



HIDEOUT, UTAH
SILVER MEADOWS ANNEXATION REFERENDUM PRESENTATION
June 08, 2021
Agenda

PUBLIC NOTICE IS HEREBY GIVEN that the Town Council of Hideout, Utah will hold a Public Information Presentation electronically for the purposes and at the times as described below on Tuesday, June 8, 2021.

This presentation will be an electronic presentation without an anchor location pursuant to Mayor Rubin's June 7, 2021 No Anchor Site Determination Letter.

Interested parties may watch the presentation via YouTube at the following address:

YouTube Live Channel: <https://www.youtube.com/channel/UCKdWnJad-WwvcAK75QjRb1w/>

ELECTRONIC ONLY – NO ACCOMMODATION FOR IN-PERSON ATTENDANCE

Public Information Presentation

6:00 PM

- I. Call to Order
 - II. Roll Call
 - III. Agenda Items
 - 1. Public Information Presentation of the Silver Meadows Annexation
 - IV. Meeting Adjournment
-

Pursuant to the Americans with Disabilities Act, individuals needing special accommodations during the meeting should notify the Mayor or Town Clerk at 435-659-4739 at least 24 hours prior to the meeting.

HIDEOUT TOWN COUNCIL
10860 N. Hideout Trail
Hideout, UT 84036
Phone: 435-659-4739
Posted 5/25/2021

File Attachments for Item:

1. Mayor Rubin's June 7, 2021 No Anchor Site Determination Letter



June 7, 2021

**DETERMINATION REGARDING CONDUCTING TOWN OF HIDEOUT PUBLIC MEETINGS
WITHOUT AN ANCHOR LOCATION**

The Mayor of the Town of Hideout hereby determines that conducting a meeting with an anchor location presents a substantial risk to the health and safety of those who may be present at the anchor location pursuant to Utah Code section 52-4-207(5) and Hideout Town Ordinance 2020-03. The facts upon which this determination is based include: The seven-day rolling percent and number of positive COVID-19 cases in Utah has been over 4% of those tested since June 3, 2021. The seven-day average number of positive cases has been, on average, 255 per day since June 7, 2021.

This meeting will not have a physical anchor location. All participants will connect remotely. All public meetings are available via YouTube Live Stream on the Hideout, Utah YouTube channel at: <https://www.youtube.com/channel/UCKdWnJad-WwvcAK75QjRb1w/>

Interested parties may join by dialing in as follows:

Meeting URL: <https://zoom.us/j/4356594739>

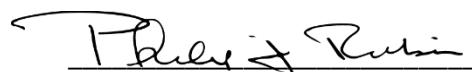
To join by telephone dial: US: +1 408-638-0986

Meeting ID: 4356594739

Additionally, comments may be emailed to hideoututah@hideoututah.gov. Emailed comments received prior to the scheduled meeting will be read during the public comment portion and entered into public record.

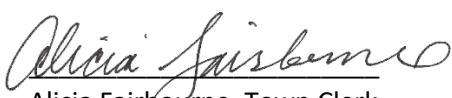
This determination will expire in 30 days on July 7, 2021.

BY:



Phil Rubin, Mayor

ATTEST:


Alicia Fairbourne, Town Clerk



File Attachments for Item:

2. Fehr & Peers Presentation and Q&A



MEMORANDUM

Date: June 8, 2021

To: Phil Rubin, Mayor – Town of Hideout

From: Christopher Bender, PE – Fehr & Peers

Subject: Silver Meadows Development Projected Traffic Volume Increases from Background to Plus Project Conditions

UT21-2270

Fehr & Peers compared the projected traffic volumes between background and plus project conditions scenarios of the "Silver Meadows Development with North Access Traffic Analysis."

Table 1 shows the total vehicle trips at each study intersection for each scenario analyzed in the study.

Table 1: AM and PM Peak Hour Total Intersection Volumes

Intersection			2021 Background	2026 Background	2026 Plus Project	2041 Background	2041 Plus Project
ID	Location	Period					
1	SR-248 & Richardson Flat Road	AM	1,456	1,546	1,889	1,817	2,160
		PM	2,186	2,319	2,812	2,720	3,213
2	Jordanelle Parkway & Richardson Flat Road	AM	175	191	371	250	430
		PM	130	143	403	189	449
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road	AM	1,343	1,508	1,708	2,005	2,205
		PM	1,306	1,467	1,755	1,949	2,237
4	SR-248 & Proposed North Project Access	AM	1,238	1,386	1,561	1,829	2,004
		PM	1,266	1,417	1,667	1,866	2,116

Source: Fehr & Peers.



As shown in **Table 1**, after the Silver Meadows development is opened, trips generated by the development are added to the surrounding network, so traffic volumes throughout the network increase. **Table 2** outlines the percent of vehicle traffic contributed by the development to the study intersections. In other words, the table outlines the traffic volume increases at each study intersection for each Plus Project analysis scenario.

Table 2: AM and PM Peak Hour Volume Increases from Background to Plus Project

ID	Location	Intersection		2026 Plus Project	2041 Plus Project
		Period			
1	SR-248 & Richardson Flat Road	AM	22%	19%	
		PM	21%	18%	
2	Jordanelle Parkway & Richardson Flat Road	AM	94%	72%	
		PM	182%	137%	
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road	AM	13%	10%	
		PM	20%	15%	
4	SR-248 & Proposed North Project Access	AM	13%	10%	
		PM	18%	13%	

Source: Fehr & Peers.

As shown in **Table 2**, during the 2026 Plus Project conditions analyses the proposed Silver Meadows Development is projected to contribute 13–22% additional traffic over background conditions to the three intersections along SR-248. In other words, the project is likely to increase typical commuter traffic along SR-248 within the study area by about a fifth of projected background traffic.

At the intersection at Jordanelle Parkway & Richardson Flat Road, the proposed Silver Meadows Development is projected to contribute 94–182% additional traffic over background conditions. In contrast to the intersections along SR-248, the intersection at Jordanelle Parkway & Richardson Flat Road is projected to experience significantly less traffic in the background conditions. Therefore, the Silver Meadows Development will have a greater overall impact on the intersection traffic; the development is projected to nearly double projected 2026 traffic in the AM peak hour and nearly triple projected 2026 traffic in the PM peak hour.

Also shown in **Table 2**, the development is projected to similarly affect the surrounding study intersections in 2041 Plus Project conditions analyses, but to a lesser extent due to a greater portion of traffic coming from growth outside of the development.

Silver Meadows Development

Traffic Analysis

Prepared for:
Town of Hideout

April 2021

UT21-2270

FEHRPEERS

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1. Executive Summary

This study provides a summary of the potential transportation-related impacts from the proposed Silver Meadows development (formerly named the Richardson Flat development) located on Richardson Flat Road between US-40 and Jordanelle Parkway in Summit County, Utah. This study analyzes the traffic operations and impacts for 2021, 2026, and 2041 background and plus project conditions at key intersections. The plus project analysis includes project trips generated from the proposed project.

1.1 Traffic Conditions

1.1.1 Study Intersections

The following intersections were included in this study:

- 1) SR-248 & Richardson Flat Road – Currently side-street stop controlled, planned signal,
- 2) Jordanelle Parkway & Richardson Flat Road – Side-street stop controlled,
- 3) SR-248 & Jordanelle Parkway/Brown's Canyon Road – Side-street stop controlled, planned signal.

1.1.2 Traffic Volumes

Fehr & Peers previously collected traffic counts at the study intersections to establish a baseline of existing conditions and operations for the area. Weekday peak period traffic counts were recorded from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM on January 15, 2020 at all study intersections.

1.1.3 2021 Background Conditions

The intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road were both observed to operate at failing levels of service in the AM and PM peak hours due to few gaps available for left-turn movements from minor roadways. Summit County has identified both intersections as locations for future traffic signal implementations due to existing failing conditions. No additional mitigations aside from those identified by Summit County are recommended as part of this analysis.

1.1.4 2026 Background Conditions

Due to Summit County's plans to signalize the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road, those intersections were assumed to be signalized for all future condition analyses. Due to the signalization of those intersections, all study intersections operated within acceptable levels of delay during the AM and PM peak hour analyses.

1.1.5 Project Conditions

The proposed mixed-use site will be located between the intersections of SR-248 & Richardson Flat Road and Richardson Flat Road & Jordanelle Parkway, south of SR-248. Trip generation for the project was computed using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition*, 2017, and Fehr & Peers' mixed-use development (MXD+) methodology via MainStreet, a Fehr & Peers web application that captures the traffic benefits of developments by looking at interactions among the mixture of land uses and patron usage of alternative modes (i.e., transit, bicycling, and/or walking).

The project is not currently proposed to include any new driveways that connect to SR-248.

The development is expected to generate 718 project gross trips in the AM peak hour and 1,038 project gross trips in the PM peak hour. However, with the nature of a multi-use development, some generated trips travel only internally, or shift to transit or walk/bike modes. Based on the results of the MXD+ analysis, the site is expected to generate 620 net external trips in the AM peak hour and 895 net external trips in the PM peak hour.

1.1.6 2026 plus Project Conditions

Using the volumes forecasted for the 2026 plus project scenario, the three study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the 2026 plus project conditions analysis.

1.1.7 2041 Background Conditions

Using the volumes forecasted for the 2041 background scenario, the three study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the 2041 background conditions analysis.

1.1.8 2041 plus Project Conditions

Using the volumes forecasted for the 2041 plus project scenario, the three study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the 2041 plus project conditions analysis.

1.1.9 Recommended Mitigations

The Summit County Comprehensive Plan identifies that the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road are planned to be converted from stop-controlled to signalized intersections. Planned growth from other developments in the area is projected to generate sufficient traffic to warrant traffic signals in future years.

Since all study intersections were observed to operate at acceptable levels of service through the 2041 plus project scenario analyses, no additional mitigations are recommended to be implemented as part of this development.

1.2 Conclusion

Currently, the intersections of SR-248 & Richardson Flat Road as well as SR-248 & Brown's Canyon Road experience unacceptable delays on the side-street turning movements. Summit County is currently planning to install traffic signals at these intersections. With these planned signals, the study intersections were observed to operate at an acceptable level of delay during peak hours in all 2026 and 2041 analyses performed in this study.

1.2.1 LOS Summary

Table 1 reports LOS at each study intersection. For signalized intersections, average vehicular delay and LOS are reported. For unsignalized intersections, the worst movement delay and LOS are reported. Detailed descriptions of the intersection operations can be found in the subsequent chapters. The column for 2021 background conditions reflects conditions with current lane configurations and no mitigations. All columns for future conditions incorporate the planned intersection signals.

Table 1: AM and PM Peak Hour Level of Service Summary

Intersection			2021 Background	2026 Background	2026 plus Project	2041 Background	2041 plus Project
ID	Location	Period	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh
1	SR-248 & Richardson Flat Road ^{1,2}	AM	F / 52 (WBL)	A / 8	A / 9	A / 9	A / 10
		PM	F / 153 (WBL)	A / 6	B / 12	A / 7	B / 12
2	Jordanelle Parkway & Richardson Flat Road ²	AM	A / 9 (EBT)	A / 9 (EBT)	B / 12 (EBT)	A / 9 (EBT)	B / 14 (EBT)
		PM	A / 9 (EBT)	A / 9 (EBT)	B / 14 (EBT)	A / 9 (EBT)	C / 16 (EBT)
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	F / 55 (EBL)	B / 18	B / 17	C / 22	C / 21
		PM	F / 52 (EBL)	B / 16	B / 20	B / 18	B / 19

1. Intersection average LOS and delay for signalized and roundabout intersections.

2. Worst movement LOS and delay for unsignalized intersections.

Source: Fehr & Peers.

2. Introduction

2.1 Purpose

This study provides a summary of the potential transportation-related impacts from the Silver Meadows multi-use development located on Richardson Flat Road between the intersections of SR-248 & Richardson Flat Road and Richardson Flat Road & Jordanelle Parkway in Richardson Flat, Utah. **Figure 1** for a project location map (source: LDG).

This study analyzes the traffic operations and impacts for 2021 background, 2026 background, 2026 plus project, 2041 background, and 2041 plus project conditions at key intersections, described below in the Scope section. The plus project analysis includes project trips generated from the proposed multi-use site. For each of the evaluation periods, mitigation (roadway geometry changes or operational improvements) actions, if needed, were recommended.

2.2 Scope

This study analyzes the traffic impacts of the project in conjunction with adjacent intersections. Impacts are specifically addressed at the following study intersections:

The following intersections were included in this study:

- 1) SR-248 & Richardson Flat Road – Currently side-street stop controlled, planned signal,
- 2) Jordanelle Parkway & Richardson Flat Road – Side-street stop controlled,
- 3) SR-248 & Jordanelle Parkway/Brown's Canyon Road – Side-street stop controlled, planned signal.

EXHIBIT B
TO THE AMDA

Item #2.

**SILVER MEADOWS
CONCEPT PLAN**

OCTOBER 15, 2020



VILLAGE PARK
SINGLE FAMILY COTTAGE LOTS
ALLEY LOADED TWINHOMES
SINGLE FAMILY LOTS

HIKING AND BIKING TRAILS
PHASE 1 HIKING AND BIKING TRAILS (IN RED)

SINGLE FAMILY COTTAGE LOTS
VILLAGE PARK

DEVELOPMENT DATA

PROJECT AREA	348 AC
SINGLE FAMILY LOTS	240 UNITS
SF COTTAGE LOTS	95 UNITS
TWINHOMES	40 UNITS
APARTMENTS	100 UNITS
TOWN CENTER CONDOMINIUMS	125 UNITS
RETAIL/COMMERCIAL (NET)	95,000 SF
ASSISTED LIVING	72,800 SF
OPEN SPACE	+/- 206 AC



2.3 Analysis Methodology

LOS is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 2 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections. The Highway Capacity Manual, 6th Edition (HCM 6) methodology was used in this study to remain consistent with "state of the practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized intersections, the LOS is provided for the overall intersection (weighted average of all approach delays).

Table 2: Level of Service Descriptions

LOS	Description	Signalized Intersections	Unsignalized Intersections
		Avg. Delay (sec/veh) ¹	Avg. Delay (sec/veh) ²
A	<i>Free Flow / Insignificant Delay</i> Extremely favorable progression. Individual users are virtually unaffected by others in the traffic stream.	< 10.0	< 10.0
B	<i>Stable Operations / Minimum Delays</i> Good progression. The presence of other users in the traffic stream becomes noticeable.	> 10.0 to 20.0	> 10.0 to 15.0
C	<i>Stable Operations / Acceptable Delays</i> Fair progression. The operation of individual users is affected by interactions with others in the traffic stream	> 20.0 to 35.0	> 15.0 to 25.0
D	<i>Approaching Unstable Flows / Tolerable Delays</i> Marginal progression. Operating conditions are noticeably more constrained.	> 35.0 to 55.0	> 25.0 to 35.0
E	<i>Unstable Operations / Significant Delays Can Occur</i> Poor progression. Operating conditions are at or near capacity.	> 55.0 to 80.0	> 35.0 to 50.0
F	<i>Forced, Unpredictable Flows / Excessive Delays</i> Unacceptable progression with forced or breakdown of operating conditions.	> 80.0	> 50.0

1. Overall intersection LOS and average delay (seconds/vehicle) for all approaches.

2. Worst approach LOS and delay (seconds/vehicle) only.

Source: Fehr & Peers descriptions, based on *Highway Capacity Manual, 6th Edition*.

3. Existing 2021 Background Conditions

3.1 Purpose

The 2021 existing conditions analysis examines the pertinent intersections and roadways during the peak travel periods of the day under existing traffic and geometric conditions. Through this analysis, existing traffic operational deficiencies can be identified, and potential mitigation measures recommended.

3.2 Roadway System

The primary roadways that will provide access to the project are described below.

- **SR-248** is a state-owned highway in Summit County that connects Park City with Kamas, Utah. From Wyatt Earp Way to Richardson Flat Road, SR-248 has one travel lane in each direction with a two-way left-turn lane and a speed limit of 50 miles per hour. From the US-40 to the intersection at Brown's Canyon Road, SR-248 widens to have two travel lanes in each direction with a two-way left-turn lane and a speed limit of 65 miles per hour.
- **Richardson Flat Road** has a posted speed limit of 35 mph and is classified as a minor collector road. Richardson Flat Road has a two-lane cross section with one travel lane in each direction throughout the project area. The road is fairly narrow; both travel lanes are 11' and have no shoulder.
- **Jordanelle Parkway / Brown's Canyon Road** has a posted speed limit of 30 mph and is classified as a major collector road. It has a two-lane cross-section with one travel lane in each direction near the project area, except for near the intersection at SR-248, where it widens out to include left and right turn storage lanes.

3.3 Traffic Accident Data

Fehr & Peers obtained 5 years of crash data from 2016 to 2021 to outline safety deficiencies near the project area. The data collected included the location, severity, date, and type of collisions.

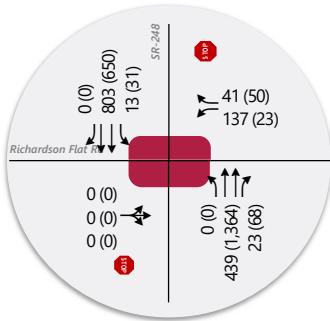
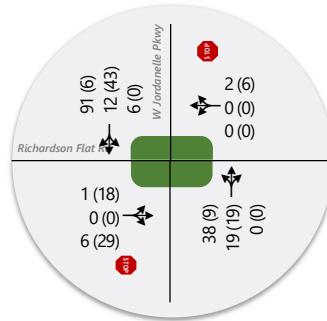
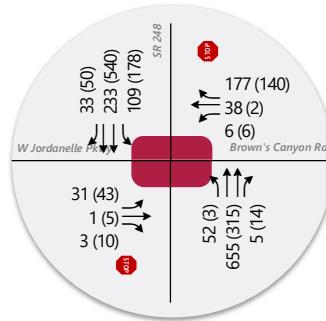
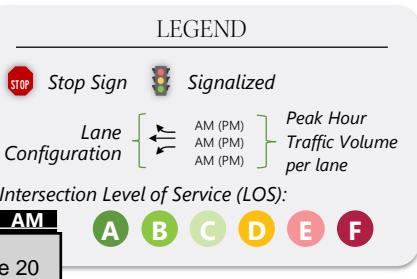
From 2016 to 2021, there were 23 total collisions in the within the study area; 16 collisions were intersection-related, six collisions occurred along Richardson Flat Road, and one occurred on Jordanelle Parkway. Of the non-intersection related collisions within the project area, there were four property damage only crashes, two suspected minor injury crashes, and one possible injury crash; no suspected serious injury crashes or

fatal crashes were reported along Richardson Flat Road or Jordanelle Parkway. Notably, three of the collisions along Richardson Flat Road involved roadway departures, which may indicate that pavement markings and delineation along Richardson Flat Road is needed, especially as the area continues to develop. Speeding was also involved in two of the crashes along Richardson Flat Road, but those accidents both occurred in snowy or icy conditions, so speeding does not appear to be a significant issue along Richardson Flat Road.

Furthermore, as traffic continues to increase along Richardson Flat Road, the road width may prove to be insufficient. Further study should be conducted to determine if widening the road to accommodate shoulders, bike lanes, striping, or other modifications would be warranted.

3.4 Traffic Volumes

Fehr & Peers collected traffic counts at the study intersections to establish a baseline of existing conditions and operations for the area. AM peak period traffic counts were recorded from 7:00 AM to 9:00 AM and PM peak period traffic counts were recorded from 4:00 PM to 6:00 PM on January 15, 2020 at all study intersections. No monthly or daily adjustment factors were applied to the counts. The existing background weekday peak hour volumes are shown in **Figure 2** and in the Appendix.

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon RdFigure 2
Existing Conditions

3.5 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, the existing background AM and PM peak hour LOS were computed for each study intersection. The results of this analysis for the AM and PM peak hours are reported in **Table 3** (see Appendix for the detailed LOS report). These results serve as a base for the analysis of the impacts of the proposed mixed-use development.

Table 3: Existing 2021 Background Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	EB/WB Stop	WBL	52	F	-	-
		PM		WBL	153	F	-	-
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EBT	9	A	-	-
		PM		EBT	9	A	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	EB/WB Stop	EBL	55	F	-	-
		PM		EBL	52	F	-	-

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle) and is only reported for signalized intersections.

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

As shown in **Table 3**, the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road both operate at failing levels of service in the AM and PM peak hours due to few gaps available for left-turn movements from minor roadways. The intersection at Jordanelle Parkway & Richardson Flat Road operated at acceptable levels of service.

3.6 Mitigation Measures

Summit County has identified both intersections as locations for future traffic signal implementations due to existing failing conditions. The heavy volumes in the project area indicate that those signals are likely needed and should be implemented as they are warranted.

These mitigations are assumed to be implemented for all 2026 and 2041 analysis configurations since initial analyses without those mitigations showed that the intersections would likely experience failing conditions without them. No additional mitigations aside from those identified by Summit County are recommended as part of this analysis.

4. Future 2026 Background Conditions

4.1 Purpose

The purpose of the future 2026 background conditions analysis is to evaluate the study intersections during the peak travel periods of the day under projected 2026 traffic volumes. This analysis provides a baseline condition for the year 2026, which can be used to determine future project impacts. This analysis also assumes the mitigations recommended in **Section 3.6** were implemented.

4.2 Traffic Volumes

Fehr & Peers projected 2026 volumes using linear annual growth rates based on Summit County Travel Demand Model and modifications based on observations of the area. The increase in projected volume between the 2019 and 2041 Summit County models indicated between 1.1% and 2.9% growth per year, depending on the segment of road in the study area. The growth rates were applied to the existing 2021 background volumes to formulate the traffic volumes for the future 2026 background conditions. The projected 2026 background peak hour traffic volumes are shown in **Figure 3**.

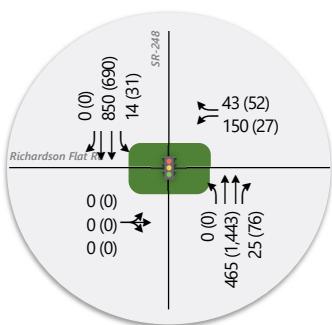
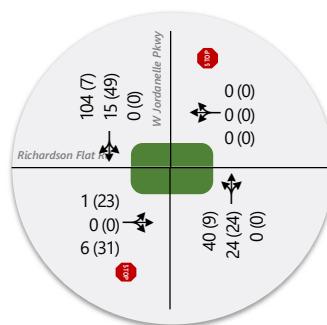
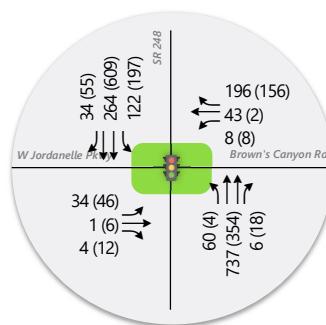
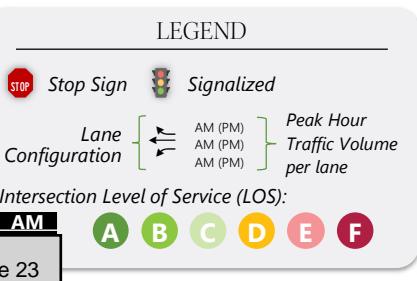
1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon Rd

Figure 3
2026 Background Conditions

4.3 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, future 2021 background peak hour LOS was computed for each study intersection. The results of this analysis for the AM and PM peak hours are reported in **Table 4** (see Appendix for the detailed LOS report).

Table 4: Future 2026 Background Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	Signal	-	-	-	8	A
		PM		-	-	-	6	A
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EB TH	9	A	-	-
		PM		EB TH	9	A	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	Signal	-	-	-	18	B
		PM		-	-	-	16	B

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle).

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

4.4 Mitigation Measures

All intersections operate at acceptable overall levels of service assuming the mitigation measures recommended in the existing conditions analysis, therefore no further traffic operation mitigation measures for future 2026 conditions are recommended.

5. Project Conditions

5.1 Purpose

The project conditions analysis explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the Introduction.

5.2 Project Description

The proposed Silver Meadows mixed-use site will be located between the intersections of SR-248 & Richardson Flat Road and Richardson Flat Road & Jordanelle Parkway and will consist of single-family, multi-family, assisted living, and second home residential along with some general retail uses. The full list of land uses, and area occupied by each use is listed in **Table 5**. The Silver Meadows development is located south of SR-248. The development proposes no new driveway access locations that tie into SR-248.

5.3 Trip Generation

Trip generation for the project was computed using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition*, 2017, and Fehr & Peers' mixed-use development (MXD+) methodology via MainStreet, a Fehr & Peers web application that captures the traffic benefits of developments by looking at interactions among the mixture of land uses and patron usage of alternative modes (i.e., transit, bicycling, and/or walking).

The gross and net external vehicle trips expected to be generated by the mixed-use development, along with the vehicle trip reduction rates (that account for trips that are internal to the site, as well as trips that shift to transit or walk/bike modes) are shown in **Table 5**.

Table 5: Mixed use development Trip Generation

ITE Land Use	ITE Code	Units	Quantity	Daily Total	AM In	AM Out	AM Total	PM In	PM Out	PM Total	
(220) - Multifamily Housing Low Rise (Adj Streets, 7-9A, 4-6P)	220	Dwelling Units	40	262	5	15	20	16	10	26	
(210) - Single-Family Detached Housing (Adj Streets, 7-9A, 4-6P)	210	Dwelling Units	240	2266	45	134	178	150	88	238	
(221) - Multifamily Housing Mid-Rise (Adj Streets, 7-9A, 4-6P)	221	Dwelling Units	100	544	9	27	36	27	17	44	
(221) - Multifamily Housing Mid-Rise (Adj Streets, 7-9A, 4-6P)	221	Dwelling Units	125	680	12	33	45	34	21	55	
(520) - Elementary School (Adj Streets, 7-9A, 4-6P)	520	Students	250	473	91	77	168	21	22	43	
(265) - Timeshare (Adj Streets, 7-9A, 4-6P)	265	Dwelling Units	95	855	23	16	39	26	38	64	
(820) - Shopping Center (Adj Street, 7-9A, 4-6P)	820	1,000 Sq. Ft	95	5,806	123	76	199	251	272	523	
(254) - Assisted Living (Adj Streets, 7-9A, 4-6P)	254	1,000 Sq. Ft	72.8	305	22	6	28	11	25	35	
(560) - Church (Adj Streets, 7-9A, 4-6P)	560	1,000 Sq. Ft	16.37	118	3	2	5	5	6	10	
Sub Total					11,309	333	386	718	541	499	1038
Internal Capture					682	41	47	88	67	62	128
Shift to Transit					181	4	5	9	7	7	14
Shift to Walk/Bike					17	0	1	1	1	0	1
TOTAL					10,429	288	333	620	466	430	895

Source: Fehr & Peers.

5.4 Trip Distribution and Assignment

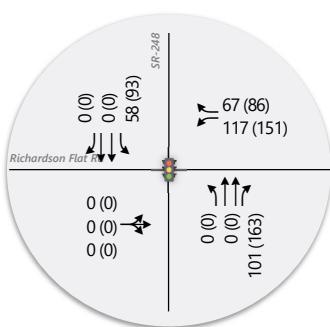
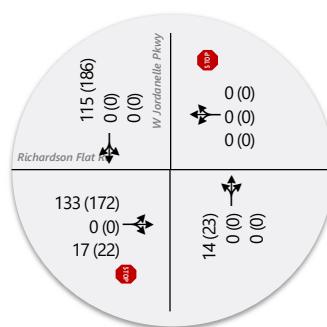
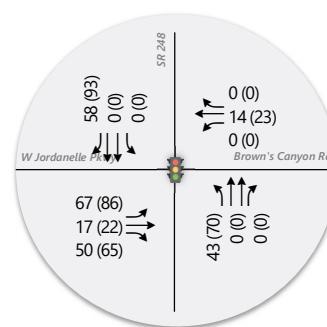
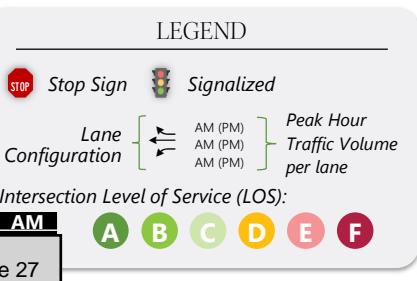
Project traffic was assigned to the roadway network based on the proximity to major streets and freeways, roadway network, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provided helpful guidance to establish these distribution percentages, especially near the site.

Overall, the project-generated trips were distributed to and from these directions in the project conditions analyses, in the corresponding percentages:

- 35% South (using SR-248 from Richardson Flat Road)
- 20% North (using SR-248 from Richardson Flat Road)
- 20% West (using SR-248 from Brown's Canyon Road)
- 5% East (using Brown's Canyon Road)
- 5% South (using SR-248 from Brown's Canyon Road)

These trip distribution assumptions were used to distribute project-generated traffic to the study area intersections. The volume of project trips generated and distributed to the study intersections is shown in

Figure 4.

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon RdFigure 4
Trip Generation

5.5 Diverted Trips (Select-Link) Analysis

To investigate the amount of traffic that might be diverted from utilizing SR-248 due to the proposed development, a select-link analysis was completed. The Summit-Wasatch Travel Demand Model was utilized to complete this analysis.

Two years were assessed; 2024 and 2041. The traffic analysis zone (TAZ) socio-economic data was modified for TAZ 126, which represents the location of the proposed development. Base conditions assume limited growth in this TAZ for both horizon years. This assumed growth was replaced with the land use development program. While not all anticipated land uses are reflected in the model, the bulk of the development was reflected with the following inputs:

- 505 housing units
- 190 retail employment jobs (representing 95,000 square feet of shopping center use assuming 2 employees per 1,000 square feet).
- 95 condos (representing the timeshare units)

The results of these model runs were compared to base condition model runs for the same year. A segment of SR-248 was chosen for a select link analysis, which allows trips that use this link to be tracked across the model network. This helps address the question, "where are trips going to and coming from that utilize this segment of roadway."

Results for both horizon years show that the distribution and routing of traffic using this segment do not see meaningful change due to the development. However, the development itself does appear to generate traffic that utilizes the SR-248 corridor, which aligns with standard industry trip generation and distribution assumptions. Therefore, no trips were assumed to be diverted from existing or projected background traffic for the analyses in this study.

6. Future 2026 plus Project Conditions

6.1 Purpose

The purpose of the 2026 plus project conditions analysis is to evaluate the impact of the proposed development traffic on the surrounding roadway network. To analyze this impact, the peak hour 2026 background traffic volumes were combined with volumes generated by the proposed project at its peak hour. Intersection LOS analyses were then performed and compared to the results of the background traffic volumes. This comparison shows the impact of the proposed project.

6.2 Traffic Volumes

Project-generated traffic was added to the projected 2026 volumes to yield 2026 future plus project peak hour volumes. The AM and PM peak hour traffic volumes at the study intersections are shown in **Figure 5**.

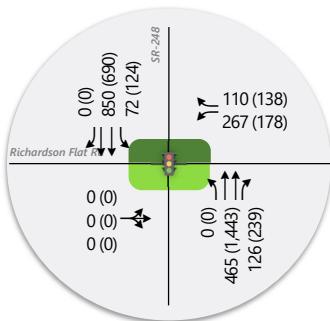
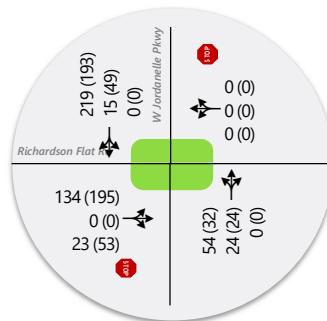
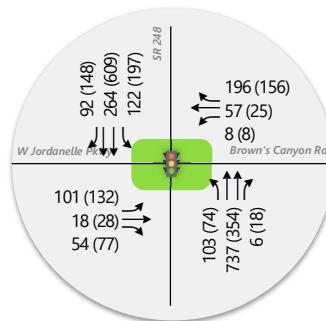
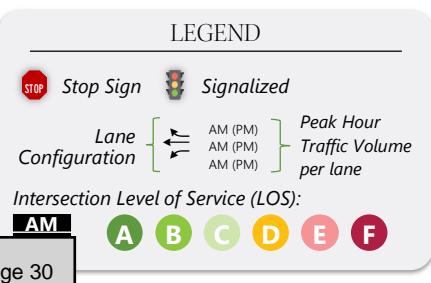
1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon Rd

Figure 5
2026 + Project Conditions

6.3 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, 2026 plus project AM and PM peak hour LOS was computed for each study intersection for the conceptual site development. The results of this analysis for the AM and PM peak hours are reported in **Table 6** (see Appendix for the detailed LOS report).

Table 6: Future 2026 Plus Project Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	Signal	-	-	-	9	A
		PM		-	-	-	12	B
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EB LT	13	B	-	-
		PM		EB LT	14	B	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	Signal	-	-	-	17	B
		PM		-	-	-	20	B

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle).

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

6.4 Mitigation Measures

Using the volumes forecasted for the 2026 plus project scenario, the three study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the analysis, therefore no further traffic operation mitigation measures for 2026 plus project conditions are recommended.

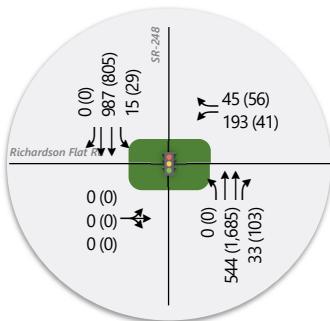
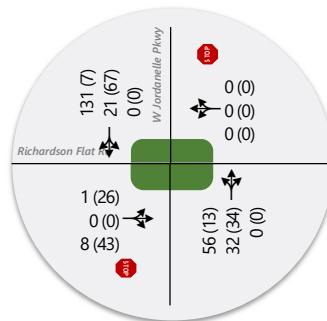
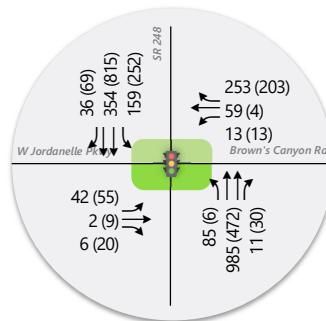
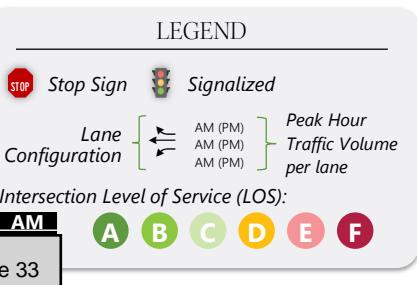
7. Future 2041 Background Conditions

7.1 Purpose

The purpose of the future 2041 background conditions analysis is to evaluate the study intersections during the peak travel periods of the day under projected 2041 traffic volumes. This analysis provides a baseline condition for the year 2041, which can be used to determine future project impacts.

7.2 Traffic Volumes

Fehr & Peers projected 2041 volumes using linear annual growth rates based on Summit County Travel Demand Model and modifications based on observations of the area. The increase in projected volume between the 2019 and 2041 Summit County models indicated between 1.1% and 2.9% growth per year, depending on the segment of road in the study area. The growth rates were applied to the existing 2021 background volumes to formulate the traffic volumes for the future 2041 background conditions. The projected 2041 background peak hour traffic volumes are shown in **Figure 6**.

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon RdFigure 6
2041 Background Conditions

7.3 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, future 2041 background weekday peak hour LOS was computed for each study intersection. The results of this analysis for the AM & PM peak hour are reported in **Table 7** (see Appendix for the detailed LOS report).

Table 7: Future 2041 Background Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	Signal	-	-	-	9	A
		PM		-	-	-	7	A
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EB TH	9	A	-	-
		PM		EB TH	9	A	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	Signal	-	-	-	22	C
		PM		-	-	-	18	B

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle).

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

7.4 Mitigation Measures

All study intersections operate at acceptable overall levels of service assuming the mitigation measures recommended in the existing conditions analysis, therefore no further traffic operation mitigation measures for future 2041 conditions are recommended.

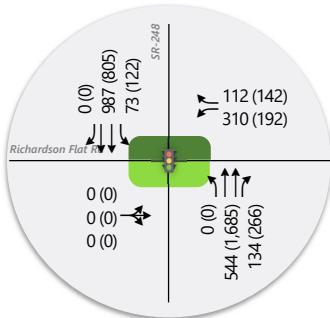
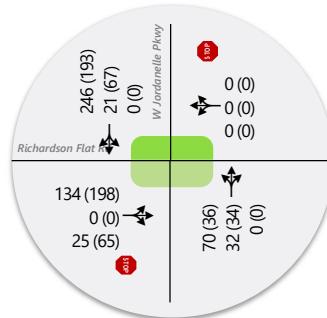
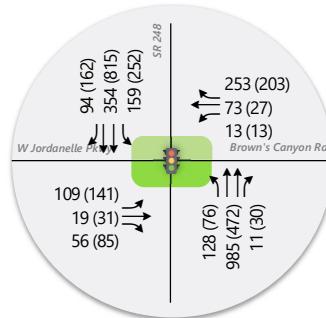
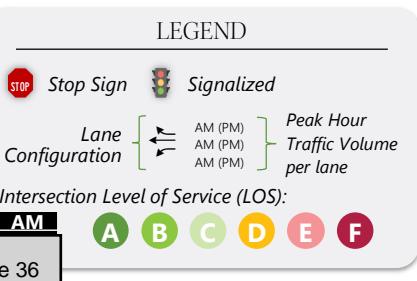
8. Future 2041 plus Project Conditions

8.1 Purpose

The purpose of the future 2041 plus project conditions analysis is to evaluate the impact of the proposed development traffic on the surrounding roadway network in the year 2041. To analyze this impact, the projected 2041 AM and PM peak hour background traffic volumes were combined with volumes generated by the conceptual development for the AM and PM peak hour. Intersection LOS analyses were then performed and compared to the results of the background traffic volumes. This comparison shows the impact of the conceptual project in 2041.

8.2 Traffic Volumes

Project-generated traffic was added to the future 2041 background volumes (**Figure 6**) to yield "future 2041 plus project" AM and PM peak hour traffic volumes at the study intersections (**Figure 7**).

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon RdFigure 7
2041 + Project Conditions

8.3 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, future 2041 plus project AM and PM peak hour LOS was computed for each study intersection for the conceptual site development. The results of this analysis for the AM and PM peak hours are reported in **Table 8** (see Appendix for the detailed LOS report).

Table 8: Future 2041 plus Project Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	Signal	-	-	-	10	A
		PM		-	-	-	12	B
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EB LT	14	B	-	-
		PM		EB LT	16	C	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	Signal	-	-	-	21	C
		PM		-	-	-	19	B

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle).

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

8.4 Mitigation Measures

Using the volumes forecasted for the 2041 plus project scenario, the three study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the analysis, therefore no further traffic operation mitigation measures for 2041 plus project conditions are recommended.

