

EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed development of land located south of Warm Springs Road in Ketchum, Idaho. The proposed development, composed of a resort hotel, residential units, and other supporting amenities, is located near Bald Mountain Road, Four Seasons Lane, Flower Drive, and Townhouse Lane.

Included within the analyses for this study are the traffic operations for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2018 conditions were also analyzed.

TRAFFIC ANALYSIS

The following is an outline of the traffic analysis performed by Hales Engineering for the respective traffic conditions of this project.

Existing (2012) Background Conditions Analysis

Hales Engineering performed weekday afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersection(s):

- Bald Mountain Road / Warm Springs Road
- Four Seasons Lane / Warm Springs Road
- Flower Drive / Warm Springs Road
- Townhouse Lane / Warm Springs Road
- Saddle Road / Warm Springs Road
- Lewis Street / Warm Springs Road

These counts were performed on Wednesday, February 13, 2008. Due to the current economic circumstances, minimal amounts of development have occurred during the last several years in this vicinity of Ketchum, therefore, it was decided that the traffic volumes have not changed significantly and that the previous traffic counts would be sufficient for this updated evaluation. The p.m. peak hour was determined to be between 4:00 and 5:00 p.m. Based on the combination of 2008 intersection volumes and traffic generated by the site, the weekday p.m. peak hour was the critical time identified for analysis. Detailed count data is included in Appendix A.

As shown in Table ES-1, all study intersections experience acceptable levels of delay.

Project Conditions Analysis

The proposed land use for the site has been identified as follows:

- Hotel Suites: 122 keys
- Residences: 33 units
- Creekside Villas 37 units
- Golf Villas 24 units
- Ranch Homes 13 units
- Food and Beverage Area 10,800 square feet
- Meeting Space 12,200 square feet
- Spa / Wellness Center 16,200 square feet
- Short Game Golf Course 9 holes

The projected gross trip generation for the development is as follows:

- Daily Trips: 2,079 vehicles per day (vpd)
- a.m. Peak Hour Trips: 150 vehicles per hour (vph)
- p.m. Peak Hour Trips: 184 vph
- Saturday Daily Trips: 2,511 vpd
- Saturday Peak Hour Trips: 261 vph

The Hotel Suites and Residences were melded into an occupied unit count for the hotel and were computed as a “worst case” scenario. Although not necessarily in accordance with ITE, Hales Engineering used the greater Key number, thus generating a much more conservative evaluation.

Existing (2012) Plus Project Conditions Analysis

As shown in Table ES-1, the study intersections have acceptable levels of delay during the p.m. peak period.

Future (2018) Background Conditions Analysis

As shown in Table ES-1, the study intersections have acceptable levels of delay during the p.m. peak period.

Future (2018) Plus Project Conditions Analysis

As shown in Table ES-1, the study intersections have acceptable levels of delay during the p.m. peak period with the exception of the Saddle Road / Warm Springs Road intersection which has an LOS E condition on the minor street movement (Saddle Road). Significant

queuing was observed on Saddle Road. This is discussed in greater detail in the body of the report.

TABLE ES-1 P.M. Peak Hour Warm Springs Ranch Resort TIS				
Intersection	Existing 2012 Background	Existing 2012 Plus Project	Future 2018 Background	Future 2018 Plus Project
Description	Dir. (LOS / (Sec/Veh)) ¹			
Four Seasons Way / Warm Springs Road	SB (A / 6.3)	WB (A / 0.6)	SB (A / 6.3)	SB (A / 0.8)
Bald Mountain Road / Warm Springs Road	NB (A / 2.9)	²	NB (A / 4.6)	²
Flower Drive / Warm Springs Road	SB (A / 5.3)	SB (A / 7.2)	SB (A / 5.7)	SB (A / 7.9)
Townhouse Lane / Warm Springs Road	NEB (A / 2.9)	²	NEB (A / 7.0)	²
Saddle Road / Warm Springs Road	WB (A / 8.5)	WB (A / 10.0)	WB (D / 25.3)	WB (E / 43.6)
Lewis Street / Warm Springs Road	(B / 13.0)	(B / 14.2)	(C / 28.1)	(D / 38.4)
Bald Mountain Road / Flower Drive	³	EB (A / 4.8)	³	EB (A / 5.7)

1. Dir. = direction, LOS = Level of Service, and delay (seconds/vehicle) values represent the overall intersection average for signalized and all-way stop controlled intersections and the worst approach for all other unsignalized intersections.
 2. This intersection is analyzed in the background conditions only and is realigned in the plus project analyses.
 3. This intersection is a project access and was only analyzed in "plus project" scenarios.

Source: Hales Engineering, January 2012

RECOMMENDATIONS

The following mitigation measures are recommended:

Existing (2012) Background Conditions Analysis

Based on a specific study of the Lewis Street / Warm Springs Road intersection for the City of Ketchum, Hales Engineering has recommended that a modified roundabout be installed at this and the neighboring 10th Street / Warm Springs Road intersection. However, if right-of-way can't be acquired at this location, it is recommended that a traffic signal be installed to help traffic flow better at this location. All analyses were completed using the traffic signal as a default traffic control device because it also creates a "worst case" scenario for LOS calculations, e.g., the roundabout will offer a better LOS for these closely spaced intersections.

No additional mitigations are recommended.

Existing (2012) Plus Project Conditions Analysis

No mitigation measures are recommended.

Future (2018) Background Conditions Analysis

No mitigation measures are recommended.

Future (2018) Plus Project Conditions Analysis

No mitigations are recommended.

The Saddle Road intersection is too close to the Lewis Street intersection to be signalized; however, if the Lewis Street and 10th Street intersections are changes into roundabouts, consideration should be given to creating a roundabout at the Saddle Road intersection as well.

If the intersection were to remain with its current form or intersection control, on average, vehicles will incur more delay waiting to make the southbound left turn movement with the project traffic added to the future 2018 traffic. Additionally, the 95th percentile queue length for that movement will be between 125 and 145 feet (or 6 to 7 vehicles). The nearest access along Saddle Road is approximately 290-feet north of the intersection and will not be impacted by this long queue during most times of the day.

SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- All study intersections currently (2012) have acceptable levels of service.
- The proposed project is a mix of housing types including resort hotel with residences, villas, and ranch homes and includes amenities such as restaurants, meeting space, spa and a short game golf course.
- With project traffic added to the roadway network (2012), all intersections operate at acceptable levels of service.
- Future traffic volumes (2018) are based on a comprehensive land use evaluation completed collaboratively between the development Team and Ketchum City planning staff.
- Most intersections operate at acceptable levels of service during future (2018) conditions, and future conditions with project traffic added, with the exception of the Saddle Road intersection which has an LOS F movement for southbound left turning

vehicles as they try to find a simultaneous gap in both directions of traffic to make the desired movement.

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I. INTRODUCTION

A. Purpose

This study addresses the traffic impacts associated with the proposed development of land located south of Warm Springs Road in Ketchum, Idaho. The proposed development, composed of a resort hotel, residential units, and other supporting amenities, is located near Bald Mountain Road, Four Seasons Lane, Flower Drive, and Townhouse Lane.

Included within the analyses for this study are the traffic operations for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2018 conditions were also analyzed.



Figure 1 Vicinity map: Proposed Warm Springs Ranch Resort, Ketchum, Idaho

B. Scope

The study area was defined based on conversations with the development Team and Ketchum City staff members. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersections:

- Bald Mountain Road / Warm Springs Road
- Four Seasons Lane / Warm Springs Road
- Flower Drive / Warm Springs Road
- Townhouse Lane / Warm Springs Road
- Saddle Road / Warm Springs Road
- Lewis Street / Warm Springs Road

C. Analysis Methodology

Level of service (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 1 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 2010 (HCM 2010) 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 and all-way stop intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections LOS is reported based on the worst approach. Hales Engineering has also calculated overall delay values for unsignalized intersections, which provides additional information and represents the overall intersection conditions rather than just the worst approach.

D. Level of Service Standards

For the purposes of this study, a minimum overall intersection performance for each of the study intersections was set at LOS D. However, if LOS E or F conditions exist, an explanation and/or mitigation measures will be presented. An LOS D threshold is consistent with “state-of-the-practice” traffic engineering principles for urbanized areas.

Table 1 Level of Service Descriptions

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
Signalized Intersections		Overall Intersection
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	$0 \leq 10.0$
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	> 10.0 and ≤ 20.0
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>20.0 and ≤ 35.0
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	> 35.0 and ≤ 55.0
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	> 55.0 and ≤ 80.0
F	Unacceptable progression with forced or breakdown operating conditions.	> 80.0
Unsignalized Intersections		Worst Approach
A	Free Flow / Insignificant Delay	$0 \leq 10.0$
B	Stable Operations / Minimum Delays	>10.0 and ≤ 15.0
C	Stable Operations / Acceptable Delays	>15.0 and ≤ 25.0
D	Approaching Unstable Flows / Tolerable Delays	>25.0 and ≤ 35.0
E	Unstable Operations / Significant Delays Can Occur	>35.0 and ≤ 50.0
F	Forced Flows / Unpredictable Flows / Excessive Delays Occur	> 50.0

Source: Hales Engineering Descriptions, based on Highway Capacity Manual, 2010 Methodology (Transportation Research Board, 2010)

II. EXISTING (2012) BACKGROUND CONDITIONS

A. Purpose

The purpose of the existing (2012) background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified and potential mitigation measures recommended. This analysis will provide a baseline condition that may be compared to the build conditions to identify the impacts of the development.

B. Roadway System

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

Warm Springs Road – is a city-maintained collector street that provides direct ingress and egress access to the proposed site. The right-of-way for Warm Springs Road is approximately 50-feet wide. This roadway is currently composed of a two-lane cross section with one travel lane in each direction as well as an eight-foot wide multi-use trail on the north side of the road. The speed limit on Warm Springs Road near Saddle Road is 20 mph while the speed limit to the west in the canyon is 30 mph.

C. Traffic Volumes

Hales Engineering performed weekday afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersection(s):

- Bald Mountain Road / Warm Springs Road
- Four Seasons Lane / Warm Springs Road
- Flower Drive / Warm Springs Road
- Townhouse Lane / Warm Springs Road
- Saddle Road / Warm Springs Road
- Lewis Street / Warm Springs Road

These counts were performed on Wednesday, February 13, 2008. Due to the current economic circumstances, minimal amounts of development have occurred during the last several years in this vicinity of Ketchum, therefore, it was decided that the traffic volumes have not changed significantly and that the previous traffic counts would be sufficient for this updated evaluation. The p.m. peak hour was determined to be between 4:00 and 5:00 p.m. Based on the combination of 2008 intersection volumes and traffic generated by the site, the weekday p.m. peak hour was the critical time identified for analysis. Detailed count data is included in Appendix A.

Figures 2a and 2b show the existing peak hour volumes as well as intersection geometry at the study intersections for the p.m. peak hours.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, and p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 2 (see Appendix B for the detailed LOS reports). Multiple runs (10) of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2012) conditions. As shown in Table 2, all intersections have acceptable levels of service during the p.m. peak hour.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. No significant queuing exists at the study intersections during the p.m. peak hour.

F. Mitigation Measures

Based on a specific study of the Lewis Street / Warm Springs Road intersection for the City of Ketchum, Hales Engineering has recommended that a modified roundabout be installed at this and the neighboring 10th Street / Warm Springs Road intersection. However, if right-of-way can't be acquired at this location, it is recommended that a traffic signal be installed to help traffic flow better at this location. All analyses were completed using the traffic signal as a default traffic control device because it also creates a "worst case" scenario for LOS calculations, e.g., the roundabout will offer a better LOS for these closely spaced intersections.

No additional mitigations are recommended.

Table 2 Existing (2012) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²
Four Seasons Way / Warm Springs Road	SB Stop	SB	6.3	A	-	-
Bald Mountain Road / Warm Springs Road	NB Stop	NB	2.9	A	-	-
Flower Drive / Warm Springs Road	SB Stop	SB	5.3	A	-	-
Townhouse Lane / Warm Springs Road	NE Stop	NE	2.9	A	-	-
Saddle Road / Warm Springs Road	WB Stop	WB	8.5	A	-	-
Lewis Street / Warm Springs Road	Signal	-	-	-	13.0	B

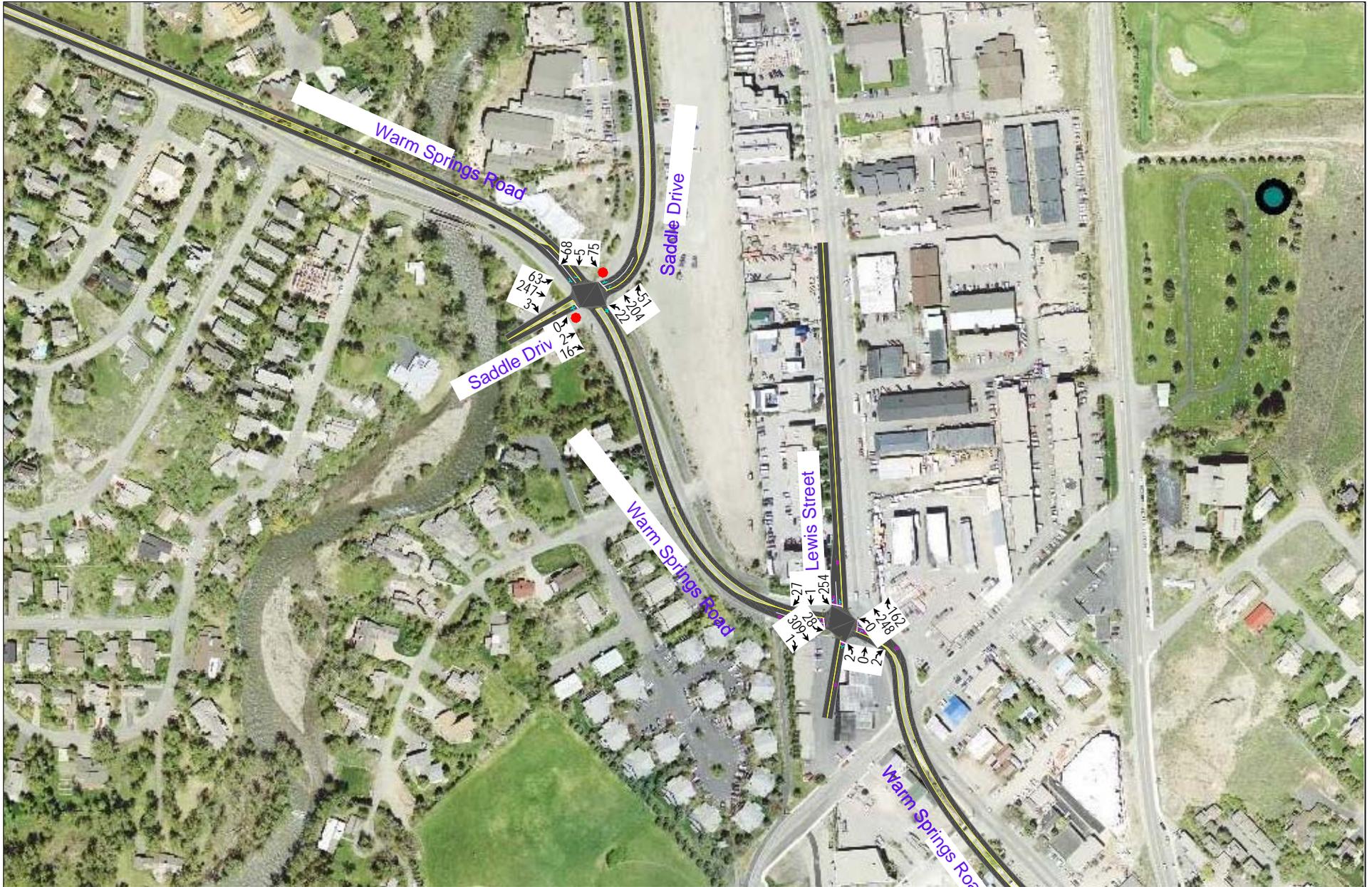
1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way-stop unsignalized intersections.

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

3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2012





III. PROJECT CONDITIONS

A. Purpose

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

B. Project Description

This study addresses the traffic impacts associated with the proposed development of land located south of Warm Springs Road in Ketchum, Idaho. The proposed development, composed of a resort hotel, residential units, and other supporting amenities, is located near Bald Mountain Road, Four Seasons Lane, Flower Drive, and Townhouse Lane.

A concept plan for the proposed development has been included in Appendix C.

The proposed land use for the site has been identified as follows:

- Hotel Suites: 122 keys
- Residences: 33 units
- Creekside Villas 37 units
- Golf Villas 24 units
- Ranch Homes 13 units
- Food and Beverage Area 10,800 square feet
- Meeting Space 12,200 square feet
- Spa / Wellness Center 16,200 square feet
- Short Game Golf Course 9 holes

C. Trip Generation

Trip generation for the development was calculated using rates published in the ITE *Trip Generation (8th Edition, 2008)*. Trip Generation for the proposed project is included in Table 3. The ITE trip generation rates identify gross trips to and from a facility as if it were a stand-alone activity. Gross ITE trip generation rates do not account for internal capture or transit trips. Hales Engineering evaluated the internal capture and transit nature of this site.

Some trip generation assumptions made are discussed as follows:

- Resort Hotel – Trip generation for the Resort Hotel was calculated using the ITE Land Use data for Resort Hotels (ITE Land Use Code 330). Part of ITE’s description of a resort hotel includes the observation that resort hotels “cater to the tourist and vacation

industry, often providing a wide variety of recreational facilities/programs (golf courses, tennis courts, beach access, or other amenities).” Additionally, some of the properties surveyed included guest transportation services such as shuttles and/or limousine services. Trip generation for resort hotels is based on the number of occupied rooms. Based on conversations with city staff and the development team, a 70 percent occupancy rate was assumed.

- Villas – Trip generation for the Villas was completed by applying the regular townhouse trip generation rate (ITE Land Use Code 230) to estimate trips generated by the Villas.
- Meeting Space – Currently, there is no national data available from ITE for meeting space as a land use. Trip generation was estimated based on information from the previous proposal for this site and the new square footages. From Team experience, it was estimated that 50 percent of attendees would be lodging on-site and utilizing time-of-day parking variation like an office land-use, which was assumed to have similar loading and un-loading characteristics as a convention center.

The ITE trip generation rates identify gross trips to and from a facility as if it were a stand-alone activity. Gross ITE trip generation rates do not account for trips already on adjacent roadways or for internal capture. Hales Engineering did not adjust the gross trip generation to account for pass-by trips due to the destination nature of this project; however, trips were adjusted to account for some internal capture due to the mixed use characteristics of the proposed project.

The following internal capture assumptions were made:

- Quality Restaurant – Based on conversations with the development team, it was determined that 75 percent of the patrons to the quality restaurant would be guests of the hotel. Therefore, trip generation for the restaurant was reduced by 75 percent.
- 9-Hole Golf Course – Based on conversations with the development team, it was determined that 70 percent of the patrons to the 9-hole golf course would be guests of the hotel. Therefore, trip generation for the 9-hole golf course was reduced by 70 percent.
- Meeting Space – Based on conversations with the development team, it was determined that 50 percent of the patrons to the meeting space would be guests of the hotel. Therefore, trip generation for the meeting space was reduced by 50 percent.
- Spa/Wellness Center – Based on conversations with the development team, it was determined that 50 percent of the patrons to the spa/wellness center would be guests of the hotel. Therefore, trip generation for the spa/wellness center was reduced by 50 percent.

Additionally, some transit reductions were made including the following:

- Resort Hotel – 10 percent reduction for limo service providing transportation to and from the downtown area and various other destinations.
- Villas – 4 percent reduction. According to local census data, approximately 4 percent of residents in Ketchum use transit.
- Restaurants and Spa/Wellness Center – 4 percent reduction to account primarily for employees who use transit.

D. Trip Distribution and Assignment

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially in close proximity to the site. The resulting distribution of project generated trips is as follows:

To/From Project Site:

- 5% West on Warm Springs Road
- 95% East on Warm Springs Road

These trip distribution assumptions were used to assign the p.m. peak hour generated trips at the study intersections to create a trip assignment for the proposed development. Trip assignment for the p.m. peak hour is shown in Figures 3a and 3b.

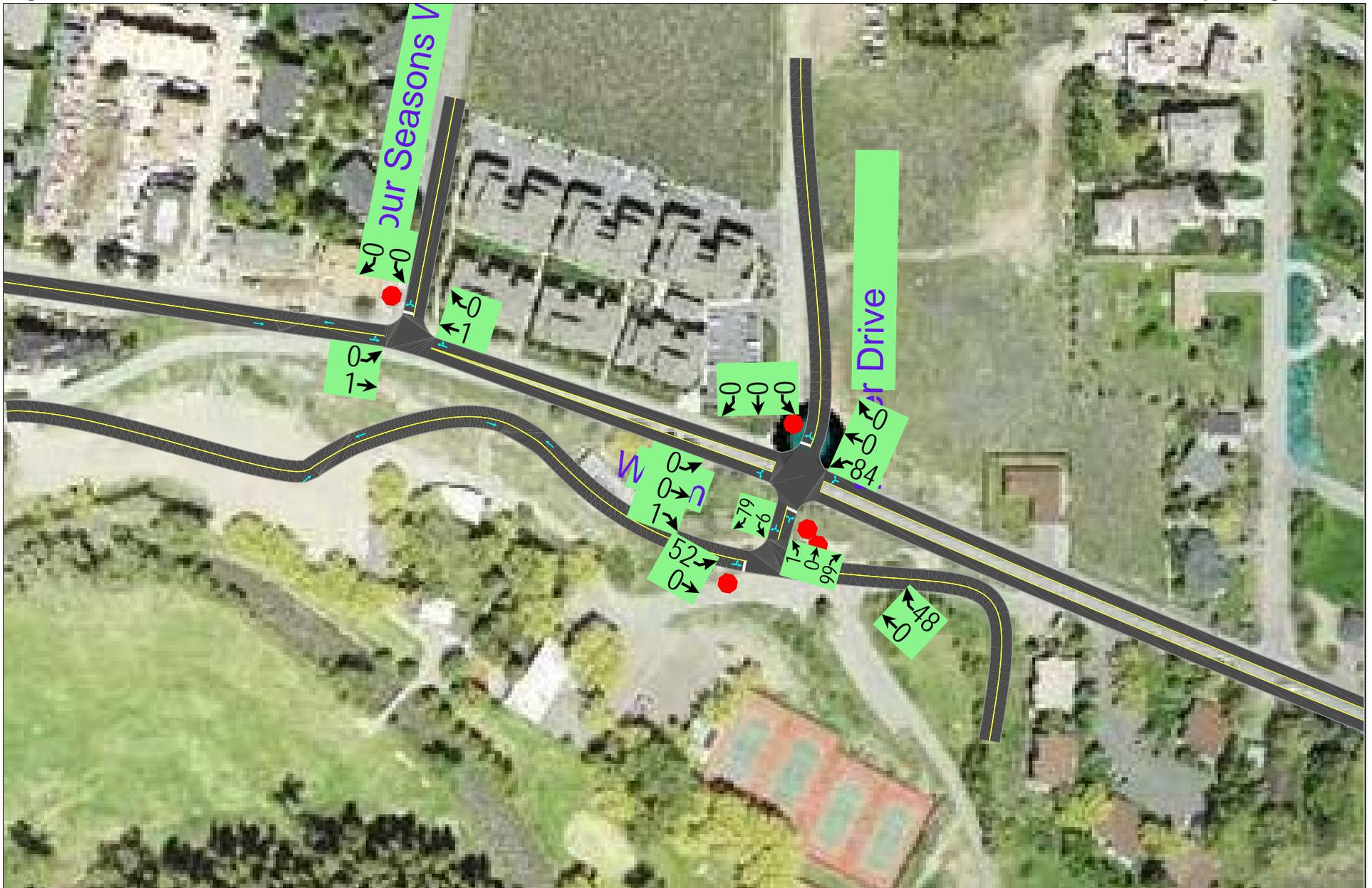
E. Access

The proposed access to the site will be gained from Warm Springs Road. Bald Mountain Road will be realigned from its current location through the Warm Springs Ranch Resort and to Flower Drive and connecting to Warm Springs Road. This realignment will take place for safety reasons including the acute angle of Bald Mountain Road with Warm Springs Road in its current location makes sight distance difficult, the approach angle makes visibility difficult and compounds the poor sight distance issues, the roadway cross-slope needs to be corrected and the steepness of Bald Mountain Road can be lowered to a more reasonable winter condition.

