TRAFFIC IMPACT STUDY

For

Mesa Ridge ODP 5th Amendment
Fountain, Colorado

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Table of Contents **Page**

I. Introduction 1

Project Overview 1
Study Area Boundaries 1
Site Description 1
Existing and Committed Surface Transportation Network 5

II. Existing Traffic Conditions 7

Existing Traffic Analysis Results 10

III. Future Traffic Conditions Without Proposed Development 12

Background Traffic Analysis Results – Year 2026 15
Background Traffic Analysis Results – Year 2041 17

IV. Proposed Project Traffic 18

Trip Generation 18
Adjustments to Trip Generation Rates 19
Trip Distribution 20
Trip Assignment 21

V. Future Traffic Conditions With Proposed Developments 24

VI. Project Impacts 27

Peak Hour Intersection Levels of Service 27
Total Traffic Analysis Results Upon Initial Development Phasing 28
Total Traffic Analysis Results Upon Development Build-Out 29
Recommendations 30

VII. Conclusion 33

List of Figures **Page**

Figure 1 – Location....3
Figure 2 – Overall Development Plan....4
Figure 3 – Existing Traffic Volumes....8
Figure 4 – Background Traffic Volumes – Year 2026....13
Figure 5 – Background Traffic Volumes – Year 2041....14
Figure 6A – Distribution and Site Generated Assignment – Year 2026....22
Figure 6B – Distribution and Site Generated Assignment – Year 2041....23
Figure 7 – Total Traffic Volumes – Year 2026....25
Figure 8 – Total Traffic Volumes – Year 2041....26

List of Tables **Page**

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic....10
Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2026....15
Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2041....17
Table 4 – Trip Generation Rates....18
Table 5 – Trip Generation Summary....19
Table 6 – Trip Generation Summary with Reductions....20
Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2026....28
Table 8 – Intersection Capacity Analysis Summary – Total Traffic – Year 2041....29

Appendices

APPENDIX A TRAFFIC COUNT DATA
APPENDIX B LEVEL OF SERVICE DEFINITIONS
APPENDIX C CAPACITY WORKSHEETS
APPENDIX D WARRANT ANALYSIS FORMS

I. Introduction

Project Overview

This traffic impact study addresses the capacity, geometric, and control requirements associated with the development entitled Mesa Ridge ODP 5th Amendment.

This traffic impact study has been revised to address City, County, and CDOT review comments regarding updates pursuant to the latest site development plan and assumed development phasing, additional planned roadway improvements for Year 2026 conditions, and associated revisions to text and tables throughout.

This proposed mixed-use development consists of residential, public park, educational, and commercial land uses. The development is located to the southeast of Mesa Ridge Parkway and S Powers Boulevard in Fountain, Colorado.

Study Area Boundaries

The study area to be examined in this analysis encompasses the Mesa Ridge Parkway intersections with Sneffels Street, S Powers Boulevard, Wayfarer Drive, Autumn Glen Avenue, Spring Glen Drive, and S Marksheffel Road, as well as the intersection of C&S Road with Link Road, and proposed site access roadways.

Figure 1 illustrates location of the site and study intersections.

Site Description

Land for the development is primarily vacant with some existing residential located within the overall development plan area and is surrounded by a mix of residential and open space land uses.

Proposed development land uses are understood to be conceptual in nature as specific site plans are not currently defined. However, it is assumed that the proposed development may entail the new construction of approximately 1,379 single-family housing units, 481 multifamily housing units, 54 acres of public parks, an approximate 8,700 square-foot emergency services station, an elementary school, middle/junior high school, and senior high school supporting as many as 900 students, and approximately 174,200 square feet of commercial business and retail development.

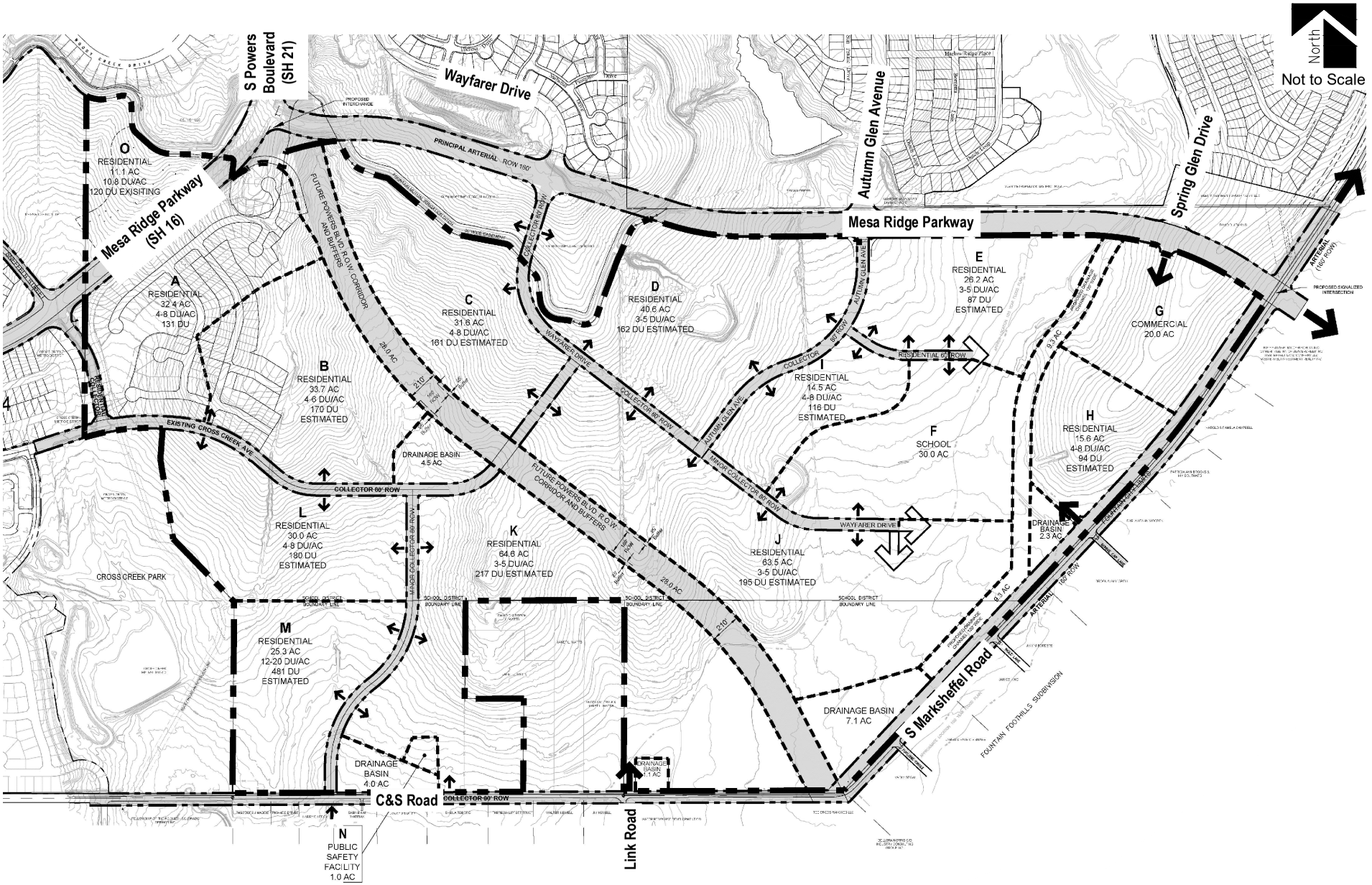
It is to be noted that land use densities indicated are estimated based on a typical Floor Area Ratio (FAR) of 0.2 in relation to the known acreage allocated to each land use at this time. As such, specific land use densities may be subject to change upon future site plan development. Additionally, proposed school capacity is estimated based on a national average ratio of approximately 0.4 students per housing unit, including both proposed and existing units located within the development area. Student capacity was then further divided between the three potential school uses based on available ITE student count averages and rounded to the nearest 100 students. These assumptions provide for a conservative analysis.

As specific site plans are not yet defined, specific access locations to development areas can only be assumed. Therefore, for analysis purposes, only major access intersections were analyzed. These primary points of full-movement access are anticipated to include the following locations: the existing intersection of Sneffels Street with Mesa Ridge Parkway, the intersection of Wayfarer Drive with Mesa Ridge Parkway serving as the southern leg to the existing intersection, the intersection of Autumn Glen Avenue with Mesa Ridge Parkway serving as the southern leg to the existing intersection, the intersection of C&S Road with Link Road serving as the northern leg to the existing intersection, and the intersection of C&S Road with proposed Collector Road.

Development construction is anticipated to be phased; however, specific phasing details are undefined at this time. For purposes of this study, it is assumed that the majority of development parcels located west of the future S Powers Boulevard extension may be completed as early as Year 2026. Development build-out of the remaining parcels east of the S Powers Boulevard extension is assumed to occur by end of Year 2041.

An overall development plan, as prepared by Nass Design Associates, is shown on Figure 2. This plan is provided for illustrative purposes only.


North
Not to Scale
S Powers Boulevard (SH 21)
Wayfarer Drive
Autumn Glen Avenue
Spring Glen Drive
S Marksheffel Road
Mesa Ridge Parkway
Sheffield Street
Mesa Ridge Parkway (SH 16)
Cross Creek Avenue
Development Site
C&S Road
Link Road


North
Not to Scale
S Powers Boulevard (SH 21)
Wayfarer Drive
Autumn Glen Avenue
Spring Glen Drive
Mesa Ridge Parkway
Mesa Ridge Parkway (SH 16)
PRINCIPAL ARTERIAL ROW 180'
FUTURE POWERS BLVD R.O.W. CORRIDOR AND BUFFERS
COLLECTOR 80' ROW
MINOR COLLECTOR 80' ROW
RESIDENTIAL 60' ROW
EXISTING CROSS CREEK AVE
C&S Road
Link Road
S Marksheffel Road
ARTERIAL (150' ROW)
CROSS CREEK PARK
FOUNTAIN FOOTHILLS SUBDIVISION
SCHOOL DISTRICT BOUNDARY LINE
DRAINAGE BASIN 4.5 AC
DRAINAGE BASIN 4.0 AC
DRAINAGE BASIN 1.1 AC
DRAINAGE BASIN 7.1 AC
DRAINAGE BASIN 2.3 AC
O RESIDENTIAL 11.1 AC 10.8 DU/AC 120 DU EXISITING
A RESIDENTIAL 32.4 AC 4-8 DU/AC 131 DU
B RESIDENTIAL 33.7 AC 4-8 DU/AC 170 DU ESTIMATED
C RESIDENTIAL 31.6 AC 4-8 DU/AC 161 DU ESTIMATED
D RESIDENTIAL 40.6 AC 3-5 DU/AC 162 DU ESTIMATED
E RESIDENTIAL 26.2 AC 3-5 DU/AC 87 DU ESTIMATED
I RESIDENTIAL 14.5 AC 4-8 DU/AC 116 DU ESTIMATED
J RESIDENTIAL 63.5 AC 3-5 DU/AC 195 DU ESTIMATED
K RESIDENTIAL 64.6 AC 3-5 DU/AC 217 DU ESTIMATED
L RESIDENTIAL 30.0 AC 4-8 DU/AC 180 DU ESTIMATED
M RESIDENTIAL 25.3 AC 12-20 DU/AC 481 DU ESTIMATED
F SCHOOL 30.0 AC
G COMMERCIAL 20.0 AC
H RESIDENTIAL 15.6 AC 4-8 DU/AC 94 DU ESTIMATED
N PUBLIC SAFETY FACILITY 1.0 AC

Existing and Committed Surface Transportation Network

Within the study area, Mesa Ridge Parkway is the primary roadway that will accommodate traffic to and from the proposed development. The secondary roadways include S Powers Boulevard, Sneffels Street, Wayfarer Drive, Autumn Glen Avenue, Spring Glen Drive, S Marksheffel Road, C&S Road, and Link Road. A brief description of each roadway is provided below:

Mesa Ridge Parkway is an east-west arterial roadway having four through lanes (two lanes in each direction) west of S Powers Boulevard, and two through lanes (one lane in each direction) east of S Powers Boulevard. Intersections along Mesa Ridge Parkway provide a combination of shared and exclusive turn lanes within the study area. The Colorado Department of Transportation (CDOT) categorizes the segment of Mesa Ridge Parkway west of S Powers Boulevard (State Highway 16) as a Non-Rural Principal Highway (NR-A) and provides a posted speed limit of 55 MPH. State Highway 16 ends at S Powers Boulevard. Mesa Ridge Parkway east of S Powers Boulevard provides a posted speed limit of 45 MPH.

S Powers Boulevard is a north-south state roadway having four through lanes (two lanes in each direction) with exclusive turn lanes at the intersection within the study area. CDOT categorizes the adjacent segment of S Powers Boulevard (State Highway 21) as an Interstate System, Freeway Facility (F-W) and provides a posted speed limit of 55 MPH. State Highway 21 ends at Mesa Ridge Parkway.

Sneffels Street is a north-south collector roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. Sneffels Street provides a posted speed limit of 25 MPH north of Mesa Ridge Parkway and 30 MPH south of Mesa Ridge Parkway.

Wayfarer Drive is a north-south collector roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. Wayfarer Drive provides a posted speed limit of 30 MPH.

Autumn Glen Avenue is a north-south collector roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. Autumn Glen Avenue provides a posted speed limit of 35 MPH.

Spring Glen Drive is a north-south collector roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersection within the study area. Spring Glen Drive provides a posted speed limit of 30 MPH.

S Marksheffel Road is a north-south arterial roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. S Marksheffel Road provides a posted speed limit of 55 MPH.

C&S Road is an east-west minor arterial roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersection within the study area. C&S Road provides a posted speed limit of 40 MPH.

Link Road is a north-south minor arterial roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. Link Road provides a posted speed limit of 40 MPH.

The study intersections of Mesa Ridge Parkway with S Powers Boulevard and Sneffels Street, as well as the intersection of C&S Road with Link Road are signalized. All other study intersections operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more "STOP" signs.

Without consideration of the proposed development, it is understood pursuant to the El Paso County Major Transportation Corridors Plan[1] (MTCP) that Mesa Ridge Parkway between S Powers Boulevard and Markseffel Road will be widened from two to four through lanes (two lanes in each direction). S Marksheffel Road is also anticipated to be widened from two to four through lanes within the study area. It is also understood that signalization of the S Marksheffel Road and Mesa Ridge Parkway intersection is planned. The MTCP does not specify when these improvements may occur, however for analysis purposes it is assumed that widening and signalization improvements would be completed by Year 2041. No additional regional or specific improvements for the above-described roadways are known to be planned or committed at this time. For analysis purposes it is assumed that the remaining study area roadways are built to their ultimate cross-sections.

It is to be noted that pursuant to the City of Fountain Comprehensive Plan[2], it is anticipated that S Powers Boulevard will be extended south past Mesa Ridge Parkway through the proposed development area. As such the proposed development, in coordination with the City, is providing a stretch of open space to accommodate this future extension as indicated on Figure 2. As part of the proposed extension, the intersection of S Powers Boulevard with Mesa Ridge Parkway, as well as additional future intersections yet to be defined along the S Powers Boulevard corridor, are expected to be improved to interchange configurations. However, specific plans for this project including interchange designs and roadway geometries are currently undefined. Additionally, it is uncertain as to when this extension may occur. Therefore, for analysis purposes no such improvements nor extension of S Powers Boulevard is assumed. It is expected that upon build-out of the S Powers Boulevard extension, traffic operations associated with the proposed development area are likely to improve beyond what is projected in this analysis.

[1] El Paso County 2016 Major Transportation Corridors Plan Update, Felsburg Holt & Ullevig, December 2016.
[2] City of Fountain Comprehensive Development Plan, City of Fountain, August 2005.

II. Existing Traffic Conditions

Morning (AM) and afternoon (PM) peak hour traffic counts were collected at the intersections of Mesa Ridge Parkway with Sneffels Street, S Powers Boulevard, Wayfarer Drive, Autumn Glen Avenue, Spring Glen Drive, and S Marksheffel Road, as well as the intersection of C&S Road with Link Road. Average daily (24-hour) traffic volumes were collected on Mesa Ridge Parkway and C&S Road. These counts are shown on Figure 3.

Traffic count data is included for reference in Appendix A.

Existing signal timing parameters for the intersections of Mesa Ridge Parkway with S Powers Boulevard and Sneffels Street, as well as C&S Road with Link Road were assumed based on the existing signal head configuration and allowable movements. Timings were used throughout this study to the best extent possible in order to remain consistent with typical City signal coordination plans.

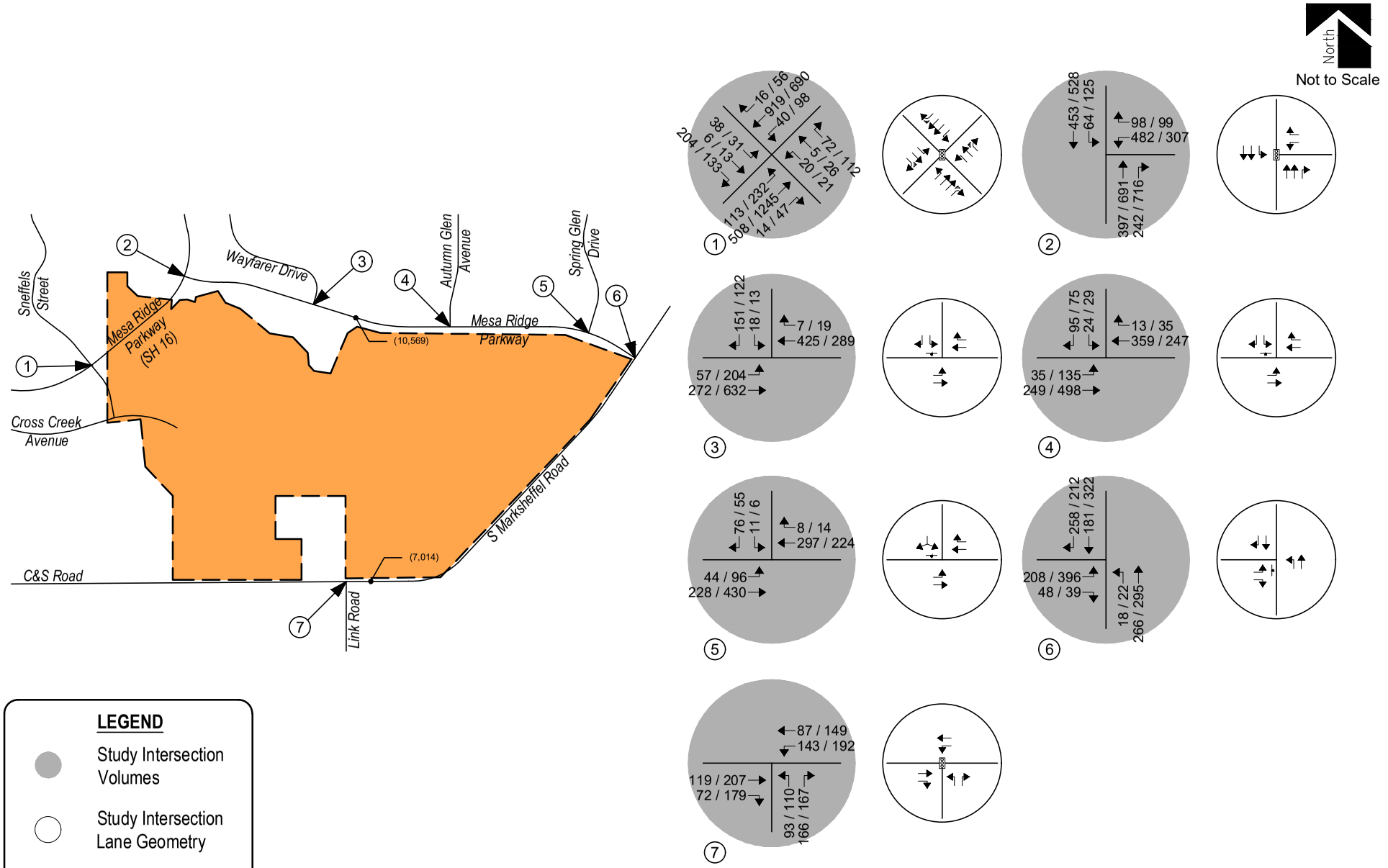


Figure 3
EXISTING TRAFFIC
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

The Signalized and Unsignalized Intersection Analysis techniques, as published in the Highway Capacity Manual (HCM) by the Transportation Research Board and as incorporated into the SYNCHRO computer program, were used to analyze the study intersections for existing traffic conditions. These nationally accepted techniques allow for the determination of intersection level of service (LOS) based on the congestion and delay of each traffic movement.

Level of service is a method of measurement used by transportation professionals to quantify a driver's perception of travel conditions that include travel time, number of stops, and total amount of stopped delay experienced on a roadway network. The HCM categorizes level of service into a range from "A" which indicates little, if any, vehicle delay, to "F" which indicates a level of operation considered unacceptable to most drivers. These levels of service grades with brief descriptions of the operating condition, for unsignalized and signalized intersections, are included for reference in Appendix B and have been used throughout this study.

The level of service analyses results for existing conditions are summarized in Table 1.

Intersection capacity worksheets developed for this study are provided in Appendix C.

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Mesa Ridge Parkway / Sneffels Street (Signalized)	A (9.6)	A (9.0)
Mesa Ridge Parkway / S Powers Boulevard (Signalized)	C (20.3)	B (14.5)
C&S Road / Link Road (Signalized)	B (12.3)	B (13.0)
Mesa Ridge Parkway / Wayfarer Drive (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left	C	E
Southbound Right	B	B
Mesa Ridge Parkway / Autumn Glen Avenue (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left	C	D
Southbound Right	B	B
Mesa Ridge Parkway / Spring Glen Drive (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left and Right	B	B
Mesa Ridge Parkway / S Marksheffel Road (Stop-Controlled)		
Eastbound Left	C	F
Eastbound Right	A	B
Northbound Left	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service

Existing Traffic Analysis Results

Under existing conditions, operational analysis shows that the signalized intersection of Mesa Ridge Parkway with Sneffels Street has overall operations at LOS A during both the morning and afternoon peak traffic hours.

The signalized intersection of Mesa Ridge Parkway with S Powers Boulevard has overall operations at LOS C during the morning peak traffic hour and LOS B during the afternoon peak traffic hour.

The signalized intersection of C&S Road with Link Road has overall operations at LOS B during both the morning and afternoon peak traffic hours.

The unsignalized intersection of Mesa Ridge Parkway with Wayfarer Drive has turning movement operations at or better than LOS C during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour. Exceptions would include the southbound left turning movement which operates at LOS E during the PM peak traffic hour. The LOS E operation is attributed to the high through traffic volume along Mesa Ridge Parkway and the stop-controlled nature of the intersection.

The unsignalized intersection of Mesa Ridge Parkway with Autumn Glen Avenue has turning movement operations at or better than LOS C during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour.

The unsignalized intersection of Mesa Ridge Parkway with Spring Glen Drive has turning movement operations at or better than LOS B during both the morning and afternoon peak traffic hours.

The unsignalized intersection of Mesa Ridge Parkway with S Marksheffel Road has turning movement operations at or better than LOS C during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour. Exceptions would include the eastbound left turning movement which operates at LOS F during the PM peak traffic hour. The LOS F operation is attributed to the high through traffic volume along S Marksheffel Road and the stop-controlled nature of the intersection.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours.

III. Future Traffic Conditions Without Proposed Development

Background traffic is the traffic projected to be on area roadways without consideration of the proposed development. Background traffic includes traffic generated by development of vacant parcels in the area.

To account for projected increases in background traffic for Years 2026 and 2041, a compounded annual growth rate was determined using traffic data provided by CDOT's Online Transportation Information System (OTIS), which anticipates a 20-year growth rate of approximately two percent. Therefore, in order to provide for a conservative analysis, a growth rate of two percent was applied to existing traffic volumes. This annual growth rate is also consistent with regional growth projections and the level of in-fill development expected within the area.

A signal warrant analysis, using Year 2026 and 2041 background traffic volumes, was conducted for the Mesa Ridge Parkway intersections with Wayfarer Drive and Autumn Glen Avenue in order to review potential for traffic signal control. Analysis results conclude that the Mesa Ridge Parkway intersections were found to be above the minimum vehicle volumes required to meet Warrant 3 – Peak Hour for the installation of a traffic signal in Year 2041 background conditions during both peak hours. Warrant study worksheets are provided for reference in Appendix D.

For Year 2041 background conditions, it is assumed that intersections which meet Warrant 3 from the MUTCD will be signalized and were analyzed as such. Study intersections should be monitored further by City Staff as area development occurs to determine when signal installation is appropriate. As development area site plans become further defined, it is anticipated that additional signal warrant analyses will be necessary in order to determine when signalization is required.

Pursuant to the planned area roadway improvements discussed in Section I, Year 2026 background traffic conditions assume no roadway improvements to accommodate regional transportation demands. Year 2041 assumes the widening of Mesa Ridge Parkway and S Marksheffel Road to four through lanes, and existing signal timing parameters for the intersections of Mesa Ridge Parkway with S Powers Boulevard and Sneffels Street, as well as C&S Road with Link Road, with optimized intersection splits in effort to better long-term intersection performance. This assumption provides for a conservative analysis.

Projected background traffic volumes and intersection geometry for Years 2026 and 2041 are shown on Figure 4 and Figure 5, respectively.

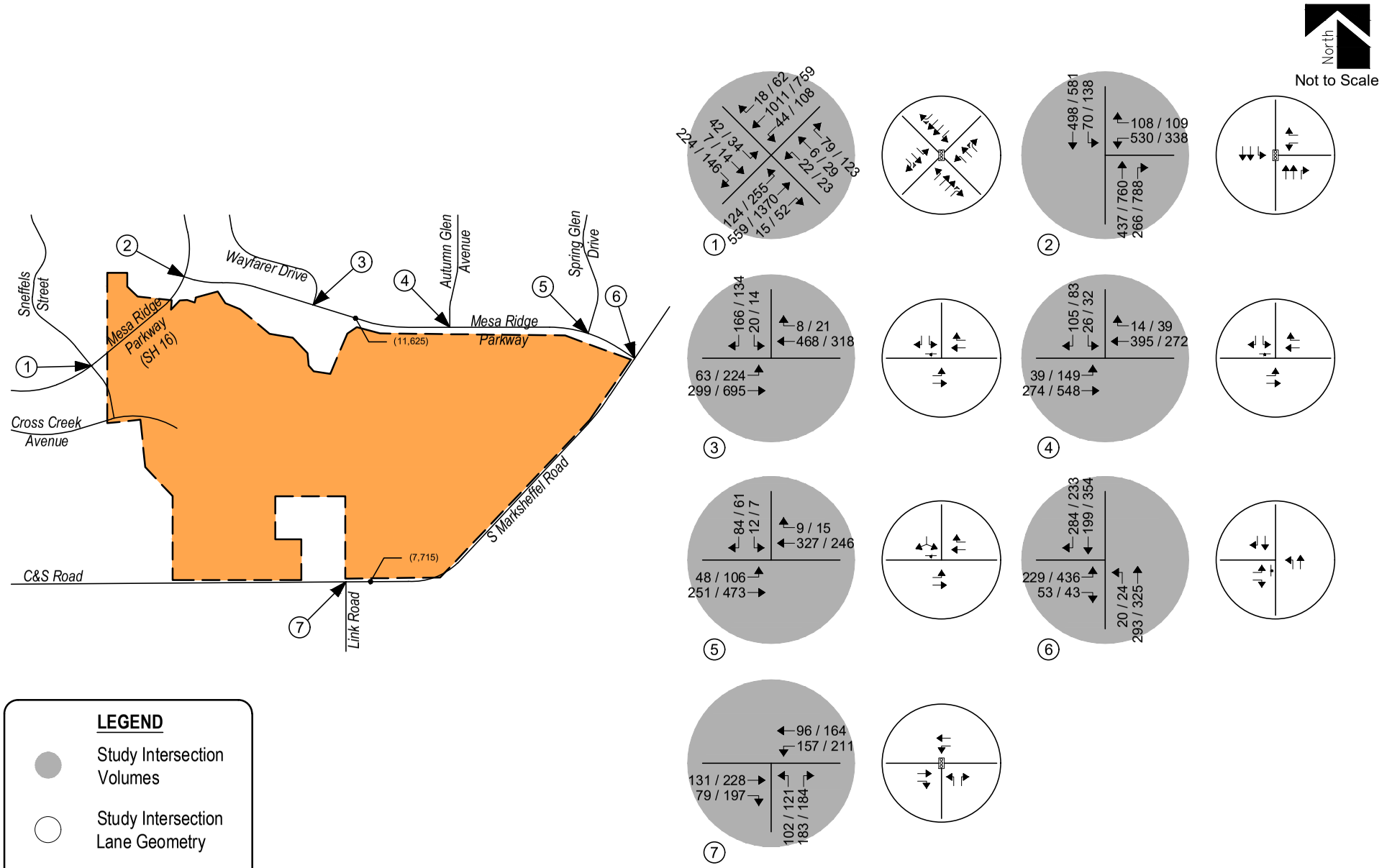


Figure 4
BACKGROUND TRAFFIC - YEAR 2026
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

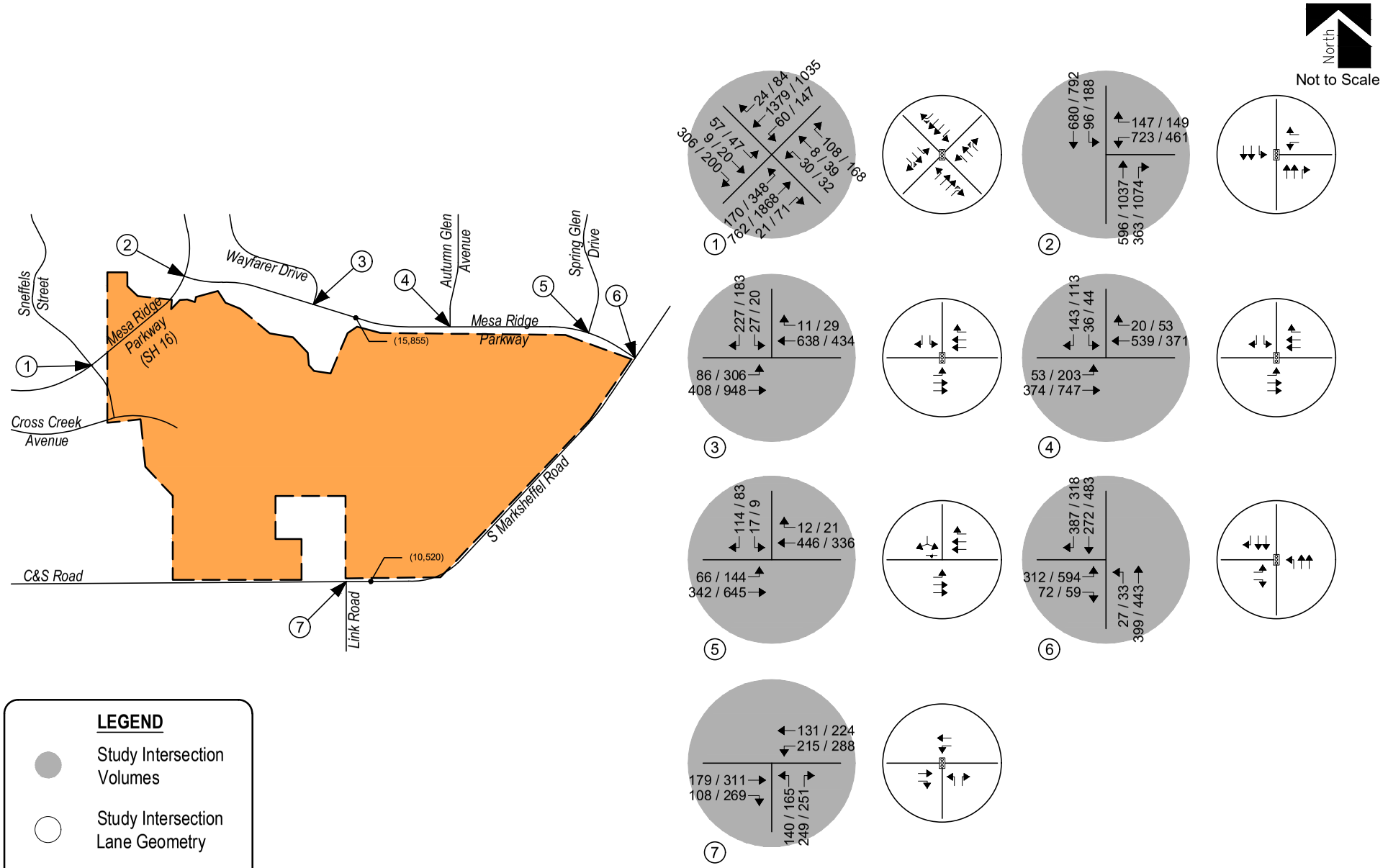


Figure 5
BACKGROUND TRAFFIC - YEAR 2041
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

As with existing traffic conditions, the operations of study intersections were analyzed under background conditions, without the proposed development, using the SYNCHRO computer program.