9. Conclusion

The safety analysis found that in the past five years, three collisions along Richardson Flat Road involved roadway departures, which may indicate that pavement markings and delineation along Richardson Flat Road are needed, especially as the area continues to develop. Furthermore, as traffic continues to increase along Richardson Flat Road, the road width may prove to be insufficient. Further study should be conducted to determine if widening the road to accommodate shoulders, bike lanes, striping, or other modifications would be warranted.

In the existing conditions traffic analyses, the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road both operate at failing levels of service in the AM and PM peak hours due to few gaps available for left-turn movements from minor roadways. Fehr & Peers recommends signalizing the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road as outlined in the Summit County Comprehensive Plan.

The analysis described in this report shows that the proposed mixed-use development and the surrounding proposed housing development would not significantly impact vehicle level of service and delay at intersections within the immediate vicinity.

Appendix A

Turning Movement Counts

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Start Date : 1/15/2020

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Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	292	5	0	297	3	0	12	0	15	6	56	0	0	62	0	0	0	0	0	374
07:15 AM	0	238	13	0	251	6	0	32	0	38	4	100	0	0	104	0	0	0	0	0	393
07:30 AM	0	213	1	0	214	6	0	29	0	35	8	137	0	0	145	0	0	0	0	0	394
07:45 AM	0	206	3	0	209	12	0	33	0	45	2	106	0	0	108	0	0	0	0	0	362
Total	0	949	22	0	971	27	0	106	0	133	20	399	0	0	419	0	0	0	0	0	1523
08:00 AM	0	201	3	0	204	8	0	38	0	46	7	81	0	0	88	0	0	0	0	0	338
08:15 AM	0	183	6	0	189	15	0	37	0	52	6	115	0	0	121	0	0	0	0	0	362
08:30 AM	0	232	4	0	236	4	0	43	0	47	3	88	0	0	91	0	0	0	0	0	374
08:45 AM	0	228	1	0	229	3	0	43	0	46	3	96	0	0	99	0	0	0	0	0	374
Total	0	844	14	0	858	30	0	161	0	191	19	380	0	0	399	0	0	0	0	0	1448
Grand Total	0	1793	36	0	1829	57	0	267	0	324	39	779	0	0	818	0	0	0	0	0	2971
Apprch %	0	98	2	0		17.6	0	82.4	0		4.8	95.2	0	0		0	0	0	0	0	
Total %	0	60.4	1.2	0	61.6	1.9	0	9	0	10.9	1.3	26.2	0	0	27.5	0	0	0	0	0	

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Start Date : 1/15/2020

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04:15 PM	0	146	4	0	150	10	0	10	0	20	13	346	0	0	359	0	0	0	0	0	529
04:30 PM	0	160	3	0	163	10	0	7	0	17	11	315	0	0	326	0	0	0	0	0	506
04:45 PM	0	161	5	0	166	20	0	6	0	26	19	309	0	0	328	0	0	0	0	0	520
Total	0	622	16	0	638	57	0	24	0	81	62	1267	0	0	1329	0	0	0	0	0	2048
05:00 PM	0	159	7	0	166	6	0	3	0	9	12	355	0	0	367	0	0	0	0	0	542
05:15 PM	0	169	10	0	179	15	0	7	0	22	21	345	0	0	366	0	0	0	0	0	567
05:30 PM	0	161	9	0	170	9	0	7	0	16	16	355	0	0	371	0	0	0	0	0	557
05:45 PM	0	161	8	0	169	7	0	8	0	15	16	261	0	0	277	0	0	0	0	0	461
Total	0	650	34	0	684	37	0	25	0	62	65	1316	0	0	1381	0	0	0	0	0	2127
Grand Total	0	1272	50	0	1322	94	0	49	0	143	127	2583	0	0	2710	0	0	0	0	0	4175
Apprch %	0	96.2	3.8	0		65.7	0	34.3	0		4.7	95.3	0	0		0	0	0	0	0	
Total %	0	30.5	1.2	0	31.7	2.3	0	1.2	0	3.4	3	61.9	0	0	64.9	0	0	0	0	0	

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Site Code : 00000000
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07:15 AM	16	1	1	0	18	1	0	0	0	1	0	4	5	0	9	2	0	2	0	4	32
07:30 AM	15	2	0	0	17	2	0	0	0	2	0	5	7	0	12	0	0	1	0	1	32
07:45 AM	30	4	1	0	35	0	0	0	0	0	0	5	6	0	11	3	0	0	0	3	49
Total	66	9	3	0	78	3	0	0	0	3	0	21	21	0	42	6	0	3	0	9	132
08:00 AM	27	3	1	0	31	0	0	0	0	0	0	6	16	0	22	2	0	0	0	2	55
08:15 AM	19	3	4	0	26	0	0	0	1	1	0	3	9	1	13	1	0	0	0	1	41
08:30 AM	28	4	3	0	35	0	0	0	0	0	1	3	8	0	12	0	0	4	0	4	51
08:45 AM	35	5	5	0	45	2	0	0	0	2	0	7	9	0	16	0	0	1	0	1	64
Total	109	15	13	0	137	2	0	0	1	3	1	19	42	1	63	3	0	5	0	8	211
Grand Total	175	24	16	0	215	5	0	0	1	6	1	40	63	1	105	9	0	8	0	17	343
Apprch %	81.4	11.2	7.4	0		83.3	0	0	16.7		1	38.1	60	1		52.9	0	47.1	0		
Total %	51	7	4.7	0	62.7	1.5	0	0	0.3	1.7	0.3	11.7	18.4	0.3	30.6	2.6	0	2.3	0	5	

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Page No : 1

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	Jordanelle Parkway From North					Richardson Flat Road From East					Jordanelle Parkway From South					Richardson Flat Road From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	1	8	0	0	9	0	0	0	0	0	0	2	2	0	4	10	0	2	0	12	25
04:15 PM	1	11	2	0	14	1	0	0	0	1	0	4	7	0	11	7	0	2	0	9	35
04:30 PM	3	12	0	0	15	1	0	0	0	1	0	3	0	0	3	3	0	2	0	5	24
04:45 PM	1	10	0	0	11	4	0	0	0	4	0	6	2	0	8	4	0	4	0	8	31
Total	6	41	2	0	49	6	0	0	0	6	0	15	11	0	26	24	0	10	0	34	115
05:00 PM	2	10	0	0	12	1	0	0	0	1	0	3	1	2	6	6	0	5	0	11	30
05:15 PM	2	12	0	0	14	1	0	0	0	1	0	3	4	0	7	13	0	4	0	17	39
05:30 PM	1	11	0	0	12	0	0	0	0	0	0	7	2	0	9	6	0	5	0	11	32
05:45 PM	1	11	0	0	12	0	0	0	0	0	0	4	5	0	9	7	0	1	0	8	29
Total	6	44	0	0	50	2	0	0	0	2	0	17	12	2	31	32	0	15	0	47	130
Grand Total	12	85	2	0	99	8	0	0	0	8	0	32	23	2	57	56	0	25	0	81	245
Apprch %	12.1	85.9	2	0	100	0	0	0	0	0	0	56.1	40.4	3.5	69.1	0	30.9	0	0	33.1	
Total %	4.9	34.7	0.8	0	40.4	3.3	0	0	0	3.3	0	13.1	9.4	0.8	23.3	22.9	0	10.2	0	33.1	

Elite Traffic Data Collection, LLC

Item # 2.

379 East 2700 North
Lehi, Utah, 84043

elitetrafficdata@hotmail.com

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File Name : SR-248 and Brown's Canyon Road 0700-0900

Site Code : 00000000

Start Date : 1/15/2020

Page No : 1

Groups Printed- TMC

	Brown's Canyon Road From North					SR-248 From East					Jordanelle Parkway From South					SR-248 From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Start Time																					
07:00 AM	35	4	1	0	40	0	112	2	0	114	0	0	7	0	7	6	37	13	0	56	217
07:15 AM	36	5	1	0	42	2	116	9	0	127	0	1	4	0	5	6	54	22	0	82	256
07:30 AM	36	6	1	0	43	2	196	12	0	210	0	0	9	0	9	2	50	21	0	73	335
07:45 AM	52	14	1	0	67	1	163	16	0	180	2	0	9	0	11	10	56	28	0	94	352
Total	159	29	4	0	192	5	587	39	0	631	2	1	29	0	32	24	197	84	0	305	1160
08:00 AM	43	8	1	0	52	0	157	14	0	171	1	1	5	0	7	12	62	30	0	104	334
08:15 AM	46	10	3	0	59	2	139	10	0	151	0	0	8	0	8	9	65	30	0	104	322
08:30 AM	47	5	1	0	53	0	132	17	0	149	1	1	8	0	10	23	60	11	0	94	306
08:45 AM	50	7	3	0	60	3	110	8	0	121	1	0	13	0	14	30	64	29	0	123	318
Total	186	30	8	0	224	5	538	49	0	592	3	2	34	0	39	74	251	100	0	425	1280
Grand Total	345	59	12	0	416	10	1125	88	0	1223	5	3	63	0	71	98	448	184	0	730	2440
Apprch %	82.9	14.2	2.9	0		0.8	92	7.2	0		7	4.2	88.7	0		13.4	61.4	25.2	0		
Total %	14.1	2.4	0.5	0	17	0.4	46.1	3.6	0	50.1	0.2	0.1	2.6	0	2.9	4	18.4	7.5	0	29.9	

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Lehi, Utah, 84043

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Site Code : 00000000

Start Date : 1/15/2020

Page No : 1

Groups Printed- TMC

	Brown's Canyon Road From North					SR-248 From East					Jordanelle Parkway From South					SR-248 From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Start Time																					
04:00 PM	24	1	0	0	25	1	86	1	0	88	2	1	6	0	9	13	95	38	0	146	268
04:15 PM	50	0	1	0	51	0	103	4	0	107	5	2	9	0	16	14	106	32	0	152	326
04:30 PM	23	0	0	0	23	0	111	2	0	113	2	1	5	0	8	9	132	43	0	184	328
04:45 PM	43	0	0	0	43	3	70	2	0	75	2	1	13	0	16	13	120	41	0	174	308
Total	140	1	1	0	142	4	370	9	0	383	11	5	33	0	49	49	453	154	0	656	1230
05:00 PM	30	0	4	0	34	6	100	1	0	107	1	2	9	0	12	12	133	43	0	188	341
05:15 PM	33	1	1	0	35	3	64	0	0	67	4	1	8	0	13	13	144	46	0	203	318
05:30 PM	34	1	1	0	36	2	81	0	0	83	3	1	13	0	17	12	143	48	0	203	339
05:45 PM	31	1	3	0	35	1	76	1	0	78	2	0	8	0	10	12	145	44	0	201	324
Total	128	3	9	0	140	12	321	2	0	335	10	4	38	0	52	49	565	181	0	795	1322
Grand Total	268	4	10	0	282	16	691	11	0	718	21	9	71	0	101	98	1018	335	0	1451	2552
Apprch %	95	1.4	3.5	0		2.2	96.2	1.5	0		20.8	8.9	70.3	0		6.8	70.2	23.1	0		
Total %	10.5	0.2	0.4	0	11.1	0.6	27.1	0.4	0	28.1	0.8	0.4	2.8	0	4	3.8	39.9	13.1	0	56.9	

Appendix B

Detailed Level of Service Reports

Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↑		↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Vol, veh/h	0	0	0	137	0	41	0	439	23	13	803	0
Future Vol, veh/h	0	0	0	137	0	41	0	439	23	13	803	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	0	-	100	100	-	100	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	149	0	45	0	477	25	14	873	0

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	1140	1403	437	942	-	239	873	0	0	502	0	0
Stage 1	901	901	-	477	-	-	-	-	-	-	-	-
Stage 2	239	502	-	465	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	156	139	567	218	0	762	768	-	-	1059	-	-
Stage 1	299	355	-	538	0	-	-	-	-	-	-	-
Stage 2	743	540	-	547	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	145	137	567	216	-	762	768	-	-	1059	-	-
Mov Cap-2 Maneuver	145	137	-	216	-	-	-	-	-	-	-	-
Stage 1	299	350	-	538	-	-	-	-	-	-	-	-
Stage 2	700	540	-	540	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	42.4	0	0.1
HCM LOS	A	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	768	-	-	-	216	762	1059	-	-
HCM Lane V/C Ratio	-	-	-	-	0.689	0.058	0.013	-	-
HCM Control Delay (s)	0	-	-	0	52.1	10	8.4	-	-
HCM Lane LOS	A	-	-	A	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	4.4	0.2	0	-	-

Intersection

Int Delay, s/veh 2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	6	0	0	2	38	19	0	6	12	91
Future Vol, veh/h	1	0	6	0	0	2	38	19	0	6	12	91
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	8	0	0	3	48	24	0	8	15	114

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	211	209	73	214	266	26	129	0	0	25	0	0
Stage 1	88	88	-	121	121	-	-	-	-	-	-	-
Stage 2	123	121	-	93	145	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	746	688	989	743	640	1050	1457	-	-	1589	-	-
Stage 1	920	822	-	883	796	-	-	-	-	-	-	-
Stage 2	881	796	-	914	777	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	721	660	988	714	614	1048	1457	-	-	1587	-	-
Mov Cap-2 Maneuver	721	660	-	714	614	-	-	-	-	-	-	-
Stage 1	890	817	-	853	769	-	-	-	-	-	-	-
Stage 2	849	769	-	901	772	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	8.9	8.4			5			0.4		
HCM LOS	A	A			A			A		
Minor Lane/Major Mvmt										
Capacity (veh/h)	1457	-	-	938	1048	1587	-	-	-	-
HCM Lane V/C Ratio	0.033	-	-	0.009	0.002	0.005	-	-	-	-
HCM Control Delay (s)	7.6	0	-	8.9	8.4	7.3	0	-	-	-
HCM Lane LOS	A	A	-	A	A	A	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0	-	-	-	-

Intersection

Int Delay, s/veh 5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↖	↖	↑	↖	↖	↑↑	↖	↖	↑↑	↖
Traffic Vol, veh/h	31	1	3	6	38	177	52	655	5	109	233	33
Future Vol, veh/h	31	1	3	6	38	177	52	655	5	109	233	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	90	-	90	90	-	-	140	-	245	145	-	460
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	1	3	6	40	186	55	689	5	115	245	35

Major/Minor	Minor2	Minor1			Major1			Major2		
Conflicting Flow All	950	1279	123	1152	1309	345	280	0	0	694
Stage 1	475	475	-	799	799	-	-	-	-	-
Stage 2	475	804	-	353	510	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22
Pot Cap-1 Maneuver	215	165	905	153	158	651	1280	-	-	897
Stage 1	539	556	-	345	396	-	-	-	-	-
Stage 2	539	394	-	637	536	-	-	-	-	-
Platoon blocked, %							-	-	-	-
Mov Cap-1 Maneuver	103	138	905	132	132	651	1280	-	-	897
Mov Cap-2 Maneuver	103	138	-	132	132	-	-	-	-	-
Stage 1	516	485	-	330	379	-	-	-	-	-
Stage 2	329	377	-	552	467	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	50.7	18.6	0.6	2.8
HCM LOS	F	C		
<hr/>				
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBln1 EBln2 EBln3 WBln1 WBln2 WBln3 SBL SBT SBR
Capacity (veh/h)	1280	-	-	103 138 905 132 132 651 897 - -
HCM Lane V/C Ratio	0.043	-	-	0.317 0.008 0.003 0.048 0.303 0.286 0.128 - -
HCM Control Delay (s)	7.9	-	-	55.4 31.3 9 33.6 43.7 12.7 9.6 - -
HCM Lane LOS	A	-	-	F D A D E B A - -
HCM 95th %tile Q(veh)	0.1	-	-	1.2 0 0 0.1 1.2 1.2 0.4 - -

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↑		↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Vol, veh/h	0	0	0	23	0	50	0	1364	68	31	650	0
Future Vol, veh/h	0	0	0	23	0	50	0	1364	68	31	650	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	0	-	100	100	-	100	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	24	0	52	0	1421	71	32	677	0

Major/Minor	Minor2	Minor1			Major1			Major2		
Conflicting Flow All	1452	2233	339	1824	-	711	677	0	0	1492
Stage 1	741	741	-	1421	-	-	-	-	-	-
Stage 2	711	1492	-	403	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22
Pot Cap-1 Maneuver	92	42	657	48	0	375	911	-	-	446
Stage 1	374	421	-	143	0	-	-	-	-	-
Stage 2	390	185	-	595	0	-	-	-	-	-
Platoon blocked, %						-	-	-	-	-
Mov Cap-1 Maneuver	75	39	657	45	-	375	911	-	-	446
Mov Cap-2 Maneuver	75	39	-	45	-	-	-	-	-	-
Stage 1	374	391	-	143	-	-	-	-	-	-
Stage 2	336	185	-	552	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	59.5	0	0.6
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	911	-	-	-	45	375	446	-	-
HCM Lane V/C Ratio	-	-	-	-	0.532	0.139	0.072	-	-
HCM Control Delay (s)	0	-	-	0	153.7	16.1	13.7	-	-
HCM Lane LOS	A	-	-	A	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	2	0.5	0.2	-	-

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	29	0	0	6	9	19	0	0	43	6
Future Vol, veh/h	18	0	29	0	0	6	9	19	0	0	43	6
Conflicting Peds, #/hr	0	0	0	2	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	0	35	0	0	7	11	23	0	0	52	7

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	105	103	58	122	106	25	59	0	0	25	0	0
Stage 1	56	56	-	47	47	-	-	-	-	-	-	-
Stage 2	49	47	-	75	59	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	875	787	1008	853	784	1051	1545	-	-	1589	-	-
Stage 1	956	848	-	967	856	-	-	-	-	-	-	-
Stage 2	964	856	-	934	846	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	865	780	1006	815	777	1049	1545	-	-	1586	-	-
Mov Cap-2 Maneuver	865	780	-	815	777	-	-	-	-	-	-	-
Stage 1	949	848	-	958	848	-	-	-	-	-	-	-
Stage 2	951	848	-	900	846	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB				
HCM Control Delay, s	9	8.5			2.4			0				
HCM LOS	A	A			A			A				
Minor Lane/Major Mvmt												
Capacity (veh/h)	1545	-	-	947	1049	1586	-	-	-	-	-	-
HCM Lane V/C Ratio	0.007	-	-	0.06	0.007	-	-	-	-	-	-	-
HCM Control Delay (s)	7.3	0	-	9	8.5	0	-	-	-	-	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-	-	-	-	-

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Vol, veh/h	43	5	10	6	2	140	3	315	14	178	540	50
Future Vol, veh/h	43	5	10	6	2	140	3	315	14	178	540	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	90	-	90	90	-	-	140	-	245	145	-	460
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	5	10	6	2	146	3	328	15	185	563	52

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	1104	1282	282	988	1319	164	615	0	0	343	0	0
Stage 1	933	933	-	334	334	-	-	-	-	-	-	-
Stage 2	171	349	-	654	985	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	166	164	715	201	156	852	961	-	-	1213	-	-
Stage 1	286	343	-	653	642	-	-	-	-	-	-	-
Stage 2	814	632	-	422	324	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	120	138	715	170	132	852	961	-	-	1213	-	-
Mov Cap-2 Maneuver	120	138	-	170	132	-	-	-	-	-	-	-
Stage 1	285	291	-	651	640	-	-	-	-	-	-	-
Stage 2	670	630	-	346	274	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB				
HCM Control Delay, s	43	11.1			0.1			2				
HCM LOS	E	B										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	961	-	-	120	138	715	170	132	852	1213	-	-
HCM Lane V/C Ratio	0.003	-	-	0.373	0.038	0.015	0.037	0.016	0.171	0.153	-	-
HCM Control Delay (s)	8.8	-	-	51.9	32.1	10.1	27	32.7	10.1	8.5	-	-
HCM Lane LOS	A	-	-	F	D	B	D	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.5	0.1	0	0.1	0	0.6	0.5	-	-

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2025 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	150	0	43	0	465	25	14	850	0
Future Volume (veh/h)	0	0	0	150	0	43	0	465	25	14	850	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	163	0	47	0	505	27	15	924	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	6	0	537	0	0	435	1326	591	547	2028	905
Arrive On Green	0.00	0.00	0.00	0.17	0.00	0.05	0.00	0.37	0.37	0.07	0.57	0.00
Sat Flow, veh/h	0	-74814	0	1781	163		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	163	11.9		0	505	27	15	924	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	B		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	2.6			0.0	3.2	0.3	0.1	4.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.6			0.0	3.2	0.3	0.1	4.7	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	6	0	537			435	1326	591	547	2028	905
V/C Ratio(X)	0.00	0.00	0.00	0.30			0.00	0.38	0.05	0.03	0.46	0.00
Avail Cap(c_a), veh/h	0	1180	0	2020			804	7533	3360	887	7705	3437
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	11.6			0.0	7.1	6.2	5.0	3.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3			0.0	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	0.8			0.0	0.5	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	11.9			0.0	7.3	6.2	5.1	4.0	0.0
LnGrp LOS	A	A	A	B			A	A	A	A	A	A
Approach Vol, veh/h	0							532			939	
Approach Delay, s/veh	0.0							7.2			4.0	
Approach LOS								A			A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	6.1	15.5	9.3	0.0	0.0	21.6						
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0						
Max Green Setting (Gmax), s	6.5	62.5	29.5	18.0	5.0	64.0						
Max Q Clear Time (g_c+l1), s	2.1	5.2	4.6	0.0	0.0	6.7						
Green Ext Time (p_c), s	0.0	3.3	0.4	0.0	0.0	6.9						
Intersection Summary												
HCM 6th Ctrl Delay				5.8								
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	6	0	0	0	40	24	0	0	15	104
Future Vol, veh/h	1	0	6	0	0	0	40	24	0	0	15	104
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	8	0	0	0	50	30	0	0	19	130

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	215	215	85	220	280	32	149	0	0	31	0	0
Stage 1	84	84	-	131	131	-	-	-	-	-	-	-
Stage 2	131	131	-	89	149	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	742	683	974	736	628	1042	1432	-	-	1582	-	-
Stage 1	924	825	-	873	788	-	-	-	-	-	-	-
Stage 2	873	788	-	918	774	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	721	658	973	709	605	1040	1432	-	-	1580	-	-
Mov Cap-2 Maneuver	721	658	-	709	605	-	-	-	-	-	-	-
Stage 1	891	825	-	841	759	-	-	-	-	-	-	-
Stage 2	841	759	-	910	774	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	8.9	0			4.8			0		
HCM LOS	A	A			A			A		
<hr/>										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR		
Capacity (veh/h)	1432	-	-	927	-	1580	-	-		
HCM Lane V/C Ratio	0.035	-	-	0.009	-	-	-	-		
HCM Control Delay (s)	7.6	0	-	8.9	0	0	-	-		
HCM Lane LOS	A	A	-	A	A	A	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	0	-	0	-	-		

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows Item # 2.
2025 AM

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	34	1	4	8	43	196	60	737	6	122	264	34
Future Volume (veh/h)	34	1	4	8	43	196	60	737	6	122	264	34
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1	4	8	45	206	63	776	6	128	278	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	438	415	352	466	364	308	592	1275	569	414	1349	601
Arrive On Green	0.06	0.22	0.22	0.04	0.19	0.19	0.08	0.36	0.36	0.10	0.38	0.38
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	36	1	4	8	45	206	63	776	6	128	278	36
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	0.0	0.1	0.2	1.1	6.9	1.2	10.2	0.1	2.5	3.0	0.8
Cycle Q Clear(g_c), s	0.9	0.0	0.1	0.2	1.1	6.9	1.2	10.2	0.1	2.5	3.0	0.8
Prop In Lane	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	438	415	352	466	364	308	592	1275	569	414	1349	601
V/C Ratio(X)	0.08	0.00	0.01	0.02	0.12	0.67	0.11	0.61	0.01	0.31	0.21	0.06
Avail Cap(c_a), veh/h	604	1048	888	681	1048	888	727	4044	1804	793	4604	2054
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	17.3	17.3	17.0	19.0	21.3	10.2	15.0	11.8	11.0	11.9	11.3
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.2	2.5	0.1	0.5	0.0	0.4	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.3	0.0	0.0	0.1	0.5	2.6	0.4	3.1	0.0	0.7	0.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	17.3	17.3	17.0	19.1	23.8	10.3	15.5	11.8	11.4	12.0	11.3
LnGrp LOS	B	B	B	B	B	C	B	B	B	B	B	B
Approach Vol, veh/h						259			845			442
Approach Delay, s/veh						22.8			15.1			11.8
Approach LOS						C			B			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	9.8	24.5	6.1	16.7	8.7	25.7	7.7	15.1				
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0	5.5	5.5				
Max Green Setting (Gmax), s	16.5	62.0	7.5	30.5	7.5	71.0	7.5	30.5				
Max Q Clear Time (g_c+l1), s	4.5	12.2	2.2	2.1	3.2	5.0	2.9	8.9				
Green Ext Time (p_c), s	0.2	5.3	0.0	0.0	0.0	1.7	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay				15.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2025 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	27	0	52	0	1443	76	31	690	0
Future Volume (veh/h)	0	0	0	27	0	52	0	1443	76	31	690	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	28	0	54	0	1503	79	32	719	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	4	0	243	0	0	595	2311	1031	367	2805	1251
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.03	0.00	0.65	0.65	0.06	0.79	0.00
Sat Flow, veh/h	0	-74814	0	1781	28		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	28	24.0		0	1503	79	32	719	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	C		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.8			0.0	13.6	1.0	0.3	2.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.8			0.0	13.6	1.0	0.3	2.8	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	4	0	243			595	2311	1031	367	2805	1251
V/C Ratio(X)	0.00	0.00	0.00	0.12			0.00	0.65	0.08	0.09	0.26	0.00
Avail Cap(c_a), veh/h	0	686	0	789			810	5217	2327	489	5250	2342
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	23.7			0.0	5.6	3.4	4.6	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2			0.0	0.3	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	0.3			0.0	1.9	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	24.0			0.0	5.9	3.4	4.7	1.5	0.0
LnGrp LOS	A	A	A	C			A	A	A	A	A	A
Approach Vol, veh/h	0						1582			751		
Approach Delay, s/veh	0.0						5.8			1.7		
Approach LOS							A			A		
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	7.4	38.6	7.2	0.0	0.0	45.9						
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0						
Max Green Setting (Gmax), s	5.5	75.0	18.0	18.0	5.0	75.5						
Max Q Clear Time (g_c+l1), s	2.3	15.6	2.8	0.0	0.0	4.8						
Green Ext Time (p_c), s	0.0	15.9	0.0	0.0	0.0	5.0						
Intersection Summary												
HCM 6th Ctrl Delay			4.7									
HCM 6th LOS			A									

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	0	31	0	0	0	9	24	0	0	49	7
Future Vol, veh/h	23	0	31	0	0	0	9	24	0	0	49	7
Conflicting Peds, #/hr	0	0	0	2	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	0	37	0	0	0	11	29	0	0	59	8

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	114	116	65	137	120	31	67	0	0	31	0	0
Stage 1	63	63	-	53	53	-	-	-	-	-	-	-
Stage 2	51	53	-	84	67	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	863	774	999	834	770	1043	1535	-	-	1582	-	-
Stage 1	948	842	-	960	851	-	-	-	-	-	-	-
Stage 2	962	851	-	924	839	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	859	767	997	796	763	1041	1535	-	-	1579	-	-
Mov Cap-2 Maneuver	859	767	-	796	763	-	-	-	-	-	-	-
Stage 1	941	842	-	951	843	-	-	-	-	-	-	-
Stage 2	955	843	-	888	839	-	-	-	-	-	-	-

Approach	EB	WB			NB		SB	
HCM Control Delay, s	9.1		0		2		0	
HCM LOS	A		A					
Minor Lane/Major Mvmt								
Capacity (veh/h)	1535	-	-	933	-	1579	-	-
HCM Lane V/C Ratio	0.007	-	-	0.07	-	-	-	-
HCM Control Delay (s)	7.4	0	-	9.1	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	-	0	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows Item # 2.
2025 PM

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	46	6	12	8	2	156	4	354	18	197	609	55
Future Volume (veh/h)	46	6	12	8	2	156	4	354	18	197	609	55
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00			1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	6	12	8	2	162	4	369	19	205	634	57
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	510	390	330	470	316	268	368	869	388	556	1283	572
Arrive On Green	0.08	0.21	0.21	0.04	0.17	0.17	0.04	0.24	0.24	0.15	0.36	0.36
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	48	6	12	8	2	162	4	369	19	205	634	57
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	0.1	0.3	0.2	0.0	4.3	0.1	4.0	0.4	3.5	6.4	1.1
Cycle Q Clear(g_c), s	0.9	0.1	0.3	0.2	0.0	4.3	0.1	4.0	0.4	3.5	6.4	1.1
Prop In Lane	1.00			1.00			1.00			1.00		1.00
Lane Grp Cap(c), veh/h	510	390	330	470	316	268	368	869	388	556	1283	572
V/C Ratio(X)	0.09	0.02	0.04	0.02	0.01	0.60	0.01	0.42	0.05	0.37	0.49	0.10
Avail Cap(c_a), veh/h	868	1510	1280	820	1429	1211	727	3490	1557	1486	5041	2248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	14.4	14.5	14.3	15.8	17.6	12.9	14.6	13.2	9.5	11.4	9.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	2.2	0.0	0.3	0.1	0.4	0.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.3	0.0	0.1	0.1	0.0	1.5	0.0	1.2	0.1	0.9	1.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.3	14.4	14.5	14.3	15.8	19.8	12.9	14.9	13.3	9.9	11.7	9.8
LnGrp LOS	B	B	B	B	B	B	B	B	B	A	B	A
Approach Vol, veh/h						172			392			896
Approach Delay, s/veh						19.5			14.8			11.2
Approach LOS						B			B			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	11.1	15.2	6.0	13.5	5.7	20.5	7.8	11.7				
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0	5.5	5.5				
Max Green Setting (Gmax), s	29.5	42.0	9.5	35.5	9.5	62.0	11.5	33.5				
Max Q Clear Time (g _{c+l1}), s	5.5	6.0	2.2	2.3	2.1	8.4	2.9	6.3				
Green Ext Time (p _c), s	0.5	2.2	0.0	0.0	0.0	4.3	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2025 + Project AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	267	0	110	0	465	126	72	850	0
Future Volume (veh/h)	0	0	0	267	0	110	0	465	126	72	850	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	278	0	115	0	484	131	75	885	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	447	0	0	374	1146	511	554	1940	865
Arrive On Green	0.00	0.00	0.00	0.25	0.00	0.01	0.00	0.32	0.32	0.12	0.55	0.00
Sat Flow, veh/h	0	-74814	0	1781	278		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	278	14.5		0	484	131	75	885	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	B		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	5.5			0.0	4.2	2.4	0.9	5.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	5.5			0.0	4.2	2.4	0.9	5.9	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	5	0	447			374	1146	511	554	1940	865
V/C Ratio(X)	0.00	0.00	0.00	0.62			0.00	0.42	0.26	0.14	0.46	0.00
Avail Cap(c_a), veh/h	0	950	0	1809			686	4964	2214	744	5144	2294
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	13.1			0.0	10.5	9.8	6.3	5.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.4			0.0	0.2	0.3	0.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	1.9			0.0	1.1	0.6	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	14.5			0.0	10.7	10.1	6.4	5.6	0.0
LnGrp LOS	A	A	A	B			A	B	B	A	A	A
Approach Vol, veh/h	0							615			960	
Approach Delay, s/veh	0.0							10.6			5.6	
Approach LOS								B			A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	8.8	16.7	13.9	0.0	0.0	25.5						
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0						
Max Green Setting (Gmax), s	7.0	52.0	38.0	18.0	5.0	54.0						
Max Q Clear Time (g_c+l1), s	2.9	6.2	7.5	0.0	0.0	7.9						
Green Ext Time (p_c), s	0.0	3.5	0.8	0.0	0.0	6.5						
Intersection Summary												
HCM 6th Ctrl Delay				8.6								
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	134	0	23	0	0	0	54	24	0	0	15	219
Future Vol, veh/h	134	0	23	0	0	0	54	24	0	0	15	219
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	161	0	28	0	0	0	65	29	0	0	18	264

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	310	310	151	325	442	31	282	0	0	30	0	0
Stage 1	150	150	-	160	160	-	-	-	-	-	-	-
Stage 2	160	160	-	165	282	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	642	605	895	628	510	1043	1280	-	-	1583	-	-
Stage 1	853	773	-	842	766	-	-	-	-	-	-	-
Stage 2	842	766	-	837	678	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	616	573	894	583	483	1041	1280	-	-	1581	-	-
Mov Cap-2 Maneuver	616	573	-	583	483	-	-	-	-	-	-	-
Stage 1	809	773	-	797	725	-	-	-	-	-	-	-
Stage 2	797	725	-	810	678	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB				
HCM Control Delay, s	12.9	0			5.5			0				
HCM LOS	B	A										
Minor Lane/Major Mvmt												
Capacity (veh/h)	1280	-	-	645	-	1581	-	-	-	-	-	-
HCM Lane V/C Ratio	0.051	-	-	0.293	-	-	-	-	-	-	-	-
HCM Control Delay (s)	8	0	-	12.9	0	0	-	-	-	-	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.2	-	0	-	-	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows
2025 + Project AM
Item # 2.

