calhan Hwy N				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
7:15 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
7:30 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
8:00 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
8:15 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
8:30 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
8:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	
Count Total	0	0	0		0	0	0		0	0	0		0	0	0		0	
Peak Hour	0	0	0		0	0	0		0	0	0		0	0	0		0	

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		McClasky Rd				n/a				Yoder St				Calhan Hwy N				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	0	0	2	8	0	0	0	1	0	11	0
4:15 PM		0	0	0	1	0	0	0	0	0	0	3	0	0	0	3	1	8	0
4:30 PM		0	0	0	0	0	0	0	0	0	1	2	0	0	0	7	0	10	0
4:45 PM		0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	1	7	36
5:00 PM		0	1	0	0	0	0	0	0	0	2	6	0	0	0	5	1	15	40
5:15 PM		0	0	0	2	0	0	0	0	0	1	5	0	0	0	3	0	11	43
5:30 PM		0	0	0	0	0	0	0	0	0	2	3	0	0	0	8	0	13	46
5:45 PM		0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	43
Count Total		0	1	0	3	0	0	0	0	0	8	35	0	0	0	29	3	79	0
Peak Hour	All	0	1	0	2	0	0	0	0	0	5	18	0	0	0	18	2	46	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
	HV%	-	0%	-	0%	-	-	-	-	-	0%	0%	-	-	-	6%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	0	3	4	0	0	0	0	0	0	0	0	0	0
Peak Hr	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0

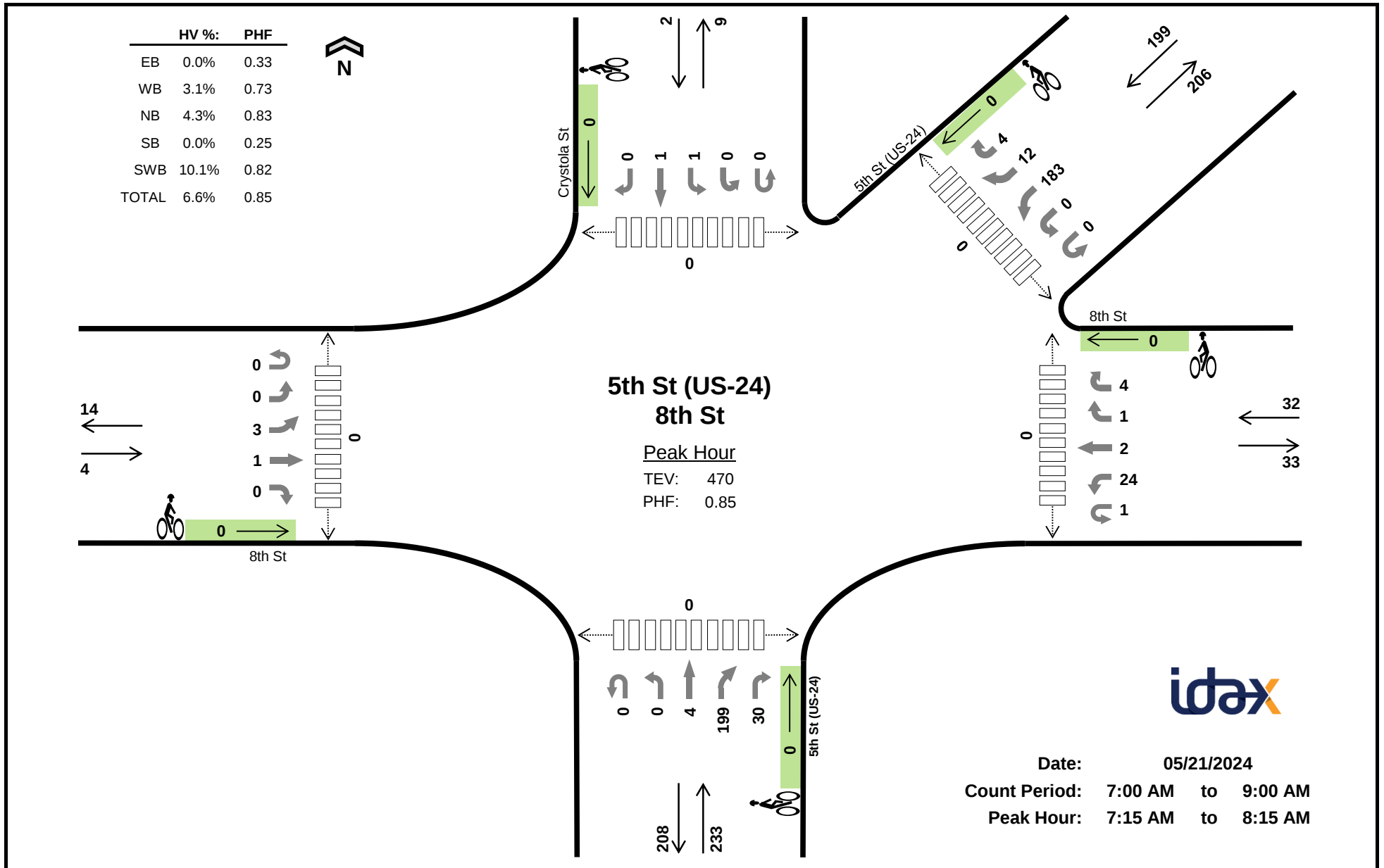
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	McClasky Rd				n/a				Yoder St				Calhan Hwy N				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	4	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0

Two-Hour Count Summaries - Bikes

Interval Start	McClasky Rd			n/a			Yoder St			Calhan Hwy N			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start		8th St Eastbound					8th St Westbound					5th St (US-24) Northbound					Crystola St Southbound					5th St (US-24) Southwestbound					15-min Total	Rolling One Hour
		UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
7:00 AM		0	0	0	0	1	0	9	0	0	0	0	0	0	37	2	0	0	0	0	0	0	1	50	1	0	101	0
7:15 AM		0	0	0	0	0	0	5	0	1	0	0	0	0	48	5	0	0	0	0	0	0	0	50	1	0	110	0
7:30 AM		0	0	1	0	0	1	3	0	0	0	0	0	1	56	13	0	0	0	0	0	0	0	28	1	2	106	0
7:45 AM		0	0	0	0	0	0	9	1	0	1	0	0	3	54	10	0	0	0	0	0	0	0	55	5	1	139	456
8:00 AM		0	0	2	1	0	0	7	1	0	3	0	0	0	41	2	0	0	1	1	0	0	0	50	5	1	115	470
8:15 AM		0	0	1	0	0	0	2	2	0	0	0	0	1	45	5	0	0	0	0	0	0	1	36	0	0	93	453
8:30 AM		0	0	0	0	0	0	2	1	1	0	0	0	2	54	2	0	1	0	0	0	0	0	49	2	2	116	463
8:45 AM		0	0	0	1	0	0	4	0	0	0	0	0	2	58	0	0	0	0	1	0	0	0	30	0	2	98	422
Count Total		0	0	4	2	1	1	41	5	2	4	0	0	9	393	39	0	1	1	2	0	0	2	348	15	8	878	0
Peak Hour	All	0	0	3	1	0	1	24	2	1	4	0	0	4	199	30	0	0	1	1	0	0	0	183	12	4	470	0
	HV HV%	0	0	0	0	0	0	1	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	19	1	0	31	0
		-	-	0%	0%	-	0%	4%	0%	0%	0%	-	-	0%	5%	0%	-	-	0%	0%	-	-	-	10%	8%	0%	7%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	SWB	Total	EB	WB	NB	SB	SWB	Total	East	West	North	South	Northeast	Total
7:00 AM	0	0	2	0	4	6	0	0	0	0	0	0	0	0	1	0	0	1
7:15 AM	0	0	3	0	6	9	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	5	0	6	11	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	1	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	0	4	5	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	3	0	8	11	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	2	0	5	7	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	4	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	21	0	38	60	0	0	0	0	0	0	0	0	1	0	0	1
Peak Hr	0	1	10	0	20	31	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	8th St Eastbound					8th St Westbound					5th St (US-24) Northbound					Crystola St Southbound					5th St (US-24) Southwestbound					15-min Total	Rolling One Hour
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	4	0	0	6	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	5	1	0	9	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	6	0	0	11	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	6	32
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	5	31
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	7	0	0	11	33
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5	0	0	7	29
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	1	0	0	5	28
Count Total	0	0	0	0	0	0	1	0	0	0	0	0	1	20	0	0	0	0	0	0	0	1	36	1	0	60	0
Peak Hour	0	0	0	0	0	0	1	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	19	1	0	31	0

Two-Hour Count Summaries - Bikes

Interval Start	8th St Eastbound					8th St Westbound					5th St (US-24) Northbound					Crystola St Southbound					5th St (US-24) Southwestbound					15-min Total	Rolling One Hour
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Two-Hour Count Summaries

Interval Start		8th St Eastbound					8th St Westbound					5th St (US-24) Northbound					Crystola St Southbound					5th St (US-24) Southwestbound					15-min Total	Rolling One Hour
		UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
	4:00 PM	0	0	0	0	0	0	7	0	1	0	0	0	1	47	9	0	1	1	2	1	0	0	84	3	4	161	0
	4:15 PM	0	0	1	0	0	0	6	0	1	0	0	0	1	52	8	0	1	1	2	0	0	0	69	4	0	146	0
	4:30 PM	0	0	1	0	0	0	6	0	0	1	0	0	0	56	8	0	0	1	1	0	0	0	75	4	1	154	0
	4:45 PM	0	1	1	1	0	0	2	0	0	2	0	0	0	60	4	0	0	0	1	0	0	1	49	0	1	123	584
	5:00 PM	0	0	0	1	0	0	0	1	0	4	0	0	2	50	8	0	2	2	5	0	0	0	57	0	2	134	557
	5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	50	8	0	1	0	2	0	0	0	48	2	2	115	526
	5:30 PM	0	0	1	1	0	0	3	0	0	1	0	0	0	40	5	0	1	0	0	0	0	2	43	2	2	101	473
	5:45 PM	0	0	1	0	0	0	9	0	1	3	0	0	0	49	7	0	0	0	0	0	0	0	50	0	0	120	470
Count Total		0	1	5	3	0	0	34	1	3	12	0	0	4	404	57	0	6	5	13	1	0	3	475	15	12	1,054	0
Peak Hour	All	0	1	3	1	0	0	21	0	2	3	0	0	2	215	29	0	2	3	6	1	0	1	277	11	6	584	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2	0	0	0	0	1	0	0	9	0	1	32	0
	HV%	-	0%	0%	0%	-	-	0%	-	0%	0%	-	-	0%	9%	7%	-	0%	0%	0%	100%	-	0%	3%	0%	17%	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