Background traffic level of service analysis results for Year 2026 are listed in Table 2. Year 2041 operational results are summarized in Table 3.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2026

INTERSECTION	LEVEL OF SERVICE	
LANE GROUPS	AM PEAK HOUR	PM PEAK HOUR
Mesa Ridge Parkway / Sneffels Street (Signalized)	B (10.8)	B (10.5)
Mesa Ridge Parkway / S Powers Boulevard (Signalized)	C (21.2)	B (16.5)
C&S Road / Link Road (Signalized)	B (12.5)	B (13.3)
Mesa Ridge Parkway / Wayfarer Drive (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left	C	F
Southbound Right	B	B
Mesa Ridge Parkway / Autumn Glen Avenue (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left	C	D
Southbound Right	B	B
Mesa Ridge Parkway / Spring Glen Drive (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left and Right	B	B
Mesa Ridge Parkway / S Marksheffel Road (Stop-Controlled)		
Eastbound Left	C	F
Eastbound Right	A	B
Northbound Left	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service

Background Traffic Analysis Results – Year 2026

Year 2026 background traffic analysis indicates that the signalized intersection of Mesa Ridge Parkway with Sneffels Street has overall operations at LOS B during both the AM and PM peak traffic hours.

The signalized intersection of Mesa Ridge Parkway with S Powers Boulevard has overall operations at LOS C during the AM peak traffic hour and LOS B during the PM peak traffic hour.

The signalized intersection of C&S Road with Link Road has overall operations at LOS B during both the AM and PM peak traffic hours.

The unsignalized intersection of Mesa Ridge Parkway with Wayfarer Drive has turning movement operations at or better than LOS C during the AM peak traffic hour and LOS B or better during the PM peak traffic hour. Exceptions would still include the southbound left turning movement which operates at LOS F during the PM peak traffic hour. The LOS F operation is attributed to the high through traffic volume along Mesa Ridge Parkway and the stop-controlled nature of the intersection.

The unsignalized intersection of Mesa Ridge Parkway with Autumn Glen Avenue has turning movement operations at or better than LOS C during the AM peak traffic hour and LOS D or better during the PM peak traffic hour.

The unsignalized intersection of Mesa Ridge Parkway with Spring Glen Drive has turning movement operations at or better than LOS B during both the AM and PM peak traffic hours.

The unsignalized intersection of Mesa Ridge Parkway with S Marksheffel Road has turning movement operations at or better than LOS C during the AM peak traffic hour and LOS B or better during the PM peak traffic hour. Exceptions would still include the eastbound left turning movement which operates at LOS F during the PM peak traffic hour. The LOS F operation is attributed to the high through traffic volume along S Marksheffel Road and the stop-controlled nature of the intersection.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours.

Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2041

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Mesa Ridge Parkway / Sneffels Street (Signalized)	C (20.8)	B (19.2)
Mesa Ridge Parkway / S Powers Boulevard (Signalized)	C (30.6)	C (24.8)
C&S Road / Link Road (Signalized)	B (14.9)	B (14.5)
Mesa Ridge Parkway / Wayfarer Drive (Signalized)	A (7.1)	A (4.3)
Mesa Ridge Parkway / Autumn Glen Avenue (Signalized)	A (6.1)	A (5.8)
Mesa Ridge Parkway / S Marksheffel Road (Signalized)	B (14.5)	C (20.8)
Mesa Ridge Parkway / Spring Glen Drive (Stop-Controlled) Eastbound Left Southbound Left and Right	 A B	 A B

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service

Background Traffic Analysis Results – Year 2041

By Year 2041 and without the proposed development, the study intersection of Mesa Ridge Parkway with Sneffels Street has overall operations at LOS C during the AM peak traffic hour and LOS B during the afternoon peak traffic hour.

The signalized intersection of Mesa Ridge Parkway with S Powers Boulevard has overall operations at LOS C during both the AM and PM peak traffic hours.

The signalized intersection of C&S Road with Link Road has overall operations at LOS B during both the AM and PM peak traffic hours.

The signalized intersection of Mesa Ridge Parkway with Wayfarer Drive has overall operations at LOS A during both the AM and PM peak traffic hours.

The signalized intersection of Mesa Ridge Parkway with Autumn Glen Avenue has overall operations at LOS A during both the AM and PM peak traffic hours.

The signalized intersection of Mesa Ridge Parkway with S Marksheffel Road has overall operations at LOS B during the AM peak traffic hour and LOS C during the PM peak traffic hour.

The unsignalized intersection of Mesa Ridge Parkway with Spring Glen Drive has turning movement operations at or better than LOS B during both the AM and PM peak traffic hours.

IV. Proposed Project Traffic

Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the assumed land uses in order to estimate average daily traffic (ADT), AM Peak Hour, and PM Peak Hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from a point of origin to a point of destination.

The ITE land use codes 210 (Single-Family Housing), 220 (Multifamily Housing (Low-Rise)), 411 (Public Park), 520 (Elementary School), 522 (Middle School/Junior High School), 525 (High School), 575 (Fire and Rescue Station), and 820 (Shopping Center) were used for estimating trip generation because of their best fit to the anticipated land use descriptions.

As actual land uses, densities or site plans within the Mesa Ridge development area become defined over time, it is expected that traffic generation characteristics considered within this study will need to be updated by more specific traffic analyses or studies to help assess if transportation improvements are needed to mitigate potential traffic impacts.

Trip generation rates used in this study are presented in Table 4.

Table 4 – Trip Generation Rates

			TRIP GENERATION RATES						
ITE			24	AM PEAK HOUR			PM PEAK HOUR		
CODE	LAND USE	UNIT	HOUR	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
220	Multifamily Housing (Low-Rise)	DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51
411	Public Park	ACRE	0.78	0.01	0.01	0.02	0.06	0.05	0.11
520	Elementary School	STS	2.27	0.40	0.34	0.74	0.07	0.09	0.16
522	Middle School/Jr. High School	STS	2.10	0.36	0.31	0.67	0.07	0.08	0.15
525	High School	STS	1.94	0.35	0.17	0.52	0.07	0.07	0.14
575	Fire and Rescue Station	KSF	4.80	*	*	*	0.14	0.34	0.48
820	Shopping Center	KSF	37.01	0.52	0.32	0.84	1.63	1.77	3.40

Key: DU = Dwelling Units. ACRE = Acreage. STS = Students. KSF = Thousand Square Feet Gross Floor Area.
* = ITE does not provide significant peak hour generation due to the nautre of the business (i.e. operating hours outside of AM peak).
Note: All data and calculations above are subject to being rounded to nearest value.

Table 5 illustrates projected average daily traffic (ADT), AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development for both initial site phasing and upon area build-out.

Table 5 – Trip Generation Summary

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Site Development - Initial Phasing									
210	Single-Family Detached Housing	564 DU	5,319	103	292	395	334	196	530
220	Multifamily Housing (Low-Rise)	481 DU	3,242	46	146	192	155	91	245
411	Public Park	17.9 ACRE	14	0	0	0	1	1	2
575	Fire and Rescue Station	8.7 KSF	42	*	*	*	1	3	4
	Initial Phasing Total:		*8,616*	*149*	*439*	*588*	*491*	*291*	*782*
Site Development - Future Phasing									
210	Single-Family Detached Housing	815 DU	7,685	148	422	571	483	283	766
411	Public Park	35.8 ACRE	28	0	0	1	2	2	4
520	Elementary School	200 STS	454	80	68	148	15	17	32
522	Middle School/Jr. High School	300 STS	630	109	92	201	22	23	45
525	High School	400 STS	776	141	67	208	27	29	56
820	Shopping Center	174.2 KSF	6,449	91	56	146	284	308	592
	Future Phasing Total:		*16,022*	*569*	*705*	*1,275*	*832*	*663*	*1,495*
	Build-Out Total:		***24,638***	***718***	***1,144***	***1,862***	***1,323***	***954***	***2,277***

Key: DU = Dwelling Units. ACRE = Acreage. STS = Students. KSF = Thousand Square Feet Gross Floor Area.
* = ITE does not provide significant peak hour generation due to the nautre of the business (i.e. operating hours outside of AM peak).
Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out, Table 5 illustrates that the proposed development has the potential to generate approximately 24,638 daily trips with 1,862 of those occurring during the morning peak hour and 2,277 during the afternoon peak hour.

Adjustments to Trip Generation Rates

A development of this type is likely to attract trips from within area land uses as well as pass-by or diverted linked trips from the adjacent roadway system. However, due to the conceptual nature of assumed land uses, pass-by trips can only be assumed, and therefore no pass-by trip reduction was taken in this analysis. This assumption provides for a conservative analysis.

Given the proposed combination of residential, commercial, recreational, and educational land uses, potential internal capture may be applicable given the high probability of residents from within the development area visiting the adjacent retail venues, parks, and schools. A specific internal capture rate cannot be accurately determined at this time due to the conceptual nature of the development plan; however, a reduction of ten percent is believed to be applicable.

Table 6 illustrates projected average daily traffic (ADT), AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out with reductions applied due to internal capture.

Table 6 – Trip Generation Summary with Reductions

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED WITH REDUCTIONS						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Site Development - Initial Phasing									
210	Single-Family Detached Housing	564 DU	4,787	92	263	355	301	177	477
220	Multifamily Housing (Low-Rise)	481 DU	2,918	42	132	173	139	82	221
411	Public Park	17.9 ACRE	13	0	0	0	1	1	2
575	Fire and Rescue Station	8.7 KSF	38	*	*	*	1	3	4
	Trip Reduction:		10%	10%	10%	10%	10%	10%	10%
	Initial Phasing Total:		*7,755*	*134*	*395*	*529*	*442*	*262*	*703*
Site Development - Future Phasing									
210	Single-Family Detached Housing	815 DU	6,917	133	380	513	434	255	689
411	Public Park	35.8 ACRE	25	0	0	1	2	2	4
520	Elementary School	200 STS	409	72	61	133	13	16	29
522	Middle School/Jr. High School	300 STS	567	98	83	181	19	21	41
525	High School	400 STS	698	127	60	187	24	26	50
820	Shopping Center	174.2 KSF	5,804	82	50	132	256	277	533
	Trip Reduction:		10%	10%	10%	10%	10%	10%	10%
	Future Phasing Total:		*14,420*	*512*	*635*	*1,147*	*749*	*597*	*1,346*
	Build-Out Total:		***22,174***	***647***	***1,029***	***1,676***	***1,191***	***858***	***2,049***

Key: DU = Dwelling Units. ACRE = Acreage. STS = Students. KSF = Thousand Square Feet Gross Floor Area.
* = ITE does not provide significant peak hour generation due to the nautre of the business (i.e. operating hours outside of AM peak).
Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out and with consideration of internal capture reductions, Table 6 indicates that the proposed development has the potential to generate approximately 22,174 daily trips with 1,676 of those occurring during the morning peak hour and 2,049 during the afternoon peak hour.

Trip Distribution

The overall directional distribution of site-generated traffic was determined based on the location of development site within the City, proposed and existing area land uses, allowed turning movements, and available roadway network.

Overall trip distribution patterns for Year 2026 initial development phasing are shown on Figure 6A. Distribution patterns for Year 2041 and development build-out are shown on Figure 6B.

Trip Assignment

Traffic assignment is how generated and distributed vehicle trips are expected to be loaded onto the available roadway network.

Applying trip distribution patterns to site-generated traffic provides the overall site-generated trip assignments for Year 2026 and Year 2041 as shown on Figures 6A and 6B, respectively.

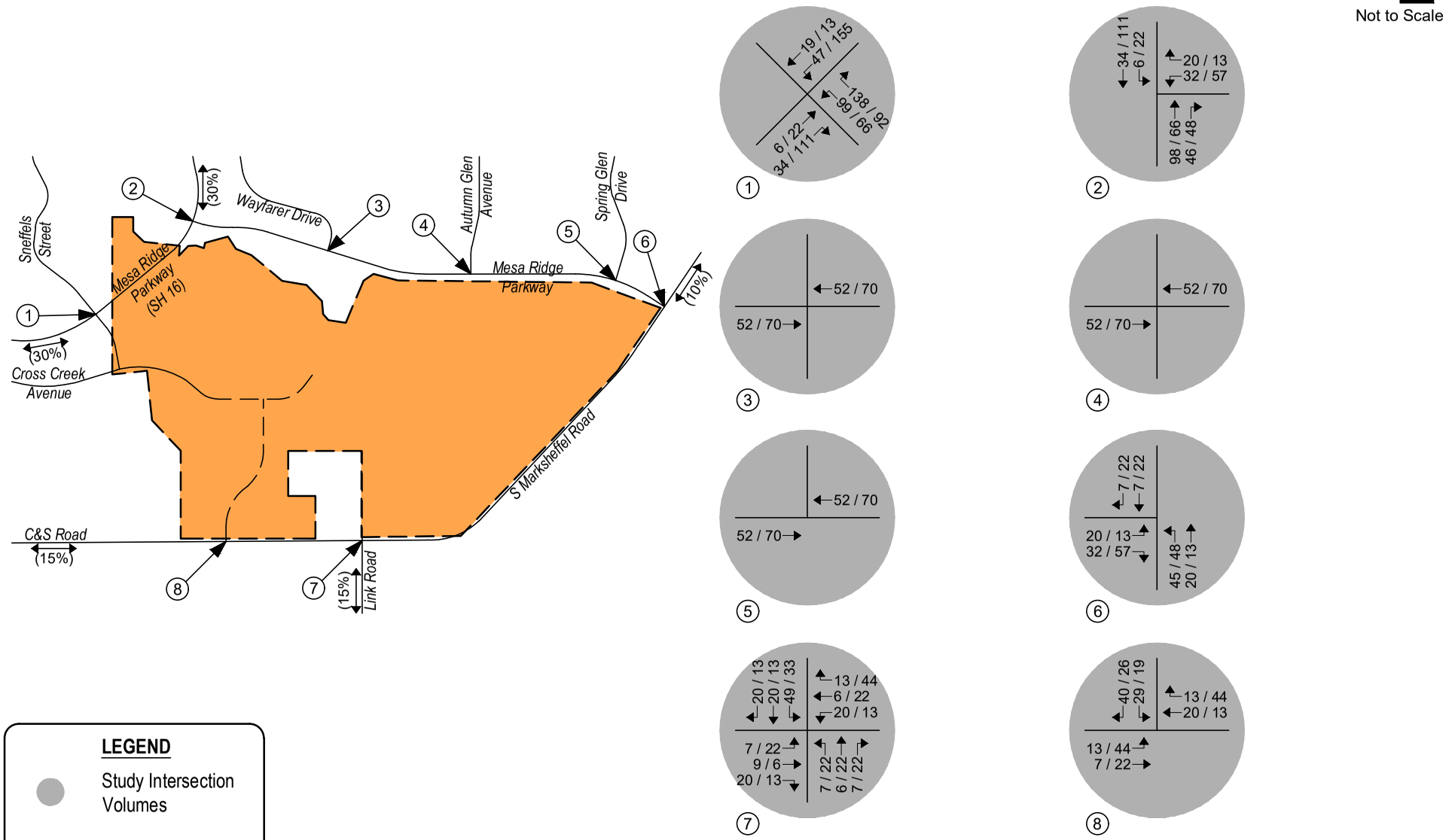


Figure 6A
SITE DEVELOPMENT DISTRIBUTION - YEAR 2026
(%) : Overall
SITE-GENERATED
AM / PM Peak Hour

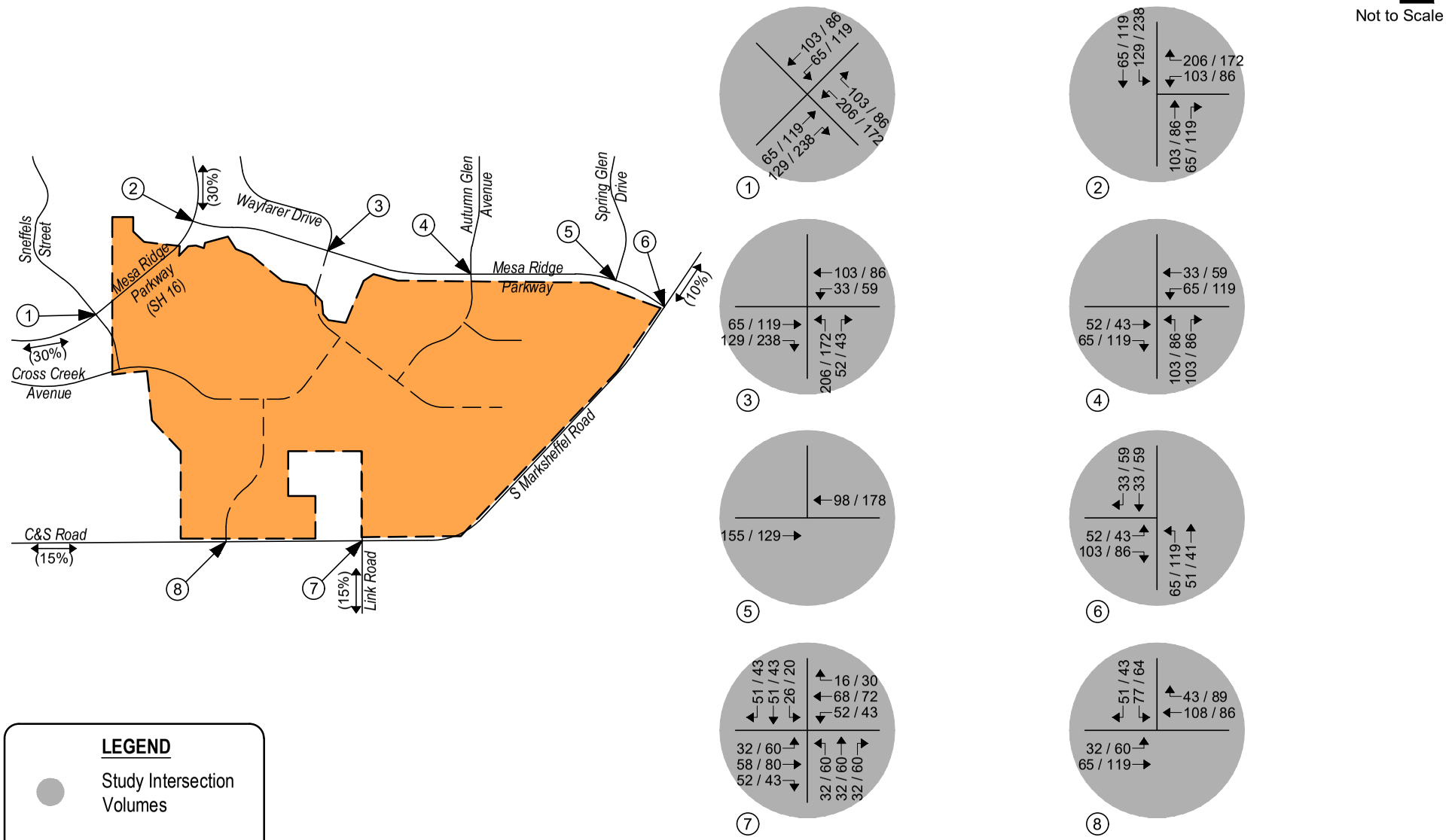


Figure 6B
SITE DEVELOPMENT DISTRIBUTION - YEAR 2041
(%) : Overall
SITE-GENERATED
AM / PM Peak Hour

V. Future Traffic Conditions With Proposed Developments

Site-generated traffic was added to background traffic projections for Years 2026 and 2041 to develop total traffic projections. For analysis purposes, it was assumed that development construction would be completed by end of Year 2026.

Pursuant to area roadway improvement discussions provided in Section III, and without consideration of specific development impacts, no additional roadway improvements were assumed for Year 2026 total traffic conditions. Year 2041 total traffic conditions assume the signalization of study intersections which meet Warrant 3 – Peak Hour for implementation of signal control and the widening of Mesa Ridge Parkway and S Marksheffel Road from two to four through lanes (two lanes in each direction). Roadway improvements that may be required due to development impacts are summarized Section VI.

Projected Year 2026 total traffic volumes and intersection geometry are shown in Figure 7.

Figure 8 shows projected total traffic volumes and intersection geometry for Year 2041.

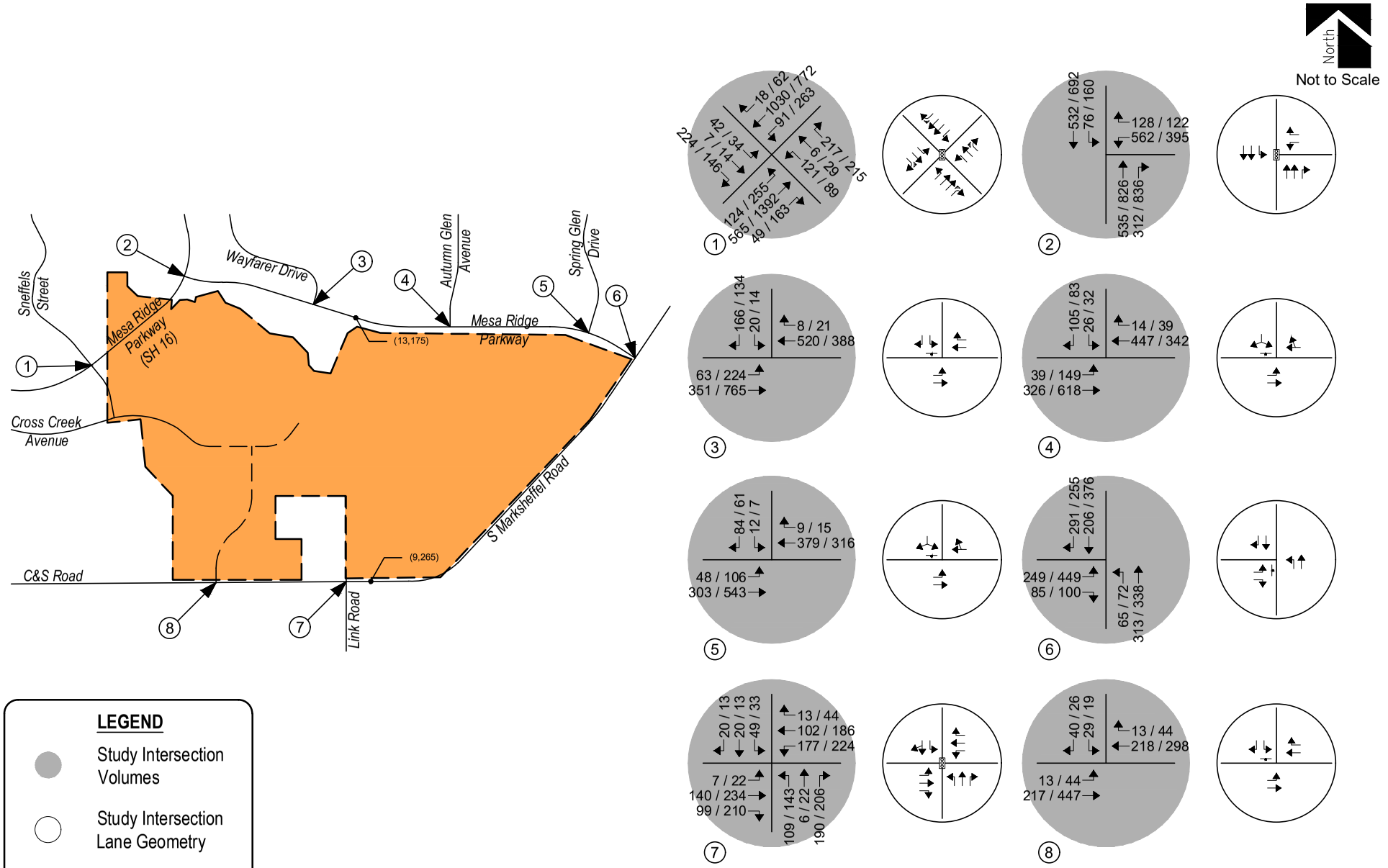


Figure 7
TOTAL TRAFFIC - YEAR 2026
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

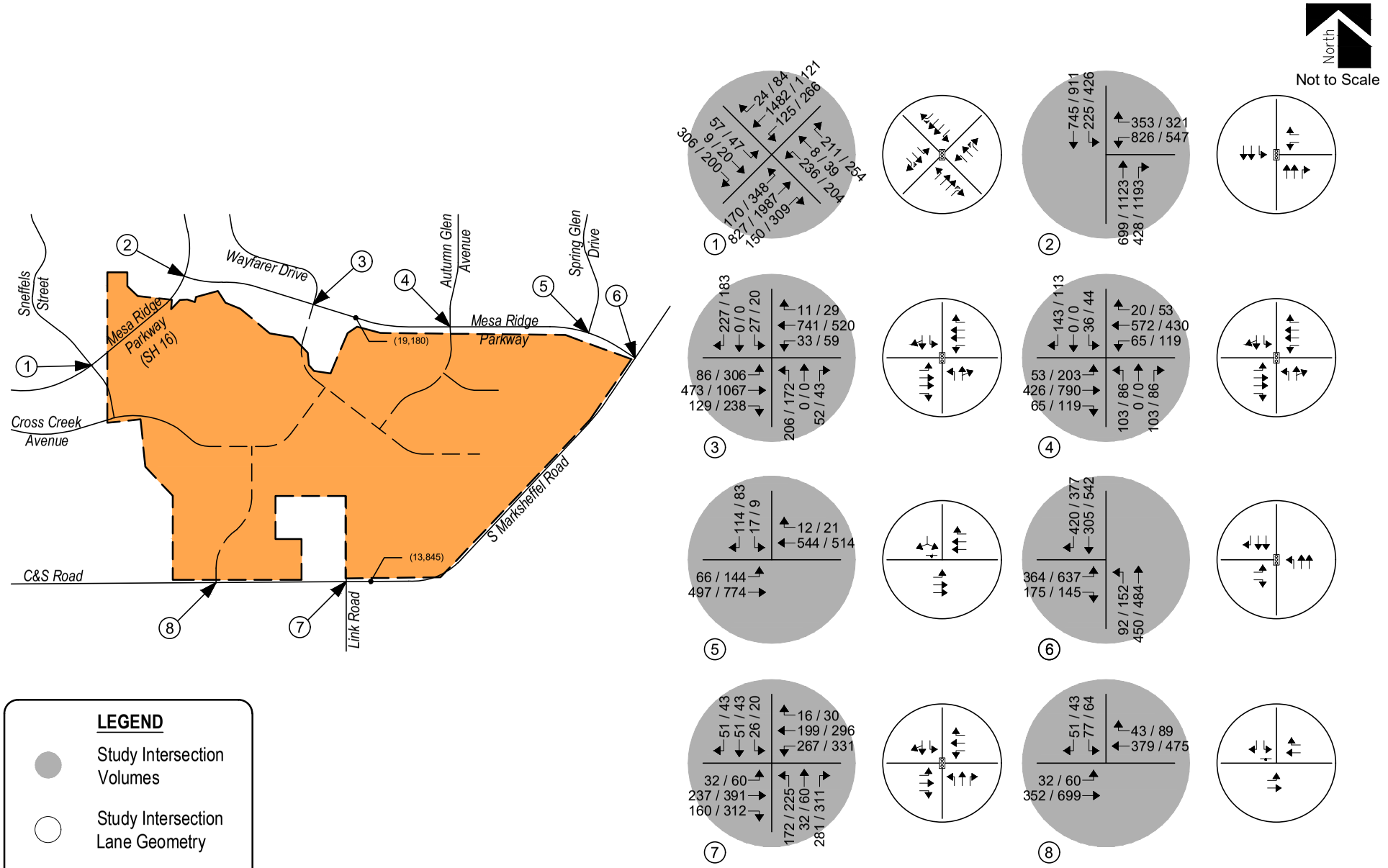


Figure 8
TOTAL TRAFFIC - YEAR 2041
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

VI. Project Impacts

The analyses and procedures described in this study were performed in accordance with the Highway Capacity Manual (HCM) and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

Peak Hour Intersection Levels of Service

As with background traffic, the operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program. Total traffic level of service analysis results for Years 2026 and 2041 are summarized in Table 7 and Table 8, respectively.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2026

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Mesa Ridge Parkway / Sneffels Street (Signalized)	B (13.0)	B (18.0)
Mesa Ridge Parkway / S Powers Boulevard (Signalized)	C (22.4)	B (19.9)
C&S Road / Link Road (Signalized)	B (14.8)	B (15.5)
Mesa Ridge Parkway / Wayfarer Drive (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left	C	F
Southbound Right	C	B
Mesa Ridge Parkway / Autumn Glen Avenue (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left	C	E
Southbound Right	B	B
Mesa Ridge Parkway / Spring Glen Drive (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left and Right	B	B
Mesa Ridge Parkway / S Marksheffel Road (Stop-Controlled)		
Eastbound Left	E	F
Eastbound Right	B	B
Northbound Left	A	A
C&S Road / Collector Road (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left	B	C
Southbound Right	A	B

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service

Total Traffic Analysis Results Upon Initial Development Phasing

Table 7 illustrates how, by Year 2026 and upon completion of initial development phasing, signalized intersections generally operation at LOS C or better during the AM peak traffic hour and LOS B during the PM peak traffic hour. Compared to background traffic analysis, the addition of site generated traffic does not significantly impact intersection operations. It is however noted that westbound left turning volumes at the intersection of Mesa Ridge Parkway with S Powers Boulevard are high and may warrant the need for dual left turn lanes.