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	101	18	54	8	57	196	103	737	6	122	264	92
Future Volume (veh/h)	101	18	54	8	57	196	103	737	6	122	264	92
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	19	56	8	59	204	107	768	6	127	275	96
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	483	475	403	452	369	313	573	1222	545	402	1235	551
Arrive On Green	0.10	0.25	0.25	0.04	0.20	0.20	0.10	0.34	0.34	0.10	0.35	0.35
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	105	19	56	8	59	204	107	768	6	127	275	96
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.7	0.5	1.7	0.2	1.6	7.4	2.3	11.3	0.2	2.7	3.4	2.6
Cycle Q Clear(g_c), s	2.7	0.5	1.7	0.2	1.6	7.4	2.3	11.3	0.2	2.7	3.4	2.6
Prop In Lane	1.00			1.00			1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	483	475	403	452	369	313	573	1222	545	402	1235	551
V/C Ratio(X)	0.22	0.04	0.14	0.02	0.16	0.65	0.19	0.63	0.01	0.32	0.22	0.17
Avail Cap(c_a), veh/h	620	1048	889	634	989	838	709	3643	1625	674	3927	1752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	17.5	18.0	18.1	20.8	23.1	11.0	17.1	13.5	12.1	14.4	14.1
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.0	0.2	2.3	0.2	0.5	0.0	0.4	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	0.2	0.6	0.1	0.7	2.8	0.7	3.7	0.1	0.8	1.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.6	17.6	18.2	18.1	21.0	25.4	11.1	17.7	13.5	12.6	14.5	14.3
LnGrp LOS	B	B	B	B	C	C	B	B	B	B	B	B
Approach Vol, veh/h		180			271			881			498	
Approach Delay, s/veh		16.6			24.2			16.9			14.0	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	10.4	25.5	6.6	19.9	10.2	25.7	10.2	16.3				
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	14.0	61.0	7.0	33.0	9.0	66.0	9.0	31.0				
Max Q Clear Time (g _{c+l1}), s	4.7	13.3	2.2	3.7	4.3	5.4	4.7	9.4				
Green Ext Time (p _c), s	0.2	5.2	0.0	0.2	0.1	1.9	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			17.1									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2025 + Project PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	178	0	138	0	1443	239	124	690	0
Future Volume (veh/h)	0	0	0	178	0	138	0	1443	239	124	690	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	185	0	144	0	1503	249	129	719	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	2	0	229	0	0	508	1991	888	269	2489	1110
Arrive On Green	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.56	0.56	0.06	0.70	0.00
Sat Flow, veh/h	0	-112222	0	1781	185		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	185	38.9		0	1503	249	129	719	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	D		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	7.7			0.0	24.5	6.2	2.1	5.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	7.7			0.0	24.5	6.2	2.1	5.8	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2	0	229			508	1991	888	269	2489	1110
V/C Ratio(X)	0.00	0.00	0.00	0.81			0.00	0.75	0.28	0.48	0.29	0.00
Avail Cap(c_a), veh/h	0	443	0	421			622	3270	1458	371	3457	1542
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	32.2			0.0	12.7	8.7	13.6	4.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	6.6			0.0	0.6	0.2	1.3	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	3.6			0.0	7.3	1.9	1.0	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	38.9			0.0	13.3	8.9	14.9	4.3	0.0
LnGrp LOS	A	A	A	D			A	B	A	B	A	A
Approach Vol, veh/h		0						1752		848		
Approach Delay, s/veh		0.0						12.7		5.9		
Approach LOS								B		A		
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	10.7	49.6	15.8	0.0	0.0	60.3						
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0						
Max Green Setting (Gmax), s	9.0	70.0	18.0	18.0	5.0	74.0						
Max Q Clear Time (g_c+l1), s	4.1	26.5	9.7	0.0	0.0	7.8						
Green Ext Time (p_c), s	0.1	16.1	0.3	0.0	0.0	5.0						
Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

Intersection

Int Delay, s/veh 6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	195	0	53	0	0	0	32	24	0	0	49	193
Future Vol, veh/h	195	0	53	0	0	0	32	24	0	0	49	193
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	235	0	64	0	0	0	39	29	0	0	59	233

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	284	284	177	317	400	31	292	0	0	30	0	0
Stage 1	176	176	-	108	108	-	-	-	-	-	-	-
Stage 2	108	108	-	209	292	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	668	625	866	636	538	1043	1270	-	-	1583	-	-
Stage 1	826	753	-	897	806	-	-	-	-	-	-	-
Stage 2	897	806	-	793	671	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	651	605	865	574	521	1041	1270	-	-	1581	-	-
Mov Cap-2 Maneuver	651	605	-	574	521	-	-	-	-	-	-	-
Stage 1	800	753	-	868	780	-	-	-	-	-	-	-
Stage 2	868	780	-	734	671	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	14.2	0			4.5			0		
HCM LOS	B	A								
Minor Lane/Major Mvmt										
Capacity (veh/h)	1270	-	-	687	-	1581	-	-	-	-
HCM Lane V/C Ratio	0.03	-	-	0.435	-	-	-	-	-	-
HCM Control Delay (s)	7.9	0	-	14.2	0	0	-	-	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.2	-	0	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows
2025 + Project PM
Item # 2.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	132	28	77	8	25	156	74	354	18	197	609	148
Future Volume (veh/h)	132	28	77	8	25	156	74	354	18	197	609	148
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	29	80	8	26	162	77	369	19	205	634	154
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	442	416	353	326	265	225	313	743	331	464	968	432
Arrive On Green	0.09	0.22	0.22	0.01	0.14	0.14	0.06	0.21	0.21	0.12	0.27	0.27
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	138	29	80	8	26	162	77	369	19	205	634	154
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.7	0.7	2.4	0.2	0.7	5.6	1.9	5.3	0.6	5.0	9.1	4.5
Cycle Q Clear(g_c), s	3.7	0.7	2.4	0.2	0.7	5.6	1.9	5.3	0.6	5.0	9.1	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	442	416	353	326	265	225	313	743	331	464	968	432
V/C Ratio(X)	0.31	0.07	0.23	0.02	0.10	0.72	0.25	0.50	0.06	0.44	0.66	0.36
Avail Cap(c_a), veh/h	805	1199	1016	585	940	796	574	2648	1181	1044	3510	1566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	17.7	18.4	20.8	21.6	23.7	16.3	20.1	18.3	14.8	18.6	16.9
Incr Delay (d2), s/veh	0.4	0.1	0.3	0.0	0.2	4.3	0.4	0.5	0.1	0.7	0.8	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.4	0.3	0.8	0.1	0.3	2.2	0.7	1.8	0.2	1.6	3.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.3	17.8	18.7	20.9	21.7	28.0	16.7	20.7	18.3	15.4	19.4	17.4
LnGrp LOS	B	B	B	C	C	C	B	C	B	B	B	B
Approach Vol, veh/h		247			196			465			993	
Approach Delay, s/veh		18.3			26.9			19.9			18.2	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	13.2	19.1	6.6	18.8	9.5	22.7	11.3	14.2				
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	26.0	43.0	9.0	37.0	12.0	57.0	17.0	29.0				
Max Q Clear Time (g _{c+l1}), s	7.0	7.3	2.2	4.4	3.9	11.1	5.7	7.6				
Green Ext Time (p _c), s	0.5	2.2	0.0	0.4	0.1	4.6	0.2	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			19.6									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2040 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	193	0	45	0	544	33	15	987	0
Future Volume (veh/h)	0	0	0	193	0	45	0	544	33	15	987	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	210	0	49	0	591	36	16	1073	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	558	0	0	393	1409	628	504	2039	910
Arrive On Green	0.00	0.00	0.00	0.20	0.00	0.04	0.00	0.40	0.40	0.06	0.57	0.00
Sat Flow, veh/h	0	-74814	0	1781	210		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	210	13.1		0	591	36	16	1073	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	B		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	3.7			0.0	4.2	0.5	0.2	6.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.7			0.0	4.2	0.5	0.2	6.5	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	5	0	558			393	1409	628	504	2039	910
V/C Ratio(X)	0.00	0.00	0.00	0.38			0.00	0.42	0.06	0.03	0.53	0.00
Avail Cap(c_a), veh/h	0	1040	0	1424			768	7345	3276	798	7396	3299
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.7			0.0	7.7	6.5	5.5	4.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4			0.0	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	1.2			0.0	0.8	0.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	13.1			0.0	7.9	6.6	5.5	4.8	0.0
LnGrp LOS	A	A	A	B			A	A	A	A	A	A
Approach Vol, veh/h	0							627		1089		
Approach Delay, s/veh	0.0							7.8		4.8		
Approach LOS								A		A		
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	6.2	17.9	10.9	0.0	0.0	24.1						
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0						
Max Green Setting (Gmax), s	6.5	69.5	22.5	18.0	6.0	70.0						
Max Q Clear Time (g _{c+l1}), s	2.2	6.2	5.7	0.0	0.0	8.5						
Green Ext Time (p _c), s	0.0	4.0	0.5	0.0	0.0	8.7						
Intersection Summary												
HCM 6th Ctrl Delay			6.7									
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	8	0	0	0	56	32	0	0	21	131
Future Vol, veh/h	1	0	8	0	0	0	56	32	0	0	21	131
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	10	0	0	0	70	40	0	0	26	164

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	289	289	109	295	371	42	190	0	0	41	0	0
Stage 1	108	108	-	181	181	-	-	-	-	-	-	-
Stage 2	181	181	-	114	190	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	663	621	945	657	559	1029	1384	-	-	1568	-	-
Stage 1	897	806	-	821	750	-	-	-	-	-	-	-
Stage 2	821	750	-	891	743	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	636	588	944	623	529	1027	1384	-	-	1567	-	-
Mov Cap-2 Maneuver	636	588	-	623	529	-	-	-	-	-	-	-
Stage 1	850	806	-	777	710	-	-	-	-	-	-	-
Stage 2	778	710	-	881	743	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	9.1	0			4.9			0		
HCM LOS	A	A								
Minor Lane/Major Mvmt										
Capacity (veh/h)	1384	-	-	896	-	1567	-	-	-	-
HCM Lane V/C Ratio	0.051	-	-	0.013	-	-	-	-	-	-
HCM Control Delay (s)	7.7	0	-	9.1	0	0	-	-	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-	0	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows Item # 2.
2040 AM

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	42	2	6	13	59	253	85	985	11	159	354	36
Future Volume (veh/h)	42	2	6	13	59	253	85	985	11	159	354	36
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	2	6	14	62	266	89	1037	12	167	373	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	450	381	466	407	345	571	1462	652	354	1549	691
Arrive On Green	0.06	0.24	0.24	0.04	0.22	0.22	0.08	0.41	0.41	0.10	0.44	0.44
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	44	2	6	14	62	266	89	1037	12	167	373	38
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.4	0.1	0.2	0.4	2.0	12.0	2.1	18.4	0.3	4.0	5.0	1.0
Cycle Q Clear(g_c), s	1.4	0.1	0.2	0.4	2.0	12.0	2.1	18.4	0.3	4.0	5.0	1.0
Prop In Lane	1.00			1.00			1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	402	450	381	466	407	345	571	1462	652	354	1549	691
V/C Ratio(X)	0.11	0.00	0.02	0.03	0.15	0.77	0.16	0.71	0.02	0.47	0.24	0.05
Avail Cap(c_a), veh/h	460	716	607	566	716	607	624	3236	1443	622	3752	1674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	21.9	21.9	21.2	24.0	27.9	11.4	18.5	13.2	14.0	13.5	12.3
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.2	3.7	0.1	0.6	0.0	1.0	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	0.0	0.1	0.2	0.9	4.7	0.7	6.3	0.1	1.3	1.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.4	21.9	22.0	21.3	24.2	31.6	11.5	19.2	13.2	15.0	13.5	12.4
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h						342			1138			578
Approach Delay, s/veh						29.8			18.5			13.9
Approach LOS						C			B			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	11.6	35.2	6.8	22.2	9.7	37.0	8.5	20.5				
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0	5.5	5.5				
Max Green Setting (Gmax), s	17.5	66.0	5.5	27.5	6.5	77.0	5.5	27.5				
Max Q Clear Time (g _{c+l1}), s	6.0	20.4	2.4	2.2	4.1	7.0	3.4	14.0				
Green Ext Time (p _c), s	0.3	7.8	0.0	0.0	0.0	2.3	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				19.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2040 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	41	0	56	0	1685	103	29	805	0
Future Volume (veh/h)	0	0	0	41	0	56	0	1685	103	29	805	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	43	0	58	0	1755	107	30	839	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	3	0	225	0	0	555	2478	1105	301	2890	1289
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.02	0.00	0.70	0.70	0.06	0.81	0.00
Sat Flow, veh/h	0	-74814	0	1781	43		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	43	29.7		0	1755	107	30	839	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	C		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	1.5			0.0	19.3	1.4	0.3	3.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5			0.0	19.3	1.4	0.3	3.8	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3	0	225			555	2478	1105	301	2890	1289
V/C Ratio(X)	0.00	0.00	0.00	0.19			0.00	0.71	0.10	0.10	0.29	0.00
Avail Cap(c_a), veh/h	0	557	0	614			729	4318	1926	380	4318	1926
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	29.2			0.0	5.9	3.2	5.9	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4			0.0	0.4	0.0	0.1	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	0.6			0.0	3.1	0.3	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	29.7			0.0	6.3	3.3	6.0	1.5	0.0
LnGrp LOS	A	A	A	C			A	A	A	A	A	A
Approach Vol, veh/h	0							1862			869	
Approach Delay, s/veh	0.0							6.1			1.7	
Approach LOS								A			A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	7.6	49.6	8.2	0.0	0.0	57.2						
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0						
Max Green Setting (Gmax), s	5.0	76.5	17.0	18.0	5.0	76.5						
Max Q Clear Time (g_c+l1), s	2.3	21.3	3.5	0.0	0.0	5.8						
Green Ext Time (p_c), s	0.0	21.3	0.0	0.0	0.0	6.1						
Intersection Summary												
HCM 6th Ctrl Delay				5.1								
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	0	43	0	0	0	13	34	0	0	67	7
Future Vol, veh/h	26	0	43	0	0	0	13	34	0	0	67	7
Conflicting Peds, #/hr	0	0	0	2	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	0	52	0	0	0	16	41	0	0	81	8

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	158	160	87	188	164	43	89	0	0	43	0	0
Stage 1	85	85	-	75	75	-	-	-	-	-	-	-
Stage 2	73	75	-	113	89	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	808	732	971	772	729	1027	1506	-	-	1566	-	-
Stage 1	923	824	-	934	833	-	-	-	-	-	-	-
Stage 2	937	833	-	892	821	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	802	722	969	722	720	1025	1506	-	-	1563	-	-
Mov Cap-2 Maneuver	802	722	-	722	720	-	-	-	-	-	-	-
Stage 1	913	824	-	922	822	-	-	-	-	-	-	-
Stage 2	927	822	-	843	821	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	9.4	0			2.1			0		
HCM LOS	A	A								
Minor Lane/Major Mvmt										
Capacity (veh/h)	1506	-	-	899	-	1563	-	-	-	-
HCM Lane V/C Ratio	0.01	-	-	0.092	-	-	-	-	-	-
HCM Control Delay (s)	7.4	0	-	9.4	0	0	-	-	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	-	0	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows Item # 2.
2040 PM

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	55	9	20	13	4	203	6	472	30	252	815	69
Future Volume (veh/h)	55	9	20	13	4	203	6	472	30	252	815	69
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	9	21	14	4	211	6	492	31	262	849	72
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	500	433	367	481	367	311	304	939	419	537	1416	632
Arrive On Green	0.08	0.23	0.23	0.04	0.20	0.20	0.04	0.26	0.26	0.17	0.40	0.40
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	57	9	21	14	4	211	6	492	31	262	849	72
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	0.2	0.6	0.3	0.1	6.8	0.1	6.5	0.8	5.3	10.4	1.6
Cycle Q Clear(g_c), s	1.3	0.2	0.6	0.3	0.1	6.8	0.1	6.5	0.8	5.3	10.4	1.6
Prop In Lane	1.00			1.00			1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	500	433	367	481	367	311	304	939	419	537	1416	632
V/C Ratio(X)	0.11	0.02	0.06	0.03	0.01	0.68	0.02	0.52	0.07	0.49	0.60	0.11
Avail Cap(c_a), veh/h	713	1187	1006	692	1120	949	532	3030	1351	1301	4577	2041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	16.4	16.5	16.0	17.9	20.6	14.7	17.3	15.2	11.0	13.1	10.4
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.0	0.0	2.6	0.0	0.5	0.1	0.7	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	0.1	0.2	0.1	0.0	0.2	0.0	2.1	0.3	1.5	3.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.0	16.4	16.6	16.0	17.9	23.1	14.8	17.8	15.3	11.7	13.5	10.5
LnGrp LOS	B	B	B	B	B	C	B	B	B	B	B	B
Approach Vol, veh/h						229			529			1183
Approach Delay, s/veh						22.6			17.6			12.9
Approach LOS						C			B			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	13.3	18.6	6.5	16.8	5.9	26.0	8.4	14.8				
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0	5.5	5.5				
Max Green Setting (Gmax), s	31.5	44.0	7.5	33.5	7.5	68.0	9.5	31.5				
Max Q Clear Time (g _{c+l1}), s	7.3	8.5	2.3	2.6	2.1	12.4	3.3	8.8				
Green Ext Time (p _c), s	0.7	3.1	0.0	0.1	0.0	6.2	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				15.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2040 + Project AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	310	0	112	0	544	134	73	987	0
Future Volume (veh/h)	0	0	0	310	0	112	0	544	134	73	987	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	323	0	117	0	567	140	76	1028	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	4	0	483	0	0	342	1198	534	511	1935	863
Arrive On Green	0.00	0.00	0.00	0.27	0.00	0.01	0.00	0.34	0.34	0.12	0.54	0.00
Sat Flow, veh/h	0	-74814	0	1781	323		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	323	15.7		0	567	140	76	1028	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	B		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	7.0			0.0	5.5	2.8	1.0	8.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	7.0			0.0	5.5	2.8	1.0	8.0	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	4	0	483			342	1198	534	511	1935	863
V/C Ratio(X)	0.00	0.00	0.00	0.67			0.00	0.47	0.26	0.15	0.53	0.00
Avail Cap(c_a), veh/h	0	862	0	1642			626	4668	2082	593	4668	2082
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	14.1			0.0	11.3	10.5	7.0	6.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.6			0.0	0.3	0.3	0.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	2.5			0.0	1.5	0.8	0.2	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	15.7			0.0	11.6	10.7	7.1	6.6	0.0
LnGrp LOS	A	A	A	B			A	B	B	A	A	A
Approach Vol, veh/h	0						707			1104		
Approach Delay, s/veh	0.0						11.5			6.6		
Approach LOS							B			A		
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	9.0	18.6	15.8	0.0	0.0	27.6						
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0						
Max Green Setting (Gmax), s	5.0	54.0	38.0	18.0	5.0	54.0						
Max Q Clear Time (g_c+l1), s	3.0	7.5	9.0	0.0	0.0	10.0						
Green Ext Time (p_c), s	0.0	4.2	1.0	0.0	0.0	7.9						
Intersection Summary												
HCM 6th Ctrl Delay				9.6								
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	134	0	25	0	0	0	70	32	0	0	21	246
Future Vol, veh/h	134	0	25	0	0	0	70	32	0	0	21	246
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	161	0	30	0	0	0	84	39	0	0	25	296

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	381	381	174	397	529	41	321	0	0	40	0	0
Stage 1	173	173	-	208	208	-	-	-	-	-	-	-
Stage 2	208	208	-	189	321	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	577	552	869	563	455	1030	1239	-	-	1570	-	-
Stage 1	829	756	-	794	730	-	-	-	-	-	-	-
Stage 2	794	730	-	813	652	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	546	513	868	514	423	1028	1239	-	-	1569	-	-
Mov Cap-2 Maneuver	546	513	-	514	423	-	-	-	-	-	-	-
Stage 1	772	756	-	738	679	-	-	-	-	-	-	-
Stage 2	739	679	-	784	652	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	14.2	0			5.6			0		
HCM LOS	B	A								
Minor Lane/Major Mvmt										
Capacity (veh/h)	1239	-	-	580	-	1569	-	-	-	-
HCM Lane V/C Ratio	0.068	-	-	0.33	-	-	-	-	-	-
HCM Control Delay (s)	8.1	0	-	14.2	0	0	-	-	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.4	-	0	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows
2040 + Project AM
Item # 2.

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	109	19	56	13	73	253	128	985	11	159	354	94
Future Volume (veh/h)	109	19	56	13	73	253	128	985	11	159	354	94
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	20	58	14	76	264	133	1026	11	166	369	98
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	438	498	422	447	407	345	551	1411	629	346	1462	652
Arrive On Green	0.09	0.27	0.27	0.04	0.22	0.22	0.09	0.40	0.40	0.10	0.41	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	114	20	58	14	76	264	133	1026	11	166	369	98
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.8	0.7	2.3	0.5	2.7	12.9	3.5	20.2	0.3	4.4	5.6	3.2
Cycle Q Clear(g_c), s	3.8	0.7	2.3	0.5	2.7	12.9	3.5	20.2	0.3	4.4	5.6	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	438	498	422	447	407	345	551	1411	629	346	1462	652
V/C Ratio(X)	0.26	0.04	0.14	0.03	0.19	0.76	0.24	0.73	0.02	0.48	0.25	0.15
Avail Cap(c_a), veh/h	473	723	613	525	678	575	587	2878	1284	551	3264	1456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	22.5	23.1	22.9	26.4	30.4	12.5	21.1	15.1	15.5	16.0	15.3
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.0	0.2	3.5	0.2	0.7	0.0	1.0	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.6	0.3	0.9	0.2	1.2	5.1	1.2	7.2	0.1	1.5	2.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.2	22.5	23.3	23.0	26.6	33.9	12.8	21.9	15.2	16.6	16.1	15.4
LnGrp LOS	C	C	C	C	C	C	B	C	B	B	B	B
Approach Vol, veh/h		192				354			1170			633
Approach Delay, s/veh		21.4				31.9			20.8			16.1
Approach LOS		C				C			C			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	12.5	36.9	7.4	26.0	11.3	38.0	11.4	22.0				
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	16.0	64.0	5.0	30.0	7.0	73.0	7.0	28.0				
Max Q Clear Time (g _{c+l1}), s	6.4	22.2	2.5	4.3	5.5	7.6	5.8	14.9				
Green Ext Time (p _c), s	0.3	7.6	0.0	0.2	0.0	2.5	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			21.2									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2040 + Project PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	192	0	142	0	1685	266	122	805	0
Future Volume (veh/h)	0	0	0	192	0	142	0	1685	266	122	805	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	200	0	148	0	1755	277	127	839	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	2	0	273	0	0	492	2264	1010	272	2691	1200
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.01	0.00	0.64	0.64	0.08	0.76	0.00
Sat Flow, veh/h	0	-74814	0	1781	200		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	200	40.7		0	1755	277	127	839	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	D		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	9.6			0.0	31.8	6.9	1.9	6.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	9.6			0.0	31.8	6.9	1.9	6.7	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2	0	273			492	2264	1010	272	2691	1200
V/C Ratio(X)	0.00	0.00	0.00	0.73			0.00	0.78	0.27	0.47	0.31	0.00
Avail Cap(c_a), veh/h	0	417	0	377			629	3091	1379	276	3091	1379
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	36.2			0.0	11.7	7.2	17.1	3.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.5			0.0	0.9	0.1	1.2	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	4.4			0.0	9.4	2.0	1.7	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	40.7			0.0	12.6	7.3	18.3	3.5	0.0
LnGrp LOS	A	A	A	D			A	B	A	B	A	A
Approach Vol, veh/h	0							2032			966	
Approach Delay, s/veh	0.0							11.8			5.5	
Approach LOS								B			A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	10.8	61.1	17.8	0.0	0.0	71.9						
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0						
Max Green Setting (Gmax), s	5.0	75.0	17.0	18.0	5.0	75.0						
Max Q Clear Time (g _{c+l1}), s	3.9	33.8	11.6	0.0	0.0	8.7						
Green Ext Time (p _c), s	0.0	20.4	0.2	0.0	0.0	6.1						
Intersection Summary												
HCM 6th Ctrl Delay				11.7								
HCM 6th LOS				B								

Intersection

Int Delay, s/veh 7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	198	0	65	0	0	0	36	34	0	0	67	193
Future Vol, veh/h	198	0	65	0	0	0	36	34	0	0	67	193
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	239	0	78	0	0	0	43	41	0	0	81	233

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	326	326	199	366	442	43	314	0	0	42	0	0
Stage 1	198	198	-	128	128	-	-	-	-	-	-	-
Stage 2	128	128	-	238	314	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	627	592	842	590	510	1027	1246	-	-	1567	-	-
Stage 1	804	737	-	876	790	-	-	-	-	-	-	-
Stage 2	876	790	-	765	656	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	609	571	841	520	492	1025	1246	-	-	1566	-	-
Mov Cap-2 Maneuver	609	571	-	520	492	-	-	-	-	-	-	-
Stage 1	776	737	-	844	762	-	-	-	-	-	-	-
Stage 2	845	762	-	693	656	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.6	0	4.1	0
HCM LOS	C	A		
<hr/>				
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	1246	-	-	654
HCM Lane V/C Ratio	0.035	-	-	0.485
HCM Control Delay (s)	8	0	-	15.6
HCM Lane LOS	A	A	-	C
HCM 95th %tile Q(veh)	0.1	-	-	2.7

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows
2040 + Project PM
Item # 2.

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	141	31	85	13	27	203	76	472	30	252	815	162
Future Volume (veh/h)	141	31	85	13	27	203	76	472	30	252	815	162
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	147	32	89	14	28	211	79	492	31	262	849	169
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	519	491	416	435	362	307	346	1053	470	537	1311	585
Arrive On Green	0.12	0.26	0.26	0.05	0.19	0.19	0.09	0.30	0.30	0.16	0.37	0.37
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	147	32	89	14	28	211	79	492	31	262	849	169
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.0	0.9	3.0	0.4	0.8	8.4	2.0	7.7	1.0	6.2	13.5	5.1
Cycle Q Clear(g_c), s	4.0	0.9	3.0	0.4	0.8	8.4	2.0	7.7	1.0	6.2	13.5	5.1
Prop In Lane	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	519	491	416	435	362	307	346	1053	470	537	1311	585
V/C Ratio(X)	0.28	0.07	0.21	0.03	0.08	0.69	0.23	0.47	0.07	0.49	0.65	0.29
Avail Cap(c_a), veh/h	706	991	840	588	826	700	481	2563	1143	1041	3557	1587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	18.8	19.6	19.8	22.4	25.5	14.8	19.5	17.2	12.2	17.8	15.1
Incr Delay (d2), s/veh	0.3	0.1	0.3	0.0	0.1	2.7	0.3	0.3	0.1	0.7	0.5	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.6	0.4	1.1	0.2	0.4	3.2	0.7	2.7	0.3	1.9	4.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.6	18.8	19.8	19.8	22.5	28.2	15.2	19.8	17.2	12.9	18.3	15.4
LnGrp LOS	B	B	B	B	C	C	B	B	B	B	B	B
Approach Vol, veh/h					253			602			1280	
Approach Delay, s/veh					27.1			19.1			16.8	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	14.8	24.1	7.2	21.8	9.9	29.1	11.8	17.2				
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	28.0	46.0	7.0	34.0	9.0	65.0	13.0	28.0				
Max Q Clear Time (g _{c+l1}), s	8.2	9.7	2.4	5.0	4.0	15.5	6.0	10.4				
Green Ext Time (p _c), s	0.7	3.1	0.0	0.4	0.1	6.6	0.2	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				18.6								
HCM 6th LOS				B								

Silver Meadows Development

with North Access

Traffic Analysis

Prepared for:
Town of Hideout

May 2021

UT21-2270

FEHR  PEERS

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1. Executive Summary

This study provides a summary of the potential transportation-related impacts from the proposed Silver Meadows development (formerly named the Richardson Flat development) located on Richardson Flat Road between US-40 and Jordanelle Parkway in Summit County, Utah. This study analyzes the traffic operations and impacts for 2021, 2026, and 2041 background and plus project conditions at key intersections. The plus project analysis includes project trips generated from the proposed project.

1.1 Traffic Conditions

1.1.1 Study Intersections

The following intersections were included in this study:

- 1) SR-248 & Richardson Flat Road – Currently side-street stop controlled, planned signal,
- 2) Jordanelle Parkway & Richardson Flat Road – Side-street stop controlled,
- 3) SR-248 & Jordanelle Parkway/Brown's Canyon Road – Side-street stop controlled, planned signal,
- 4) SR-248 & Proposed North Project Access – planned side-street stop controlled, eventually signal.

1.1.2 Traffic Volumes

Fehr & Peers previously collected traffic counts at the study intersections to establish a baseline of existing conditions and operations for the area. Weekday peak period traffic counts were recorded from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM on January 15, 2020 at all study intersections.

1.1.3 2021 Background Conditions

The intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road were both observed to operate at failing levels of service in the AM and PM peak hours due to few gaps available for left-turn movements from minor roadways. Summit County has identified both intersections as locations for future traffic signal implementations due to existing failing conditions. No additional mitigations aside from those identified by Summit County are recommended as part of this analysis.

1.1.4 2026 Background Conditions

Due to Summit County's plans to signalize the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road, those intersections were assumed to be signalized for all future condition

analyses. Due to the signalization of those intersections, all existing study intersections operated within acceptable levels of delay during the AM and PM peak hour analyses.

1.1.5 Project Conditions

The proposed mixed-use site will be located between the intersections of SR-248 & Richardson Flat Road and Richardson Flat Road & Jordanelle Parkway, south of SR-248. Trip generation for the project was computed using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition*, 2017, and Fehr & Peers' mixed-use development (MXD+) methodology via MainStreet, a Fehr & Peers web application that captures the traffic benefits of developments by looking at interactions among the mixture of land uses and patron usage of alternative modes (i.e., transit, bicycling, and/or walking).

The project is proposed to include one new driveway that connects to SR-248. Based on UDOT's current access category classification of SR-248, the driveway is required to be at least 0.5 miles from the signalized intersection at Browns Canyon Road; while the location of the driveway has not been finalized, the location has been proposed to be approximately 0.75 miles from the intersection at Browns Canyon Road and is assumed to provide right and left turn acceleration and deceleration lanes. In existing conditions, the location of the driveway does not have a center median lane; Fehr & Peers recommends that the center median lane be extended past the driveway to allow for left turning vehicles to perform two-stage left-turns out of the development.

The development is expected to generate 718 project gross trips in the AM peak hour and 1,038 project gross trips in the PM peak hour. However, with the nature of a multi-use development, some generated trips travel only internally, or shift to transit or walk/bike modes. Based on the results of the MXD+ analysis, the site is expected to generate 620 net external trips in the AM peak hour and 895 net external trips in the PM peak hour.

1.1.6 2026 plus Project Conditions

Using the volumes forecasted for the 2026 plus project scenario, all study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the 2026 plus project conditions analysis.

Approximately one-half mile west of the intersection at SR-248 & Brown's Canyon Road, westbound SR-248 merges down to one lane. As part of the project development, Fehr & Peers recommends extending the four-lane cross-section of SR-248 past the project driveway on SR-248. This would provide two eastbound lanes, one westbound lane, and a two-way left turn lane at the project driveway (an eastbound

right turn deceleration lane is also recommended at that driveway), which was observed to operate at acceptable levels of service with side-street stop control in the 2026 plus project conditions in this proposed configuration. The four-lane cross-section will then likely need to be reduced to the existing two-lane cross section by the Historic Rail Trail crossing.

1.1.7 2041 Background Conditions

Using the volumes forecasted for the 2041 background scenario, the three existing study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the 2041 background conditions analysis.

1.1.8 2041 plus Project Conditions

Using the volumes forecasted for the 2041 plus project scenario, the three existing study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the 2041 plus project conditions analysis. The north project access was observed to operate at LOS E, but implementing a traffic signal at the driveway was found to reduce delay to acceptable levels.

1.1.9 Recommended Mitigations

The Summit County Comprehensive Plan identifies that the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road are planned to be converted from stop-controlled to signalized intersections. Planned growth from other developments in the area is projected to generate sufficient traffic to warrant traffic signals in future years.

Approximately one-half mile west of the intersection at SR-248 & Brown's Canyon Road, westbound SR-248 merges down to one lane. As the project is developed, Fehr & Peers recommends extending the four-lane cross-section of SR-248 past the project driveway on SR-248. This would provide two eastbound lanes, one westbound lane, and a two-way left turn lane at the project driveway; an eastbound right turn deceleration lane is also recommended at that driveway. The four-lane cross-section will then likely need to be reduced to the existing two-lane cross section by the Historic Rail Trail crossing.

As future volumes continue to grow, and as the north driveway begins to experience excessive delay, Fehr & Peers recommends performing a signal warrant analysis of the proposed north driveway to evaluate whether a signal should be installed.

1.2 Conclusion

Currently, the intersections of SR-248 & Richardson Flat Road as well as SR-248 & Brown's Canyon Road experience unacceptable delays on the side-street turning movements. Summit County is currently planning to install traffic signals at these intersections. With these planned signals, the study intersections were observed to operate at an acceptable level of delay during peak hours in all 2026 and 2041 analyses performed in this study.

Projected 2026 future conditions suggest that the project driveway will operate at acceptable levels of service during the peak hours if intersection at the project driveway include the recommended two eastbound through lanes, eastbound right turn deceleration lane, and two-way left turn lane. However, 2041 conditions showed that as volumes increase in the area, further mitigation, such as signalizing the driveway when warranted, may be required.

The analysis described in this report shows that implementing the recommended mitigations will alleviate most of the impact from the proposed development and allow the study intersections to operate at acceptable levels of service during the AM and PM peak hours out to the 2041 plus project scenario.

1.2.1 LOS Summary

Table 1 reports LOS at each study intersection. For signalized intersections, average vehicular delay and LOS are reported. For unsignalized intersections, the worst movement delay and LOS are reported. Detailed descriptions of the intersection operations can be found in the subsequent chapters. The column for 2021 background conditions reflects conditions with current lane configurations and no mitigations. All columns for future conditions incorporate the planned intersection signals.

Table 1: AM and PM Peak Hour Level of Service Summary

Intersection			2021 Background	2026 Background	2026 plus Project	2041 Background	2041 plus Project
ID	Location	Period	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh
1	SR-248 & Richardson Flat Road ^{1,2}	AM	F / 52 (WBL)	A / 8	A / 7	A / 9	A / 8
		PM	F / 153 (WBL)	A / 6	B / 17	A / 7	A / 10
2	Jordanelle Parkway & Richardson Flat Road ²	AM	A / 9 (EBT)	A / 9 (EBT)	B / 11 (EBT)	A / 9 (EBT)	B / 12 (EBT)
		PM	A / 9 (EBT)	A / 9 (EBT)	B / 12 (EBT)	A / 9 (EBT)	C / 12 (EBT)
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	F / 55 (EBL)	B / 18	B / 17	C / 22	C / 21
		PM	F / 52 (EBL)	B / 16	B / 19	B / 18	B / 18
4	SR-248 & Proposed North Project Access ¹	AM	-	-	C / 23	-	D / 33
		PM	-	-	C / 25	-	E / 36

1. Intersection average LOS and delay for signalized and roundabout intersections.

2. Worst movement LOS and delay for unsignalized intersections.

Source: Fehr & Peers.

2. Introduction

2.1 Purpose

This study provides a summary of the potential transportation-related impacts from the Silver Meadows multi-use development located on Richardson Flat Road between the intersections of SR-248 & Richardson Flat Road and Richardson Flat Road & Jordanelle Parkway in Richardson Flat, Utah. **Figure 1** for a project location map (source: LDG).

This study analyzes the traffic operations and impacts for 2021 background, 2026 background, 2026 plus project, 2041 background, and 2041 plus project conditions at key intersections, described below in the Scope section. The plus project analysis includes project trips generated from the proposed multi-use site. For each of the evaluation periods, mitigation (roadway geometry changes or operational improvements) actions, if needed, were recommended.

2.2 Scope

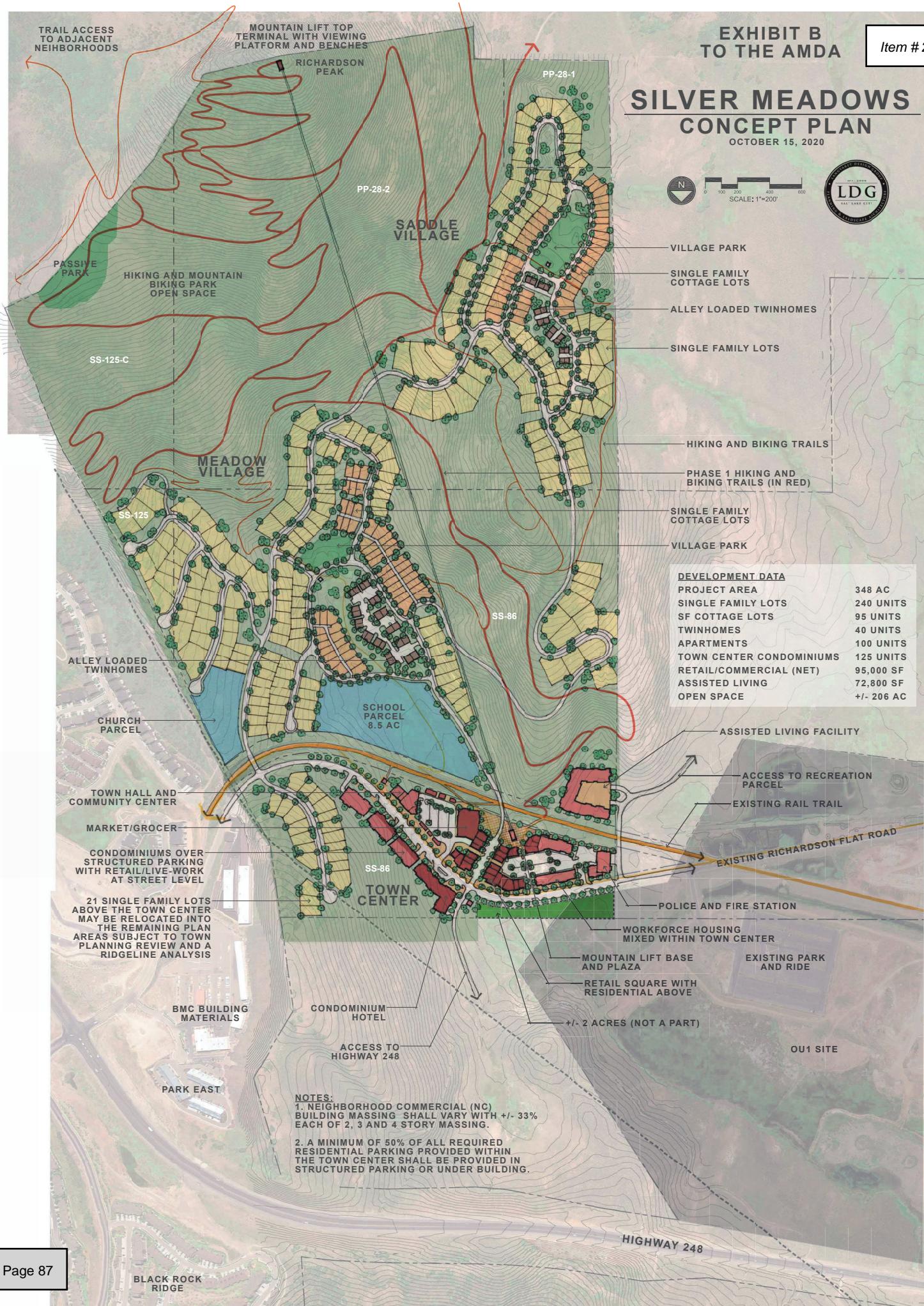
This study analyzes the traffic impacts of the project in conjunction with adjacent intersections. Impacts are specifically addressed at the following study intersections:

The following intersections were included in this study:

- 1) SR-248 & Richardson Flat Road – Currently side-street stop controlled, planned signal,
- 2) Jordanelle Parkway & Richardson Flat Road – Side-street stop controlled,
- 3) SR-248 & Jordanelle Parkway/Brown's Canyon Road – Side-street stop controlled, planned signal,
- 4) SR-248 & Proposed North Project Access – planned side-street stop controlled, eventually signal.

SILVER MEADOWS CONCEPT PLAN

OCTOBER 15, 2020



2.3 Analysis Methodology

LOS is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 2 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections. The Highway Capacity Manual, 6th Edition (HCM 6) methodology was used in this study to remain consistent with "state of the practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized intersections, the LOS is provided for the overall intersection (weighted average of all approach delays).

Table 2: Level of Service Descriptions

LOS	Description	Signalized Intersections	Unsignalized Intersections
		Avg. Delay (sec/veh) ¹	Avg. Delay (sec/veh) ²
A	<i>Free Flow / Insignificant Delay</i> Extremely favorable progression. Individual users are virtually unaffected by others in the traffic stream.	< 10.0	< 10.0
B	<i>Stable Operations / Minimum Delays</i> Good progression. The presence of other users in the traffic stream becomes noticeable.	> 10.0 to 20.0	> 10.0 to 15.0
C	<i>Stable Operations / Acceptable Delays</i> Fair progression. The operation of individual users is affected by interactions with others in the traffic stream	> 20.0 to 35.0	> 15.0 to 25.0
D	<i>Approaching Unstable Flows / Tolerable Delays</i> Marginal progression. Operating conditions are noticeably more constrained.	> 35.0 to 55.0	> 25.0 to 35.0
E	<i>Unstable Operations / Significant Delays Can Occur</i> Poor progression. Operating conditions are at or near capacity.	> 55.0 to 80.0	> 35.0 to 50.0
F	<i>Forced, Unpredictable Flows / Excessive Delays</i> Unacceptable progression with forced or breakdown of operating conditions.	> 80.0	> 50.0

1. Overall intersection LOS and average delay (seconds/vehicle) for all approaches.

2. Worst approach LOS and delay (seconds/vehicle) only.

Source: Fehr & Peers descriptions, based on *Highway Capacity Manual, 6th Edition*.

3. Existing 2021 Background Conditions

3.1 Purpose

The 2021 existing conditions analysis examines the pertinent intersections and roadways during the peak travel periods of the day under existing traffic and geometric conditions. Through this analysis, existing traffic operational deficiencies can be identified, and potential mitigation measures recommended.

3.2 Roadway System

The primary roadways that will provide access to the project are described below.

- **SR-248** is a state-owned highway in Summit County that connects Park City with Kamas, Utah. From Wyatt Earp Way to Richardson Flat Road, SR-248 has one travel lane in each direction with a two-way left-turn lane and a speed limit of 50 miles per hour. From the US-40 to the intersection at Brown's Canyon Road, SR-248 widens to have two travel lanes in each direction with a two-way left-turn lane and a speed limit of 65 miles per hour.
- **Richardson Flat Road** has a posted speed limit of 35 mph and is classified as a minor collector road. Richardson Flat Road has a two-lane cross section with one travel lane in each direction throughout the project area. The road is fairly narrow; both travel lanes are 11' and have no shoulder.
- **Jordanelle Parkway / Brown's Canyon Road** has a posted speed limit of 30 mph and is classified as a major collector road. It has a two-lane cross-section with one travel lane in each direction near the project area, except for near the intersection at SR-248, where it widens out to include left and right turn storage lanes.

3.3 Traffic Accident Data

Fehr & Peers obtained 5 years of crash data from 2016 to 2021 to outline safety deficiencies near the project area. The data collected included the location, severity, date, and type of collisions.