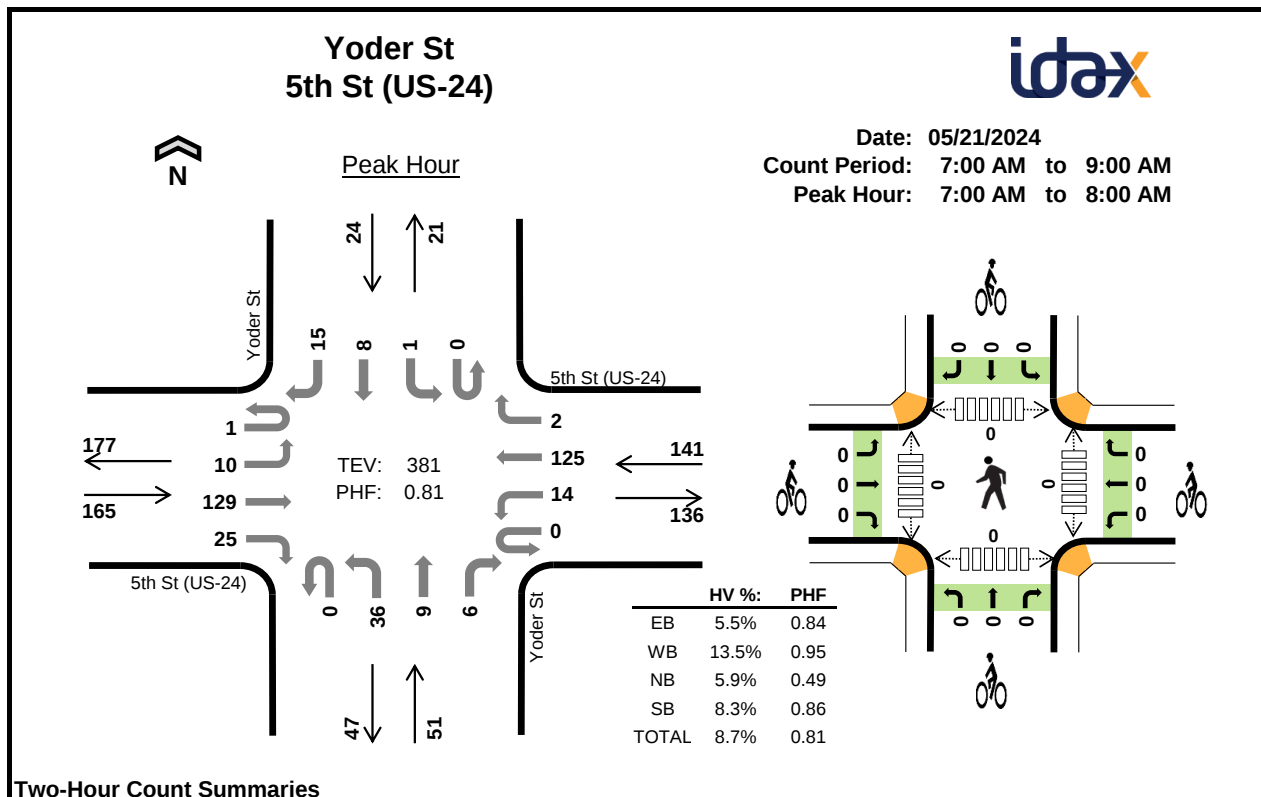
Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	SWB	Total	EB	WB	NB	SB	SWB	Total	East	West	North	South	Northeast	Total
4:00 PM	0	0	8	1	5	14	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	4	0	3	7	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	7	0	2	9	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	2	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	3	0	3	6	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	6	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	36	1	17	54	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hr	0	0	21	1	10	32	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	8th St					8th St					5th St (US-24)					Crystola St					5th St (US-24)					15-min Total	Rolling One Hour
	Eastbound					Westbound					Northbound					Southbound					Southwestbound						
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	1	0	0	4	0	1	14	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	7	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	0	2	0	0	9	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	32
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	4	22
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	19
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0	0	6	16
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0	0	8	22	
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	34	2	0	0	0	0	1	0	0	16	0	1	54	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2	0	0	0	0	1	0	0	9	0	1	32	0

Two-Hour Count Summaries - Bikes

Interval Start	8th St					8th St					5th St (US-24)					Crystola St					5th St (US-24)					15-min Total	Rolling One Hour
	Eastbound					Westbound					Northbound					Southbound					Southwestbound						
	UT	LT	BL	TH	RT	UT	LT	TH	RT	HR	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Two-Hour Count Summaries**

Interval Start		5th St (US-24)				5th St (US-24)				Yoder St				Yoder St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	27	4	0	0	34	0	0	8	1	0	0	1	0	6	82	0
7:15 AM		0	2	34	1	0	3	34	0	0	7	1	2	0	0	2	3	89	0
7:30 AM		1	3	36	7	0	5	28	0	0	5	0	1	0	0	4	3	93	0
7:45 AM		0	4	32	13	0	6	29	2	0	16	7	3	0	0	2	3	117	381
8:00 AM		0	3	22	8	0	0	27	1	0	5	1	3	0	2	3	6	81	380
8:15 AM		0	2	40	4	0	1	25	1	0	8	0	2	0	2	1	2	88	379
8:30 AM		0	10	31	3	0	3	27	1	0	9	0	0	0	0	0	4	88	374
8:45 AM		0	4	34	3	0	1	26	0	0	5	2	0	0	0	1	4	80	337
Count Total		1	29	256	43	0	19	230	5	0	63	12	11	0	5	13	31	718	0
Peak Hour	All	1	10	129	25	0	14	125	2	0	36	9	6	0	1	8	15	381	0
	HV	0	0	8	1	0	1	18	0	0	3	0	0	0	1	0	1	33	0
	HV%	0%	0%	6%	4%	-	7%	14%	0%	-	8%	0%	0%	-	100%	0%	7%	9%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	2	2	1	6	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	8	0	0	11	0	0	0	0	0	0	0	0	0	0
7:30 AM	4	7	0	1	12	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	3	1	1	6	0	0	0	0	0	0	0	0	0	0
8:15 AM	3	4	1	1	9	0	0	0	0	0	0	0	0	0	0
8:30 AM	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0
8:45 AM	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0
Count Total	18	31	5	4	58	0	0	0	0	0	0	0	0	0	0
Peak Hour	9	19	3	2	33	0	0	0	0	0	0	0	0	0	0

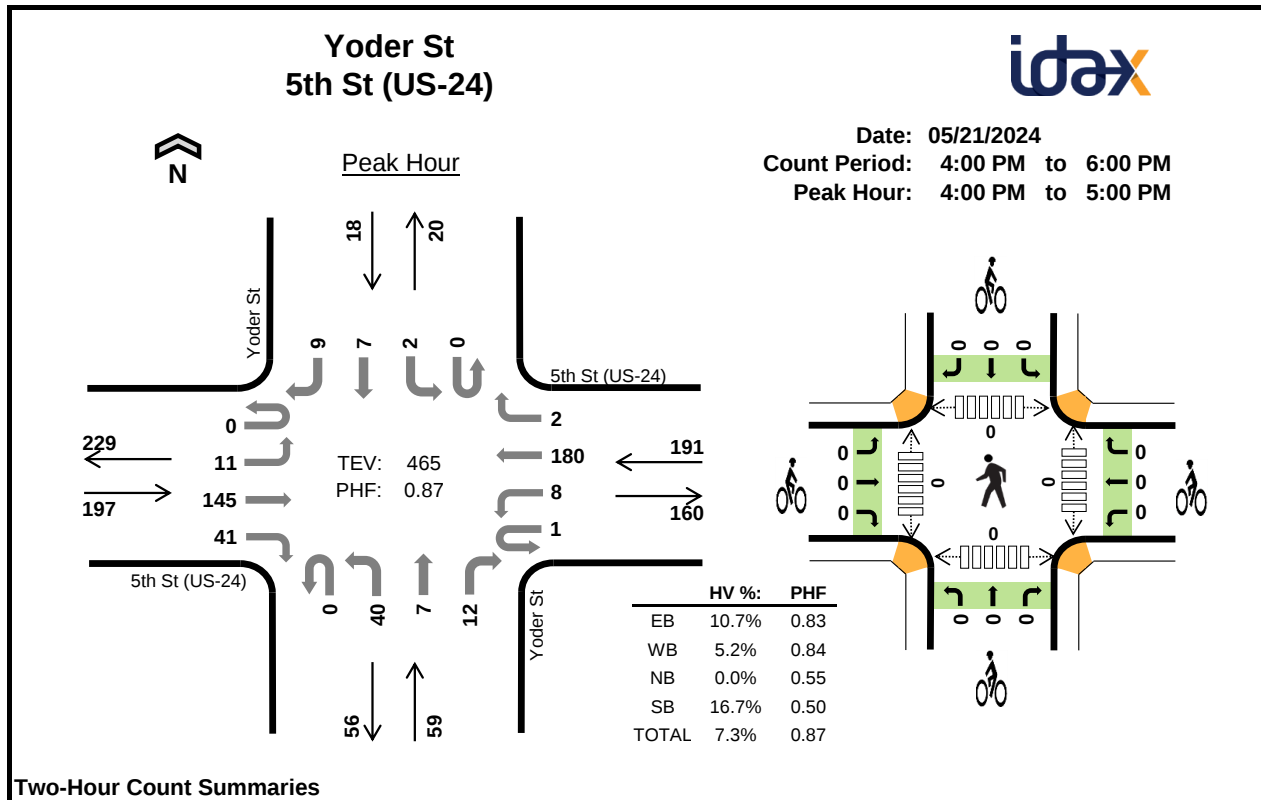
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	5th St (US-24)				5th St (US-24)				Yoder St				Yoder St				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	1	0	0	0	2	0	0	2	0	0	0	0	1	0	0	6	0
7:15 AM	0	0	3	0	0	1	7	0	0	0	0	0	0	0	0	0	0	11	0
7:30 AM	0	0	3	1	0	0	7	0	0	0	0	0	0	0	0	0	1	12	0
7:45 AM	0	0	1	0	0	0	2	0	0	1	0	0	0	0	0	0	0	4	33
8:00 AM	0	0	1	0	0	0	2	1	0	0	0	1	0	1	0	1	0	6	33
8:15 AM	0	0	3	0	0	0	4	0	0	1	0	0	0	0	0	1	0	9	31
8:30 AM	0	0	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	6	25
8:45 AM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	25
Count Total	0	0	17	1	0	3	27	1	0	4	0	1	0	2	0	2	0	58	0
Peak Hour	0	0	8	1	0	1	18	0	0	3	0	0	0	0	1	0	1	33	0