Unsignalized intersections within the study area generally operate at LOS C or better during both the AM and PM peak traffic hours. Exceptions would include the eastbound left turning movement at Mesa Ridge Parkway and S Marksheffel Road which operates at LOS E during the AM peak traffic hour and LOS F during the PM peak traffic hours. Additionally, the left turning movements at the Mesa Ridge Parkway intersections with Wayfarer Drive, Autumn Glen Avenue experience LOS F and LOS E operations, respectively, during the PM peak traffic hour.

The LOS E and F operations anticipated are primarily attributed to the high through volumes along Mesa Ridge Parkway and the stop-controlled nature of the study intersections. Potential mitigation may include installation of traffic signal control when warranted. It is however noted that based on initial phasing assumptions proposed interim traffic volumes are expected to be limited to through volumes along Mesa Ridge Parkway. As specific site plans continue to be developed, and roadway accesses are defined, it is anticipated that updated analysis will need to be performed in order to determine when mitigation measures may be required and the extent of contribution due to site generated traffic for necessary roadway improvements.

Table 8 – Intersection Capacity Analysis Summary – Total Traffic – Year 2041

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Mesa Ridge Parkway / Sneffels Street (Signalized)	C (25.0)	D (42.6)
Mesa Ridge Parkway / S Powers Boulevard (Signalized)	D (49.1)	E (76.1)
C&S Road / Link Road (Signalized)	B (18.2)	B (19.4)
Mesa Ridge Parkway / Wayfarer Drive (Signalized)	B (18.3)	B (14.4)
Mesa Ridge Parkway / Autumn Glen Avenue (Signalized)	B (12.2)	B (11.5)
Mesa Ridge Parkway / S Marksheffel Road (Signalized)	B (13.8)	C (25.6)
Mesa Ridge Parkway / Spring Glen Drive (Stop-Controlled) Eastbound Left Southbound Left and Right	 A B	 A B
C&S Road / Collector Road (Stop-Controlled) Eastbound Left Southbound Left Southbound Right	 A C B	 A F B

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service

Total Traffic Analysis Results Upon Development Build-Out

Table 8 illustrates how, by Year 2041 and upon development build-out, the signalized intersection of Mesa Ridge Parkway with Sneffels Street shows an overall LOS C operation during the morning peak traffic hour and LOS D operation during the afternoon peak traffic hour. Compared to the background traffic analysis, the traffic generated by the proposed development is expected to cause some impact the operations of the study intersection.

The signalized intersection of Mesa Ridge Parkway with S Powers Boulevard is projected to have morning peak traffic hour operations at LOS D and LOS E operations during the afternoon peak traffic hour. The LOS E operation anticipated is primarily attributed to the high westbound and southbound left turning volumes. The LOS E operation may be mitigated with implementation of dual left turn lanes for movements with high turning volumes. It is however noted that given the anticipated conversion of the study intersection to a grade-separated interchange, additional lanes in the interim may not be necessary. As specific development area site plans are further defined, additional analysis may be necessary in order to determine when interim improvements are required.

The signalized intersection of C&S Road with Link Road is projected to have morning and afternoon peak traffic operations at LOS B.

The signalized intersection of Mesa Ridge Parkway with Wayfarer Drive is projected to have morning and afternoon peak traffic hour operations at LOS B.

The signalized intersection of Mesa Ridge Parkway with Autumn Glen Avenue is projected to have morning and afternoon peak traffic hour operations at LOS B.

The signalized intersection of Mesa Ridge Parkway with S Marksheffel Road is projected to have morning peak traffic hour operations at LOS B and LOS C during the afternoon peak traffic hour.

The stop-controlled intersection of Mesa Ridge Parkway with Spring Glen Drive is projected to have turning movement operations at LOS B or better for both the morning and afternoon peak traffic hours.

The stop-controlled intersection of C&S Road with Collector Road is projected to have turning movement operations at LOS C or better for the morning peak traffic hour and LOS B or better for the afternoon peak traffic hour. Exceptions would include the southbound left turning movement which operates at LOS F during the afternoon peak traffic hour. The LOS F operation is attributed to the high through traffic volume along C&S Road and the stop-controlled nature of the intersection.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours.

Recommendations

Recommendations for conceptual roadway improvements and traffic mitigation measures to meet or enhance City's intersection operation goals, are based on Year 2041 total traffic conditions and site development build-out. These conditions are analyzed as a worst-case scenario and changes to land use types and sizes may result in rendering these recommendations excessive or all together unnecessary. As actual land uses, and site plans become more defined over the course of site development, additional analysis may be needed to determine appropriate roadway improvements or traffic mitigation methods.

Mesa Ridge Parkway & Sneffels Street

- To achieve City operational goals of LOS C for signalized intersections, dual left turns may be required for the westbound movement along Mesa Ridge Parkway as well as the northbound movement along Sneffels Street to accommodate the high left turning volumes.
- Provision of permissive/protected phasing for the northbound left turn movement along Sneffels Street may also provide mitigation to projected delays.

Mesa Ridge Parkway & S Powers Boulevard

- Dual westbound left turn lanes along Mesa Ridge Parkway may be required in the interim to accommodate high left turning volumes, however it is anticipated that planned long-term conversion of the intersection to a grade-separated interchange will improve operations.
- Dual southbound left turn lanes along S Powers Boulevard may also be required in the interim as left turning volumes exceed the typical recommended threshold of 300 vehicles per hour during the PM peak hour of Year 2041 conditions. It is anticipated that as site development occurs, left turning volumes will need to be observed in order to determine if or when such mitigation may be necessary prior to the anticipated interchange construction.

C&S Road & Link Road

- Existing roadway and intersection configurations appear to be adequate for build-out conditions and no additional improvements are recommended at this time.

Mesa Ridge Parkway & Wayfarer Drive

- Implementation of warranted signal control with optimized phasing and corridor progression along with planned widening of Mesa Ridge Parkway to four through lanes is shown to adequately accommodate the proposed build-out condition and no additional improvements are recommended at this time. It is anticipated that as site plans are further developed updated warrant analysis will be needed in order to determine when signalization is necessary.

Mesa Ridge Parkway & Autumn Glen Avenue

- Implementation of warranted signal control with optimized phasing and corridor progression along with planned widening of Mesa Ridge Parkway to four through lanes is shown to adequately accommodate the proposed build-out condition and no additional improvements are recommended at this time. It is anticipated that as site plans are further developed updated warrant analysis will be needed in order to determine when signalization is necessary.

Mesa Ridge Parkway & S Marksheffel Road

- Implementation of planned signal control with optimized phasing and corridor progression along with planned widening of Mesa Ridge Parkway and S Marksheffel Road to four through lanes is shown to adequately accommodate the proposed build-out condition and no additional improvements are recommended at this time.

Mesa Ridge Parkway & Spring Glen Drive

- Implementation of planned widening of Mesa Ridge Parkway to four through lanes is shown to adequately accommodate the proposed build-out condition and no additional improvements are recommended at this time. Additional analysis will be required should specific site plans include access to Mesa Ridge Parkway at this location.

C&S Road & Collector Road

- Projected PM peak hour LOS F operations may be mitigated with implementation of a traffic signal at this location. Alternatives may include conversion of the intersection to a roundabout. As specific site plans are further defined it is anticipated that signal warrant analyses will be required to confirm when signalization may be required or if alternative mitigation is needed.

It is noted that additional future roadway connections in the surrounding area are likely to alter future traffic patterns and therefore may decrease the impacts of site generated traffic. As previously detailed, the extension of S Powers Boulevard through the development area may result in long-term traffic patterns that are different from those assumed in this analysis. Furthermore, it is noted that the above recommendations are based on the anticipated impacts caused by the proposed development only, and do not account for additional impacts caused by adjacent development areas yet to be defined. Therefore, it is recommended that as the proposed area continues to develop that City Staff continue to monitor the region to determine what improvements may be necessary and the appropriate time for implementation.

VII. Conclusion

This traffic impact study addressed the capacity, geometric, and control requirements associated with the development entitled Mesa Ridge ODP 5th Amendment. This proposed mixed-use development consists of residential, public park, educational, and commercial land uses. The development is located to the southeast of Mesa Ridge Parkway and S Powers Boulevard in Fountain, Colorado.

The study area examined in this analysis encompassed the Mesa Ridge Parkway intersections with Sneffels Street, S Powers Boulevard, Wayfarer Drive, Autumn Glen Avenue, Spring Glen Drive, and S Marksheffel Road, as well as the intersection of C&S Road with Link Road, and proposed site access roadways.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2026 and Year 2041 background traffic conditions, and Year 2026 and Year 2041 total traffic conditions.

Under existing conditions, operational analysis shows that the signalized intersections within the study area have overall operations at or better than LOS C during the morning peak traffic period and LOS B or better during the afternoon peak traffic period. Unsignalized study intersections generally have turning movement operations at or better than LOS C during the morning peak traffic period and LOS D during the afternoon peak traffic period. Exceptions would include the southbound left turning movement at the intersection of Mesa Ridge Parkway with Autumn Glen Avenue which operates at LOS E, as well as the northbound left turning movement at the intersection Mesa Ridge Parkway with S Marksheffel Road which operates at LOS F. The LOS E and F operations are attributed to the high through traffic volumes along Mesa Ridge Parkway and S Marksheffel Road and the stop-controlled nature of the intersections. It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours.

Year 2026 background traffic analysis indicates that the signalized intersections within the study area have overall operations at or better than LOS C during the AM peak traffic hour and LOS B during the PM peak traffic hour. Unsignalized intersections continue to generally have turning movement operations at LOS C or better during the AM peak traffic hour and LOS D or better during the PM peak traffic hour. Exceptions still include the southbound left turning movement at the intersection of Mesa Ridge Parkway with Autumn Glen Avenue, as well as the northbound left turning movement at the intersection Mesa Ridge Parkway with S Marksheffel Road which both operate at LOS F. The LOS F operations are attributed to the high through traffic volumes along Mesa Ridge Parkway and S Marksheffel Road and the stop-controlled nature of the intersections.

By Year 2041 and without the proposed development, the study intersections have overall operations of LOS C or better during both the morning and afternoon peak traffic hours. The stop-controlled intersection of Mesa Ridge Parkway with Spring Glen Drive is projected to have turning movement operations at or better than LOS B during both peak traffic hours.

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create no significant impact to traffic operations for the existing and surrounding roadway system upon consideration of the various roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections and site access roadways have long-term operations at LOS D or better during peak traffic periods and upon build-out. Exceptions include the Mesa Ridge Parkway intersections with Sneffels Street and S Powers Boulevard, and the intersection of C&S Road with Collector Road. These intersections are projected to experience levels of service below City operational goals primarily during the afternoon peak traffic period. It is however noted that given the conceptual nature of assumed land uses and densities, as well as assumptions made regarding general site access locations, actual intersection operations are likely to be better than indicated. Specific roadway improvement recommendations as detailed within this report may be implemented to mitigate poor operations. However, as specific site plans, land uses and densities become more defined, and additional access drives are identified, additional traffic analysis may be needed to identify area specific impacts as well as when roadway or intersection improvements may be required.

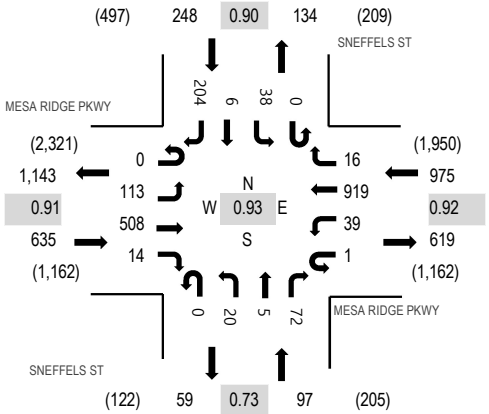
APPENDIX A

Traffic Count Data

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

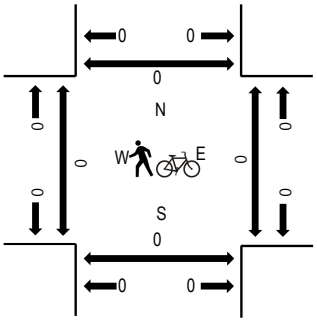
Location: 1 SNEFFELS ST & MESA RIDGE PKWY AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



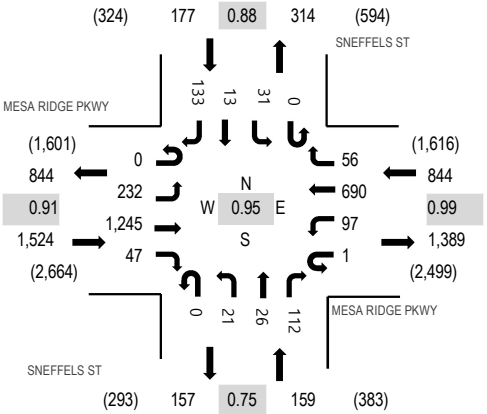
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				SNEFFELS ST Northbound				SNEFFELS ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	15	121	6	0	10	202	4	0	23	1	17	0	12	3	35	449	1,935	0	0	0	0
7:15 AM	0	19	132	3	0	3	250	1	0	8	1	12	0	6	3	44	482	1,932	0	0	0	0
7:30 AM	0	33	142	4	0	5	240	7	0	7	3	20	0	13	1	50	525	1,955	0	0	0	0
7:45 AM	0	31	132	4	0	16	209	4	0	5	0	22	0	8	2	46	479	1,906	0	0	0	0
8:00 AM	0	31	116	2	1	9	212	1	0	4	1	14	0	6	2	47	446	1,879	0	0	0	0
8:15 AM	0	18	118	4	0	9	258	4	0	4	1	16	0	11	1	61	505		0	0	0	0
8:30 AM	0	14	101	2	0	11	246	6	0	2	2	16	0	3	4	69	476		0	0	0	0
8:45 AM	0	10	98	6	0	10	231	1	0	8	1	17	0	8	2	60	452		0	0	0	0
Count Total	0	171	960	31	1	73	1,848	28	0	61	10	134	0	67	18	412	3,814		0	0	0	0
Peak Hour	0	113	508	14	1	39	919	16	0	20	5	72	0	38	6	204	1,955		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

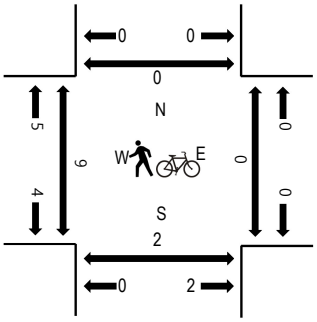
Location: 1 SNEFFELS ST & MESA RIDGE PKWY PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



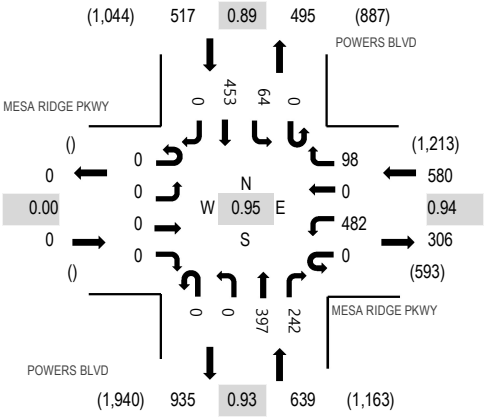
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				SNEFFELS ST Northbound				SNEFFELS ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	27	165	6	0	16	146	10	0	6	13	44	0	7	2	20	462	2,333	0	0	0	0
4:15 PM	0	40	201	7	0	25	157	17	0	4	13	55	0	4	3	26	552	2,546	0	0	0	0
4:30 PM	0	52	303	9	1	22	169	16	0	5	10	34	0	9	1	28	659	2,704	0	0	0	0
4:45 PM	0	51	318	9	0	24	174	14	0	4	7	22	0	5	5	27	660	2,703	6	0	0	0
5:00 PM	0	68	279	15	0	25	174	14	0	3	7	36	0	13	3	38	675	2,654	0	0	0	0
5:15 PM	0	61	345	14	0	26	173	12	0	9	2	20	0	4	4	40	710		3	0	0	0
5:30 PM	0	62	293	7	0	32	158	12	0	4	13	27	0	7	6	37	658		1	0	1	0
5:45 PM	0	53	267	12	0	20	165	14	0	6	6	33	0	7	0	28	611		0	1	0	0
Count Total	0	414	2,171	79	1	190	1,316	109	0	41	71	271	0	56	24	244	4,987		10	1	1	0
Peak Hour	0	232	1,245	47	1	97	690	56	0	21	26	112	0	31	13	133	2,704		9	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

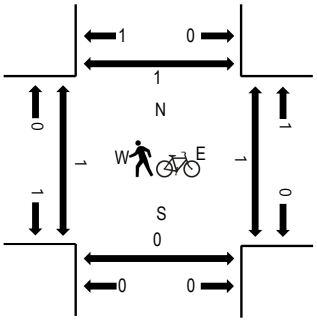
Location: 2 POWERS BLVD & MESA RIDGE PKWY AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



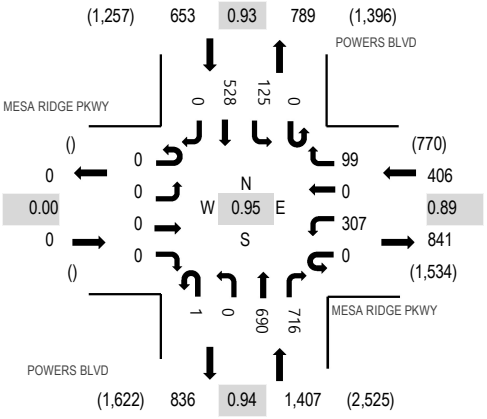
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				POWERS BLVD Northbound				POWERS BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	125	0	27	0	0	94	41	0	11	121	0	419	1,736	0	0	0	0
7:15 AM	0	0	0	0	0	141	0	36	0	0	90	68	0	12	100	0	447	1,720	0	0	0	0
7:30 AM	0	0	0	0	0	122	0	17	0	0	116	57	0	24	119	0	455	1,735	0	0	0	0
7:45 AM	0	0	0	0	0	94	0	18	0	0	97	76	0	17	113	0	415	1,691	0	0	0	0
8:00 AM	0	0	0	0	0	118	0	25	0	0	78	61	0	11	110	0	403	1,684	0	0	0	0
8:15 AM	0	0	0	0	0	143	0	22	0	0	94	48	0	20	135	0	462		0	0	0	0
8:30 AM	0	0	0	0	0	135	0	22	0	0	60	56	0	14	124	0	411		0	0	0	0
8:45 AM	0	0	0	0	0	145	0	23	0	0	67	60	1	17	95	0	408		0	0	0	0
Count Total	0	0	0	0	0	1,023	0	190	0	0	696	467	1	126	917	0	3,420		0	0	0	0
Peak Hour	0	0	0	0	0	482	0	98	0	0	397	242	0	64	453	0	1,736		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

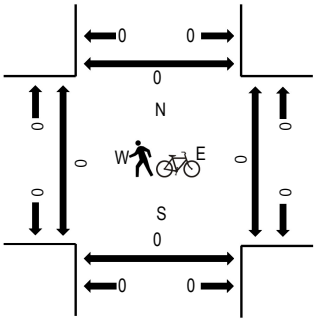
Location: 2 POWERS BLVD & MESA RIDGE PKWY PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



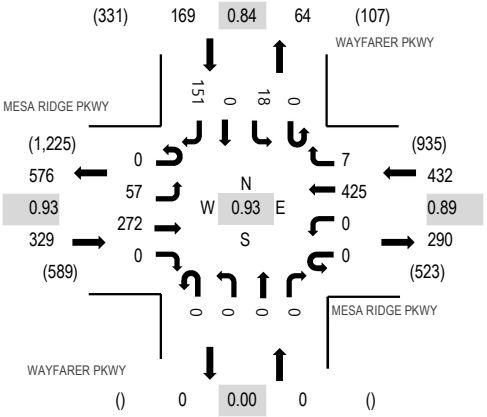
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				POWERS BLVD Northbound				POWERS BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	62	0	22	0	0	114	122	0	23	120	0	463	2,150	0	0	0	0
4:15 PM	0	0	0	0	0	77	0	19	0	0	118	136	0	33	118	0	501	2,333	0	0	0	0
4:30 PM	0	0	0	0	0	73	0	16	0	0	163	164	0	31	142	0	589	2,447	0	0	0	0
4:45 PM	0	0	0	0	0	73	0	22	0	0	160	177	0	35	130	0	597	2,466	0	0	0	0
5:00 PM	0	0	0	0	0	88	0	28	1	0	191	183	0	28	127	0	646	2,402	0	0	0	0
5:15 PM	0	0	0	0	0	77	0	35	0	0	167	178	0	26	132	0	615		0	0	0	0
5:30 PM	0	0	0	0	0	69	0	14	0	0	172	178	0	36	139	0	608		0	0	0	0
5:45 PM	0	0	0	0	0	79	0	16	0	0	139	162	0	22	115	0	533		0	0	0	0
Count Total	0	0	0	0	0	598	0	172	1	0	1,224	1,300	0	234	1,023	0	4,552		0	0	0	0
Peak Hour	0	0	0	0	0	307	0	99	1	0	690	716	0	125	528	0	2,466		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

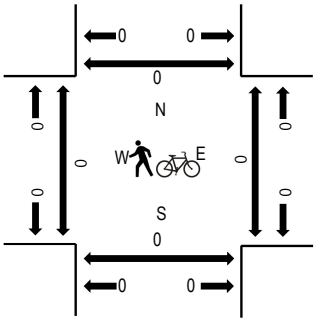
Location: 3 WAYFARER PKWY & MESA RIDGE PKWY AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



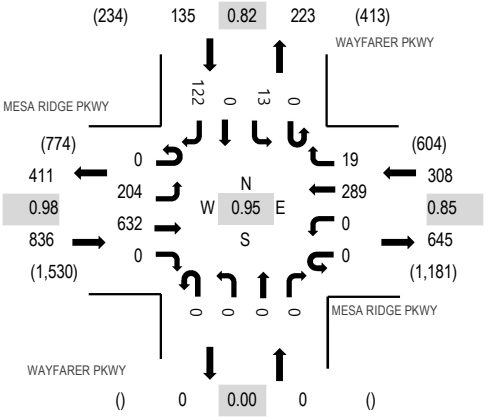
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				WAYFARER PKWY Northbound				WAYFARER PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	8	45	0	0	0	117	0	0	0	0	0	0	5	0	46	221	925	0	0	0	0
7:15 AM	0	17	66	0	0	0	117	1	0	0	0	0	0	7	0	42	250	930	0	0	0	0
7:30 AM	0	10	70	0	0	0	111	4	0	0	0	0	0	6	0	36	237	919	0	0	0	0
7:45 AM	0	15	73	0	0	0	99	0	0	0	0	0	0	3	0	27	217	922	0	0	0	0
8:00 AM	0	15	63	0	0	0	98	2	0	0	0	0	0	2	0	46	226	930	0	0	0	0
8:15 AM	0	9	58	0	0	0	134	2	0	0	0	0	0	3	0	33	239		0	0	0	0
8:30 AM	0	9	63	0	0	0	125	2	0	0	0	0	0	2	0	39	240		0	0	0	0
8:45 AM	0	12	56	0	0	0	122	1	0	0	0	0	0	1	0	33	225		0	0	0	0
Count Total	0	95	494	0	0	0	923	12	0	0	0	0	0	29	0	302	1,855		0	0	0	0
Peak Hour	0	57	272	0	0	0	425	7	0	0	0	0	0	18	0	151	930		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

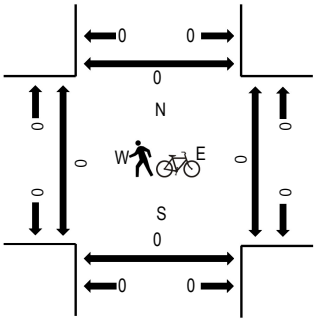
Location: 3 WAYFARER PKWY & MESA RIDGE PKWY PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



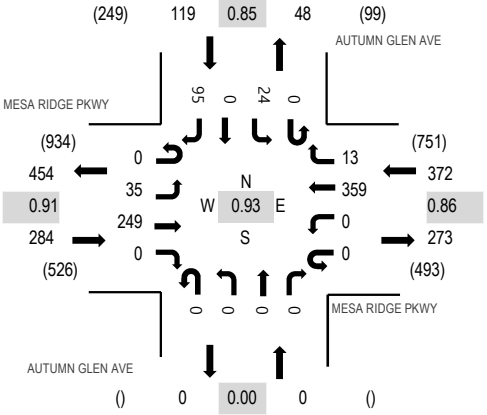
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				WAYFARER PKWY Northbound				WAYFARER PKWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	32	110	0	0	0	67	4	0	0	0	0	0	2	0	21	236	1,117	0	0	0	0
4:15 PM	1	44	123	0	0	0	72	11	0	0	0	0	0	3	0	19	273	1,218	0	1	0	0
4:30 PM	0	47	143	0	0	0	72	4	0	0	0	0	0	3	0	22	291	1,266	0	0	0	0
4:45 PM	0	61	152	0	0	0	65	5	0	0	0	0	0	6	0	28	317	1,279	0	0	0	0
5:00 PM	0	47	165	0	0	0	92	4	0	0	0	0	0	0	0	29	337	1,251	0	0	0	0
5:15 PM	0	43	157	0	0	0	72	8	0	0	0	0	0	5	0	36	321		0	0	0	0
5:30 PM	0	53	158	0	0	0	60	2	0	0	0	0	0	2	0	29	304		0	0	0	0
5:45 PM	0	45	149	0	0	0	63	3	0	0	0	0	0	3	0	26	289		0	0	0	0
Count Total	1	372	1,157	0	0	0	563	41	0	0	0	0	0	24	0	210	2,368		0	1	0	0
Peak Hour	0	204	632	0	0	0	289	19	0	0	0	0	0	13	0	122	1,279		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

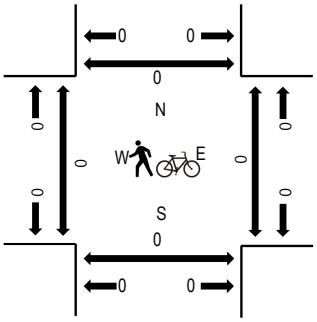
Location: 4 AUTUMN GLEN AVE & MESA RIDGE PKWY AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



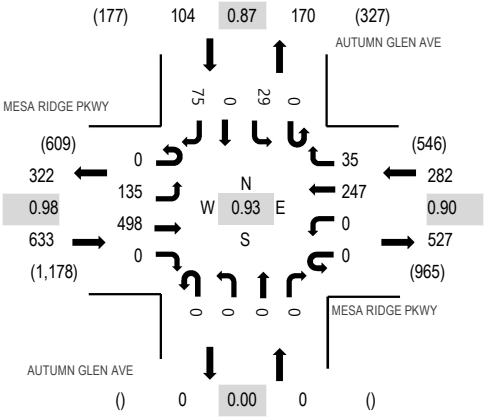
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				AUTUMN GLEN AVE Northbound				AUTUMN GLEN AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	4	46	0	0	0	82	0	0	0	0	0	0	3	0	31	166	763	0	0	0	0
7:15 AM	0	8	64	0	0	0	93	1	0	0	0	0	0	11	0	25	202	770	0	0	0	0
7:30 AM	0	8	73	0	0	0	82	4	0	0	0	0	0	5	0	36	208	775	0	0	0	0
7:45 AM	0	10	67	0	0	0	79	2	0	0	0	0	0	9	0	20	187	764	0	0	0	0
8:00 AM	0	9	55	0	0	0	81	5	0	0	0	0	0	4	0	19	173	763	0	0	0	0
8:15 AM	0	8	54	0	0	0	117	2	0	0	0	0	0	6	0	20	207		0	0	0	0
8:30 AM	0	18	46	0	0	0	98	2	0	0	0	0	0	2	0	31	197		0	0	0	0
8:45 AM	0	13	43	0	0	0	98	5	0	0	0	0	0	5	0	22	186		0	0	0	0
Count Total	0	78	448	0	0	0	730	21	0	0	0	0	0	45	0	204	1,526		0	0	0	0
Peak Hour	0	35	249	0	0	0	359	13	0	0	0	0	0	24	0	95	775		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

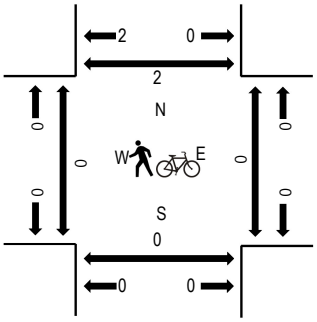
Location: 4 AUTUMN GLEN AVE & MESA RIDGE PKWY PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