Table 3
Ketchum Warm Springs Ranch TIS (December 2011)
Trip Generation

Daily		Number of	Unit	Occupancy /	Transit	Daily	%	%	Trips
Land Use ¹	Units	Type	Internal Capture	Reduction	Trip Generation	Entering	Exiting	Entering	
Suites / Residences	Resort Hotel (330) ²	155	Occupied Rooms	70% Occupancy	10%	609	50%	50%	305
Creekside Villas	Residential Condominium/Townhouse (230)	37	Dwelling Units	-	4%	206	50%	50%	103
Golf Villas	Residential Condominium/Townhouse (230)	24	Dwelling Units	-	4%	134	50%	50%	67
Ranch Home	Single-Family Detached Housing (210)	13	Dwelling Units	-	0%	124	50%	50%	62
Food and Beverage Areas	Quality Restuarant (931) ³	10.8	1,000 Sq. Ft. GFA	75% Internal Capture	4%	233	50%	50%	117
	Golf Course (430) ⁴	9	Holes	70% Internal Capture	0%	96	50%	50%	48
Meeting Space	Convention Center (595) ⁵	12.2	1,000 Sq. Ft. GFA	50% Internal Capture	0%	420	50%	50%	210
Spa/Wellness Center	Health / Fitness Club (492) ⁶	16.2	1,000 Sq. Ft. GFA	50% Internal Capture	4%	256	50%	50%	128
Project Total Daily Trips									1,040
a.m. Peak Hour		Number of	Unit	Occupancy /	Transit	a.m. Peak Hour	%	%	Trips
Land Use ¹	Units	Type	Internal Capture	Reduction	Trip Generation	Entering	Exiting	Entering	
Suites / Residences	Resort Hotel (330)	155	Occupied Rooms	70% Occupancy	10%	36	72%	28%	26
Creekside Villas	Residential Condominium/Townhouse (230)	37	Dwelling Units	-	4%	16	17%	83%	3
Golf Villas	Residential Condominium/Townhouse (230)	24	Dwelling Units	-	4%	10	17%	83%	2
Ranch Home	Single-Family Detached Housing (210)	13	Dwelling Units	-	0%	10	25%	75%	2
Food and Beverage Areas	Quality Restuarant (931) ³	10.8	1,000 Sq. Ft. GFA	75% Internal Capture	4%	2	52%	48%	1
	Golf Course (430) ⁵	9	Holes	70% Internal Capture	0%	6	79%	21%	5
Meeting Space	Convention Center (595) ⁵	12.2	1,000 Sq. Ft. GFA	50% Internal Capture	0%	60	88%	12%	53
Spa/Wellness Center	Health / Fitness Club (492) ⁷	16.2	1,000 Sq. Ft. GFA	50% Internal Capture	4%	11	42%	58%	5
Project Total a.m. Peak Hour Trips									96
p.m. Peak Hour		Number of	Unit	Occupancy /	Transit	p.m. Peak Hour	%	%	Trips
Land Use ¹	Units	Type	Internal Capture	Reduction	Trip Generation	Entering	Exiting	Entering	
Suites / Residences	Resort Hotel (330)	155	Occupied Rooms	70% Occupancy	10%	48	43%	57%	21
Creekside Villas	Residential Condominium/Townhouse (230)	37	Dwelling Units	-	4%	18	67%	33%	12
Golf Villas	Residential Condominium/Townhouse (230)	24	Dwelling Units	-	4%	12	67%	33%	8
Ranch Home	Single-Family Detached Housing (210)	13	Dwelling Units	-	0%	13	63%	37%	8
Food and Beverage Areas	Quality Restuarant (931) ³	10.8	1,000 Sq. Ft. GFA	75% Internal Capture	4%	19	67%	33%	13
	Golf Course (430) ⁵	9	Holes	70% Internal Capture	0%	8	44%	56%	3
Meeting Space	Convention Center (595) ⁵	12.2	1,000 Sq. Ft. GFA	50% Internal Capture	0%	38	13%	87%	5
Spa/Wellness Center	Health / Fitness Club (492) ⁷	16.2	1,000 Sq. Ft. GFA	50% Internal Capture	4%	27	51%	49%	14
Project Total p.m. Peak Hour Trips									85
Saturday Daily		Number of	Unit	Occupancy /	Transit	Saturday Daily	%	%	Trips
Land Use ¹	Units	Type	Internal Capture	Reduction	Trip Generation	Entering	Exiting	Entering	
Suites / Residences	Resort Hotel (330)	155	Occupied Rooms	70% Occupancy	10%	1,311	50%	50%	656
Creekside Villas	Residential Condominium/Townhouse (230)	37	Dwelling Units	-	4%	201	50%	50%	101
Golf Villas	Residential Condominium/Townhouse (230)	24	Dwelling Units	-	4%	131	50%	50%	65
Ranch Home	Single-Family Detached Housing (210)	13	Dwelling Units	-	0%	131	50%	50%	66
Food and Beverage Areas	Quality Restuarant (931) ⁴	10.8	1,000 Sq. Ft. GFA	75% Internal Capture	4%	245	50%	50%	122
	Golf Course (430) ⁵	9	Holes	70% Internal Capture	0%	110	50%	50%	55
Meeting Space	Convention Center (595) ⁵	12.2	1,000 Sq. Ft. GFA	50% Internal Capture	0%	220	50%	50%	110
Spa/Wellness Center	Health / Fitness Club (492) ⁷	16.2	1,000 Sq. Ft. GFA	50% Internal Capture	4%	162	50%	50%	81
Project Total Saturday Trips									1,255
Saturday Peak Hour		Number of	Unit	Occupancy /	Transit	Sat Peak Hour	%	%	Trips
Land Use ¹	Units	Type	Internal Capture	Reduction	Trip Generation	Entering	Exiting	Entering	
Suites / Residences	Resort Hotel (330)	155	Occupied Rooms	70% Occupancy	10%	120	50%	50%	60
Creekside Villas	Residential Condominium/Townhouse (230)	37	Dwelling Units	-	4%	17	54%	46%	9
Golf Villas	Residential Condominium/Townhouse (230)	24	Dwelling Units	-	4%	11	54%	46%	6
Ranch Home	Single-Family Detached Housing (210)	13	Dwelling Units	-	0%	12	54%	46%	7
Food and Beverage Areas	Quality Restuarant (931) ⁴	10.8	1,000 Sq. Ft. GFA	75% Internal Capture	4%	28	59%	41%	17
	Golf Course (430) ⁵	9	Holes	70% Internal Capture	0%	12	49%	51%	6
Meeting Space	Convention Center (595) ⁵	12.2	1,000 Sq. Ft. GFA	50% Internal Capture	0%	40	13%	87%	5
Spa/Wellness Center	Health / Fitness Club (492) ⁷	16.2	1,000 Sq. Ft. GFA	50% Internal Capture	4%	22	50%	50%	11
Project Total Saturday Peak Hour Trips									120

1. Land Use Code from the Institute of Transportation Engineers - 8th Edition *Trip Generation Manual* (ITE Manual)
2. Trip generation data was not available for this land use during this time period so an estimate was calculated based on the relationship between peak hour and daily volumes for a regular hotel (ITE Land Use Code)
3. Trip generation for this land use was reduced by 75% because this restaurant will primarily be used by guests on site.
4. Trip generation for this land use was reduced by 70% because the golf course will primarily be used by guests on site.
5. Trip Generation the meeting space was not available from ITE, therefore, estimates were based on parking demand and time-of-day variance.
6. Trip generation for this land use was reduced by 50% because the spa/wellness center will be used by resort guests and guests from off-site.



IV. EXISTING (2012) PLUS PROJECT CONDITIONS

A. Purpose

This section of the report examines the traffic impacts of the proposed project at each of the study intersections. The net trips generated by the proposed development were combined with the existing background traffic volumes to create the existing plus project conditions. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

B. Traffic Volumes

Project trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements.

The existing (2012) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figures 4a and 4b.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 4 (see Appendix B for the detailed LOS reports). Multiple runs (10) of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 4, all of the study intersections experience acceptable levels of delay during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. No significant queuing was observed.

Table 4 Existing (2012) Plus Project p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²
Four Seasons Way / Warm Springs Road	SB Stop	WB	0.6	A	-	-
Flower Drive / Warm Springs Road	SB Stop	SB	7.2	A	-	-
Bald Mountain Road / Flower Drive	E/W Stop	EB	4.8	A	-	-
Saddle Road / Warm Springs Road	WB Stop	WB	10.0	A	-	-
Lewis Street / Warm Springs Road	Signal	-	-	-	14.2	B

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

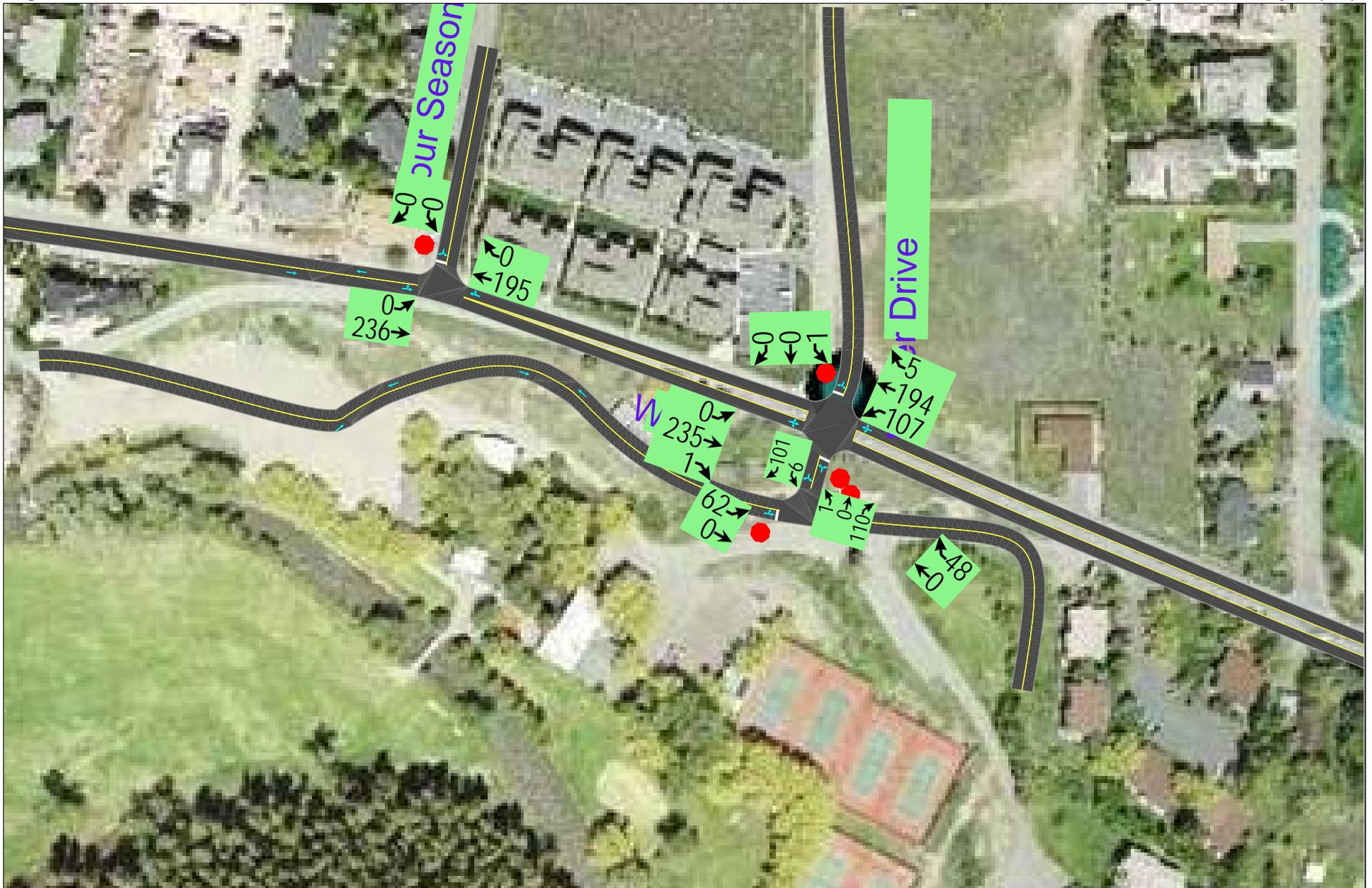
2. This represents the overall intersection LOS and delay (seconds / vehicle).

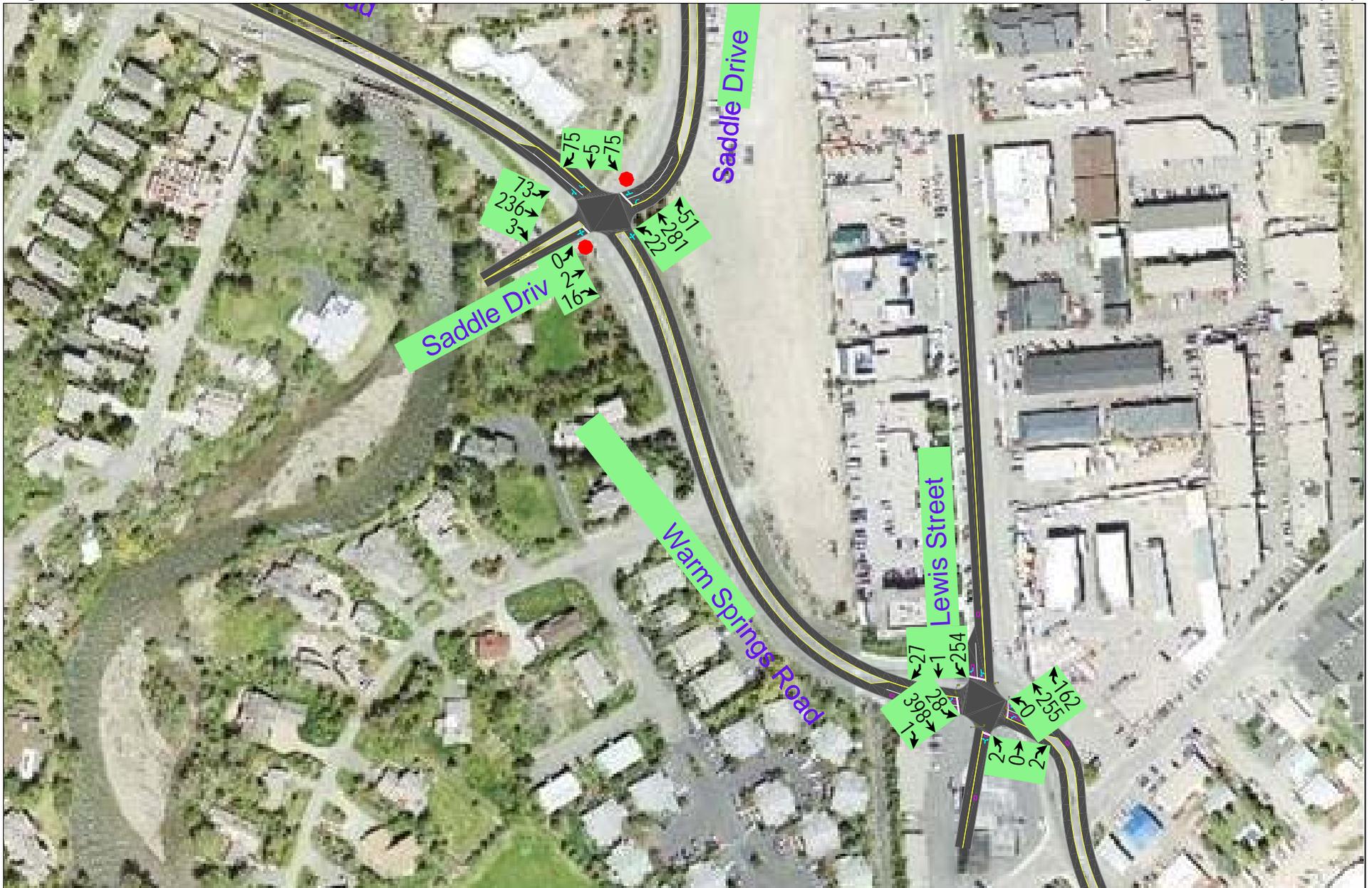
3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2012

E. Mitigation Measures

No mitigation measures are recommended.





V. FUTURE (2018) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2018) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified and potential mitigation measures recommended.

B. Traffic Volumes

Traffic volumes for the future year 2018 were projected using estimates of anticipated growth in the Warm Springs area. Future developments factored into this growth include residential growth in the Warm Springs area, the development of the Board Ranch Homes, and the redevelopment of the Warm Springs Base redevelopment.

Warm Springs Area:

According to data obtained from the *City of Ketchum Land Capacity*, by John Gaeddert, AICP (1997), it was estimated that there was sufficient land remaining in the Warm Springs Area for an additional 827 to 937 new homes. According to building permit data obtained from Ketchum, 321 new homes were built between 1997 and 2007, equating to approximately 32.1 new dwelling units per year. However, based on conversations with Ketchum City staff, it was assumed that only approximately 10 dwelling units per year would be built in the Warm Springs Area. Therefore, it was assumed that 110 new dwelling units would be constructed by 2018.

According to research completed by Benchmark Associates, P.A., approximately 73 percent of the homes in the Warm Springs area could be considered as secondary residential homes. To remain conservative, Hales Engineering assumed 30 percent of new homes will be primary homes while the remaining 70 percent will be secondary, or recreational, homes.

Although some new dwelling units will likely be multi-family units such as condominiums, apartments, townhouses, etc., it was assumed that all new homes would be single-family dwelling units. This estimate is conservative as single-family dwelling units typically generate more daily trips than do multi-family type dwelling units.

Using data provided by Jason Miller, Executive Director of Mountain Rides, Hales Engineering determined that in Ketchum, Idaho, approximately 8.5 percent of the workers use public transportation in the winter to travel to and from work. In addition, the 2000 Census identified that approximately 22 percent of workers used alternative means such as walking, biking, or working at home. Therefore, a 30 percent reduction of commuting trips (estimated to be two per primary single-family dwelling) was taken. Total new trips estimated for 2018 is 586 vehicles per day.

Board Ranch Homes:

Based on conversations with Benchmark, it was determined that 10 additional homes would be constructed by 2015 in the Board Ranch area as well as 3 additional homes between 2015 and 2018. Using the same methodology as was used for the Warm Springs Area, new trips were estimated to be 77 vehicles per day for year 2018.

Warm Springs Base Redevelopment:

A proposed redevelopment of Warm Springs Base will add significant impact to Warm Springs Road. The proposed redevelopment area includes 14.27 acres of which approximately 0.77 acres are right-of-way for Picabo Street. Additionally, one 120-room hotel is proposed that will take approximately two acres of land. Another two acres of land is assumed to be held for future development. The City of Ketchum estimates that 50 percent of the remaining 9.5 acres will be developed by year 2018. The proposed development is vertical mixed-use with ground floor retail and upper floor residential. The City of Ketchum estimated an overall floor to area ratio (FAR) of 1.6; therefore, the overall square footage would be 331,100 square feet (4.75 acres x 1.6 x 43,560 square feet / acre = 331,100 total square feet). Assuming 10,000 square feet of retail land use, the remaining 321,100 square feet would be residential land use. Assuming an average condominium size of 2,000 square feet, 160 new condominiums would be included in the development. It was assumed that half of the condominiums (80) would be developed by 2018.

In summary, it is estimated that the Warm Springs Base redevelopment would include the following land use by 2018:

- Hotel 120 Rooms
- Retail 10,000 Square Feet
- Condominiums 80 Units

Trip generation for the proposed redevelopment was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation, 8th Edition, 2008*. It was assumed that the hotel would have a 70 percent occupancy rate and that the gross leasable area of the retail would be equal to 95 percent of the gross floor area (e.g., 10,000 x 95% = 9,500 square feet gross leasable area). As previously identified, it was assumed that 50 percent of the new condominiums will be primary homes and 50 percent will be secondary homes.

The ITE trip generation rates identify gross trips to and from a facility as if it were a stand-alone activity. Gross ITE trip generation rates do not account for trips already on adjacent roadways or for internal capture. Hales Engineering did not adjust the gross trip generation to account for pass-by trips; however, trips were adjusted to account for internal capture due to the mixed use characteristics of the proposed project.

Following the ITE methodology for internal capture, a 15-percent reduction was calculated for internal capture between the retail and residential land use.

No further reductions were made for the residential condominiums, or for the single family dwelling units previously described because ITE Trip Generation rates for condominiums already take into account the higher propensity for people living in condominiums to use alternative modes of transportation.

Total new trips were calculated to be 2,171 vehicles per day in 2025.

The above discussed growth will add the following volumes to Warm Springs Road:

Daily Trips:

- 2,834 vpd

P.M. Trips (east of the base area on Warm Springs Road):

- Eastbound 120 vph
- Westbound 120 vph
- Total 240 vph

In addition to the increased eastbound and westbound volumes discussed above, a growth rate of 3 percent was used for all other movements at the study intersections.