Two-Hour Count Summaries - Bikes

Interval Start	5th St (US-24)			5th St (US-24)			Yoder St			Yoder St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start		5th St (US-24)				5th St (US-24)				Yoder St				Yoder St				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	7	37	10	0	2	49	0	0	15	5	7	0	0	0	0	132	0
4:15 PM		0	2	30	8	1	2	41	1	0	13	1	3	0	0	1	0	103	0
4:30 PM		0	2	44	13	0	2	54	1	0	9	0	0	0	0	3	5	133	0
4:45 PM		0	0	34	10	0	2	36	0	0	3	1	2	0	2	3	4	97	465
5:00 PM		0	6	28	4	0	3	29	1	0	7	1	4	0	0	1	1	85	418
5:15 PM		0	4	32	7	0	4	36	0	0	5	3	1	0	1	1	5	99	414
5:30 PM		0	3	24	7	0	2	38	0	1	9	4	1	0	0	0	3	92	373
5:45 PM		0	5	36	7	0	1	37	0	0	7	1	2	0	1	5	2	104	380
Count Total		0	29	265	66	1	18	320	3	1	68	16	20	0	4	14	20	845	0
Peak Hour	All	0	11	145	41	1	8	180	2	0	40	7	12	0	2	7	9	465	0
	HV	0	0	18	3	0	2	8	0	0	0	0	0	0	0	3	0	34	0
	HV%	-	0%	12%	7%	0%	25%	4%	0%	-	0%	0%	0%	-	0%	43%	0%	7%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	8	3	0	0	11	0	0	0	0	0	0	0	0	0	0
4:15 PM	5	3	0	1	9	0	0	0	0	0	0	0	0	0	0
4:30 PM	5	2	0	1	8	0	0	0	0	0	0	0	0	0	0
4:45 PM	3	2	0	1	6	0	0	0	0	0	0	0	0	0	0
5:00 PM	4	1	0	1	6	0	0	0	0	0	0	0	0	0	0
5:15 PM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0
5:30 PM	3	3	0	0	6	0	0	0	0	0	0	0	0	0	0
5:45 PM	5	3	0	0	8	0	0	0	0	0	0	0	0	0	0
Count Total	37	17	0	4	58	0	0	0	0	0	0	0	0	0	0
Peak Hour	21	10	0	3	34	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	5th St (US-24)				5th St (US-24)				Yoder St				Yoder St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	6	2	0	1	2	0	0	0	0	0	0	0	0	0	11	0
4:15 PM	0	0	5	0	0	0	3	0	0	0	0	0	0	0	1	0	9	0
4:30 PM	0	0	4	1	0	0	2	0	0	0	0	0	0	0	1	0	8	0
4:45 PM	0	0	3	0	0	1	1	0	0	0	0	0	0	0	1	0	6	34
5:00 PM	0	0	4	0	0	0	1	0	0	0	0	0	0	0	1	0	6	29
5:15 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	24
5:30 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	22
5:45 PM	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	8	24
Count Total	0	0	34	3	0	2	15	0	0	0	0	0	0	0	4	0	58	0
Peak Hour	0	0	18	3	0	2	8	0	0	0	0	0	0	0	3	0	34	0

Two-Hour Count Summaries - Bikes

Interval Start	5th St (US-24)			5th St (US-24)			Yoder St			Yoder St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



APPENDIX C

Future Traffic Projections

CDOT OTIS Projection: Penrose Place

ROUTE	REFPT	ENDREFPT	LENGTH	UPDATEYR	AADT	AADTYR	YR20FACTOR	ANNUAL GROWTH RATE	DHV	DD	LOCATION
024G	329.81	334.809	5.003	2022	6200	2022	1.21	0.96%	12	57	ON SH 24, 5TH ST SW/O 8TH ST, CALHAN
024G	334.81	339.633	4.824	2022	6,000	2022	1.23	1.04%	12	57	ON SH 24, 5TH ST W/O COLORADO ST, CALHAN
024G	339.63	339.97	0.337	2022	6,200	2022	1.22	1.00%	12	57	ON SH 24, 5TH ST E/O COLORADO ST, CALHAN
024G	339.97	341.322	1.352	2022	4,600	2022	1.23	1.04%	12	57	ON SH 24, 5TH ST E/O YODER ST, CALHAN

APPENDIX D

Trip Generation Worksheets

Project	North Tree Residential		
Subject	Trip Generation for Single-Family Detached Housing		
Designed by	BPA	Date	June 05, 2024
Job No.	29600500		
Checked by	JRP	Date	June 07, 2024
Sheet No.	1	of	1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independent Variable - Dwelling Units (X)

$$X = 473$$

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 220)

$$\ln(T) = 0.91 \ln(X) + 0.12$$

$$\ln(T) = 0.91 * \ln(473) + 0.12$$

Directional Distribution: 25% ent. 75% exit.

T = 306 Average Vehicle Trip Ends

77 entering 230 exiting

$$77 + 229 = 306$$

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 221)

$$\ln(T) = 0.94 \ln(X) + 0.27$$

$$\ln(T) = 0.94 * \ln(473) + 0.27$$

Directional Distribution: 63% ent. 37% exit.

T = 428 Average Vehicle Trip Ends

270 entering 158 exiting

$$270 + 158 = 428$$

Weekday (200 Series Page 219)

$$\ln(T) = 0.92 \ln(X) + 2.68$$

$$\ln(T) = 0.92 * \ln(473) + 2.68$$

Directional Distribution: 50% entering, 50% exiting

T = 4214 Average Vehicle Trip Ends

2107 entering 2107 exiting

$$2107 + 2107 = 4214$$

APPENDIX E

Intersection Analysis Worksheets

HCM 7th TWSC
1: McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	1		3	
Traffic Vol, veh/h	1	5	1	2	3	3
Future Vol, veh/h	1	5	1	2	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	17	17
Mvmt Flow	1	7	1	3	4	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	4	0	0 12 3
Stage 1	-	-	- 3 -
Stage 2	-	-	- 9 -
Critical Hdwy	4.12	-	- 6.57 6.37
Critical Hdwy Stg 1	-	-	- 5.57 -
Critical Hdwy Stg 2	-	-	- 5.57 -
Follow-up Hdwy	2.218	-	- 3.653 3.453
Pot Cap-1 Maneuver	1618	-	- 970 1039
Stage 1	-	-	- 983 -
Stage 2	-	-	- 976 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1618	-	- 969 1039
Mov Cap-2 Maneuver	-	-	- 969 -
Stage 1	-	-	- 982 -
Stage 2	-	-	- 976 -

Approach	EB	WB	SB
HCM Control Delay, s/v	1.2	0	8.62
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	300	-	-	-	1003
HCM Lane V/C Ratio	0.001	-	-	-	0.008
HCM Control Delay (s/veh)	7.2	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC
1: McClasky Road

06/13/2024

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	3	4	2	0
Future Vol, veh/h	0	4	3	4	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	25	25	14	14	2	2
Mvmt Flow	0	7	6	7	4	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	13	0	0 17 9
Stage 1	-	-	- - 9 -
Stage 2	-	-	- - 7 -
Critical Hdwy	4.35	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.425	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1468	-	- - 1001 1072
Stage 1	-	-	- - 1014 -
Stage 2	-	-	- - 1016 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	1468	-	- - 1001 1072
Mov Cap-2 Maneuver	-	-	- - 1001 -
Stage 1	-	-	- - 1014 -
Stage 2	-	-	- - 1016 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	8.61
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1468	-	-	-	1001
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s/veh)	0	-	-	-	8.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	1		3	
Traffic Vol, veh/h	1	5	1	2	3	3
Future Vol, veh/h	1	5	1	2	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	17	17
Mvmt Flow	1	7	1	3	4	4

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	4	0	-	0	12
Stage 1	-	-	-	-	3
Stage 2	-	-	-	-	9
Critical Hdwy	4.12	-	-	-	6.57
Critical Hdwy Stg 1	-	-	-	-	5.57
Critical Hdwy Stg 2	-	-	-	-	5.57
Follow-up Hdwy	2.218	-	-	-	3.653
Pot Cap-1 Maneuver	1618	-	-	-	970
Stage 1	-	-	-	-	983
Stage 2	-	-	-	-	976
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1618	-	-	-	969
Mov Cap-2 Maneuver	-	-	-	-	969
Stage 1	-	-	-	-	982
Stage 2	-	-	-	-	976

Approach	EB	WB	SB
HCM Control Delay, s/v	1.2	0	8.62
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	300	-	-	-	1003
HCM Lane V/C Ratio	0.001	-	-	-	0.008
HCM Control Delay (s/veh)	7.2	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC
1: McClasky Road

06/13/2024

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	3	4	2	0
Future Vol, veh/h	0	4	3	4	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	25	25	14	14	2	2
Mvmt Flow	0	7	6	7	4	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	13	0	0 17 9
Stage 1	-	-	- 9 -
Stage 2	-	-	- 7 -
Critical Hdwy	4.35	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.425	-	- 3.518 3.318
Pot Cap-1 Maneuver	1468	-	- 1001 1072
Stage 1	-	-	- 1014 -
Stage 2	-	-	- 1016 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1468	-	- 1001 1072
Mov Cap-2 Maneuver	-	-	- 1001 -
Stage 1	-	-	- 1014 -
Stage 2	-	-	- 1016 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	8.61
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1468	-	-	-	1001
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s/veh)	0	-	-	-	8.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC
1: McClasky Road