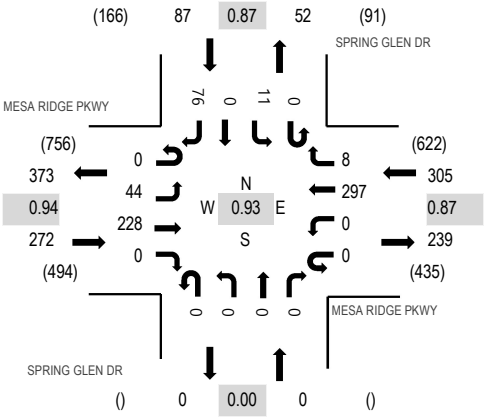
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				AUTUMN GLEN AVE Northbound				AUTUMN GLEN AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	1	20	90	0	0	0	57	9	0	0	0	0	0	5	0	14	196	909	0	0	0	0
4:15 PM	1	28	90	0	0	0	64	16	0	0	0	0	0	3	0	20	222	986	0	0	0	0
4:30 PM	0	32	123	0	0	0	61	14	0	0	0	0	0	7	0	14	251	1,019	0	0	0	0
4:45 PM	0	37	118	0	0	0	55	5	0	0	0	0	0	8	0	17	240	1,002	0	0	0	0
5:00 PM	0	30	130	0	0	0	74	9	0	0	0	0	0	6	0	24	273	992	0	0	0	0
5:15 PM	0	36	127	0	0	0	57	7	0	0	0	0	0	8	0	20	255		0	0	0	0
5:30 PM	0	32	131	0	0	0	47	9	0	0	0	0	0	2	0	13	234		0	0	0	0
5:45 PM	0	38	114	0	0	0	57	5	0	0	0	0	0	3	0	13	230		0	0	0	0
Count Total	2	253	923	0	0	0	472	74	0	0	0	0	0	42	0	135	1,901		0	0	0	0
Peak Hour	0	135	498	0	0	0	247	35	0	0	0	0	0	29	0	75	1,019		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

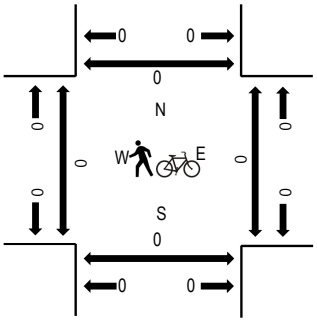
Location: 5 SPRING GLEN DR & MESA RIDGE PKWY AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



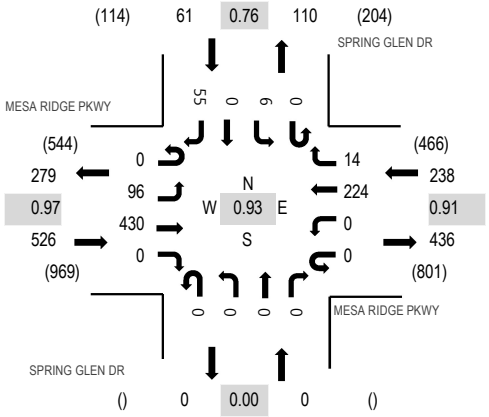
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				SPRING GLEN DR Northbound				SPRING GLEN DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	4	44	0	0	0	67	1	0	0	0	0	0	3	0	16	135	647	0	0	0	0
7:15 AM	0	11	65	0	0	0	70	3	0	0	0	0	0	4	0	24	177	663	0	0	0	0
7:30 AM	0	7	69	0	0	0	72	3	0	0	0	0	0	6	0	17	174	664	0	0	0	0
7:45 AM	0	13	62	0	0	0	61	1	0	0	0	0	0	1	0	23	161	638	0	0	0	0
8:00 AM	0	10	50	0	0	0	67	2	0	0	0	0	0	4	0	18	151	635	0	0	0	0
8:15 AM	0	14	47	0	0	0	97	2	0	0	0	0	0	0	0	18	178		0	0	0	0
8:30 AM	0	7	39	0	0	0	84	2	0	0	0	0	0	0	0	16	148		0	0	0	0
8:45 AM	0	11	41	0	0	0	90	0	0	0	0	0	0	0	0	16	158		0	0	0	0
Count Total	0	77	417	0	0	0	608	14	0	0	0	0	0	18	0	148	1,282		0	0	0	0
Peak Hour	0	44	228	0	0	0	297	8	0	0	0	0	0	11	0	76	664		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

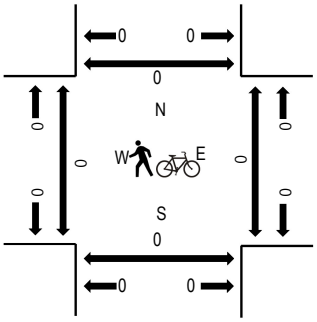
Location: 5 SPRING GLEN DR & MESA RIDGE PKWY PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



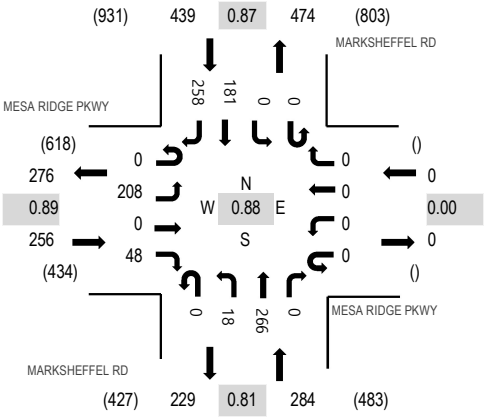
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				SPRING GLEN DR Northbound				SPRING GLEN DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	13	80	0	0	0	60	3	0	0	0	0	0	1	0	8	165	744	0	0	0	0
4:15 PM	0	19	74	0	0	0	63	6	0	0	0	0	0	2	0	17	181	801	0	0	0	0
4:30 PM	0	28	103	0	0	0	58	3	0	0	0	0	0	2	0	10	204	825	0	0	0	0
4:45 PM	0	22	108	0	0	0	52	0	0	0	0	0	0	1	0	11	194	814	0	0	0	0
5:00 PM	0	27	105	0	0	0	65	4	0	0	0	0	0	1	0	20	222	805	0	0	0	0
5:15 PM	0	19	114	0	0	0	49	7	0	0	0	0	0	2	0	14	205		0	0	0	0
5:30 PM	0	34	104	0	0	0	43	1	0	0	0	0	0	0	0	11	193		0	0	0	0
5:45 PM	0	18	101	0	0	0	52	0	0	0	0	0	0	3	0	11	185		0	0	0	0
Count Total	0	180	789	0	0	0	442	24	0	0	0	0	0	12	0	102	1,549		0	0	0	0
Peak Hour	0	96	430	0	0	0	224	14	0	0	0	0	0	6	0	55	825		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

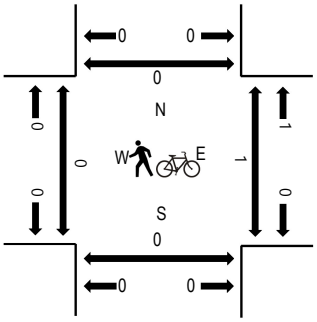
Location: 6 MARKSHEFFEL RD & MESA RIDGE PKWY AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



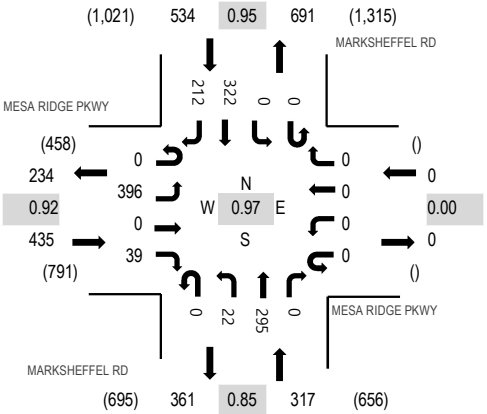
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				MARKSHEFFEL RD Northbound				MARKSHEFFEL RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	43	0	5	0	0	0	0	0	5	83	0	0	0	32	61	229	979	0	0	0	0
7:15 AM	0	58	0	10	0	0	0	0	0	4	76	0	0	0	43	69	260	960	0	0	0	0
7:30 AM	0	57	0	17	0	0	0	0	0	8	64	0	0	0	62	69	277	921	0	0	0	0
7:45 AM	0	50	0	16	0	0	0	0	0	1	43	0	0	0	44	59	213	864	0	1	0	0
8:00 AM	0	45	0	9	0	0	0	0	0	8	50	0	0	0	37	61	210	869	0	0	0	0
8:15 AM	0	38	0	8	0	0	0	0	0	2	31	0	0	0	41	101	221		0	0	0	0
8:30 AM	0	37	0	3	0	0	0	0	0	4	59	0	0	0	39	78	220		0	1	0	0
8:45 AM	0	28	0	10	0	0	0	0	0	4	41	0	0	0	51	84	218		0	0	0	0
Count Total	0	356	0	78	0	0	0	0	0	36	447	0	0	0	349	582	1,848		0	2	0	0
Peak Hour	0	208	0	48	0	0	0	0	0	18	266	0	0	0	181	258	979		0	1	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

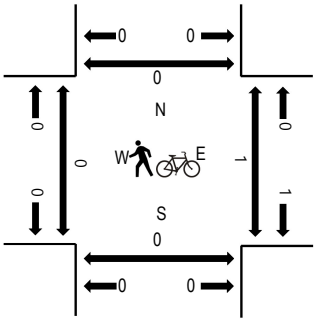
Location: 6 MARKSHEFFEL RD & MESA RIDGE PKWY PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



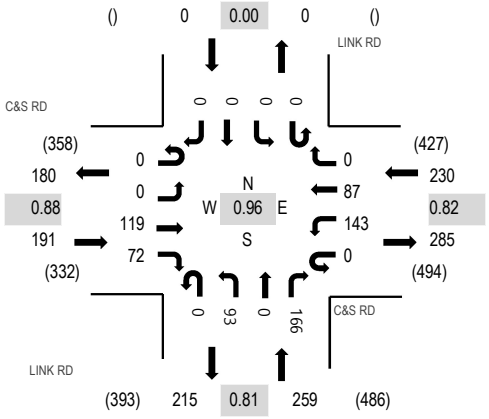
Traffic Counts

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				MARKSHEFFEL RD Northbound				MARKSHEFFEL RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	75	0	3	0	0	0	0	0	11	92	0	0	0	74	51	306	1,253	0	0	0	0
4:15 PM	0	65	0	6	0	0	0	0	0	20	88	0	0	0	88	48	315	1,280	0	0	0	0
4:30 PM	0	98	0	11	0	0	0	0	0	3	81	0	0	0	82	57	332	1,286	0	0	0	0
4:45 PM	0	88	0	10	0	0	0	0	0	7	66	0	0	0	84	45	300	1,256	0	1	0	0
5:00 PM	0	104	0	6	0	0	0	0	0	5	74	0	0	0	84	60	333	1,215	0	0	0	0
5:15 PM	0	106	0	12	0	0	0	0	0	7	74	0	0	0	72	50	321		0	0	0	0
5:30 PM	0	99	0	9	0	0	0	0	0	6	71	0	0	0	79	38	302		0	0	0	0
5:45 PM	0	87	0	12	0	0	0	0	0	4	47	0	0	0	63	46	259		0	0	0	0
Count Total	0	722	0	69	0	0	0	0	0	63	593	0	0	0	626	395	2,468		0	1	0	0
Peak Hour	0	396	0	39	0	0	0	0	0	22	295	0	0	0	322	212	1,286		0	1	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

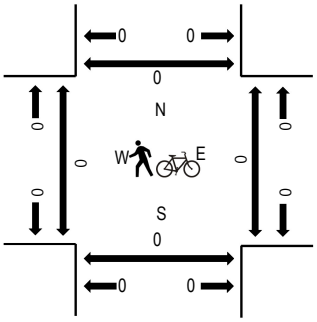
Location: 7 LINK RD & C&S RD AM
Date: Tuesday, July 27, 2021
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



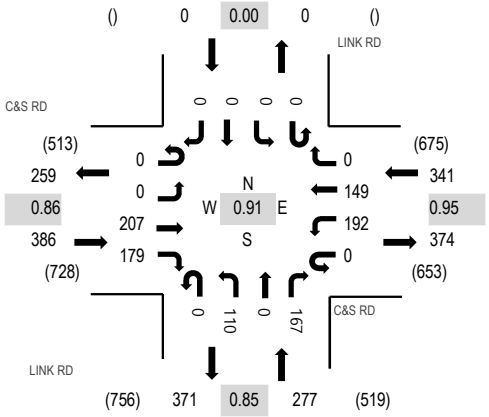
Traffic Counts

Interval Start Time	C&S RD Eastbound				C&S RD Westbound				LINK RD Northbound				LINK RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	33	21	0	23	17	0	0	22	0	58	0	0	0	0	174	680	0	0	0	0
7:15 AM	0	0	37	16	0	32	20	0	0	24	0	44	0	0	0	0	173	634	0	0	0	0
7:30 AM	0	0	33	15	0	46	24	0	0	25	0	35	0	0	0	0	178	571	0	0	0	0
7:45 AM	0	0	16	20	0	42	26	0	0	22	0	29	0	0	0	0	155	567	0	0	0	0
8:00 AM	0	0	22	13	0	23	16	0	0	18	0	36	0	0	0	0	128	565	0	0	0	0
8:15 AM	0	0	14	10	0	28	21	0	0	17	0	20	0	0	0	0	110		0	0	0	0
8:30 AM	0	0	24	17	0	26	24	0	0	31	0	52	0	0	0	0	174		0	0	0	0
8:45 AM	0	0	19	22	0	39	20	0	0	31	0	22	0	0	0	0	153		0	0	0	0
Count Total	0	0	198	134	0	259	168	0	0	190	0	296	0	0	0	0	1,245		0	0	0	0
Peak Hour	0	0	119	72	0	143	87	0	0	93	0	166	0	0	0	0	680		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

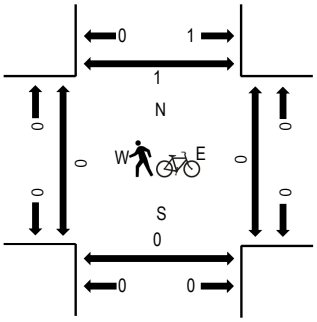
Location: 7 LINK RD & C&S RD PM
Date: Tuesday, July 27, 2021
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	C&S RD Eastbound				C&S RD Westbound				LINK RD Northbound				LINK RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	55	57	0	38	30	0	0	30	0	51	0	0	0	0	261	1,004	0	0	0	0
4:15 PM	0	0	67	45	0	45	49	0	0	26	0	44	0	0	0	0	276	987	0	0	0	0
4:30 PM	0	0	47	44	0	59	33	0	0	24	0	29	0	0	0	0	236	950	0	0	0	1
4:45 PM	0	0	38	33	0	50	37	0	0	30	0	43	0	0	0	0	231	943	0	0	0	0
5:00 PM	0	0	37	37	0	56	41	0	0	34	0	39	0	0	0	0	244	918	0	0	0	1
5:15 PM	0	0	37	61	0	50	27	0	0	25	0	39	0	0	0	0	239		0	0	0	0
5:30 PM	1	0	42	48	0	45	38	0	0	24	0	31	0	0	0	0	229		0	0	0	0
5:45 PM	0	0	29	50	0	38	39	0	0	25	0	25	0	0	0	0	206		0	0	0	0
Count Total	1	0	352	375	0	381	294	0	0	218	0	301	0	0	0	0	1,922		0	0	0	2
Peak Hour	0	0	207	179	0	192	149	0	0	110	0	167	0	0	0	0	1,004		0	0	0	1

All Traffic Data Services

www.alltrafficdata.net

Date Start: 03-Aug-21
Site Code: 8
Station ID: 8
MESA RIDGE PKWY W.O. AUTUMN GLEN AVE

Start Time	03-Aug-21 Tue	EB	WB							Total
12:00 AM		28	22							50
01:00		15	17							32
02:00		6	9							15
03:00		14	22							36
04:00		41	55							96
05:00		109	203							312
06:00		169	309							478
07:00		271	446							**717**
08:00		236	**448**							684
09:00		209	391							600
10:00		241	312							553
11:00		**309**	308							617
12:00 PM		355	292							647
01:00		335	287							622
02:00		319	255							574
03:00		350	259							609
04:00		523	294							817
05:00		**636**	**300**							**936**
06:00		363	256							619
07:00		303	249							552
08:00		249	217							466
09:00		138	132							270
10:00		83	78							161
11:00		44	62							106
Total		5346	5223							10569
Percent		50.6%	49.4%							
AM Peak	-	11:00	08:00	-	-	-	-	-	-	07:00
Vol.	-	309	448	-	-	-	-	-	-	717
PM Peak	-	17:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	636	300	-	-	-	-	-	-	936
Grand Total		5346	5223							10569
Percent		50.6%	49.4%							
ADT		ADT 10,569		AADT 10,569						

All Traffic Data Services, LLC

www.alltrafficdata.net

Site Code: 9
Station ID: 9
C&S RD E.O. LINK RD

Latitude: 0' 0.0000 Undefined

Start Time	27-Jul-21 Tue	EB	WB							Total
12:00 AM		16	11							27
01:00		8	8							16
02:00		6	8							14
03:00		14	7							21
04:00		28	24							52
05:00		116	155							271
06:00		**304**	191							495
07:00		296	**258**							**554**
08:00		212	214							426
09:00		177	158							335
10:00		165	147							312
11:00		140	177							317
12:00 PM		155	166							321
01:00		170	177							347
02:00		192	198							390
03:00		273	263							536
04:00		**374**	**368**							**742**
05:00		281	338							619
06:00		193	227							420
07:00		135	165							300
08:00		104	148							252
09:00		44	81							125
10:00		35	45							80
11:00		16	26							42
Total		3454	3560							7014
Percent		49.2%	50.8%							
AM Peak	-	06:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	304	258	-	-	-	-	-	-	554
PM Peak	-	16:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	374	368	-	-	-	-	-	-	742
Grand Total		3454	3560							7014
Percent		49.2%	50.8%							
ADT		ADT 7,014		AADT 7,014						

APPENDIX B

Level of Service Definitions

The following information can be found in the Highway Capacity Manual, Transportation Research Board, 2016: Chapter 19 – Signalized Intersections and Chapter 20 – Two-Way Stop Controlled Intersections.

Automobile Level of Service (LOS) for Signalized Intersections

Levels of service are defined to represent reasonable ranges in control delay.

LOS A

Describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B

Describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C

Describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D

Describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E

Describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F

Describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Level of Service (LOS) for Unsignalized TWSC Intersections

Level of Service (v/c ≤ 1.0)	Average Control Delay (s/veh)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

APPENDIX C

Capacity Worksheets

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	38	6	204	20	5	72	113	508	14	40	919	16
Future Volume (vph)	38	6	204	20	5	72	113	508	14	40	919	16
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.754			0.753			0.245			0.446		
Satd. Flow (perm)	1405	1863	1583	1403	1863	1583	456	3539	1583	831	3539	1583
Satd. Flow (RTOR)			222			87			76			76
Lane Group Flow (vph)	41	7	222	22	5	78	123	552	15	43	999	17
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	15.0	55.0	55.0	15.0	55.0	55.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	15.0%	55.0%	55.0%	15.0%	55.0%	55.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.8	8.8	8.8	8.8	8.8	8.8	79.0	73.4	73.4	75.2	68.2	68.2
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.09	0.79	0.73	0.73	0.75	0.68	0.68
v/c Ratio	0.33	0.04	0.65	0.18	0.03	0.36	0.27	0.21	0.01	0.06	0.41	0.02
Control Delay	48.8	39.8	15.3	43.8	39.6	12.4	3.8	5.4	0.0	2.1	9.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	39.8	15.3	43.8	39.6	12.4	3.8	5.4	0.0	2.1	9.1	0.0
LOS	D	D	B	D	D	B	A	A	A	A	A	A
Approach Delay		21.0			20.3			5.0			8.6	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	25	4	0	13	3	0	11	57	0	3	178	0
Queue Length 95th (ft)	56	17	66	36	14	36	29	98	0	m9	212	m0
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	351	465	562	350	465	461	498	2597	1182	752	2413	1103
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.02	0.40	0.06	0.01	0.17	0.25	0.21	0.01	0.06	0.41	0.02

Intersection Summary

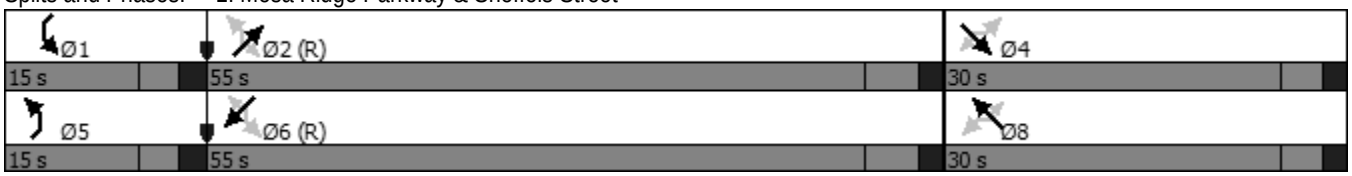
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 9.6	Intersection LOS: A
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



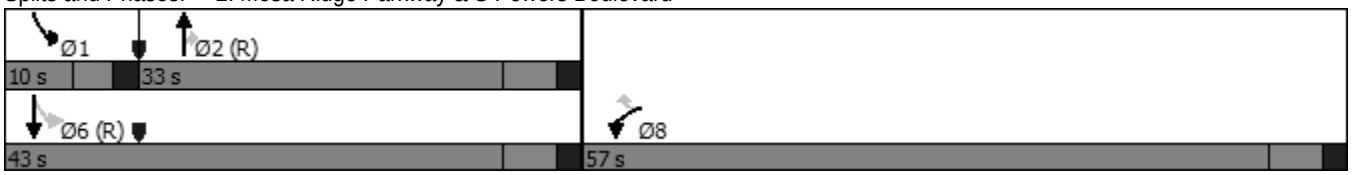
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	482	98	397	242	64	453
Future Volume (vph)	482	98	397	242	64	453
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.415	
Satd. Flow (perm)	1770	1583	3539	1583	773	3539
Satd. Flow (RTOR)		107		263		
Lane Group Flow (vph)	524	107	432	263	70	492
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	57.0	57.0	33.0	33.0	10.0	43.0
Total Split (%)	57.0%	57.0%	33.0%	33.0%	10.0%	43.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	37.0	37.0	40.7	40.7	52.0	51.0
Actuated g/C Ratio	0.37	0.37	0.41	0.41	0.52	0.51
v/c Ratio	0.80	0.16	0.30	0.33	0.15	0.27
Control Delay	37.1	3.8	20.2	2.9	15.5	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	3.8	20.2	2.9	15.5	15.9
LOS	D	A	C	A	B	B
Approach Delay	31.5		13.7			15.9
Approach LOS	C		B			B
Queue Length 50th (ft)	291	0	82	0	21	90
Queue Length 95th (ft)	352	27	115	23	54	152
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)	300			150	1000	
Base Capacity (vph)	902	859	1440	800	475	1803
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.12	0.30	0.33	0.15	0.27

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 56.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard



Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	57	272	425	7	18	151
Future Vol, veh/h	57	272	425	7	18	151
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	260	230	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	296	462	8	20	164

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	470	0	-	0	882	462
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	420	-
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	1092	-	-	-	317	600
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1092	-	-	-	299	600
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	663	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1092	-	-	-	299	600
HCM Lane V/C Ratio	0.057	-	-	-	0.065	0.274
HCM Control Delay (s)	8.5	-	-	-	17.9	13.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2	1.1

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	249	359	13	24	95
Future Vol, veh/h	35	249	359	13	24	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	270	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	271	390	14	26	103

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	404	0	-	0	737	390
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	347	-
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	1155	-	-	-	386	658
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1155	-	-	-	373	658
Mov Cap-2 Maneuver	-	-	-	-	373	-
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	716	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1155	-	-	-	373	658
HCM Lane V/C Ratio	0.033	-	-	-	0.07	0.157
HCM Control Delay (s)	8.2	-	-	-	15.4	11.5
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.6

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	228	297	8	11	76
Future Vol, veh/h	44	228	297	8	11	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	248	323	9	12	83

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	332	0	-	0	667	323
Stage 1	-	-	-	-	323	-
Stage 2	-	-	-	-	344	-
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	1227	-	-	-	424	718
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	718	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1227	-	-	-	407	718
Mov Cap-2 Maneuver	-	-	-	-	407	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1227	-	-	-	655
HCM Lane V/C Ratio	0.039	-	-	-	0.144
HCM Control Delay (s)	8.1	-	-	-	11.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	208	48	18	266	181	258
Future Vol, veh/h	208	48	18	266	181	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	1000	-	-	500
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	226	52	20	289	197	280

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	526	197	477	0	-	0
Stage 1	197	-	-	-	-	-
Stage 2	329	-	-	-	-	-
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	512	844	1085	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	503	844	1085	-	-	-
Mov Cap-2 Maneuver	503	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	729	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	16.3	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	EBLn2	SWT	SWR
Capacity (veh/h)	1085	-	503	844	-	-
HCM Lane V/C Ratio	0.018	-	0.449	0.062	-	-
HCM Control Delay (s)	8.4	-	17.9	9.5	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	2.3	0.2	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	119	72	143	87	93	166
Future Volume (vph)	119	72	143	87	93	166
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.646		0.950	
Satd. Flow (perm)	1863	1583	1203	1863	1770	1583
Satd. Flow (RTOR)		78				180
Lane Group Flow (vph)	129	78	155	95	101	180
Turn Type	NA	Perm	pm+pt	NA	pm+pt	Perm
Protected Phases	2		1	6	7	
Permitted Phases		2	6		4	4
Detector Phase	2	2	1	6	7	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	10.0	24.0	24.0	23.0
Total Split (s)	40.0	40.0	20.0	60.0	40.0	40.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	2.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	3.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	67.5	67.5	81.0	78.0	11.0	11.0
Actuated g/C Ratio	0.68	0.68	0.81	0.78	0.11	0.11
v/c Ratio	0.10	0.07	0.15	0.07	0.52	0.54
Control Delay	6.7	1.9	2.7	3.1	50.7	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	1.9	2.7	3.1	50.7	12.4
LOS	A	A	A	A	D	B
Approach Delay	4.9			2.8	26.1	
Approach LOS	A			A	C	
Queue Length 50th (ft)	26	0	15	11	62	0
Queue Length 95th (ft)	55	17	35	27	110	59
Internal Link Dist (ft)	1909			1387	624	
Turn Bay Length (ft)		250	250		290	
Base Capacity (vph)	1257	1093	1070	1452	619	671
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.14	0.07	0.16	0.27

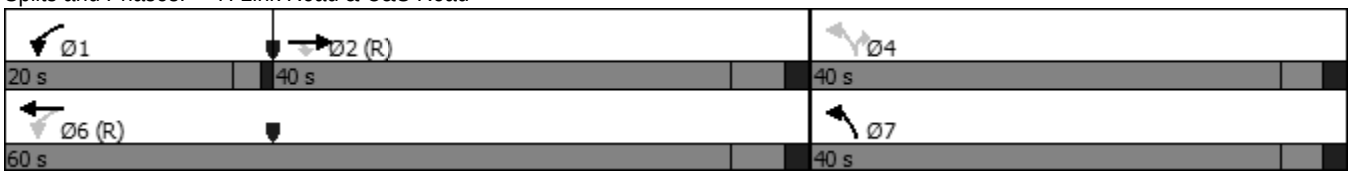
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 12.3	Intersection LOS: B
Intersection Capacity Utilization 28.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	31	13	133	21	26	112	232	1245	47	98	690	56
Future Volume (vph)	31	13	133	21	26	112	232	1245	47	98	690	56
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.739			0.748			0.347			0.170		
Satd. Flow (perm)	1377	1863	1583	1393	1863	1583	646	3539	1583	317	3539	1583
Satd. Flow (RTOR)			145			122			64			64
Lane Group Flow (vph)	34	14	145	23	28	122	252	1353	51	107	750	61
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	25.0	70.0	70.0	25.0	70.0	70.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	58.3%	58.3%	20.8%	58.3%	58.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	8.6	8.6	8.6	8.6	97.9	88.2	88.2	94.9	86.7	86.7
Actuated g/C Ratio	0.07	0.07	0.07	0.07	0.07	0.07	0.82	0.74	0.74	0.79	0.72	0.72
v/c Ratio	0.35	0.11	0.59	0.23	0.21	0.54	0.41	0.52	0.04	0.32	0.29	0.05
Control Delay	61.5	52.2	18.3	56.9	54.9	18.2	4.1	8.2	1.1	5.1	4.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	52.2	18.3	56.9	54.9	18.2	4.1	8.2	1.1	5.1	4.4	0.5
LOS	E	D	B	E	D	B	A	A	A	A	A	A
Approach Delay		28.4			29.3			7.3			4.3	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	26	10	0	17	21	0	25	199	0	6	63	0
Queue Length 95th (ft)	58	31	62	44	50	58	51	317	9	m14	117	m5
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	229	310	384	232	310	365	733	2600	1180	509	2556	1161
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.05	0.38	0.10	0.09	0.33	0.34	0.52	0.04	0.21	0.29	0.05

Intersection Summary

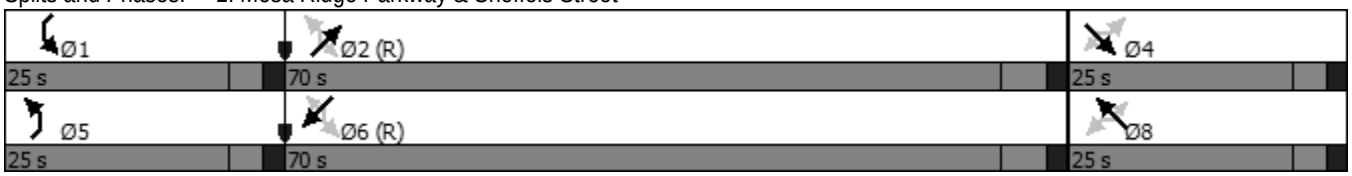
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 61.6%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



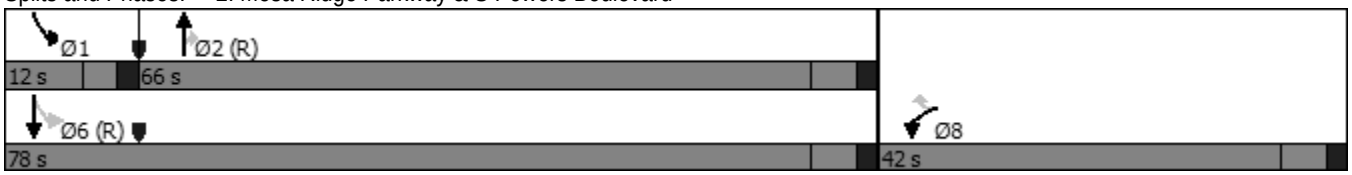
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	307	99	691	716	125	528
Future Volume (vph)	307	99	691	716	125	528
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.296	
Satd. Flow (perm)	1770	1583	3539	1583	551	3539
Satd. Flow (RTOR)		108		778		
Lane Group Flow (vph)	334	108	751	778	136	574
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	42.0	42.0	66.0	66.0	12.0	78.0
Total Split (%)	35.0%	35.0%	55.0%	55.0%	10.0%	65.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.9	27.9	67.2	67.2	81.1	80.1
Actuated g/C Ratio	0.23	0.23	0.56	0.56	0.68	0.67
v/c Ratio	0.81	0.24	0.38	0.63	0.30	0.24
Control Delay	59.8	8.0	11.6	3.6	9.7	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	8.0	11.6	3.6	9.7	8.9
LOS	E	A	B	A	A	A
Approach Delay	47.1		7.6			9.1
Approach LOS	D		A			A
Queue Length 50th (ft)	247	1	91	33	34	85
Queue Length 95th (ft)	327	43	117	61	70	136
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)	300			150	1000	
Base Capacity (vph)	531	550	1981	1228	454	2363
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.20	0.38	0.63	0.30	0.24