The future 2018 p.m. peak hour traffic volumes are shown in Figures 5a and 5b.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 5 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development for future (2018) conditions. As shown in Table 5, all of the study intersections have acceptable levels of service for the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. Both the Lewis Street and Saddle Road intersections are showing some queuing issues that could become problematic in the future; however, both of these roads have other access points and ways to leave the area.

E. Mitigation Measures

No mitigation measures are recommended.

Table 5 Future (2018) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²
Four Seasons Way / Warm Springs Road	SB Stop	SB	6.3	A	-	-
Bald Mountain Road / Warm Springs Road	NB Stop	NB	4.6	A	-	-
Flower Drive / Warm Springs Road	SB Stop	SB	5.7	A	-	-
Townhouse Lane / Warm Springs Road	NE Stop	NE	7.0	A	-	-
Saddle Road / Warm Springs Road	WB Stop	WB	23.5	D	-	-
Lewis Street / Warm Springs Road	Signal	-	-	-	28.1	C

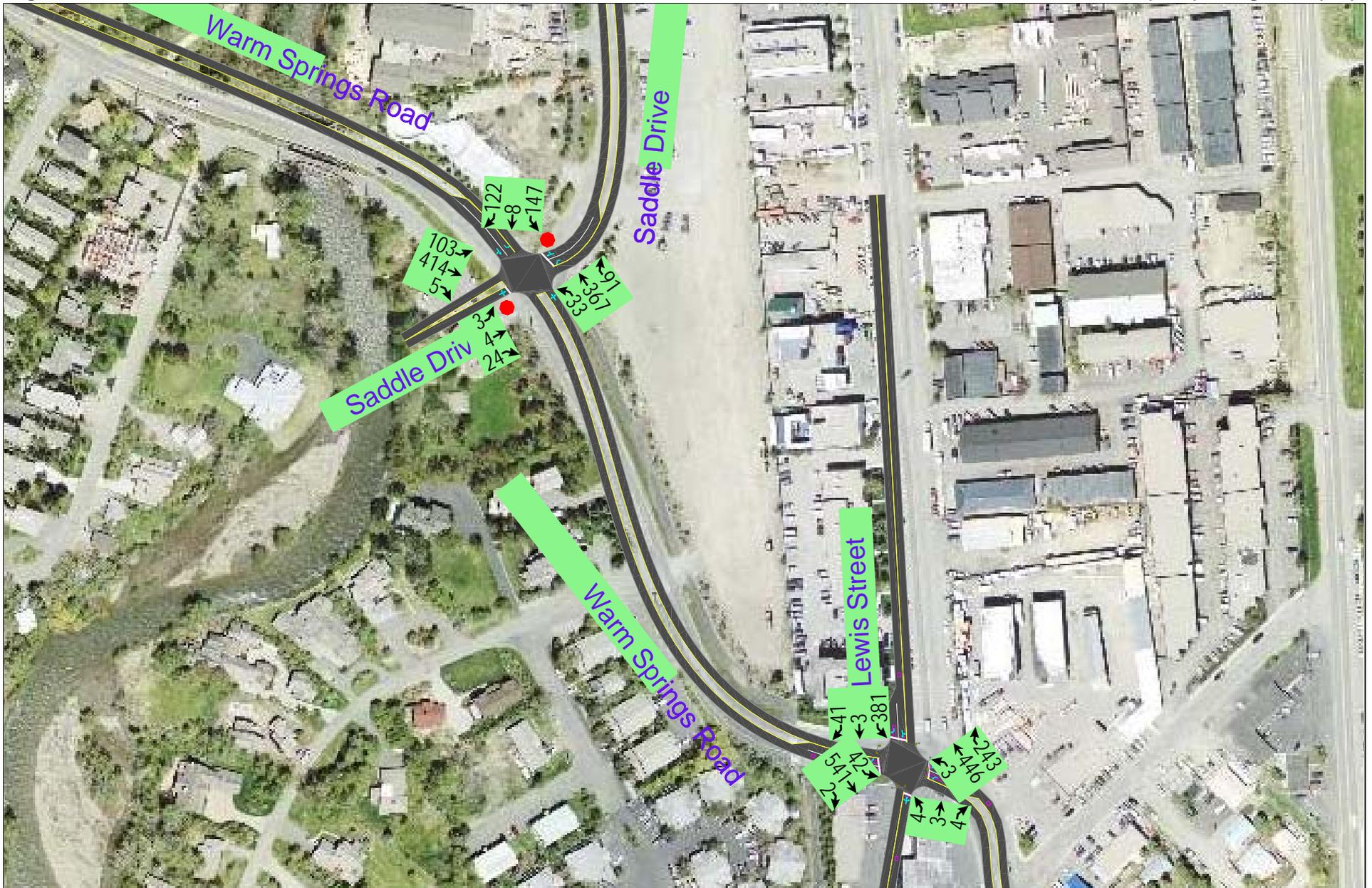
1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way-stop unsignalized intersections.

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

3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2012





VI. FUTURE (2018) PLUS PROJECT CONDITIONS

A. Purpose

This section of the report examines the traffic impacts of the proposed project at each of the study intersections during future 2018 conditions. The trips generated by the proposed development were combined with the future 2018 background traffic volumes to create the future plus project conditions. The future plus project scenario evaluates the impacts of the project traffic on the surrounding roadway network assuming build-out as discussed in Chapter III of this report. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements.

The future (2018) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 6a and 6b.

C. Level of Service Analysis

Using the Synchro/SimTraffic Software which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the future 2018 plus project p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 6 (see Appendix B for the detailed LOS reports). Multiple runs (10) of SimTraffic were used for the analysis to provide a statistical evaluation of the interaction between the intersections. As shown in Table 6, all of the study intersections experience acceptable levels of delay during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. Both the Lewis Street and Saddle Road intersections are showing some queuing issues that could become problematic in the future; however, both of these roads have other access points and ways to leave the area, and other forms of intersection control have been considered, which will change the queuing issues created by the use of a traffic signal at Lewis Street.

Table 6 Future (2018) Plus Project p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²
Four Seasons Way / Warm Springs Road	SB Stop	SB	7.5	A	-	-
Flower Drive / Warm Springs Road	SB Stop	SB	7.9	A	-	-
Bald Mountain Road / Flower Drive	E/W Stop	EB	5.7	A	-	-
Saddle Road / Warm Springs Road	WB Stop	WB	43.6	E	-	-
Lewis Street / Warm Springs Road	Signal	-	-	-	38.4	D

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

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

3. SB = Southbound approach, etc.

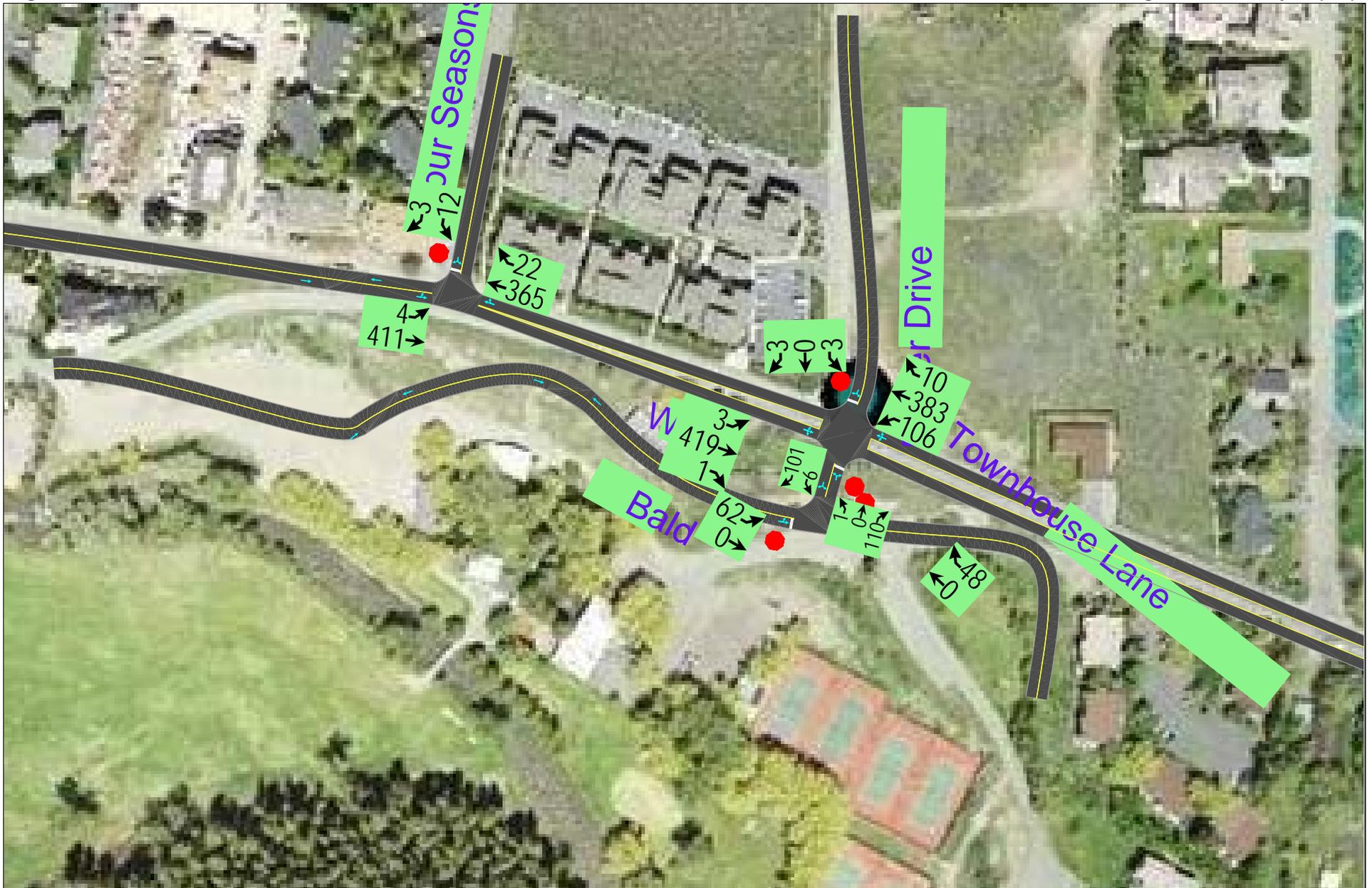
Source: Hales Engineering, January 2012

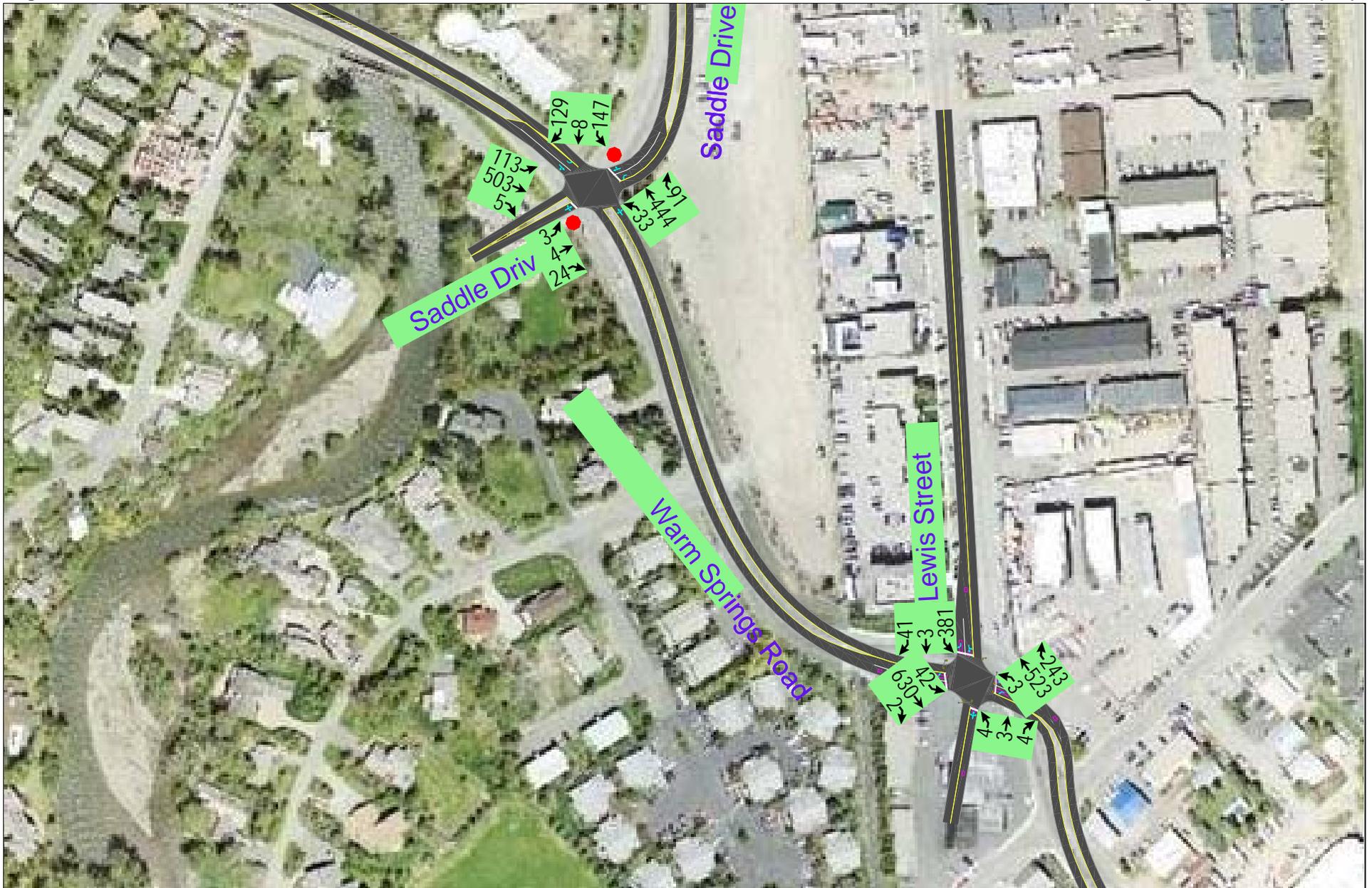
E. Mitigation Measures

No mitigations are recommended.

The Saddle Road intersection is too close to the Lewis Street intersection to be signalized; however, if the Lewis Street and 10th Street intersections are changes into roundabouts, consideration should be given to creating a roundabout at the Saddle Road intersection as well.

If the intersection were to remain with its current form or intersection control, on average, vehicles will incur more delay waiting to make the southbound left turn movement with the project traffic added to the future 2018 traffic. Additionally, the 95th percentile queue length for that movement will be between 125 and 145 feet (or 6 to 7 vehicles). The nearest access along Saddle Road is approximately 290-feet north of the intersection and will not be impacted by this long queue during most times of the day.





APPENDIX A

Turning Movement Counts

L2 Data Collection

1770 W. State St. #204

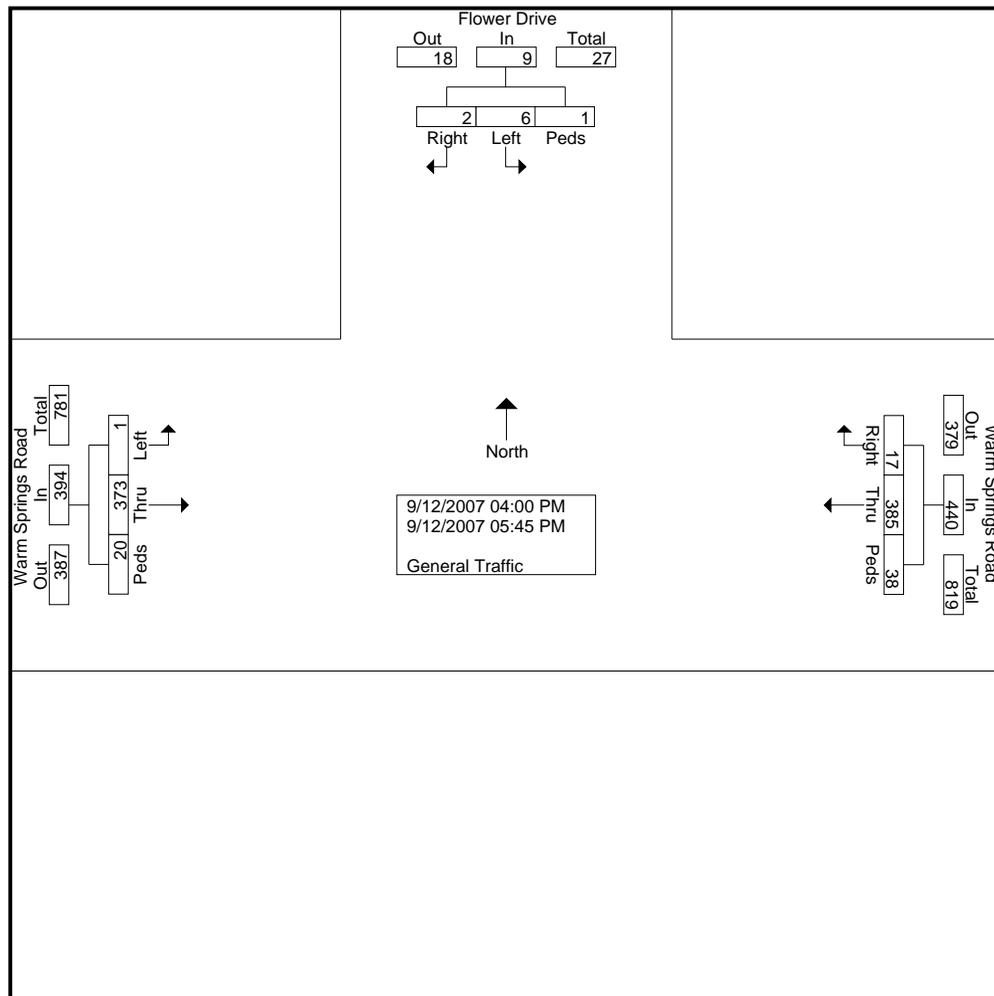
Boise, Idaho
(208) 860-7554

Tech: Judd
Intersection: Flower / Warm Springs Rd
City, State: Ketchum, Idaho
Control: Stop Sign

File Name : Flower and WS PM
Site Code : 4
Start Date : 9/12/2007
Page No : 1

Groups Printed- General Traffic

Start Time	Flower Drive From North				Warm Springs Road From East				Warm Springs Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
04:00 PM	0	0	0	0	3	52	6	61	64	0	2	66	127
04:15 PM	0	0	0	0	0	49	1	50	49	0	0	49	99
04:30 PM	0	0	0	0	0	46	4	50	70	0	2	72	122
04:45 PM	0	1	0	1	2	47	4	53	45	0	5	50	104
Total	0	1	0	1	5	194	15	214	228	0	9	237	452
05:00 PM	1	0	0	1	5	48	4	57	48	0	2	50	108
05:15 PM	1	1	0	2	3	47	4	54	29	0	3	32	88
05:30 PM	0	2	1	3	2	56	9	67	27	1	3	31	101
05:45 PM	0	2	0	2	2	40	6	48	41	0	3	44	94
Total	2	5	1	8	12	191	23	226	145	1	11	157	391
Grand Total	2	6	1	9	17	385	38	440	373	1	20	394	843
Apprch %	22.2	66.7	11.1		3.9	87.5	8.6		94.7	0.3	5.1		
Total %	0.2	0.7	0.1	1.1	2	45.7	4.5	52.2	44.2	0.1	2.4	46.7	



L2 Data Collection

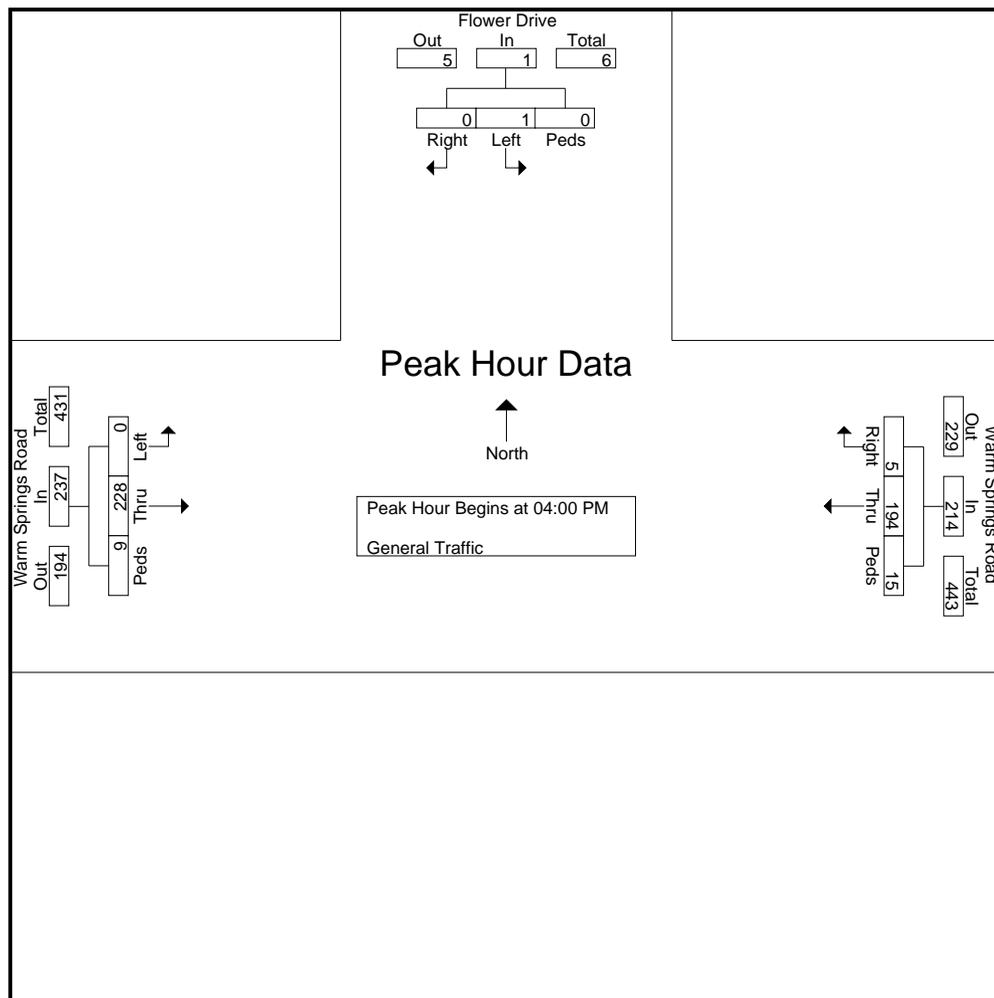
1770 W. State St. #204

Boise, Idaho
(208) 860-7554

Tech: Judd
Intersection: Flower / Warm Springs Rd
City, State: Ketchum, Idaho
Control: Stop Sign