06/13/2024

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	9	13	14	7	3
Future Vol, veh/h	1	9	13	14	7	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	17	17
Mvmt Flow	1	12	17	19	9	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	36	0	0 41 27
Stage 1	-	-	- - 27 -
Stage 2	-	-	- - 15 -
Critical Hdwy	4.12	-	- - 6.57 6.37
Critical Hdwy Stg 1	-	-	- - 5.57 -
Critical Hdwy Stg 2	-	-	- - 5.57 -
Follow-up Hdwy	2.218	-	- - 3.653 3.453
Pot Cap-1 Maneuver	1575	-	- - 933 1007
Stage 1	-	-	- - 959 -
Stage 2	-	-	- - 971 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1575	-	- - 932 1007
Mov Cap-2 Maneuver	-	-	- - 932 -
Stage 1	-	-	- - 958 -
Stage 2	-	-	- - 971 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.73	0	8.83
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	180	-	-	-	954
HCM Lane V/C Ratio	0.001	-	-	-	0.014
HCM Control Delay (s/veh)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 7th TWSC
1: McClasky Road

06/13/2024

Intersection

Int Delay, s/veh 2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	18	11	12	16	0
Future Vol, veh/h	0	18	11	12	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	25	25	14	14	2	2
Mvmt Flow	0	33	20	22	30	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	43	0	0 65 31
Stage 1	-	-	- 31 -
Stage 2	-	-	- 33 -
Critical Hdwy	4.35	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.425	-	- 3.518 3.318
Pot Cap-1 Maneuver	1430	-	- 941 1043
Stage 1	-	-	- 991 -
Stage 2	-	-	- 989 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1430	-	- 941 1043
Mov Cap-2 Maneuver	-	-	- 941 -
Stage 1	-	-	- 991 -
Stage 2	-	-	- 989 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	8.95
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1430	-	-	-	941
HCM Lane V/C Ratio	-	-	-	-	0.031
HCM Control Delay (s/veh)	0	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 7th TWSC
1: McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	1		4	
Traffic Vol, veh/h	1	6	1	2	4	4
Future Vol, veh/h	1	6	1	2	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	17	17
Mvmt Flow	1	8	1	3	5	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	4	0	-	0	13	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	11	-
Critical Hdwy	4.12	-	-	-	6.57	6.37
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	2.218	-	-	-	3.653	3.453
Pot Cap-1 Maneuver	1618	-	-	-	968	1039
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	975	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1618	-	-	-	968	1039
Mov Cap-2 Maneuver	-	-	-	-	968	-
Stage 1	-	-	-	-	982	-
Stage 2	-	-	-	-	975	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	1.03	0		8.63		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	257	-	-	-	1002	
HCM Lane V/C Ratio	0.001	-	-	-	0.011	
HCM Control Delay (s/veh)	7.2	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

HCM 7th TWSC
1: McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	1		4	
Traffic Vol, veh/h	0	5	4	5	2	0
Future Vol, veh/h	0	5	4	5	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	25	25	14	14	2	2
Mvmt Flow	0	9	7	9	4	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	17	0	-	0	21	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	9	-
Critical Hdwy	4.35	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.425	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1463	-	-	-	995	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	1014	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1463	-	-	-	995	1069
Mov Cap-2 Maneuver	-	-	-	-	995	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	1014	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0	0		8.63		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1463	-	-	-	995	
HCM Lane V/C Ratio	-	-	-	-	0.004	
HCM Control Delay (s/veh)	0	-	-	-	8.6	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	10	13	14	8	4
Future Vol, veh/h	1	10	13	14	8	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	17	17
Mvmt Flow	1	13	17	19	11	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	36	0	0 43 27
Stage 1	-	-	- - 27 -
Stage 2	-	-	- - 16 -
Critical Hdwy	4.12	-	- - 6.57 6.37
Critical Hdwy Stg 1	-	-	- - 5.57 -
Critical Hdwy Stg 2	-	-	- - 5.57 -
Follow-up Hdwy	2.218	-	- - 3.653 3.453
Pot Cap-1 Maneuver	1575	-	- - 932 1007
Stage 1	-	-	- - 959 -
Stage 2	-	-	- - 969 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	1575	-	- - 931 1007
Mov Cap-2 Maneuver	-	-	- - 931 -
Stage 1	-	-	- - 958 -
Stage 2	-	-	- - 969 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.66	0	8.83
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	164	-	-	-	955
HCM Lane V/C Ratio	0.001	-	-	-	0.017
HCM Control Delay (s/veh)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 7th TWSC
1: McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	19	12	13	16	0
Future Vol, veh/h	0	19	12	13	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	25	25	14	14	2	2
Mvmt Flow	0	35	22	24	30	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	46	0	-	0	69	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	35	-
Critical Hdwy	4.35	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.425	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1426	-	-	-	935	1039
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	987	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1426	-	-	-	935	1039
Mov Cap-2 Maneuver	-	-	-	-	935	-
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	987	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0	0		8.98		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1426	-	-	-	935	
HCM Lane V/C Ratio	-	-	-	-	0.032	
HCM Control Delay (s/veh)	0	-	-	-	9	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

HCM 7th TWSC
2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	0	2	0	0
Future Vol, veh/h	3	5	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	2	2	2	2
Mvmt Flow	4	6	0	2	0	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	10	0	9	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	2	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1610	-	1011	1076
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1021	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1610	-	1011	1076
Mov Cap-2 Maneuver	-	-	-	-	1011	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1021	-
Approach	EB	WB		NB		
HCM Control Delay, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1610	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s/veh)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

HCM 7th TWSC
2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	5	3	4	3	0
Future Vol, veh/h	1	5	3	4	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	17	17	2	2	33	33
Mvmt Flow	1	6	4	5	4	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	8	0	17	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.12	-	6.73	6.53
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.218	-	3.797	3.597
Pot Cap-1 Maneuver	-	-	1613	-	927	995
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	936	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1613	-	925	995
Mov Cap-2 Maneuver	-	-	-	-	925	-
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	933	-
Approach	EB	WB		NB		
HCM Control Delay, s/v	0	3.1		8.91		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	925	-	-	771	-	
HCM Lane V/C Ratio	0.004	-	-	0.002	-	
HCM Control Delay (s/veh)	8.9	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 7th TWSC

2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			1	1	
Traffic Vol, veh/h	3	5	0	2	0	0
Future Vol, veh/h	3	5	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	2	2	2	2
Mvmt Flow	4	6	0	2	0	0
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	10	0	9	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	2	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1610	-	1011	1076
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1021	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1610	-	1011	1076
Mov Cap-2 Maneuver	-	-	-	-	1011	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1021	-
Approach	EB	WB		NB		
HCM Control Delay, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1610	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s/veh)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

HCM 7th TWSC
2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	5	3	4	3	0
Future Vol, veh/h	1	5	3	4	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	17	17	2	2	33	33
Mvmt Flow	1	6	4	5	4	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	17	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.12	-	6.73	6.53
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.218	-	3.797	3.597
Pot Cap-1 Maneuver	-	-	1613	-	927	995
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	936	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1613	-	925	995
Mov Cap-2 Maneuver	-	-	-	-	925	-
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	933	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		3.1		8.91	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	925	-	-	771	-	
HCM Lane V/C Ratio	0.004	-	-	0.002	-	
HCM Control Delay (s/veh)	8.9	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 7th TWSC

2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	49	17	0	17	4	0
Future Vol, veh/h	49	17	0	17	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	2	2	2	2
Mvmt Flow	59	20	0	20	5	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	80
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1518
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1518
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	8.97
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	911	-	-	1518	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s/veh)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 7th TWSC
2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	13	3	58	17	0
Future Vol, veh/h	33	13	3	58	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	17	17	2	2	33	33
Mvmt Flow	41	16	4	73	21	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	58	0	129	49
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	-	-	4.12	-	6.73	6.53
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.218	-	3.797	3.597
Pot Cap-1 Maneuver	-	-	1547	-	796	938
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	870	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1547	-	794	938
Mov Cap-2 Maneuver	-	-	-	-	794	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	868	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		0.36		9.66	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	794	-	-	89	-	
HCM Lane V/C Ratio	0.027	-	-	0.002	-	
HCM Control Delay (s/veh)	9.7	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC 2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	6	0	2	0	0
Future Vol, veh/h	4	6	0	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	2	2	2	2
Mvmt Flow	5	7	0	2	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	12
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1607
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1607
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1607	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

HCM 7th TWSC

2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1	6	4	5	4	0
Future Vol, veh/h	1	6	4	5	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	17	17	2	2	33	33
Mvmt Flow	1	8	5	6	5	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	9	0	21	5
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	16	-
Critical Hdwy	-	-	4.12	-	6.73	6.53
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.218	-	3.797	3.597
Pot Cap-1 Maneuver	-	-	1611	-	921	994
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1611	-	919	994
Mov Cap-2 Maneuver	-	-	-	-	919	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	929	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		3.22		8.94	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	919	-	-	800	-	
HCM Lane V/C Ratio	0.005	-	-	0.003	-	
HCM Control Delay (s/veh)	8.9	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