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard



Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	204	632	289	19	13	122
Future Vol, veh/h	204	632	289	19	13	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	260	230	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	222	687	314	21	14	133

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	335	0	-	0	1445	314
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	1131	-
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	1224	-	-	-	145	726
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	308	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1224	-	-	-	119	726
Mov Cap-2 Maneuver	-	-	-	-	119	-
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	308	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1224	-	-	-	119	726
HCM Lane V/C Ratio	0.181	-	-	-	0.119	0.183
HCM Control Delay (s)	8.6	-	-	-	39.3	11.1
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.7	-	-	-	0.4	0.7

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	135	498	247	35	29	75
Future Vol, veh/h	135	498	247	35	29	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	270	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	541	268	38	32	82

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	306	0	-	0	1103	268
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	835	-
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	1255	-	-	-	234	771
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	426	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1255	-	-	-	207	771
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	426	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1255	-	-	-	207	771
HCM Lane V/C Ratio	0.117	-	-	-	0.152	0.106
HCM Control Delay (s)	8.2	-	-	-	25.5	10.2
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.5	0.4

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	96	430	224	14	6	55
Future Vol, veh/h	96	430	224	14	6	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	467	243	15	7	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	258	0	-	0	918	243
Stage 1	-	-	-	-	243	-
Stage 2	-	-	-	-	675	-
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	1307	-	-	-	302	796
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	506	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1307	-	-	-	278	796
Mov Cap-2 Maneuver	-	-	-	-	278	-
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	506	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1307	-	-	-	673
HCM Lane V/C Ratio	0.08	-	-	-	0.099
HCM Control Delay (s)	8	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3

Intersection	
Int Delay, s/veh	35.4

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	396	39	22	295	322	212
Future Vol, veh/h	396	39	22	295	322	212
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	1000	-	-	500
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	430	42	24	321	350	230

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	719	350	580	0	-	0
Stage 1	350	-	-	-	-	-
Stage 2	369	-	-	-	-	-
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	~ 395	693	994	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 386	693	994	-	-	-
Mov Cap-2 Maneuver	~ 386	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	699	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	104.2	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	EBLn2	SWT	SWR
Capacity (veh/h)	994	-	386	693	-	-
HCM Lane V/C Ratio	0.024	-	1.115	0.061	-	-
HCM Control Delay (s)	8.7	-	113.4	10.5	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	15.8	0.2	-	-

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	207	179	192	149	110	167
Future Volume (vph)	207	179	192	149	110	167
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.539		0.950	
Satd. Flow (perm)	1863	1583	1004	1863	1770	1583
Satd. Flow (RTOR)		195				182
Lane Group Flow (vph)	225	195	209	162	120	182
Turn Type	NA	Perm	pm+pt	NA	pm+pt	Perm
Protected Phases	2		1	6	7	
Permitted Phases		2	6		4	4
Detector Phase	2	2	1	6	7	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	10.0	24.0	24.0	24.0
Total Split (s)	50.0	50.0	30.0	80.0	40.0	40.0
Total Split (%)	41.7%	41.7%	25.0%	66.7%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	Max
Act Effct Green (s)	57.4	57.4	75.0	74.0	35.0	35.0
Actuated g/C Ratio	0.48	0.48	0.62	0.62	0.29	0.29
v/c Ratio	0.25	0.23	0.30	0.14	0.23	0.31
Control Delay	20.0	3.3	10.8	10.0	33.8	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	3.3	10.8	10.0	33.8	6.0
LOS	C	A	B	B	C	A
Approach Delay	12.3			10.5	17.1	
Approach LOS	B			B	B	
Queue Length 50th (ft)	100	0	64	49	71	0
Queue Length 95th (ft)	164	42	100	80	122	54
Internal Link Dist (ft)	1909			1387	624	
Turn Bay Length (ft)		250	250		290	
Base Capacity (vph)	891	859	787	1148	516	590
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.23	0.27	0.14	0.23	0.31

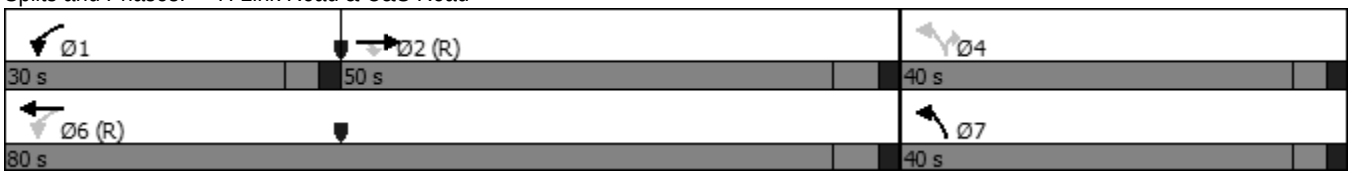
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 41.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	42	7	224	22	6	79	124	559	15	44	1011	18
Future Volume (vph)	42	7	224	22	6	79	124	559	15	44	1011	18
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.753			0.752			0.213			0.422		
Satd. Flow (perm)	1403	1863	1583	1401	1863	1583	397	3539	1583	786	3539	1583
Satd. Flow (RTOR)			230			87			76			76
Lane Group Flow (vph)	46	8	243	24	7	86	135	608	16	48	1099	20
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	15.0	55.0	55.0	15.0	55.0	55.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	15.0%	55.0%	55.0%	15.0%	55.0%	55.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.3	9.3	9.3	9.3	9.3	9.3	78.6	72.8	72.8	74.6	67.5	67.5
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.09	0.79	0.73	0.73	0.75	0.68	0.68
v/c Ratio	0.35	0.05	0.68	0.18	0.04	0.38	0.33	0.24	0.01	0.07	0.46	0.02
Control Delay	48.5	39.1	17.2	43.1	39.0	13.6	4.7	5.8	0.0	2.9	10.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.5	39.1	17.2	43.1	39.0	13.6	4.7	5.8	0.0	2.9	10.6	0.0
LOS	D	D	B	D	D	B	A	A	A	A	B	A
Approach Delay		22.6			21.2			5.5			10.1	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)	28	5	8	14	4	0	13	66	0	5	196	0
Queue Length 95th (ft)	60	18	77	37	17	42	34	114	0	m12	238	m0
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	350	465	568	350	465	461	454	2577	1173	714	2387	1092
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.02	0.43	0.07	0.02	0.19	0.30	0.24	0.01	0.07	0.46	0.02

Intersection Summary

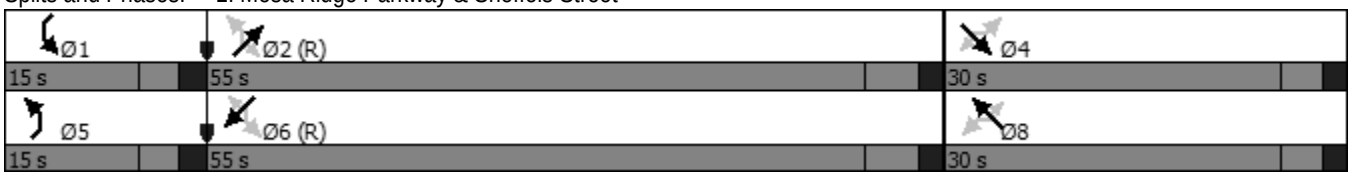
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



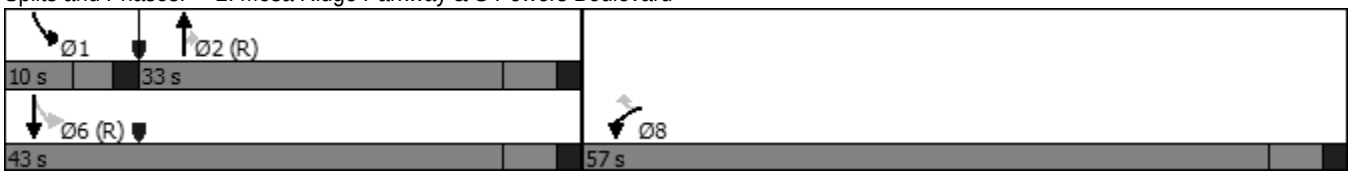
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	530	108	437	266	70	498
Future Volume (vph)	530	108	437	266	70	498
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.376	
Satd. Flow (perm)	1770	1583	3539	1583	700	3539
Satd. Flow (RTOR)		117		289		
Lane Group Flow (vph)	576	117	475	289	76	541
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	57.0	57.0	33.0	33.0	10.0	43.0
Total Split (%)	57.0%	57.0%	33.0%	33.0%	10.0%	43.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	40.0	40.0	38.1	38.1	49.0	48.0
Actuated g/C Ratio	0.40	0.40	0.38	0.38	0.49	0.48
v/c Ratio	0.81	0.17	0.35	0.37	0.18	0.32
Control Delay	36.2	3.5	22.2	3.1	17.4	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	3.5	22.2	3.1	17.4	18.1
LOS	D	A	C	A	B	B
Approach Delay	30.7		15.0			18.0
Approach LOS	C		B			B
Queue Length 50th (ft)	317	1	97	0	25	109
Queue Length 95th (ft)	387	28	132	25	61	176
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)	300			150	1000	
Base Capacity (vph)	902	864	1347	781	418	1698
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.14	0.35	0.37	0.18	0.32

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 59.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard



Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	63	299	468	8	20	166
Future Vol, veh/h	63	299	468	8	20	166
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	260	230	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	325	509	9	22	180

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	518	0	-	0	970	509
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	461	-
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	1048	-	-	-	281	564
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	635	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1048	-	-	-	263	564
Mov Cap-2 Maneuver	-	-	-	-	263	-
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	635	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1048	-	-	-	263	564
HCM Lane V/C Ratio	0.065	-	-	-	0.083	0.32
HCM Control Delay (s)	8.7	-	-	-	19.9	14.4
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3	1.4

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	274	395	14	26	105
Future Vol, veh/h	39	274	395	14	26	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	270	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	298	429	15	28	114

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	444	0	-	0	811	429
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	382	-
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	1116	-	-	-	349	626
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	690	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1116	-	-	-	336	626
Mov Cap-2 Maneuver	-	-	-	-	336	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	690	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1116	-	-	-	336	626
HCM Lane V/C Ratio	0.038	-	-	-	0.084	0.182
HCM Control Delay (s)	8.4	-	-	-	16.7	12
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.7

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	251	327	9	12	84
Future Vol, veh/h	48	251	327	9	12	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	273	355	10	13	91

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	365	0	-	0	732	355
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	377	-
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	1194	-	-	-	388	689
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	694	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1194	-	-	-	371	689
Mov Cap-2 Maneuver	-	-	-	-	371	-
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	694	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1194	-	-	-	622
HCM Lane V/C Ratio	0.044	-	-	-	0.168
HCM Control Delay (s)	8.2	-	-	-	12
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	229	53	20	293	199	284
Future Vol, veh/h	229	53	20	293	199	284
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	1000	-	-	500
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	249	58	22	318	216	309

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	578	216	525	0	-	0
Stage 1	216	-	-	-	-	-
Stage 2	362	-	-	-	-	-
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	478	824	1042	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	468	824	1042	-	-	-
Mov Cap-2 Maneuver	468	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	704	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	19	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	EBLn2	SWT	SWR
Capacity (veh/h)	1042	-	468	824	-	-
HCM Lane V/C Ratio	0.021	-	0.532	0.07	-	-
HCM Control Delay (s)	8.5	-	21.1	9.7	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	3.1	0.2	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	131	79	157	96	102	183
Future Volume (vph)	131	79	157	96	102	183
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.606		0.950	
Satd. Flow (perm)	1863	1583	1129	1863	1770	1583
Satd. Flow (RTOR)		86				199
Lane Group Flow (vph)	142	86	171	104	111	199
Turn Type	NA	Perm	pm+pt	NA	pm+pt	Perm
Protected Phases	2		1	6	7	
Permitted Phases		2	6		4	4
Detector Phase	2	2	1	6	7	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	10.0	24.0	24.0	24.0
Total Split (s)	40.0	40.0	20.0	60.0	40.0	40.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	Max
Act Effct Green (s)	39.8	39.8	56.0	54.0	35.0	35.0
Actuated g/C Ratio	0.40	0.40	0.56	0.54	0.35	0.35
v/c Ratio	0.19	0.13	0.24	0.10	0.18	0.29
Control Delay	21.2	5.2	11.7	11.6	23.6	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	5.2	11.7	11.6	23.6	4.6
LOS	C	A	B	B	C	A
Approach Delay	15.2			11.7	11.4	
Approach LOS	B			B	B	
Queue Length 50th (ft)	58	0	50	31	49	0
Queue Length 95th (ft)	107	31	84	57	89	46
Internal Link Dist (ft)	1909			1387	624	
Turn Bay Length (ft)		250	250		290	
Base Capacity (vph)	740	681	734	1006	619	683
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.13	0.23	0.10	0.18	0.29

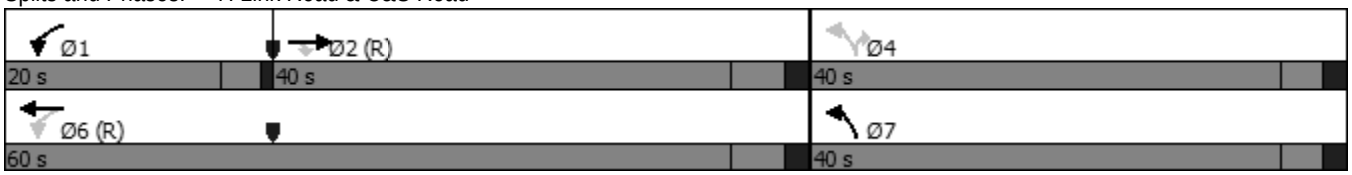
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 33.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	34	14	146	23	29	123	255	1370	52	108	759	62
Future Volume (vph)	34	14	146	23	29	123	255	1370	52	108	759	62
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.736			0.748			0.320			0.136		
Satd. Flow (perm)	1371	1863	1583	1393	1863	1583	596	3539	1583	253	3539	1583
Satd. Flow (RTOR)			159			134			64			67
Lane Group Flow (vph)	37	15	159	25	32	134	277	1489	57	117	825	67
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	25.0	70.0	70.0	25.0	70.0	70.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	58.3%	58.3%	20.8%	58.3%	58.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.8	8.8	8.8	8.8	8.8	8.8	96.6	86.4	86.4	95.8	86.0	86.0
Actuated g/C Ratio	0.07	0.07	0.07	0.07	0.07	0.07	0.80	0.72	0.72	0.80	0.72	0.72
v/c Ratio	0.37	0.11	0.60	0.25	0.23	0.56	0.49	0.58	0.05	0.38	0.33	0.06
Control Delay	62.1	51.9	17.9	56.9	55.2	17.7	5.2	10.0	1.6	6.8	6.2	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	51.9	17.9	56.9	55.2	17.7	5.2	10.0	1.6	6.8	6.2	1.3
LOS	E	D	B	E	E	B	A	B	A	A	A	A
Approach Delay		28.1			29.1			9.0			6.0	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	28	11	0	19	24	0	29	252	0	6	127	4
Queue Length 95th (ft)	62	32	65	46	55	59	58	409	13	m17	165	m10
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	228	310	396	232	310	375	698	2547	1157	466	2535	1152
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.05	0.40	0.11	0.10	0.36	0.40	0.58	0.05	0.25	0.33	0.06

Intersection Summary

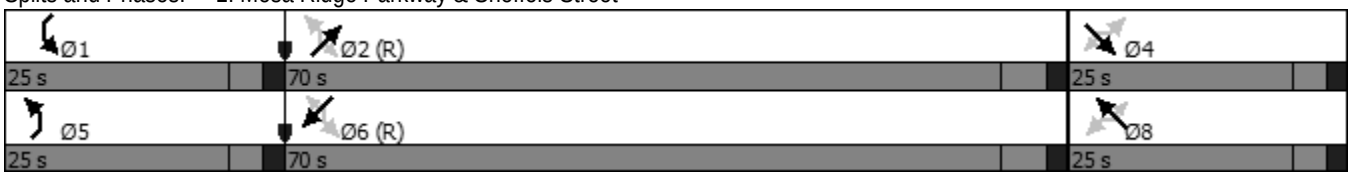
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 9 (8%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 10.5	Intersection LOS: B
Intersection Capacity Utilization 65.7%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



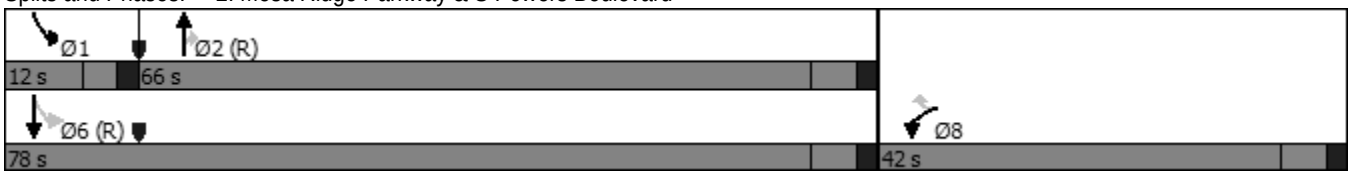
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	338	109	760	788	138	581
Future Volume (vph)	338	109	760	788	138	581
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.261	
Satd. Flow (perm)	1770	1583	3539	1583	486	3539
Satd. Flow (RTOR)		118		827		
Lane Group Flow (vph)	367	118	826	857	150	632
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	42.0	42.0	66.0	66.0	12.0	78.0
Total Split (%)	35.0%	35.0%	55.0%	55.0%	10.0%	65.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	29.5	29.5	65.4	65.4	79.5	78.5
Actuated g/C Ratio	0.25	0.25	0.54	0.54	0.66	0.65
v/c Ratio	0.85	0.25	0.43	0.69	0.37	0.27
Control Delay	61.5	7.5	14.1	6.6	11.0	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	7.5	14.1	6.6	11.0	9.7
LOS	E	A	B	A	B	A
Approach Delay	48.4		10.3			10.0
Approach LOS	D		B			A
Queue Length 50th (ft)	271	1	125	46	40	101
Queue Length 95th (ft)	365	44	160	122	77	152
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)	300			150	1000	
Base Capacity (vph)	531	557	1929	1239	409	2316
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.21	0.43	0.69	0.37	0.27

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard



Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	224	695	318	21	14	134
Future Vol, veh/h	224	695	318	21	14	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	260	230	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	243	755	346	23	15	146

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	369	0	-	0	1587	346
Stage 1	-	-	-	-	346	-
Stage 2	-	-	-	-	1241	-
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	1190	-	-	-	119	697
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	273	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1190	-	-	-	95	697
Mov Cap-2 Maneuver	-	-	-	-	95	-
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	273	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1190	-	-	-	95	697
HCM Lane V/C Ratio	0.205	-	-	-	0.16	0.209
HCM Control Delay (s)	8.8	-	-	-	50	11.5
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.8	-	-	-	0.5	0.8

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	149	548	272	39	32	83
Future Vol, veh/h	149	548	272	39	32	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	270	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	162	596	296	42	35	90

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	338	0	-	0	1216	296
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	920	-
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	1221	-	-	-	200	743
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	388	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1221	-	-	-	173	743
Mov Cap-2 Maneuver	-	-	-	-	173	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	388	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1221	-	-	-	173	743
HCM Lane V/C Ratio	0.133	-	-	-	0.201	0.121
HCM Control Delay (s)	8.4	-	-	-	31	10.5
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.7	0.4

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	106	473	246	15	7	61
Future Vol, veh/h	106	473	246	15	7	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	514	267	16	8	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	283	0	-	0	1011	267
Stage 1	-	-	-	-	267	-
Stage 2	-	-	-	-	744	-
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	1279	-	-	-	265	772
Stage 1	-	-	-	-	778	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1279	-	-	-	241	772
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	470	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1279	-	-	-	629
HCM Lane V/C Ratio	0.09	-	-	-	0.118
HCM Control Delay (s)	8.1	-	-	-	11.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.4

Intersection	
Int Delay, s/veh	64.8

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	436	43	24	325	354	233
Future Vol, veh/h	436	43	24	325	354	233
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	1000	-	-	500
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	47	26	353	385	253

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	790	385	638	0	-	0
Stage 1	385	-	-	-	-	-
Stage 2	405	-	-	-	-	-
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	~ 359	663	946	-	-	-
Stage 1	688	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 349	663	946	-	-	-
Mov Cap-2 Maneuver	~ 349	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	673	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	191.1	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	EBLn2	SWT	SWR
Capacity (veh/h)	946	-	349	663	-	-
HCM Lane V/C Ratio	0.028	-	1.358	0.07	-	-
HCM Control Delay (s)	8.9	-	208.9	10.8	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	23.3	0.2	-	-

Notes

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	228	197	211	164	121	184
Future Volume (vph)	228	197	211	164	121	184
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.516		0.950	
Satd. Flow (perm)	1863	1583	961	1863	1770	1583
Satd. Flow (RTOR)		214				200
Lane Group Flow (vph)	248	214	229	178	132	200
Turn Type	NA	Perm	pm+pt	NA	pm+pt	Perm
Protected Phases	2		1	6	7	
Permitted Phases		2	6		4	4
Detector Phase	2	2	1	6	7	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	10.0	24.0	24.0	24.0
Total Split (s)	50.0	50.0	30.0	80.0	40.0	40.0
Total Split (%)	41.7%	41.7%	25.0%	66.7%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	None
Act Effct Green (s)	56.7	56.7	75.0	74.0	35.0	35.0
Actuated g/C Ratio	0.47	0.47	0.62	0.62	0.29	0.29
v/c Ratio	0.28	0.25	0.34	0.16	0.26	0.33
Control Delay	20.9	3.3	11.2	10.2	34.2	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	3.3	11.2	10.2	34.2	6.0
LOS	C	A	B	B	C	A
Approach Delay	12.8			10.7	17.2	
Approach LOS	B			B	B	
Queue Length 50th (ft)	113	0	71	55	78	0
Queue Length 95th (ft)	183	44	110	87	132	55
Internal Link Dist (ft)	1909			1387	624	
Turn Bay Length (ft)		250	250		290	
Base Capacity (vph)	880	861	769	1148	516	603
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.25	0.30	0.16	0.26	0.33

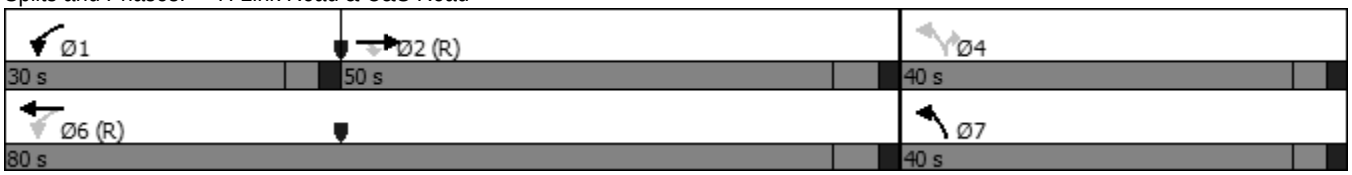
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 43 (36%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 43.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	9	306	30	8	108	170	762	21	60	1379	24
Future Volume (vph)	57	9	306	30	8	108	170	762	21	60	1379	24
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.752			0.751			0.083			0.336		
Satd. Flow (perm)	1401	1863	1583	1399	1863	1583	155	3539	1583	626	3539	1583
Satd. Flow (RTOR)			142			142			76			131
Lane Group Flow (vph)	62	10	333	33	9	117	185	828	23	65	1499	26
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	16.0	64.0	64.0	10.0	58.0	58.0
Total Split (%)	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	16.0%	64.0%	64.0%	10.0%	58.0%	58.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.1	17.1	17.1	17.1	17.1	17.1	72.5	63.4	63.4	63.8	57.1	57.1
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.17	0.72	0.63	0.63	0.64	0.57	0.57
v/c Ratio	0.26	0.03	0.86	0.14	0.03	0.30	0.69	0.37	0.02	0.14	0.74	0.03
Control Delay	37.0	32.1	43.9	34.5	32.0	5.7	28.2	10.4	0.0	6.1	21.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	32.1	43.9	34.5	32.0	5.7	28.2	10.4	0.0	6.1	21.8	0.0
LOS	D	C	D	C	C	A	C	B	A	A	C	A
Approach Delay		42.6			13.2			13.4			20.8	
Approach LOS		D			B			B			C	
Queue Length 50th (ft)	34	5	119	18	5	0	47	140	0	12	504	0
Queue Length 95th (ft)	70	19	#242	44	18	32	#125	183	0	m18	597	m0
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	294	391	444	293	391	444	292	2244	1031	463	2022	960
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.03	0.75	0.11	0.02	0.26	0.63	0.37	0.02	0.14	0.74	0.03

Intersection Summary

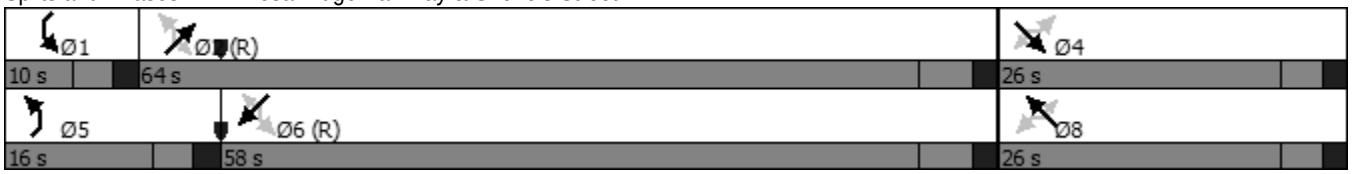
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 3 (3%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 74.6%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	723	147	596	363	96	680
Future Volume (vph)	723	147	596	363	96	680
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.217	
Satd. Flow (perm)	1770	1583	3539	1583	404	3539
Satd. Flow (RTOR)		160		389		
Lane Group Flow (vph)	786	160	648	395	104	739
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	59.0	59.0	31.0	31.0	10.0	41.0
Total Split (%)	59.0%	59.0%	31.0%	31.0%	10.0%	41.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	49.5	49.5	29.7	29.7	39.5	38.5
Actuated g/C Ratio	0.50	0.50	0.30	0.30	0.40	0.38
v/c Ratio	0.90	0.19	0.62	0.53	0.43	0.54
Control Delay	35.1	3.3	45.0	17.2	27.3	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	3.3	45.0	17.2	27.3	26.6
LOS	D	A	D	B	C	C
Approach Delay	29.7		34.5			26.7
Approach LOS	C		C			C
Queue Length 50th (ft)	414	0	200	53	44	197
Queue Length 95th (ft)	#657	11	265	145	83	262
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)				150	1000	
Base Capacity (vph)	938	914	1050	743	242	1362
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.18	0.62	0.53	0.43	0.54

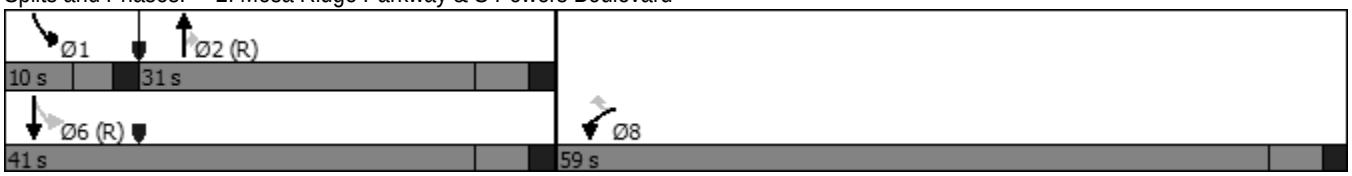
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

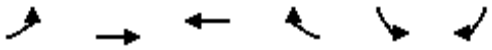
Maximum v/c Ratio: 0.90

Intersection Signal Delay: 30.6	Intersection LOS: C
Intersection Capacity Utilization 76.0%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard





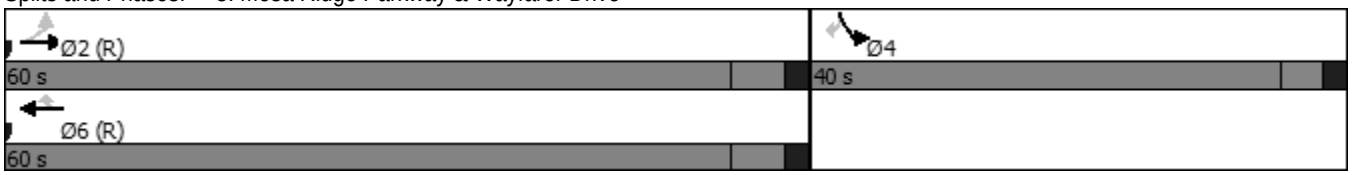
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	86	408	638	11	27	227
Future Volume (vph)	86	408	638	11	27	227
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.388				0.950	
Satd. Flow (perm)	723	3539	3539	1583	1770	1583
Satd. Flow (RTOR)				12		204
Lane Group Flow (vph)	93	443	693	12	29	247
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	60.0	60.0	60.0	60.0	40.0	40.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	79.1	79.1	79.1	79.1	9.9	9.9
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.10	0.10
v/c Ratio	0.16	0.16	0.25	0.01	0.17	0.73
Control Delay	4.0	3.2	3.1	1.7	40.8	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	3.2	3.1	1.7	40.8	22.5
LOS	A	A	A	A	D	C
Approach Delay		3.3	3.1		24.4	
Approach LOS		A	A		C	
Queue Length 50th (ft)	12	29	42	0	18	26
Queue Length 95th (ft)	25	42	82	4	41	98
Internal Link Dist (ft)		2004	2040		528	
Turn Bay Length (ft)	320			260	230	
Base Capacity (vph)	571	2799	2799	1254	619	686
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.16	0.25	0.01	0.05	0.36