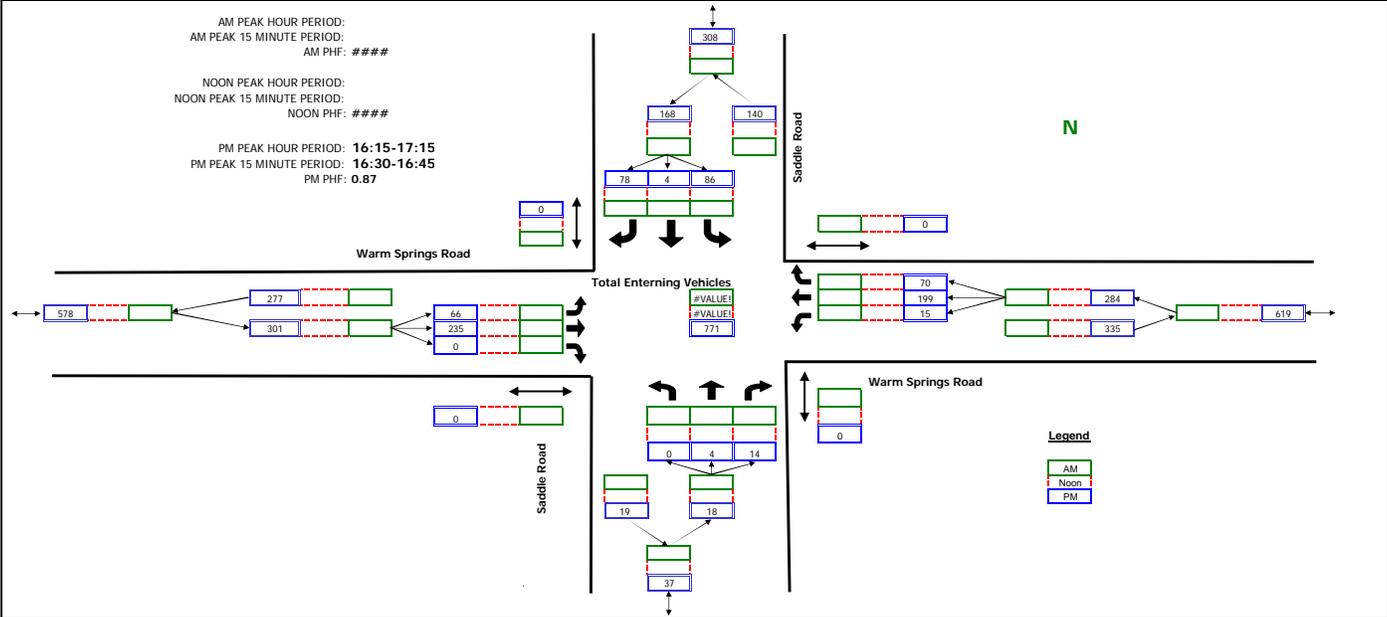
File Name : Flower and WS PM
Site Code : 4
Start Date : 9/12/2007
Page No : 2

Start Time	Flower Drive From North				Warm Springs Road From East				Warm Springs Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	3	52	6	61	64	0	2	66	127
04:15 PM	0	0	0	0	0	49	1	50	49	0	0	49	99
04:30 PM	0	0	0	0	0	46	4	50	70	0	2	72	122
04:45 PM	0	1	0	1	2	47	4	53	45	0	5	50	104
Total Volume	0	1	0	1	5	194	15	214	228	0	9	237	452
% App. Total	0	100	0		2.3	90.7	7		96.2	0	3.8		
PHF	.000	.250	.000	.250	.417	.933	.625	.877	.814	.000	.450	.823	.890



Intersection Turning Movement Summary

Intersection: Saddle Road / Warm Springs Road North/South: Saddle Road East/West: Warm Springs Road Jurisdiction: Ketchum, Idaho Project Title: Ketchum - Warm Springs Road Project No: P112 Weather:	Date: 2-13-08, Wed Day of Week Adjustment: 100.0% Month of Year Adjustment: 100.0% Adjustment Station #: Growth Rate: -8.7% Feb. 28 Reduction Number of Years: 1
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RAW COUNT SUMMARIES	Saddle Road Northbound				Saddle Road Southbound				Warm Springs Road Eastbound				Warm Springs Road Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOON PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	0	5	0	17	2	22	0	23	49	0	0	7	54	19	0	198
16:15-16:30	0	1	3	0	27	0	24	0	22	70	0	0	2	46	18	0	213
16:30-16:45	0	0	5	0	25	0	28	0	20	72	0	0	0	50	22	0	222
16:45-17:00	0	1	3	0	20	3	12	0	15	55	0	0	8	59	11	0	187
17:00-17:15	0	2	4	0	22	1	21	0	15	60	0	0	6	63	26	0	220
17:15-17:30	1	2	5	0	31	3	14	0	17	49	1	0	4	59	21	0	207
17:30-17:45	0	0	3	0	31	1	17	0	7	40	1	0	2	48	8	0	158
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX B

LOS Results

SimTraffic LOS Report

Project: Ketchum Warm Springs Ranch Resort TIS
Analysis Period: Existing (2012) Background
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Warm Springs Road & Four Seasons Way
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	6	5	80	6.3	A
	Subtotal	6	5	83	6.3	A
EB	L	1	1	100	0.9	A
	T	230	233	102	0.2	A
	Subtotal	231	234	101	0.2	A
WB	T	183	192	105	0.7	A
	R	11	12	107	0.3	A
	Subtotal	194	204	105	0.7	A
Total		431	443	103	0.5	A

Intersection: Warm Springs Road & Bald Mountain Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	R	10	10	98	2.9	A
	Subtotal	10	10	100	2.9	A
EB	T	220	224	102	2.4	A
	Subtotal	220	224	102	2.4	A
WB	L	22	22	101	2.0	A
	T	162	169	105	0.4	A
	Subtotal	184	191	104	0.6	A
Total		414	425	103	1.6	A

SimTraffic LOS Report

Project: Ketchum Warm Springs Ranch Resort TIS
Analysis Period: Existing (2012) Background
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Warm Springs Road & Flower Drive
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	1	1	100	5.3	A
	Subtotal	1	1	100	5.3	A
EB	T	236	237	101	0.5	A
	Subtotal	236	237	100	0.5	A
WB	T	194	204	105	0.4	A
	R	5	5	100	0.2	A
	Subtotal	199	209	105	0.4	A
Total		436	447	103	0.4	A

Intersection: Warm Springs Road & Geezer Alley
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	236	236	100	0.3	A
	Subtotal	236	236	100	0.3	A
WB	L	1	0	0		
	T	271	280	103	2.0	A
	Subtotal	272	280	103	2.0	A
NE	R	1	1	100	2.9	A
	Subtotal	1	1	100	2.9	A
Total		509	517	102	1.3	A

SimTraffic LOS Report

Project: Ketchum Warm Springs Ranch Resort TIS
Analysis Period: Existing (2012) Background
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Saddle Drive & Warm Springs Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	2	2	100	4.7	A
	R	16	18	111	3.8	A
	Subtotal	18	20	111	3.9	A
WB	L	75	68	90	13.3	B
	T	5	4	80	10.6	B
	R	68	75	110	4.0	A
	Subtotal	148	147	99	8.5	A
NW	L	22	20	92	5.1	A
	T	205	205	100	3.3	A
	R	51	50	98	2.5	A
	Subtotal	278	275	99	3.3	A
SE	L	63	64	102	6.6	A
	T	247	244	99	3.3	A
	R	3	4	133	3.9	A
	Subtotal	313	312	100	4.0	A
Total		757	754	100	4.6	A

Intersection: Warm Springs Road & Lewis Street
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	2	2	100	6.7	A
	R	2	2	100	2.6	A
	Subtotal	4	4	100	4.7	A
SB	L	254	253	100	11.6	B
	T	1	1	100	4.8	A
	R	27	27	101	8.1	A
	Subtotal	282	281	100	11.2	B
EB	L	28	25	90	21.0	C
	T	311	305	98	13.5	B
	R	1	1	100	8.5	A
	Subtotal	340	331	97	14.1	B
WB	T	248	244	98	16.1	B
	R	162	164	101	9.2	A
	Subtotal	410	408	100	13.3	B
Total		1,036	1,024	99	13.0	B

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #1 5:00

Movement	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.2	0.6	0.3	9.4	0.5
Vehicles Entered	60	45	3	1	109
Vehicles Exited	60	45	3	1	109
Hourly Exit Rate	240	180	12	4	436
Input Volume	223	178	11	6	419
% of Volume	108	101	109	67	104

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #2 5:15

Movement	EBL	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)		0.1	0.7	0.3	6.1	0.5
Vehicles Entered	0	53	45	2	1	101
Vehicles Exited	0	53	45	2	1	101
Hourly Exit Rate	0	212	180	8	4	404
Input Volume	1	223	178	11	6	419
% of Volume	0	95	101	73	67	96

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #3 5:30

Movement	EBL	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)		0.2	0.9	0.4	7.1	0.5
Vehicles Entered	0	66	51	4	1	122
Vehicles Exited	0	66	52	4	1	123
Hourly Exit Rate	0	264	208	16	4	492
Input Volume	1	249	199	12	7	468
% of Volume	0	106	105	133	57	105

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #4 5:45

Movement	EBL	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)		0.1	0.8	0.3	4.3	0.5
Vehicles Entered	0	54	50	3	1	108
Vehicles Exited	0	54	50	3	2	109
Hourly Exit Rate	0	216	200	12	8	436
Input Volume	1	223	178	11	6	419
% of Volume	0	97	112	109	133	104

3: Warm Springs Road & Four Seasons Way Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.9	0.2	0.7	0.3	6.3	0.5
Vehicles Entered	1	233	192	12	5	443
Vehicles Exited	1	233	192	12	5	443
Hourly Exit Rate	1	233	192	12	5	443
Input Volume	1	230	183	11	6	431
% of Volume	100	102	105	107	80	103

4: Warm Springs Road & Bald Mountain Road Performance by movement Interval #1 5:00

Movement	EBT	WBL	WBT	NBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	2.6	2.0	0.4	3.2	1.7
Vehicles Entered	56	6	40	3	105
Vehicles Exited	57	6	39	3	105
Hourly Exit Rate	228	24	156	12	420
Input Volume	214	21	157	10	402
% of Volume	107	114	99	120	104

4: Warm Springs Road & Bald Mountain Road Performance by movement Interval #2 5:15

Movement	EBT	WBL	WBT	NBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	2.2	2.1	0.3	1.9	1.4
Vehicles Entered	52	5	39	3	99
Vehicles Exited	51	5	39	3	98
Hourly Exit Rate	204	20	156	12	392
Input Volume	214	21	157	10	402
% of Volume	95	95	99	120	98

4: Warm Springs Road & Bald Mountain Road Performance by movement Interval #3 5:30

Movement	EBT	WBL	WBT	NBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	2.6	2.0	0.5	2.6	1.7
Vehicles Entered	63	6	46	3	118
Vehicles Exited	63	6	46	3	118
Hourly Exit Rate	252	24	184	12	472
Input Volume	239	24	175	11	449
% of Volume	105	100	105	109	105

4: Warm Springs Road & Bald Mountain Road Performance by movement Interval #4 5:45

Movement	EBT	WBL	WBT	NBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	2.1	1.9	0.4	2.6	1.4
Vehicles Entered	52	5	45	2	104
Vehicles Exited	52	5	44	2	103
Hourly Exit Rate	208	20	176	8	412
Input Volume	214	21	157	10	402
% of Volume	97	95	112	80	102

4: Warm Springs Road & Bald Mountain Road Performance by movement Entire Run

Movement	EBT	WBL	WBT	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.0	0.2
Delay / Veh (s)	2.4	2.0	0.4	2.9	1.6
Vehicles Entered	223	23	169	10	425
Vehicles Exited	224	22	169	10	425
Hourly Exit Rate	224	22	169	10	425
Input Volume	220	22	162	10	414
% of Volume	102	101	105	98	103

6: Warm Springs Road & Flower Drive Performance by movement Interval #1 5:00

Movement	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.5	0.3	0.2		0.5
Vehicles Entered	61	48	1	0	110
Vehicles Exited	62	48	1	0	111
Hourly Exit Rate	248	192	4	0	444
Input Volume	229	188	5	1	423
% of Volume	108	102	80	0	105

6: Warm Springs Road & Flower Drive Performance by movement Interval #2 5:15

Movement	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.4	0.3	0.1		0.4
Vehicles Entered	54	48	1	0	103
Vehicles Exited	54	48	1	0	103
Hourly Exit Rate	216	192	4	0	412
Input Volume	229	188	5	1	423
% of Volume	94	102	80	0	97

6: Warm Springs Road & Flower Drive Performance by movement Interval #3 5:30

Movement	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.5	0.4	0.0		0.5
Vehicles Entered	67	55	1	0	123
Vehicles Exited	67	55	1	0	123
Hourly Exit Rate	268	220	4	0	492
Input Volume	256	211	5	1	473
% of Volume	105	104	80	0	104

6: Warm Springs Road & Flower Drive Performance by movement Interval #4 5:45

Movement	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.4	0.4	0.2		0.4
Vehicles Entered	55	53	2	0	110
Vehicles Exited	55	53	2	0	110
Hourly Exit Rate	220	212	8	0	440
Input Volume	229	188	5	1	423
% of Volume	96	113	160	0	104

6: Warm Springs Road & Flower Drive Performance by movement Entire Run

Movement	EBT	WBT	WBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.5	0.4	0.2	5.3	0.4
Vehicles Entered	238	204	5	1	448
Vehicles Exited	237	204	5	1	447
Hourly Exit Rate	237	204	5	1	447
Input Volume	236	194	5	1	436
% of Volume	101	105	100	100	103

8: Warm Springs Road & Geezer Alley Performance by movement Interval #1 5:00

Movement	EBT	WBL	WBT	NER	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.4		1.7		1.1
Vehicles Entered	62	0	67	0	129
Vehicles Exited	62	0	68	0	130
Hourly Exit Rate	248	0	272	0	520
Input Volume	229	1	263	1	494
% of Volume	108	0	103	0	105

8: Warm Springs Road & Geezer Alley Performance by movement Interval #2 5:15

Movement	EBT	WBL	WBT	NER	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.3		2.0		1.2
Vehicles Entered	54	0	65	0	119
Vehicles Exited	54	0	67	0	121
Hourly Exit Rate	216	0	268	0	484
Input Volume	229	1	263	1	494
% of Volume	94	0	102	0	98

8: Warm Springs Road & Geezer Alley Performance by movement Interval #3 5:30

Movement	EBT	WBL	WBT	NER	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.4		2.2		1.4
Vehicles Entered	66	0	76	0	142
Vehicles Exited	66	0	73	0	139
Hourly Exit Rate	264	0	292	0	556
Input Volume	257	1	295	1	554
% of Volume	103	0	99	0	100

8: Warm Springs Road & Geezer Alley Performance by movement Interval #4 5:45

Movement	EBT	WBT	NER	All
Total Delay (hr)	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.3	2.2		1.4
Vehicles Entered	55	69	0	124
Vehicles Exited	55	72	0	127
Hourly Exit Rate	220	288	0	508
Input Volume	229	263	1	494
% of Volume	96	110	0	103

8: Warm Springs Road & Geezer Alley Performance by movement Entire Run

Movement	EBT	WBL	WBT	NER	All
Total Delay (hr)	0.0	0.0	0.2	0.0	0.2
Delay / Veh (s)	0.3		2.0	2.9	1.3
Vehicles Entered	237	0	278	1	516
Vehicles Exited	236	0	280	1	517
Hourly Exit Rate	236	0	280	1	517
Input Volume	236	1	271	1	509
% of Volume	100	0	103	100	102

10: Saddle Drive & Warm Springs Road Performance by movement Interval #1 5:00

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Delay / Veh (s)		3.9	13.4	13.3	3.6	7.5	3.5	3.8	4.9	3.2	2.7	4.8
Vehicles Entered	1	6	17	1	19	16	63	2	4	48	13	190
Vehicles Exited	0	6	18	1	19	16	61	2	5	49	13	190
Hourly Exit Rate	0	24	72	4	76	64	244	8	20	196	52	760
Input Volume	2	16	73	5	66	61	240	3	21	199	50	736
% of Volume	0	150	99	80	115	105	102	267	95	98	104	103

10: Saddle Drive & Warm Springs Road Performance by movement Interval #2 5:15

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Delay / Veh (s)		3.7	11.4	8.5	4.1	6.0	3.1	1.3	4.7	3.1	2.5	4.2
Vehicles Entered	0	4	15	1	17	16	55	1	4	48	12	173
Vehicles Exited	0	4	16	1	17	15	55	1	4	48	12	173
Hourly Exit Rate	0	16	64	4	68	60	220	4	16	192	48	692
Input Volume	2	16	73	5	66	61	240	3	21	199	50	736
% of Volume	0	100	88	80	103	98	92	133	76	96	96	94

10: Saddle Drive & Warm Springs Road Performance by movement Interval #3 5:30

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Delay / Veh (s)		3.6	14.2	9.6	4.3	6.0	3.7	1.0	4.9	3.6	2.5	4.8
Vehicles Entered	0	5	20	1	20	17	68	1	6	57	13	208
Vehicles Exited	0	5	19	1	20	17	67	1	6	56	13	205
Hourly Exit Rate	0	20	76	4	80	68	268	4	24	224	52	820
Input Volume	2	17	82	5	74	68	268	3	24	223	55	821
% of Volume	0	118	93	80	108	100	100	133	100	100	95	100

10: Saddle Drive & Warm Springs Road Performance by movement Interval #4 5:45

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Delay / Veh (s)		3.0	13.2	11.1	4.1	6.9	2.8	5.9	5.8	3.1	2.4	4.4
Vehicles Entered	0	4	15	1	18	16	59	1	5	50	12	181
Vehicles Exited	0	4	15	1	18	16	60	1	5	51	12	183
Hourly Exit Rate	0	16	60	4	72	64	240	4	20	204	48	732
Input Volume	2	16	73	5	66	61	240	3	21	199	50	736
% of Volume	0	100	82	80	109	105	100	133	95	103	96	99

10: Saddle Drive & Warm Springs Road Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.2	0.0	0.1	0.1	0.2	0.0	0.0	0.2	0.0	1.0
Delay / Veh (s)	4.7	3.8	13.3	10.6	4.0	6.6	3.3	3.9	5.1	3.3	2.5	4.6
Vehicles Entered	2	18	67	4	75	64	244	4	20	204	50	752
Vehicles Exited	2	18	68	4	75	64	244	4	20	205	50	754
Hourly Exit Rate	2	18	68	4	75	64	244	4	20	205	50	754
Input Volume	2	16	75	5	68	63	247	3	22	205	51	757
% of Volume	100	111	90	80	110	102	99	133	92	100	98	100

13: Warm Springs Road & Lewis Street Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.3	0.0	0.2	0.1	0.0	0.0	0.2	0.0	0.0	0.9
Delay / Veh (s)	19.4	13.2		15.1	8.0	2.7	0.6	11.1		8.2	12.4
Vehicles Entered	6	79	0	59	40	1	1	60	0	6	252
Vehicles Exited	6	78	0	59	40	1	1	59	0	6	250
Hourly Exit Rate	24	312	0	236	160	4	4	236	0	24	1000
Input Volume	27	302	1	241	157	2	2	247	1	26	1006
% of Volume	89	103	0	98	102	200	200	96	0	92	99

13: Warm Springs Road & Lewis Street Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBR	All
Total Delay (hr)	0.0	0.3	0.0	0.2	0.1	0.0	0.0	0.2	0.0	0.9
Delay / Veh (s)	18.9	14.0		15.6	8.5	3.5		11.7	7.7	12.8
Vehicles Entered	6	70	0	56	40	1	0	65	7	245
Vehicles Exited	6	70	0	57	40	1	0	64	7	245
Hourly Exit Rate	24	280	0	228	160	4	0	256	28	980
Input Volume	27	302	1	241	157	2	2	247	26	1006
% of Volume	89	93	0	95	102	200	0	104	108	97

13: Warm Springs Road & Lewis Street Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.1	0.3	0.0	0.3	0.1	0.0	0.0	0.2	0.0	0.0	1.0
Delay / Veh (s)	23.3	12.9		16.7	10.6		2.4	12.4		8.2	13.5
Vehicles Entered	8	83	0	70	43	0	1	67	0	8	280
Vehicles Exited	8	82	0	67	42	0	1	67	0	8	275
Hourly Exit Rate	32	328	0	268	168	0	4	268	0	32	1100
Input Volume	30	337	1	270	176	2	2	276	1	29	1124
% of Volume	107	97	0	99	95	0	200	97	0	110	98

13: Warm Springs Road & Lewis Street Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.3	0.0	0.3	0.1	0.0	0.0	0.2	0.0	0.0	0.9
Delay / Veh (s)	17.9	14.0		16.9	9.7			11.0		8.3	13.4
Vehicles Entered	6	73	0	59	41	0	0	61	0	6	246
Vehicles Exited	6	74	0	60	42	0	0	62	0	6	250
Hourly Exit Rate	24	296	0	240	168	0	0	248	0	24	1000
Input Volume	27	302	1	241	157	2	2	247	1	26	1006
% of Volume	89	98	0	100	107	0	0	100	0	92	99

13: Warm Springs Road & Lewis Street Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.1	1.1	0.0	1.1	0.4	0.0	0.0	0.8	0.0	0.1	3.7
Delay / Veh (s)	21.0	13.5	8.5	16.1	9.2	6.7	2.6	11.6	4.8	8.1	13.0
Vehicles Entered	26	305	1	243	164	2	2	253	1	27	1024
Vehicles Exited	25	305	1	244	164	2	2	253	1	27	1024
Hourly Exit Rate	25	305	1	244	164	2	2	253	1	27	1024
Input Volume	28	311	1	248	162	2	2	254	1	27	1036
% of Volume	90	98	100	98	101	100	100	100	100	101	99

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Total Delay (hr)	1.4	1.3	1.6	1.4	5.7
Delay / Veh (s)	17.0	16.9	18.2	17.4	17.4
Vehicles Entered	290	280	322	280	1176
Vehicles Exited	287	279	310	299	1175
Hourly Exit Rate	1148	1116	1240	1196	1175
Input Volume	4552	4552	5086	4552	4686
% of Volume	25	25	24	26	25

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #1

Movement	SB
Directions Served	LR
Maximum Queue (ft)	21
Average Queue (ft)	5
95th Queue (ft)	22
Link Distance (ft)	243
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #2

Movement	SB
Directions Served	LR
Maximum Queue (ft)	18
Average Queue (ft)	5
95th Queue (ft)	24
Link Distance (ft)	243
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #3