HCM 7th TWSC
2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	18	0	17	4	0
Future Vol, veh/h	50	18	0	17	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	13	13	2	2	2	2
Mvmt Flow	60	22	0	20	5	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	82
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1515
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1515
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	8.98
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	909	-	-	1515	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s/veh)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 7th TWSC
2: Golden Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	14	4	59	18	0
Future Vol, veh/h	33	14	4	59	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	17	17	2	2	33	33
Mvmt Flow	41	18	5	74	23	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	59	0	134	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	84	-
Critical Hdwy	-	-	4.12	-	6.73	6.53
Critical Hdwy Stg 1	-	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	-	5.73	-
Follow-up Hdwy	-	-	2.218	-	3.797	3.597
Pot Cap-1 Maneuver	-	-	1545	-	792	937
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	867	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1545	-	789	937
Mov Cap-2 Maneuver	-	-	-	-	789	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	864	-
Approach	EB	WB		NB		
HCM Control Delay, s/v	0	0.47		9.7		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	789	-	-	114	-	
HCM Lane V/C Ratio	0.029	-	-	0.003	-	
HCM Control Delay (s/veh)	9.7	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	1	2	3	7	18	0
Future Vol, veh/h	1	2	3	7	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	6	6
Mvmt Flow	1	2	3	7	19	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	32	19	19
Stage 1	19	-	-
Stage 2	13	-	-
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	982	1060	1598
Stage 1	1004	-	-
Stage 2	1009	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	980	1060	1598
Mov Cap-2 Maneuver	980	-	-
Stage 1	1002	-	-
Stage 2	1009	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.5	2.18	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	540	-	1032	-	-
HCM Lane V/C Ratio	0.002	-	0.003	-	-
HCM Control Delay (s/veh)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	2	5	18	18	2
Future Vol, veh/h	1	2	5	18	18	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	5	5
Mvmt Flow	1	3	6	23	23	3

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	61	25	26	0	-	0
Stage 1	25	-	-	-	-	-
Stage 2	36	-	-	-	-	-
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	945	1052	1588	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	986	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	941	1052	1588	-	-	-
Mov Cap-2 Maneuver	941	-	-	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	986	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.57	1.58	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	391	-	1012	-	-
HCM Lane V/C Ratio	0.004	-	0.004	-	-
HCM Control Delay (s/veh)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	1	2	3	7	19	0
Future Vol, veh/h	1	2	3	7	19	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	6	6
Mvmt Flow	1	2	3	7	20	0

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	33	20	20	0	-	0
Stage 1	20	-	-	-	-	-
Stage 2	13	-	-	-	-	-
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	980	1058	1597	-	-	-
Stage 1	1003	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	979	1058	1597	-	-	-
Mov Cap-2 Maneuver	979	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1009	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.5	2.18	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	540	-	1030	-	-
HCM Lane V/C Ratio	0.002	-	0.003	-	-
HCM Control Delay (s/veh)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	1	2	5	19	19	2
Future Vol, veh/h	1	2	5	19	19	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	5	5
Mvmt Flow	1	3	6	25	25	3

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	64	26	27	0	-	0
Stage 1	26	-	-	-	-	-
Stage 2	38	-	-	-	-	-
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	942	1050	1586	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	938	1050	1586	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.58	1.52	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	375	-	1010	-	-
HCM Lane V/C Ratio	0.004	-	0.004	-	-
HCM Control Delay (s/veh)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	5.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	13	37	15	7	19	4
Future Vol, veh/h	13	37	15	7	19	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	6	6
Mvmt Flow	13	38	15	7	20	4

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	60	22	24	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	38	-	-	-	-	-
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	947	1056	1591	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	938	1056	1591	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	984	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.71	4.97	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1227	-	1022	-	-
HCM Lane V/C Ratio	0.01	-	0.05	-	-
HCM Control Delay (s/veh)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	9	26	46	19	19	16
Future Vol, veh/h	9	26	46	19	19	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	5	5
Mvmt Flow	12	34	60	25	25	21

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	179	35	45	0	-	0
Stage 1	35	-	-	-	-	-
Stage 2	144	-	-	-	-	-
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	810	1038	1562	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	883	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	779	1038	1562	-	-	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	883	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.95	5.23	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1274	-	956	-	-
HCM Lane V/C Ratio	0.038	-	0.048	-	-
HCM Control Delay (s/veh)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	1	2	4	9	22	0
Future Vol, veh/h	1	2	4	9	22	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	6	6
Mvmt Flow	1	2	4	9	23	0

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	40	23	23	0	-	0
Stage 1	23	-	-	-	-	-
Stage 2	18	-	-	-	-	-
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	971	1054	1593	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	969	1054	1593	-	-	-
Mov Cap-2 Maneuver	969	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.53	2.24	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	554	-	1024	-	-
HCM Lane V/C Ratio	0.003	-	0.003	-	-
HCM Control Delay (s/veh)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC

3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	2	6	22	22	2
Future Vol, veh/h	1	2	6	22	22	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	5	5
Mvmt Flow	1	3	8	29	29	3

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	74	30	31
Stage 1	30	-	-
Stage 2	44	-	-
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	930	1045	1581
Stage 1	993	-	-
Stage 2	978	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	925	1045	1581
Mov Cap-2 Maneuver	925	-	-
Stage 1	988	-	-
Stage 2	978	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.61	1.56	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	386	-	1001	-	-
HCM Lane V/C Ratio	0.005	-	0.004	-	-
HCM Control Delay (s/veh)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	5.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	13	37	16	9	22	4
Future Vol, veh/h	13	37	16	9	22	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	6	6
Mvmt Flow	13	38	16	9	23	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	67	25	27	0	-	0
Stage 1	25	-	-	-	-	-
Stage 2	42	-	-	-	-	-
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	938	1051	1587	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	980	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	928	1051	1587	-	-	-
Mov Cap-2 Maneuver	928	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	980	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	8.73	4.67		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1152	-	1016	-	-	
HCM Lane V/C Ratio	0.01	-	0.051	-	-	
HCM Control Delay (s/veh)	7.3	0	8.7	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

HCM 7th TWSC
3: Yoder Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	26	47	22	22	16
Future Vol, veh/h	9	26	47	22	22	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	5	5
Mvmt Flow	12	34	61	29	29	21

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	190	39	49
Stage 1	39	-	-
Stage 2	151	-	-
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	799	1033	1557
Stage 1	983	-	-
Stage 2	877	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	768	1033	1557
Mov Cap-2 Maneuver	768	-	-
Stage 1	944	-	-
Stage 2	877	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.99	5.04	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1226	-	948	-	-
HCM Lane V/C Ratio	0.039	-	0.048	-	-
HCM Control Delay (s/veh)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	199	30	0	183	16	25	3	4	4	2	0
Future Vol, veh/h	4	199	30	0	183	16	25	3	4	4	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	250	-	-	-	-	-	-
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	3	3	3	4	4	4	2	2	2
Mvmt Flow	5	234	35	0	215	19	29	4	5	5	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	234	0	0	269	0	0	478	495	252	461	494	215
Stage 1	-	-	-	-	-	-	261	261	-	215	215	-
Stage 2	-	-	-	-	-	-	216	234	-	245	279	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.14	6.54	6.24	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.536	4.036	3.336	3.518	4.018	3.318
Pot Cap-1 Maneuver	1333	-	-	1288	-	-	495	473	782	511	476	825
Stage 1	-	-	-	-	-	-	739	688	-	787	725	-
Stage 2	-	-	-	-	-	-	781	707	-	758	680	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1333	-	-	1288	-	-	490	471	782	502	474	825
Mov Cap-2 Maneuver	-	-	-	-	-	-	490	471	-	502	474	-
Stage 1	-	-	-	-	-	-	736	686	-	787	725	-
Stage 2	-	-	-	-	-	-	779	707	-	747	677	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.13	0	12.59	12.42
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	512	30	-	-	1288	-	-	492
HCM Lane V/C Ratio	0.074	0.004	-	-	-	-	-	0.014
HCM Control Delay (s/veh)	12.6	7.7	0	-	0	-	-	12.4
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔		↔			↔	
Traffic Vol, veh/h	2	215	29	1	277	17	21	2	3	5	4	6
Future Vol, veh/h	2	215	29	1	277	17	21	2	3	5	4	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	-	-	-	-	-	250	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	9	9	9	2	2	2	2	2	2	8	8	8
Mvmt Flow	2	236	32	1	304	19	23	2	3	5	4	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	323	0	0	268	0	0	565	582	252	548	579	304
Stage 1	-	-	-	-	-	-	257	257	-	307	307	-
Stage 2	-	-	-	-	-	-	309	325	-	242	273	-
Critical Hdwy	4.19	-	-	4.12	-	-	7.12	6.52	6.22	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Follow-up Hdwy	2.281	-	-	2.218	-	-	3.518	4.018	3.318	3.572	4.072	3.372
Pot Cap-1 Maneuver	1198	-	-	1296	-	-	435	425	786	438	418	722
Stage 1	-	-	-	-	-	-	748	695	-	691	650	-
Stage 2	-	-	-	-	-	-	701	649	-	749	673	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1198	-	-	1296	-	-	425	423	786	432	417	722
Mov Cap-2 Maneuver	-	-	-	-	-	-	425	423	-	432	417	-
Stage 1	-	-	-	-	-	-	746	694	-	690	650	-
Stage 2	-	-	-	-	-	-	689	648	-	741	672	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.07			0.03			13.56			12.31		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	449	14	-	-	6	-	-	509
HCM Lane V/C Ratio	0.064	0.002	-	-	0.001	-	-	0.032
HCM Control Delay (s/veh)	13.6	8	0	-	7.8	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔		↔			↔	
Traffic Vol, veh/h	4	209	32	0	192	17	26	3	4	4	2	0
Future Vol, veh/h	4	209	32	0	192	17	26	3	4	4	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	250	-	-	-	-	-	-
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	3	3	3	4	4	4	2	2	2
Mvmt Flow	5	246	38	0	226	20	31	4	5	5	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	246	0	0	284	0	0	501	520	265	483	519	226
Stage 1	-	-	-	-	-	-	274	274	-	226	226	-
Stage 2	-	-	-	-	-	-	227	246	-	257	293	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.14	6.54	6.24	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.536	4.036	3.336	3.518	4.018	3.318
Pot Cap-1 Maneuver	1320	-	-	1273	-	-	477	458	769	494	461	813
Stage 1	-	-	-	-	-	-	728	679	-	777	717	-
Stage 2	-	-	-	-	-	-	771	699	-	748	670	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1320	-	-	1273	-	-	473	456	769	485	459	813
Mov Cap-2 Maneuver	-	-	-	-	-	-	473	456	-	485	459	-
Stage 1	-	-	-	-	-	-	725	677	-	777	717	-
Stage 2	-	-	-	-	-	-	769	699	-	736	667	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.13	0	12.91	12.67
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	494	29	-	-	1273	-	-	476
HCM Lane V/C Ratio	0.079	0.004	-	-	-	-	-	0.015
HCM Control Delay (s/veh)	12.9	7.7	0	-	0	-	-	12.7
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕			↕	
Traffic Vol, veh/h	2	226	30	1	291	18	22	2	3	5	4	6
Future Vol, veh/h	2	226	30	1	291	18	22	2	3	5	4	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	-	-	-	-	-	250	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	9	9	9	2	2	2	2	2	2	8	8	8
Mvmt Flow	2	248	33	1	320	20	24	2	3	5	4	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	340	0	0	281	0	0	593	611	265	576	608	320
Stage 1	-	-	-	-	-	-	269	269	-	322	322	-
Stage 2	-	-	-	-	-	-	324	342	-	254	286	-
Critical Hdwy	4.19	-	-	4.12	-	-	7.12	6.52	6.22	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Follow-up Hdwy	2.281	-	-	2.218	-	-	3.518	4.018	3.318	3.572	4.072	3.372
Pot Cap-1 Maneuver	1181	-	-	1281	-	-	417	409	774	420	403	707
Stage 1	-	-	-	-	-	-	736	686	-	677	640	-
Stage 2	-	-	-	-	-	-	688	638	-	737	664	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1181	-	-	1281	-	-	407	407	774	414	401	707
Mov Cap-2 Maneuver	-	-	-	-	-	-	407	407	-	414	401	-
Stage 1	-	-	-	-	-	-	735	685	-	677	640	-
Stage 2	-	-	-	-	-	-	676	637	-	730	663	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.06			0.03			13.99			12.58		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	430	14	-	-	6	-	-	491
HCM Lane V/C Ratio	0.069	0.002	-	-	0.001	-	-	0.034
HCM Control Delay (s/veh)	14	8.1	0	-	7.8	0	-	12.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	209	32	0	192	25	26	7	4	27	14	115
Future Vol, veh/h	43	209	32	0	192	25	26	7	4	27	14	115
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	425	-	-	-	-	250	-	-	-	-	-	-
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	3	3	3	4	4	4	2	2	2
Mvmt Flow	51	246	38	0	226	29	31	8	5	32	16	135