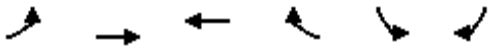
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Mesa Ridge Parkway & Wayfarer Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	53	374	539	20	36	143
Future Volume (vph)	53	374	539	20	36	143
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.431				0.950	
Satd. Flow (perm)	803	3539	3539	1583	1770	1583
Satd. Flow (RTOR)				22		155
Lane Group Flow (vph)	58	407	586	22	39	155
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	59.0	59.0	59.0	59.0	41.0	41.0
Total Split (%)	59.0%	59.0%	59.0%	59.0%	41.0%	41.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	80.9	80.9	80.9	80.9	8.1	8.1
Actuated g/C Ratio	0.81	0.81	0.81	0.81	0.08	0.08
v/c Ratio	0.09	0.14	0.20	0.02	0.27	0.57
Control Delay	5.3	4.3	2.3	0.8	46.9	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.3	4.3	2.3	0.8	46.9	15.9
LOS	A	A	A	A	D	B
Approach Delay		4.5	2.2		22.1	
Approach LOS		A	A		C	
Queue Length 50th (ft)	11	42	31	0	24	0
Queue Length 95th (ft)	40	96	46	m4	55	58
Internal Link Dist (ft)		2040	2102		598	
Turn Bay Length (ft)	320			270	300	
Base Capacity (vph)	649	2863	2863	1285	637	669
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.14	0.20	0.02	0.06	0.23

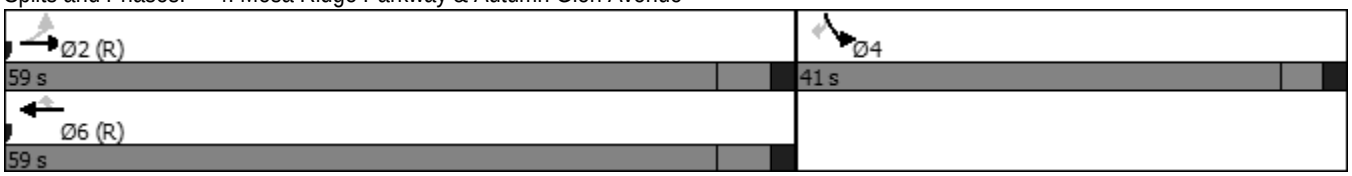
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 37.4%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 4: Mesa Ridge Parkway & Autumn Glen Avenue



Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	66	342	446	12	17	114
Future Vol, veh/h	66	342	446	12	17	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	372	485	13	18	124

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	498	0	-	0	815	243
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	330	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1062	-	-	-	315	758
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	701	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1062	-	-	-	294	758
Mov Cap-2 Maneuver	-	-	-	-	294	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	701	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1062	-	-	-	629
HCM Lane V/C Ratio	0.068	-	-	-	0.226
HCM Control Delay (s)	8.6	-	-	-	12.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	312	72	27	399	272	387
Future Volume (vph)	312	72	27	399	272	387
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.571			
Satd. Flow (perm)	1770	1583	1064	3539	3539	1583
Satd. Flow (RTOR)		78				421
Lane Group Flow (vph)	339	78	29	434	296	421
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	47.0	47.0	53.0	53.0	53.0	53.0
Total Split (%)	47.0%	47.0%	53.0%	53.0%	53.0%	53.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	25.0	25.0	64.0	64.0	64.0	64.0
Actuated g/C Ratio	0.25	0.25	0.64	0.64	0.64	0.64
v/c Ratio	0.77	0.17	0.04	0.19	0.13	0.36
Control Delay	46.3	8.2	8.6	7.8	8.2	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	8.2	8.6	7.8	8.2	2.0
LOS	D	A	A	A	A	A
Approach Delay	39.1			7.9	4.5	
Approach LOS	D			A	A	
Queue Length 50th (ft)	221	0	4	30	35	0
Queue Length 95th (ft)	315	18	18	90	66	41
Internal Link Dist (ft)	727			4482	750	
Turn Bay Length (ft)			1000			500
Base Capacity (vph)	743	710	680	2264	2264	1164
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.11	0.04	0.19	0.13	0.36

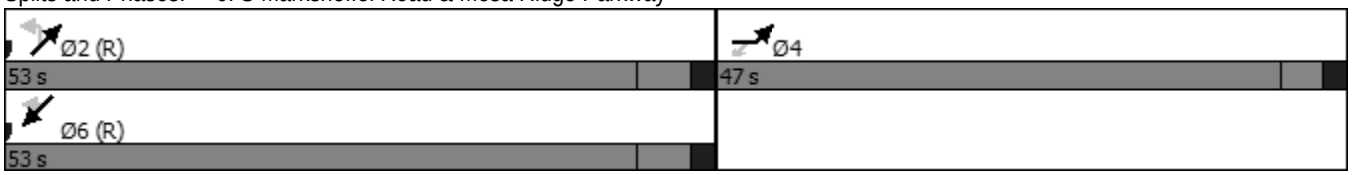
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 67 (67%), Referenced to phase 2:NETL and 6:SWT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 43.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: S Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	179	108	215	131	140	249
Future Volume (vph)	179	108	215	131	140	249
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.587		0.950	
Satd. Flow (perm)	1863	1583	1093	1863	1770	1583
Satd. Flow (RTOR)		117				271
Lane Group Flow (vph)	195	117	234	142	152	271
Turn Type	NA	Perm	pm+pt	NA	pm+pt	Perm
Protected Phases	2		1	6	7	
Permitted Phases		2	6		4	4
Detector Phase	2	2	1	6	7	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	10.0	24.0	24.0	24.0
Total Split (s)	36.0	36.0	26.0	62.0	38.0	38.0
Total Split (%)	36.0%	36.0%	26.0%	62.0%	38.0%	38.0%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	60.6	60.6	76.0	75.0	14.0	14.0
Actuated g/C Ratio	0.61	0.61	0.76	0.75	0.14	0.14
v/c Ratio	0.17	0.12	0.26	0.10	0.62	0.60
Control Delay	10.4	2.5	10.3	9.1	50.7	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	2.5	10.3	9.1	50.7	10.5
LOS	B	A	B	A	D	B
Approach Delay	7.4			9.9	24.9	
Approach LOS	A			A	C	
Queue Length 50th (ft)	50	0	71	39	92	0
Queue Length 95th (ft)	105	26	148	92	149	67
Internal Link Dist (ft)	1909			1387	624	
Turn Bay Length (ft)		250	250		290	
Base Capacity (vph)	1129	1005	972	1397	584	703
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.12	0.24	0.10	0.26	0.39

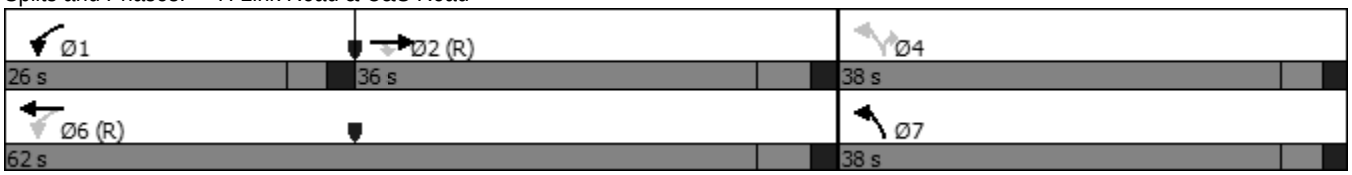
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 42.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	47	20	200	32	39	168	348	1868	71	147	1035	84
Future Volume (vph)	47	20	200	32	39	168	348	1868	71	147	1035	84
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.730			0.743			0.184			0.054		
Satd. Flow (perm)	1360	1863	1583	1384	1863	1583	343	3539	1583	101	3539	1583
Satd. Flow (RTOR)			217			135			77			109
Lane Group Flow (vph)	51	22	217	35	42	183	378	2030	77	160	1125	91
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	33.0	82.0	82.0	14.0	63.0	63.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	27.5%	68.3%	68.3%	11.7%	52.5%	52.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.6	10.6	10.6	10.6	10.6	10.6	98.6	82.0	82.0	86.4	74.0	74.0
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.09	0.82	0.68	0.68	0.72	0.62	0.62
v/c Ratio	0.43	0.13	0.64	0.29	0.26	0.70	0.74	0.84	0.07	0.69	0.52	0.09
Control Delay	61.0	49.8	15.6	55.1	52.8	30.1	18.3	19.6	2.0	50.9	11.1	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.0	49.8	15.6	55.1	52.8	30.1	18.3	19.6	2.0	50.9	11.1	0.9
LOS	E	D	B	E	D	C	B	B	A	D	B	A
Approach Delay		26.2			37.2			18.8			15.0	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)	38	16	0	26	31	36	71	573	0	75	171	1
Queue Length 95th (ft)	76	40	71	56	64	108	196	800	17	m#143	m377	m9
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	215	294	433	219	294	364	621	2418	1106	236	2183	1018
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.07	0.50	0.16	0.14	0.50	0.61	0.84	0.07	0.68	0.52	0.09

Intersection Summary

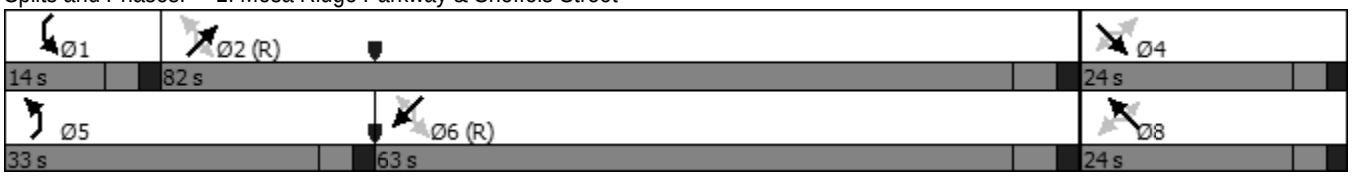
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	461	149	1037	1074	188	792
Future Volume (vph)	461	149	1037	1074	188	792
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.145	
Satd. Flow (perm)	1770	1583	3539	1583	270	3539
Satd. Flow (RTOR)		149		841		
Lane Group Flow (vph)	501	162	1127	1167	204	861
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	42.0	42.0	67.0	67.0	11.0	78.0
Total Split (%)	35.0%	35.0%	55.8%	55.8%	9.2%	65.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	35.4	35.4	61.0	61.0	73.6	72.6
Actuated g/C Ratio	0.30	0.30	0.51	0.51	0.61	0.60
v/c Ratio	0.96	0.28	0.63	0.96	0.82	0.40
Control Delay	71.4	8.5	15.4	22.2	40.1	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	8.5	15.4	22.2	40.1	13.2
LOS	E	A	B	C	D	B
Approach Delay	56.0		18.8			18.3
Approach LOS	E		B			B
Queue Length 50th (ft)	381	20	146	216	66	174
Queue Length 95th (ft)	#601	75	227	#326	#156	217
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)				150	1000	
Base Capacity (vph)	531	579	1798	1218	248	2142
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.28	0.63	0.96	0.82	0.40

Intersection Summary

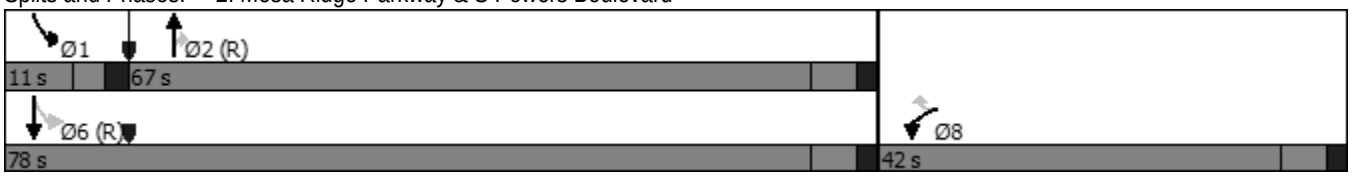
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

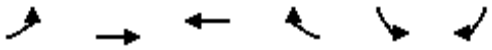
Maximum v/c Ratio: 0.96

Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 86.1%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	306	948	434	29	20	183
Future Volume (vph)	306	948	434	29	20	183
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.482				0.950	
Satd. Flow (perm)	898	3539	3539	1583	1770	1583
Satd. Flow (RTOR)				32		199
Lane Group Flow (vph)	333	1030	472	32	22	199
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	92.0	92.0	92.0	92.0	28.0	28.0
Total Split (%)	76.7%	76.7%	76.7%	76.7%	23.3%	23.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	100.8	100.8	100.8	100.8	8.2	8.2
Actuated g/C Ratio	0.84	0.84	0.84	0.84	0.07	0.07
v/c Ratio	0.44	0.35	0.16	0.02	0.18	0.68
Control Delay	3.0	2.2	1.7	0.4	54.3	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	2.2	1.7	0.4	54.3	19.1
LOS	A	A	A	A	D	B
Approach Delay		2.4	1.6		22.6	
Approach LOS		A	A		C	
Queue Length 50th (ft)	36	55	22	0	17	0
Queue Length 95th (ft)	m51	m77	33	3	42	70
Internal Link Dist (ft)		2004	2040		528	
Turn Bay Length (ft)	320			260	230	
Base Capacity (vph)	754	2971	2971	1334	339	464
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.35	0.16	0.02	0.06	0.43

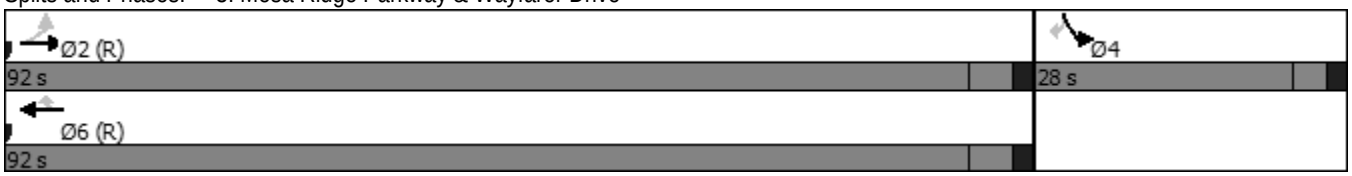
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

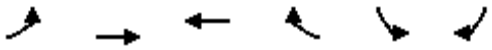
Maximum v/c Ratio: 0.68

Intersection Signal Delay: 4.3	Intersection LOS: A
Intersection Capacity Utilization 47.3%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 3: Mesa Ridge Parkway & Wayfarer Drive





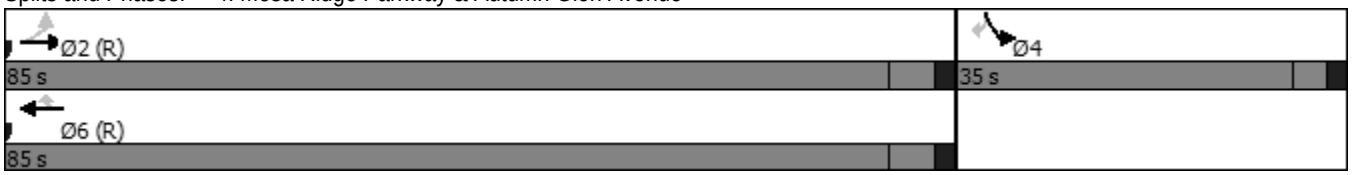
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	203	747	371	53	44	113
Future Volume (vph)	203	747	371	53	44	113
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.515				0.950	
Satd. Flow (perm)	959	3539	3539	1583	1770	1583
Satd. Flow (RTOR)				58		123
Lane Group Flow (vph)	221	812	403	58	48	123
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	85.0	85.0	85.0	85.0	35.0	35.0
Total Split (%)	70.8%	70.8%	70.8%	70.8%	29.2%	29.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	100.3	100.3	100.3	100.3	8.7	8.7
Actuated g/C Ratio	0.84	0.84	0.84	0.84	0.07	0.07
v/c Ratio	0.28	0.27	0.14	0.04	0.38	0.54
Control Delay	4.3	3.5	2.0	0.4	60.7	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	3.5	2.0	0.4	60.7	18.1
LOS	A	A	A	A	E	B
Approach Delay		3.6	1.8		30.1	
Approach LOS		A	A		C	
Queue Length 50th (ft)	38	73	26	0	36	0
Queue Length 95th (ft)	81	112	26	3	74	58
Internal Link Dist (ft)		2040	2102		598	
Turn Bay Length (ft)	320			270	300	
Base Capacity (vph)	801	2959	2959	1333	442	488
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.27	0.14	0.04	0.11	0.25

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 5.8	Intersection LOS: A
Intersection Capacity Utilization 39.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Mesa Ridge Parkway & Autumn Glen Avenue



Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	645	336	21	9	83
Future Vol, veh/h	144	645	336	21	9	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	701	365	23	10	90

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	388	0	-	0	1030	183
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	665	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1167	-	-	-	229	828
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1167	-	-	-	198	828
Mov Cap-2 Maneuver	-	-	-	-	198	-
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	473	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1167	-	-	-	631
HCM Lane V/C Ratio	0.134	-	-	-	0.158
HCM Control Delay (s)	8.6	-	-	-	11.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.6

Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	594	59	33	443	483	318
Future Volume (vph)	594	59	33	443	483	318
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.403			
Satd. Flow (perm)	1770	1583	751	3539	3539	1583
Satd. Flow (RTOR)		64				346
Lane Group Flow (vph)	646	64	36	482	525	346
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	79.0	79.0	41.0	41.0	41.0	41.0
Total Split (%)	65.8%	65.8%	34.2%	34.2%	34.2%	34.2%
Yellow Time (s)	3.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	56.5	56.5	52.5	52.5	52.5	52.5
Actuated g/C Ratio	0.47	0.47	0.44	0.44	0.44	0.44
v/c Ratio	0.77	0.08	0.11	0.31	0.34	0.39
Control Delay	28.4	3.4	21.4	19.7	25.3	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	3.4	21.4	19.7	25.3	4.4
LOS	C	A	C	B	C	A
Approach Delay	26.2			19.8	17.0	
Approach LOS	C			B	B	
Queue Length 50th (ft)	301	0	11	81	140	0
Queue Length 95th (ft)	356	16	m32	145	223	67
Internal Link Dist (ft)	727			4482	750	
Turn Bay Length (ft)			1000			500
Base Capacity (vph)	1091	1000	328	1547	1547	886
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.06	0.11	0.31	0.34	0.39

Intersection Summary

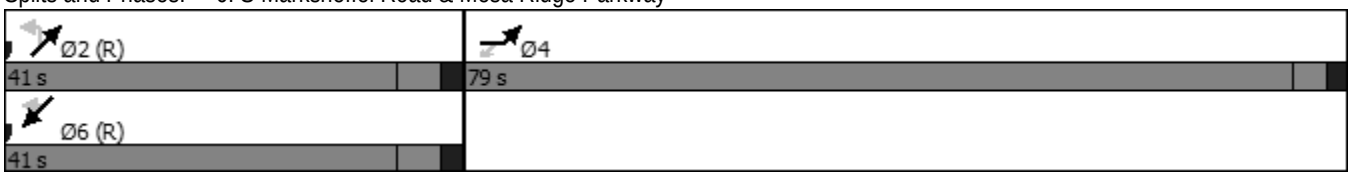
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 62 (52%), Referenced to phase 2:NETL and 6:SWT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 6: S Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	311	269	288	224	165	251
Future Volume (vph)	311	269	288	224	165	251
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.491		0.950	
Satd. Flow (perm)	1863	1583	915	1863	1770	1583
Satd. Flow (RTOR)		292				273
Lane Group Flow (vph)	338	292	313	243	179	273
Turn Type	NA	Perm	pm+pt	NA	pm+pt	Perm
Protected Phases	2		1	6	7	
Permitted Phases		2	6		4	4
Detector Phase	2	2	1	6	7	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	10.5	24.0	24.0	24.0
Total Split (s)	52.0	52.0	33.0	85.0	35.0	35.0
Total Split (%)	43.3%	43.3%	27.5%	70.8%	29.2%	29.2%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	5.0	6.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	74.7	74.7	92.5	91.5	17.5	17.5
Actuated g/C Ratio	0.62	0.62	0.77	0.76	0.15	0.15
v/c Ratio	0.29	0.27	0.40	0.17	0.70	0.59
Control Delay	12.6	2.1	13.4	2.7	62.4	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	2.1	13.4	2.7	62.4	10.5
LOS	B	A	B	A	E	B
Approach Delay	7.8			8.7	31.1	
Approach LOS	A			A	C	
Queue Length 50th (ft)	112	0	83	19	133	0
Queue Length 95th (ft)	210	41	211	34	200	73
Internal Link Dist (ft)	1909			1387	624	
Turn Bay Length (ft)		250	250		290	
Base Capacity (vph)	1160	1096	904	1420	442	600
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.27	0.35	0.17	0.40	0.46

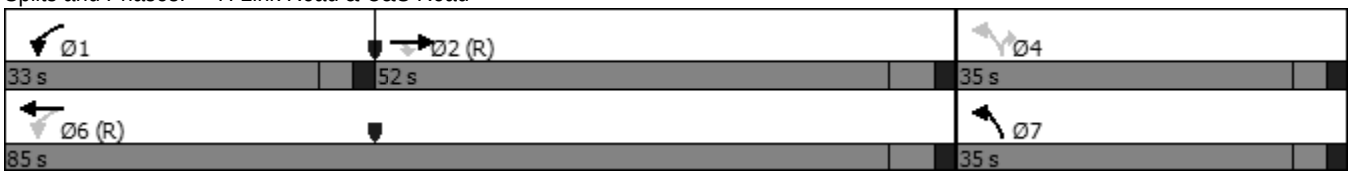
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 54.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	42	7	224	121	6	217	124	565	49	91	1030	18
Future Volume (vph)	42	7	224	121	6	217	124	565	49	91	1030	18
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.753			0.752			0.196			0.418		
Satd. Flow (perm)	1403	1863	1583	1401	1863	1583	365	3539	1583	779	3539	1583
Satd. Flow (RTOR)			227			236			76			76
Lane Group Flow (vph)	46	8	243	132	7	236	135	614	53	99	1120	20
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	15.0	55.0	55.0	15.0	55.0	55.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	15.0%	55.0%	55.0%	15.0%	55.0%	55.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.7	14.7	14.7	14.7	14.7	14.7	71.9	64.4	64.4	69.7	61.6	61.6
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15	0.15	0.72	0.64	0.64	0.70	0.62	0.62
v/c Ratio	0.22	0.03	0.57	0.64	0.03	0.55	0.36	0.27	0.05	0.16	0.51	0.02
Control Delay	38.2	33.6	11.8	53.8	33.5	9.7	6.9	9.4	1.4	3.8	12.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.2	33.6	11.8	53.8	33.5	9.7	6.9	9.4	1.4	3.8	12.2	0.1
LOS	D	C	B	D	C	A	A	A	A	A	B	A
Approach Delay		16.5			25.7			8.4			11.3	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)	26	4	9	80	4	0	19	85	0	13	208	0
Queue Length 95th (ft)	56	17	73	133	16	62	45	143	10	m26	253	m0
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	350	465	566	350	465	572	408	2278	1046	664	2180	1004
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.02	0.43	0.38	0.02	0.41	0.33	0.27	0.05	0.15	0.51	0.02

Intersection Summary

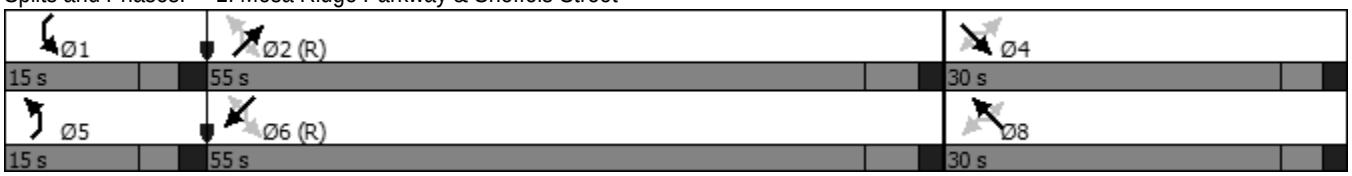
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



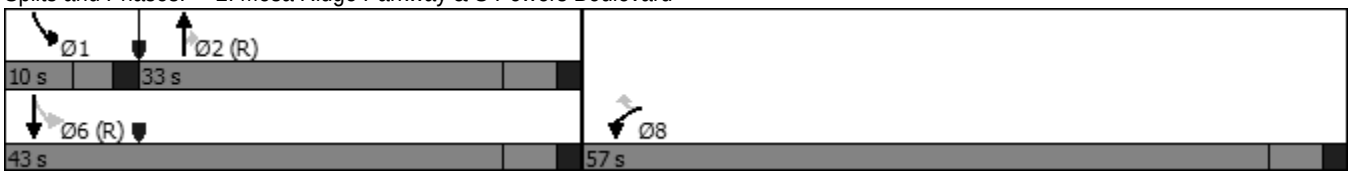
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	562	128	535	312	76	532
Future Volume (vph)	562	128	535	312	76	532
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.301	
Satd. Flow (perm)	1770	1583	3539	1583	561	3539
Satd. Flow (RTOR)		139		339		
Lane Group Flow (vph)	611	139	582	339	83	578
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	57.0	57.0	33.0	33.0	10.0	43.0
Total Split (%)	57.0%	57.0%	33.0%	33.0%	10.0%	43.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	41.7	41.7	36.3	36.3	47.3	46.3
Actuated g/C Ratio	0.42	0.42	0.36	0.36	0.47	0.46
v/c Ratio	0.83	0.19	0.45	0.43	0.24	0.35
Control Delay	35.2	2.9	26.8	5.9	19.0	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.2	2.9	26.8	5.9	19.0	19.5
LOS	D	A	C	A	B	B
Approach Delay	29.2		19.1			19.4
Approach LOS	C		B			B
Queue Length 50th (ft)	327	1	120	0	29	123
Queue Length 95th (ft)	402	28	199	80	66	192
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)	300			150	1000	
Base Capacity (vph)	902	875	1286	790	350	1637
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.16	0.45	0.43	0.24	0.35

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 22.4	Intersection LOS: C
Intersection Capacity Utilization 64.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard



Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	63	351	520	8	20	166
Future Vol, veh/h	63	351	520	8	20	166
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	260	230	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	382	565	9	22	180

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	574	0	-	0	1083	565
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	518	-
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	999	-	-	-	240	524
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	598	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	999	-	-	-	224	524
Mov Cap-2 Maneuver	-	-	-	-	224	-
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	598	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	999	-	-	-	224	524
HCM Lane V/C Ratio	0.069	-	-	-	0.097	0.344
HCM Control Delay (s)	8.9	-	-	-	22.8	15.4
HCM Lane LOS	A	-	-	-	C	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3	1.5

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	326	447	14	26	105
Future Vol, veh/h	39	326	447	14	26	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	270	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	354	486	15	28	114

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	501	0	-	0	924	486
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	438	-
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	1063	-	-	-	299	581
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	651	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1063	-	-	-	287	581
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	593	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1063	-	-	-	287	581
HCM Lane V/C Ratio	0.04	-	-	-	0.098	0.196
HCM Control Delay (s)	8.5	-	-	-	18.9	12.7
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.7

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	303	379	9	12	84
Future Vol, veh/h	48	303	379	9	12	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	329	412	10	13	91

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	422	0	-	0	845	412
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	433	-
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	1137	-	-	-	333	640
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	654	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1137	-	-	-	318	640
Mov Cap-2 Maneuver	-	-	-	-	318	-
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	654	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1137	-	-	-	568
HCM Lane V/C Ratio	0.046	-	-	-	0.184
HCM Control Delay (s)	8.3	-	-	-	12.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	249	85	65	313	206	291
Future Vol, veh/h	249	85	65	313	206	291
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	1000	-	-	500
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	271	92	71	340	224	316

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	706	224	540	0	-	0
Stage 1	224	-	-	-	-	-
Stage 2	482	-	-	-	-	-
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	402	815	1028	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	374	815	1028	-	-	-
Mov Cap-2 Maneuver	374	-	-	-	-	-
Stage 1	757	-	-	-	-	-
Stage 2	621	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	29.5	1.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	EBLn2	SWT	SWR
Capacity (veh/h)	1028	-	374	815	-	-
HCM Lane V/C Ratio	0.069	-	0.724	0.113	-	-
HCM Control Delay (s)	8.8	-	36.1	10	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0.2	-	5.5	0.4	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	140	99	177	102	13	109	6	190	49	20	20
Future Volume (vph)	7	140	99	177	102	13	109	6	190	49	20	20
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1723	0
Flt Permitted	0.685			0.603			0.408			0.833		
Satd. Flow (perm)	1276	1863	1583	1123	1863	1583	760	1863	1583	1552	1723	0
Satd. Flow (RTOR)			240			185			207		22	
Lane Group Flow (vph)	8	152	108	192	111	14	118	7	207	53	44	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	
Total Split (s)	11.0	34.0	34.0	22.0	45.0	45.0	17.0	33.0	33.0	11.0	27.0	
Total Split (%)	11.0%	34.0%	34.0%	22.0%	45.0%	45.0%	17.0%	33.0%	33.0%	11.0%	27.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	61.5	54.8	54.8	70.3	67.1	67.1	19.7	10.9	10.9	10.7	7.0	
Actuated g/C Ratio	0.62	0.55	0.55	0.70	0.67	0.67	0.20	0.11	0.11	0.11	0.07	
v/c Ratio	0.01	0.15	0.11	0.23	0.09	0.01	0.44	0.03	0.58	0.30	0.31	
Control Delay	7.0	14.0	0.2	6.8	8.4	0.0	37.5	37.2	12.6	35.8	32.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	7.0	14.0	0.2	6.8	8.4	0.0	37.5	37.2	12.6	35.8	32.1	
LOS	A	B	A	A	A	A	D	D	B	D	C	
Approach Delay		8.3			7.1			22.0			34.1	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)	2	49	0	41	23	0	62	4	0	27	14	
Queue Length 95th (ft)	7	98	0	76	64	0	107	17	63	57	47	
Internal Link Dist (ft)		1909			1387			624			786	
Turn Bay Length (ft)	250		250	250		250	290			250		
Base Capacity (vph)	819	1021	976	899	1250	1123	287	521	592	181	396	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.01	0.15	0.11	0.21	0.09	0.01	0.41	0.01	0.35	0.29	0.11	