Movement	SB
Directions Served	LR
Maximum Queue (ft)	21
Average Queue (ft)	4
95th Queue (ft)	22
Link Distance (ft)	243
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #4

Movement	SB
Directions Served	LR
Maximum Queue (ft)	21
Average Queue (ft)	6
95th Queue (ft)	25
Link Distance (ft)	243
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Warm Springs Road & Four Seasons Way, All Intervals

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	5
95th Queue (ft)	23
Link Distance (ft)	243
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Warm Springs Road & Bald Mountain Road, Interval #1

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	26	28
Average Queue (ft)	5	8
95th Queue (ft)	28	28
Link Distance (ft)	80	283
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Warm Springs Road & Bald Mountain Road, Interval #2

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	25	26
Average Queue (ft)	4	7
95th Queue (ft)	28	25
Link Distance (ft)	80	283
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Warm Springs Road & Bald Mountain Road, Interval #3

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	35	26
Average Queue (ft)	6	7
95th Queue (ft)	36	26
Link Distance (ft)	80	283
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Warm Springs Road & Bald Mountain Road, Interval #4

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	15	23
Average Queue (ft)	3	5
95th Queue (ft)	21	23
Link Distance (ft)	80	283
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Warm Springs Road & Bald Mountain Road, All Intervals

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	54	29
Average Queue (ft)	5	7
95th Queue (ft)	29	26
Link Distance (ft)	80	283
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Warm Springs Road & Flower Drive, Interval #1

Movement	SB
Directions Served	LR
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	561
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Warm Springs Road & Flower Drive, Interval #2

Movement	SB
Directions Served	LR
Maximum Queue (ft)	11
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	561
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Warm Springs Road & Flower Drive, Interval #3

Movement	SB
Directions Served	LR
Maximum Queue (ft)	5
Average Queue (ft)	1
95th Queue (ft)	8
Link Distance (ft)	561
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Warm Springs Road & Flower Drive, Interval #4

Movement	SB
Directions Served	LR
Maximum Queue (ft)	8
Average Queue (ft)	1
95th Queue (ft)	10
Link Distance (ft)	561
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Warm Springs Road & Flower Drive, All Intervals

Movement	SB
Directions Served	LR
Maximum Queue (ft)	16
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	561
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Warm Springs Road & Geezer Alley, Interval #1

Movement	NE
Directions Served	LR
Maximum Queue (ft)	2
Average Queue (ft)	0
95th Queue (ft)	3
Link Distance (ft)	310
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Warm Springs Road & Geezer Alley, Interval #2

Movement	NE
Directions Served	LR
Maximum Queue (ft)	2
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	310
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Warm Springs Road & Geezer Alley, Interval #3

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	6	3
Average Queue (ft)	1	0
95th Queue (ft)	12	5
Link Distance (ft)	2603	310
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Warm Springs Road & Geezer Alley, Interval #4

Movement	NE
Directions Served	LR
Maximum Queue (ft)	5
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	310
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Warm Springs Road & Geezer Alley, All Intervals

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	6	8
Average Queue (ft)	0	0
95th Queue (ft)	6	4
Link Distance (ft)	2603	310
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #1

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	32	48	39	40	35
Average Queue (ft)	18	25	19	15	9
95th Queue (ft)	41	49	38	42	39
Link Distance (ft)	166		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #2

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	26	42	37	24	19
Average Queue (ft)	11	24	20	11	4
95th Queue (ft)	32	44	42	32	20
Link Distance (ft)	166		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #3

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	27	52	38	36	40
Average Queue (ft)	14	26	19	12	8
95th Queue (ft)	35	54	38	37	38
Link Distance (ft)	166		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #4

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	27	46	38	32	32
Average Queue (ft)	10	23	20	10	7
95th Queue (ft)	32	48	35	36	33
Link Distance (ft)	166		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 10: Saddle Drive & Warm Springs Road, All Intervals

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	32	65	51	47	58
Average Queue (ft)	13	24	20	12	7
95th Queue (ft)	36	49	39	37	33
Link Distance (ft)	166		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 13: Warm Springs Road & Lewis Street, Interval #1

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	37	158	170	16	111	40
Average Queue (ft)	15	92	102	2	67	10
95th Queue (ft)	40	171	178	15	121	35
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		4	19		15	0
Queuing Penalty (veh)		1	0		4	1

Intersection: 13: Warm Springs Road & Lewis Street, Interval #2

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	35	158	183	14	138	36
Average Queue (ft)	16	87	100	3	75	13
95th Queue (ft)	41	158	188	16	135	41
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		4	17		17	0
Queuing Penalty (veh)		1	0		5	0

Intersection: 13: Warm Springs Road & Lewis Street, Interval #3

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	44	170	240	11	131	40
Average Queue (ft)	21	93	121	2	82	11
95th Queue (ft)	49	169	213	14	132	35
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		4	22		20	0
Queuing Penalty (veh)		1	0		6	0

Intersection: 13: Warm Springs Road & Lewis Street, Interval #4

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	36	166	200	11	129	30
Average Queue (ft)	15	95	113	1	71	9
95th Queue (ft)	40	180	209	11	126	31
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		5	20		14	0
Queuing Penalty (veh)		1	0		4	0

Intersection: 13: Warm Springs Road & Lewis Street, All Intervals

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	47	219	267	26	163	55
Average Queue (ft)	17	91	109	2	74	11
95th Queue (ft)	43	170	199	14	129	35
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		4	20		17	0
Queuing Penalty (veh)		1	0		4	0

Network Summary

Network wide Queuing Penalty, Interval #1: 6
Network wide Queuing Penalty, Interval #2: 6
Network wide Queuing Penalty, Interval #3: 7
Network wide Queuing Penalty, Interval #4: 5
Network wide Queuing Penalty, All Intervals: 6

SimTraffic LOS Report

Project: Ketchum Warm Springs TS
Analysis Period: Existing (2012) Plus Project
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Warm Springs Road & Four Seasons Way
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	236	230	97	0.1	A
	Subtotal	236	230	97	0.1	A
WB	T	195	195	100	0.6	A
	Subtotal	195	195	100	0.6	A
Total		431	425	99	0.4	A

Intersection: Warm Springs Road & Flower Drive
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	1	0	0		
	R	110	114	103	3.1	A
	Subtotal	111	114	103	3.1	A
SB	L	1	1	100	7.2	A
	Subtotal	1	1	100	7.2	A
EB	T	235	229	97	0.7	A
	R	1	1	100	0.6	A
	Subtotal	236	230	97	0.7	A
WB	L	107	109	102	6.3	A
	T	244	245	100	4.1	A
	R	5	5	100	4.5	A
	Subtotal	356	359	101	4.8	A
Total		704	704	100	3.2	A

SimTraffic LOS Report

Project: Ketchum Warm Springs TS
Analysis Period: Existing (2012) Plus Project
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Bald Mtn. Road & Flower Drive
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	6	7	112	0.4	A
	T	1	1	133	0.2	A
	R	101	102	101	0.3	A
	Subtotal	108	110	102	0.3	A
EB	L	62	62	100	4.8	A
	Subtotal	62	62	100	4.8	A
WB	R	48	52	108	4.1	A
	Subtotal	48	52	108	4.1	A
Total		218	224	103	2.4	A

Intersection: Saddle Drive & Warm Springs Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	2	2	100	9.1	A
	R	16	16	98	3.8	A
	Subtotal	18	18	100	4.4	A
WB	L	75	78	104	14.8	B
	T	5	6	120	13.2	B
	R	75	76	101	4.8	A
Subtotal	155	160	103	10.0	A	
NW	L	22	21	97	4.7	A
	T	281	284	101	3.0	A
	R	51	55	107	2.2	A
Subtotal	354	360	102	3.0	A	
SE	L	73	70	96	7.3	A
	T	270	273	101	3.6	A
	R	3	3	100	3.5	A
Subtotal	346	346	100	4.3	A	
Total		874	884	101	4.8	A

SimTraffic LOS Report

Project: Ketchum Warm Springs TS
Analysis Period: Existing (2012) Plus Project
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Warm Springs Road & Lewis Street
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	2	2	100	5.3	A
	R	2	2	100	6.1	A
	Subtotal	4	4	100	5.7	A
SB	L	254	254	100	13.9	B
	T	1	2	200	12.2	B
	R	27	29	108	8.5	A
	Subtotal	282	285	101	13.3	B
EB	L	28	28	101	23.7	C
	T	398	405	102	15.1	B
	R	1	2	200	6.9	A
	Subtotal	427	435	102	15.6	B
WB	T	255	261	102	15.7	B
	R	162	155	96	9.3	A
	Subtotal	417	416	100	13.3	B
Total		1,130	1,140	101	14.2	B

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #1 5:00

Movement	EBT	WBT	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	0.1	0.6	0.3
Vehicles Entered	56	44	100
Vehicles Exited	56	44	100
Hourly Exit Rate	224	176	400
Input Volume	229	189	418
% of Volume	98	93	96

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #2 5:15

Movement	EBT	WBT	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	0.1	0.6	0.4
Vehicles Entered	55	49	104
Vehicles Exited	56	49	105
Hourly Exit Rate	224	196	420
Input Volume	229	189	418
% of Volume	98	104	100

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #3 5:30

Movement	EBT	WBT	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	0.1	0.6	0.4
Vehicles Entered	63	54	117
Vehicles Exited	63	54	117
Hourly Exit Rate	252	216	468
Input Volume	257	212	469
% of Volume	98	102	100

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #4 5:45

Movement	EBT	WBT	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	0.1	0.6	0.4
Vehicles Entered	56	48	104
Vehicles Exited	56	49	105
Hourly Exit Rate	224	196	420
Input Volume	229	189	418
% of Volume	98	104	100

3: Warm Springs Road & Four Seasons Way Performance by movement Entire Run

Movement	EBT	WBT	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	0.1	0.6	0.4
Vehicles Entered	230	195	425
Vehicles Exited	230	195	425
Hourly Exit Rate	230	195	425
Input Volume	236	195	431
% of Volume	97	100	99

6: Warm Springs Road & Flower Drive Performance by movement Interval #1 5:00

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.7		6.0	3.7	5.4		3.0		3.0
Vehicles Entered	55	0	29	58	1	0	26	0	169
Vehicles Exited	55	0	29	58	1	0	26	0	169
Hourly Exit Rate	220	0	116	232	4	0	104	0	676
Input Volume	228	1	104	237	5	1	107	1	684
% of Volume	96	0	112	98	80	0	97	0	99

6: Warm Springs Road & Flower Drive Performance by movement Interval #2 5:15

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.6		6.0	4.2	4.7		3.0		3.1
Vehicles Entered	55	0	25	61	2	0	27	0	170
Vehicles Exited	55	0	24	61	2	0	27	0	169
Hourly Exit Rate	220	0	96	244	8	0	108	0	676
Input Volume	228	1	104	237	5	1	107	1	684
% of Volume	96	0	92	103	160	0	101	0	99

6: Warm Springs Road & Flower Drive Performance by movement Interval #3 5:30

Movement	EBT	WBL	WBT	WBR	NBR	SBL	All
Total Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.2
Delay / Veh (s)	0.7	7.1	4.5	1.8	3.3		3.5
Vehicles Entered	63	30	68	1	32	0	194
Vehicles Exited	64	30	67	1	32	0	194
Hourly Exit Rate	256	120	268	4	128	0	776
Input Volume	256	116	266	5	120	1	766
% of Volume	100	103	101	80	107	0	101

6: Warm Springs Road & Flower Drive Performance by movement Interval #4 5:45

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.7		6.1	4.1	5.8		3.0		3.1
Vehicles Entered	56	0	26	59	1	0	29	0	171
Vehicles Exited	56	0	26	60	1	0	29	0	172
Hourly Exit Rate	224	0	104	240	4	0	116	0	688
Input Volume	228	1	104	237	5	1	107	1	684
% of Volume	98	0	100	101	80	0	108	0	101

6: Warm Springs Road & Flower Drive Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Total Delay (hr)	0.0	0.0	0.2	0.3	0.0	0.0	0.1	0.0	0.6
Delay / Veh (s)	0.7	0.6	6.3	4.1	4.5		3.1	7.2	3.2
Vehicles Entered	229	1	109	246	5	0	114	1	705
Vehicles Exited	229	1	109	245	5	0	114	1	704
Hourly Exit Rate	229	1	109	245	5	0	114	1	704
Input Volume	235	1	107	244	5	1	110	1	704
% of Volume	97	100	102	100	100	0	103	100	100

8: Bald Mtn. Road & Flower Drive Performance by movement Interval #1 5:00

Movement	EBL	WBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	4.8	3.9	0.7		0.3	2.2
Vehicles Entered	13	13	2	0	27	55
Vehicles Exited	13	13	2	0	27	55
Hourly Exit Rate	52	52	8	0	108	220
Input Volume	60	47	6	1	98	212
% of Volume	87	111	133	0	110	104

8: Bald Mtn. Road & Flower Drive Performance by movement Interval #2 5:15

Movement	EBL	WBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	4.9	3.7	0.4		0.3	2.4
Vehicles Entered	15	13	1	0	24	53
Vehicles Exited	14	13	1	0	23	51
Hourly Exit Rate	56	52	4	0	92	204
Input Volume	60	47	6	1	98	212
% of Volume	93	111	67	0	94	96

8: Bald Mtn. Road & Flower Drive Performance by movement Interval #3 5:30

Movement	EBL	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	4.9	4.2	0.2	0.3	2.5
Vehicles Entered	19	12	2	28	61
Vehicles Exited	20	12	2	28	62
Hourly Exit Rate	80	48	8	112	248
Input Volume	67	52	7	110	236
% of Volume	119	92	114	102	105

8: Bald Mtn. Road & Flower Drive Performance by movement Interval #4 5:45

Movement	EBL	WBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	4.8	4.5	0.3	0.2	0.3	2.5
Vehicles Entered	15	14	2	1	24	56
Vehicles Exited	14	14	2	1	24	55
Hourly Exit Rate	56	56	8	4	96	220
Input Volume	60	47	6	1	98	212
% of Volume	93	119	133	400	98	104

8: Bald Mtn. Road & Flower Drive Performance by movement Entire Run

Movement	EBL	WBR	SBL	SBT	SBR	All
Total Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.1
Delay / Veh (s)	4.8	4.1	0.4	0.2	0.3	2.4
Vehicles Entered	62	52	7	1	102	224
Vehicles Exited	62	52	7	1	102	224
Hourly Exit Rate	62	52	7	1	102	224
Input Volume	62	48	6	1	101	218
% of Volume	100	108	112	133	101	103

10: Saddle Drive & Warm Springs Road Performance by movement Interval #1 5:00

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Delay / Veh (s)		4.7	15.3	9.9	4.4	7.4	3.5	1.6	4.9	2.7	2.3	4.7
Vehicles Entered	0	4	19	2	20	16	65	1	5	69	14	215
Vehicles Exited	0	4	20	2	20	17	66	1	5	69	13	217
Hourly Exit Rate	0	16	80	8	80	68	264	4	20	276	52	868
Input Volume	2	16	73	5	73	71	262	3	21	273	50	849
% of Volume	0	100	110	160	110	96	101	133	95	101	104	102

10: Saddle Drive & Warm Springs Road Performance by movement Interval #2 5:15

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Delay / Veh (s)		2.9	13.5	22.3	4.6	7.0	3.4	4.6	5.0	2.8	2.2	4.5
Vehicles Entered	0	4	18	1	18	16	65	1	4	69	13	209
Vehicles Exited	0	4	18	1	18	16	66	1	4	70	13	211
Hourly Exit Rate	0	16	72	4	72	64	264	4	16	280	52	844
Input Volume	2	16	73	5	73	71	262	3	21	273	50	849
% of Volume	0	100	99	80	99	90	101	133	76	103	104	99

10: Saddle Drive & Warm Springs Road Performance by movement Interval #3 5:30

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.4
Delay / Veh (s)	7.8	3.7	16.7	15.5	5.4	7.6	3.9	2.0	4.9	3.3	2.3	5.2
Vehicles Entered	1	5	22	1	20	20	74	1	7	80	15	246
Vehicles Exited	1	5	21	1	20	19	74	1	7	80	15	244
Hourly Exit Rate	4	20	84	4	80	76	296	4	28	320	60	976
Input Volume	2	17	82	5	82	79	294	3	24	305	55	948
% of Volume	200	118	102	80	98	96	101	133	117	105	109	103

10: Saddle Drive & Warm Springs Road Performance by movement Interval #4 5:45

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Delay / Veh (s)	6.7	3.7	13.6	10.9	4.7	7.3	3.6	2.3	4.1	3.0	2.1	4.7
Vehicles Entered	1	4	19	2	19	17	67	1	5	66	14	215
Vehicles Exited	1	3	19	2	19	17	68	1	5	66	14	215
Hourly Exit Rate	4	12	76	8	76	68	272	4	20	264	56	860
Input Volume	2	16	73	5	73	71	262	3	21	273	50	849
% of Volume	200	75	104	160	104	96	104	133	95	97	112	101

10: Saddle Drive & Warm Springs Road Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR	All
Total Delay (hr)	0.0	0.0	0.3	0.0	0.1	0.1	0.3	0.0	0.0	0.2	0.0	1.2
Delay / Veh (s)	9.1	3.8	14.8	13.2	4.8	7.3	3.6	3.5	4.7	3.0	2.2	4.8
Vehicles Entered	2	16	77	6	76	69	271	3	21	284	55	880
Vehicles Exited	2	16	78	6	76	70	273	3	21	284	55	884
Hourly Exit Rate	2	16	78	6	76	70	273	3	21	284	55	884
Input Volume	2	16	75	5	75	73	270	3	22	281	51	874
% of Volume	100	98	104	120	101	96	101	100	97	101	107	101

13: Warm Springs Road & Lewis Street Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.4	0.0	0.3	0.1	0.0	0.0	0.2	0.0	0.0	1.0
Delay / Veh (s)	21.0	14.7		15.3	10.0		1.1	13.9		9.7	14.1
Vehicles Entered	7	97	0	64	37	0	1	59	0	7	272
Vehicles Exited	6	96	0	63	36	0	1	58	0	7	267
Hourly Exit Rate	24	384	0	252	144	0	4	232	0	28	1068
Input Volume	27	386	1	248	157	2	2	247	1	26	1097
% of Volume	89	99	0	102	92	0	200	94	0	108	97

13: Warm Springs Road & Lewis Street Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.1	0.4	0.0	0.3	0.1	0.0	0.0	0.2	0.0	0.0	1.1
Delay / Veh (s)	25.4	15.1		15.0	8.6			13.3	15.6	8.4	13.8
Vehicles Entered	8	98	0	64	41	0	0	60	1	7	279
Vehicles Exited	8	98	0	63	42	0	0	60	1	7	279
Hourly Exit Rate	32	392	0	252	168	0	0	240	4	28	1116
Input Volume	27	386	1	248	157	2	2	247	1	26	1097
% of Volume	119	102	0	102	107	0	0	97	400	108	102

13: Warm Springs Road & Lewis Street Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.5	0.0	0.3	0.1	0.0	0.0	0.3	0.0	0.0	1.3
Delay / Veh (s)	24.1	15.5		16.3	9.8		5.3	14.7		8.5	14.8
Vehicles Entered	6	113	0	71	39	0	0	71	0	9	309
Vehicles Exited	7	111	0	72	39	0	1	71	0	9	310
Hourly Exit Rate	28	444	0	288	156	0	4	284	0	36	1240
Input Volume	30	433	1	277	176	2	2	276	1	29	1227
% of Volume	93	103	0	104	89	0	200	103	0	124	101

13: Warm Springs Road & Lewis Street Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.0	0.4	0.0	0.3	0.1	0.0	0.0	0.2	0.0	0.0	1.1
Delay / Veh (s)	24.2	15.1		16.0	8.9			13.6		7.0	14.2
Vehicles Entered	6	100	0	64	37	0	0	64	0	6	277
Vehicles Exited	6	100	0	63	38	0	0	65	0	6	278
Hourly Exit Rate	24	400	0	252	152	0	0	260	0	24	1112
Input Volume	27	386	1	248	157	2	2	247	1	26	1097
% of Volume	89	104	0	102	97	0	0	105	0	92	101

13: Warm Springs Road & Lewis Street Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Total Delay (hr)	0.2	1.7	0.0	1.1	0.4	0.0	0.0	1.0	0.0	0.1	4.5
Delay / Veh (s)	23.7	15.1	6.9	15.7	9.3	5.3	6.1	13.9	12.2	8.5	14.2
Vehicles Entered	28	407	2	262	155	2	2	254	2	29	1143
Vehicles Exited	28	405	2	261	155	2	2	254	2	29	1140
Hourly Exit Rate	28	405	2	261	155	2	2	254	2	29	1140
Input Volume	28	398	1	255	162	2	2	254	1	27	1130
% of Volume	101	102	200	102	96	100	100	100	200	108	101

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Total Delay (hr)	1.7	1.7	2.1	1.8	7.4
Delay / Veh (s)	18.6	18.4	20.0	18.7	19.0
Vehicles Entered	335	339	383	338	1399
Vehicles Exited	328	339	377	351	1391
Hourly Exit Rate	1312	1356	1508	1404	1391
Input Volume	5265	5265	5890	5265	5421
% of Volume	25	26	26	27	26

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #1

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #2

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #3

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #4

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Warm Springs Road & Four Seasons Way, All Intervals

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 6: Warm Springs Road & Flower Drive, Interval #1

Movement	WB	NB	SB
Directions Served	LTR	LR	LR
Maximum Queue (ft)	69	41	3
Average Queue (ft)	25	32	0
95th Queue (ft)	72	44	6
Link Distance (ft)	2881	32	426
Upstream Blk Time (%)		9	
Queuing Penalty (veh)		9	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Warm Springs Road & Flower Drive, Interval #2

Movement	WB	NB	SB
Directions Served	LTR	LR	LR
Maximum Queue (ft)	64	36	3
Average Queue (ft)	19	31	0
95th Queue (ft)	62	45	6
Link Distance (ft)	2881	32	426
Upstream Blk Time (%)		9	
Queuing Penalty (veh)		10	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Warm Springs Road & Flower Drive, Interval #3

Movement	WB	NB	SB
Directions Served	LTR	LR	LR
Maximum Queue (ft)	71	48	6
Average Queue (ft)	25	34	1
95th Queue (ft)	78	50	11
Link Distance (ft)	2881	32	426
Upstream Blk Time (%)		11	
Queuing Penalty (veh)		14	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Warm Springs Road & Flower Drive, Interval #4

Movement	WB	NB	SB
Directions Served	LTR	LR	LR
Maximum Queue (ft)	58	39	6
Average Queue (ft)	23	32	1
95th Queue (ft)	65	42	9
Link Distance (ft)	2881	32	426
Upstream Blk Time (%)		10	
Queuing Penalty (veh)		10	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Warm Springs Road & Flower Drive, All Intervals