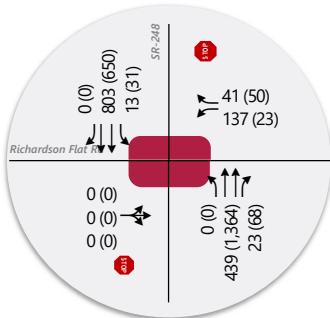
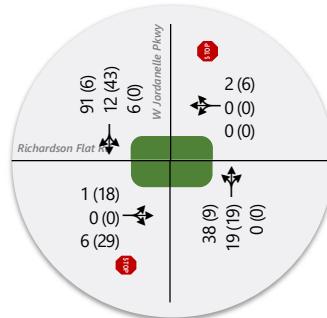
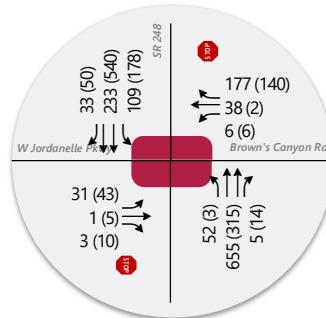
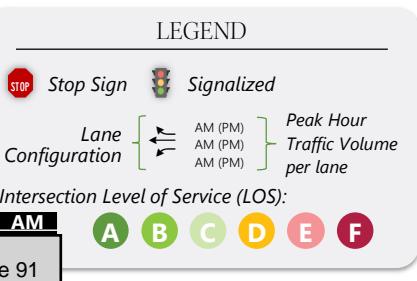
From 2016 to 2021, there were 23 total collisions in the within the study area; 16 collisions were intersection-related, six collisions occurred along Richardson Flat Road, and one occurred on Jordanelle Parkway. Of the non-intersection related collisions within the project area, there were four property damage only crashes, two suspected minor injury crashes, and one possible injury crash; no suspected serious injury crashes or

fatal crashes were reported along Richardson Flat Road or Jordanelle Parkway. Notably, three of the collisions along Richardson Flat Road involved roadway departures, which may indicate that pavement markings and delineation along Richardson Flat Road is needed, especially as the area continues to develop. Speeding was also involved in two of the crashes along Richardson Flat Road, but those accidents both occurred in snowy or icy conditions, so speeding does not appear to be a significant issue along Richardson Flat Road.

Furthermore, as traffic continues to increase along Richardson Flat Road, the road width may prove to be insufficient. Further study should be conducted to determine if widening the road to accommodate shoulders, bike lanes, striping, or other modifications would be warranted.

3.4 Traffic Volumes

Fehr & Peers collected traffic counts at the study intersections to establish a baseline of existing conditions and operations for the area. AM peak period traffic counts were recorded from 7:00 AM to 9:00 AM and PM peak period traffic counts were recorded from 4:00 PM to 6:00 PM on January 15, 2020 at all study intersections. No monthly or daily adjustment factors were applied to the counts. The existing background weekday peak hour volumes are shown in **Figure 2** and in the Appendix.

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon RdFigure 2
Existing Conditions

3.5 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, the existing background AM and PM peak hour LOS were computed for each study intersection. The results of this analysis for the AM and PM peak hours are reported in **Table 3** (see Appendix for the detailed LOS report). These results serve as a base for the analysis of the impacts of the proposed mixed-use development.

Table 3: Existing 2021 Background Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	EB/WB Stop	WBL	52	F	-	-
		PM		WBL	153	F	-	-
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EBT	9	A	-	-
		PM		EBT	9	A	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	EB/WB Stop	EBL	55	F	-	-
		PM		EBL	52	F	-	-

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle) and is only reported for signalized intersections.

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

As shown in **Table 3**, the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road both operate at failing levels of service in the AM and PM peak hours due to few gaps available for left-turn movements from minor roadways. The intersection at Jordanelle Parkway & Richardson Flat Road operated at acceptable levels of service.

3.6 Mitigation Measures

Summit County has identified both intersections as locations for future traffic signal implementations due to existing failing conditions. The heavy volumes in the project area indicate that those signals are likely needed and should be implemented as they are warranted.

These mitigations are assumed to be implemented for all 2026 and 2041 analysis configurations since initial analyses without those mitigations showed that the intersections would likely experience failing conditions without them. No additional mitigations aside from those identified by Summit County are recommended as part of this analysis.

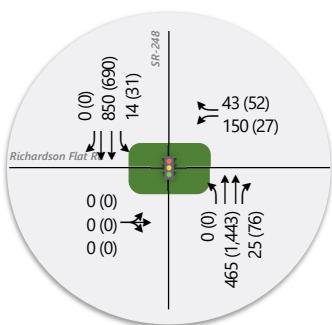
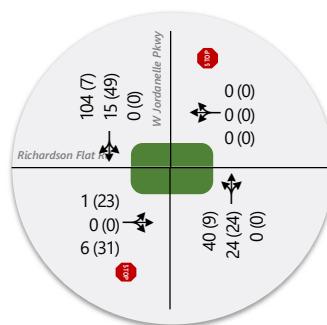
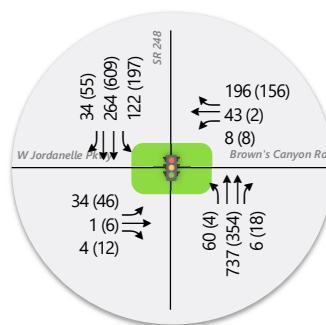
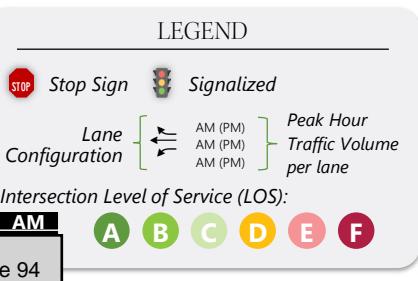
4. Future 2026 Background Conditions

4.1 Purpose

The purpose of the future 2026 background conditions analysis is to evaluate the study intersections during the peak travel periods of the day under projected 2026 traffic volumes. This analysis provides a baseline condition for the year 2026, which can be used to determine future project impacts. This analysis also assumes the mitigations recommended in **Section 3.6** were implemented.

4.2 Traffic Volumes

Fehr & Peers projected 2026 volumes using linear annual growth rates based on Summit County Travel Demand Model and modifications based on observations of the area. The increase in projected volume between the 2019 and 2041 Summit County models indicated between 1.1% and 2.9% growth per year, depending on the segment of road in the study area. The growth rates were applied to the existing 2021 background volumes to formulate the traffic volumes for the future 2026 background conditions. The projected 2026 background peak hour traffic volumes are shown in **Figure 3**.

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon RdFigure 3
2026 Background Conditions

4.3 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, future 2021 background peak hour LOS was computed for each study intersection. The results of this analysis for the AM and PM peak hours are reported in **Table 4** (see Appendix for the detailed LOS report).

Table 4: Future 2026 Background Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	Signal	-	-	-	8	A
		PM		-	-	-	6	A
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EB TH	9	A	-	-
		PM		EB TH	9	A	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	Signal	-	-	-	18	B
		PM		-	-	-	16	B

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle).

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

4.4 Mitigation Measures

All intersections operate at acceptable overall levels of service assuming the mitigation measures recommended in the existing conditions analysis, therefore no further traffic operation mitigation measures for future 2026 conditions are recommended.

5. Project Conditions

5.1 Purpose

The project conditions analysis explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the Introduction.

5.2 Project Description

The proposed Silver Meadows mixed-use site will be located between the intersections of SR-248 & Richardson Flat Road and Richardson Flat Road & Jordanelle Parkway and will consist of single-family, multi-family, assisted living, and second home residential along with some general retail uses. The full list of land uses, and area occupied by each use is listed in **Table 5**. The Silver Meadows development is located south of SR-248. The development proposes no new driveway access locations that tie into SR-248.

5.3 Trip Generation

Trip generation for the project was computed using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition*, 2017, and Fehr & Peers' mixed-use development (MXD+) methodology via MainStreet, a Fehr & Peers web application that captures the traffic benefits of developments by looking at interactions among the mixture of land uses and patron usage of alternative modes (i.e., transit, bicycling, and/or walking).

The gross and net external vehicle trips expected to be generated by the mixed-use development, along with the vehicle trip reduction rates (that account for trips that are internal to the site, as well as trips that shift to transit or walk/bike modes) are shown in **Table 5**.

Table 5: Mixed use development Trip Generation

ITE Land Use	ITE Code	Units	Quantity	Daily Total	AM In	AM Out	AM Total	PM In	PM Out	PM Total	
(220) - Multifamily Housing Low Rise (Adj Streets, 7-9A, 4-6P)	220	Dwelling Units	40	262	5	15	20	16	10	26	
(210) - Single-Family Detached Housing (Adj Streets, 7-9A, 4-6P)	210	Dwelling Units	240	2266	45	134	178	150	88	238	
(221) - Multifamily Housing Mid-Rise (Adj Streets, 7-9A, 4-6P)	221	Dwelling Units	100	544	9	27	36	27	17	44	
(221) - Multifamily Housing Mid-Rise (Adj Streets, 7-9A, 4-6P)	221	Dwelling Units	125	680	12	33	45	34	21	55	
(520) - Elementary School (Adj Streets, 7-9A, 4-6P)	520	Students	250	473	91	77	168	21	22	43	
(265) - Timeshare (Adj Streets, 7-9A, 4-6P)	265	Dwelling Units	95	855	23	16	39	26	38	64	
(820) - Shopping Center (Adj Street, 7-9A, 4-6P)	820	1,000 Sq. Ft	95	5,806	123	76	199	251	272	523	
(254) - Assisted Living (Adj Streets, 7-9A, 4-6P)	254	1,000 Sq. Ft	72.8	305	22	6	28	11	25	35	
(560) - Church (Adj Streets, 7-9A, 4-6P)	560	1,000 Sq. Ft	16.37	118	3	2	5	5	6	10	
Sub Total					11,309	333	386	718	541	499	1038
Internal Capture					682	41	47	88	67	62	128
Shift to Transit					181	4	5	9	7	7	14
Shift to Walk/Bike					17	0	1	1	1	0	1
TOTAL					10,429	288	333	620	466	430	895

Source: Fehr & Peers.

5.4 Trip Distribution and Assignment

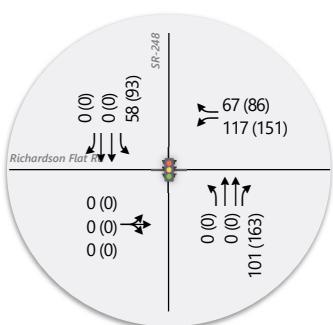
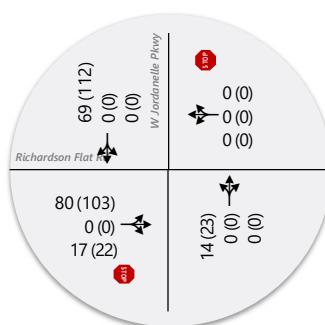
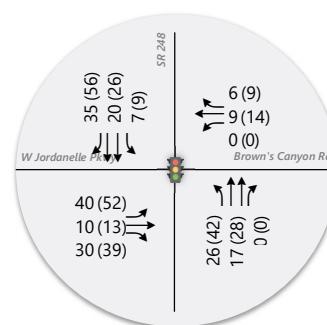
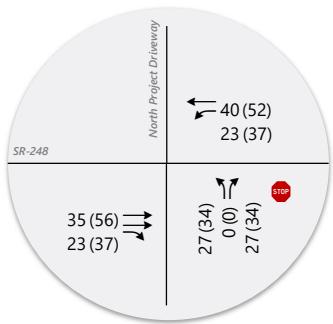
Project traffic was assigned to the roadway network based on the proximity to major streets and freeways, roadway network, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provided helpful guidance to establish these distribution percentages, especially near the site.

Overall, the project-generated trips were distributed to and from these directions in the project conditions analyses, in the corresponding percentages:

- 35% South (using SR-248 from Richardson Flat Road)
- 20% North (using SR-248 from Richardson Flat Road)
- 20% West (using SR-248 from Brown's Canyon Road)
- 5% East (using Brown's Canyon Road)
- 5% South (using SR-248 from Brown's Canyon Road)

These trip distribution assumptions were used to distribute project-generated traffic to the study area intersections. The volume of project trips generated and distributed to the study intersections is shown in

Figure 4.

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon Rd4. SR 248/
North Project Driveway

LEGEND

Stop Sign Signalized

Lane Configuration [AM (PM) AM (PM) AM (PM)] Peak Hour Traffic Volume per lane

Intersection Level of Service (LOS):

AM

A B C D E F

Figure 4
Trip Generation

5.5 Diverted Trips (Select-Link) Analysis

To investigate the amount of traffic that might be diverted from utilizing SR-248 due to the proposed development, a select-link analysis was completed. The Summit-Wasatch Travel Demand Model was utilized to complete this analysis.

Two years were assessed; 2024 and 2041. The traffic analysis zone (TAZ) socio-economic data was modified for TAZ 126, which represents the location of the proposed development. Base conditions assume limited growth in this TAZ for both horizon years. This assumed growth was replaced with the land use development program. While not all anticipated land uses are reflected in the model, the bulk of the development was reflected with the following inputs:

- 505 housing units
- 190 retail employment jobs (representing 95,000 square feet of shopping center use assuming 2 employees per 1,000 square feet).
- 95 condos (representing the timeshare units)

The results of these model runs were compared to base condition model runs for the same year. A segment of SR-248 was chosen for a select link analysis, which allows trips that use this link to be tracked across the model network. This helps address the question, "where are trips going to and coming from that utilize this segment of roadway."

Results for both horizon years show that the distribution and routing of traffic using this segment do not see meaningful change due to the development. However, the development itself does appear to generate traffic that utilizes the SR-248 corridor, which aligns with standard industry trip generation and distribution assumptions. Therefore, no trips were assumed to be diverted from existing or projected background traffic for the analyses in this study.

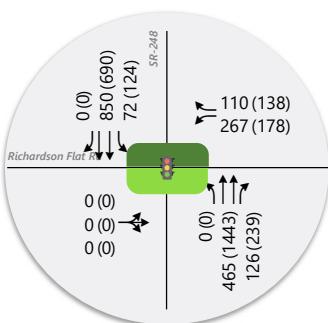
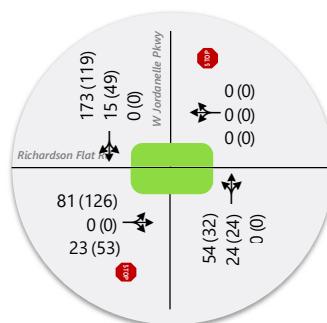
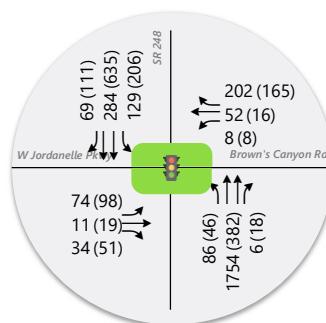
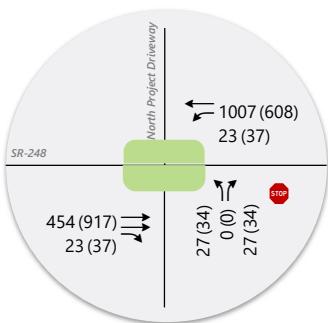
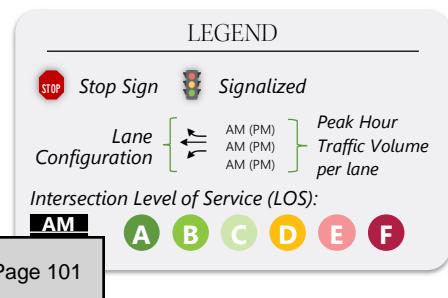
6. Future 2026 plus Project Conditions

6.1 Purpose

The purpose of the 2026 plus project conditions analysis is to evaluate the impact of the proposed development traffic on the surrounding roadway network. To analyze this impact, the peak hour 2026 background traffic volumes were combined with volumes generated by the proposed project at its peak hour. Intersection LOS analyses were then performed and compared to the results of the background traffic volumes. This comparison shows the impact of the proposed project.

6.2 Traffic Volumes

Project-generated traffic was added to the projected 2026 volumes to yield 2026 future plus project peak hour volumes. The AM and PM peak hour traffic volumes at the study intersections are shown in **Figure 5**.

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon Rd4. SR 248/
North Project DrivewayFigure 5
2026 + Project Conditions

6.3 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, 2026 plus project AM and PM peak hour LOS was computed for each study intersection for the conceptual site development. The results of this analysis for the AM and PM peak hours are reported in **Table 6** (see Appendix for the detailed LOS report).

Table 6: Future 2026 Plus Project Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	Signal	-	-	-	7	A
		PM		-	-	-	11	B
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EB LT	11	B	-	-
		PM		EB LT	12	B	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	Signal	-	-	-	17	B
		PM		-	-	-	19	B
4	SR-248 & North Project Driveway	AM	NB Stop	NB LT	23	C	-	-
		PM		NB LT	25	C	-	-

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle).

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

6.4 Mitigation Measures

All existing study intersections continued to operate at acceptable levels of service in the AM and PM peak hours of the 2026 plus project conditions analysis.

Approximately one-half mile west of the intersection at SR-248 & Brown's Canyon Road, westbound SR-248 merges down to one lane. As part of the project development, Fehr & Peers recommends extending the four-lane cross-section of SR-248 past the project driveway on SR-248. This would provide two eastbound lanes, one westbound lane, and a two-way left turn lane at the project driveway (an eastbound right turn deceleration lane is also recommended at that driveway), which was observed to operate at acceptable levels of service with side-street stop control in the 2026 plus project conditions in this proposed configuration. The four-lane cross-section will then likely need to be reduced to the existing two-lane cross section by the Historic Rail Trail crossing.

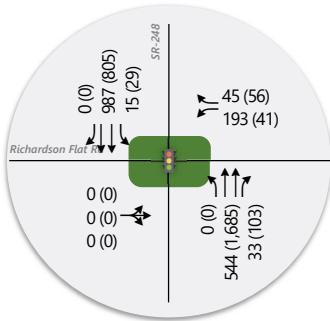
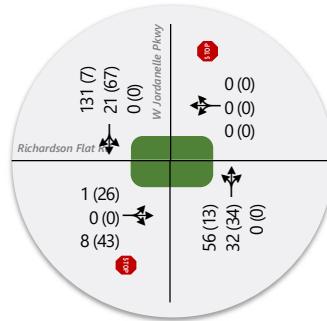
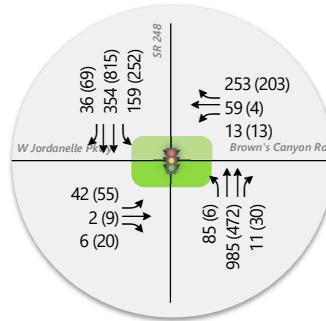
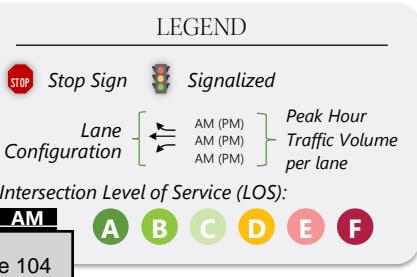
7. Future 2041 Background Conditions

7.1 Purpose

The purpose of the future 2041 background conditions analysis is to evaluate the study intersections during the peak travel periods of the day under projected 2041 traffic volumes. This analysis provides a baseline condition for the year 2041, which can be used to determine future project impacts.

7.2 Traffic Volumes

Fehr & Peers projected 2041 volumes using linear annual growth rates based on Summit County Travel Demand Model and modifications based on observations of the area. The increase in projected volume between the 2019 and 2041 Summit County models indicated between 1.1% and 2.9% growth per year, depending on the segment of road in the study area. The growth rates were applied to the existing 2021 background volumes to formulate the traffic volumes for the future 2041 background conditions. The projected 2041 background peak hour traffic volumes are shown in **Figure 6**.

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon RdFigure 6
2041 Background Conditions

7.3 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, future 2041 background weekday peak hour LOS was computed for each study intersection. The results of this analysis for the AM & PM peak hour are reported in **Table 7** (see Appendix for the detailed LOS report).

Table 7: Future 2041 Background Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	Signal	-	-	-	9	A
		PM		-	-	-	7	A
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EB TH	9	A	-	-
		PM		EB TH	9	A	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	Signal	-	-	-	22	C
		PM		-	-	-	18	B

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle).

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

7.4 Mitigation Measures

All study intersections operate at acceptable overall levels of service assuming the mitigation measures recommended in the existing conditions analysis, therefore no further traffic operation mitigation measures for future 2041 conditions are recommended.

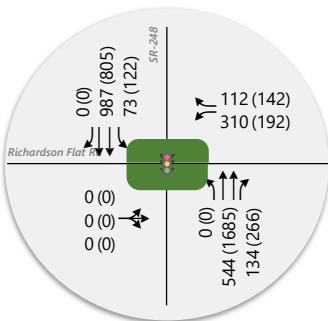
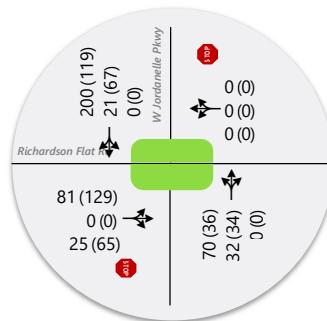
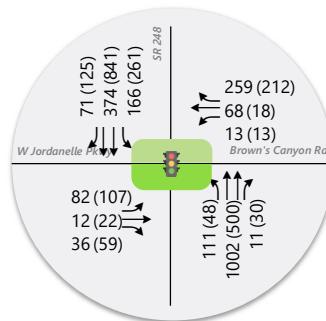
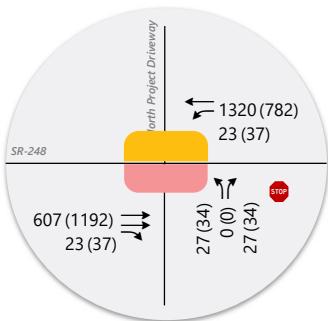
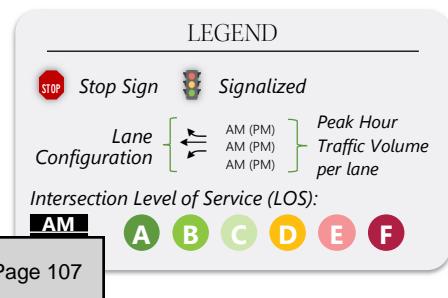
8. Future 2041 plus Project Conditions

8.1 Purpose

The purpose of the future 2041 plus project conditions analysis is to evaluate the impact of the proposed development traffic on the surrounding roadway network in the year 2041. To analyze this impact, the projected 2041 AM and PM peak hour background traffic volumes were combined with volumes generated by the conceptual development for the AM and PM peak hour. Intersection LOS analyses were then performed and compared to the results of the background traffic volumes. This comparison shows the impact of the conceptual project in 2041.

8.2 Traffic Volumes

Project-generated traffic was added to the future 2041 background volumes (**Figure 6**) to yield "future 2041 plus project" AM and PM peak hour traffic volumes at the study intersections (**Figure 7**).

1. SR-248/
Richardson Flat Rd2. W Jordanelle Pkwy/
Richardson Flat Rd3. SR 248/W Jordanelle Pkwy/
Brown's Canyon Rd4. SR 248/
North Project DrivewayFigure 7
2041 + Project Conditions

8.3 Level of Service Analysis

Using Synchro 11 software and the HCM 2016 delay thresholds provided in the Introduction, future 2041 plus project AM and PM peak hour LOS was computed for each study intersection for the conceptual site development. The results of this analysis for the AM and PM peak hours are reported in **Table 8** (see Appendix for the detailed LOS report).

Table 8: Future 2041 plus Project Conditions AM & PM Peak Hour Level of Service

Intersection				Worst Movement ¹			Overall Intersection ²	
ID	Location	Period	Control	Movement ³	Delay Sec/Veh	LOS	Avg. Delay Sec/Veh	LOS
1	SR-248 & Richardson Flat Road ^{1,2}	AM	Signal	-	-	-	8	A
		PM		-	-	-	10	A
2	Jordanelle Parkway & Richardson Flat Road ²	AM	EB/WB Stop	EB LT	12	B	-	-
		PM		EB LT	12	B	-	-
3	SR-248 & Jordanelle Parkway/Brown's Canyon Road ^{1,2}	AM	Signal	-	-	-	21	C
		PM		-	-	-	18	B
4	SR-248 & North Project Driveway	AM	NB Stop	NB LT	33	D	-	-
		PM		NB LT	36	E	-	-
		PM	Signal	-	-	-	6	A

1. This represents the worst approach LOS and delay (seconds/vehicle) and is only reported for unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds/vehicle).

3. NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

Source: Fehr & Peers.

8.4 Mitigation Measures

Using the volumes forecasted for the 2041 plus project scenario, the three existing study intersections were observed to continue to operate at acceptable levels of service in the AM and PM peak hours of the 2041 plus project conditions analysis. The north project access was observed to operate at LOS E, but implementing a traffic signal at the driveway was found to reduce delay to acceptable levels.

As future volumes continue to grow, and as the north driveway begins to experience excessive delay, Fehr & Peers recommends performing a signal warrant analysis of the proposed north driveway to evaluate whether a signal should be installed.

9. Conclusion

The safety analysis found that in the past five years, three collisions along Richardson Flat Road involved roadway departures, which may indicate that pavement markings and delineation along Richardson Flat Road are needed, especially as the area continues to develop. Furthermore, as traffic continues to increase along Richardson Flat Road, the road width may prove to be insufficient. Further study should be conducted to determine if widening the road to accommodate shoulders, bike lanes, striping, or other modifications would be warranted.

In the existing conditions traffic analyses, the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road both operate at failing levels of service in the AM and PM peak hours due to few gaps available for left-turn movements from minor roadways. Fehr & Peers recommends signalizing the intersections at SR-248 & Richardson Flat Road and at SR-248 & Brown's Canyon Road as outlined in the Summit County Comprehensive Plan.

Projected 2026 future conditions suggest that the project driveway will operate at acceptable levels of service during the peak hours if intersection at the project driveway include the recommended two eastbound through lanes, eastbound right turn deceleration lane, and two-way left turn lane. However, 2041 conditions showed that as volumes increase in the area, further mitigation, such as signalizing the driveway when warranted, may be required.

The analysis described in this report shows that implementing the recommended mitigations will alleviate most of the impact from the proposed development and allow the study intersections to operate at acceptable levels of service during the AM and PM peak hours out to the 2041 plus project scenario.



Appendix



Turning Movement Counts

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	SR-248 From North					Richardson Flat Road From East					SR-248 From South					Richardson Flat Road From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	292	5	0	297	3	0	12	0	15	6	56	0	0	62	0	0	0	0	0	374
07:15 AM	0	238	13	0	251	6	0	32	0	38	4	100	0	0	104	0	0	0	0	0	393
07:30 AM	0	213	1	0	214	6	0	29	0	35	8	137	0	0	145	0	0	0	0	0	394
07:45 AM	0	206	3	0	209	12	0	33	0	45	2	106	0	0	108	0	0	0	0	0	362
Total	0	949	22	0	971	27	0	106	0	133	20	399	0	0	419	0	0	0	0	0	1523
08:00 AM	0	201	3	0	204	8	0	38	0	46	7	81	0	0	88	0	0	0	0	0	338
08:15 AM	0	183	6	0	189	15	0	37	0	52	6	115	0	0	121	0	0	0	0	0	362
08:30 AM	0	232	4	0	236	4	0	43	0	47	3	88	0	0	91	0	0	0	0	0	374
08:45 AM	0	228	1	0	229	3	0	43	0	46	3	96	0	0	99	0	0	0	0	0	374
Total	0	844	14	0	858	30	0	161	0	191	19	380	0	0	399	0	0	0	0	0	1448
Grand Total	0	1793	36	0	1829	57	0	267	0	324	39	779	0	0	818	0	0	0	0	0	2971
Apprch %	0	98	2	0		17.6	0	82.4	0		4.8	95.2	0	0		0	0	0	0	0	
Total %	0	60.4	1.2	0	61.6	1.9	0	9	0	10.9	1.3	26.2	0	0	27.5	0	0	0	0	0	

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	SR-248 From North					Richardson Flat Road From East					SR-248 From South					Richardson Flat Road From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	155	4	0	159	17	0	1	0	18	19	297	0	0	316	0	0	0	0	0	493
04:15 PM	0	146	4	0	150	10	0	10	0	20	13	346	0	0	359	0	0	0	0	0	529
04:30 PM	0	160	3	0	163	10	0	7	0	17	11	315	0	0	326	0	0	0	0	0	506
04:45 PM	0	161	5	0	166	20	0	6	0	26	19	309	0	0	328	0	0	0	0	0	520
Total	0	622	16	0	638	57	0	24	0	81	62	1267	0	0	1329	0	0	0	0	0	2048
05:00 PM	0	159	7	0	166	6	0	3	0	9	12	355	0	0	367	0	0	0	0	0	542
05:15 PM	0	169	10	0	179	15	0	7	0	22	21	345	0	0	366	0	0	0	0	0	567
05:30 PM	0	161	9	0	170	9	0	7	0	16	16	355	0	0	371	0	0	0	0	0	557
05:45 PM	0	161	8	0	169	7	0	8	0	15	16	261	0	0	277	0	0	0	0	0	461
Total	0	650	34	0	684	37	0	25	0	62	65	1316	0	0	1381	0	0	0	0	0	2127
Grand Total	0	1272	50	0	1322	94	0	49	0	143	127	2583	0	0	2710	0	0	0	0	0	4175
Apprch %	0	96.2	3.8	0		65.7	0	34.3	0		4.7	95.3	0	0		0	0	0	0	0	
Total %	0	30.5	1.2	0	31.7	2.3	0	1.2	0	3.4	3	61.9	0	0	64.9	0	0	0	0	0	

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	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Start Time																					
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07:15 AM	16	1	1	0	18	1	0	0	0	1	0	4	5	0	9	2	0	2	0	4	32
07:30 AM	15	2	0	0	17	2	0	0	0	2	0	5	7	0	12	0	0	1	0	1	32
07:45 AM	30	4	1	0	35	0	0	0	0	0	0	5	6	0	11	3	0	0	0	3	49
Total	66	9	3	0	78	3	0	0	0	3	0	21	21	0	42	6	0	3	0	9	132
08:00 AM	27	3	1	0	31	0	0	0	0	0	0	6	16	0	22	2	0	0	0	2	55
08:15 AM	19	3	4	0	26	0	0	0	1	1	0	3	9	1	13	1	0	0	0	1	41
08:30 AM	28	4	3	0	35	0	0	0	0	0	1	3	8	0	12	0	0	4	0	4	51
08:45 AM	35	5	5	0	45	2	0	0	0	2	0	7	9	0	16	0	0	1	0	1	64
Total	109	15	13	0	137	2	0	0	1	3	1	19	42	1	63	3	0	5	0	8	211
Grand Total	175	24	16	0	215	5	0	0	1	6	1	40	63	1	105	9	0	8	0	17	343
Apprch %	81.4	11.2	7.4	0		83.3	0	0	16.7		1	38.1	60	1		52.9	0	47.1	0		
Total %	51	7	4.7	0	62.7	1.5	0	0	0.3	1.7	0.3	11.7	18.4	0.3	30.6	2.6	0	2.3	0	5	

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Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
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04:15 PM	1	11	2	0	14	1	0	0	0	1	0	4	7	0	11	7	0	2	0	9	35
04:30 PM	3	12	0	0	15	1	0	0	0	1	0	3	0	0	3	3	0	2	0	5	24
04:45 PM	1	10	0	0	11	4	0	0	0	4	0	6	2	0	8	4	0	4	0	8	31
Total	6	41	2	0	49	6	0	0	0	6	0	15	11	0	26	24	0	10	0	34	115
05:00 PM	2	10	0	0	12	1	0	0	0	1	0	3	1	2	6	6	0	5	0	11	30
05:15 PM	2	12	0	0	14	1	0	0	0	1	0	3	4	0	7	13	0	4	0	17	39
05:30 PM	1	11	0	0	12	0	0	0	0	0	0	7	2	0	9	6	0	5	0	11	32
05:45 PM	1	11	0	0	12	0	0	0	0	0	0	4	5	0	9	7	0	1	0	8	29
Total	6	44	0	0	50	2	0	0	0	2	0	17	12	2	31	32	0	15	0	47	130
Grand Total	12	85	2	0	99	8	0	0	0	8	0	32	23	2	57	56	0	25	0	81	245
Apprch %	12.1	85.9	2	0	100	0	0	0	0	0	0	56.1	40.4	3.5	69.1	0	30.9	0	0	0	
Total %	4.9	34.7	0.8	0	40.4	3.3	0	0	0	3.3	0	13.1	9.4	0.8	23.3	22.9	0	10.2	0	33.1	

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Start Time																					
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07:15 AM	36	5	1	0	42	2	116	9	0	127	0	1	4	0	5	6	54	22	0	82	256
07:30 AM	36	6	1	0	43	2	196	12	0	210	0	0	9	0	9	2	50	21	0	73	335
07:45 AM	52	14	1	0	67	1	163	16	0	180	2	0	9	0	11	10	56	28	0	94	352
Total	159	29	4	0	192	5	587	39	0	631	2	1	29	0	32	24	197	84	0	305	1160
08:00 AM	43	8	1	0	52	0	157	14	0	171	1	1	5	0	7	12	62	30	0	104	334
08:15 AM	46	10	3	0	59	2	139	10	0	151	0	0	8	0	8	9	65	30	0	104	322
08:30 AM	47	5	1	0	53	0	132	17	0	149	1	1	8	0	10	23	60	11	0	94	306
08:45 AM	50	7	3	0	60	3	110	8	0	121	1	0	13	0	14	30	64	29	0	123	318
Total	186	30	8	0	224	5	538	49	0	592	3	2	34	0	39	74	251	100	0	425	1280
Grand Total	345	59	12	0	416	10	1125	88	0	1223	5	3	63	0	71	98	448	184	0	730	2440
Apprch %	82.9	14.2	2.9	0		0.8	92	7.2	0		7	4.2	88.7	0		13.4	61.4	25.2	0		
Total %	14.1	2.4	0.5	0	17	0.4	46.1	3.6	0	50.1	0.2	0.1	2.6	0	2.9	4	18.4	7.5	0	29.9	

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	Brown's Canyon Road From North					SR-248 From East					Jordanelle Parkway From South					SR-248 From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Start Time																					
04:00 PM	24	1	0	0	25	1	86	1	0	88	2	1	6	0	9	13	95	38	0	146	268
04:15 PM	50	0	1	0	51	0	103	4	0	107	5	2	9	0	16	14	106	32	0	152	326
04:30 PM	23	0	0	0	23	0	111	2	0	113	2	1	5	0	8	9	132	43	0	184	328
04:45 PM	43	0	0	0	43	3	70	2	0	75	2	1	13	0	16	13	120	41	0	174	308
Total	140	1	1	0	142	4	370	9	0	383	11	5	33	0	49	49	453	154	0	656	1230
05:00 PM	30	0	4	0	34	6	100	1	0	107	1	2	9	0	12	12	133	43	0	188	341
05:15 PM	33	1	1	0	35	3	64	0	0	67	4	1	8	0	13	13	144	46	0	203	318
05:30 PM	34	1	1	0	36	2	81	0	0	83	3	1	13	0	17	12	143	48	0	203	339
05:45 PM	31	1	3	0	35	1	76	1	0	78	2	0	8	0	10	12	145	44	0	201	324
Total	128	3	9	0	140	12	321	2	0	335	10	4	38	0	52	49	565	181	0	795	1322
Grand Total	268	4	10	0	282	16	691	11	0	718	21	9	71	0	101	98	1018	335	0	1451	2552
Apprch %	95	1.4	3.5	0		2.2	96.2	1.5	0		20.8	8.9	70.3	0		6.8	70.2	23.1	0		
Total %	10.5	0.2	0.4	0	11.1	0.6	27.1	0.4	0	28.1	0.8	0.4	2.8	0	4	3.8	39.9	13.1	0	56.9	



Detailed Level of Service Reports

Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↖		↗	↑↑	↑↑	↖	↖	↑↑	↗
Traffic Vol, veh/h	0	0	0	137	0	41	0	439	23	13	803	0
Future Vol, veh/h	0	0	0	137	0	41	0	439	23	13	803	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	0	-	100	100	-	100	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	149	0	45	0	477	25	14	873	0

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	1140	1403	437	942	-	239	873	0	0	502	0	0
Stage 1	901	901	-	477	-	-	-	-	-	-	-	-
Stage 2	239	502	-	465	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	156	139	567	218	0	762	768	-	-	1059	-	-
Stage 1	299	355	-	538	0	-	-	-	-	-	-	-
Stage 2	743	540	-	547	0	-	-	-	-	-	-	-
Platoon blocked, %						-	-	-	-	-	-	-
Mov Cap-1 Maneuver	145	137	567	216	-	762	768	-	-	1059	-	-
Mov Cap-2 Maneuver	145	137	-	216	-	-	-	-	-	-	-	-
Stage 1	299	350	-	538	-	-	-	-	-	-	-	-
Stage 2	700	540	-	540	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	42.4	0	0.1
HCM LOS	A	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	768	-	-	-	216	762	1059	-	-
HCM Lane V/C Ratio	-	-	-	-	0.689	0.058	0.013	-	-
HCM Control Delay (s)	0	-	-	0	52.1	10	8.4	-	-
HCM Lane LOS	A	-	-	A	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	4.4	0.2	0	-	-

Intersection

Int Delay, s/veh 2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	6	0	0	2	38	19	0	6	12	91
Future Vol, veh/h	1	0	6	0	0	2	38	19	0	6	12	91
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	8	0	0	3	48	24	0	8	15	114

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	211	209	73	214	266	26	129	0	0	25	0	0
Stage 1	88	88	-	121	121	-	-	-	-	-	-	-
Stage 2	123	121	-	93	145	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	746	688	989	743	640	1050	1457	-	-	1589	-	-
Stage 1	920	822	-	883	796	-	-	-	-	-	-	-
Stage 2	881	796	-	914	777	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	721	660	988	714	614	1048	1457	-	-	1587	-	-
Mov Cap-2 Maneuver	721	660	-	714	614	-	-	-	-	-	-	-
Stage 1	890	817	-	853	769	-	-	-	-	-	-	-
Stage 2	849	769	-	901	772	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	8.4	5	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1457	-	-	938	1048	1587	-	-
HCM Lane V/C Ratio	0.033	-	-	0.009	0.002	0.005	-	-
HCM Control Delay (s)	7.6	0	-	8.9	8.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0	-	-

Intersection

Int Delay, s/veh 5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Vol, veh/h	31	1	3	6	38	177	52	655	5	109	233	33
Future Vol, veh/h	31	1	3	6	38	177	52	655	5	109	233	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	90	-	90	90	-	-	140	-	245	145	-	460
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	1	3	6	40	186	55	689	5	115	245	35