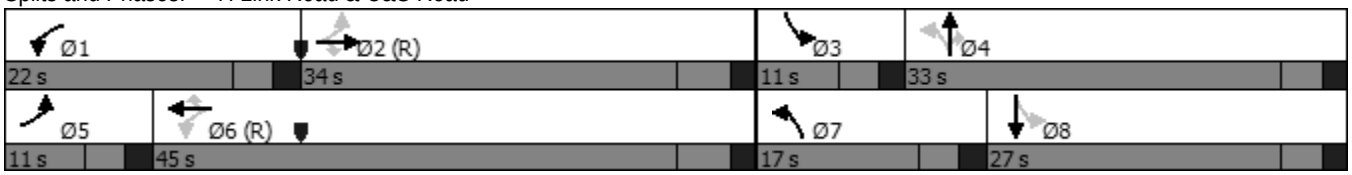
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 43.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	217	218	13	29	40
Future Vol, veh/h	13	217	218	13	29	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	300	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	236	237	14	32	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	251	0	-	0	501	237
Stage 1	-	-	-	-	237	-
Stage 2	-	-	-	-	264	-
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	1314	-	-	-	530	802
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1314	-	-	-	524	802
Mov Cap-2 Maneuver	-	-	-	-	524	-
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	780	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1314	-	-	-	524	802
HCM Lane V/C Ratio	0.011	-	-	-	0.06	0.054
HCM Control Delay (s)	7.8	-	-	-	12.3	9.7
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	34	14	146	89	29	215	255	1392	163	263	772	62
Future Volume (vph)	34	14	146	89	29	215	255	1392	163	263	772	62
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.736			0.748			0.336			0.087		
Satd. Flow (perm)	1371	1863	1583	1393	1863	1583	626	3539	1583	162	3539	1583
Satd. Flow (RTOR)			159			234			177			67
Lane Group Flow (vph)	37	15	159	97	32	234	277	1513	177	286	839	67
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	25.0	70.0	70.0	25.0	70.0	70.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	58.3%	58.3%	20.8%	58.3%	58.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.6	13.6	13.6	13.6	13.6	13.6	82.7	71.5	71.5	96.4	80.2	80.2
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.11	0.69	0.60	0.60	0.80	0.67	0.67
v/c Ratio	0.24	0.07	0.50	0.61	0.15	0.60	0.52	0.72	0.17	0.75	0.35	0.06
Control Delay	50.2	45.6	12.5	66.4	47.4	12.8	8.6	21.0	2.4	39.4	6.9	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	45.6	12.5	66.4	47.4	12.8	8.6	21.0	2.4	39.4	6.9	1.0
LOS	D	D	B	E	D	B	A	C	A	D	A	A
Approach Delay		21.5			30.2			17.6			14.4	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	27	11	0	73	23	0	40	424	0	99	111	2
Queue Length 95th (ft)	58	30	61	125	51	72	80	582	33	m206	183	m8
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	228	310	396	232	310	458	670	2109	1014	410	2366	1080
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.05	0.40	0.42	0.10	0.51	0.41	0.72	0.17	0.70	0.35	0.06

Intersection Summary

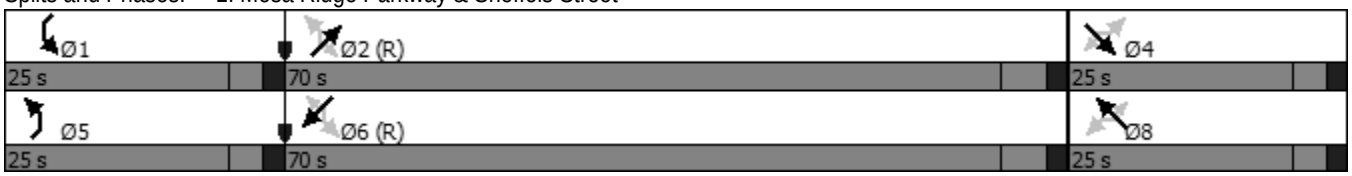
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	

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

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	395	122	826	836	160	692
Future Volume (vph)	395	122	826	836	160	692
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.226	
Satd. Flow (perm)	1770	1583	3539	1583	421	3539
Satd. Flow (RTOR)		133		807		
Lane Group Flow (vph)	429	133	898	909	174	752
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	42.0	42.0	66.0	66.0	12.0	78.0
Total Split (%)	35.0%	35.0%	55.0%	55.0%	10.0%	65.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	32.6	32.6	62.7	62.7	76.4	75.4
Actuated g/C Ratio	0.27	0.27	0.52	0.52	0.64	0.63
v/c Ratio	0.89	0.25	0.49	0.75	0.49	0.34
Control Delay	63.0	6.2	17.0	12.3	14.5	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	6.2	17.0	12.3	14.5	11.5
LOS	E	A	B	B	B	B
Approach Delay	49.6		14.6			12.1
Approach LOS	D		B			B
Queue Length 50th (ft)	312	3	115	111	53	142
Queue Length 95th (ft)	#466	47	216	311	88	185
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)	300			150	1000	
Base Capacity (vph)	531	568	1849	1212	354	2223
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.23	0.49	0.75	0.49	0.34

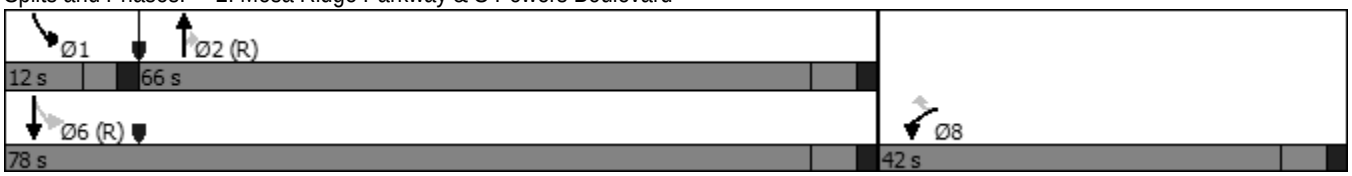
Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 69.8%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard



Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	224	765	388	21	14	134
Future Vol, veh/h	224	765	388	21	14	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	260	230	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	243	832	422	23	15	146

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	445	0	-	0	1740	422
Stage 1	-	-	-	-	422	-
Stage 2	-	-	-	-	1318	-
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	1115	-	-	-	96	632
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	250	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1115	-	-	-	75	632
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	250	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1115	-	-	-	75	632
HCM Lane V/C Ratio	0.218	-	-	-	0.203	0.23
HCM Control Delay (s)	9.1	-	-	-	64.8	12.4
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.8	-	-	-	0.7	0.9

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	149	618	342	39	32	83
Future Vol, veh/h	149	618	342	39	32	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	320	-	-	270	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	162	672	372	42	35	90

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	414	0	-	0	1368	372
Stage 1	-	-	-	-	372	-
Stage 2	-	-	-	-	996	-
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	1145	-	-	-	162	674
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	357	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1145	-	-	-	139	674
Mov Cap-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	357	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1145	-	-	-	139	674
HCM Lane V/C Ratio	0.141	-	-	-	0.25	0.134
HCM Control Delay (s)	8.7	-	-	-	39.3	11.2
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9	0.5

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	106	543	316	15	7	61
Future Vol, veh/h	106	543	316	15	7	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	590	343	16	8	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	359	0	-	0	1163	343
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	820	-
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	1200	-	-	-	215	700
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	433	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1200	-	-	-	194	700
Mov Cap-2 Maneuver	-	-	-	-	194	-
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	433	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1200	-	-	-	552
HCM Lane V/C Ratio	0.096	-	-	-	0.134
HCM Control Delay (s)	8.3	-	-	-	12.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

Intersection	
Int Delay, s/veh	115.9

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	449	100	72	338	376	255
Future Vol, veh/h	449	100	72	338	376	255
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	1000	-	-	500
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	488	109	78	367	409	277

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	932	409	686	0	-	0
Stage 1	409	-	-	-	-	-
Stage 2	523	-	-	-	-	-
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	~ 296	642	908	-	-	-
Stage 1	671	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 271	642	908	-	-	-
Mov Cap-2 Maneuver	~ 271	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	595	-	-	-	-	-

Approach	EB	NE	SW
HCM Control Delay, s	$ 334.5	1.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	EBLn1	EBLn2	SWT	SWR
Capacity (veh/h)	908	-	271	642	-	-
HCM Lane V/C Ratio	0.086	-	1.801	0.169	-	-
HCM Control Delay (s)	9.3	-	$ 406.4	11.7	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	32.7	0.6	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	234	210	224	186	44	143	22	206	33	13	13
Future Volume (vph)	22	234	210	224	186	44	143	22	206	33	13	13
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1723	0
Flt Permitted	0.631			0.543			0.417			0.870		
Satd. Flow (perm)	1175	1863	1583	1011	1863	1583	777	1863	1583	1621	1723	0
Satd. Flow (RTOR)			228			155			224		14	
Lane Group Flow (vph)	24	254	228	243	202	48	155	24	224	36	28	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	
Total Split (s)	10.0	48.0	48.0	26.0	64.0	64.0	20.0	36.0	36.0	10.0	26.0	
Total Split (%)	8.3%	40.0%	40.0%	21.7%	53.3%	53.3%	16.7%	30.0%	30.0%	8.3%	21.7%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	78.9	71.8	71.8	88.7	80.9	80.9	21.3	15.3	15.3	9.6	6.8	
Actuated g/C Ratio	0.66	0.60	0.60	0.74	0.67	0.67	0.18	0.13	0.13	0.08	0.06	
v/c Ratio	0.03	0.23	0.22	0.30	0.16	0.04	0.62	0.10	0.57	0.27	0.25	
Control Delay	6.5	14.0	2.5	6.8	9.9	0.1	53.7	45.5	11.8	44.2	39.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	6.5	14.0	2.5	6.8	9.9	0.1	53.7	45.5	11.8	44.2	39.2	
LOS	A	B	A	A	A	A	D	D	B	D	D	
Approach Delay		8.5			7.4			29.9			42.0	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	5	97	0	60	67	0	103	17	0	22	11	
Queue Length 95th (ft)	14	166	40	98	113	0	164	42	70	50	41	
Internal Link Dist (ft)		1909			1387			624			778	
Turn Bay Length (ft)	250		250	250		250	290		250	250		
Base Capacity (vph)	802	1115	1039	880	1256	1118	270	481	575	135	313	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.23	0.22	0.28	0.16	0.04	0.57	0.05	0.39	0.27	0.09	

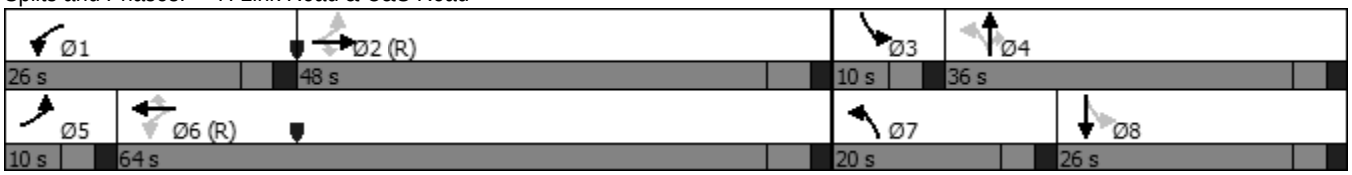
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 52.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	447	298	44	19	26
Future Vol, veh/h	44	447	298	44	19	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	300	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	486	324	48	21	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	372	0	-	0	906	324
Stage 1	-	-	-	-	324	-
Stage 2	-	-	-	-	582	-
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	1186	-	-	-	307	717
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	559	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1186	-	-	-	295	717
Mov Cap-2 Maneuver	-	-	-	-	295	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	559	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1186	-	-	-	295	717
HCM Lane V/C Ratio	0.04	-	-	-	0.07	0.039
HCM Control Delay (s)	8.2	-	-	-	18.1	10.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.1

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	9	306	236	8	211	170	827	150	125	1482	24
Future Volume (vph)	57	9	306	236	8	211	170	827	150	125	1482	24
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.752			0.751			0.070			0.278		
Satd. Flow (perm)	1401	1863	1583	1399	1863	1583	130	3539	1583	518	3539	1583
Satd. Flow (RTOR)			126			229			163			76
Lane Group Flow (vph)	62	10	333	257	9	229	185	899	163	136	1611	26
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	14.0	62.0	62.0	11.0	59.0	59.0
Total Split (%)	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	14.0%	62.0%	62.0%	11.0%	59.0%	59.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.8	20.8	20.8	20.8	20.8	20.8	66.9	57.1	57.1	61.5	54.4	54.4
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.67	0.57	0.57	0.62	0.54	0.54
v/c Ratio	0.21	0.03	0.78	0.88	0.02	0.45	0.80	0.45	0.17	0.35	0.84	0.03
Control Delay	34.2	31.0	36.2	69.3	30.9	7.5	46.1	13.5	2.1	7.8	25.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	31.0	36.2	69.3	30.9	7.5	46.1	13.5	2.1	7.8	25.9	0.0
LOS	C	C	D	E	C	A	D	B	A	A	C	A
Approach Delay		35.8			40.0			16.8			24.1	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	32	5	125	158	5	0	64	167	0	28	557	0
Queue Length 95th (ft)	69	19	#251	#294	18	60	#177	214	27	m37	m603	m0
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	308	409	446	307	409	526	236	2019	973	394	1923	895
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.02	0.75	0.84	0.02	0.44	0.78	0.45	0.17	0.35	0.84	0.03

Intersection Summary

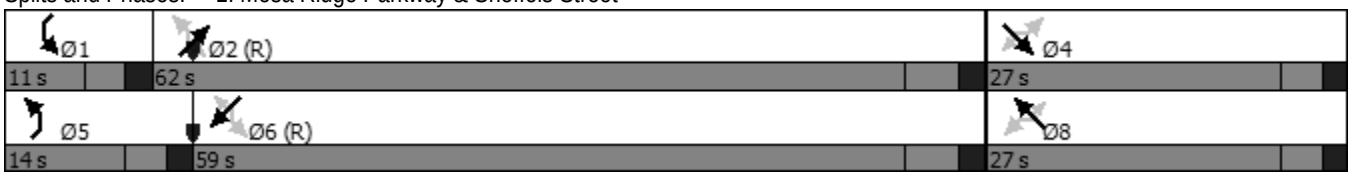
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 86.3%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	826	353	699	428	255	745
Future Volume (vph)	826	353	699	428	255	745
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.148	
Satd. Flow (perm)	1770	1583	3539	1583	276	3539
Satd. Flow (RTOR)		346		376		
Lane Group Flow (vph)	898	384	760	465	277	810
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	57.0	57.0	28.0	28.0	15.0	43.0
Total Split (%)	57.0%	57.0%	28.0%	28.0%	15.0%	43.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	51.0	51.0	22.0	22.0	38.0	37.0
Actuated g/C Ratio	0.51	0.51	0.22	0.22	0.38	0.37
v/c Ratio	1.00	0.39	0.98	0.73	1.09	0.62
Control Delay	49.7	2.5	82.4	32.3	109.5	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	2.5	82.4	32.3	109.5	28.3
LOS	D	A	F	C	F	C
Approach Delay	35.6		63.4			49.0
Approach LOS	D		E			D
Queue Length 50th (ft)	576	18	271	131	~147	218
Queue Length 95th (ft)	#837	12	#391	252	#310	283
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)				150	1000	
Base Capacity (vph)	902	976	778	641	254	1309
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.39	0.98	0.73	1.09	0.62

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

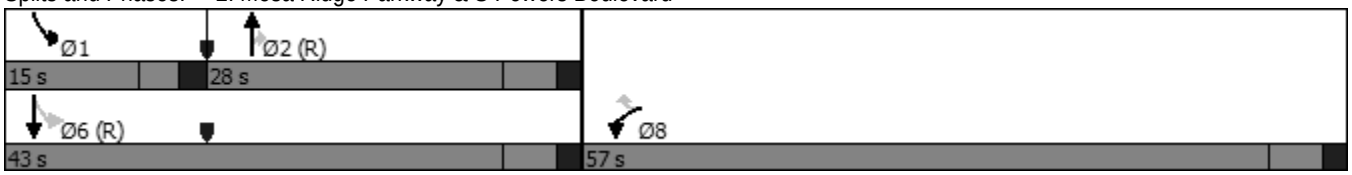
Maximum v/c Ratio: 1.09

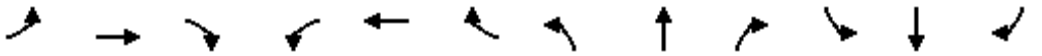
Intersection Signal Delay: 49.1	Intersection LOS: D
Intersection Capacity Utilization 93.4%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	473	129	33	741	11	206	0	52	27	0	227
Future Volume (vph)	86	473	129	33	741	11	206	0	52	27	0	227
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	0	1770	1583	0
Flt Permitted	0.256			0.457			0.241			0.720		
Satd. Flow (perm)	477	3539	1583	851	3539	1583	449	1583	0	1341	1583	0
Satd. Flow (RTOR)			185			185		359			202	
Lane Group Flow (vph)	93	514	140	36	805	12	224	57	0	29	247	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	5	2	2	1	6	6	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0		10.0	24.0	
Total Split (s)	11.0	44.0	44.0	10.0	43.0	43.0	20.0	36.0		10.0	26.0	
Total Split (%)	11.0%	44.0%	44.0%	10.0%	43.0%	43.0%	20.0%	36.0%		10.0%	26.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	59.3	53.0	53.0	55.8	49.5	49.5	28.9	22.9		14.6	9.6	
Actuated g/C Ratio	0.59	0.53	0.53	0.56	0.50	0.50	0.29	0.23		0.15	0.10	
v/c Ratio	0.24	0.27	0.15	0.07	0.46	0.01	0.70	0.09		0.13	0.74	
Control Delay	10.8	14.2	2.6	11.0	18.3	0.0	40.3	0.3		25.7	23.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	10.8	14.2	2.6	11.0	18.3	0.0	40.3	0.3		25.7	23.9	
LOS	B	B	A	B	B	A	D	A		C	C	
Approach Delay		11.6			17.7			32.2			24.1	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	16	66	0	8	138	0	117	0		13	28	
Queue Length 95th (ft)	m32	m107	m11	m27	207	m0	164	0		31	100	
Internal Link Dist (ft)		2004			2040			584			528	
Turn Bay Length (ft)	320		260	320		260	230			230		
Base Capacity (vph)	383	1874	925	533	1751	876	327	738		216	492	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.24	0.27	0.15	0.07	0.46	0.01	0.69	0.08		0.13	0.50	

Intersection Summary

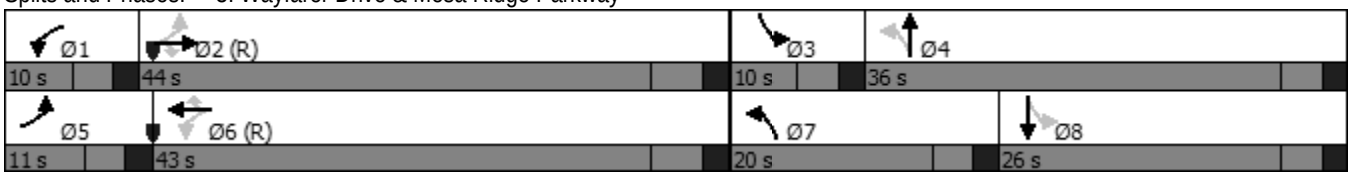
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

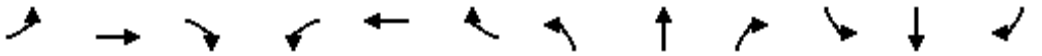
Maximum v/c Ratio: 0.74

Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 68.2%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 3: Wayfarer Drive & Mesa Ridge Parkway





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	426	65	65	572	20	103	0	103	36	0	143
Future Volume (vph)	53	426	65	65	572	20	103	0	103	36	0	143
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	0	1770	1583	0
Flt Permitted	0.390			0.475			0.320			0.685		
Satd. Flow (perm)	726	3539	1583	885	3539	1583	596	1583	0	1276	1583	0
Satd. Flow (RTOR)			131			131		428			310	
Lane Group Flow (vph)	58	463	71	71	622	22	112	112	0	39	155	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	5	2	2	1	6	6	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0		10.0	24.0	
Total Split (s)	12.0	44.0	44.0	12.0	44.0	44.0	16.0	32.0		12.0	28.0	
Total Split (%)	12.0%	44.0%	44.0%	12.0%	44.0%	44.0%	16.0%	32.0%		12.0%	28.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	65.3	58.8	58.8	65.7	59.1	59.1	19.9	13.3		12.1	5.5	
Actuated g/C Ratio	0.65	0.59	0.59	0.66	0.59	0.59	0.20	0.13		0.12	0.06	
v/c Ratio	0.11	0.22	0.07	0.11	0.30	0.02	0.47	0.19		0.21	0.41	
Control Delay	8.0	15.1	3.5	5.4	10.4	0.1	40.5	0.7		35.0	3.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.0	15.1	3.5	5.4	10.4	0.1	40.5	0.7		35.0	3.2	
LOS	A	B	A	A	B	A	D	A		C	A	
Approach Delay		13.0			9.6			20.6			9.6	
Approach LOS		B			A			C			A	
Queue Length 50th (ft)	17	93	2	13	96	0	60	0		20	0	
Queue Length 95th (ft)	37	126	9	25	114	m0	110	0		48	0	
Internal Link Dist (ft)		2040			2102			583			598	
Turn Bay Length (ft)	320		270	320		270	300			300		
Base Capacity (vph)	550	2081	984	648	2090	988	247	739		194	602	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.22	0.07	0.11	0.30	0.02	0.45	0.15		0.20	0.26	

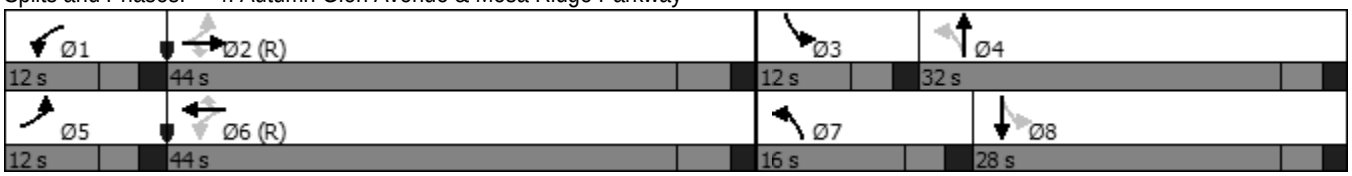
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 52.0%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 4: Autumn Glen Avenue & Mesa Ridge Parkway



Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	66	497	544	12	17	114
Future Vol, veh/h	66	497	544	12	17	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	540	591	13	18	124

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	604	0	-	0	1005	296
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	414	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	970	-	-	-	238	700
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	635	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	970	-	-	-	220	700
Mov Cap-2 Maneuver	-	-	-	-	220	-
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	635	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	970	-	-	-	546
HCM Lane V/C Ratio	0.074	-	-	-	0.261
HCM Control Delay (s)	9	-	-	-	13.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1

Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	364	175	92	450	305	420
Future Volume (vph)	364	175	92	450	305	420
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.551			
Satd. Flow (perm)	1770	1583	1026	3539	3539	1583
Satd. Flow (RTOR)		190				457
Lane Group Flow (vph)	396	190	100	489	332	457
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	28.8	28.8	60.2	60.2	60.2	60.2
Actuated g/C Ratio	0.29	0.29	0.60	0.60	0.60	0.60
v/c Ratio	0.78	0.32	0.16	0.23	0.16	0.40
Control Delay	42.9	7.6	8.2	7.1	10.1	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	7.6	8.2	7.1	10.1	2.4
LOS	D	A	A	A	B	A
Approach Delay	31.4			7.3	5.6	
Approach LOS	C			A	A	
Queue Length 50th (ft)	262	0	14	35	45	0
Queue Length 95th (ft)	351	27	43	81	83	47
Internal Link Dist (ft)	727			4482	750	
Turn Bay Length (ft)			1000			500
Base Capacity (vph)	796	816	617	2131	2131	1134
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.23	0.16	0.23	0.16	0.40

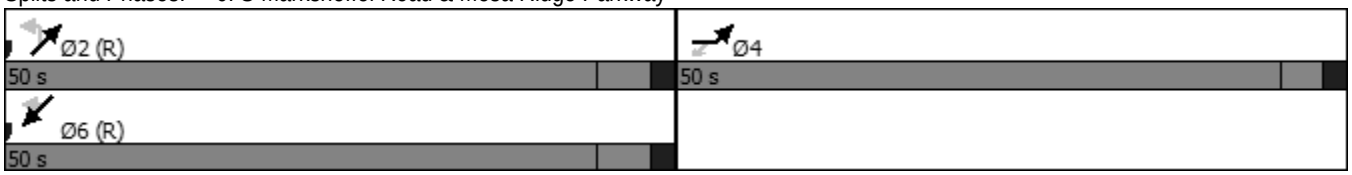
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 73 (73%), Referenced to phase 2:NETL and 6:SWT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 47.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: S Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	237	160	267	199	16	172	32	281	26	51	51
Future Volume (vph)	32	237	160	267	199	16	172	32	281	26	51	51
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1723	0
Flt Permitted	0.623			0.493			0.445			0.734		
Satd. Flow (perm)	1160	1863	1583	918	1863	1583	829	1863	1583	1367	1723	0
Satd. Flow (RTOR)			240			185			305		45	
Lane Group Flow (vph)	35	258	174	290	216	17	187	35	305	28	110	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	
Total Split (s)	10.0	35.0	35.0	23.0	48.0	48.0	17.0	32.0	32.0	10.0	25.0	
Total Split (%)	10.0%	35.0%	35.0%	23.0%	48.0%	48.0%	17.0%	32.0%	32.0%	10.0%	25.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	52.4	45.0	45.0	64.0	55.9	55.9	26.0	20.0	20.0	14.4	9.4	
Actuated g/C Ratio	0.52	0.45	0.45	0.64	0.56	0.56	0.26	0.20	0.20	0.14	0.09	
v/c Ratio	0.05	0.31	0.21	0.42	0.21	0.02	0.58	0.09	0.54	0.13	0.54	
Control Delay	8.9	20.8	1.4	15.8	19.7	0.2	37.3	33.9	8.1	28.0	35.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	8.9	20.8	1.4	15.8	19.7	0.2	37.3	33.9	8.1	28.0	35.9	
LOS	A	C	A	B	B	A	D	C	A	C	D	
Approach Delay		12.7			16.9			20.2			34.3	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	8	101	0	117	102	0	99	19	0	13	40	
Queue Length 95th (ft)	21	193	14	179	161	1	152	45	69	33	90	
Internal Link Dist (ft)		1909			1387			624			786	
Turn Bay Length (ft)	250		250	250		250	290			250		
Base Capacity (vph)	645	838	844	740	1041	966	328	503	650	217	380	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.05	0.31	0.21	0.39	0.21	0.02	0.57	0.07	0.47	0.13	0.29	

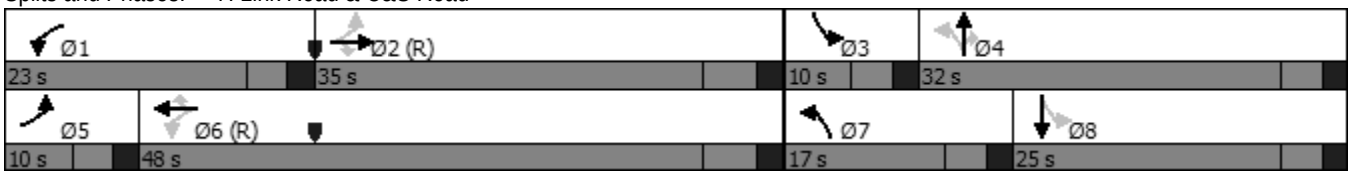
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 18.2	Intersection LOS: B
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	352	379	43	77	51
Future Vol, veh/h	32	352	379	43	77	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	300	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	383	412	47	84	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	459	0	-	0	865	412
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	453	-
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	1102	-	-	-	324	640
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	640	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1102	-	-	-	314	640
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	640	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1102	-	-	-	314	640
HCM Lane V/C Ratio	0.032	-	-	-	0.267	0.087
HCM Control Delay (s)	8.4	-	-	-	20.6	11.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1	0.3

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	47	20	200	204	39	254	348	1987	309	266	1121	84
Future Volume (vph)	47	20	200	204	39	254	348	1987	309	266	1121	84
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.730			0.743			0.124			0.065		
Satd. Flow (perm)	1360	1863	1583	1384	1863	1583	231	3539	1583	121	3539	1583
Satd. Flow (RTOR)			217			197			336			109
Lane Group Flow (vph)	51	22	217	222	42	276	378	2160	336	289	1218	91
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	35.0	77.0	77.0	19.0	61.0	61.0
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	29.2%	64.2%	64.2%	15.8%	50.8%	50.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.0	19.0	19.0	19.0	19.0	19.0	90.1	71.0	71.0	77.0	62.0	62.0
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16	0.16	0.75	0.59	0.59	0.64	0.52	0.52
v/c Ratio	0.24	0.07	0.50	1.01	0.14	0.66	0.81	1.03	0.31	1.07	0.67	0.10
Control Delay	47.5	43.9	10.2	114.8	45.1	23.0	34.8	53.5	1.9	106.7	21.5	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	43.9	10.2	114.8	45.1	23.0	34.8	53.5	1.9	106.7	21.5	2.3
LOS	D	D	B	F	D	C	C	D	A	F	C	A
Approach Delay		19.3			62.5			45.0			35.8	
Approach LOS		B			E			D			D	
Queue Length 50th (ft)	35	15	0	~177	28	55	165	~944	0	~193	441	3
Queue Length 95th (ft)	74	40	70	#339	62	151	268	#1081	37	m#285	m473	m13
Internal Link Dist (ft)		660			360			661			1599	
Turn Bay Length (ft)	150		150	285			470		440	480		280
Base Capacity (vph)	215	294	433	219	294	416	559	2093	1073	269	1827	870
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.07	0.50	1.01	0.14	0.66	0.68	1.03	0.31	1.07	0.67	0.10

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

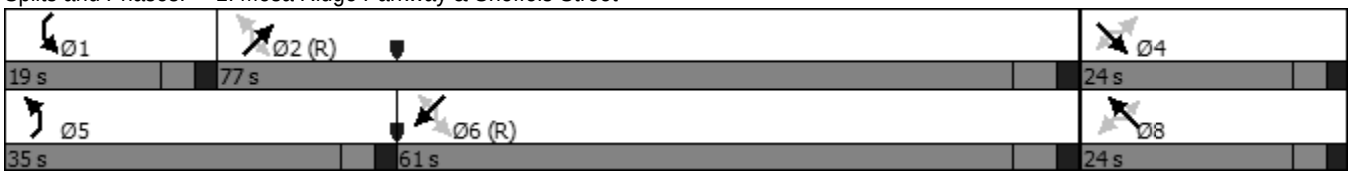
Intersection Signal Delay: 42.6	Intersection LOS: D
Intersection Capacity Utilization 101.0%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Splits and Phases: 1: Mesa Ridge Parkway & Sneffels Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	547	321	1123	1193	426	911
Future Volume (vph)	547	321	1123	1193	426	911
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.082	
Satd. Flow (perm)	1770	1583	3539	1583	153	3539
Satd. Flow (RTOR)		267		721		
Lane Group Flow (vph)	595	349	1221	1297	463	990
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	10.0	24.0
Total Split (s)	39.0	39.0	58.0	58.0	23.0	81.0
Total Split (%)	32.5%	32.5%	48.3%	48.3%	19.2%	67.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.0	33.0	52.0	52.0	76.0	75.0
Actuated g/C Ratio	0.28	0.28	0.43	0.43	0.63	0.62
v/c Ratio	1.22	0.56	0.80	1.19	1.37	0.45
Control Delay	151.3	15.9	27.5	103.6	212.0	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	151.3	15.9	27.5	103.6	212.0	12.5
LOS	F	B	C	F	F	B
Approach Delay	101.2		66.7			76.1
Approach LOS	F		E			E
Queue Length 50th (ft)	~562	99	293	~504	~415	195
Queue Length 95th (ft)	#790	178	m296	m#501	#624	242
Internal Link Dist (ft)	2004		230			1137
Turn Bay Length (ft)				150	1000	
Base Capacity (vph)	486	628	1533	1094	339	2211
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.56	0.80	1.19	1.37	0.45