Movement	WB	NB	SB
Directions Served	LTR	LR	LR
Maximum Queue (ft)	88	55	12
Average Queue (ft)	23	32	1
95th Queue (ft)	70	46	8
Link Distance (ft)	2881	32	426
Upstream Blk Time (%)		10	
Queuing Penalty (veh)		11	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Bald Mtn. Road & Flower Drive, Interval #1

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	44	46
Average Queue (ft)	30	27
95th Queue (ft)	52	54
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Bald Mtn. Road & Flower Drive, Interval #2

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	49	38
Average Queue (ft)	31	27
95th Queue (ft)	54	50
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Bald Mtn. Road & Flower Drive, Interval #3

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	53	49
Average Queue (ft)	34	29
95th Queue (ft)	56	54
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Bald Mtn. Road & Flower Drive, Interval #4

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	41	49
Average Queue (ft)	28	32
95th Queue (ft)	49	56
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Bald Mtn. Road & Flower Drive, All Intervals

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	60	63
Average Queue (ft)	30	29
95th Queue (ft)	53	54
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #1

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	28	58	38	36	40
Average Queue (ft)	10	33	20	17	7
95th Queue (ft)	30	67	39	42	36
Link Distance (ft)	161		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #2

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	26	46	43	48	30
Average Queue (ft)	10	26	19	16	3
95th Queue (ft)	30	46	39	44	21
Link Distance (ft)	161		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #3

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	23	53	46	37	46
Average Queue (ft)	12	30	22	16	11
95th Queue (ft)	31	56	45	43	46
Link Distance (ft)	161		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		0		0	
Queuing Penalty (veh)		0		0	

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #4

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	23	44	46	41	29
Average Queue (ft)	9	27	22	17	5
95th Queue (ft)	28	45	45	47	26
Link Distance (ft)	161		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 10: Saddle Drive & Warm Springs Road, All Intervals

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	31	67	59	61	63
Average Queue (ft)	10	29	21	16	7
95th Queue (ft)	30	55	42	44	34
Link Distance (ft)	161		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		0		0	
Queuing Penalty (veh)		0		0	

Intersection: 13: Warm Springs Road & Lewis Street, Interval #1

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	60	194	176	10	127	54
Average Queue (ft)	21	118	112	3	76	15
95th Queue (ft)	66	219	191	15	132	53
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		8	19		21	1
Queuing Penalty (veh)		2	0		5	1

Intersection: 13: Warm Springs Road & Lewis Street, Interval #2

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	60	188	179	8	124	41
Average Queue (ft)	23	118	105	1	77	13
95th Queue (ft)	69	194	185	11	130	42
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		10	19		19	0
Queuing Penalty (veh)		3	0		5	1

Intersection: 13: Warm Springs Road & Lewis Street, Interval #3

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	57	203	216	14	140	34
Average Queue (ft)	18	129	120	3	95	16
95th Queue (ft)	64	220	215	17	144	41
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		12	23		25	0
Queuing Penalty (veh)		4	0		7	0

Intersection: 13: Warm Springs Road & Lewis Street, Interval #4

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	56	196	199	14	132	27
Average Queue (ft)	20	119	111	3	82	7
95th Queue (ft)	64	203	202	16	137	29
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		9	20		22	0
Queuing Penalty (veh)		2	0		6	0

Intersection: 13: Warm Springs Road & Lewis Street, All Intervals

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LR	LT	R
Maximum Queue (ft)	97	242	247	26	172	64
Average Queue (ft)	21	121	112	2	83	13
95th Queue (ft)	66	210	199	15	137	42
Link Distance (ft)		888	989	171	797	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					50
Storage Blk Time (%)		10	20		22	0
Queuing Penalty (veh)		3	0		6	1

Network Summary

Network wide Queuing Penalty, Interval #1: 18
Network wide Queuing Penalty, Interval #2: 18
Network wide Queuing Penalty, Interval #3: 25
Network wide Queuing Penalty, Interval #4: 18
Network wide Queuing Penalty, All Intervals: 20

SimTraffic LOS Report

Project: Ketchum Warm Springs TS
Analysis Period: Future (2018) Background - Mitigated
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Warm Springs Road & Four Seasons Way
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	12	13	106	7.2	A
	R	3	4	133	3.4	A
	Subtotal	15	17	113	6.3	A
EB	L	4	4	100	2.4	A
	T	415	410	99	0.3	A
	Subtotal	419	414	99	0.3	A
WB	T	364	368	101	1.1	A
	R	22	22	101	0.5	A
	Subtotal	386	390	101	1.1	A
Total		821	821	100	0.8	A

Intersection: Warm Springs Road & Bald Mountain Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	3	4	133	6.7	A
	R	10	10	98	3.7	A
	Subtotal	13	14	108	4.6	A
EB	T	409	404	99	4.0	A
	R	3	3	100	7.2	A
	Subtotal	412	407	99	4.0	A
WB	L	22	22	101	2.8	A
	T	345	349	101	0.5	A
	Subtotal	367	371	101	0.6	A
Total		792	792	100	2.4	A

SimTraffic LOS Report

Project: Ketchum Warm Springs TS
Analysis Period: Future (2018) Background - Mitigated
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Warm Springs Road & Flower Drive
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	3	2	67	10.6	B
	R	3	4	133	3.2	A
	Subtotal	6	6	100	5.7	A
EB	L	3	2	67	2.9	A
	T	424	420	99	0.8	A
	Subtotal	427	422	99	0.8	A
WB	T	384	388	101	0.7	A
	R	10	12	117	0.2	A
	Subtotal	394	400	102	0.7	A
Total		827	828	100	0.8	A

Intersection: Warm Springs Road & Geezer Alley
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	424	420	99	0.6	A
	R	3	3	100	0.2	A
	Subtotal	427	423	99	0.6	A
WB	L	3	2	67	8.1	A
	T	488	501	103	3.2	A
	Subtotal	491	503	102	3.2	A
NE	L	3	2	67	11.6	B
	R	3	3	100	4.0	A
	Subtotal	6	5	83	7.0	A
Total		925	931	101	2.0	A

SimTraffic LOS Report

Project: Ketchum Warm Springs TS
Analysis Period: Future (2018) Background - Mitigated
Time Period: PM Peak Hour **Project #: UT11-326**

Intersection: Saddle Drive & Warm Springs Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	3	3	100	13.0	B
	T	4	4	100	15.2	C
	R	24	24	101	6.3	A
	Subtotal	31	31	100	8.1	A
WB	L	147	145	98	38.4	E
	T	8	7	85	16.3	C
	R	122	127	104	10.8	B
	Subtotal	277	279	101	25.3	D
NW	L	33	31	94	6.7	A
	T	368	376	102	4.4	A
	R	91	91	100	3.3	A
	Subtotal	492	498	101	4.3	A
SE	L	103	101	98	10.9	B
	T	414	405	98	5.3	A
	R	5	6	120	4.0	A
	Subtotal	522	512	98	6.4	A
Total		1,321	1,320	100	9.6	A

Intersection: Warm Springs Road & Lewis Street
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	4	4	100	15.2	B
	T	3	3	100	13.8	B
	R	4	4	100	10.2	B
	Subtotal	11	11	100	13.0	B
SB	L	381	381	100	24.1	C
	T	3	4	133	24.8	C
	R	41	45	109	18.6	B
	Subtotal	425	430	101	23.5	C
EB	L	42	40	95	40.6	D
	T	542	530	98	15.5	B
	R	2	2	100	13.1	B
	Subtotal	586	572	98	17.2	B
WB	L	3	2	67	63.8	E
	T	446	448	100	41.8	D
	R	243	252	104	36.6	D
	Subtotal	692	702	101	40.0	D
Total		1,714	1,715	100	28.1	C

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #1 5:00

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	2.6	0.3	1.4	0.5	7.0	3.8	0.9
Vehicles Entered	1	102	90	7	3	1	204
Vehicles Exited	1	102	90	7	3	1	204
Hourly Exit Rate	4	408	360	28	12	4	816
Input Volume	4	403	354	21	12	3	797
% of Volume	100	101	102	133	100	133	102

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #2 5:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	2.7	0.3	1.0	0.5	7.1	6.4	0.7
Vehicles Entered	1	97	90	4	3	1	196
Vehicles Exited	1	97	89	4	2	1	194
Hourly Exit Rate	4	388	356	16	8	4	776
Input Volume	4	403	354	21	12	3	797
% of Volume	100	96	101	76	67	133	97

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #3 5:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)		0.3	1.1	0.5	7.8		0.8
Vehicles Entered	0	112	96	6	4	0	218
Vehicles Exited	0	112	96	6	4	0	218
Hourly Exit Rate	0	448	384	24	16	0	872
Input Volume	4	452	396	24	13	3	892
% of Volume	0	99	97	100	123	0	98

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #4 5:45

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	3.1	0.3	1.0	0.6	9.0	2.0	0.8
Vehicles Entered	1	99	93	5	3	1	202
Vehicles Exited	1	98	93	5	3	1	201
Hourly Exit Rate	4	392	372	20	12	4	804
Input Volume	4	403	354	21	12	3	797
% of Volume	100	97	105	95	100	133	101

3: Warm Springs Road & Four Seasons Way Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Delay / Veh (s)	2.4	0.3	1.1	0.5	7.2	3.4	0.8
Vehicles Entered	4	410	369	22	13	4	822
Vehicles Exited	4	410	368	22	13	4	821
Hourly Exit Rate	4	410	368	22	13	4	821
Input Volume	4	415	364	22	12	3	821
% of Volume	100	99	101	101	106	133	100

4: Warm Springs Road & Bald Mountain Road Performance by movement Interval #1 5:00

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	3.9	5.0	2.4	0.6	9.1	3.7	2.5
Vehicles Entered	101	1	7	84	1	2	196
Vehicles Exited	101	1	7	84	1	2	196
Hourly Exit Rate	404	4	28	336	4	8	784
Input Volume	397	3	21	335	3	10	769
% of Volume	102	133	133	100	133	80	102

4: Warm Springs Road & Bald Mountain Road Performance by movement Interval #2 5:15

Movement	EBT	EBR	WBL	WBT	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	3.6	10.2	2.5	0.4	3.7	2.2
Vehicles Entered	97	1	4	86	2	190
Vehicles Exited	96	1	4	86	2	189
Hourly Exit Rate	384	4	16	344	8	756
Input Volume	397	3	21	335	10	769
% of Volume	97	133	76	103	80	98

4: Warm Springs Road & Bald Mountain Road Performance by movement Interval #3 5:30

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Delay / Veh (s)	4.6	3.0	3.6	0.6	8.8	3.8	2.8
Vehicles Entered	111	1	6	91	1	3	213
Vehicles Exited	110	1	6	91	1	3	212
Hourly Exit Rate	440	4	24	364	4	12	848
Input Volume	445	3	24	375	3	11	861
% of Volume	99	133	100	97	133	109	98

4: Warm Springs Road & Bald Mountain Road Performance by movement Interval #4 5:45

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	3.9	3.6	2.7	0.4	9.0	5.3	2.3
Vehicles Entered	95	1	5	88	1	2	192
Vehicles Exited	97	1	5	88	1	2	194
Hourly Exit Rate	388	4	20	352	4	8	776
Input Volume	397	3	21	335	3	10	769
% of Volume	98	133	95	105	133	80	101

4: Warm Springs Road & Bald Mountain Road Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Total Delay (hr)	0.4	0.0	0.0	0.0	0.0	0.0	0.5
Delay / Veh (s)	4.0	7.2	2.8	0.5	6.7	3.7	2.4
Vehicles Entered	403	3	22	349	4	10	791
Vehicles Exited	404	3	22	349	4	10	792
Hourly Exit Rate	404	3	22	349	4	10	792
Input Volume	409	3	22	345	3	10	792
% of Volume	99	100	101	101	133	98	100

6: Warm Springs Road & Flower Drive Performance by movement Interval #1 5:00

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)		0.8	0.7	0.3		2.2	0.8
Vehicles Entered	0	105	96	3	0	1	205
Vehicles Exited	0	105	96	3	0	1	205
Hourly Exit Rate	0	420	384	12	0	4	820
Input Volume	3	412	373	10	3	3	804
% of Volume	0	102	103	120	0	133	102

6: Warm Springs Road & Flower Drive Performance by movement Interval #2 5:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)		0.7	0.6	0.1	5.2	4.7	0.7
Vehicles Entered	0	99	94	3	1	1	198
Vehicles Exited	0	99	93	3	1	1	197
Hourly Exit Rate	0	396	372	12	4	4	788
Input Volume	3	412	373	10	3	3	804
% of Volume	0	96	100	120	133	133	98

6: Warm Springs Road & Flower Drive Performance by movement Interval #3 5:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Delay / Veh (s)	2.0	0.9	0.7	0.3		3.7	0.9
Vehicles Entered	1	115	100	3	0	1	220
Vehicles Exited	1	115	101	3	0	1	221
Hourly Exit Rate	4	460	404	12	0	4	884
Input Volume	3	461	416	11	3	3	897
% of Volume	133	100	97	109	0	133	99

6: Warm Springs Road & Flower Drive Performance by movement Interval #4 5:45

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	2.2	0.8	0.6	0.4	5.2	2.2	0.7
Vehicles Entered	1	101	98	3	1	1	205
Vehicles Exited	1	101	98	2	1	1	204
Hourly Exit Rate	4	404	392	8	4	4	816
Input Volume	3	412	373	10	3	3	804
% of Volume	133	98	105	80	133	133	101

6: Warm Springs Road & Flower Drive Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.2
Delay / Veh (s)	2.9	0.8	0.7	0.2	10.6	3.2	0.8
Vehicles Entered	2	420	389	12	2	4	829
Vehicles Exited	2	420	388	12	2	4	828
Hourly Exit Rate	2	420	388	12	2	4	828
Input Volume	3	424	384	10	3	3	827
% of Volume	67	99	101	117	67	133	100

8: Warm Springs Road & Geezer Alley Performance by movement Interval #1 5:00

Movement	EBT	EBR	WBL	WBT	NEL	NER	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Delay / Veh (s)	0.6	0.2	5.6	3.4	7.1		2.2
Vehicles Entered	105	1	1	126	1	0	234
Vehicles Exited	104	1	1	125	1	0	232
Hourly Exit Rate	416	4	4	500	4	0	928
Input Volume	412	3	3	474	3	3	898
% of Volume	101	133	133	105	133	0	103

8: Warm Springs Road & Geezer Alley Performance by movement Interval #2 5:15

Movement	EBT	EBR	WBL	WBT	NEL	NER	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Delay / Veh (s)	0.6	0.1	3.7	3.0		2.8	1.9
Vehicles Entered	99	1	1	119	0	1	221
Vehicles Exited	99	1	1	120	0	1	222
Hourly Exit Rate	396	4	4	480	0	4	888
Input Volume	412	3	3	474	3	3	898
% of Volume	96	133	133	101	0	133	99

8: Warm Springs Road & Geezer Alley Performance by movement Interval #3 5:30

Movement	EBT	EBR	WBL	WBT	NEL	NER	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Delay / Veh (s)	0.6		4.5	3.3	8.5	4.3	2.1
Vehicles Entered	115	0	1	132	1	1	250
Vehicles Exited	115	0	1	130	1	1	248
Hourly Exit Rate	460	0	4	520	4	4	992
Input Volume	461	3	3	532	3	3	1005
% of Volume	100	0	133	98	133	133	99

8: Warm Springs Road & Geezer Alley Performance by movement Interval #4 5:45

Movement	EBT	EBR	WBL	WBT	NEL	NER	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Delay / Veh (s)	0.5	0.2		3.1	4.0	2.1	2.0
Vehicles Entered	101	1	0	125	0	0	227
Vehicles Exited	101	1	0	126	1	1	230
Hourly Exit Rate	404	4	0	504	4	4	920
Input Volume	412	3	3	474	3	3	898
% of Volume	98	133	0	106	133	133	102

8: Warm Springs Road & Geezer Alley Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	NEL	NER	All
Total Delay (hr)	0.1	0.0	0.0	0.4	0.0	0.0	0.5
Delay / Veh (s)	0.6	0.2	8.1	3.2	11.6	4.0	2.0
Vehicles Entered	420	3	2	502	2	3	932
Vehicles Exited	420	3	2	501	2	3	931
Hourly Exit Rate	420	3	2	501	2	3	931
Input Volume	424	3	3	488	3	3	925
% of Volume	99	100	67	103	67	100	101

10: Saddle Drive & Warm Springs Road Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0
Delay / Veh (s)	13.9	12.0	6.6	27.1	10.9	6.4	11.2	5.3	5.2	6.6	4.4	3.4
Vehicles Entered	1	1	6	36	1	31	24	100	1	8	95	22
Vehicles Exited	1	1	5	36	1	31	23	100	1	8	95	23
Hourly Exit Rate	4	4	20	144	4	124	92	400	4	32	380	92
Input Volume	3	4	23	143	8	118	100	402	5	32	357	88
% of Volume	133	100	87	101	50	105	92	100	80	100	106	105

10: Saddle Drive & Warm Springs Road Performance by movement Interval #1 5:00

Movement	All
Total Delay (hr)	0.7
Delay / Veh (s)	8.0
Vehicles Entered	326
Vehicles Exited	325
Hourly Exit Rate	1300
Input Volume	1283
% of Volume	101

10: Saddle Drive & Warm Springs Road Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0
Delay / Veh (s)	7.4	28.4	5.9	31.2	12.7	6.2	11.0	5.0	6.4	6.3	4.1	3.0
Vehicles Entered	1	1	5	34	3	31	25	96	1	7	88	23
Vehicles Exited	1	1	5	35	3	31	25	96	1	6	88	23
Hourly Exit Rate	4	4	20	140	12	124	100	384	4	24	352	92
Input Volume	3	4	23	143	8	118	100	402	5	32	357	88
% of Volume	133	100	87	98	150	105	100	96	80	75	99	105

10: Saddle Drive & Warm Springs Road Performance by movement Interval #2 5:15

Movement	All
Total Delay (hr)	0.7
Delay / Veh (s)	8.2
Vehicles Entered	315
Vehicles Exited	315
Hourly Exit Rate	1260
Input Volume	1283
% of Volume	98

10: Saddle Drive & Warm Springs Road Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	0.6	0.0	0.2	0.1	0.2	0.0	0.0	0.1	0.0
Delay / Veh (s)	11.5	14.1	7.3	56.7	23.7	19.8	10.8	5.8	3.5	7.5	4.7	3.6
Vehicles Entered	1	1	8	38	2	35	26	113	1	9	97	22
Vehicles Exited	1	1	8	36	2	35	26	112	2	9	97	22
Hourly Exit Rate	4	4	32	144	8	140	104	448	8	36	388	88
Input Volume	3	4	26	160	9	133	112	450	5	36	399	99
% of Volume	133	100	123	90	89	105	93	100	160	100	97	89

10: Saddle Drive & Warm Springs Road Performance by movement Interval #3 5:30

Movement	All
Total Delay (hr)	1.2
Delay / Veh (s)	12.6
Vehicles Entered	353
Vehicles Exited	351
Hourly Exit Rate	1404
Input Volume	1436
% of Volume	98

10: Saddle Drive & Warm Springs Road Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	0.4	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0
Delay / Veh (s)	6.1	6.3	6.0	37.6	17.4	9.5	10.6	5.0	2.7	6.3	4.3	3.4
Vehicles Entered	1	1	5	37	1	30	26	98	2	8	96	23
Vehicles Exited	1	1	5	38	1	29	26	99	2	8	96	23
Hourly Exit Rate	4	4	20	152	4	116	104	396	8	32	384	92
Input Volume	3	4	23	143	8	118	100	402	5	32	357	88
% of Volume	133	100	87	106	50	98	104	99	160	100	108	105

10: Saddle Drive & Warm Springs Road Performance by movement Interval #4 5:45

Movement	All
Total Delay (hr)	0.8
Delay / Veh (s)	9.3
Vehicles Entered	328
Vehicles Exited	329
Hourly Exit Rate	1316
Input Volume	1283
% of Volume	103

10: Saddle Drive & Warm Springs Road Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	1.5	0.0	0.4	0.3	0.6	0.0	0.1	0.5	0.1
Delay / Veh (s)	13.0	15.2	6.3	38.4	16.3	10.8	10.9	5.3	4.0	6.7	4.4	3.3
Vehicles Entered	3	4	24	144	7	127	101	407	6	31	376	90
Vehicles Exited	3	4	24	145	7	127	101	405	6	31	376	91
Hourly Exit Rate	3	4	24	145	7	127	101	405	6	31	376	91
Input Volume	3	4	24	147	8	122	103	414	5	33	368	91
% of Volume	100	100	101	98	85	104	98	98	120	94	102	100

10: Saddle Drive & Warm Springs Road Performance by movement Entire Run

Movement	All
Total Delay (hr)	3.5
Delay / Veh (s)	9.6
Vehicles Entered	1320
Vehicles Exited	1320
Hourly Exit Rate	1320
Input Volume	1321
% of Volume	100

13: Warm Springs Road & Lewis Street Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.5	0.0	0.0	1.1	0.5	0.0	0.0	0.0	0.6	0.0	0.1
Delay / Veh (s)	39.8	12.8	7.4		35.3	29.7	4.3		10.5	23.1	19.2	18.1
Vehicles Entered	11	129	1	0	112	61	1	0	1	88	1	11
Vehicles Exited	11	126	1	0	113	62	1	0	1	86	1	12
Hourly Exit Rate	44	504	4	0	452	248	4	0	4	344	4	48
Input Volume	41	526	2	3	433	236	4	3	4	370	3	40
% of Volume	107	96	200	0	104	105	100	0	100	93	133	120

13: Warm Springs Road & Lewis Street Performance by movement Interval #1 5:00

Movement	All
Total Delay (hr)	2.8
Delay / Veh (s)	24.4
Vehicles Entered	416
Vehicles Exited	414
Hourly Exit Rate	1656
Input Volume	1665
% of Volume	99

13: Warm Springs Road & Lewis Street Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.5	0.0	0.0	0.8	0.4	0.0	0.0	0.0	0.6	0.0	0.1
Delay / Veh (s)	35.7	15.4			27.1	22.4	12.0	17.6	9.2	23.0	37.9	17.6
Vehicles Entered	9	126	0	0	105	58	2	1	1	91	1	12
Vehicles Exited	9	127	0	0	105	59	2	1	1	92	1	11
Hourly Exit Rate	36	508	0	0	420	236	8	4	4	368	4	44
Input Volume	41	526	2	3	433	236	4	3	4	370	3	40
% of Volume	88	97	0	0	97	100	200	133	100	99	133	110

13: Warm Springs Road & Lewis Street Performance by movement Interval #2 5:15

Movement	All
Total Delay (hr)	2.5
Delay / Veh (s)	21.7
Vehicles Entered	406
Vehicles Exited	408
Hourly Exit Rate	1632
Input Volume	1665
% of Volume	98