Major/Minor	Minor2	Minor1			Major1			Major2		
Conflicting Flow All	950	1279	123	1152	1309	345	280	0	0	694
Stage 1	475	475	-	799	799	-	-	-	-	-
Stage 2	475	804	-	353	510	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22
Pot Cap-1 Maneuver	215	165	905	153	158	651	1280	-	-	897
Stage 1	539	556	-	345	396	-	-	-	-	-
Stage 2	539	394	-	637	536	-	-	-	-	-
Platoon blocked, %							-	-	-	-
Mov Cap-1 Maneuver	103	138	905	132	132	651	1280	-	-	897
Mov Cap-2 Maneuver	103	138	-	132	132	-	-	-	-	-
Stage 1	516	485	-	330	379	-	-	-	-	-
Stage 2	329	377	-	552	467	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	50.7	18.6	0.6	2.8
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	103	138	905	132	132	651	897	-	-
HCM Lane V/C Ratio	0.043	-	-	0.317	0.008	0.003	0.048	0.303	0.286	0.128	-	-
HCM Control Delay (s)	7.9	-	-	55.4	31.3	9	33.6	43.7	12.7	9.6	-	-
HCM Lane LOS	A	-	-	F	D	A	D	E	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	0	0	0.1	1.2	1.2	0.4	-	-

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↑		↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Vol, veh/h	0	0	0	23	0	50	0	1364	68	31	650	0
Future Vol, veh/h	0	0	0	23	0	50	0	1364	68	31	650	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	0	-	100	100	-	100	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	24	0	52	0	1421	71	32	677	0

Major/Minor	Minor2	Minor1			Major1			Major2		
Conflicting Flow All	1452	2233	339	1824	-	711	677	0	0	1492
Stage 1	741	741	-	1421	-	-	-	-	-	-
Stage 2	711	1492	-	403	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22
Pot Cap-1 Maneuver	92	42	657	48	0	375	911	-	-	446
Stage 1	374	421	-	143	0	-	-	-	-	-
Stage 2	390	185	-	595	0	-	-	-	-	-
Platoon blocked, %						-	-	-	-	-
Mov Cap-1 Maneuver	75	39	657	45	-	375	911	-	-	446
Mov Cap-2 Maneuver	75	39	-	45	-	-	-	-	-	-
Stage 1	374	391	-	143	-	-	-	-	-	-
Stage 2	336	185	-	552	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	59.5	0	0.6
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	911	-	-	-	45	375	446	-	-
HCM Lane V/C Ratio	-	-	-	-	0.532	0.139	0.072	-	-
HCM Control Delay (s)	0	-	-	0	153.7	16.1	13.7	-	-
HCM Lane LOS	A	-	-	A	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	2	0.5	0.2	-	-

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	29	0	0	6	9	19	0	0	43	6
Future Vol, veh/h	18	0	29	0	0	6	9	19	0	0	43	6
Conflicting Peds, #/hr	0	0	0	2	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	0	35	0	0	7	11	23	0	0	52	7

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	105	103	58	122	106	25	59	0	0	25	0	0
Stage 1	56	56	-	47	47	-	-	-	-	-	-	-
Stage 2	49	47	-	75	59	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	875	787	1008	853	784	1051	1545	-	-	1589	-	-
Stage 1	956	848	-	967	856	-	-	-	-	-	-	-
Stage 2	964	856	-	934	846	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	865	780	1006	815	777	1049	1545	-	-	1586	-	-
Mov Cap-2 Maneuver	865	780	-	815	777	-	-	-	-	-	-	-
Stage 1	949	848	-	958	848	-	-	-	-	-	-	-
Stage 2	951	848	-	900	846	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB				
HCM Control Delay, s	9	8.5			2.4			0				
HCM LOS	A	A			A			A				
Minor Lane/Major Mvmt												
Capacity (veh/h)	1545	-	-	947	1049	1586	-	-	-	-	-	-
HCM Lane V/C Ratio	0.007	-	-	0.06	0.007	-	-	-	-	-	-	-
HCM Control Delay (s)	7.3	0	-	9	8.5	0	-	-	-	-	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-	-	-	-	-

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Vol, veh/h	43	5	10	6	2	140	3	315	14	178	540	50
Future Vol, veh/h	43	5	10	6	2	140	3	315	14	178	540	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	90	-	90	90	-	-	140	-	245	145	-	460
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	5	10	6	2	146	3	328	15	185	563	52

Major/Minor	Minor2	Minor1			Major1			Major2		
Conflicting Flow All	1104	1282	282	988	1319	164	615	0	0	343
Stage 1	933	933	-	334	334	-	-	-	-	-
Stage 2	171	349	-	654	985	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22
Pot Cap-1 Maneuver	166	164	715	201	156	852	961	-	-	1213
Stage 1	286	343	-	653	642	-	-	-	-	-
Stage 2	814	632	-	422	324	-	-	-	-	-
Platoon blocked, %								-	-	-
Mov Cap-1 Maneuver	120	138	715	170	132	852	961	-	-	1213
Mov Cap-2 Maneuver	120	138	-	170	132	-	-	-	-	-
Stage 1	285	291	-	651	640	-	-	-	-	-
Stage 2	670	630	-	346	274	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	43	11.1	0.1	2
HCM LOS	E	B		
<hr/>				
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1 EBLn2 EBLn3 WBLn1 WBLn2 WBLn3 SBL SBT SBR
Capacity (veh/h)	961	-	-	120 138 715 170 132 852 1213 - -
HCM Lane V/C Ratio	0.003	-	-	0.373 0.038 0.015 0.037 0.016 0.171 0.153 - -
HCM Control Delay (s)	8.8	-	-	51.9 32.1 10.1 27 32.7 10.1 8.5 - -
HCM Lane LOS	A	-	-	F D B D D B A - -
HCM 95th %tile Q(veh)	0	-	-	1.5 0.1 0 0.1 0 0.6 0.5 - -

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2026 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	150	0	43	0	465	25	14	850	0
Future Volume (veh/h)	0	0	0	150	0	43	0	465	25	14	850	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	163	0	47	0	505	27	15	924	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	6	0	537	0	0	435	1326	591	547	2028	905
Arrive On Green	0.00	0.00	0.00	0.17	0.00	0.05	0.00	0.37	0.37	0.07	0.57	0.00
Sat Flow, veh/h	0	-74814	0	1781	163		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	163	11.9		0	505	27	15	924	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	B		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	2.6			0.0	3.2	0.3	0.1	4.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.6			0.0	3.2	0.3	0.1	4.7	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	6	0	537			435	1326	591	547	2028	905
V/C Ratio(X)	0.00	0.00	0.00	0.30			0.00	0.38	0.05	0.03	0.46	0.00
Avail Cap(c_a), veh/h	0	1180	0	2020			804	7533	3360	887	7705	3437
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	11.6			0.0	7.1	6.2	5.0	3.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3			0.0	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	0.8			0.0	0.5	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	11.9			0.0	7.3	6.2	5.1	4.0	0.0
LnGrp LOS	A	A	A	B			A	A	A	A	A	A
Approach Vol, veh/h	0							532			939	
Approach Delay, s/veh	0.0							7.2			4.0	
Approach LOS								A			A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	6.1	15.5	9.3	0.0	0.0	21.6						
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0						
Max Green Setting (Gmax), s	6.5	62.5	29.5	18.0	5.0	64.0						
Max Q Clear Time (g_c+l1), s	2.1	5.2	4.6	0.0	0.0	6.7						
Green Ext Time (p_c), s	0.0	3.3	0.4	0.0	0.0	6.9						
Intersection Summary												
HCM 6th Ctrl Delay				5.8								
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	6	0	0	0	40	24	0	0	15	104
Future Vol, veh/h	1	0	6	0	0	0	40	24	0	0	15	104
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	8	0	0	0	50	30	0	0	19	130

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	215	215	85	220	280	32	149	0	0	31	0	0
Stage 1	84	84	-	131	131	-	-	-	-	-	-	-
Stage 2	131	131	-	89	149	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	742	683	974	736	628	1042	1432	-	-	1582	-	-
Stage 1	924	825	-	873	788	-	-	-	-	-	-	-
Stage 2	873	788	-	918	774	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	721	658	973	709	605	1040	1432	-	-	1580	-	-
Mov Cap-2 Maneuver	721	658	-	709	605	-	-	-	-	-	-	-
Stage 1	891	825	-	841	759	-	-	-	-	-	-	-
Stage 2	841	759	-	910	774	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	8.9	0			4.8			0		
HCM LOS	A	A			A			A		
Minor Lane/Major Mvmt										
Capacity (veh/h)	1432	-	-	927	-	1580	-	-	-	-
HCM Lane V/C Ratio	0.035	-	-	0.009	-	-	-	-	-	-
HCM Control Delay (s)	7.6	0	-	8.9	0	0	-	-	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-	0	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows Item # 2.
2026 AM

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	34	1	4	8	43	196	60	737	6	122	264	34
Future Volume (veh/h)	34	1	4	8	43	196	60	737	6	122	264	34
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1	4	8	45	206	63	776	6	128	278	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	438	415	352	466	364	308	592	1275	569	414	1349	601
Arrive On Green	0.06	0.22	0.22	0.04	0.19	0.19	0.08	0.36	0.36	0.10	0.38	0.38
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	36	1	4	8	45	206	63	776	6	128	278	36
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	0.0	0.1	0.2	1.1	6.9	1.2	10.2	0.1	2.5	3.0	0.8
Cycle Q Clear(g_c), s	0.9	0.0	0.1	0.2	1.1	6.9	1.2	10.2	0.1	2.5	3.0	0.8
Prop In Lane	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	438	415	352	466	364	308	592	1275	569	414	1349	601
V/C Ratio(X)	0.08	0.00	0.01	0.02	0.12	0.67	0.11	0.61	0.01	0.31	0.21	0.06
Avail Cap(c_a), veh/h	604	1048	888	681	1048	888	727	4044	1804	793	4604	2054
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	17.3	17.3	17.0	19.0	21.3	10.2	15.0	11.8	11.0	11.9	11.3
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.2	2.5	0.1	0.5	0.0	0.4	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.3	0.0	0.0	0.1	0.5	2.6	0.4	3.1	0.0	0.7	0.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	17.3	17.3	17.0	19.1	23.8	10.3	15.5	11.8	11.4	12.0	11.3
LnGrp LOS	B	B	B	B	B	C	B	B	B	B	B	B
Approach Vol, veh/h						259			845			442
Approach Delay, s/veh						22.8			15.1			11.8
Approach LOS						C			B			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	9.8	24.5	6.1	16.7	8.7	25.7	7.7	15.1				
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0	5.5	5.5				
Max Green Setting (Gmax), s	16.5	62.0	7.5	30.5	7.5	71.0	7.5	30.5				
Max Q Clear Time (g_c+l1), s	4.5	12.2	2.2	2.1	3.2	5.0	2.9	8.9				
Green Ext Time (p_c), s	0.2	5.3	0.0	0.0	0.0	1.7	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay				15.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2026 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	27	0	52	0	1443	76	31	690	0
Future Volume (veh/h)	0	0	0	27	0	52	0	1443	76	31	690	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	28	0	54	0	1503	79	32	719	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	4	0	243	0	0	595	2311	1031	367	2805	1251
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.03	0.00	0.65	0.65	0.06	0.79	0.00
Sat Flow, veh/h	0	-74814	0	1781	28		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	28	24.0		0	1503	79	32	719	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	C		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	0.8			0.0	13.6	1.0	0.3	2.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.8			0.0	13.6	1.0	0.3	2.8	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	4	0	243			595	2311	1031	367	2805	1251
V/C Ratio(X)	0.00	0.00	0.00	0.12			0.00	0.65	0.08	0.09	0.26	0.00
Avail Cap(c_a), veh/h	0	686	0	789			810	5217	2327	489	5250	2342
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	23.7			0.0	5.6	3.4	4.6	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2			0.0	0.3	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	0.3			0.0	1.9	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	24.0			0.0	5.9	3.4	4.7	1.5	0.0
LnGrp LOS	A	A	A	C			A	A	A	A	A	A
Approach Vol, veh/h	0						1582			751		
Approach Delay, s/veh	0.0						5.8			1.7		
Approach LOS							A			A		
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	7.4	38.6	7.2	0.0	0.0	45.9						
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0						
Max Green Setting (Gmax), s	5.5	75.0	18.0	18.0	5.0	75.5						
Max Q Clear Time (g_c+l1), s	2.3	15.6	2.8	0.0	0.0	4.8						
Green Ext Time (p_c), s	0.0	15.9	0.0	0.0	0.0	5.0						
Intersection Summary												
HCM 6th Ctrl Delay			4.7									
HCM 6th LOS			A									

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	0	31	0	0	0	9	24	0	0	49	7
Future Vol, veh/h	23	0	31	0	0	0	9	24	0	0	49	7
Conflicting Peds, #/hr	0	0	0	2	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	0	37	0	0	0	11	29	0	0	59	8

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	114	116	65	137	120	31	67	0	0	31	0	0
Stage 1	63	63	-	53	53	-	-	-	-	-	-	-
Stage 2	51	53	-	84	67	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	863	774	999	834	770	1043	1535	-	-	1582	-	-
Stage 1	948	842	-	960	851	-	-	-	-	-	-	-
Stage 2	962	851	-	924	839	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	859	767	997	796	763	1041	1535	-	-	1579	-	-
Mov Cap-2 Maneuver	859	767	-	796	763	-	-	-	-	-	-	-
Stage 1	941	842	-	951	843	-	-	-	-	-	-	-
Stage 2	955	843	-	888	839	-	-	-	-	-	-	-

Approach	EB	WB			NB		SB	
HCM Control Delay, s	9.1		0		2		0	
HCM LOS	A		A					
Minor Lane/Major Mvmt								
Capacity (veh/h)	1535	-	-	933	-	1579	-	-
HCM Lane V/C Ratio	0.007	-	-	0.07	-	-	-	-
HCM Control Delay (s)	7.4	0	-	9.1	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	-	0	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows Item # 2.
2026 PM

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	46	6	12	8	2	156	4	354	18	197	609	55
Future Volume (veh/h)	46	6	12	8	2	156	4	354	18	197	609	55
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00			1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	6	12	8	2	162	4	369	19	205	634	57
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	510	390	330	470	316	268	368	869	388	556	1283	572
Arrive On Green	0.08	0.21	0.21	0.04	0.17	0.17	0.04	0.24	0.24	0.15	0.36	0.36
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	48	6	12	8	2	162	4	369	19	205	634	57
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.9	0.1	0.3	0.2	0.0	4.3	0.1	4.0	0.4	3.5	6.4	1.1
Cycle Q Clear(g_c), s	0.9	0.1	0.3	0.2	0.0	4.3	0.1	4.0	0.4	3.5	6.4	1.1
Prop In Lane	1.00			1.00			1.00			1.00		1.00
Lane Grp Cap(c), veh/h	510	390	330	470	316	268	368	869	388	556	1283	572
V/C Ratio(X)	0.09	0.02	0.04	0.02	0.01	0.60	0.01	0.42	0.05	0.37	0.49	0.10
Avail Cap(c_a), veh/h	868	1510	1280	820	1429	1211	727	3490	1557	1486	5041	2248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	14.4	14.5	14.3	15.8	17.6	12.9	14.6	13.2	9.5	11.4	9.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	2.2	0.0	0.3	0.1	0.4	0.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.3	0.0	0.1	0.1	0.0	1.5	0.0	1.2	0.1	0.9	1.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.3	14.4	14.5	14.3	15.8	19.8	12.9	14.9	13.3	9.9	11.7	9.8
LnGrp LOS	B	B	B	B	B	B	B	B	B	A	B	A
Approach Vol, veh/h						172			392			896
Approach Delay, s/veh						19.5			14.8			11.2
Approach LOS						B			B			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	11.1	15.2	6.0	13.5	5.7	20.5	7.8	11.7				
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0	5.5	5.5				
Max Green Setting (Gmax), s	29.5	42.0	9.5	35.5	9.5	62.0	11.5	33.5				
Max Q Clear Time (g _{c+l1}), s	5.5	6.0	2.2	2.3	2.1	8.4	2.9	6.3				
Green Ext Time (p _c), s	0.5	2.2	0.0	0.0	0.0	4.3	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows
2026 + Project AM (with North Access)

Item # 2.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	267	0	110	0	465	126	72	850	0
Future Volume (veh/h)	0	0	0	267	0	110	0	465	126	72	850	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	278	0	115	0	484	131	75	885	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	687	0	0	400	1204	537	597	2057	918
Arrive On Green	0.00	0.00	0.00	0.20	0.00	0.01	0.00	0.34	0.34	0.13	0.58	0.00
Sat Flow, veh/h	0	-74814	0	3456	278		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	278	12.9		0	484	131	75	885	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1728	B		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	2.5			0.0	3.8	2.1	0.8	5.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.5			0.0	3.8	2.1	0.8	5.0	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	5	0	687			400	1204	537	597	2057	918
V/C Ratio(X)	0.00	0.00	0.00	0.40			0.00	0.40	0.24	0.13	0.43	0.00
Avail Cap(c_a), veh/h	0	1039	0	3937			742	4345	1938	1307	5530	2466
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.6			0.0	9.1	8.6	5.3	4.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4			0.0	0.2	0.2	0.1	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	0.8			0.0	0.8	0.5	0.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	12.9			0.0	9.3	8.8	5.4	4.4	0.0
LnGrp LOS	A	A	A	B			A	A	A	A	A	A
Approach Vol, veh/h	0							615			960	
Approach Delay, s/veh	0.0							9.2			4.5	
Approach LOS								A			A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	8.6	16.2	11.2	0.0	0.0	24.8						
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0						
Max Green Setting (Gmax), s	17.0	41.0	39.0	18.0	5.0	53.0						
Max Q Clear Time (g_c+l1), s	2.8	5.8	4.5	0.0	0.0	7.0						
Green Ext Time (p_c), s	0.1	3.4	1.0	0.0	0.0	6.5						
Intersection Summary												
HCM 6th Ctrl Delay				7.3								
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	81	0	23	0	0	0	54	24	0	0	15	173
Future Vol, veh/h	81	0	23	0	0	0	54	24	0	0	15	173
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	98	0	28	0	0	0	65	29	0	0	18	208

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	282	282	123	297	386	31	226	0	0	30	0	0
Stage 1	122	122	-	160	160	-	-	-	-	-	-	-
Stage 2	160	160	-	137	226	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	670	627	928	655	548	1043	1342	-	-	1583	-	-
Stage 1	882	795	-	842	766	-	-	-	-	-	-	-
Stage 2	842	766	-	866	717	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	645	596	927	610	521	1041	1342	-	-	1581	-	-
Mov Cap-2 Maneuver	645	596	-	610	521	-	-	-	-	-	-	-
Stage 1	839	795	-	800	728	-	-	-	-	-	-	-
Stage 2	800	728	-	839	717	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	11.3	0			5.4			0		
HCM LOS	B	A								
Minor Lane/Major Mvmt										
Capacity (veh/h)	1342	-	-	692	-	1581	-	-	-	-
HCM Lane V/C Ratio	0.048	-	-	0.181	-	-	-	-	-	-
HCM Control Delay (s)	7.8	0	-	11.3	0	0	-	-	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7	-	0	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows
2026 + Project AM (with North Access)

Item # 2.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	74	11	34	8	52	202	86	754	6	129	284	69
Future Volume (veh/h)	74	11	34	8	52	202	86	754	6	129	284	69
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	11	35	8	54	210	90	785	6	134	296	72
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	472	463	392	461	372	315	574	1241	553	404	1276	569
Arrive On Green	0.09	0.25	0.25	0.04	0.20	0.20	0.10	0.35	0.35	0.11	0.36	0.36
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	77	11	35	8	54	210	90	785	6	134	296	72
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.0	0.3	1.1	0.2	1.5	7.7	1.9	11.5	0.2	2.9	3.6	1.9
Cycle Q Clear(g_c), s	2.0	0.3	1.1	0.2	1.5	7.7	1.9	11.5	0.2	2.9	3.6	1.9
Prop In Lane	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	472	463	392	461	372	315	574	1241	553	404	1276	569
V/C Ratio(X)	0.16	0.02	0.09	0.02	0.15	0.67	0.16	0.63	0.01	0.33	0.23	0.13
Avail Cap(c_a), veh/h	909	1167	989	613	778	659	660	3354	1496	730	3865	1724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	17.8	18.1	18.1	20.7	23.1	10.8	17.0	13.3	12.0	14.0	13.5
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.0	0.2	2.4	0.1	0.5	0.0	0.5	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	0.1	0.4	0.1	0.6	2.9	0.6	3.8	0.1	0.9	1.2	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.9	17.8	18.2	18.1	20.8	25.6	11.0	17.5	13.3	12.5	14.1	13.5
LnGrp LOS	B	B	B	B	C	C	B	B	B	B	B	B
Approach Vol, veh/h						272			881			502
Approach Delay, s/veh						24.4			16.8			13.6
Approach LOS						C			B			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	10.6	25.8	6.6	19.5	10.0	26.5	9.7	16.4				
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	16.0	56.0	6.0	37.0	7.0	65.0	19.0	24.0				
Max Q Clear Time (g_c+l1), s	4.9	13.5	2.2	3.1	3.9	5.6	4.0	9.7				
Green Ext Time (p_c), s	0.2	5.3	0.0	0.1	0.0	1.9	0.1	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				17.1								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	454	23	23	1007	27	27
Future Vol, veh/h	454	23	23	1007	27	27
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	100	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	473	24	24	1049	28	28

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	497	0	1570	237
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	1097	-
Critical Hdwy	-	-	4.13	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.219	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1065	-	111	765
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	319	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1065	-	108	765
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	312	-

Approach	EB	WB	NB			
HCM Control Delay, s	0	0.2	16.4			
HCM LOS			C			

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT	
Capacity (veh/h)	230	765	-	-	1065	-	
HCM Lane V/C Ratio	0.122	0.037	-	-	0.022	-	
HCM Control Delay (s)	22.8	9.9	-	-	8.5	-	
HCM Lane LOS	C	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.1	-	

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows
2026 + Project PM (with North Access)

Item # 2.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	178	0	138	0	1443	239	124	690	0
Future Volume (veh/h)	0	0	0	178	0	138	0	1443	239	124	690	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	185	0	144	0	1503	249	129	719	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	3	0	299	0	0	521	1991	888	295	2553	1139
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.56	0.56	0.07	0.72	0.00
Sat Flow, veh/h	0	-112222	0	3456	185		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	185	31.5		0	1503	249	129	719	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1728	C		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	3.4			0.0	21.5	5.5	1.8	4.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.4			0.0	21.5	5.5	1.8	4.8	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3	0	299			521	1991	888	295	2553	1139
V/C Ratio(X)	0.00	0.00	0.00	0.62			0.00	0.75	0.28	0.44	0.28	0.00
Avail Cap(c_a), veh/h	0	505	0	1141			652	2826	1261	761	3733	1665
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	29.4			0.0	11.2	7.6	11.8	3.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.1			0.0	0.7	0.2	1.0	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	1.4			0.0	5.9	1.5	0.7	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	31.5			0.0	11.9	7.8	12.8	3.4	0.0
LnGrp LOS	A	A	A	C			A	B	A	B	A	A
Approach Vol, veh/h		0						1752			848	
Approach Delay, s/veh		0.0						11.3			4.8	
Approach LOS							B				A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	10.5	44.3	11.8	0.0	0.0	54.9						
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0						
Max Green Setting (Gmax), s	22.0	53.0	22.0	18.0	5.0	70.0						
Max Q Clear Time (g_c+l1), s	3.8	23.5	5.4	0.0	0.0	6.8						
Green Ext Time (p_c), s	0.3	13.9	0.5	0.0	0.0	5.0						
Intersection Summary												
HCM 6th Ctrl Delay			10.7									
HCM 6th LOS			B									

Intersection

Int Delay, s/veh 5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	126	0	53	0	0	0	32	24	0	0	49	119
Future Vol, veh/h	126	0	53	0	0	0	32	24	0	0	49	119
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	152	0	64	0	0	0	39	29	0	0	59	143

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	239	239	132	272	310	31	202	0	0	30	0	0
Stage 1	131	131	-	108	108	-	-	-	-	-	-	-
Stage 2	108	108	-	164	202	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	715	662	917	680	605	1043	1370	-	-	1583	-	-
Stage 1	873	788	-	897	806	-	-	-	-	-	-	-
Stage 2	897	806	-	838	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	699	642	916	617	587	1041	1370	-	-	1581	-	-
Mov Cap-2 Maneuver	699	642	-	617	587	-	-	-	-	-	-	-
Stage 1	848	788	-	870	782	-	-	-	-	-	-	-
Stage 2	870	782	-	779	734	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB				
HCM Control Delay, s	11.7		0			4.4			0			
HCM LOS	B		A									
Minor Lane/Major Mvmt												
Capacity (veh/h)	1370	-	-	752	-	1581	-	-				
HCM Lane V/C Ratio	0.028	-	-	0.287	-	-	-	-	-	-	-	-
HCM Control Delay (s)	7.7	0	-	11.7	0	0	-	-	-	-	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	-	0	-	-	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows
2026 + Project PM (with North Access)

Item # 2.

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	98	19	51	8	16	165	46	382	18	206	635	111
Future Volume (veh/h)	98	19	51	8	16	165	46	382	18	206	635	111
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	20	53	8	17	172	48	398	19	215	661	116
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	424	390	330	344	276	234	297	712	317	459	1008	450
Arrive On Green	0.07	0.21	0.21	0.01	0.15	0.15	0.05	0.20	0.20	0.13	0.28	0.28
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	102	20	53	8	17	172	48	398	19	215	661	116
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.6	0.5	1.5	0.2	0.4	5.8	1.2	5.6	0.5	5.0	9.1	3.1
Cycle Q Clear(g_c), s	2.6	0.5	1.5	0.2	0.4	5.8	1.2	5.6	0.5	5.0	9.1	3.1
Prop In Lane	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	424	390	330	344	276	234	297	712	317	459	1008	450
V/C Ratio(X)	0.24	0.05	0.16	0.02	0.06	0.74	0.16	0.56	0.06	0.47	0.66	0.26
Avail Cap(c_a), veh/h	1002	1348	1142	550	842	714	598	2688	1199	1060	3585	1599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	17.6	18.0	19.8	20.4	22.6	16.3	20.0	18.0	14.1	17.5	15.4
Incr Delay (d2), s/veh	0.3	0.1	0.2	0.0	0.1	4.5	0.3	0.7	0.1	0.7	0.7	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	0.2	0.5	0.1	0.2	2.3	0.4	1.9	0.2	1.6	3.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.3	17.6	18.2	19.8	20.5	27.1	16.6	20.7	18.0	14.9	18.2	15.7
LnGrp LOS	B	B	B	B	C	C	B	C	B	B	B	B
Approach Vol, veh/h						197			465			992
Approach Delay, s/veh						26.2			20.2			17.2
Approach LOS						C			C			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	13.2	18.1	6.6	17.6	8.6	22.8	10.0	14.2				
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	26.0	42.0	7.0	40.0	12.0	56.0	22.0	25.0				
Max Q Clear Time (g _{c+l1}), s	7.0	7.6	2.2	3.5	3.2	11.1	4.6	7.8				
Green Ext Time (p _c), s	0.5	2.4	0.0	0.3	0.0	4.7	0.2	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				19.0								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	917	37	37	608	34	34
Future Vol, veh/h	917	37	37	608	34	34
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	100	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	955	39	39	633	35	35
Major/Minor						
Conflicting Flow All	Major1	Major2		Minor1		
	0	0	994	0	1666	478
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	711	-
Critical Hdwy	-	-	4.13	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.219	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	694	-	96	534
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	486	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	694	-	91	534
Mov Cap-2 Maneuver	-	-	-	-	217	-
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	459	-
Approach						
HCM Control Delay, s	EB	WB		NB		
	0	0.6		18.5		
HCM LOS		C				
Minor Lane/Major Mvmt		NBLn1	NBLn2	EBT	EBR	WBL
Capacity (veh/h)		217	534	-	-	694
HCM Lane V/C Ratio		0.163	0.066	-	-	0.056
HCM Control Delay (s)		24.8	12.2	-	-	10.5
HCM Lane LOS		C	B	-	-	B
HCM 95th %tile Q(veh)		0.6	0.2	-	-	0.2

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2041 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	193	0	45	0	544	33	15	987	0
Future Volume (veh/h)	0	0	0	193	0	45	0	544	33	15	987	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	210	0	49	0	591	36	16	1073	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	558	0	0	393	1409	628	504	2039	910
Arrive On Green	0.00	0.00	0.00	0.20	0.00	0.04	0.00	0.40	0.40	0.06	0.57	0.00
Sat Flow, veh/h	0	-74814	0	1781	210		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	210	13.1		0	591	36	16	1073	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	B		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	3.7			0.0	4.2	0.5	0.2	6.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.7			0.0	4.2	0.5	0.2	6.5	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	5	0	558			393	1409	628	504	2039	910
V/C Ratio(X)	0.00	0.00	0.00	0.38			0.00	0.42	0.06	0.03	0.53	0.00
Avail Cap(c_a), veh/h	0	1040	0	1424			768	7345	3276	798	7396	3299
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.7			0.0	7.7	6.5	5.5	4.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4			0.0	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	1.2			0.0	0.8	0.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	13.1			0.0	7.9	6.6	5.5	4.8	0.0
LnGrp LOS	A	A	A	B			A	A	A	A	A	A
Approach Vol, veh/h	0							627		1089		
Approach Delay, s/veh	0.0							7.8		4.8		
Approach LOS								A		A		
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	6.2	17.9	10.9	0.0	0.0	24.1						
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0						
Max Green Setting (Gmax), s	6.5	69.5	22.5	18.0	6.0	70.0						
Max Q Clear Time (g _{c+l1}), s	2.2	6.2	5.7	0.0	0.0	8.5						
Green Ext Time (p _c), s	0.0	4.0	0.5	0.0	0.0	8.7						
Intersection Summary												
HCM 6th Ctrl Delay			6.7									
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	8	0	0	0	56	32	0	0	21	131
Future Vol, veh/h	1	0	8	0	0	0	56	32	0	0	21	131
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	10	0	0	0	70	40	0	0	26	164

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	289	289	109	295	371	42	190	0	0	41	0	0
Stage 1	108	108	-	181	181	-	-	-	-	-	-	-
Stage 2	181	181	-	114	190	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	663	621	945	657	559	1029	1384	-	-	1568	-	-
Stage 1	897	806	-	821	750	-	-	-	-	-	-	-
Stage 2	821	750	-	891	743	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	636	588	944	623	529	1027	1384	-	-	1567	-	-
Mov Cap-2 Maneuver	636	588	-	623	529	-	-	-	-	-	-	-
Stage 1	850	806	-	777	710	-	-	-	-	-	-	-
Stage 2	778	710	-	881	743	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	9.1	0			4.9			0		
HCM LOS	A	A								
Minor Lane/Major Mvmt										
Capacity (veh/h)	1384	-	-	896	-	1567	-	-	-	-
HCM Lane V/C Ratio	0.051	-	-	0.013	-	-	-	-	-	-
HCM Control Delay (s)	7.7	0	-	9.1	0	0	-	-	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-	0	-	-	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows Item # 2.
2041 AM

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	42	2	6	13	59	253	85	985	11	159	354	36
Future Volume (veh/h)	42	2	6	13	59	253	85	985	11	159	354	36
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	2	6	14	62	266	89	1037	12	167	373	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	450	381	466	407	345	571	1462	652	354	1549	691
Arrive On Green	0.06	0.24	0.24	0.04	0.22	0.22	0.08	0.41	0.41	0.10	0.44	0.44
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	44	2	6	14	62	266	89	1037	12	167	373	38
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.4	0.1	0.2	0.4	2.0	12.0	2.1	18.4	0.3	4.0	5.0	1.0
Cycle Q Clear(g_c), s	1.4	0.1	0.2	0.4	2.0	12.0	2.1	18.4	0.3	4.0	5.0	1.0
Prop In Lane	1.00			1.00			1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	402	450	381	466	407	345	571	1462	652	354	1549	691
V/C Ratio(X)	0.11	0.00	0.02	0.03	0.15	0.77	0.16	0.71	0.02	0.47	0.24	0.05
Avail Cap(c_a), veh/h	460	716	607	566	716	607	624	3236	1443	622	3752	1674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	21.9	21.9	21.2	24.0	27.9	11.4	18.5	13.2	14.0	13.5	12.3
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.2	3.7	0.1	0.6	0.0	1.0	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	0.0	0.1	0.2	0.9	4.7	0.7	6.3	0.1	1.3	1.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.4	21.9	22.0	21.3	24.2	31.6	11.5	19.2	13.2	15.0	13.5	12.4
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		52			342			1138			578	
Approach Delay, s/veh		20.7			29.8			18.5			13.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	11.6	35.2	6.8	22.2	9.7	37.0	8.5	20.5				
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0	5.5	5.5				
Max Green Setting (Gmax), s	17.5	66.0	5.5	27.5	6.5	77.0	5.5	27.5				
Max Q Clear Time (g _{c+l1}), s	6.0	20.4	2.4	2.2	4.1	7.0	3.4	14.0				
Green Ext Time (p _c), s	0.3	7.8	0.0	0.0	0.0	2.3	0.0	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			19.1									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows

Item # 2.

2041 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	41	0	56	0	1685	103	29	805	0
Future Volume (veh/h)	0	0	0	41	0	56	0	1685	103	29	805	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	43	0	58	0	1755	107	30	839	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	3	0	225	0	0	555	2478	1105	301	2890	1289
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.02	0.00	0.70	0.70	0.06	0.81	0.00
Sat Flow, veh/h	0	-74814	0	1781	43		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	43	29.7		0	1755	107	30	839	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1781	C		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	1.5			0.0	19.3	1.4	0.3	3.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5			0.0	19.3	1.4	0.3	3.8	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3	0	225			555	2478	1105	301	2890	1289
V/C Ratio(X)	0.00	0.00	0.00	0.19			0.00	0.71	0.10	0.10	0.29	0.00
Avail Cap(c_a), veh/h	0	557	0	614			729	4318	1926	380	4318	1926
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	29.2			0.0	5.9	3.2	5.9	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4			0.0	0.4	0.0	0.1	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	0.6			0.0	3.1	0.3	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	29.7			0.0	6.3	3.3	6.0	1.5	0.0
LnGrp LOS	A	A	A	C			A	A	A	A	A	A
Approach Vol, veh/h	0							1862			869	
Approach Delay, s/veh	0.0							6.1			1.7	
Approach LOS								A			A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	7.6	49.6	8.2	0.0	0.0	57.2						
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0						
Max Green Setting (Gmax), s	5.0	76.5	17.0	18.0	5.0	76.5						
Max Q Clear Time (g_c+l1), s	2.3	21.3	3.5	0.0	0.0	5.8						
Green Ext Time (p_c), s	0.0	21.3	0.0	0.0	0.0	6.1						
Intersection Summary												
HCM 6th Ctrl Delay				5.1								
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	0	43	0	0	0	13	34	0	0	67	7
Future Vol, veh/h	26	0	43	0	0	0	13	34	0	0	67	7
Conflicting Peds, #/hr	0	0	0	2	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	0	52	0	0	0	16	41	0	0	81	8

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	158	160	87	188	164	43	89	0	0	43	0	0
Stage 1	85	85	-	75	75	-	-	-	-	-	-	-
Stage 2	73	75	-	113	89	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	808	732	971	772	729	1027	1506	-	-	1566	-	-
Stage 1	923	824	-	934	833	-	-	-	-	-	-	-
Stage 2	937	833	-	892	821	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	802	722	969	722	720	1025	1506	-	-	1563	-	-
Mov Cap-2 Maneuver	802	722	-	722	720	-	-	-	-	-	-	-
Stage 1	913	824	-	922	822	-	-	-	-	-	-	-
Stage 2	927	822	-	843	821	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	0	2.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1506	-	-	899	-	1563	-	-
HCM Lane V/C Ratio	0.01	-	-	0.092	-	-	-	-
HCM Control Delay (s)	7.4	0	-	9.4	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	-	0	-	-

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows Item # 2.
2041 PM

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	55	9	20	13	4	203	6	472	30	252	815	69
Future Volume (veh/h)	55	9	20	13	4	203	6	472	30	252	815	69
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	9	21	14	4	211	6	492	31	262	849	72
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	500	433	367	481	367	311	304	939	419	537	1416	632
Arrive On Green	0.08	0.23	0.23	0.04	0.20	0.20	0.04	0.26	0.26	0.17	0.40	0.40
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	57	9	21	14	4	211	6	492	31	262	849	72
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.3	0.2	0.6	0.3	0.1	6.8	0.1	6.5	0.8	5.3	10.4	1.6
Cycle Q Clear(g_c), s	1.3	0.2	0.6	0.3	0.1	6.8	0.1	6.5	0.8	5.3	10.4	1.6
Prop In Lane	1.00			1.00			1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	500	433	367	481	367	311	304	939	419	537	1416	632
V/C Ratio(X)	0.11	0.02	0.06	0.03	0.01	0.68	0.02	0.52	0.07	0.49	0.60	0.11
Avail Cap(c_a), veh/h	713	1187	1006	692	1120	949	532	3030	1351	1301	4577	2041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	16.4	16.5	16.0	17.9	20.6	14.7	17.3	15.2	11.0	13.1	10.4
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.0	0.0	2.6	0.0	0.5	0.1	0.7	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	0.1	0.2	0.1	0.0	0.2	0.0	2.1	0.3	1.5	3.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.0	16.4	16.6	16.0	17.9	23.1	14.8	17.8	15.3	11.7	13.5	10.5
LnGrp LOS	B	B	B	B	B	C	B	B	B	B	B	B
Approach Vol, veh/h						229			529			1183
Approach Delay, s/veh						22.6			17.6			12.9
Approach LOS						C			B			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	13.3	18.6	6.5	16.8	5.9	26.0	8.4	14.8				
Change Period (Y+R _c), s	5.5	7.0	5.5	5.5	5.5	7.0	5.5	5.5				
Max Green Setting (Gmax), s	31.5	44.0	7.5	33.5	7.5	68.0	9.5	31.5				
Max Q Clear Time (g _{c+l1}), s	7.3	8.5	2.3	2.6	2.1	12.4	3.3	8.8				
Green Ext Time (p _c), s	0.7	3.1	0.0	0.1	0.0	6.2	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				15.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows
2041 + Project AM (with North Access)

Item # 2.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	310	0	112	0	544	134	73	987	0
Future Volume (veh/h)	0	0	0	310	0	112	0	544	134	73	987	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	323	0	117	0	567	140	76	1028	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	5	0	724	0	0	372	1269	566	561	2075	926
Arrive On Green	0.00	0.00	0.00	0.21	0.00	0.01	0.00	0.36	0.36	0.12	0.58	0.00
Sat Flow, veh/h	0	-74814	0	3456	323		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	323	13.8		0	567	140	76	1028	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1728	B		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	3.2			0.0	4.7	2.4	0.9	6.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.2			0.0	4.7	2.4	0.9	6.6	0.0
Prop In Lane	0.00			1.00			1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	5	0	724			372	1269	566	561	2075	926
V/C Ratio(X)	0.00	0.00	0.00	0.45			0.00	0.45	0.25	0.14	0.50	0.00
Avail Cap(c_a), veh/h	0	966	0	3659			690	4130	1842	1169	5139	2292
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	13.4			0.0	9.5	8.8	5.6	4.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4			0.0	0.2	0.2	0.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	1.0			0.0	1.1	0.6	0.1	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	13.8			0.0	9.8	9.0	5.7	4.9	0.0
LnGrp LOS	A	A	A	B			A	A	A	A	A	A
Approach Vol, veh/h	0							707		1104		
Approach Delay, s/veh	0.0							9.6		5.0		
Approach LOS								A		A		
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	8.8	17.8	12.1	0.0	0.0	26.6						
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0						
Max Green Setting (Gmax), s	16.0	42.0	39.0	18.0	5.0	53.0						
Max Q Clear Time (g_c+l1), s	2.9	6.7	5.2	0.0	0.0	8.6						
Green Ext Time (p_c), s	0.1	4.1	1.1	0.0	0.0	7.9						
Intersection Summary												
HCM 6th Ctrl Delay				7.8								
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	81	0	25	0	0	0	70	32	0	0	21	200
Future Vol, veh/h	81	0	25	0	0	0	70	32	0	0	21	200
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	98	0	30	0	0	0	84	39	0	0	25	241

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	354	354	147	370	474	41	266	0	0	40	0	0
Stage 1	146	146	-	208	208	-	-	-	-	-	-	-
Stage 2	208	208	-	162	266	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	601	571	900	587	489	1030	1298	-	-	1570	-	-
Stage 1	857	776	-	794	730	-	-	-	-	-	-	-
Stage 2	794	730	-	840	689	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	570	533	899	538	456	1028	1298	-	-	1569	-	-
Mov Cap-2 Maneuver	570	533	-	538	456	-	-	-	-	-	-	-
Stage 1	800	776	-	741	681	-	-	-	-	-	-	-
Stage 2	741	681	-	811	689	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB			
HCM Control Delay, s	12.2	0			5.5			0			
HCM LOS	B	A									
<hr/>											
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1298	-	-	624	-	1569	-	-			
HCM Lane V/C Ratio	0.065	-	-	0.205	-	-	-	-			
HCM Control Delay (s)	8	0	-	12.2	0	0	-	-			
HCM Lane LOS	A	A	-	B	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.8	-	0	-	-			

HCM 6th Signalized Intersection Summary

3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows

Item # 2.