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	255	0	0	284	0	0	600	621	265	577	611	226
Stage 1	-	-	-	-	-	-	366	366	-	226	226	-
Stage 2	-	-	-	-	-	-	234	255	-	351	385	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.14	6.54	6.24	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.536	4.036	3.336	3.518	4.018	3.318
Pot Cap-1 Maneuver	1310	-	-	1273	-	-	410	401	769	428	409	813
Stage 1	-	-	-	-	-	-	649	619	-	777	717	-
Stage 2	-	-	-	-	-	-	764	692	-	665	611	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1310	-	-	1273	-	-	315	385	769	400	393	813
Mov Cap-2 Maneuver	-	-	-	-	-	-	315	385	-	400	393	-
Stage 1	-	-	-	-	-	-	624	595	-	777	717	-
Stage 2	-	-	-	-	-	-	623	692	-	627	587	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.19	0	16.76	12.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	350	1310	-	-	1273	-	-	638
HCM Lane V/C Ratio	0.125	0.039	-	-	-	-	-	0.288
HCM Control Delay (s/veh)	16.8	7.9	-	-	0	-	-	12.9
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	1.2

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	137	226	30	18	291	28	22	16	3	21	12	85
Future Vol, veh/h	137	226	30	18	291	28	22	16	3	21	12	85
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	425	-	-	-	-	250	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	9	9	9	2	2	2	2	2	2	8	8	8
Mvmt Flow	151	248	33	20	320	31	24	18	3	23	13	93

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	351	0	0	281	0	0	932	956	265	918	942	320
Stage 1	-	-	-	-	-	-	566	566	-	359	359	-
Stage 2	-	-	-	-	-	-	366	390	-	558	582	-
Critical Hdwy	4.19	-	-	4.12	-	-	7.12	6.52	6.22	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Follow-up Hdwy	2.281	-	-	2.218	-	-	3.518	4.018	3.318	3.572	4.072	3.372
Pot Cap-1 Maneuver	1170	-	-	1281	-	-	247	258	774	246	257	707
Stage 1	-	-	-	-	-	-	509	507	-	647	616	-
Stage 2	-	-	-	-	-	-	653	608	-	503	489	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1170	-	-	1281	-	-	174	220	774	195	220	707
Mov Cap-2 Maneuver	-	-	-	-	-	-	174	220	-	195	220	-
Stage 1	-	-	-	-	-	-	444	442	-	634	605	-
Stage 2	-	-	-	-	-	-	544	596	-	419	426	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.97			0.42			27.89			17.45		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	202	1170	-	-	105	-	-	418
HCM Lane V/C Ratio	0.223	0.129	-	-	0.015	-	-	0.31
HCM Control Delay (s/veh)	27.9	8.5	-	-	7.9	0	-	17.4
HCM Lane LOS	D	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0.4	-	-	0	-	-	1.3

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	245	37	0	226	20	31	4	5	5	2	0
Future Vol, veh/h	5	245	37	0	226	20	31	4	5	5	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	250	-	-	-	-	-	-
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	3	3	3	4	4	4	2	2	2
Mvmt Flow	6	288	44	0	266	24	36	5	6	6	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	289	0	0	332	0	0	589	611	310	568	609	266
Stage 1	-	-	-	-	-	-	322	322	-	266	266	-
Stage 2	-	-	-	-	-	-	267	289	-	302	344	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.14	6.54	6.24	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.536	4.036	3.336	3.518	4.018	3.318
Pot Cap-1 Maneuver	1272	-	-	1222	-	-	417	406	725	433	410	773
Stage 1	-	-	-	-	-	-	686	648	-	739	689	-
Stage 2	-	-	-	-	-	-	734	669	-	707	637	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1272	-	-	1222	-	-	412	404	725	423	407	773
Mov Cap-2 Maneuver	-	-	-	-	-	-	412	404	-	423	407	-
Stage 1	-	-	-	-	-	-	682	644	-	739	689	-
Stage 2	-	-	-	-	-	-	731	669	-	692	633	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.14	0	14.28	13.78
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	435	31	-	-	1222	-	-	418
HCM Lane V/C Ratio	0.108	0.005	-	-	-	-	-	0.02
HCM Control Delay (s/veh)	14.3	7.8	0	-	0	-	-	13.8
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔		↔			↔	
Traffic Vol, veh/h	2	265	36	1	341	21	26	2	4	6	5	7
Future Vol, veh/h	2	265	36	1	341	21	26	2	4	6	5	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	250	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	9	9	9	2	2	2	2	2	2	8	8	8
Mvmt Flow	2	291	40	1	375	23	29	2	4	7	5	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	398	0	0	331	0	0	695	715	311	674	712	375
Stage 1	-	-	-	-	-	-	315	315	-	377	377	-
Stage 2	-	-	-	-	-	-	380	400	-	297	335	-
Critical Hdwy	4.19	-	-	4.12	-	-	7.12	6.52	6.22	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Follow-up Hdwy	2.281	-	-	2.218	-	-	3.518	4.018	3.318	3.572	4.072	3.372
Pot Cap-1 Maneuver	1124	-	-	1229	-	-	357	356	729	361	350	658
Stage 1	-	-	-	-	-	-	696	655	-	633	605	-
Stage 2	-	-	-	-	-	-	642	602	-	699	632	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1124	-	-	1229	-	-	346	355	729	355	349	658
Mov Cap-2 Maneuver	-	-	-	-	-	-	346	355	-	355	349	-
Stage 1	-	-	-	-	-	-	694	654	-	632	605	-
Stage 2	-	-	-	-	-	-	628	601	-	691	630	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.05			0.02			15.73			13.78		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	371	12	-	-	5	-	-	430
HCM Lane V/C Ratio	0.095	0.002	-	-	0.001	-	-	0.046
HCM Control Delay (s/veh)	15.7	8.2	0	-	7.9	0	-	13.8
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	245	37	0	226	28	31	8	5	28	14	115
Future Vol, veh/h	44	245	37	0	226	28	31	8	5	28	14	115
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	425	-	-	-	-	250	-	-	-	-	-	-
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	3	3	3	4	4	4	2	2	2
Mvmt Flow	52	288	44	0	266	33	36	9	6	33	16	135

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	299	0	0	332	0	0	688	712	310	662	701	266
Stage 1	-	-	-	-	-	-	414	414	-	266	266	-
Stage 2	-	-	-	-	-	-	274	299	-	396	435	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.14	6.54	6.24	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.536	4.036	3.336	3.518	4.018	3.318
Pot Cap-1 Maneuver	1262	-	-	1222	-	-	358	355	725	375	363	773
Stage 1	-	-	-	-	-	-	612	590	-	739	689	-
Stage 2	-	-	-	-	-	-	728	663	-	629	580	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1262	-	-	1222	-	-	270	340	725	347	348	773
Mov Cap-2 Maneuver	-	-	-	-	-	-	270	340	-	347	348	-
Stage 1	-	-	-	-	-	-	587	566	-	739	689	-
Stage 2	-	-	-	-	-	-	586	663	-	588	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.08	0	19.29	14.03
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	303	1262	-	-	1222	-	-	582
HCM Lane V/C Ratio	0.171	0.041	-	-	-	-	-	0.317
HCM Control Delay (s/veh)	19.3	8	-	-	0	-	-	14
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	-	1.4

HCM 7th TWSC
4: 5th Street (US-24) & Crystola Street

06/13/2024

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	137	265	36	21	341	28	26	16	4	22	13	86
Future Vol, veh/h	137	265	36	21	341	28	26	16	4	22	13	86
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	425	-	-	-	-	275	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	9	9	9	2	2	2	2	2	2	8	8	8
Mvmt Flow	151	291	40	23	375	31	29	18	4	24	14	95