13: Warm Springs Road & Lewis Street Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.7	0.0	0.0	1.6	0.8	0.0	0.0	0.0	0.7	0.0	0.1
Delay / Veh (s)	43.2	17.4		38.7	49.1	42.7	23.9	7.6	14.8	25.2	19.6	19.1
Vehicles Entered	11	145	0	1	123	71	1	1	1	106	1	12
Vehicles Exited	11	142	0	1	116	67	1	1	1	104	1	12
Hourly Exit Rate	44	568	0	4	464	268	4	4	4	416	4	48
Input Volume	46	588	2	3	485	264	4	3	4	414	3	45
% of Volume	96	97	0	133	96	102	100	133	100	100	133	107

13: Warm Springs Road & Lewis Street Performance by movement Interval #3 5:30

Movement	All
Total Delay (hr)	4.1
Delay / Veh (s)	31.8
Vehicles Entered	473
Vehicles Exited	457
Hourly Exit Rate	1828
Input Volume	1861
% of Volume	98

13: Warm Springs Road & Lewis Street Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.1	0.6	0.0	0.0	1.7	0.9	0.0	0.0	0.0	0.7	0.0	0.1
Delay / Veh (s)	43.5	16.0		46.1	54.6	49.2	8.7	14.0	6.2	24.7	22.6	19.7
Vehicles Entered	8	132	0	1	114	64	1	1	1	99	1	11
Vehicles Exited	9	134	0	1	115	64	1	1	1	99	1	10
Hourly Exit Rate	36	536	0	4	460	256	4	4	4	396	4	40
Input Volume	41	526	2	3	433	236	4	3	4	370	3	40
% of Volume	88	102	0	133	106	108	100	133	100	107	133	100

13: Warm Springs Road & Lewis Street Performance by movement Interval #4 5:45

Movement	All
Total Delay (hr)	4.1
Delay / Veh (s)	33.7
Vehicles Entered	433
Vehicles Exited	436
Hourly Exit Rate	1744
Input Volume	1665
% of Volume	105

13: Warm Springs Road & Lewis Street Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.5	2.3	0.0	0.0	5.2	2.6	0.0	0.0	0.0	2.6	0.0	0.2
Delay / Veh (s)	40.6	15.5	13.1	63.8	41.8	36.6	15.2	13.8	10.2	24.1	24.8	18.6
Vehicles Entered	40	532	2	2	453	254	4	3	4	384	4	45
Vehicles Exited	40	530	2	2	448	252	4	3	4	381	4	45
Hourly Exit Rate	40	530	2	2	448	252	4	3	4	381	4	45
Input Volume	42	542	2	3	446	243	4	3	4	381	3	41
% of Volume	95	98	100	67	100	104	100	100	100	100	133	109

13: Warm Springs Road & Lewis Street Performance by movement Entire Run

Movement	All
Total Delay (hr)	13.4
Delay / Veh (s)	28.1
Vehicles Entered	1727
Vehicles Exited	1715
Hourly Exit Rate	1715
Input Volume	1714
% of Volume	100

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Total Delay (hr)	4.2	3.8	6.1	5.6	19.7
Delay / Veh (s)	31.6	28.8	41.2	40.2	35.6
Vehicles Entered	485	475	549	496	2004
Vehicles Exited	473	473	524	506	1980
Hourly Exit Rate	1892	1892	2096	2024	1980
Input Volume	8046	8046	8997	8046	8284
% of Volume	24	24	23	25	24

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #1

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	8	30
Average Queue (ft)	1	12
95th Queue (ft)	17	36
Link Distance (ft)	80	243
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #2

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	7	30
Average Queue (ft)	1	13
95th Queue (ft)	15	37
Link Distance (ft)	80	243
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #3

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	6	5	31
Average Queue (ft)	1	1	16
95th Queue (ft)	9	11	40
Link Distance (ft)	80	394	243
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #4

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	10	31
Average Queue (ft)	2	15
95th Queue (ft)	17	39
Link Distance (ft)	80	243
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Warm Springs Road & Four Seasons Way, All Intervals

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	29	5	31
Average Queue (ft)	1	0	14
95th Queue (ft)	15	5	38
Link Distance (ft)	80	394	243
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Warm Springs Road & Bald Mountain Road, Interval #1

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	27
Average Queue (ft)	8	10
95th Queue (ft)	37	31
Link Distance (ft)	80	284
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Warm Springs Road & Bald Mountain Road, Interval #2

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	27	22
Average Queue (ft)	4	7
95th Queue (ft)	28	25
Link Distance (ft)	80	284
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Warm Springs Road & Bald Mountain Road, Interval #3

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	52	27
Average Queue (ft)	12	11
95th Queue (ft)	51	32
Link Distance (ft)	80	284
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	1	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Warm Springs Road & Bald Mountain Road, Interval #4

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	34	26
Average Queue (ft)	7	10
95th Queue (ft)	34	32
Link Distance (ft)	80	284
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Warm Springs Road & Bald Mountain Road, All Intervals

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	66	30
Average Queue (ft)	8	9
95th Queue (ft)	38	30
Link Distance (ft)	80	284
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Warm Springs Road & Flower Drive, Interval #1

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	3	24
Average Queue (ft)	0	5
95th Queue (ft)	7	21
Link Distance (ft)	394	561
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Warm Springs Road & Flower Drive, Interval #2

Movement	SB
Directions Served	LR
Maximum Queue (ft)	24
Average Queue (ft)	7
95th Queue (ft)	26
Link Distance (ft)	561
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Warm Springs Road & Flower Drive, Interval #3

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	8	19
Average Queue (ft)	2	4
95th Queue (ft)	15	20
Link Distance (ft)	394	561
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Warm Springs Road & Flower Drive, Interval #4

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	14	19
Average Queue (ft)	2	5
95th Queue (ft)	29	22
Link Distance (ft)	394	561
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Warm Springs Road & Flower Drive, All Intervals

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	20	28
Average Queue (ft)	1	5
95th Queue (ft)	16	22
Link Distance (ft)	394	561
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Warm Springs Road & Geezer Alley, Interval #1

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	26	11
Average Queue (ft)	4	3
95th Queue (ft)	32	13
Link Distance (ft)	2603	310
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Warm Springs Road & Geezer Alley, Interval #2

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	10	13
Average Queue (ft)	2	3
95th Queue (ft)	21	12
Link Distance (ft)	2603	310
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Warm Springs Road & Geezer Alley, Interval #3

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	18	14
Average Queue (ft)	2	3
95th Queue (ft)	23	13
Link Distance (ft)	2603	310
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Warm Springs Road & Geezer Alley, Interval #4

Movement	NE
Directions Served	LR
Maximum Queue (ft)	10
Average Queue (ft)	2
95th Queue (ft)	11
Link Distance (ft)	310
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: Warm Springs Road & Geezer Alley, All Intervals

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	46	17
Average Queue (ft)	2	3
95th Queue (ft)	22	12
Link Distance (ft)	2603	310
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #1

Movement	EB	WB	WB	SE	SE	NW
Directions Served	LTR	L	TR	L	TR	LTR
Maximum Queue (ft)	38	96	56	57	2	75
Average Queue (ft)	19	55	28	29	0	20
95th Queue (ft)	42	99	57	62	4	78
Link Distance (ft)	166		912		2603	888
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100		100		
Storage Blk Time (%)		2	0			
Queuing Penalty (veh)		2	0			

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #2

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	31	103	59	53	46
Average Queue (ft)	18	58	30	27	10
95th Queue (ft)	41	110	57	59	41
Link Distance (ft)	166		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		5		0	
Queuing Penalty (veh)		6		0	

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #3

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	52	113	148	58	92
Average Queue (ft)	21	75	81	29	27
95th Queue (ft)	52	133	325	62	88
Link Distance (ft)	166		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		13	1	0	
Queuing Penalty (veh)		18	1	1	

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #4

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	36	110	121	66	61
Average Queue (ft)	17	67	42	29	19
95th Queue (ft)	42	122	165	66	60
Link Distance (ft)	166		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		7	0	0	
Queuing Penalty (veh)		9	0	0	

Intersection: 10: Saddle Drive & Warm Springs Road, All Intervals

Movement	EB	WB	WB	SE	SE	NW
Directions Served	LTR	L	TR	L	TR	LTR
Maximum Queue (ft)	57	124	161	82	2	111
Average Queue (ft)	19	64	45	29	0	19
95th Queue (ft)	45	118	188	62	2	69
Link Distance (ft)	166		912		2603	888
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100		100		
Storage Blk Time (%)		7	0	0		
Queuing Penalty (veh)		9	0	0		

Intersection: 13: Warm Springs Road & Lewis Street, Interval #1

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	93	240	7	487	22	251	73
Average Queue (ft)	40	131	1	322	5	153	35
95th Queue (ft)	98	242	9	689	22	260	87
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)				0			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	0	10		37		41	1
Queuing Penalty (veh)	1	4		1		16	4

Intersection: 13: Warm Springs Road & Lewis Street, Interval #2

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	86	268	7	408	32	259	73
Average Queue (ft)	30	153	1	246	10	163	33
95th Queue (ft)	82	287	9	533	35	278	78
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	0	13		34		43	1
Queuing Penalty (veh)	0	5		1		17	2

Intersection: 13: Warm Springs Road & Lewis Street, Interval #3

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	95	318	7	657	28	271	73
Average Queue (ft)	39	190	1	430	7	192	29
95th Queue (ft)	88	314	11	814	28	288	78
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)				2			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	1	21		44		48	1
Queuing Penalty (veh)	4	10		1		22	2

Intersection: 13: Warm Springs Road & Lewis Street, Interval #4

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	74	275	12	692	28	253	72
Average Queue (ft)	29	165	2	443	7	173	28
95th Queue (ft)	75	297	13	916	27	270	79
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)				6			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	0	16		42		44	1
Queuing Penalty (veh)	0	6		1		18	2

Intersection: 13: Warm Springs Road & Lewis Street, All Intervals

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	123	361	17	824	37	309	75
Average Queue (ft)	35	160	1	360	7	170	31
95th Queue (ft)	86	290	11	766	29	277	81
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)				2			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	0	15		39		44	1
Queuing Penalty (veh)	1	6		1		18	3

Network Summary

Network wide Queuing Penalty, Interval #1: 28
Network wide Queuing Penalty, Interval #2: 32
Network wide Queuing Penalty, Interval #3: 60
Network wide Queuing Penalty, Interval #4: 37
Network wide Queuing Penalty, All Intervals: 39

SimTraffic LOS Report

Project: Ketchum Warm Springs Ranch Resort TIS
Analysis Period: Existing (2018) Plus Project
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Warm Springs Road & Four Seasons Way
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	12	12	98	7.7	A
	R	3	2	67	6.1	A
	Subtotal	15	14	93	7.5	A
EB	L	4	4	100	3.9	A
	T	411	410	100	0.3	A
	Subtotal	415	414	100	0.3	A
WB	T	366	369	101	1.1	A
	R	22	21	97	0.9	A
	Subtotal	388	390	101	1.1	A
Total		818	818	100	0.8	A

Intersection: Warm Springs Road & Flower Drive
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	1	0	0		
	R	110	117	106	4.4	A
	Subtotal	111	117	105	4.4	A
SB	L	3	2	67	13.2	B
	R	3	3	100	4.4	A
	Subtotal	6	5	83	7.9	A
EB	L	3	2	67	4.1	A
	T	419	417	99	1.0	A
	R	1	2	200	0.6	A
Subtotal	423	421	100	1.0	A	
WB	L	106	98	92	9.4	A
	T	460	465	101	6.6	A
	R	10	10	98	6.5	A
	Subtotal	576	573	99	7.1	A
Total		1,116	1,116	100	4.5	A

SimTraffic LOS Report

Project: Ketchum Warm Springs Ranch Resort TIS
Analysis Period: Existing (2018) Plus Project
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Bald Mtn. Road & Flower Drive
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	6	5	80	0.4	A
	R	101	94	93	0.3	A
	Subtotal	107	99	93	0.3	A
EB	L	62	66	107	5.7	A
	Subtotal	62	66	106	5.7	A
WB	R	48	49	102	4.8	A
	Subtotal	48	49	102	4.8	A
Total		217	214	99	3.0	A

Intersection: Saddle Drive & Warm Springs Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	3	4	133	17.1	C
	T	4	4	100	27.7	D
	R	24	21	88	9.4	A
	Subtotal	31	29	94	13.0	B
WB	L	147	147	100	67.2	F
	T	8	8	97	27.2	D
	R	129	127	99	17.3	C
	Subtotal	284	282	99	43.6	E
NW	L	33	30	91	7.8	A
	T	446	449	101	5.2	A
	R	91	96	106	4.1	A
	Subtotal	570	575	101	5.2	A
SE	L	113	113	100	14.1	B
	T	503	505	100	6.1	A
	R	5	6	120	5.3	A
	Subtotal	621	624	100	7.5	A
Total		1,505	1,510	100	13.5	B

SimTraffic LOS Report

Project: Ketchum Warm Springs Ranch Resort TIS
Analysis Period: Existing (2018) Plus Project
Time Period: PM Peak Hour **Project #:** UT11-326

Intersection: Warm Springs Road & Lewis Street
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	4	5	125	26.3	C
	T	3	3	100	14.4	B
	R	4	5	125	12.1	B
	Subtotal	11	13	118	18.1	B
SB	L	381	378	99	33.6	C
	T	3	3	100	30.1	C
	R	41	42	102	20.8	C
	Subtotal	425	423	100	32.3	C
EB	L	42	38	90	71.8	E
	T	630	631	100	17.4	B
	R	2	3	150	11.6	B
	Subtotal	674	672	100	20.5	C
WB	L	3	3	100	83.4	F
	T	523	528	101	59.3	E
	R	243	243	100	53.7	D
	Subtotal	769	774	101	57.6	E
Total		1,880	1,882	100	38.4	D

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #1 5:00

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	3.4	0.2	1.0	1.2	7.2		0.7
Vehicles Entered	1	102	87	5	3	0	198
Vehicles Exited	1	102	86	4	3	0	196
Hourly Exit Rate	4	408	344	16	12	0	784
Input Volume	4	399	355	21	12	3	794
% of Volume	100	102	97	76	100	0	99

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #2 5:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	6.0	0.3	1.1	1.0	6.7	3.1	0.9
Vehicles Entered	1	100	88	6	4	1	200
Vehicles Exited	1	100	88	6	4	1	200
Hourly Exit Rate	4	400	352	24	16	4	800
Input Volume	4	399	355	21	12	3	794
% of Volume	100	100	99	114	133	133	101

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #3 5:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	3.1	0.3	1.2	1.0	8.3	5.5	0.8
Vehicles Entered	1	108	100	5	2	1	217
Vehicles Exited	1	107	99	5	2	1	215
Hourly Exit Rate	4	428	396	20	8	4	860
Input Volume	4	447	397	24	13	3	888
% of Volume	100	96	100	83	62	133	97

3: Warm Springs Road & Four Seasons Way Performance by movement Interval #4 5:45

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	3.0	0.2	1.1	0.7	9.1		0.8
Vehicles Entered	1	100	95	5	3	1	205
Vehicles Exited	1	100	96	5	3	0	205
Hourly Exit Rate	4	400	384	20	12	0	820
Input Volume	4	399	355	21	12	3	794
% of Volume	100	100	108	95	100	0	103

3: Warm Springs Road & Four Seasons Way Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Delay / Veh (s)	3.9	0.3	1.1	0.9	7.7	6.1	0.8
Vehicles Entered	4	410	370	21	12	3	820
Vehicles Exited	4	410	369	21	12	2	818
Hourly Exit Rate	4	410	369	21	12	2	818
Input Volume	4	411	366	22	12	3	818
% of Volume	100	100	101	97	98	67	100

6: Warm Springs Road & Flower Drive Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.4
Delay / Veh (s)		1.0		10.4	6.9	8.4		4.4	12.9	4.7	4.7
Vehicles Entered	0	104	0	24	114	2	0	30	1	1	276
Vehicles Exited	0	103	0	22	110	2	0	30	1	1	269
Hourly Exit Rate	0	412	0	88	440	8	0	120	4	4	1076
Input Volume	3	407	1	103	446	10	1	107	3	3	1084
% of Volume	0	101	0	85	99	80	0	112	133	133	99

6: Warm Springs Road & Flower Drive Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Delay / Veh (s)		1.1		9.2	6.4	5.3		4.4		2.6	4.4
Vehicles Entered	0	104	0	25	110	3	0	28	0	1	271
Vehicles Exited	0	104	0	26	111	3	0	28	0	1	273
Hourly Exit Rate	0	416	0	104	444	12	0	112	0	4	1092
Input Volume	3	407	1	103	446	10	1	107	3	3	1084
% of Volume	0	102	0	101	100	120	0	105	0	133	101

6: Warm Springs Road & Flower Drive Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.4
Delay / Veh (s)	4.3	1.1		9.0	6.5	7.1		4.4		2.9	4.5
Vehicles Entered	1	109	0	23	124	3	0	30	0	1	291
Vehicles Exited	1	109	0	23	122	3	0	30	0	1	289
Hourly Exit Rate	4	436	0	92	488	12	0	120	0	4	1156
Input Volume	3	456	1	115	500	11	1	120	3	3	1213
% of Volume	133	96	0	80	98	109	0	100	0	133	95

6: Warm Springs Road & Flower Drive Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.4
Delay / Veh (s)		1.0		9.2	6.5	5.2		4.3	5.1	2.9	4.5
Vehicles Entered	0	102	0	27	120	2	0	29	1	1	282
Vehicles Exited	0	102	0	27	122	2	0	29	1	1	284
Hourly Exit Rate	0	408	0	108	488	8	0	116	4	4	1136
Input Volume	3	407	1	103	446	10	1	107	3	3	1084
% of Volume	0	100	0	105	109	80	0	108	133	133	105

6: Warm Springs Road & Flower Drive Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Total Delay (hr)	0.0	0.1	0.0	0.3	0.9	0.0	0.0	0.1	0.0	0.0	1.4
Delay / Veh (s)	4.1	1.0	0.6	9.4	6.6	6.5		4.4	13.2	4.4	4.5
Vehicles Entered	2	418	2	100	468	10	0	117	2	3	1122
Vehicles Exited	2	417	2	98	465	10	0	117	2	3	1116
Hourly Exit Rate	2	417	2	98	465	10	0	117	2	3	1116
Input Volume	3	419	1	106	460	10	1	110	3	3	1116
% of Volume	67	99	200	92	101	98	0	106	67	100	100

8: Bald Mtn. Road & Flower Drive Performance by movement Interval #1 5:00

Movement	EBL	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	5.3	5.9	0.8	0.3	3.4
Vehicles Entered	16	14	1	21	52
Vehicles Exited	16	14	1	21	52
Hourly Exit Rate	64	56	4	84	208
Input Volume	60	47	6	98	211
% of Volume	107	119	67	86	99

8: Bald Mtn. Road & Flower Drive Performance by movement Interval #2 5:15

Movement	EBL	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	5.9	4.0	0.3	0.3	2.8
Vehicles Entered	16	11	1	25	53
Vehicles Exited	16	11	1	25	53
Hourly Exit Rate	64	44	4	100	212
Input Volume	60	47	6	98	211
% of Volume	107	94	67	102	100

8: Bald Mtn. Road & Flower Drive Performance by movement Interval #3 5:30

Movement	EBL	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	5.6	3.9	0.3	0.3	2.8
Vehicles Entered	17	12	1	23	53
Vehicles Exited	17	13	1	23	54
Hourly Exit Rate	68	52	4	92	216
Input Volume	67	52	7	110	236
% of Volume	101	100	57	84	92

8: Bald Mtn. Road & Flower Drive Performance by movement Interval #4 5:45

Movement	EBL	WBR	SBL	SBR	All
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Delay / Veh (s)	5.6	5.6	0.2	0.3	3.0
Vehicles Entered	18	11	2	26	57
Vehicles Exited	18	11	2	26	57
Hourly Exit Rate	72	44	8	104	228
Input Volume	60	47	6	98	211
% of Volume	120	94	133	106	108

8: Bald Mtn. Road & Flower Drive Performance by movement Entire Run

Movement	EBL	WBR	SBL	SBR	All
Total Delay (hr)	0.1	0.1	0.0	0.0	0.2
Delay / Veh (s)	5.7	4.8	0.4	0.3	3.0
Vehicles Entered	66	49	5	94	214
Vehicles Exited	66	49	5	94	214
Hourly Exit Rate	66	49	5	94	214
Input Volume	62	48	6	101	217
% of Volume	107	102	80	93	99

10: Saddle Drive & Warm Springs Road Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	0.6	0.0	0.1	0.1	0.2	0.0	0.0	0.2	0.0
Delay / Veh (s)	13.3	37.1	13.0	56.8	29.0	12.6	14.4	5.9	5.9	7.7	5.4	3.8
Vehicles Entered	1	1	6	35	2	30	30	122	2	8	110	23
Vehicles Exited	1	1	6	35	2	31	29	121	2	8	109	23
Hourly Exit Rate	4	4	24	140	8	124	116	484	8	32	436	92
Input Volume	3	4	23	143	8	125	110	488	5	32	433	88
% of Volume	133	100	104	98	100	99	105	99	160	100	101	105

10: Saddle Drive & Warm Springs Road Performance by movement Interval #1 5:00

Movement	All
Total Delay (hr)	1.2
Delay / Veh (s)	12.1
Vehicles Entered	370
Vehicles Exited	368
Hourly Exit Rate	1472
Input Volume	1462
% of Volume	101

10: Saddle Drive & Warm Springs Road Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	0.5	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.0
Delay / Veh (s)	15.3	26.9	8.2	47.5	17.1	10.9	13.4	6.4	7.8	7.0	5.0	4.4
Vehicles Entered	1	1	5	35	2	31	30	124	1	7	108	24
Vehicles Exited	1	1	5	35	2	30	28	126	1	7	108	23
Hourly Exit Rate	4	4	20	140	8	120	112	504	4	28	432	92
Input Volume	3	4	23	143	8	125	110	488	5	32	433	88
% of Volume	133	100	87	98	100	96	102	103	80	88	100	105

10: Saddle Drive & Warm Springs Road Performance by movement Interval #2 5:15

Movement	All
Total Delay (hr)	1.1
Delay / Veh (s)	10.9
Vehicles Entered	369
Vehicles Exited	367
Hourly Exit Rate	1468
Input Volume	1462
% of Volume	100