2041 + Project AM (with North Access)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	82	12	36	13	68	259	111	1002	11	166	374	71
Future Volume (veh/h)	82	12	36	13	68	259	111	1002	11	166	374	71
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	12	38	14	71	270	116	1044	11	173	390	74
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	425	480	407	462	413	350	550	1405	627	352	1491	665
Arrive On Green	0.08	0.26	0.26	0.04	0.22	0.22	0.08	0.40	0.40	0.11	0.42	0.42
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	85	12	38	14	71	270	116	1044	11	173	390	74
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.8	0.4	1.5	0.5	2.5	12.9	3.0	20.3	0.3	4.4	5.8	2.3
Cycle Q Clear(g_c), s	2.8	0.4	1.5	0.5	2.5	12.9	3.0	20.3	0.3	4.4	5.8	2.3
Prop In Lane	1.00			1.00			1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	425	480	407	462	413	350	550	1405	627	352	1491	665
V/C Ratio(X)	0.20	0.02	0.09	0.03	0.17	0.77	0.21	0.74	0.02	0.49	0.26	0.11
Avail Cap(c_a), veh/h	751	929	787	543	604	511	688	2029	905	845	2823	1259
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	22.4	22.8	22.1	25.4	29.5	12.4	20.9	14.8	15.3	15.2	14.2
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.0	0.2	4.3	0.2	0.9	0.0	1.1	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.1	0.2	0.5	0.2	1.1	5.2	1.0	7.2	0.1	1.5	2.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.5	22.4	22.9	22.1	25.6	33.8	12.6	21.7	14.8	16.4	15.3	14.3
LnGrp LOS	C	C	C	C	C	C	B	C	B	B	B	B
Approach Vol, veh/h						355			1171			637
Approach Delay, s/veh						31.7			20.8			15.5
Approach LOS						C			C			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	12.7	35.8	7.3	24.7	10.7	37.8	10.3	21.8				
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	29.0	43.0	5.0	38.0	11.0	61.0	19.0	24.0				
Max Q Clear Time (g_c+l1), s	6.4	22.3	2.5	3.5	5.0	7.8	4.8	14.9				
Green Ext Time (p_c), s	0.4	6.6	0.0	0.1	0.1	2.6	0.1	0.9				
Intersection Summary												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	584	23	23	1320	27	27
Future Vol, veh/h	584	23	23	1320	27	27
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	100	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	608	24	24	1375	28	28

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	632	0	2031	304
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	1423	-
Critical Hdwy	-	-	4.13	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.219	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	949	-	56	693
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	221	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	949	-	55	693
Mov Cap-2 Maneuver	-	-	-	-	158	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	215	-

Approach	EB	WB	NB			
HCM Control Delay, s	0	0.2	21.6			
HCM LOS			C			

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT	
Capacity (veh/h)	158	693	-	-	949	-	
HCM Lane V/C Ratio	0.178	0.041	-	-	0.025	-	
HCM Control Delay (s)	32.7	10.4	-	-	8.9	-	
HCM Lane LOS	D	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.1	-	

HCM 6th Signalized Intersection Summary
1: SR-248 & Richardson Flat Rd

Silver Meadows
2041 + Project PM (with North Access)

Item # 2.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	192	0	142	0	1685	266	122	805	0
Future Volume (veh/h)	0	0	0	192	0	142	0	1685	266	122	805	0
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	0	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	200	0	148	0	1755	277	127	839	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	2	2	2	2	2	2	2
Cap, veh/h	0	2	0	391	0	0	508	2273	1014	310	2774	1237
Arrive On Green	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.64	0.64	0.09	0.78	0.00
Sat Flow, veh/h	0	-74814	0	3456	200		1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	0	0	0	200	32.5		0	1755	277	127	839	0
Grp Sat Flow(s), veh/h/ln	0	1870	0	1728	C		1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.0	4.1			0.0	26.5	5.8	1.5	5.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.1			0.0	26.5	5.8	1.5	5.1	0.0
Prop In Lane	0.00		0.00	1.00			1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2	0	391			508	2273	1014	310	2774	1237
V/C Ratio(X)	0.00	0.00	0.00	0.51			0.00	0.77	0.27	0.41	0.30	0.00
Avail Cap(c_a), veh/h	0	496	0	1053			671	2825	1260	648	3485	1554
HCM Platoon Ratio	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	31.5			0.0	9.7	5.9	14.1	2.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0			0.0	1.1	0.1	0.9	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.0	0.0	1.7			0.0	6.8	1.5	1.3	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	32.5			0.0	10.8	6.1	15.0	2.4	0.0
LnGrp LOS	A	A	A	C			A	B	A	B	A	A
Approach Vol, veh/h	0							2032			966	
Approach Delay, s/veh	0.0							10.1			4.1	
Approach LOS								B			A	
Timer - Assigned Phs	1	2	3	4	5	6						
Phs Duration (G+Y+R _c), s	10.7	52.3	12.5	0.0	0.0	62.9						
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0						
Max Green Setting (Gmax), s	19.0	57.0	21.0	18.0	5.0	71.0						
Max Q Clear Time (g_c+l1), s	3.5	28.5	6.1	0.0	0.0	7.1						
Green Ext Time (p_c), s	0.2	16.7	0.5	0.0	0.0	6.1						
Intersection Summary												
HCM 6th Ctrl Delay			9.7									
HCM 6th LOS				A								

Intersection

Int Delay, s/veh 6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	129	0	65	0	0	0	36	34	0	0	67	119
Future Vol, veh/h	129	0	65	0	0	0	36	34	0	0	67	119
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	155	0	78	0	0	0	43	41	0	0	81	143

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	281	281	154	321	352	43	224	0	0	42	0	0
Stage 1	153	153	-	128	128	-	-	-	-	-	-	-
Stage 2	128	128	-	193	224	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	671	627	892	632	573	1027	1345	-	-	1567	-	-
Stage 1	849	771	-	876	790	-	-	-	-	-	-	-
Stage 2	876	790	-	809	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	654	606	891	561	554	1025	1345	-	-	1566	-	-
Mov Cap-2 Maneuver	654	606	-	561	554	-	-	-	-	-	-	-
Stage 1	821	771	-	846	763	-	-	-	-	-	-	-
Stage 2	846	763	-	737	718	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	0	4	0
HCM LOS	B	A		
<hr/>				
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	1345	-	-	718
HCM Lane V/C Ratio	0.032	-	-	0.326
HCM Control Delay (s)	7.8	0	-	12.4
HCM Lane LOS	A	A	-	B
HCM 95th %tile Q(veh)	0.1	-	-	1.4

HCM 6th Signalized Intersection Summary
3: SR 248 & W Jordanelle Pkwy/Brown's Canyon Rd

Silver Meadows
2041 + Project PM (with North Access)

Item # 2.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	107	22	59	13	18	212	48	500	30	261	841	125
Future Volume (veh/h)	107	22	59	13	18	212	48	500	30	261	841	125
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	23	61	14	19	221	50	521	31	272	876	130
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	505	471	399	458	375	318	336	1033	461	537	1352	603
Arrive On Green	0.10	0.25	0.25	0.05	0.20	0.20	0.08	0.29	0.29	0.17	0.38	0.38
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	111	23	61	14	19	221	50	521	31	272	876	130
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.0	0.6	2.0	0.4	0.5	8.5	1.2	8.0	0.9	6.2	13.3	3.6
Cycle Q Clear(g_c), s	3.0	0.6	2.0	0.4	0.5	8.5	1.2	8.0	0.9	6.2	13.3	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	505	471	399	458	375	318	336	1033	461	537	1352	603
V/C Ratio(X)	0.22	0.05	0.15	0.03	0.05	0.70	0.15	0.50	0.07	0.51	0.65	0.22
Avail Cap(c_a), veh/h	900	1141	967	563	742	629	554	2494	1112	1084	3470	1548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	18.6	19.1	18.7	21.2	24.3	14.6	19.3	16.8	11.9	16.7	13.7
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.0	0.1	2.7	0.2	0.4	0.1	0.7	0.5	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.1	0.3	0.7	0.2	0.2	3.2	0.4	2.8	0.3	1.9	4.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.4	18.6	19.3	18.7	21.2	27.1	14.8	19.7	16.9	12.6	17.2	13.9
LnGrp LOS	B	B	B	B	C	C	B	B	B	B	B	B
Approach Vol, veh/h		195			254			602			1278	
Approach Delay, s/veh		17.6			26.2			19.2			15.9	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	14.9	23.1	7.1	20.5	9.0	28.9	10.5	17.1				
Change Period (Y+R _c), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	29.0	43.0	5.0	38.0	11.0	61.0	19.0	24.0				
Max Q Clear Time (g _{c+l1}), s	8.2	10.0	2.4	4.0	3.2	15.3	5.0	10.5				
Green Ext Time (p _c), s	0.7	3.2	0.0	0.3	0.0	6.6	0.2	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			18.0									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	1192	37	37	782	34	34
Future Vol, veh/h	1192	37	37	782	34	34
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	100	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1242	39	39	815	35	35
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1281	0	2135	621
Stage 1	-	-	-	-	1242	-
Stage 2	-	-	-	-	893	-
Critical Hdwy	-	-	4.13	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.219	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	540	-	48	431
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	399	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	540	-	45	431
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	370	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.6	25.1			
HCM LOS			D			
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	151	431	-	-	540	-
HCM Lane V/C Ratio	0.235	0.082	-	-	0.071	-
HCM Control Delay (s)	36	14.1	-	-	12.2	-
HCM Lane LOS	E	B	-	-	B	-
HCM 95th %tile Q(veh)	0.9	0.3	-	-	0.2	-

HCM 6th Signalized Intersection Summary
4: North Driveway & SR 248

Silver Meadows

Item # 2.

2041 + Project PM (with SIGNALIZED North Access)



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	1192	37	37	782	34	34
Future Volume (veh/h)	1192	37	37	782	34	34
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1242	39	39	815	35	35
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2148	958	359	1130	376	209
Arrive On Green	0.60	0.60	0.60	0.60	0.21	0.13
Sat Flow, veh/h	3647	1585	432	1870	1781	1585
Grp Volume(v), veh/h	1242	39	39	815	35	35
Grp Sat Flow(s), veh/h/ln	1777	1585	432	1870	1781	1585
Q Serve(g_s), s	8.1	0.4	2.3	11.6	0.6	0.7
Cycle Q Clear(g_c), s	8.1	0.4	10.3	11.6	0.6	0.7
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2148	958	359	1130	376	209
V/C Ratio(X)	0.58	0.04	0.11	0.72	0.09	0.17
Avail Cap(c_a), veh/h	9748	4348	1282	5130	1362	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.6	3.0	7.7	5.3	12.0	14.6
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.9	0.1	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	0.0	0.1	0.5	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	4.8	3.1	7.8	6.1	12.1	15.0
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h	1281			854	70	
Approach Delay, s/veh	4.8			6.2	13.6	
Approach LOS	A			A	B	
Timer - Assigned Phs	2			4		8
Phs Duration (G+Y+R _c), s	11.0			26.9		26.9
Change Period (Y+R _c), s	6.0			6.0		6.0
Max Green Setting (Gmax), s	26.0			102.0		102.0
Max Q Clear Time (g_c+l1), s	2.7			10.1		13.6
Green Ext Time (p_c), s	0.2			10.9		6.9
Intersection Summary						
HCM 6th Ctrl Delay				5.6		
HCM 6th LOS				A		

File Attachments for Item:

3. Lewis & Young Presentation and Q&A

ECONOMIC IMPACT ANALYSIS AND SALES ANALYSIS OF RICHARDSON FLAT ANNEXATION INTO HIDEOUT, UTAH

HIDEOUT, UTAH



MAY 10, 2021

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EXECUTIVE SUMMARY

Lewis Young Robertson and Burningham, Inc. ("LYRB") was retained by the Town of Hideout (the "Town") to complete an Economic Impact and Sales Analysis related to the proposed Richardson Flat Annexation (the "Development"). LYRB, working on behalf of the Town, has prepared an analysis of the fiscal benefits to be derived from the Development, as well as the corresponding costs associated with the Town providing municipal services. The assumptions used in this analysis are based on data presented by the Developer, comparable community data, Town data, current economic and market demand factors, and public infrastructure needs.

ASSESSED VALUATION OF THE RICHARDSON FLAT DEVELOPMENT

The Development encompasses 348 acres and is intended for residential and commercial development. The Developer anticipates the construction of 100 apartments, 125 condominiums, 40 twinhomes, 95 cottages, and 240 single family homes over the next 7-8 years. The total assessed value of the Development at buildout is estimated at **\$511.4 million**. This value includes consideration of a 45 percent residential exemption on 75 percent of the residential units, with the exception of the apartments where the primary residential exemption was applied to 100 percent of the units. All "for sale" residential units, with the exception of the twinhomes and single family homes have a portion of the units which are considered affordable. Affordable unit values were valued at approximately 60 percent of the market rate value.

TABLE E.1: DEVELOPMENT OVERVIEW AND ASSESSED VALUE

PRODUCT	ESTIMATED ASSESSED VALUE AT BUILDOUT	# OF UNITS
Apartments	5,245,320	100 units
Town Center Condos	55,780,423	125 units
Twinhomes	34,746,667	40 units
SF Cottage Lots	38,253,130	95 units
Single Family Lots	354,153,995	240 units
Assisted Living	7,417,702	72,800 SF
Retail/Commercial (NET)	15,821,416	95,000 SF
Total	\$511,418,655	

HIDEOUT GENERAL FUND REVENUE PROJECTIONS

The revenues calculated in this analysis include property tax, sales tax, franchise taxes, and Class C road funds. A cumulative total of **\$15.15 million** is projected over the 20-year planning horizon. TABLE E.2 details the total annual revenue in years 2027, 2032, 2037, and 2042, as well as the 20-year cumulative total. Additional revenues and expenses associated with the proposed mountain lift are not included in this analysis.

TABLE E.2: HIDEOUT PROJECTED GENERAL FUND REVENUE

TOWN REVENUES	2027	2032	2037	2042	20-YEAR TOTAL
Property Tax	258,065	442,889	442,889	442,889	7,171,148
Sales Tax	193,055	289,277	308,241	328,448	5,053,863
Telecommunications Franchise Tax	1,568	2,791	3,082	3,403	47,898
Electric Franchise Tax	39,309	62,897	69,443	76,671	1,098,476
Natural Gas Franchise Tax	11,407	19,272	21,278	23,492	335,923
Class C Road Funds	39,038	82,687	97,986	116,190	1,445,707
Total Revenue	\$542,443	\$899,812	\$942,919	\$991,093	\$15,153,016

HIDEOUT GENERAL FUND EXPENSE PROJECTIONS

The Development creates a burden on the Town's general government, parks, streets, and public safety services. In evaluating the benefits of the Development, it is critical to ensure the costs of providing municipal services does not outweigh the benefits (revenues) that are anticipated to be derived by the Town. TABLE E.3 summarizes the total



general fund expenditures related to the provision of municipal services projected in 2027, 2032, 2037, and 2042, as well as the 20-year cumulative total.

E.3: HIDEOUT PROJECTED EXPENSE

TOWN EXPENSES	2027	2032	2037	2042	20-YEAR TOTAL
Class C Road Expenditures	55,098	89,096	98,369	108,607	1,555,427
General Government (Admin & Prof. Services)	187,762	303,617	335,218	370,107	5,300,535
Public Works	52,459	99,400	109,745	121,168	1,691,152
Parks	3,726	7,060	7,794	8,606	120,110
Public Safety (Fire & Police)	114,009	216,025	238,509	263,333	3,675,374
Total Expenses	\$413,054	\$715,197	\$789,635	\$871,821	\$12,342,598

PROPOSED INFRASTRUCTURE AND AMENITIES

The Developer will finance and construct a police and fire station, a town hall and community center, a mountain lift, trails, and 206 acres of open space that will provide benefit to the Development and the Town of Hideout. Property will also be provided for a future school. As part of the annexation, the public buildings proposed by the Developer are anticipated to bring access to local services closer to the area and offer public meeting spaces to residents of Hideout.

The trail system will provide pedestrian connections from the proposed retail to the neighborhood sections and Richardson Peak. The open space and trails are intended to be sized and programmed for general public use, and it is anticipated that they will be maintained by an HOA.

The mountain lift located in the town center and extending to Richardson Peak will provide access and viewing opportunities to guests and residents. The Town is currently reviewing whether this is an amenity they wish to own or have turned over to the HOA. Details on the expenses and revenues associated with the lift are not included this in this analysis.

The total proposed Developer funded capital infrastructure and amenities have a significant value. Additional detail on associated acreage and building sizes are required to estimate their value.

TOWN'S GENERAL FUND COST-BENEFIT SUMMARY

Based on the development assumptions utilized in this analysis, the Richardson Flat Development produces a net benefit to Hideout annually with **\$2.8 million** of cumulative net revenue projected over 20 years as illustrated in TABLE E.6. The absorption and timing of the Development will impact the current projections. The Development may provide additional benefit to the Town through the public infrastructure and amenities considered in this analysis.

TABLE E. 6: HIDEOUT COST-BENEFIT

	2027	2032	2037	2042	20-YEAR TOTAL
Revenue					
Property Tax	258,065	442,889	442,889	442,889	7,171,148
Sales Tax	193,055	289,277	308,241	328,448	5,053,863
Telecommunications Franchise Tax	1,568	2,791	3,082	3,403	47,898
Electric Franchise Tax	39,309	62,897	69,443	76,671	1,098,476
Natural Gas Franchise Tax	11,407	19,272	21,278	23,492	335,923
Class C Road Funds	39,038	82,687	97,986	116,190	1,445,707
Total Revenue	\$542,443	\$899,812	\$942,919	\$991,093	\$15,153,016
Expense					
Class C Road Expenditures	55,098	89,096	98,369	108,607	1,555,427
General Government (Admin & Prof. Services)	187,762	303,617	335,218	370,107	5,300,535



Public Works	52,459	99,400	109,745	121,168	1,691,152
Parks	3,726	7,060	7,794	8,606	120,110
Public Safety (Fire & Police)	114,009	216,025	238,509	263,333	3,675,374
Total Expense	\$413,054	\$715,197	\$789,635	\$871,821	\$12,342,598
Net Operating Revenue	\$129,389	\$184,615	\$153,283	\$119,271	\$2,810,417

ANNEXATION OF PROPOSED DEVELOPMENT OF BENEFIT TO HIDEOUT

Based on the proposed Development, including the types of development, densities, amenities and public infrastructure dedications that are envisioned to occur as part of the annexation, this Economic Impact and Sales Analysis concludes the Town's general fund will be enhanced by **\$2.8 million** over the 20-year planning horizon. The Developer funded public infrastructure and amenities are of substantial benefit. Based on these calculations, LYRB is of the opinion the proposed Development, and its associated annexation, provides an overall net benefit to the Town. LYRB recommends and encourages the Town to assess the facts, circumstances and calculations presented herein throughout the proposed annexation process to ensure the Town receives the anticipated net benefits of the Development.

DRAFT



SECTION I: DEVELOPMENT SUMMARY

OVERVIEW OF DEVELOPMENT

The proposed Richardson Flat Development encompasses 348 acres and includes 600 residential units, 95,000 SF of retail, a 72,800 SF assisted living center, and 206 acres of green space.

The Developer anticipates the construction of 100 apartments, 125 condominiums, 40 twinhomes, 95 cottages, and 240 single family homes over the next 7-8 years. The apartments and condominiums will be constructed within a town center retail area at the base of the mountain lift. 95,000 SF of street level commercial will provide the Town its first retail area. The 72,800 SF assisted living center will be located adjacent to the open space and trail system directly across the street from the town center. The assisted living center will provide a maximum of 520 assisted living units. The twinhomes, cottage homes, and single family homes will be clustered and connected via roadways and a trail system to the town center.

The total assessed value of the Development at buildout is estimated at **\$511.42 million**. This value includes consideration of a 45 percent primary residential exemption on property taxes for 75 percent of the “for sale” residential units. With feedback from the Town, the property tax exemption was set at this level to recognize that likely 25 percent of the “for sale” residential units will be secondary homes and will not qualify for the exemption. The primary residential property tax exemption was applied to all 100 apartment units.

All “for sale” residential units, with the exception of the twinhomes and single family homes, have a portion of the units which are considered affordable. Affordable unit values were valued at approximately 60 percent of the market rate value. Per the recommendation of the Town, the number of affordable units was set to the quantities provided by the Developer in their third-party fiscal impact report. TABLE 1.1 displays the types of units, the percent affordable, the estimated market value per unit based on comparable housing units, the estimated affordable unit value, and total number of units for each type of home.

The Developer anticipates preserving 206 acres of green space, constructing a mountain lift, and adding a trail system to connect the neighborhoods with the town center and Richardson Peak. The mountain lift platforms will be at plazas with sitting areas.

TABLE 1.1: PROPOSED RICHARDSON FLAT DEVELOPMENT

PRODUCT	BUILDOUT ASSESSED VALUE	# OF UNITS	AFFORDABLE HOUSING (%)	MARKET UNIT OR 100K SF VALUE	AFFORDABLE UNIT VALUE
Apartments	5,245,320	100 units	50%	113,038	67,823
Town Center Condos	55,780,423	125 units	24%	714,967	428,980
Twinhomes	34,746,667	40 units	0%	1,274,228	764,537
SF Cottage Lots	38,253,130	95 units	42%	683,125	409,875
Single Family Lots	354,153,995	240 units	0%	2,166,000	
Assisted Living	7,417,702	72,800 SF		86,725	
Retail/Commercial (NET)	15,821,416	95,000 SF		148,597	
Total	\$511,418,655				

The Developer estimates full absorption of the housing units in 7-8 years. Full absorption estimates are included in APPENDIX D. TABLE 1.2 displays the total number of residential units in the Development and the proposed absorption.

TABLE 1.2: ABSORPTION

TOTAL UNITS	ABSORPTION TIMING
600	7-8 Years



TAXABLE (ASSESSED) VALUATION OF DEVELOPMENT

Comparable home values from the Hideout and surrounding community were used to estimate the future assessed value of the Development. These comparables include condominiums, townhomes, twinhomes, and single family homes ranging from \$589,900 to \$3,200,000. TABLE 1.3 displays the estimated assessed value at build-out of each housing unit based on the number of lots. This analysis includes consideration of a 45 percent primary residential exemption on property taxes for 75 percent of the "for sale" residential units. With feedback from the Town, the property tax exemption was set at this level to recognize that likely 25 percent of the for sale residential units will be secondary homes and will not qualify for the exemption. The primary residential property tax exemption was applied to all 100 apartments units.

TABLE 1.3: DEVELOPMENT OVERVIEW AND ASSESSED VALUE

PRODUCT	ESTIMATED ASSESSED VALUE AT BUILDOUT	# OF UNITS
Apartments	5,245,320	100 units
Town Center Condos	55,780,423	125 units
Twinhomes	34,746,667	40 units
SF Cottage Lots	38,253,130	95 units
Single Family Lots	354,153,995	240 units
Assisted Living	7,417,702	72,800 SF
Retail/Commercial (NET)	15,821,416	95,000 SF
Total	\$511,418,655	

POPULATION PROJECTION

The current population of Hideout is 1,196. Based on the Hideout average household size of 2.40, the Development is anticipated to add 1,440 new residents at buildout. TABLE 1.4 illustrates the current population and anticipated new growth at buildout.

TABLE 1.4: POPULATION ESTIMATES

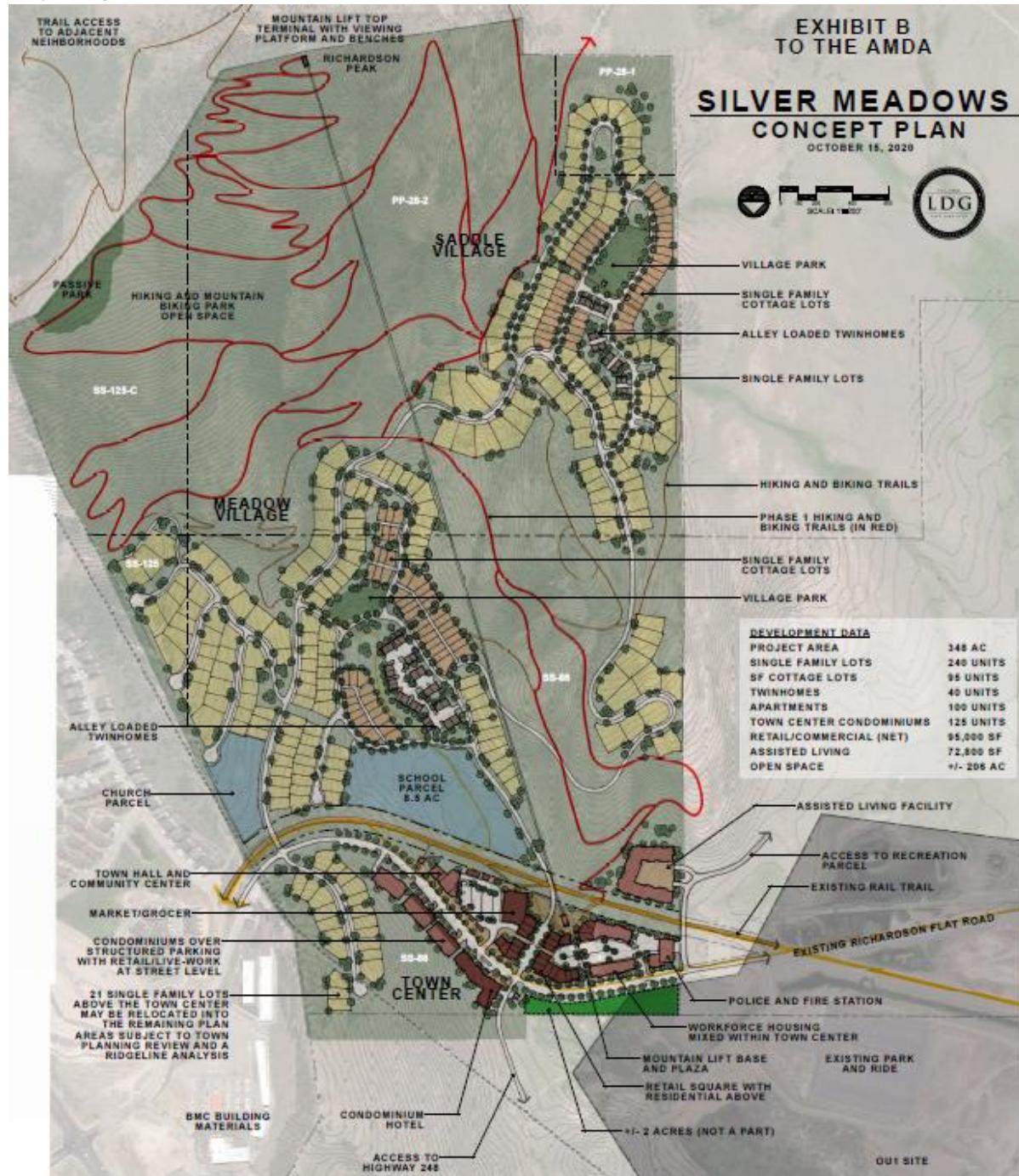
HIDEOUT POPULATION	HIDEOUT AVG HOUSEHOLD SIZE	PROPOSED RESIDENTIAL UNITS	ANTICIPATED POPULATION OF RICHARDSON FLAT ANNEXATION
1,196	2.40	600	1,440



SITE PLAN

IMAGE 1.1 illustrates the site plan of the proposed Development.

IMAGE 1.1: SITE PLAN



SECTION II: HIDEOUT GENERAL FUND REVENUE

Based on the development data outlined in **SECTION I**, LYRB developed a comprehensive financial model to forecast revenues the Development would generate for the Town. This analysis utilizes comparables from similar developments within the region and County and applies the appropriate tax rates to project property tax, sales tax, and franchise tax. Additional consideration is given for Class C road funds based on lane miles within the Development. A cumulative total of **\$15.15 million** of general fund revenue is projected over the 20-year planning horizon. **TABLE 2.1** details the total annual revenue in years 2027, 2032, 2037, and 2042, as well as the 20-year cumulative total.

TABLE 2.1: HIDEOUT PROJECTED GENERAL FUND REVENUE

TOWN REVENUES	2027	2032	2037	2042	20-YEAR TOTAL
Property Tax	258,065	442,889	442,889	442,889	7,171,148
Sales Tax	193,055	289,277	308,241	328,448	5,053,863
Telecommunications Franchise Tax	1,568	2,791	3,082	3,403	47,898
Electric Franchise Tax	39,309	62,897	69,443	76,671	1,098,476
Natural Gas Franchise Tax	11,407	19,272	21,278	23,492	335,923
Class C Road Funds	39,038	82,687	97,986	116,190	1,445,707
Total Revenue	\$542,443	\$899,812	\$942,919	\$991,093	\$15,153,016

PROPERTY TAX REVENUE

Property tax was calculated based on product type and absorption assumptions provided by the Developer, as well as comparable assessed values of similar developments. The tax rate used in this calculation is the Town's 2020 certified tax rate. LYRB assumed a constant tax rate and no appreciation based on the adjustments of the certified tax rate which was established to maintain budget neutrality. In the event the Town held a Truth-in-Taxation hearing, the projected property tax revenue would increase. This analysis assumes 75 percent of the "for sale" homes and all apartments are primary residences, and therefore, this percentage of units receives a 45 percent residential exemption. This calculation was estimated over the next 20 years to show the long-term property tax revenues the Development will bring to the Town. The assessed values have been calculated according to estimated absorption of the development. See the Technical Appendix for further detail related to the property tax calculations.

SALES TAX REVENUE

The sales tax distribution is calculated using historic sales tax per capita data and estimated brick and mortar sales for the retail component. The Richardson Flat annexation will include the only retail center within the town. As no historic values exist within the town to estimate sales per square foot, other communities within the region were used as comparables to develop a commercial sales per square foot value of \$222 in 2023. Communities used to develop this estimate include: Salt Lake City, Morgan City, Morgan County, Kaysville, Highland, and South Jordan. As the Development includes a large commercial component, this analysis assumes a point of sales estimate which is based on the square footage of commercial space multiplied by the Time Indexed Sales per Square Foot. The sales tax revenue is conservative, and the type of retail provided may significantly increase the sales tax revenues.

Historic Hideout sales tax revenue was used to estimate the Development's per capita sales tax revenue from residents. These sales are mainly derived from online purchases. The 2015-2019 average annual growth rate (AAGR) in sales tax per capita in Hideout was 1.3% which increased sales tax revenue from \$95.59 to \$100.58. By applying the 1.3% AAGR to the per capita sales tax revenues, a 2023 per capita sales tax revenue of \$105.82 was estimated and applied to the annexation area population. The per capita amount was grown by 1.3% each of the 20 years in the planning horizon multiplied by the estimated Development population according to the absorption schedule. The total sales tax revenue amount is the combination of the brick and mortar sales tax and the per capita component.



FRANCHISE TAX REVENUE

Cable and Telecommunication franchise taxes were calculated using an estimated usage based upon SF per year. The value was multiplied by the absorption schedule and the tax rate was then applied to determine the revenues per year. A two percent inflation factor is applied to these rates.

Electric energy tax revenues were calculated using residential energy usage per unit, per year. This value was multiplied by the number of units projected to develop each year. The total revenue is then multiplied by the local franchise tax rate of six percent to reach the total tax revenue generated by the Development annually. A two percent inflation factor is applied to these rates.

Natural gas tax revenues were calculated using residential gas usage estimates in the area per unit, per year. This value was multiplied by the number of units projected to develop each year. The total revenue is then multiplied by the local franchise tax rate of six percent to reach the total tax revenue generated by the Development annually. A two percent inflation factor is applied to these rates.

CLASS C ROAD FUND REVENUES

The Class C road funds are distributed by the Utah Department of Transportation based on a formula wherein 50 percent is distributed based on lane miles and 50 percent is distributed based on population. Lane miles are weighted depending on the road material. A weighting of five is applied to paved roads. The developer anticipates adding 4.31 mile of paved road to the Town. The resulting weighted lane mile equivalent is 21.55. The addition of paved miles is calculated incrementally following the absorption timing of the Development. The population component is estimated based on a per capita distribution applied to the new residents the development will bring. The Town's estimated people per household is 2.40. The development could produce a total of 1,440 new residents at buildout. The population component of the Class C road funds is calculated based on the incremental increase in population as the development occurs.



SECTION III: GENERAL FUND EXPENDITURES REQUIRED OF HIDEOUT

The Development will create a burden on the Town's general government, public works, parks, streets, and public safety services. In evaluating the benefits of development, it is important to ensure the costs do not outweigh the benefit. LYRB evaluated the costs associated with providing the aforementioned services through a variety of methodologies and calculations. Specifically, this section addresses the costs to provide the following services for the development:

- ☒ Public Works and Class C Roads
- ☒ General Government
- ☒ Parks
- ☒ Public Safety

The general fund expenditures of the Town related to the proposed Development are based on the current level of service provided to other developments within the Town. LYRB applied the current level of service to the proposed Development based on the number of new homes, commercial area, and the projected population of the Development to estimate the cost of servicing the Development over 20 years.

GENERAL FUND EXPENDITURES RELATED TO THE DEVELOPMENT

TABLE 3.1 below displays the annual expenditures at buildout for streets, Class C road expenditures, general government, parks, fire protection and law enforcement.

TABLE 3.1: TOWN GENERAL FUND EXPENDITURES RELATED TO MUNICIPAL SERVICES

TOWN EXPENSES	2027	2032	2037	2042	20-YEAR TOTAL
Class C Road Expenditures	55,098	89,096	98,369	108,607	1,555,427
General Government (Admin & Prof. Services)	187,762	303,617	335,218	370,107	5,300,535
Public Works	52,459	99,400	109,745	121,168	1,691,152
Parks	3,726	7,060	7,794	8,606	120,110
Public Safety (Fire & Police)	114,009	216,025	238,509	263,333	3,675,374
Total Expenses	\$413,054	\$715,197	\$789,635	\$871,821	\$12,342,598

GENERAL GOVERNMENT (ADMINISTRATIVE & PROFESSIONAL SERVICES)

General Government costs are based on the Administrative and Professional Services costs associated with operating the Town. Professional Services which could be tied to building permit revenues were removed. These include: Building Inspection, Plan Prints, Building Plan Review, and Engineering DRC Review. The costs related to the annexation were estimated over 20 years using a per capita cost for services. The per capita amount was applied to the project Development absorption to determine the annual General Government expenses. A variable to fixed proportion of 75% was applied to recognize the economies of scale. An inflation factor of two percent is applied to the future years.

PUBLIC WORKS & CLASS C ROAD FUND EXPENDITURES

Public Works expenses were estimated over 20 years based on a historic cost per assessed value estimate. As new value is added through development absorption, the cost to provide services increases proportionally. An assumption that the new infrastructure will require less maintenance was used to apply a variable cost ratio of 30% to this amount. This assumes that increases in the Public Works budget due to the annexation will be based on \$0.30 compared to the existing dollar ratio. The Class C road expenditures were left out of this calculation and were calculated separately as shown below. An inflation factor of two percent is applied to account for future year costs.



Class C road expenditures related to the Development were estimated over 20 years using incremental value and absorption from the proposed Development and applying the Class C road expenditure budget values from the previous year. The budget value, total weighted miles, and paved weighting within the Town were applied to provide an annual value for the roadway expenditures. LYRB used the existing cost per lane mile in the Town and multiplied this value by the additional weighted lane miles to be added by the Development to determine the annual Class C road expense. An inflation factor of two percent is applied to account for future year costs.

PARKS

Parks and Recreation costs related to the development were estimated over 20 years using incremental value and absorption from the proposed development and applied budget values from the previous year. A comparison between assessed value of the Town and its Parks was used to develop a cost per assessed value quantity. A variable to fixed costs ratio of 30% was applied to account for existing equipment and personnel that would not need to be duplicated for the annexation. Using the variable cost adjusted cost per assessed value, the Development's assessed value and absorption were used to estimate the Parks costs to the City. This accounts for the size of the Development in comparison with the Town. An inflation value of two percent is applied to account for future year costs.

PUBLIC SAFETY SERVICES

Public Safety services were associated with the assessed value at the recommendation of the fire chief. Per the fire chief, he anticipates that tying service costs to the assessed value will allow for level of service to be maintained for the Town and its annexation. The proposed police and fire station within the Development will be constructed by the Developer and will allow for quick response times within the entire town. An inflation value of two percent is applied to account for future year costs.