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	405	0	0	331	0	0	1040	1064	311	1022	1053	375
Stage 1	-	-	-	-	-	-	612	612	-	421	421	-
Stage 2	-	-	-	-	-	-	428	452	-	601	632	-
Critical Hdwy	4.19	-	-	4.12	-	-	7.12	6.52	6.22	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.18	5.58	-
Follow-up Hdwy	2.281	-	-	2.218	-	-	3.518	4.018	3.318	3.572	4.072	3.372
Pot Cap-1 Maneuver	1116	-	-	1229	-	-	208	223	729	209	221	658
Stage 1	-	-	-	-	-	-	480	484	-	599	579	-
Stage 2	-	-	-	-	-	-	605	571	-	477	465	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1116	-	-	1229	-	-	141	188	729	161	186	658
Mov Cap-2 Maneuver	-	-	-	-	-	-	141	188	-	161	186	-
Stage 1	-	-	-	-	-	-	416	419	-	584	565	-
Stage 2	-	-	-	-	-	-	493	557	-	393	402	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	2.73			0.43			35.62			20.79		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	167	1116	-	-	104	-	-	359
HCM Lane V/C Ratio	0.302	0.135	-	-	0.019	-	-	0.37
HCM Control Delay (s/veh)	35.6	8.7	0	-	8	0	-	20.8
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.2	0.5	-	-	0.1	-	-	1.7

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	11	129	25	14	125	2	36	9	6	1	8	15
Future Vol, veh/h	11	129	25	14	125	2	36	9	6	1	8	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	6	6	6	14	14	14	6	6	6	8	8	8
Mvmt Flow	14	159	31	17	154	2	44	11	7	1	10	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	157	0	0	190	0	0	380	378	159	382	407	156
Stage 1	-	-	-	-	-	-	186	186	-	190	190	-
Stage 2	-	-	-	-	-	-	194	191	-	192	217	-
Critical Hdwy	4.16	-	-	4.24	-	-	7.16	6.56	6.26	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.326	-	-	3.554	4.054	3.354	3.572	4.072	3.372
Pot Cap-1 Maneuver	1399	-	-	1315	-	-	570	548	876	565	524	875
Stage 1	-	-	-	-	-	-	806	738	-	798	732	-
Stage 2	-	-	-	-	-	-	799	735	-	796	712	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1399	-	-	1315	-	-	534	534	876	535	511	875
Mov Cap-2 Maneuver	-	-	-	-	-	-	534	534	-	535	511	-
Stage 1	-	-	-	-	-	-	797	730	-	786	721	-
Stage 2	-	-	-	-	-	-	760	724	-	769	704	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.51			0.77			12.25			10.43		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	560	141	-	-	178	-	-	692
HCM Lane V/C Ratio	0.113	0.01	-	-	0.013	-	-	0.043
HCM Control Delay (s/veh)	12.2	7.6	0	-	7.8	0	-	10.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1

Intersection

Int Delay, s/veh 2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	145	41	9	180	2	40	7	12	2	7	9
Future Vol, veh/h	11	145	41	9	180	2	40	7	12	2	7	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	11	11	11	5	5	5	2	2	2	17	17	17
Mvmt Flow	13	167	47	10	207	2	46	8	14	2	8	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	209	0	0	214	0	0	424	422	167	425	468	208
Stage 1	-	-	-	-	-	-	192	192	-	229	229	-
Stage 2	-	-	-	-	-	-	232	230	-	196	239	-
Critical Hdwy	4.21	-	-	4.15	-	-	7.12	6.52	6.22	7.27	6.67	6.37
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Follow-up Hdwy	2.299	-	-	2.245	-	-	3.518	4.018	3.318	3.653	4.153	3.453
Pot Cap-1 Maneuver	1310	-	-	1339	-	-	541	523	878	515	471	796
Stage 1	-	-	-	-	-	-	810	742	-	741	688	-
Stage 2	-	-	-	-	-	-	771	714	-	772	681	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1310	-	-	1339	-	-	514	513	878	489	462	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	514	513	-	489	462	-
Stage 1	-	-	-	-	-	-	801	733	-	735	682	-
Stage 2	-	-	-	-	-	-	746	708	-	744	673	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.43			0.36			12.29			11.33		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	561	127	-	-	85	-	-	589
HCM Lane V/C Ratio	0.121	0.01	-	-	0.008	-	-	0.035
HCM Control Delay (s/veh)	12.3	7.8	0	-	7.7	0	-	11.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1

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	12	136	26	15	131	2	38	9	6	1	8	16
Future Vol, veh/h	12	136	26	15	131	2	38	9	6	1	8	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	6	6	6	14	14	14	6	6	6	8	8	8
Mvmt Flow	15	168	32	19	162	2	47	11	7	1	10	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	164	0	0	200	0	0	401	399	168	403	430	163
Stage 1	-	-	-	-	-	-	198	198	-	200	200	-
Stage 2	-	-	-	-	-	-	204	201	-	203	230	-
Critical Hdwy	4.16	-	-	4.24	-	-	7.16	6.56	6.26	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.326	-	-	3.554	4.054	3.354	3.572	4.072	3.372
Pot Cap-1 Maneuver	1390	-	-	1304	-	-	552	533	866	547	509	866
Stage 1	-	-	-	-	-	-	795	730	-	788	725	-
Stage 2	-	-	-	-	-	-	789	727	-	785	703	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1390	-	-	1304	-	-	515	518	866	517	495	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	515	518	-	517	495	-
Stage 1	-	-	-	-	-	-	786	721	-	776	713	-
Stage 2	-	-	-	-	-	-	749	716	-	757	695	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.53			0.79			12.58			10.51		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	540	146	-	-	182	-	-	684
HCM Lane V/C Ratio	0.121	0.011	-	-	0.014	-	-	0.045
HCM Control Delay (s/veh)	12.6	7.6	0	-	7.8	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰			↰			↰	
Traffic Vol, veh/h	12	152	43	9	189	2	42	7	13	2	7	9
Future Vol, veh/h	12	152	43	9	189	2	42	7	13	2	7	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	11	11	11	5	5	5	2	2	2	17	17	17
Mvmt Flow	14	175	49	10	217	2	48	8	15	2	8	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	220	0	0	224	0	0	444	443	175	445	491	218
Stage 1	-	-	-	-	-	-	202	202	-	239	239	-
Stage 2	-	-	-	-	-	-	242	240	-	206	252	-
Critical Hdwy	4.21	-	-	4.15	-	-	7.12	6.52	6.22	7.27	6.67	6.37
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Follow-up Hdwy	2.299	-	-	2.245	-	-	3.518	4.018	3.318	3.653	4.153	3.453
Pot Cap-1 Maneuver	1298	-	-	1327	-	-	524	509	869	498	457	785
Stage 1	-	-	-	-	-	-	800	734	-	732	681	-
Stage 2	-	-	-	-	-	-	762	707	-	763	672	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1298	-	-	1327	-	-	497	499	869	472	448	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	497	499	-	472	448	-
Stage 1	-	-	-	-	-	-	790	725	-	725	675	-
Stage 2	-	-	-	-	-	-	736	700	-	732	664	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.45			0.35			12.57			11.5		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	546	132	-	-	81	-	-	574
HCM Lane V/C Ratio	0.13	0.011	-	-	0.008	-	-	0.036
HCM Control Delay (s/veh)	12.6	7.8	0	-	7.7	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1

Intersection

Int Delay, s/veh 3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	144	26	15	154	6	38	17	6	13	31	16
Future Vol, veh/h	12	144	26	15	154	6	38	17	6	13	31	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	6	6	6	14	14	14	6	6	6	8	8	8
Mvmt Flow	15	178	32	19	190	7	47	21	7	16	38	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	198	0	0	210	0	0	454	442	178	449	470	194
Stage 1	-	-	-	-	-	-	207	207	-	231	231	-
Stage 2	-	-	-	-	-	-	246	235	-	218	240	-
Critical Hdwy	4.16	-	-	4.24	-	-	7.16	6.56	6.26	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.326	-	-	3.554	4.054	3.354	3.572	4.072	3.372
Pot Cap-1 Maneuver	1351	-	-	1293	-	-	510	504	855	510	483	833
Stage 1	-	-	-	-	-	-	786	723	-	759	702	-
Stage 2	-	-	-	-	-	-	749	703	-	771	696	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1351	-	-	1293	-	-	445	490	855	471	469	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	445	490	-	471	469	-
Stage 1	-	-	-	-	-	-	776	714	-	746	691	-
Stage 2	-	-	-	-	-	-	679	692	-	733	688	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.51			0.67			13.89			12.87		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	138	-	-	153	-	-	531
HCM Lane V/C Ratio	0.157	0.011	-	-	0.014	-	-	0.139
HCM Control Delay (s/veh)	13.9	7.7	0	-	7.8	0	-	12.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.5

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	179	43	9	205	16	42	34	13	10	23	9
Future Vol, veh/h	12	179	43	9	205	16	42	34	13	10	23	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	11	11	11	5	5	5	2	2	2	17	17	17
Mvmt Flow	14	206	49	10	236	18	48	39	15	11	26	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	254	0	0	255	0	0	503	508	206	518	548	245
Stage 1	-	-	-	-	-	-	233	233	-	266	266	-
Stage 2	-	-	-	-	-	-	270	275	-	253	283	-
Critical Hdwy	4.21	-	-	4.15	-	-	7.12	6.52	6.22	7.27	6.67	6.37
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Follow-up Hdwy	2.299	-	-	2.245	-	-	3.518	4.018	3.318	3.653	4.153	3.453
Pot Cap-1 Maneuver	1260	-	-	1293	-	-	479	468	835	445	424	759
Stage 1	-	-	-	-	-	-	770	712	-	708	662	-
Stage 2	-	-	-	-	-	-	736	683	-	719	651	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1260	-	-	1293	-	-	433	457	835	392	414	759
Mov Cap-2 Maneuver	-	-	-	-	-	-	433	457	-	392	414	-
Stage 1	-	-	-	-	-	-	760	702	-	701	656	-
Stage 2	-	-	-	-	-	-	690	676	-	659	642	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.4			0.31			14.61			13.92		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	476	113	-	-	69	-	-	452
HCM Lane V/C Ratio	0.215	0.011	-	-	0.008	-	-	0.107
HCM Control Delay (s/veh)	14.6	7.9	0	-	7.8	0	-	13.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	0.4