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.37

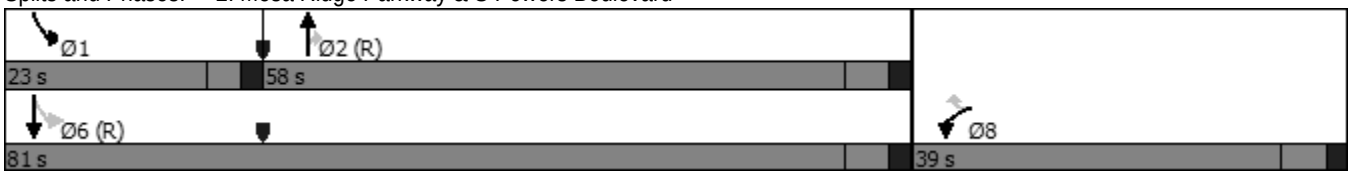
Intersection Signal Delay: 76.1	Intersection LOS: E
Intersection Capacity Utilization 106.6%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Splits and Phases: 2: Mesa Ridge Parkway & S Powers Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	1067	238	59	520	29	172	0	43	20	0	183
Future Volume (vph)	306	1067	238	59	520	29	172	0	43	20	0	183
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	0	1770	1583	0
Flt Permitted	0.374			0.203			0.320			0.726		
Satd. Flow (perm)	697	3539	1583	378	3539	1583	596	1583	0	1352	1583	0
Satd. Flow (RTOR)			259			200		209			412	
Lane Group Flow (vph)	333	1160	259	64	565	32	187	47	0	22	199	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	5	2	2	1	6	6	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0		10.0	24.0	
Total Split (s)	29.0	65.0	65.0	11.0	47.0	47.0	20.0	34.0		10.0	24.0	
Total Split (%)	24.2%	54.2%	54.2%	9.2%	39.2%	39.2%	16.7%	28.3%		8.3%	20.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	85.2	74.5	74.5	73.2	65.4	65.4	24.8	18.8		10.5	5.5	
Actuated g/C Ratio	0.71	0.62	0.62	0.61	0.54	0.54	0.21	0.16		0.09	0.05	
v/c Ratio	0.54	0.53	0.24	0.21	0.29	0.03	0.71	0.11		0.16	0.43	
Control Delay	8.5	15.4	2.7	6.7	12.6	0.1	57.8	0.5		41.6	2.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.5	15.4	2.7	6.7	12.6	0.1	57.8	0.5		41.6	2.9	
LOS	A	B	A	A	B	A	E	A		D	A	
Approach Delay		12.2			11.4			46.3			6.7	
Approach LOS		B			B			D			A	
Queue Length 50th (ft)	104	254	13	10	110	0	129	0		14	0	
Queue Length 95th (ft)	m80	m202	m0	15	129	m0	#209	0		37	0	
Internal Link Dist (ft)		2004			2040			584			528	
Turn Bay Length (ft)	320		260	320		260	230			230		
Base Capacity (vph)	709	2197	1080	310	1929	954	270	541		135	597	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.47	0.53	0.24	0.21	0.29	0.03	0.69	0.09		0.16	0.33	

Intersection Summary

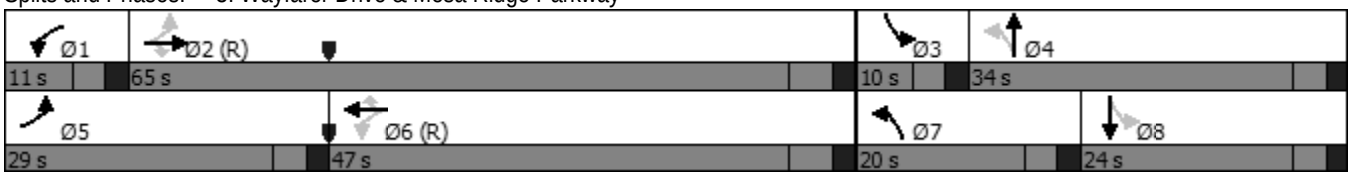
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Wayfarer Drive & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	790	119	119	430	53	86	0	86	44	0	113
Future Volume (vph)	203	790	119	119	430	53	86	0	86	44	0	113
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	0	1770	1583	0
Flt Permitted	0.464			0.299			0.421			0.697		
Satd. Flow (perm)	864	3539	1583	557	3539	1583	784	1583	0	1298	1583	0
Satd. Flow (RTOR)			129			109		347			436	
Lane Group Flow (vph)	221	859	129	129	467	58	93	93	0	48	123	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	5	2	2	1	6	6	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0		10.0	24.0	
Total Split (s)	23.0	61.0	61.0	18.0	56.0	56.0	14.0	29.0		12.0	27.0	
Total Split (%)	19.2%	50.8%	50.8%	15.0%	46.7%	46.7%	11.7%	24.2%		10.0%	22.5%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	87.8	77.1	77.1	84.0	75.2	75.2	16.7	9.5		12.2	5.5	
Actuated g/C Ratio	0.73	0.64	0.64	0.70	0.63	0.63	0.14	0.08		0.10	0.05	
v/c Ratio	0.31	0.38	0.12	0.28	0.21	0.06	0.52	0.21		0.30	0.25	
Control Delay	6.0	9.7	2.2	7.8	14.1	2.7	55.6	1.1		49.0	1.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.0	9.7	2.2	7.8	14.1	2.7	55.6	1.1		49.0	1.2	
LOS	A	A	A	A	B	A	E	A		D	A	
Approach Delay		8.2			11.8			28.3			14.6	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	43	100	2	33	93	0	64	0		32	0	
Queue Length 95th (ft)	62	118	8	65	154	m17	117	0		69	0	
Internal Link Dist (ft)		2040			2102			583			598	
Turn Bay Length (ft)	320		270	320		270	300			300		
Base Capacity (vph)	790	2273	1063	544	2217	1032	182	594		162	646	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.28	0.38	0.12	0.24	0.21	0.06	0.51	0.16		0.30	0.19	

Intersection Summary

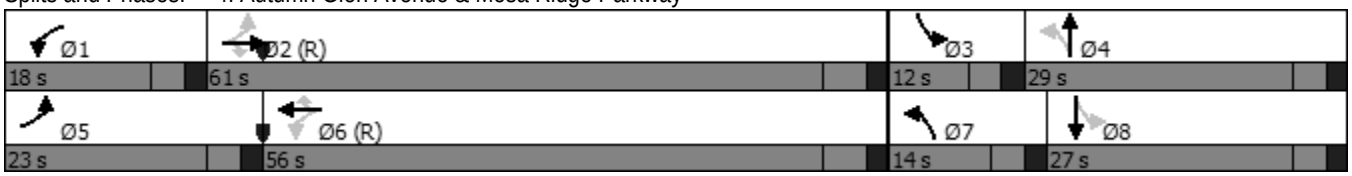
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 53.2%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 4: Autumn Glen Avenue & Mesa Ridge Parkway



Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	774	514	21	9	83
Future Vol, veh/h	144	774	514	21	9	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	480	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	841	559	23	10	90

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	582	0	-	0	1294	280
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	735	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	988	-	-	-	154	717
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	435	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	988	-	-	-	130	717
Mov Cap-2 Maneuver	-	-	-	-	130	-
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	435	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	988	-	-	-	497
HCM Lane V/C Ratio	0.158	-	-	-	0.201
HCM Control Delay (s)	9.3	-	-	-	14.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	-	0.7

Lane Group	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	637	145	152	484	542	377
Future Volume (vph)	637	145	152	484	542	377
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.373			
Satd. Flow (perm)	1770	1583	695	3539	3539	1583
Satd. Flow (RTOR)		151				410
Lane Group Flow (vph)	692	158	165	526	589	410
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	65.0	65.0	55.0	55.0	55.0	55.0
Total Split (%)	54.2%	54.2%	45.8%	45.8%	45.8%	45.8%
Yellow Time (s)	3.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	53.4	53.4	55.6	55.6	55.6	55.6
Actuated g/C Ratio	0.44	0.44	0.46	0.46	0.46	0.46
v/c Ratio	0.88	0.20	0.51	0.32	0.36	0.43
Control Delay	37.7	4.8	41.6	31.1	22.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	4.8	41.6	31.1	22.6	3.7
LOS	D	A	D	C	C	A
Approach Delay	31.6			33.6	14.9	
Approach LOS	C			C	B	
Queue Length 50th (ft)	504	8	120	186	155	0
Queue Length 95th (ft)	675	23	203	225	217	60
Internal Link Dist (ft)	727			4482	750	
Turn Bay Length (ft)			1000			500
Base Capacity (vph)	885	867	321	1639	1639	953
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.18	0.51	0.32	0.36	0.43

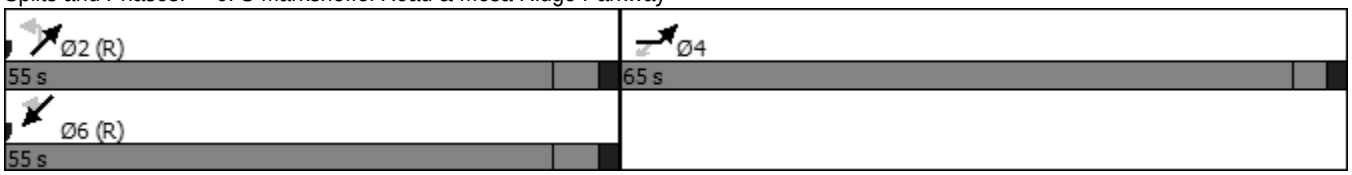
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 25.6	Intersection LOS: C
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: S Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	391	312	331	296	30	225	60	311	20	43	43
Future Volume (vph)	60	391	312	331	296	30	225	60	311	20	43	43
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1723	0
Flt Permitted	0.566			0.357			0.446			0.715		
Satd. Flow (perm)	1054	1863	1583	665	1863	1583	831	1863	1583	1332	1723	0
Satd. Flow (RTOR)			339			155			338		36	
Lane Group Flow (vph)	65	425	339	360	322	33	245	65	338	22	94	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	24.0	10.0	24.0	
Total Split (s)	10.0	46.0	46.0	30.0	66.0	66.0	20.0	34.0	34.0	10.0	24.0	
Total Split (%)	8.3%	38.3%	38.3%	25.0%	55.0%	55.0%	16.7%	28.3%	28.3%	8.3%	20.0%	
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	66.2	58.1	58.1	80.5	69.5	69.5	29.5	23.5	23.5	14.6	9.6	
Actuated g/C Ratio	0.55	0.48	0.48	0.67	0.58	0.58	0.25	0.20	0.20	0.12	0.08	
v/c Ratio	0.10	0.47	0.36	0.60	0.30	0.03	0.76	0.18	0.58	0.12	0.55	
Control Delay	9.2	24.8	3.6	10.4	13.7	1.7	55.6	42.3	8.8	35.3	45.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	9.2	24.8	3.6	10.4	13.7	1.7	55.6	42.3	8.8	35.3	45.1	
LOS	A	C	A	B	B	A	E	D	A	D	D	
Approach Delay		14.9			11.5			29.8			43.2	
Approach LOS		B			B			C			D	
Queue Length 50th (ft)	16	211	0	173	178	0	167	44	0	13	44	
Queue Length 95th (ft)	35	371	60	263	279	13	239	83	82	33	96	
Internal Link Dist (ft)		1909			1387			624			786	
Turn Bay Length (ft)	250		250	250		250	290			250		
Base Capacity (vph)	623	902	941	676	1079	982	321	450	638	180	303	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.10	0.47	0.36	0.53	0.30	0.03	0.76	0.14	0.53	0.12	0.31	

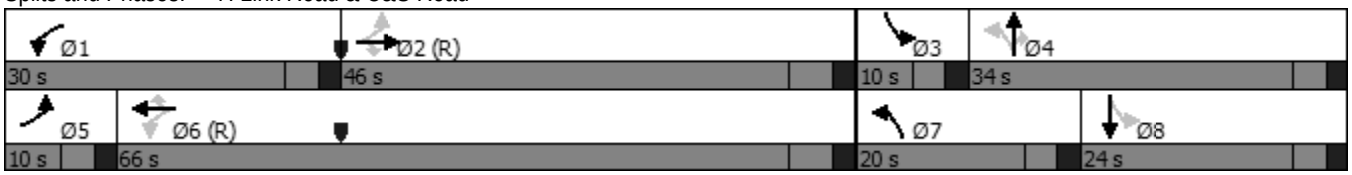
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 19.4	Intersection LOS: B
Intersection Capacity Utilization 71.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Link Road & C&S Road



Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	60	699	475	89	64	43
Future Vol, veh/h	60	699	475	89	64	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	300	300	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	760	516	97	70	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	613	0	-	0	1406	516
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	890	-
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	966	-	-	-	153	559
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	401	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	966	-	-	-	143	559
Mov Cap-2 Maneuver	-	-	-	-	143	-
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	401	-

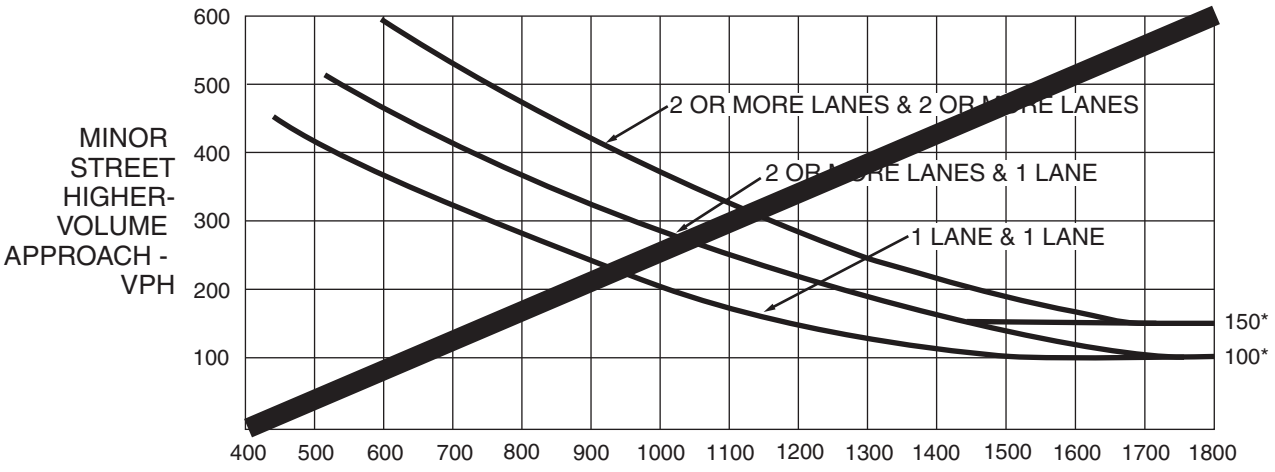
Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	35.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	966	-	-	-	143	559
HCM Lane V/C Ratio	0.068	-	-	-	0.486	0.084
HCM Control Delay (s)	9	-	-	-	52	12
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	-	-	2.3	0.3

APPENDIX D

Warrant Analysis Forms

Figure 4C-3. Warrant 3, Peak Hour

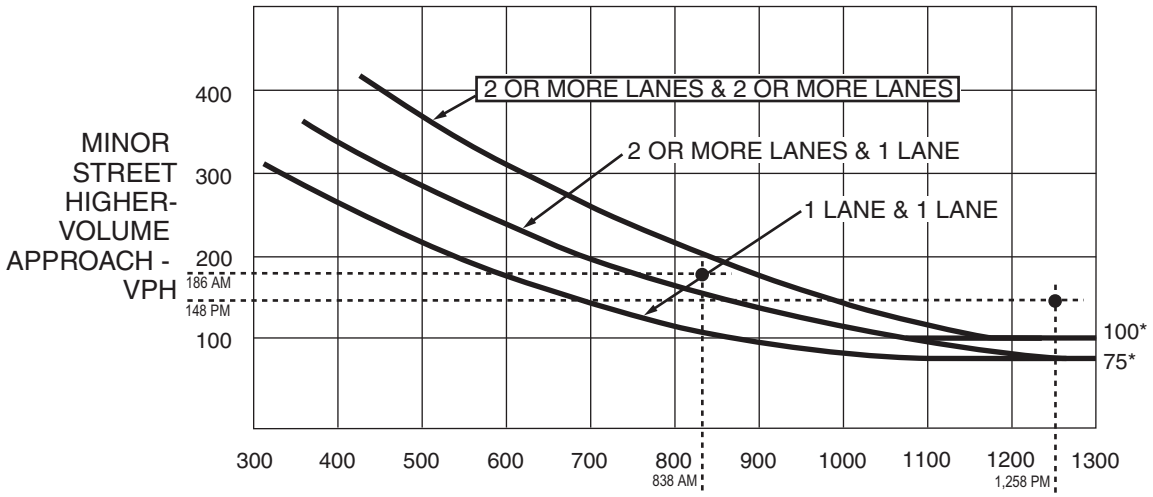


*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

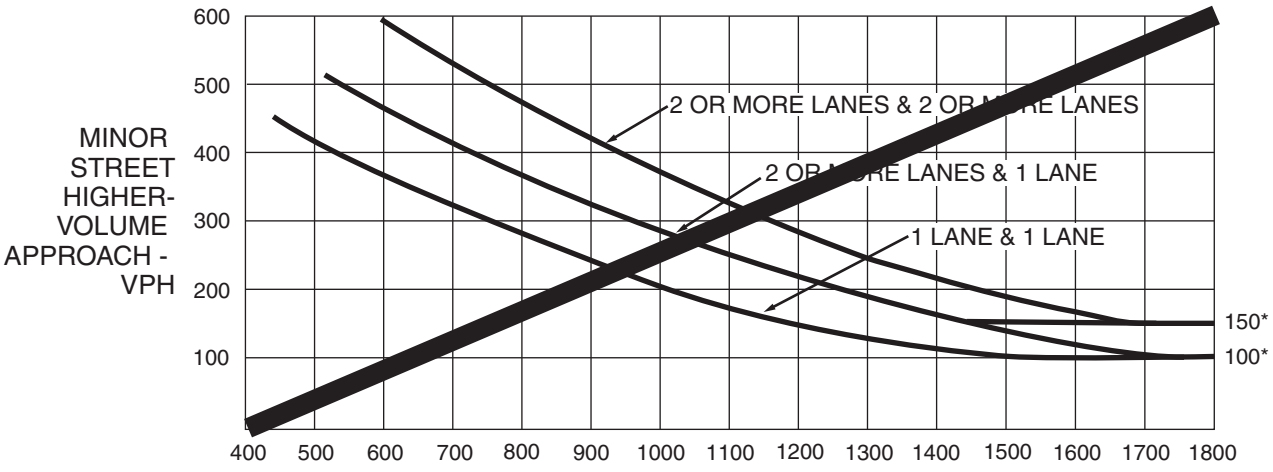
WAYFARER DRIVE



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MESA RIDGE PARKWAY (45 MPH)

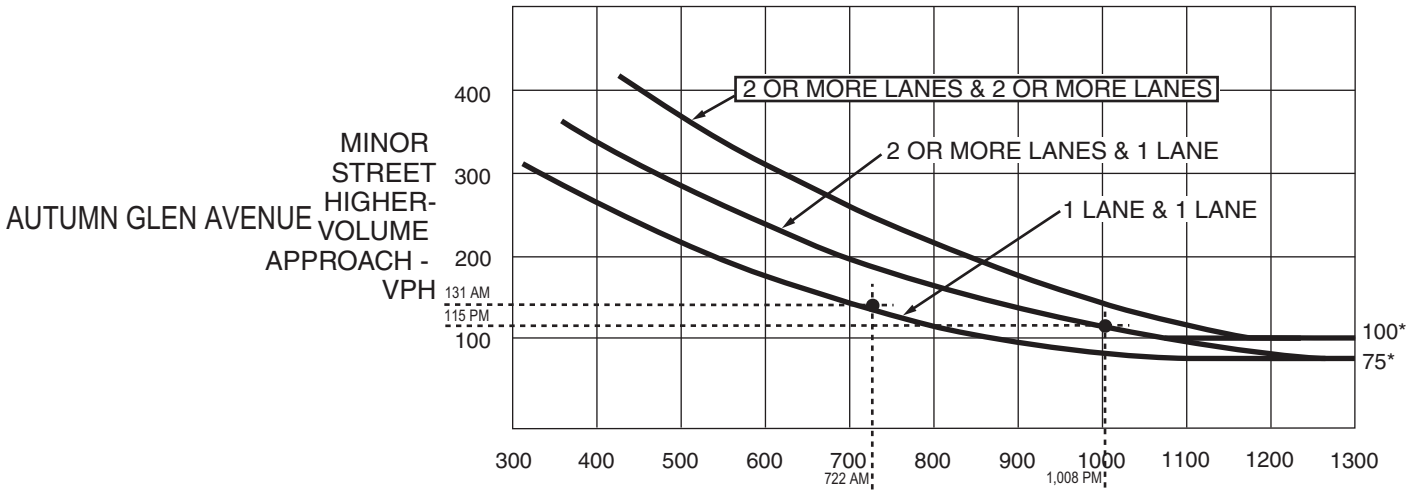
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

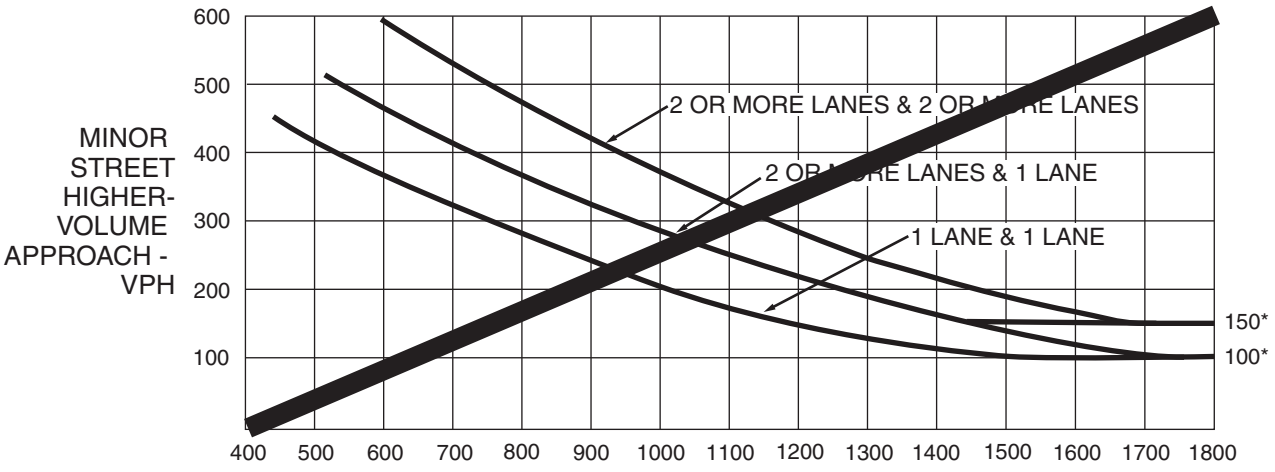
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MESA RIDGE PARKWAY (45 MPH)

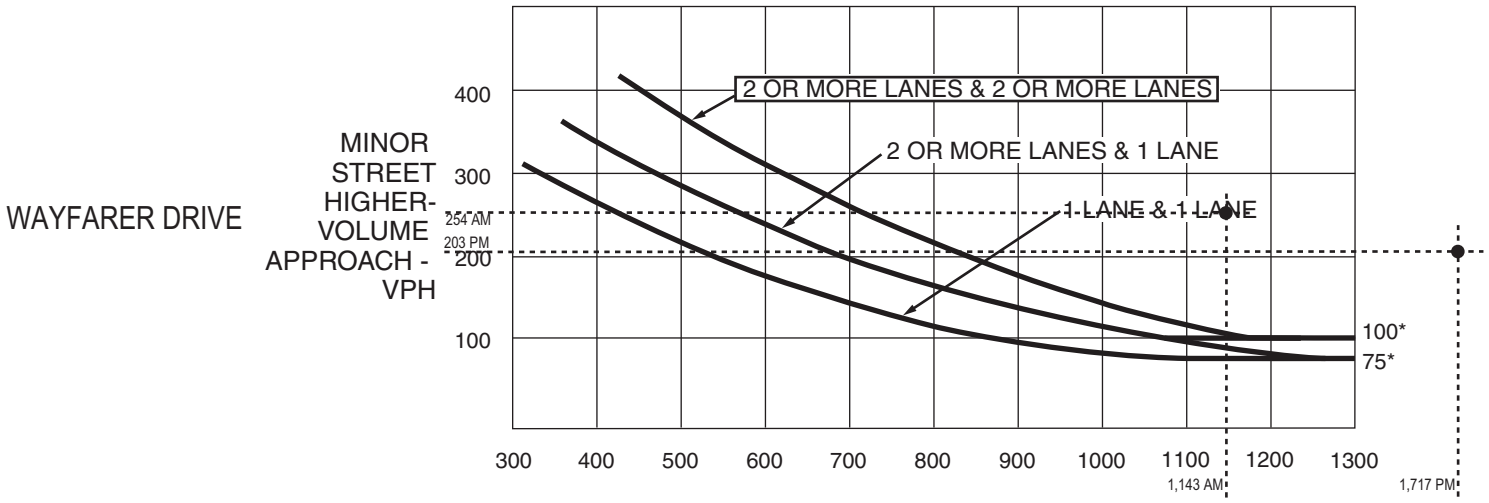
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

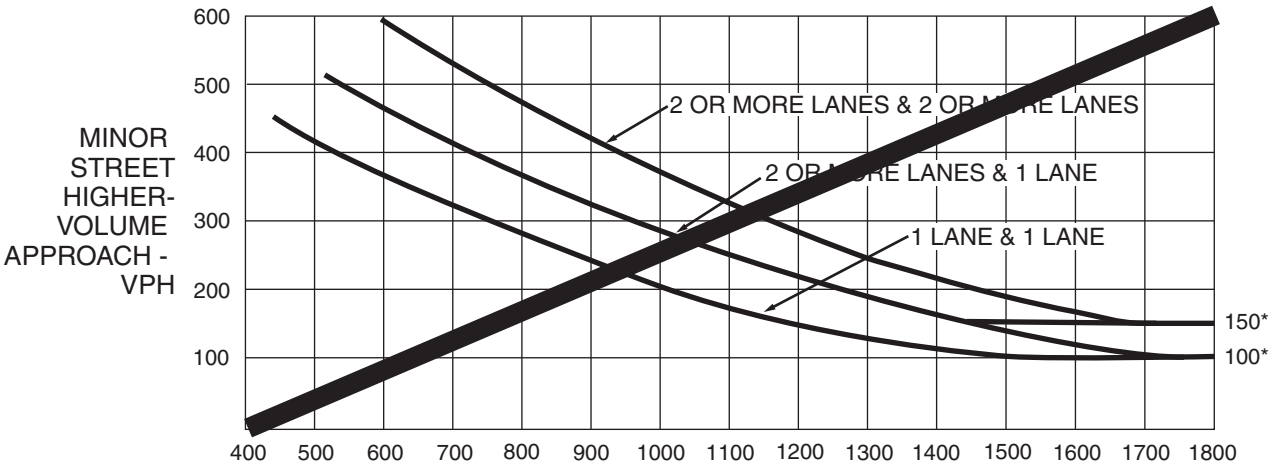
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MESA RIDGE PARKWAY (45 MPH)

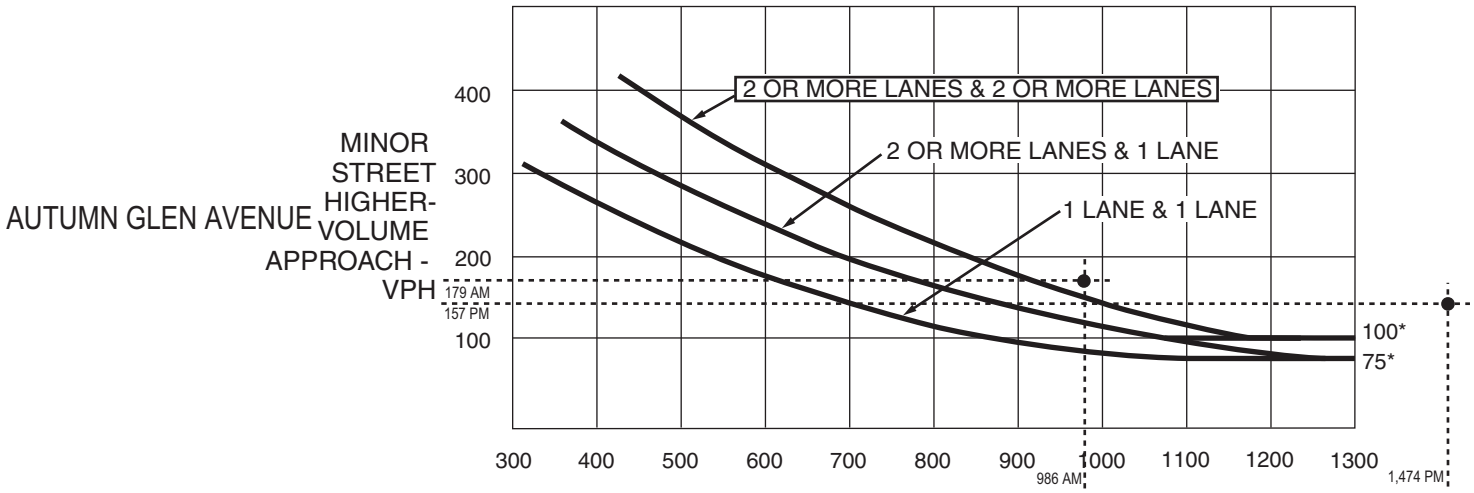
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MESA RIDGE PARKWAY (45 MPH)