SECTION IV: PUBLIC INFRASTRUCTURE AND AMENITIES

PROPOSED INFRASTRUCTURE AND AMENITIES

The Developer will finance and construct a police and fire station, a town hall and community center, a mountain lift, trails, and 206 acres of open space that will provide benefit to the Development and the Town of Hideout. Property will also be provided for a future school. As part of the annexation, the public buildings proposed by the Developer are anticipated to bring access to local services closer to the area and offer public meeting spaces to residents of Hideout.

The trail system will provide pedestrian connections from the proposed retail to the neighborhood sections and Richardson Peak. The open space and trails are intended to be sized and programmed for general public use, and it is anticipated that they will be maintained by an HOA.

The mountain lift located in the town center and extending to Richardson Peak will provide access and viewing opportunities to guests and residents. The Town is currently reviewing whether this is an amenity they wish to own or have turned over to the HOA. Details on the expenses and revenues associated with the lift are not included this in this report. The total proposed Developer funded capital infrastructure and amenities have a significant value. Additional detail on associated acreage and building sizes are required to estimate their value.

DRAFT



SECTION V: HIDEOUT COST BENEFIT

TOWN'S GENERAL FUND COST-BENEFIT SUMMARY

Based on the development assumptions utilized in this analysis, the Richardson Flat Development produces a net benefit to Hideout annually with **\$2.8 million** of cumulative net revenue projected over 20 years as illustrated in **TABLE 5.1**. The absorption and timing of the development will impact the current projections. The development may provide additional benefit to the Town through the public infrastructure and amenities considered in this analysis.

TABLE 5.1: HIDEOUT COST-BENEFIT

	2027	2032	2037	2042	20-YEAR TOTAL
Revenue					
Property Tax	258,065	442,889	442,889	442,889	7,171,148
Sales Tax	193,055	289,277	308,241	328,448	5,053,863
Telecommunications Franchise Tax	1,568	2,791	3,082	3,403	47,898
Electric Franchise Tax	39,309	62,897	69,443	76,671	1,098,476
Natural Gas Franchise Tax	11,407	19,272	21,278	23,492	335,923
Class C Road Funds	39,038	82,687	97,986	116,190	1,445,707
Total Revenue	\$542,443	\$899,812	\$942,919	\$991,093	\$15,153,016
Expense					
Class C Road Expenditures	55,098	89,096	98,369	108,607	1,555,427
General Government (Admin & Prof. Services)	187,762	303,617	335,218	370,107	5,300,535
Public Works	52,459	99,400	109,745	121,168	1,691,152
Parks	3,726	7,060	7,794	8,606	120,110
Public Safety (Fire & Police)	114,009	216,025	238,509	263,333	3,675,374
Total Expense	\$413,054	\$715,197	\$789,635	\$871,821	\$12,342,598
Net Operating Revenue	\$129,389	\$184,615	\$153,283	\$119,271	\$2,810,417

OTHER TAXING ENTITY BENEFITS

The annexation and development of Richardson Flat is anticipated to bring additional property tax revenue to all affiliated taxing entities over the 20 year planning horizon. **TABLE 5.2** provides details on the anticipated property tax revenue for each taxing entity based on 2020 property tax rates. The amounts shown in the table assume no inflation or changes in property tax rates. If tax rates remain constant, the Development will produce a combined cumulative **\$107 million** in property tax for all taxing entities.

TABLE 5.2: PROPERTY TAX REVENUE FOR ALL TAXING ENTITIES

TAXING ENTITIES	2027	2032	2037	2042	20-YEAR TOTAL
Wasatch County	643,971	1,105,176	1,105,176	1,105,176	17,894,747
Wasatch County School District	2,539,530	4,358,310	4,358,310	4,358,310	70,568,734
Town of Hideout	258,065	442,889	442,889	442,889	7,171,148
Wasatch County Fire Protection SSD	211,578	363,107	363,107	363,107	5,879,348
Wasatch County SSD No 21	81,651	140,129	140,129	140,129	2,268,931
Central Utah Water Conservancy District	119,199	204,567	204,567	204,567	3,312,309
Total Property Tax Revenue	\$3,853,994	\$6,614,177	\$6,614,177	\$6,614,177	\$107,095,217

ANNEXATION OF PROPOSED DEVELOPMENT A BENEFIT TO HIDEOUT

Based on the proposed Development, including the type of development, densities, amenities and public infrastructure dedications that are envisioned to occur as part of the annexation, this Economic Impact and Sales Analysis concludes



the Town's general fund will be enhanced by **\$2.8 million** over the 20-year planning horizon. The Developer funded public infrastructure and amenities are of substantial benefit. Based on these calculations, LYRB is of the opinion the proposed Development, and its associated annexation, provides an overall net benefit to the Town. LYRB recommends and encourages the Town to assess the facts, circumstances and calculations presented herein throughout the proposed annexation process to ensure the Town receives the anticipated net benefits of the Development.

Often cities and local governments only evaluate the potential for new revenue to be derived by development or annexation. In this analysis, special attention to the costs of municipal services, demand on existing services, and personnel costs that are increased due to the Development were carefully analyzed and reviewed. Notwithstanding the additional municipal service costs, the Development does "pay for itself" and adds a "net" benefit to the Town.

In addition to the "net" fiscal benefit of the Development, the proposed annexation would provide additional benefits including: public infrastructure elements that enhance overall utilities, a retail center, trails, open space, community buildings, and services and roof-tops that have disposable income to drive demand for goods and services.

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APPENDIX A: GENERAL FUND REVENUE PROJECTIONS

A.1 PROPERTY TAX PROJECTIONS

Property Tax

Property Taxes	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043			
Total Apartment Property Values	-	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320	5,245,320				
Total Town Center Condo Property Values	-	-	14,007,585	27,709,400	27,709,400	42,129,758	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423	55,780,423			
Total Twinhome Property Values	-	20,459,088	20,459,088	20,459,088	20,459,088	24,004,857	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667	34,746,667			
Total SF Cottage Lot Property Values	-	6,696,042	16,223,164	21,024,038	21,024,038	27,119,815	28,758,170	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130	38,253,130			
Total Single Family Property Values	17,219,700	72,134,864	95,421,239	142,325,672	204,327,430	240,010,769	307,397,594	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995	354,153,995			
Total Assisted Living Property Values	-	-	-	-	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702	7,417,702				
Total Commercial Property Values	-	7,827,258	9,845,192	11,813,917	11,813,917	13,875,176	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416	15,821,416			
Total Net Assessed	17,219,700	112,362,572	161,201,588	228,577,436	297,996,896	359,803,398	455,167,294	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655			
INCREMENTAL TAX ANALYSIS:		Payment Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	
		Tax Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Cumulative Taxable Value		Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	
Total Assessed Taxable Value of Project Area		17,219,700	112,362,572	161,201,588	228,577,436	297,996,896	359,803,398	455,167,294	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	511,418,655	
Total Assessed Taxable Value of Project Area		\$17,219,700	\$112,362,572	\$161,201,588	\$228,577,436	\$297,996,896	\$359,803,398	\$455,167,294	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655		
TAX RATE & INCREMENT ANALYSIS:		2020 Rate																					
No Inflation		0.000866	14,912	97,306	139,601	197,948	258,065	311,590	394,175	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889		

Note: Property tax rates are constant, no inflation included.

Annual Property Taxes for all Taxing Entities Taxes	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Wasatch County	0.002161	37,212	242,816	348,357	493,956	643,971	777,535	983,617	1,105,176	1,105,176	1,105,176	1,105,176	1,105,176	1,105,176	1,105,176	1,105,176	1,105,176	1,105,176	1,105,176	
Wasatch County School District	0.008522	146,746	957,554	1,373,760	1,947,937	2,539,530	3,066,245	3,878,936	4,358,310	4,358,310	4,358,310	4,358,310	4,358,310	4,358,310	4,358,310	4,358,310	4,358,310	4,358,310	4,358,310	4,358,310
Town of Hideout	0.000866	14,912	97,306	139,601	197,948	258,065	311,590	394,175	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	
Wasatch County Fire Protection Special Service District	0.000710	12,226	79,777	114,453	162,290	211,578	255,460	323,169	363,107	363,107	363,107	363,107	363,107	363,107	363,107	363,107	363,107	363,107	363,107	
Wasatch County Special Service District No 21	0.000274	4,718	30,787	44,169	62,630	81,651	98,586	124,716	140,129	140,129	140,129	140,129	140,129	140,129	140,129	140,129	140,129	140,129	140,129	
Central Utah Water Conservancy District	0.000400	6,888	44,945	64,481	91,431	119,199	143,921	182,067	204,567	204,567	204,567	204,567	204,567	204,567	204,567	204,567	204,567	204,567	204,567	

Note: Property tax rates are constant, no inflation included.



A.2 SALES TAX PROJECTIONS

Sales Tax

ASSUMPTIONS:	Retail
Commercial Sales per SF	\$ 209
Commercial	95,000
Total Commercial Square Feet	95,000
Additional Assumptions	
Sales Tax Growth	1.28%
Commercial Vacancy	0.00%
Discount Rate	4.00%
New Sales to City	100.00%
HOUSING ASSUMPTIONS:	
Household Size:	2.4
Housing Units	600
Current Population	1,196
Municipal Sales Tax Rate	0.50%

	Taxable		2019	
	2019 Sales Tax Received	2019 Total Commercial SF	Commercial Sales CY2019	Commercial Sales per SF
Salt Lake City	19,423,384	\$3,893,081,124	\$ 200.43	
Morgan City	334,188	62,581,156	\$ 187.26	
Morgan County	600,954	81,011,362	\$ 134.80	
Kaysville	980,026	261,748,105	\$ 267.08	
Highland			\$ 200.00	
South Jordan	5,192,257	1,365,074,988	\$ 262.91	

Source (SF): LYRB

Source (Commercial Sales): Table 8 <https://tax.utah.gov/econstats/sales>

Sales Tax Growth Rate

Long Term AAGR	9.6%	11.0%	1.3%
Sales Tax Revenues	Population	Hideout Sales Tax Revenue	Per Capita
2019	996	100,174	100.58
2018	1,123	100,994	89.93
2017	833	80,234	96.32
2016	847	68,061	80.36
2015	691	66,056	95.59
2014	536	61,391	114.54
2013	401	59,562	148.53
2012	288	55,117	191.38
2011	190	60,745	319.71
2010	247	55,848	226.11

SALES TAX GENERATED BY BRICK & MORTAR HIDEOUT ANNEXATION SALES

Time Indexed Sales (\$)/SF	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Commercial Sales per SF	222	225	228	231	234	237	240	243	246	249	253	256	259	262	266	269	273	276	280	283
Brick & Mortar Taxable Sales Generated																				
Commercial	-	10,700,611	13,611,738	16,507,722	16,718,700	19,814,481	22,804,229	23,095,680	23,390,856	23,689,804	23,992,574	24,299,213	24,609,771	24,924,298	25,242,844	25,565,463	25,892,204	26,223,121	26,558,268	26,897,698
Brick & Mortar Commercial Taxable Sales	-	10,700,611	13,611,738	16,507,722	16,718,700	19,814,481	22,804,229	23,095,680	23,390,856	23,689,804	23,992,574	24,299,213	24,609,771	24,924,298	25,242,844	25,565,463	25,892,204	26,223,121	26,558,268	26,897,698

SALES TAX GENERATED BY HIDEOUT ANNEXATION RESIDENTS (ONLINE & UTILITIES)

Growth Assumptions	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Sales Tax Growth	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Sales Tax per Capita	105.82	107.17	108.54	109.93	111.33	112.75	114.20	115.66	117.13	118.63	120.15	121.68	123.24	124.81	126.41	128.02	129.66	131.32	132.99	134.69
Sales Tax Summary																				
Hideout Annexation (Estimated) Population	23	447	605	768	983	1,147	1,339	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	
Online & Utility Sales Tax from Annexation Residents	2,382	47,937	65,682	84,413	109,462	129,293	152,876	166,543	168,672	170,828	173,011	175,222	177,461	179,729	182,027	184,353	186,709	189,095	191,512	193,960
Total Sales Tax Generated by Residents	2,382	47,937	65,682	84,413	109,462	129,293	152,876	166,543	168,672	170,828	173,011	175,222	177,461	179,729	182,027	184,353	186,709	189,095	191,512	193,960
Sales Tax Summary																				
Brick & Mortar Town Sales Tax Generated	-	53,503	68,059	82,539	83,593	99,072	114,021	115,478	116,954	118,449	119,963	121,496	123,049	124,621	126,214	127,827	129,461	131,116	132,791	134,488
Online & Utility Sales Tax Generated	2,382	47,937	65,682	84,413	109,462	129,293	152,876	166,543	168,672	170,828	173,011	175,222	177,461	179,729	182,027	184,353	186,709	189,095	191,512	193,960
Total Sales Tax Generation	2,382	101,441	133,741	166,951	193,055	228,365	266,897	282,022	285,626	289,277	292,974	296,718	300,510	304,351	308,241	312,180	316,170	320,211	324,303	328,448



A.3 FRANCHISE TAX PROJECTIONS

Telecommunications		Unit	Cost per SF	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Apartments	Per Sq. Ft.	0.0234	\$0	\$1,672	\$1,705	\$1,739	\$1,774	\$1,810	\$1,846	\$1,883	\$1,920	\$1,959	\$1,998	\$2,038	\$2,079	\$2,120	\$2,163	\$2,206	\$2,250	\$2,295	\$2,341	\$2,388	\$2,436	
Town Center Condos	Per Sq. Ft.	0.0234	\$0	\$0	\$1,005	\$2,018	\$2,059	\$3,166	\$4,250	\$4,335	\$4,421	\$4,510	\$4,600	\$4,692	\$4,786	\$4,882	\$4,979	\$5,079	\$5,180	\$5,284	\$5,390	\$5,498	\$5,607	
Twinhomes	Per Sq. Ft.	0.0234	\$0	\$1,631	\$1,664	\$1,697	\$1,731	\$2,060	\$3,002	\$3,062	\$3,123	\$3,186	\$3,249	\$3,314	\$3,381	\$3,448	\$3,517	\$3,588	\$3,659	\$3,733	\$3,807	\$3,883	\$3,961	
SF Cottage Lots	Per Sq. Ft.	0.0234	\$0	\$538	\$1,323	\$1,745	\$1,780	\$2,329	\$2,516	\$3,386	\$3,453	\$3,522	\$3,593	\$3,665	\$3,738	\$3,813	\$3,889	\$3,967	\$4,046	\$4,127	\$4,209	\$4,294	\$4,380	
Single Family Lots	Per Sq. Ft.	0.0234	\$1,199	\$5,095	\$6,860	\$10,389	\$15,138	\$18,088	\$23,512	\$27,540	\$28,091	\$28,652	\$29,225	\$29,810	\$30,406	\$31,014	\$31,635	\$32,267	\$32,913	\$33,571	\$34,242	\$34,927	\$35,626	
Assisted Living	Per Sq. Ft.	0.0234	\$0	\$0	\$0	\$0	\$1,845	\$1,882	\$1,920	\$1,958	\$1,997	\$2,037	\$2,078	\$2,119	\$2,162	\$2,205	\$2,249	\$2,294	\$2,340	\$2,387	\$2,435	\$2,483	\$2,533	
Retail/Commercial (NET)	Per Sq. Ft.	0.0234	\$0	\$1,134	\$1,453	\$1,775	\$1,811	\$2,161	\$2,505	\$2,555	\$2,606	\$2,658	\$2,712	\$2,766	\$2,821	\$2,877	\$2,935	\$2,994	\$3,054	\$3,115	\$3,177	\$3,241	\$3,305	
Total Telecommunications				\$1,199	\$10,070	\$14,011	\$19,364	\$26,138	\$31,497	\$39,550	\$44,718	\$45,612	\$46,525	\$47,455	\$48,404	\$49,372	\$50,360	\$51,367	\$52,394	\$53,442	\$54,511	\$55,601	\$56,713	\$57,848
Tax Revenue				\$72	\$604	\$841	\$1,162	\$1,568	\$1,890	\$2,373	\$2,683	\$2,737	\$2,791	\$2,847	\$2,904	\$2,962	\$3,022	\$3,082	\$3,144	\$3,207	\$3,271	\$3,336	\$3,403	\$3,471

Assumptions 2020

Inflation 2.00%

Cost per SF 0.0234

Telecommunications Tax Rate 6.00%

SF Estimates

Apartments 70,000

Town Center Condos 161,167

Twinhomes 113,847

SF Cottage Lots 125,875

Single Family Lots 1,023,936

Assisted Living 72,800

Retail/Commercial (NET) 95,000

Current Telecom Tax Revenues:

\$1,955

Electricity Tax Revenue		Unit	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Residential Lots		Per Unit	\$13,148	\$213,452	\$299,794	\$392,992	\$450,662	\$550,401	\$673,691	\$755,126	\$770,229	\$785,633	\$801,346	\$817,373	\$833,720	\$850,395	\$867,403	\$884,751	\$902,446	\$920,494	\$938,904	\$957,682	\$976,836
Assisted Living		Per Sq. Ft.	-	-	-	-	\$103,209	\$105,273	\$107,379	\$109,526	\$111,717	\$113,951	\$116,230	\$118,555	\$120,926	\$123,344	\$125,811	\$128,328	\$130,894	\$133,512	\$136,182	\$138,906	\$141,684
Commercial		Per Sq. Ft.	-	\$63,457	\$81,296	\$99,295	\$101,281	\$120,891	\$140,123	\$142,926	\$145,784	\$148,700	\$151,674	\$154,708	\$157,802	\$160,958	\$164,177	\$167,460	\$170,810	\$174,226	\$177,710	\$181,265	\$184,890
Total Revenue			\$13,148	\$276,909	\$381,090	\$492,288	\$655,153	\$776,565	\$921,193	\$1,007,578	\$1,027,730	\$1,048,284	\$1,069,250	\$1,090,635	\$1,112,448	\$1,134,697	\$1,157,391	\$1,180,539	\$1,204,149	\$1,228,232	\$1,252,797	\$1,277,853	\$976,836
Tax Revenue			\$789	\$16,615	\$22,865	\$29,537	\$39,309	\$46,594	\$55,272	\$60,455	\$61,664	\$62,897	\$64,155	\$65,438	\$66,747	\$68,082	\$69,443	\$70,832	\$72,249	\$73,694	\$75,168	\$76,671	\$78,610

Residential Electric Usage Per Unit Per Year \$ 1,095.64 \$ 1,117.55 \$ 1,139.90 \$ 1,162.70 \$ 1,185.95 \$ 1,209.67 \$ 1,233.87 \$ 1,258.54 \$ 1,283.71 \$ 1,309.39 \$ 1,335.58 \$ 1,362.29 \$ 1,389.53 \$ 1,417.32 \$ 1,445.67 \$ 1,474.58 \$ 1,504.08 \$ 1,534.16 \$ 1,564.84 \$ 1,596.14 \$ 1,628.06

Non-Residential Electric Energy Usage per SF per Year \$ 1.31 \$ 1.34 \$ 1.36 \$ 1.39 \$ 1.42 \$ 1.45 \$ 1.47 \$ 1.50 \$ 1.53 \$ 1.57 \$ 1.60 \$ 1.63 \$ 1.66 \$ 1.69 \$ 1.73 \$ 1.76 \$ 1.80 \$ 1.83 \$ 1.87 \$ 1.91 \$ 1.95

ASSUMPTIONS: 2019

Inflation (CPI) 2.00%

Franchise Tax Rate 6.00%

Discount Rate 4.00%

Natural Gas Tax Revenue		Unit	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Residential Lots		Per Unit	\$4,896	\$79,487	\$111,639	\$146,345	\$167,820	\$204,962	\$250,873	\$281,198	\$286,822	\$292,559	\$298,410	\$304,378	\$310,466	\$316,675	\$323,008	\$329,469	\$336,058	\$342,779	\$349,635	\$356,627	\$363,760
Assisted Living			-	-	-	-	\$11,253	\$11,478	\$11,707	\$11,942	\$12,180	\$12,424	\$12,672	\$12,926	\$13,184	\$13,448	\$13,717	\$13,991	\$14,271	\$14,557	\$14,848	\$15,145	\$15,448
Non-Residential			-	\$6,919	\$8,864	\$10,826	\$11,043	\$13,181	\$15,278	\$15,583	\$16,213	\$16,537	\$16,868	\$17,205	\$17,549	\$17,900	\$18,258	\$18,623	\$18,996	\$19,376	\$19,763	\$20,158	
Total			\$4,896	\$86,405	\$120,																		

A.4 CLASS C ROAD REVENUE

Class B & C Roads

Total Weighted Lane Miles

21.55

	Projected																												
	2015	2016	2017	2018	2019	2020	AAGR	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042		
Total Distribution Pool	131,136,765	146,685,044	171,689,820	169,543,658	179,188,729	177,562,815	6.25%	188,659,002	200,448,608	212,974,965	226,284,115	240,424,974	255,449,519	271,412,872	288,374,008	306,394,965	325,542,081	345,885,732	367,500,690	390,466,401	414,867,278	440,793,004	468,338,871	497,606,123	528,702,333	561,741,796	596,845,948		
Lane Miles Pool	65,568,382	73,342,522	85,844,910	84,771,829	89,594,365	88,781,407	6.25%	94,329,501	100,224,304	106,487,483	113,142,057	120,212,487	127,724,760	135,706,486	144,187,004	153,197,483	162,771,041	172,942,866	183,750,345	195,233,201	207,433,639	220,396,502	234,169,435	248,803,062	264,351,167	280,870,898	298,422,974		
Statewide Weighted Miles	111,760	121,109	121,540	122,540	121,813	122,842	1.91%	125,187	127,576	130,012	132,494	135,023	137,600	140,227	142,904	145,632	148,412	151,245	154,132	157,074	160,072	163,128	166,242	169,415	172,649	175,945	179,304		
Distribution Per Weighted Mile	587	606	706	692	736	723		754	786	819	854	890	928	968	1,009	1,052	1,097	1,143	1,192	1,243	1,296	1,351	1,409	1,469	1,531	1,596	1,664		
Estimated Annexed Area Weighted Miles								0	7	9	11	15	17	20	22	22	22	22	22	22	22	22	22	22	22	22	22		
Lane Mile Distribution	-	-	-	-	-	-		254	5,259	7,418	9,813	13,100	15,929	19,389	21,744	22,670	23,635	24,642	25,691	26,785	27,926	29,115	30,355	31,648	32,996	34,401	35,867		
Lane Miles Pool	65,568,382	73,342,522	85,844,910	84,771,829	89,594,365	88,781,407		94,329,501	100,224,304	106,487,483	113,142,057	120,212,487	127,724,760	135,706,486	144,187,004	153,197,483	162,771,041	172,942,866	183,750,345	195,233,201	207,433,639	220,396,502	234,169,435	248,803,062	264,351,167	280,870,898	298,422,974		
State Population	2,817,222							3,270,729	3.03%	3,326,920	3,384,056	3,441,769	3,500,064	3,558,948	3,618,426	3,678,506	3,739,193	3,852,499	3,969,239	4,089,517	4,213,439	4,341,116	4,472,662	4,608,194	4,747,833	4,891,704	5,039,934	5,192,656	5,350,006
Distribution Per Capita	23							27	28	30	31	32	34	35	37	39	40	41	42	44	45	46	48	49	51	52	54	56	
Hideout Annexation (Estimated) Population									-	23	447	605	768	983	1,147	1,339	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	
Land * per Capita	-							-	-	667	13,839	19,562	25,938	34,706	42,303	51,623	57,263	59,052	60,897	62,799	64,761	66,784	68,871	71,023	73,242	75,530	77,890	80,323	
Total Distribution	-	-	-	-	-	-		254	5,925	21,257	29,375	39,038	50,634	61,691	73,366	79,932	82,687	85,538	88,490	91,547	94,711	97,986	101,378	104,890	108,526	112,291	116,190		



APPENDIX B: GENERAL FUND EXPENDITURES

B.1: GENERAL GOVERNMENT EXPENSE PROJECTIONS

Hideout Annexation
Increment and Budget Analysis
Appendix: Town Expenditures

General Government		Total Assessed Value	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Method 2 per capita	Annexation Population		23	447	605	768	983	1,147	1,339	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440
	Per Capita Cost	\$170	\$176	\$180	\$184	\$187	\$191	\$195	\$199	\$203	\$207	\$211	\$215	\$219	\$224	\$228	\$233	\$237	\$242	\$247	\$252	\$257	\$262
	Total	\$3,971	\$80,494	\$111,076	\$143,770	\$187,762	\$223,359	\$265,983	\$291,827	\$297,664	\$303,617	\$309,689	\$315,883	\$322,201	\$328,645	\$335,218	\$341,922	\$348,761	\$355,736	\$362,850	\$370,107	\$377,510	

ASSUMPTIONS:		2021	Population	Gen. Gov't	Per Capita
Cost per \$ Assessed (2020)	\$ 0.00200		Hideout	1,196	270,365.00
Inflation (CCI)	2.0%		Annexation Area Fixed to Variable Adjusted per Cap	169.57	
Assessed Value (2020) ¹	135,109,852				
General Government Budget Expenditures (2020) ²	270,365	<Removed development/building permit categories (Plan Prints & Building Review, Building Inspections)			
Variable to Fixed Cost Ratio	75%				
Discount Rate	4.00%				

Note 1: Source, Utah State Tax Commission , 2020 Certified Tax Rate, (<https://taxrates.utah.gov/RateDetail2017.aspx>)

Note 2: Source, Utah State Auditors Office - Town of Hideout 2021 Budget

B.2 PUBLIC SAFETY EXPENSE PROJECTIONS

Public Safety		Total Assessed Value	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Per Assessed Value	Total New Taxable Value		\$17,219,700	\$112,362,572	\$161,201,588	\$228,577,436	\$297,996,896	\$359,803,398	\$455,167,294	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655
	Fire		1,312.73	8,737.16	12,785.51	18,491.94	24,590.14	30,284.10	39,076.94	44,784.35	45,680.04	46,593.64	47,525.51	48,476.02	49,445.54	50,434.45	51,443.14	52,472.01	53,521.45	54,591.87	55,683.71	56,797.39	57,933.33
	Police		4,773.55	31,771.50	46,492.78	67,243.41	89,418.68	110,123.99	142,097.98	162,852.19	166,109	169,431	172,820	176,276	179,802	183,398	187,066	190,807	194,623	198,516	202,486	206,536	210,667
	Total	\$6,086	\$40,509	\$59,278	\$85,735	\$114,009	\$140,408	\$181,175	\$207,637	\$211,789	\$216,025	\$220,346	\$224,752	\$229,248	\$233,832	\$238,509	\$243,279	\$248,145	\$253,108	\$258,170	\$263,333	\$268,600	

ASSUMPTIONS:		2021	Population	Gen. Gov't	Per Capita
Police Cost per \$ Assessed (2021)	\$ 0.00030		Hideout	1,196	270,365.00
Fire Cost per \$ Assessed (2021)	\$ 0.00008		Annexation Area Fixed to Variable Adjusted per Cap	169.57	
Inflation (CCI)	2.0%				
Assessed Value (2020) ¹	135,109,852				
Fire Budget Expenditures (2021) ²	11,000				
Police Budget Expenditures	40,000				
Total Public Safety Expenditures	11,000				
Variable to Fixed Cost Ratio	90%				
Discount Rate	4.00%				

Note 1: Source, Utah State Tax Commission , 2020 Certified Tax Rate, (<https://taxrates.utah.gov/RateDetail2017.aspx>)

Note 2: Source, Utah State Auditors Office - Town of Hideout 2021 Budget

Note 3: Method recommendation from Chief Giles, Fire Department

B.3 FIRE PROTECTION EXPENSE SERVICES

Streets/Public Works		Total Assessed Value	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Method 1 Assessed Value Method	Annexation Area		\$2,800	\$18,639	\$27,276	\$39,449	\$52,459	\$64,606	\$83,364	\$95,540	\$97,451	\$99,400	\$101,388	\$103,416	\$105,484	\$107,594	\$109,745	\$111,940	\$114,179	\$116,463	\$118,792	\$121,168	\$123,591
	Total	\$2,800	\$18,639	\$27,276	\$39,449	\$52,459	\$64,606	\$83,364	\$95,540	\$97,451	\$99,400	\$101,388	\$103,416	\$105,484	\$107,594	\$109,745	\$111,940	\$114,179	\$116,463	\$118,792	\$121,168	\$123,591	

ASSUMPTIONS:		2021	2021	Buildout	Difference
Cost per \$ Assessed (2021)	\$ 0.00052		Hideout Population:	1,196	5,520
Inflation (CCI)	2.0%		Buildout Annexation Pop.:		4,324
Assessed Value (2020) ¹	135,109,852		Public Works \$ per capita	17.66	
Streets Budget Expenditures (2021) ²	70,400		Annexation PpC	25,434	
Variable to Fixed Cost Ratio	30%				
Discount Rate	4.00%				

Note 1: Source, Utah State Tax Commission , 2020 Certified Tax Rate, (<https://taxrates.utah.gov/RateDetail2017.aspx>)

Note 2: Source, Utah State Auditors Office - Town of Hideout 2021 Budget



B.4 PARKS EXPENSES

Method 1	Parks	Total Assessed Value	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	
	Annexation Area	\$17,219,700	\$112,362,572	\$161,201,588	\$228,577,436	\$297,996,896	\$359,803,398	\$455,167,294	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	\$511,418,655	
Total	\$199	\$1,324	\$1,937	\$2,802	\$3,726	\$4,588	\$5,921	\$6,786	\$6,921	\$7,060	\$7,201	\$7,345	\$7,492	\$7,642	\$7,794	\$7,950	\$8,109	\$8,271	\$8,437	\$8,606	\$8,778			
Assessed Value Method	Total	\$199	\$1,324	\$1,937	\$2,802	\$3,726	\$4,588	\$5,921	\$6,786	\$6,921	\$7,060	\$7,201	\$7,345	\$7,492	\$7,642	\$7,794	\$7,950	\$8,109	\$8,271	\$8,437	\$8,606	\$8,778		
ASSUMPTIONS:																								
Cost per \$ Assessed (2021)		\$ 0.00004																						
Inflation (CCI)		2.0%																						
Assessed Value (2020) 1		135,109,852																						
Parks & Rec Expenditure		5.000																						
Variable to Fixed Cost Ratio		30%																						
Discount Rate		4.00%																						

Note 2: Source, Utah State Auditors Office - Town of Hideout 2021 Budget

B.5 CLASS C ROAD EXPENSES

Hideout Road Expense

Annual

2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
1,165	23,621	32,595	42,189		55,098	65,544	78,052	85,636	87,349	89,096	90,877	92,695	94,549	96,440	98,369	100,336	102,343	104,390	106,477	108,607

Year	2021
Streets Expenditure in budget	148,400
Total Weighted Miles	44.63
Hideout Total Acres	2,230
Total Weighted Miles per A	0.02
Annexed Area	
Weighted Miles	21.55
Cost per Existing Lane Mile	3,325
Additional Weighted Lane Miles	21.55
TRUE	
Road Expense	71,656
Inflation	2.00%

County	City/Town	Last Update	Paved	Gravel	Dirt Surface	Total Actual Miles	Weighted Miles	Total
			Surface	Surface				
Wasatch	Hideout	Mar-21	8.31	1.33	0.21	9.85	44.63	EXISTING
Wasatch	Hideout		4.31	0.00	0.00	4.31	21.55	ANNEXATION

USPS	GEOID	ANSICODE	NAME	LSAD	FUNCSTAT	ALAND	AWATER	ALAND_SQM	AWATER_SQM	INTPTLAT	INTPTLONG	Land Acres
UT	4935120	2519168	Hideout Town	43 A		9022907	1497777	3.484	0.578	40.643904	-111.401396	2,230

Source: 2020 Hideout Acres: https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2020_Gazetteer/



APPENDIX C: SUMMARY OF NET FISCAL BENEFIT/COST ANALYSIS

C.1 SUMMARY OF NET FISCAL BENEFIT/COST ANALYSIS

Hideout Annexation

Net Benefit

Key Assumptions	
Sales Tax Growth	1.3%
Inflation	2.0%
Discount Rate	4.0%
2021 Hideout Population	1,196
Average Household Size	2.40

City Services

TY	Projected																					
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	Totals	NPV
General Fund Revenue	14,912	97,306	139,601	197,948	258,065	311,590	394,175	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	442,889	7,171,148	4,516,279
Property Tax (Hideout)	2,382	101,441	133,741	166,951	193,055	228,365	266,897	282,022	285,626	289,277	292,974	296,718	300,510	304,351	308,241	312,180	316,170	320,211	324,303	328,448	5,053,863	3,195,743
Sales & Use	72	604	841	1,162	1,568	1,890	2,373	2,683	2,737	2,791	2,847	2,904	2,962	3,022	3,082	3,144	3,207	3,271	3,336	3,403	47,898	29,698
Telecommunications & Cable (Franchise)	789	16,615	22,865	29,537	39,309	46,594	55,272	60,455	61,664	62,897	64,155	65,438	66,747	68,082	69,443	70,832	72,249	73,694	75,168	76,671	1,098,476	685,283
Electric (Franchise)	294	5,184	7,230	9,430	11,407	13,777	16,671	18,523	18,894	19,272	19,657	20,050	20,451	20,860	21,278	21,703	22,137	22,580	23,031	23,492	335,923	209,513
Natural Gas (Franchise)	254	5,925	21,257	29,375	39,038	50,634	61,691	73,366	79,932	82,687	85,538	88,490	91,547	94,711	97,986	101,378	104,890	108,526	112,291	116,190	1,445,707	877,129
Class C Road Revenues	18,702	227,075	325,535	434,404	542,443	652,850	797,080	879,937	891,741	899,812	908,060	916,490	925,106	933,914	942,919	952,126	961,541	971,170	981,018	991,093	15,153,016	9,513,644
Total Revenue																						
General Fund Expense	1,165	23,621	32,595	42,189	55,098	65,544	78,052	85,636	87,349	89,096	90,877	92,695	94,549	96,440	98,369	100,336	102,343	104,390	106,477	108,607	1,555,427	970,303
Class C Road Expenditures	3,971	80,494	111,076	143,770	187,762	223,359	265,983	291,827	297,664	303,617	309,689	315,883	322,201	328,645	335,218	341,922	348,761	355,736	362,850	370,107	5,300,535	3,306,568
General Government (Admin & Prof. Services)	2,800	18,639	27,276	39,449	52,459	64,606	83,364	95,540	97,451	99,400	101,388	103,416	105,484	107,594	109,745	111,940	114,179	116,463	118,792	121,168	1,691,152	1,045,279
Public Works	199	1,324	1,937	2,802	3,726	4,588	5,921	6,786	6,921	7,060	7,201	7,345	7,492	7,642	7,794	7,950	8,109	8,271	8,437	8,606	120,110	74,239
Parks	6,086	40,509	59,278	85,735	114,009	140,408	181,175	207,637	211,789	216,025	220,346	224,752	229,248	233,832	238,509	243,279	248,145	253,108	258,170	263,333	3,675,374	2,271,700
Public Safety (Fire & Police)	14,221	164,587	232,163	313,945	413,054	498,505	614,495	687,425	701,174	715,197	729,501	744,091	758,973	774,152	789,635	805,428	821,537	837,967	854,727	871,821	12,342,598	7,668,089
Total Expense																						
Revenues minus Expenditures	4,481	62,488	93,372	120,459	129,389	154,345	182,585	192,512	190,568	184,615	178,559	172,399	166,133	159,762	153,283	146,698	140,005	133,203	126,292	119,271	2,810,417	1,845,556
Net Benefit	4,481	62,488	93,372	120,459	129,389	154,345	182,585	192,512	190,568	184,615	178,559	172,399	166,133	159,762	153,283	146,698	140,005	133,203	126,292	119,271	2,810,417	1,845,556



APPENDIX D: ESTIMATED ABSORPTION OF DEVELOPMENT

D.1 ANNUAL PERCENTAGE, CUMULATIVE, AND ANNUAL SF ABSORPTION

Absorption																					
TY		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Annual Absorption %		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Apartments		0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Town Center Condos		0%	0%	26%	25%	0%	26%	24%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Twinhomes		0%	60%	0%	0%	0%	10%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
SF Cottage Lots		0%	18%	25%	13%	0%	16%	4%	24%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Single Family Lots		5%	16%	7%	13%	18%	10%	18%	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Assisted Living		0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Retail/Commercial (NET)		0%	50%	13%	12%	0%	13%	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Absorption																					
TY		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Cumulative Absorption %		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Apartments		0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Town Center Condos		0%	0%	26%	50%	50%	76%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Twinhomes		0%	60%	60%	60%	60%	70%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
SF Cottage Lots		0%	18%	43%	56%	56%	72%	76%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Single Family Lots		5%	21%	28%	41%	58%	68%	87%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Assisted Living		0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Retail/Commercial (NET)		0%	50%	63%	75%	75%	88%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Absorption																					
TY		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual Absorption SF		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Apartments		-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Town Center Condos		-	-	32	31	-	32	30	-	-	-	-	-	-	-	-	-	-	-	-	
Twinhomes		-	24	-	-	-	4	12	-	-	-	-	-	-	-	-	-	-	-	-	
SF Cottage Lots		-	17	24	12	-	15	4	23	-	-	-	-	-	-	-	-	-	-	-	
Single Family Lots		12	38	16	32	42	24	45	31	-	-	-	-	-	-	-	-	-	-	-	
Assisted Living		-	-	-	-	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Retail/Commercial (NET)		-	48	12	12	-	12	11	-	-	-	-	-	-	-	-	-	-	-	-	
Annual Total		12	227	84	87	115	87	102	54	-	-	-	-	-	-	-	-	-	-	-	
Cumulative Total		12	239	323	409	524	611	714	768	768	768	768	768	768	768	768	768	768	768	768	
Percentage Total		2%	31%	42%	53%	68%	80%	93%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	



ECONOMIC IMPACT ANALYSIS AND SALES ANALYSIS OF RICHARD FLAT ANNEXATION INTO HIDEOUT, UT

Item # 3.