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	159	31	17	154	2	44	11	7	1	10	18
Future Vol, veh/h	14	159	31	17	154	2	44	11	7	1	10	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	6	6	6	14	14	14	6	6	6	8	8	8
Mvmt Flow	17	196	38	21	190	2	54	14	9	1	12	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	235	0	0	469	465	196	471	502	191
Stage 1	-	-	-	-	-	-	231	231	-	233	233	-
Stage 2	-	-	-	-	-	-	238	235	-	238	269	-
Critical Hdwy	4.16	-	-	4.24	-	-	7.16	6.56	6.26	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.326	-	-	3.554	4.054	3.354	3.572	4.072	3.372
Pot Cap-1 Maneuver	1357	-	-	1265	-	-	498	489	835	493	463	835
Stage 1	-	-	-	-	-	-	763	706	-	756	701	-
Stage 2	-	-	-	-	-	-	756	703	-	752	676	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1357	-	-	1265	-	-	456	472	835	459	447	835
Mov Cap-2 Maneuver	-	-	-	-	-	-	456	472	-	459	447	-
Stage 1	-	-	-	-	-	-	752	696	-	742	688	-
Stage 2	-	-	-	-	-	-	709	690	-	719	666	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.53			0.78			13.83			11.07		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	484	146	-	-	176	-	-	629
HCM Lane V/C Ratio	0.158	0.013	-	-	0.017	-	-	0.057
HCM Control Delay (s/veh)	13.8	7.7	0	-	7.9	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.2

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	179	51	11	222	2	49	9	15	2	9	11
Future Vol, veh/h	14	179	51	11	222	2	49	9	15	2	9	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	11	11	11	5	5	5	2	2	2	17	17	17
Mvmt Flow	16	206	59	13	255	2	56	10	17	2	10	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	257	0	0	264	0	0	524	521	206	525	578	256
Stage 1	-	-	-	-	-	-	238	238	-	282	282	-
Stage 2	-	-	-	-	-	-	286	283	-	243	297	-
Critical Hdwy	4.21	-	-	4.15	-	-	7.12	6.52	6.22	7.27	6.67	6.37
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Follow-up Hdwy	2.299	-	-	2.245	-	-	3.518	4.018	3.318	3.653	4.153	3.453
Pot Cap-1 Maneuver	1257	-	-	1282	-	-	464	460	835	441	407	747
Stage 1	-	-	-	-	-	-	765	708	-	694	652	-
Stage 2	-	-	-	-	-	-	722	677	-	728	642	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1257	-	-	1282	-	-	433	448	835	411	396	747
Mov Cap-2 Maneuver	-	-	-	-	-	-	433	448	-	411	396	-
Stage 1	-	-	-	-	-	-	754	698	-	686	644	-
Stage 2	-	-	-	-	-	-	690	669	-	692	632	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.45			0.37			14.02			12.28		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	483	131	-	-	84	-	-	520
HCM Lane V/C Ratio	0.174	0.013	-	-	0.01	-	-	0.049
HCM Control Delay (s/veh)	14	7.9	0	-	7.8	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.2

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	167	31	17	177	6	44	19	7	13	33	18
Future Vol, veh/h	14	167	31	17	177	6	44	19	7	13	33	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	6	6	6	14	14	14	6	6	6	8	8	8
Mvmt Flow	17	206	38	21	219	7	54	23	9	16	41	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	226	0	0	244	0	0	522	509	206	517	543	222
Stage 1	-	-	-	-	-	-	241	241	-	264	264	-
Stage 2	-	-	-	-	-	-	281	268	-	252	279	-
Critical Hdwy	4.16	-	-	4.24	-	-	7.16	6.56	6.26	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.18	5.58	-
Follow-up Hdwy	2.254	-	-	2.326	-	-	3.554	4.054	3.354	3.572	4.072	3.372
Pot Cap-1 Maneuver	1319	-	-	1255	-	-	459	462	824	460	438	803
Stage 1	-	-	-	-	-	-	754	699	-	728	679	-
Stage 2	-	-	-	-	-	-	717	680	-	739	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1319	-	-	1255	-	-	391	446	824	417	423	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	391	446	-	417	423	-
Stage 1	-	-	-	-	-	-	742	688	-	714	666	-
Stage 2	-	-	-	-	-	-	642	667	-	695	659	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.51			0.67			15.53			13.83		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	428	139	-	-	152	-	-	487
HCM Lane V/C Ratio	0.202	0.013	-	-	0.017	-	-	0.162
HCM Control Delay (s/veh)	15.5	7.8	0	-	7.9	0	-	13.8
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0.6

Intersection

Int Delay, s/veh 3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	206	51	11	238	16	49	36	15	10	25	11
Future Vol, veh/h	14	206	51	11	238	16	49	36	15	10	25	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	11	11	11	5	5	5	2	2	2	17	17	17
Mvmt Flow	16	237	59	13	274	18	56	41	17	11	29	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	295	0	0	582	586	237	598	636	283
Stage 1	-	-	-	-	-	-	269	269	-	308	308	-
Stage 2	-	-	-	-	-	-	313	317	-	290	328	-
Critical Hdwy	4.21	-	-	4.15	-	-	7.12	6.52	6.22	7.27	6.67	6.37
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.27	5.67	-
Follow-up Hdwy	2.299	-	-	2.245	-	-	3.518	4.018	3.318	3.653	4.153	3.453
Pot Cap-1 Maneuver	1220	-	-	1249	-	-	424	422	802	393	377	722
Stage 1	-	-	-	-	-	-	737	687	-	671	634	-
Stage 2	-	-	-	-	-	-	697	654	-	687	621	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1220	-	-	1249	-	-	374	410	802	337	366	722
Mov Cap-2 Maneuver	-	-	-	-	-	-	374	410	-	337	366	-
Stage 1	-	-	-	-	-	-	725	676	-	663	626	-
Stage 2	-	-	-	-	-	-	646	646	-	621	611	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.41	0.33	16.72	15.18
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	421	115	-	-	74	-	-	407
HCM Lane V/C Ratio	0.273	0.013	-	-	0.01	-	-	0.13
HCM Control Delay (s/veh)	16.7	8	0	-	7.9	0	-	15.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.1	0	-	-	0	-	-	0.4

Intersection

Int Delay, s/veh 4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	12	4	8	14	12	23
Future Vol, veh/h	12	4	8	14	12	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	92	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	16	32	56	13	92

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	64
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1538
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1538
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.69	9.12
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	978	-	-	655	-
HCM Lane V/C Ratio	0.107	-	-	0.021	-
HCM Control Delay (s/veh)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection

Int Delay, s/veh 4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	14	27	15	8	16
Future Vol, veh/h	20	14	27	15	8	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	92	25
Heavy Vehicles, %	0	0	2	0	2	0
Mvmt Flow	80	56	108	60	9	64

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	136
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1448
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1448
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	4.94	9.45
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	881	-	-	1157	-
HCM Lane V/C Ratio	0.083	-	-	0.075	-
HCM Control Delay (s/veh)	9.5	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Intersection

Int Delay, s/veh 4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	4	8	14	12	23
Future Vol, veh/h	14	4	8	14	12	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	92	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	16	32	56	13	92

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	72
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1528
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1528
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.69	9.17
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	968	-	-	655	-
HCM Lane V/C Ratio	0.109	-	-	0.021	-
HCM Control Delay (s/veh)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

HCM 7th TWSC
6: Summer Valley Road & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	3.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	14	27	17	8	16
Future Vol, veh/h	21	14	27	17	8	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	92	25
Heavy Vehicles, %	0	0	2	0	2	0
Mvmt Flow	84	56	108	68	9	64
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	140	0	396	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	284	-
Critical Hdwy	-	-	4.12	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1443	-	609	947
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1443	-	562	947
Mov Cap-2 Maneuver	-	-	-	-	562	-
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	705	-
Approach	EB	WB		NB		
HCM Control Delay, s/v	0	4.72		9.49		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	875	-	-	1105	-	
HCM Lane V/C Ratio	0.083	-	-	0.075	-	
HCM Control Delay (s/veh)	9.5	-	-	7.7	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-	

HCM 7th TWSC
7: Cedar Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	4.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	31	4	12	10	12	35
Future Vol, veh/h	31	4	12	10	12	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	92	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	16	48	40	13	140
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	140	0	268	132
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	136	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1443	-	721	917
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1443	-	697	917
Mov Cap-2 Maneuver	-	-	-	-	697	-
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	860	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		4.13		9.86	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	893	-	-	982	-	
HCM Lane V/C Ratio	0.171	-	-	0.033	-	
HCM Control Delay (s/veh)	9.9	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

HCM 7th TWSC
7: Cedar Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	4.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶			↷		↶
Traffic Vol, veh/h	22	14	41	34	8	24
Future Vol, veh/h	22	14	41	34	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	92	25
Heavy Vehicles, %	0	0	2	0	2	0
Mvmt Flow	88	56	164	136	9	96
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	144	0	580	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	464	-
Critical Hdwy	-	-	4.12	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1438	-	477	942
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	633	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1438	-	418	942
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	555	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		4.28		9.81	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	853	-	-	984	-	
HCM Lane V/C Ratio	0.123	-	-	0.114	-	
HCM Control Delay (s/veh)	9.8	-	-	7.8	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0.4	-	

HCM 7th TWSC
7: Cedar Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	4.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	4	12	10	12	35
Future Vol, veh/h	33	4	12	10	12	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	92	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	132	16	48	40	13	140
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	148	0	276	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	136	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1434	-	714	908
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1434	-	689	908
Mov Cap-2 Maneuver	-	-	-	-	689	-
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	860	-
Approach	EB		WB		NB	
HCM Control Delay, s/v	0		4.14		9.92	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	884	-	-	982	-	
HCM Lane V/C Ratio	0.173	-	-	0.033	-	
HCM Control Delay (s/veh)	9.9	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

HCM 7th TWSC
7: Cedar Street & McClasky Road

06/13/2024

Intersection						
Int Delay, s/veh	4.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			1	2	
Traffic Vol, veh/h	23	14	41	36	8	24
Future Vol, veh/h	23	14	41	36	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	92	25
Heavy Vehicles, %	0	0	2	0	2	0
Mvmt Flow	92	56	164	144	9	96

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	148
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1434
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1434
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	4.17	9.85
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	847	-	-	958	-
HCM Lane V/C Ratio	0.124	-	-	0.114	-
HCM Control Delay (s/veh)	9.9	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.4	-