TOWN OF HIDEOUT, UTAH
JUNE 8, 2021





OVERVIEW OF DISCUSSION

FINANCIAL IMPACT AND FEASIBILITY ANALYSES RELATED TO THE PROPOSED ANNEXATION INTO HIDEOUT

- Annexation Summary
- Revenue and Expense Assumptions
- Cost/Benefit Analysis
- Proposed Infrastructure & Amenities
- Other Taxing Entities
- **Review Exclusions:** Two categories omitted from review
 1. Self-funded categories where revenues are designed to match expenses
 2. Elements that cannot be reasonably tied to population or other growth markers
- Excluded revenues and expenses include:
 - Revenues: Licenses & Permits, Charges for Services, Fines & Forfeitures, Interest, and Misc. Revenue
 - Expenses: Debt Service, Misc., and Professional Services which could be tied to building permit revenues.
 - Professional Services excluded: Building Inspection, Plan Prints, Building Plan Review, and Engineering DRC Review

ANNEXATION SUMMARY



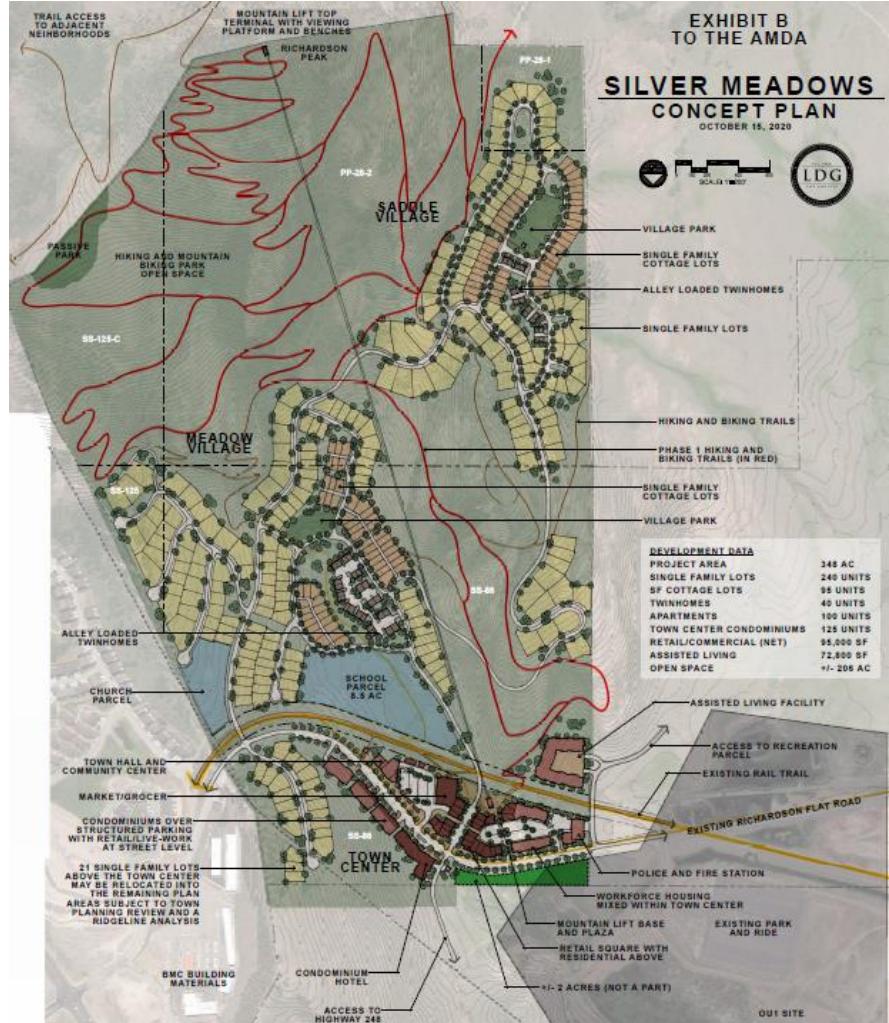
Item # 3.

3

DEVELOPMENT OVERVIEW

- 348 acres
- Residential, Civic, and Commercial Development
- 600 Residential Units
- 1,440 New Residents
- Absorption: 7-8 years
- Estimated Buildout Assessed Value: \$511.4M

PRODUCT	ASSESSED VALUE	# OF UNITS
Apartments	5,245,320	100 units
Town Center Condos	55,780,423	125 units
Twinhomes	34,746,667	40 units
SF Cottage Lots	38,253,130	95 units
Single Family Lots	354,153,995	240 units
Assisted Living	7,417,702	72,800 SF
Retail/Commercial (NET)	15,821,416	95,000 SF
Total	\$511,418,655	





REVENUE ASSUMPTIONS

4

- **Property Tax**
 - Uses the current year tax levy.
- **Sales Tax**
 - Assumes a 1.3% growth per year based on historic trends.
 - Brick & Mortar Commercial Sales: \$222/SF in 2023
 - \$105.82 per capita in new sales tax
- **Franchise Tax**
 - Based on estimated usage per unit or per 1,000SF.
- **Class C Road Revenues**
 - The Utah Department of Transportation distributes Class C road funds based on a formula wherein 50 percent is distributed based on lane miles and 50 percent is distributed based on population.



EXPENSE ASSUMPTIONS

5

- Inflation
 - Annual Expenditure Inflation Rate: 2.0%
- General Government (Administrative & Professional Services)
 - Calculated based on per capita level of service, assuming economies of scale.
 - Professional Services which could be tied to building permit revenues were removed. These include: Building Inspection, Plan Prints, Building Plan Review, and Engineering DRC Review
- Public Safety
 - Calculated based on the historic cost per assessed value as recommended by the fire chief.
- Public Works
 - Calculated based on historic cost per assessed value and estimated fixed to variable costs.
- Class C Road Expenditures
 - A comparison of historic Class C Road expenditures was used to approximate this expense.
- Park and Recreation
 - Calculated based on existing cost per capita and estimated fixed to variable costs.



Item # 3.

NET BENEFIT OVERVIEW

ANNEXATION AREA

6

- **\$2.8M Cumulative Net Benefit Over 20 Years**

General Fund Revenue	2027	2032	2037	2042	Totals	NPV (4%)
Property Tax	\$258,065	\$442,889	\$442,889	\$442,889	\$7,171,148	\$4,516,279
Sales & Use	193,055	289,277	308,241	328,448	5,053,863	3,195,743
Telecommunications (Franchise)	1,568	2,791	3,082	3,403	47,898	29,698
Electric (Franchise)	39,309	62,897	69,443	76,671	1,098,476	685,283
Natural Gas (Franchise)	11,407	19,272	21,278	23,492	335,923	209,513
Class C Road Revenues	39,038	82,687	97,986	116,190	1,445,707	877,129
Total Revenue	\$542,443	\$899,812	\$942,919	\$991,093	\$15,153,016	\$9,513,644
General Fund Expense						
Class C Road Expenditures	55,098	89,096	98,369	108,607	1,555,427	970,303
General Government (Admin & Prof. Services)	187,762	303,617	335,218	370,107	5,300,535	3,306,568
Public Works	52,459	99,400	109,745	121,168	1,691,152	1,045,279
Parks	3,726	7,060	7,794	8,606	120,110	74,239
Public Safety (Fire & Police)	114,009	216,025	238,509	263,333	3,675,374	2,271,700
Total Expense	\$413,054	\$715,197	\$789,635	\$871,821	\$12,342,598	\$7,668,089
Net Benefit						
Net Benefit (Cost)	\$129,389	\$184,615	\$153,283	\$119,271	\$2,810,417	\$1,845,556



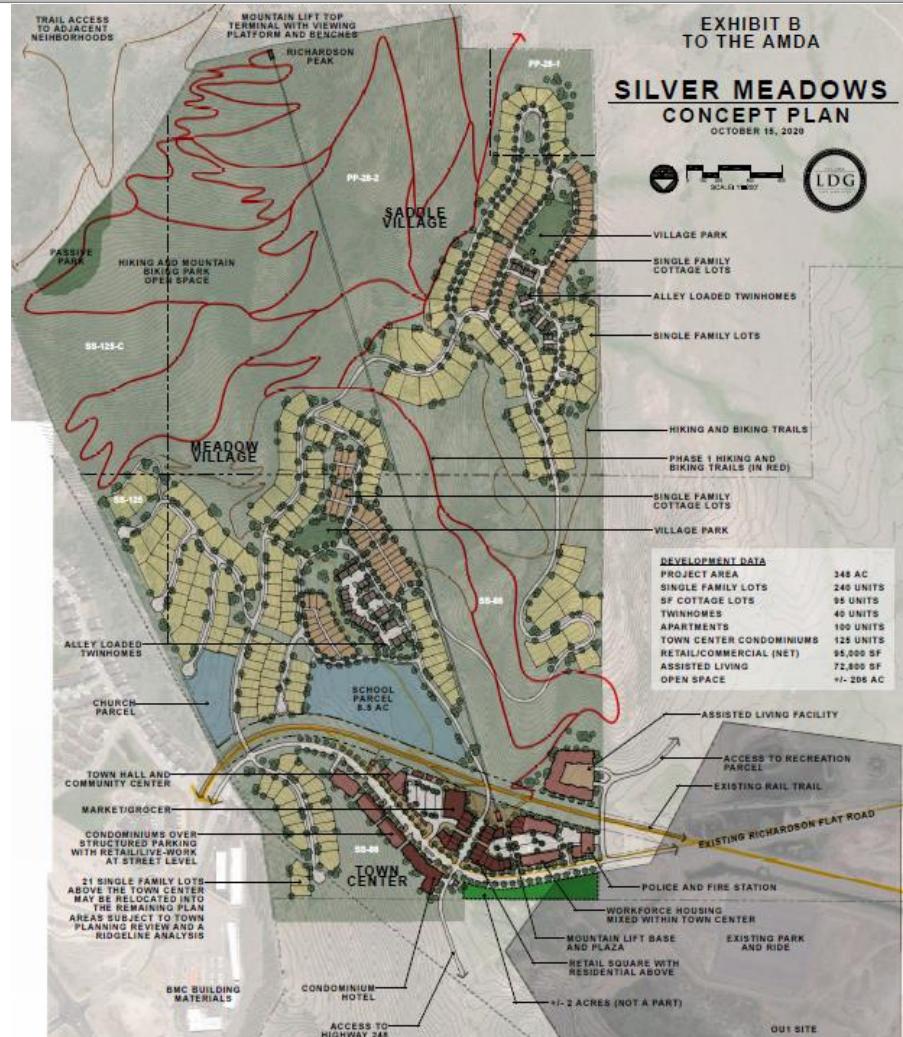
PROPOSED INFRASTRUCTURE & AMENITIES



7

DEVELOPER FINANCED & CONSTRUCTED AMENITIES

- Police & Fire Station
- Town Hall with a Community Center
- Mountain Lift
- Trails
- 206 Acres of Open Space
- Property for Future School



OTHER TAXING ENTITY BENEFITS



8



- **Property Tax Revenue for all Taxing Entities is \$107M cumulative over 20 Years**

Taxing Entity	2027	2032	2037	2042	Totals	NPV (4%)
Wasatch County	\$643,971	\$1,105,176	\$1,105,176	\$1,105,176	\$17,894,747	\$11,269,837
Wasatch County School District	2,539,530	4,358,310	4,358,310	4,358,310	70,568,734	44,443,104
Town of Hideout	258,065	442,889	442,889	442,889	7,171,148	4,516,279
Wasatch County Fire Protection SSD	211,578	363,107	363,107	363,107	5,879,348	3,702,723
Wasatch County Special Service District No 21	81,651	140,129	140,129	140,129	2,268,931	1,428,938
Central Utah Water Conservancy District	119,199	204,567	204,567	204,567	3,312,309	2,086,041
Total Revenue	\$3,853,994	\$6,614,177	\$6,614,177	\$6,614,177	\$107,095,217	\$67,446,921



CONCLUSION

9

- Property tax is revenue neutral (doesn't account for inflation) without Truth-in-Taxation.
- The addition of a commercial center provides a new revenue source for the Town.
- Other factors that may contribute to annexation:
 - Infrastructure and civic requirements and/or improvements
 - Local control
 - Economic development strategies
 - Community cohesion
 - Boundary irregularities
 - Service provision requirements or synergies

QUESTIONS



10

Laura Lewis

PRINCIPAL/OWNER

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E-mail: Laura@lewisyoung.com

Kate Werrett

ANALYST

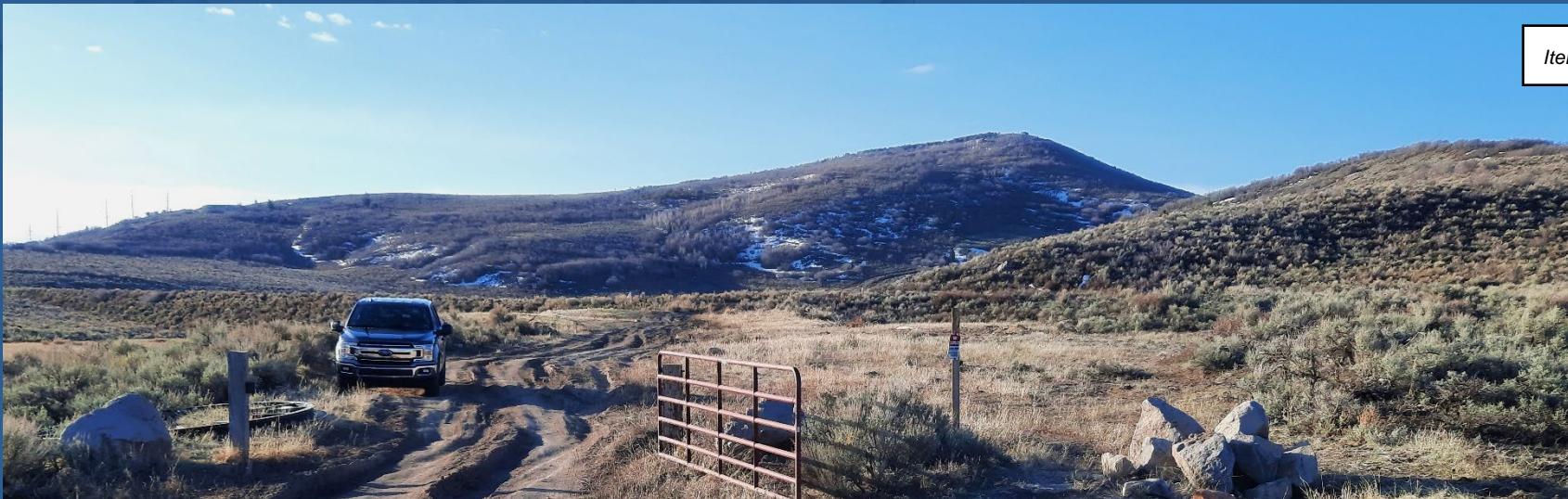
Phone: (801) 801-456-3922

E-mail: Kate@lewisyoung.com

File Attachments for Item:

4. Geo Syntec Presentation and Q&A

Item # 4.



Parcel SS-86 Environmental Baseline Sampling

Brent Robinson, P.E.
Brian Smith

Geosyntec ▶
consultants



PROFESSIONAL BACKGROUND

	<p>Brent C. Robinson, P.E. Senior Principal Engineer</p> <ul style="list-style-type: none">• B.S., Civil & Environmental Engineering, Utah State University (1993)• M.S., Civil & Environmental Engineering, Utah State University (1995)• 25+ years of civil engineering and environmental consulting experience• Licensed professional engineer in Utah• Utah DEQ Certified UST Consultant	<p>Areas of Expertise and Practice</p> <ul style="list-style-type: none">• Environmental Site Investigation• Feasibility Studies• Sediment, Soil, and Groundwater Remediation• Environmental Permitting and Compliance• Project Planning and Management• Environmental Due Diligence• Regulatory Support
	<p>Brian Smith. Senior Scientist (Geologist)</p> <ul style="list-style-type: none">• B.S., Geology, University of Utah (1999)• 19+ years of site investigation and environmental consulting experience	<p>Areas of Expertise and Practice</p> <ul style="list-style-type: none">• Geology• Environmental Site Investigation• Feasibility Studies• Sediment, Soil, and Groundwater Remediation• Construction Management• Environmental Due Diligence

PURPOSE OF STUDY

- Evaluate baseline environmental conditions
- Evaluate if property has been impacted by adjacent Richardson Flat site
- Use data to evaluate whether additional investigation or environmental controls are needed as part of potential future development

RICHARDSON FLAT TAILINGS IMPOUNDMENT

- Former tailings pond associated with historic mining activities in the Park City area
- Operated until early 1980's
- Listed as a proposed National Priority List (NPL) site by EPA in 1988
- Constituents of concern - heavy metals (primarily arsenic, lead and zinc)
- Remediation completed in early 2000's
- Remediation included consolidating and capping tailings with clean cover
- Current 5-Year Review by EPA documents that remedy continues to be protective of human health and environment
- Proposed development not located within boundaries of Richardson Flat site



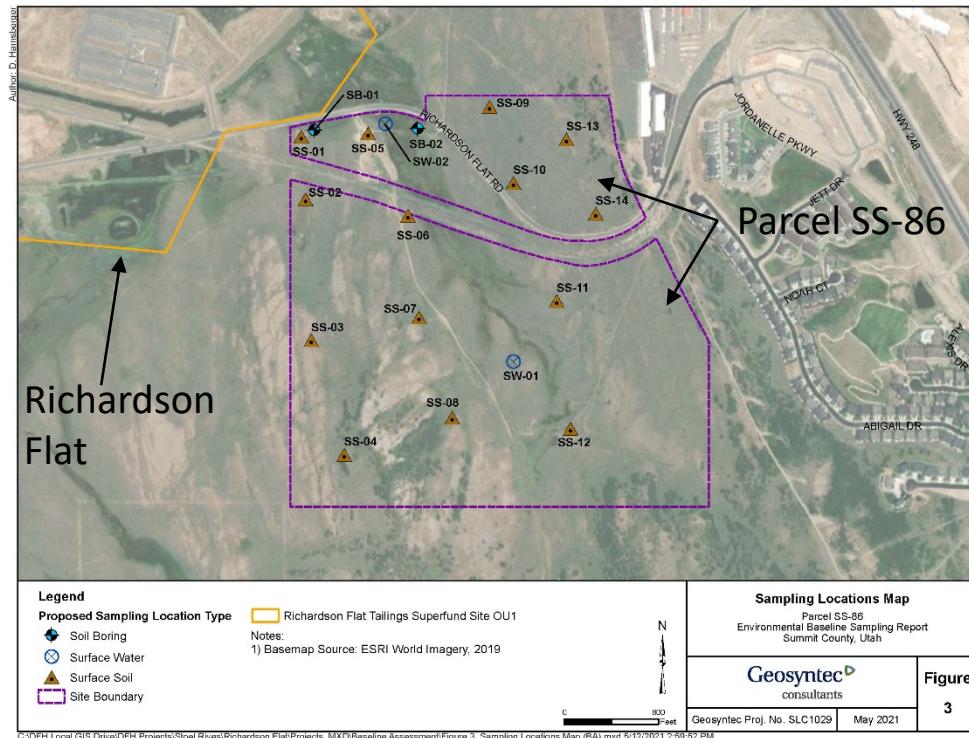
Source: <https://www.doi.gov/sites/doi.gov/files/migrated/restoration/upload/AM-4a-Hernandez.pdf>



Source: Second Five-Year Report for Richardson Flats Tailings Superfund Site <https://semspub.epa.gov/work/08/100005323.pdf>

BASELINE SAMPLING SCOPE

- 14 Surface soil samples
- 2 Groundwater samples
- 2 Surface water samples
- All samples analyzed for metals (constituents of concern for Richardson Flat site)



SURFACE SOIL SAMPLE RESULTS

- Samples collected from 0-3 inches
- All results below relevant EPA residential soil screening levels, except for arsenic
- Arsenic concentrations consistent with naturally occurring background levels and not indicative of potential impacts
- Elevated levels of naturally occurring arsenic common in Utah

Table 1
Surface Soil Sample Analytical Summary
Parcel SS-86
Summit County, Utah
Draft

Lab Sample ID	L1339512-01	L1339512-15	L1339512-02	L1339512-03	L1339512-04	L1339512-05	L1339512-06	L1339512-16	USEPA Residential RSL for Soil ^a
Client Sample ID	SS-01	SS-01 (Duplicate)	SS-02	SS-03	SS-04	SS-05	SS-06	SS-06 (Duplicate) ^b	
Date Collected	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021
Analyte	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
ALUMINUM	mg/kg	18700		20600		23500		24100	
ANTIMONY	mg/kg	<0.655		0.941 J		2.06 J		<0.684	
ARSENIC	mg/kg	7.87		7.85		13.1		5.78	
BARIUM	mg/kg	1.88		1.95		2.57		2.56	
CADMIUM	mg/kg	0.612		0.588 J		2.17		0.312 J	
CHROMIUM	mg/kg	31.9		32.8		22.3		20.9	
COPPER	mg/kg	22.6		24.5		43.6		25.5	
LEAD	mg/kg	80.0		76.2		237		40.9	
NICKEL	mg/kg	13.3		13.9		14.7		15.4	
SELENIUM	mg/kg	1.24 J		<0.925		<1.08		<0.961	
SILVER	mg/kg	0.273 J		0.302 J		0.933 J		<0.160	
ZINC	mg/kg	1.32		140		330		80.3	
MERCURY	mg/kg	0.0488		0.0566		0.142		0.0494 J	
								0.0834	
								0.255	
								0.0695	
								0.0727	
									11

Lab Sample ID	L1339512-07	L1339512-08	L1339512-09	L1339512-10	L1339512-11	L1339512-12	L1339512-13	L1339512-14	USEPA Residential RSL for Soil ^a
Client Sample ID	SS-07	SS-08	SS-09	SS-10	SS-11	SS-12	SS-13	SS-14	
Date Collected	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021	04/13/2021
Analyte	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
ALUMINUM	mg/kg	21700		24300		21100		23100	
ANTIMONY	mg/kg	1.26 J		<0.833		<0.615		0.676 J	
ARSENIC	mg/kg	9.32		9.74		5.50		8.87	
BARIUM	mg/kg	296		357		213		248	
CADMIUM	mg/kg	1.42		1.55		0.488 J		0.844	
CHROMIUM	mg/kg	20.4		18.8		20.0		17.5	
COPPER	mg/kg	42.0		40.2		29.4		37.3	
LEAD	mg/kg	153		139		42.6		98.7	
NICKEL	mg/kg	15.4		14.8		19.0		17.7	
SELENIUM	mg/kg	<1.15		<1.17		<0.863		0.96 J	
SILVER	mg/kg	0.725 J		0.676 J		<0.144		0.664 J	
ZINC	mg/kg	208		193		96.2		133	
MERCURY	mg/kg	0.122		0.11		0.166		0.0966	
								0.0919	
								<0.220	
								0.0263 J	
								0.146	
									11

Notes:

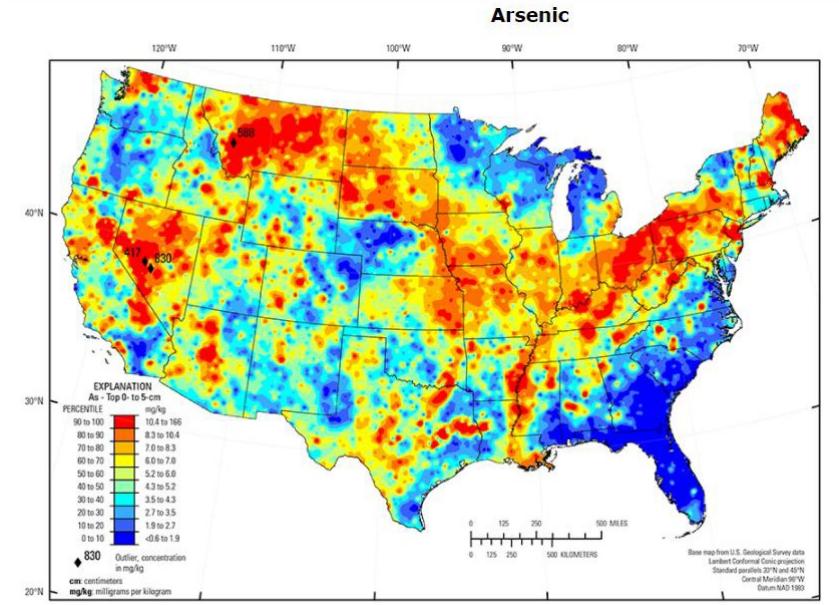
^aUSEPA RSL for residential soil dated, November 2020^bDuplicate collected from location SS-01. Sample labeled SS-44^bDuplicate collected from location SS-06. Sample labeled SS-66Concentrations underlined and **bolded** exceed RSL

NS = No Standard

RSL = Regional Screening Level

SURFACE SOIL SAMPLE RESULTS

- Arsenic concentrations in site samples range from 5.50 mg/kg to 14 mg/kg
- Background samples collected by EPA from surrounding area range from 6.7 mg/kg to 17.5 mg/kg



Source: https://pubs.usgs.gov/sir/2017/5118/sir20175118_element.php?el=33

GROUNDWATER SAMPLE RESULTS

- Two samples collected from temporary borings on downgradient portion of the site (northwest corner, adjacent to Richardson Flat)
- Detections for dissolved arsenic, barium, chromium, nickel and selenium in one or both samples
- All results below relevant Utah Groundwater Quality Standards

Table 3
Groundwater Analytical Summary
Parcel SS-86
Summit County, Utah
Draft

Lab Sample ID	L1339512-20	L1339512-21	L1339512-22	Utah Groundwater Quality Standard ¹	USEPA RSL for Tapwater ²
Client Sample ID	SB-01	SB-02	SB-02 (Duplicate) ³		
Date Collected	04/13/2021	04/13/2021	04/13/2021		
Analyte	Units	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier
ARSENIC	mg/l	<0.00440	0.00583 B J	0.00742 B J	0.05
BARIUM	mg/l	0.127	0.144	0.151	2.0
CHROMIUM	mg/l	0.00195 J	<0.00140	<0.00140	0.1
NICKEL	mg/l	0.00261 J	<0.00161	<0.00161	NS
SERENIUM	mg/l	<0.00735	0.0121	<0.00735	0.05

Notes:

¹Utah Groundwater Quality Standard, R317-6-2, Table 1

²USEPA RSL for tapwater ingestion. For metals that do not have established Utah Groundwater Quality Standard, USEPA RSL for tapwater applied.

³Duplicate sample collected from location SB-02. Sample labeled SB-12

All concentrations are dissolved metals

Table shows only detected compounds

NS = No Standard

RSL = Regional Screening Level

Qualifiers:

J :The identification of the analyte is acceptable; the reported value is an estimate.

B :The same analyte is found in the associated blank.

SURFACE WATER SAMPLE RESULTS

- Two samples collected from ephemeral drainage
- Results conservatively compared to Utah surface water quality standards for drinking water/human health
- Surface water will not be used for drinking purposes within the site
- No exceedances in the upstream sample
- Downstream sample showed slight exceedances for arsenic and antimony
- Observed exceedances likely related to naturally occurring background concentrations

Table 4
Surface Water Analytical Summary
Parcel SS-86
Summit County, Utah
Draft

Lab Sample ID		L1339512-17		L1339512-19		L1339512-18		Utah Numeric Surface Water Criteria ¹	Utah Human Health Surface Water Consumption Criteria ²
Client Sample ID		SW-01		SW-01 (Duplicate) ³		SW-02			
Date Collected		04/13/2021		04/13/2021		04/13/2021			
Analyte	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier		
ALUMINUM	mg/l	0.0593	J	0.0562	J	0.069	J	NS	NS
ANTIMONY	mg/l	<0.00430		<0.00430		0.00762	J	NS	0.0056
ARSENIC	mg/l	<0.00440		<0.00440		0.0178		0.01	0.01
BARIUM	mg/l	0.101		0.109		0.124	O1	1.0	NS
COPPER	mg/l	0.00395	J	0.0079	J	<0.00368		NS	1.3
ZINC	mg/l	<0.00652		<0.00652		0.0188	J	NS	7.4

Notes:

¹Numeric Surface Water Criteria for Domestic, Recreational and Agricultural Uses, R317-2-14, Table 2.14.1. Criteria based on Class 1C water

²Numeric Human Health Criteria for Consumption, R317-2-14, Table 2.14.6. Criteria based on Class 1C water.

³Duplicate sample collected from location SW-01. Sample labeled SW-11

All concentrations are dissolved metals

Table shows only detected compounds

Concentrations underlined and **bolded** exceed Numeric Surface Water Criteria and/or Surface Water Consumption Criteria

NS = No Standard

Qualifiers:

J :The identification of the analyte is acceptable; the reported value is an estimate.

O1 :The analytic failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

CONCLUSIONS OF STUDY

- No evidence of impact to the site from Richardson Flat
- Identified metals concentrations appear to be representative of background conditions
- Baseline assessment does not suggest need for additional environmental investigation or controls for future development

File Attachments for Item:

5. Environmental Review (EPA and UDEQ)

RICHARDSON FLAT OU1

- Past Investigation
- Past Remediation
- Next Steps

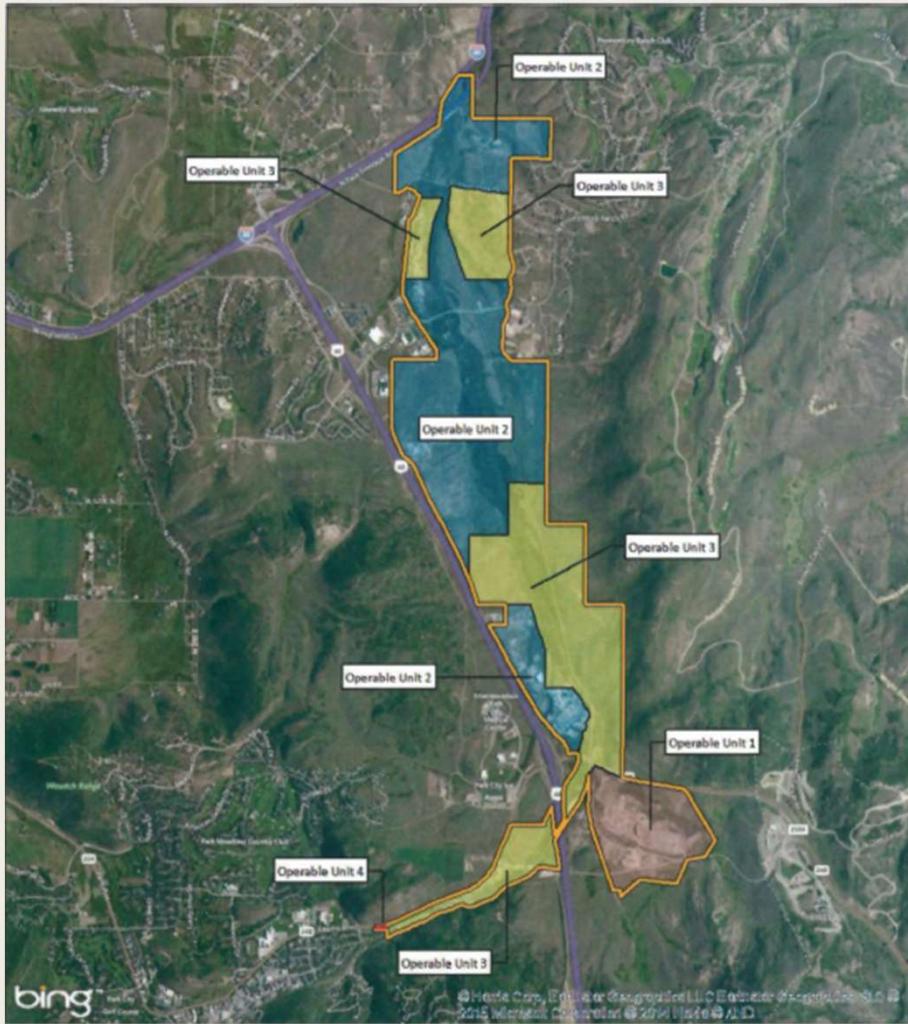
Rob Parker, EPA

June 8, 2021

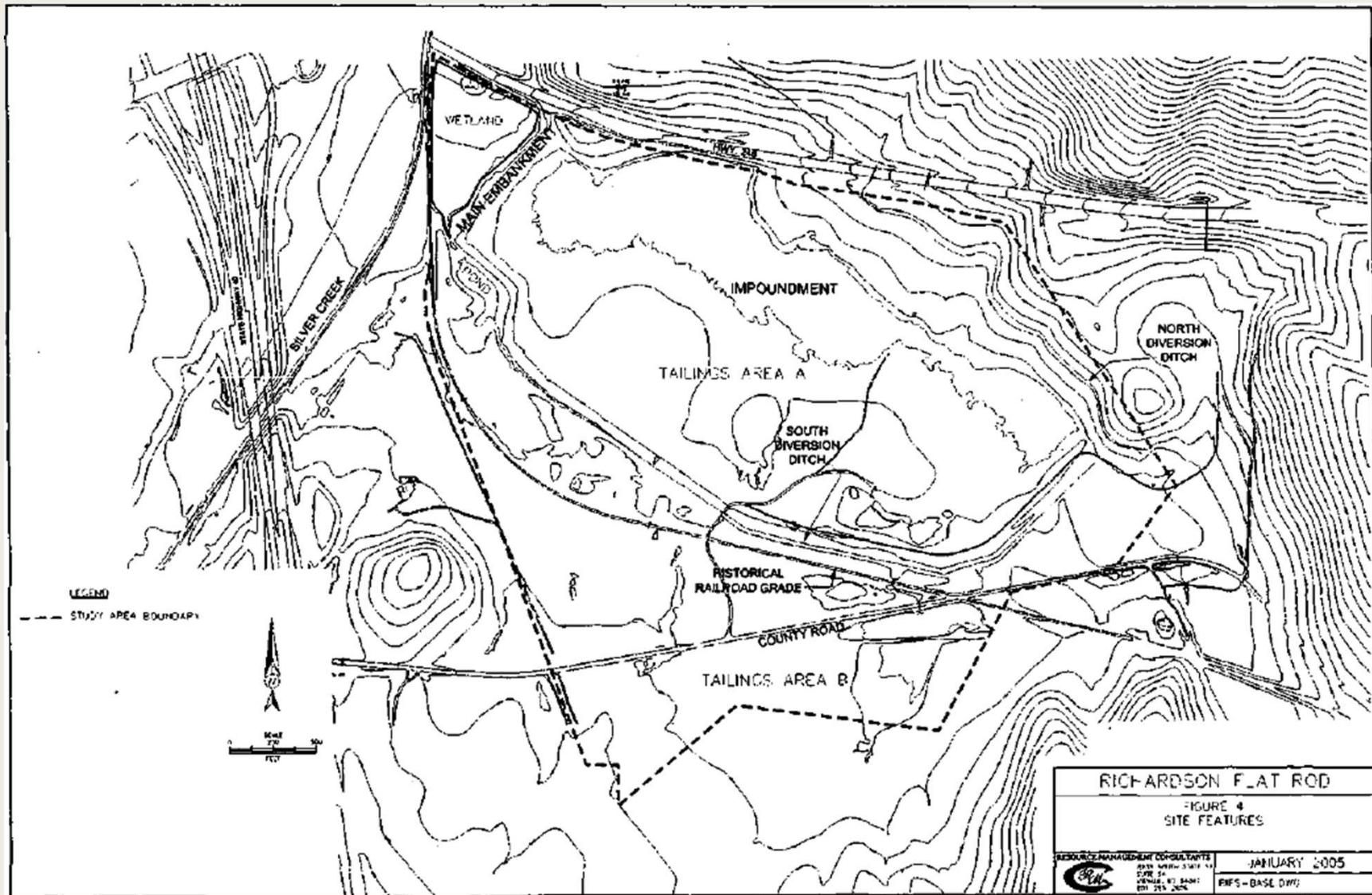
Richardson Flat Background

- EPA is responding to releases at Richardson Flat pursuant to authority from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund).
- 3 distinct areas, or operable units:
 - OU1 – *former tailings impoundment; remedy implementation is largely complete.*
 - OU2/3 – *tailings deposited along Silver Creek flood plain; site characterization is in progress.*
 - OU4 – *outfall of french drain underlying Prospector Park in Park City; remedy evaluation in progress.*

Aerial Image of Site



OU1

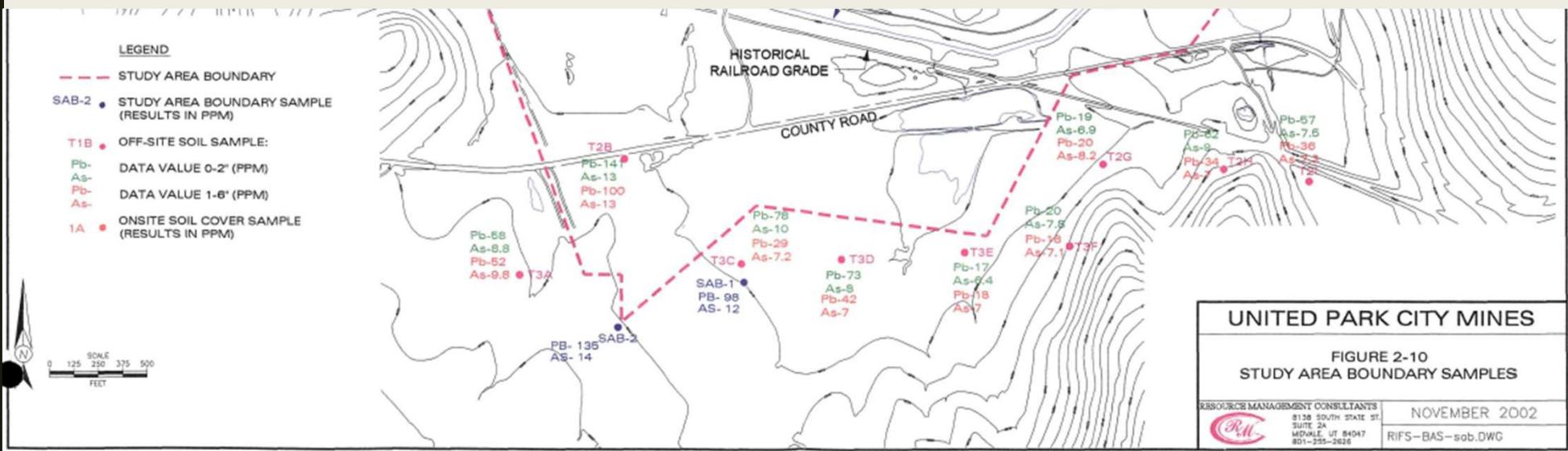


Three key takeaways related to land in/around OU1

1. The OU1 remedial investigation delineated the extent of soil contamination at the impoundment.
2. A remedy was implemented at the impoundment to mitigate against soil migration and exposure to recreational users.
3. EPA continues to evaluate consolidating tailings from the flood plain into certain locations within the impoundment.

Three key takeaways

1. An objective of the remedial investigation included collecting samples to delineate the extent of contamination.



Three key takeaways

2. EPA issued a Record of Decision that included the following to protect human health and the environment:
 - *consolidate tailings into the repository.*
 - *cover the tailings with an 18" layer of clean soil to ensure the tailings wouldn't migrate.*
 - *limit OU use to recreational use.*

These actions are largely complete.

Three key takeaways

3. Future response actions in OU2/3 may bring additional tailings material to OU1. These tailings would require additional cover to ensure protection of human health and the environment.

Three key takeaways related to land in/around OU1

1. The OU1 remedial investigation delineated the extent of soil contamination at the impoundment.
2. A remedy was implemented at the impoundment to mitigate against soil migration and exposure to recreational users.
3. EPA continues to evaluate consolidating tailings from the flood plain into certain locations within the impoundment.