10: Saddle Drive & Warm Springs Road Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	0.8	0.0	0.2	0.1	0.2	0.0	0.0	0.2	0.0
Delay / Veh (s)	19.5	22.2	8.5	72.6	42.9	16.3	14.1	6.3	7.3	8.4	5.4	4.4
Vehicles Entered	1	1	5	40	3	35	28	135	1	8	116	25
Vehicles Exited	1	1	5	39	2	33	30	131	1	8	116	25
Hourly Exit Rate	4	4	20	156	8	132	120	524	4	32	464	100
Input Volume	3	4	26	160	9	140	123	547	5	36	483	99
% of Volume	133	100	77	98	89	94	98	96	80	89	96	101

10: Saddle Drive & Warm Springs Road Performance by movement Interval #3 5:30

Movement	All
Total Delay (hr)	1.6
Delay / Veh (s)	14.2
Vehicles Entered	398
Vehicles Exited	392
Hourly Exit Rate	1568
Input Volume	1635
% of Volume	96

10: Saddle Drive & Warm Springs Road Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.0	1.0	0.0	0.3	0.1	0.2	0.0	0.0	0.2	0.0
Delay / Veh (s)	20.3	24.5	9.0	88.8	39.6	28.8	15.2	5.9	4.8	7.0	5.1	3.8
Vehicles Entered	1	1	5	39	1	31	26	124	1	6	118	25
Vehicles Exited	1	1	4	39	1	32	26	127	1	7	116	25
Hourly Exit Rate	4	4	16	156	4	128	104	508	4	28	464	100
Input Volume	3	4	23	143	8	125	110	488	5	32	433	88
% of Volume	133	100	70	109	50	102	95	104	80	88	107	114

10: Saddle Drive & Warm Springs Road Performance by movement Interval #4 5:45

Movement	All
Total Delay (hr)	1.8
Delay / Veh (s)	16.8
Vehicles Entered	378
Vehicles Exited	380
Hourly Exit Rate	1520
Input Volume	1462
% of Volume	104

10: Saddle Drive & Warm Springs Road Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Total Delay (hr)	0.0	0.0	0.1	2.8	0.1	0.6	0.4	0.9	0.0	0.1	0.7	0.1
Delay / Veh (s)	17.1	27.7	9.4	67.2	27.2	17.3	14.1	6.1	5.3	7.8	5.2	4.1
Vehicles Entered	4	4	21	149	8	127	115	505	6	29	451	96
Vehicles Exited	4	4	21	147	8	127	113	505	6	30	449	96
Hourly Exit Rate	4	4	21	147	8	127	113	505	6	30	449	96
Input Volume	3	4	24	147	8	129	113	503	5	33	446	91
% of Volume	133	100	88	100	97	99	100	100	120	91	101	106

10: Saddle Drive & Warm Springs Road Performance by movement Entire Run

Movement	All
Total Delay (hr)	5.7
Delay / Veh (s)	13.5
Vehicles Entered	1515
Vehicles Exited	1510
Hourly Exit Rate	1510
Input Volume	1505
% of Volume	100

13: Warm Springs Road & Lewis Street Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.2	0.8	0.0	0.0	1.5	0.6	0.0	0.0	0.0	0.8	0.0	0.1
Delay / Veh (s)	68.8	17.9	9.2	27.2	43.2	37.4	29.8	13.8	9.3	30.7	29.9	16.9
Vehicles Entered	9	153	1	1	128	61	1	1	1	92	1	11
Vehicles Exited	8	151	1	1	129	60	1	1	1	90	1	11
Hourly Exit Rate	32	604	4	4	516	240	4	4	4	360	4	44
Input Volume	41	612	2	3	508	236	4	3	4	370	3	40
% of Volume	78	99	200	133	102	102	100	133	100	97	133	110

13: Warm Springs Road & Lewis Street Performance by movement Interval #1 5:00

Movement	All
Total Delay (hr)	3.9
Delay / Veh (s)	30.8
Vehicles Entered	460
Vehicles Exited	455
Hourly Exit Rate	1820
Input Volume	1826
% of Volume	100

13: Warm Springs Road & Lewis Street Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.2	0.7	0.0	0.0	1.5	0.6	0.0	0.0	0.0	0.9	0.0	0.0
Delay / Veh (s)	61.2	16.9		29.6	40.8	36.6	20.1	7.5	5.9	32.2	12.8	19.6
Vehicles Entered	10	156	1	1	131	59	1	1	2	96	0	9
Vehicles Exited	10	156	0	1	128	59	1	1	2	96	1	9
Hourly Exit Rate	40	624	0	4	512	236	4	4	8	384	4	36
Input Volume	41	612	2	3	508	236	4	3	4	370	3	40
% of Volume	98	102	0	133	101	100	100	133	200	104	133	90

13: Warm Springs Road & Lewis Street Performance by movement Interval #2 5:15

Movement	All
Total Delay (hr)	3.9
Delay / Veh (s)	30.2
Vehicles Entered	467
Vehicles Exited	464
Hourly Exit Rate	1856
Input Volume	1826
% of Volume	102

13: Warm Springs Road & Lewis Street Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.2	0.8	0.0	0.0	3.3	1.5	0.0	0.0	0.0	1.0	0.0	0.1
Delay / Veh (s)	73.8	17.4	14.3	107.4	85.7	79.9	21.5		16.6	35.9	30.4	22.6
Vehicles Entered	9	165	1	1	142	68	2	1	1	100	1	11
Vehicles Exited	9	167	1	1	136	65	2	0	1	99	1	11
Hourly Exit Rate	36	668	4	4	544	260	8	0	4	396	4	44
Input Volume	46	685	2	3	568	264	4	3	4	414	3	45
% of Volume	78	98	200	133	96	98	200	0	100	96	133	98

13: Warm Springs Road & Lewis Street Performance by movement Interval #3 5:30

Movement	All
Total Delay (hr)	6.9
Delay / Veh (s)	50.1
Vehicles Entered	502
Vehicles Exited	493
Hourly Exit Rate	1972
Input Volume	2041
% of Volume	97

13: Warm Springs Road & Lewis Street Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.3	0.8	0.0	0.0	2.4	0.9	0.0	0.0	0.0	0.9	0.0	0.1
Delay / Veh (s)	81.8	17.4	4.3	85.9	65.4	57.5	38.5	6.2	23.1	35.4	17.3	23.8
Vehicles Entered	12	158	1	1	128	56	1	0	1	91	1	11
Vehicles Exited	11	156	1	1	136	59	1	1	1	93	1	11
Hourly Exit Rate	44	624	4	4	544	236	4	4	4	372	4	44
Input Volume	41	612	2	3	508	236	4	3	4	370	3	40
% of Volume	107	102	200	133	107	100	100	133	100	101	133	110

13: Warm Springs Road & Lewis Street Performance by movement Interval #4 5:45

Movement	All
Total Delay (hr)	5.4
Delay / Veh (s)	41.3
Vehicles Entered	461
Vehicles Exited	472
Hourly Exit Rate	1888
Input Volume	1826
% of Volume	103

13: Warm Springs Road & Lewis Street Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.8	3.1	0.0	0.1	8.7	3.6	0.0	0.0	0.0	3.5	0.0	0.2
Delay / Veh (s)	71.8	17.4	11.6	83.4	59.3	53.7	26.3	14.4	12.1	33.6	30.1	20.8
Vehicles Entered	40	632	3	3	529	244	5	3	5	380	3	42
Vehicles Exited	38	631	3	3	528	243	5	3	5	378	3	42
Hourly Exit Rate	38	631	3	3	528	243	5	3	5	378	3	42
Input Volume	42	630	2	3	523	243	4	3	4	381	3	41
% of Volume	90	100	150	100	101	100	125	100	125	99	100	102

13: Warm Springs Road & Lewis Street Performance by movement Entire Run

Movement	All
Total Delay (hr)	20.1
Delay / Veh (s)	38.4
Vehicles Entered	1889
Vehicles Exited	1882
Hourly Exit Rate	1882
Input Volume	1880
% of Volume	100

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Total Delay (hr)	6.1	5.9	9.5	8.1	29.5
Delay / Veh (s)	42.2	39.9	59.9	54.4	49.2
Vehicles Entered	532	530	582	526	2171
Vehicles Exited	501	533	558	543	2140
Hourly Exit Rate	2004	2132	2232	2172	2140
Input Volume	8473	8473	9477	8473	8724
% of Volume	24	25	24	26	25

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #1

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	14	33
Average Queue (ft)	2	13
95th Queue (ft)	17	38
Link Distance (ft)	72	243
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #2

Movement	EB	B4	SB
Directions Served	LT	T	LR
Maximum Queue (ft)	43	2	31
Average Queue (ft)	8	0	14
95th Queue (ft)	52	4	39
Link Distance (ft)	72	3484	243
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #3

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	26	35
Average Queue (ft)	4	11
95th Queue (ft)	29	37
Link Distance (ft)	72	243
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Warm Springs Road & Four Seasons Way, Interval #4

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	22	30
Average Queue (ft)	3	12
95th Queue (ft)	25	37
Link Distance (ft)	72	243
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Warm Springs Road & Four Seasons Way, All Intervals

Movement	EB	B4	SB
Directions Served	LT	T	LR
Maximum Queue (ft)	61	2	38
Average Queue (ft)	4	0	12
95th Queue (ft)	33	2	38
Link Distance (ft)	72	3484	243
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Warm Springs Road & Flower Drive, Interval #1

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LR	LR
Maximum Queue (ft)	5	160	34	26
Average Queue (ft)	1	59	31	7
95th Queue (ft)	11	165	38	28
Link Distance (ft)	398	2881	32	426
Upstream Blk Time (%)			14	
Queuing Penalty (veh)			15	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Warm Springs Road & Flower Drive, Interval #2

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LR	LR
Maximum Queue (ft)	12	112	44	20
Average Queue (ft)	2	43	33	5
95th Queue (ft)	21	110	45	22
Link Distance (ft)	398	2881	32	426
Upstream Blk Time (%)			13	
Queuing Penalty (veh)			14	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Warm Springs Road & Flower Drive, Interval #3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LR	LR
Maximum Queue (ft)	14	107	43	17
Average Queue (ft)	2	42	32	3
95th Queue (ft)	18	104	44	18
Link Distance (ft)	398	2881	32	426
Upstream Blk Time (%)			14	
Queuing Penalty (veh)			17	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Warm Springs Road & Flower Drive, Interval #4

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LR	LR
Maximum Queue (ft)	8	125	43	26
Average Queue (ft)	1	56	33	6
95th Queue (ft)	16	139	41	25
Link Distance (ft)	398	2881	32	426
Upstream Blk Time (%)			13	
Queuing Penalty (veh)			14	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Warm Springs Road & Flower Drive, All Intervals

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LR	LR
Maximum Queue (ft)	36	192	54	32
Average Queue (ft)	1	50	32	5
95th Queue (ft)	17	132	42	24
Link Distance (ft)	398	2881	32	426
Upstream Blk Time (%)			14	
Queuing Penalty (veh)			15	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Bald Mtn. Road & Flower Drive, Interval #1

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	48	51
Average Queue (ft)	30	30
95th Queue (ft)	51	59
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Bald Mtn. Road & Flower Drive, Interval #2

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	52	48
Average Queue (ft)	30	28
95th Queue (ft)	56	54
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Bald Mtn. Road & Flower Drive, Interval #3

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	51	52
Average Queue (ft)	31	28
95th Queue (ft)	55	55
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Bald Mtn. Road & Flower Drive, Interval #4

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	49	50
Average Queue (ft)	33	28
95th Queue (ft)	54	55
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Bald Mtn. Road & Flower Drive, All Intervals

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	66	68
Average Queue (ft)	31	29
95th Queue (ft)	54	56
Link Distance (ft)	259	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #1

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	39	121	154	78	119
Average Queue (ft)	19	79	66	38	29
95th Queue (ft)	43	139	188	81	122
Link Distance (ft)	161		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		17	1	0	
Queuing Penalty (veh)		22	2	1	

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #2

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	32	118	135	72	99
Average Queue (ft)	16	70	50	37	22
95th Queue (ft)	37	128	156	74	85
Link Distance (ft)	161		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		11	0	0	
Queuing Penalty (veh)		15	1	2	

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #3

Movement	EB	WB	WB	SE	NW
Directions Served	LTR	L	TR	L	LTR
Maximum Queue (ft)	32	124	266	84	125
Average Queue (ft)	15	93	98	40	33
95th Queue (ft)	38	147	267	85	125
Link Distance (ft)	161		912		888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100		100	
Storage Blk Time (%)		28	0	0	
Queuing Penalty (veh)		42	0	2	

Intersection: 10: Saddle Drive & Warm Springs Road, Interval #4

Movement	EB	WB	WB	SE	SE	NW
Directions Served	LTR	L	TR	L	TR	LTR
Maximum Queue (ft)	30	121	295	78	26	71
Average Queue (ft)	15	94	144	35	4	22
95th Queue (ft)	38	156	403	80	51	81
Link Distance (ft)	161		912		2881	888
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100		100		
Storage Blk Time (%)		35	1	0		
Queuing Penalty (veh)		47	1	2		

Intersection: 10: Saddle Drive & Warm Springs Road, All Intervals

Movement	EB	WB	WB	SE	SE	NW
Directions Served	LTR	L	TR	L	TR	LTR
Maximum Queue (ft)	44	124	374	98	26	186
Average Queue (ft)	16	84	90	37	1	27
95th Queue (ft)	39	145	274	80	25	105
Link Distance (ft)	161		912		2881	888
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100		100		
Storage Blk Time (%)		23	1	0		
Queuing Penalty (veh)		31	1	2		

Intersection: 13: Warm Springs Road & Lewis Street, Interval #1

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	115	368	10	633	32	292	94
Average Queue (ft)	37	199	2	446	9	200	29
95th Queue (ft)	112	361	11	726	31	317	100
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	2	21		44		49	1
Queuing Penalty (veh)	13	9		1		20	2

Intersection: 13: Warm Springs Road & Lewis Street, Interval #2

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	76	337	10	637	21	332	112
Average Queue (ft)	34	198	1	421	4	212	26
95th Queue (ft)	81	342	9	728	24	342	98
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)				1			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	1	21		42		51	1
Queuing Penalty (veh)	6	9		1		20	2

Intersection: 13: Warm Springs Road & Lewis Street, Interval #3

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	108	375	50	977	33	349	86
Average Queue (ft)	39	223	8	727	10	228	29
95th Queue (ft)	110	372	58	1166	33	386	97
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)				12			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	1	23		47		50	1
Queuing Penalty (veh)	4	10		1		23	5

Intersection: 13: Warm Springs Road & Lewis Street, Interval #4

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	102	379	20	847	30	346	88
Average Queue (ft)	47	203	3	578	10	208	30
95th Queue (ft)	111	374	18	1001	36	384	91
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)				6			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	3	20	0	45		50	2
Queuing Penalty (veh)	20	8	0	1		20	6

Intersection: 13: Warm Springs Road & Lewis Street, All Intervals

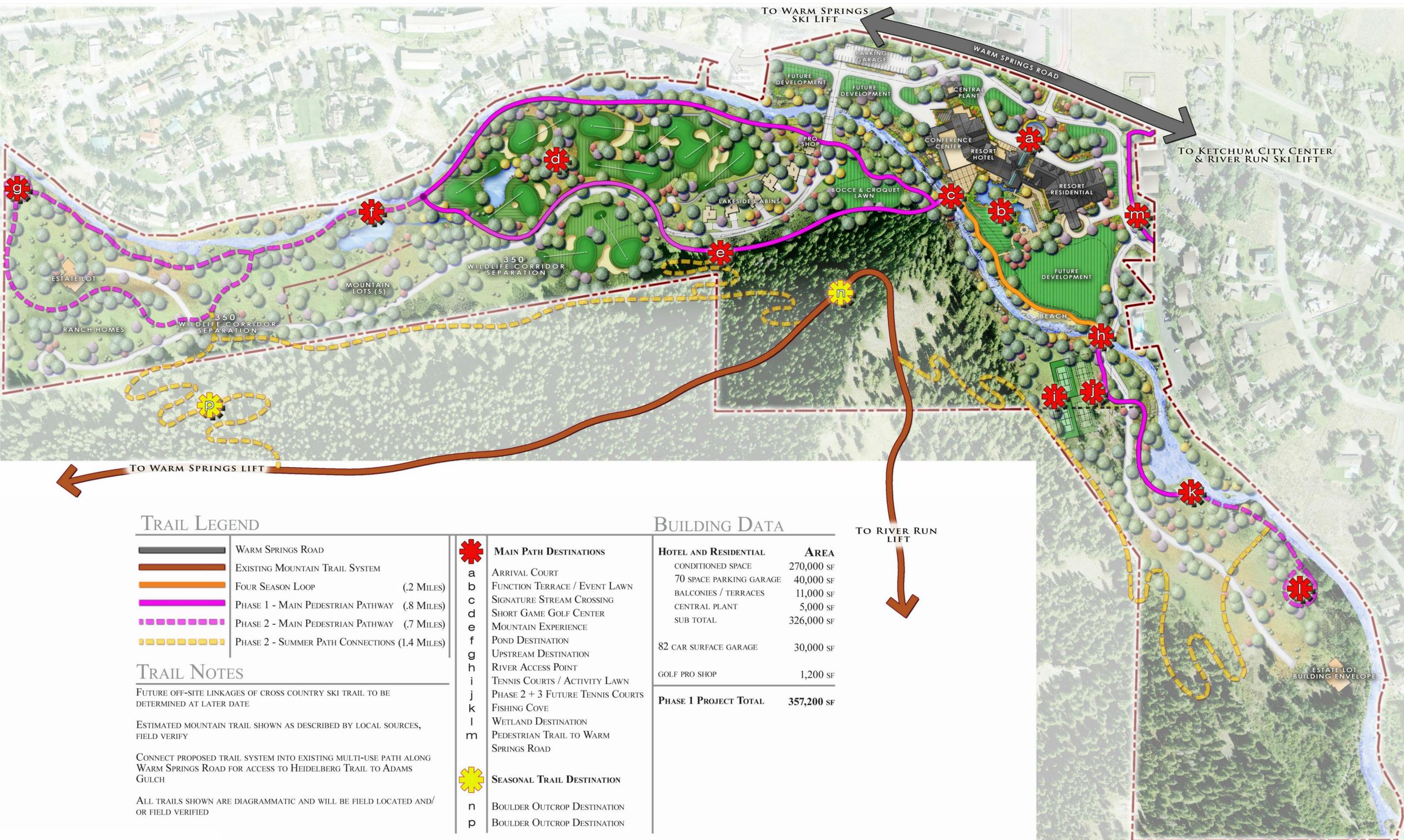
Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	LTR	LT	R
Maximum Queue (ft)	148	497	65	977	39	425	149
Average Queue (ft)	39	206	3	543	8	212	29
95th Queue (ft)	105	364	31	963	32	360	96
Link Distance (ft)		888		989	171	797	
Upstream Blk Time (%)				5			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	100		50				50
Storage Blk Time (%)	2	21	0	45		50	1
Queuing Penalty (veh)	11	9	0	1		21	4

Network Summary

Network wide Queuing Penalty, Interval #1: 86
 Network wide Queuing Penalty, Interval #2: 69
 Network wide Queuing Penalty, Interval #3: 105
 Network wide Queuing Penalty, Interval #4: 119
 Network wide Queuing Penalty, All Intervals: 95

APPENDIX C

Site Plan



TRAIL LEGEND

	WARM SPRINGS ROAD
	EXISTING MOUNTAIN TRAIL SYSTEM
	FOUR SEASON LOOP (.2 MILES)
	PHASE 1 - MAIN PEDESTRIAN PATHWAY (.8 MILES)
	PHASE 2 - MAIN PEDESTRIAN PATHWAY (.7 MILES)
	PHASE 2 - SUMMER PATH CONNECTIONS (1.4 MILES)

TRAIL NOTES

FUTURE OFF-SITE LINKAGES OF CROSS COUNTRY SKI TRAIL TO BE DETERMINED AT LATER DATE

ESTIMATED MOUNTAIN TRAIL SHOWN AS DESCRIBED BY LOCAL SOURCES, FIELD VERIFY

CONNECT PROPOSED TRAIL SYSTEM INTO EXISTING MULTI-USE PATH ALONG WARM SPRINGS ROAD FOR ACCESS TO HEIDELBERG TRAIL TO ADAMS GULCH

ALL TRAILS SHOWN ARE DIAGRAMMATIC AND WILL BE FIELD LOCATED AND/OR FIELD VERIFIED

	MAIN PATH DESTINATIONS
a	ARRIVAL COURT
b	FUNCTION TERRACE / EVENT LAWN
c	SIGNATURE STREAM CROSSING
d	SHORT GAME GOLF CENTER
e	MOUNTAIN EXPERIENCE
f	POND DESTINATION
g	UPSTREAM DESTINATION
h	RIVER ACCESS POINT
i	TENNIS COURTS / ACTIVITY LAWN
j	PHASE 2 + 3 FUTURE TENNIS COURTS
k	FISHING COVE
l	WETLAND DESTINATION
m	PEDESTRIAN TRAIL TO WARM SPRINGS ROAD
	SEASONAL TRAIL DESTINATION
n	BOULDER OUTCROP DESTINATION
p	BOULDER OUTCROP DESTINATION

BUILDING DATA

HOTEL AND RESIDENTIAL	AREA
CONDITIONED SPACE	270,000 SF
70 SPACE PARKING GARAGE	40,000 SF
BALCONIES / TERRACES	11,000 SF
CENTRAL PLANT	5,000 SF
SUB TOTAL	326,000 SF
82 CAR SURFACE GARAGE	30,000 SF
GOLF PRO SHOP	1,200 SF
PHASE 1 PROJECT TOTAL	357,200 SF



WARM SPRINGS RANCH RESORT
MASTER PLAN

WARM SPRINGS RANCH RESORT

Project Address:	WARM SPRINGS ROAD KETCHUM, IDAHO
Project Issue Date:	9/26/2011
Project Number:	AP1103
Project Status:	SCHEMATIC DESIGN
Reviewed By:	STAFF

NUM.	ISSUE TITLE	DATE
------	-------------	------

MASTER PLAN REFERENCE SHEET

MP-1100

NOT FOR CONSTRUCTION



VEHICULAR AND PEDESTRIAN BRIDGE
PHASE 1 MAIN PEDESTRIAN PATH

FUTURE DEVELOPMENT

FUTURE DEVELOPMENT

CENTRAL PLANT

SIGNAGE MONUMENT RESORT AND DIRECTIONAL SIGNAGE
DESIGNED TO COMPLIMENT RESORT BUILDINGS

MAIN ENTRY SPECIALTY PAVING

MAIN ENTRY WATERFEATURE

WARM SPRINGS ROAD BUFFER CONIFEROUS
AND DECIDUOUS TREES TO BUFFER ROADWAY
W/ BOULDER AND STONE RETAINING WALLS

SHORT GAME CENTER

PRO SHOP

CONFERENCE CENTER

RESORT HOTEL

RESORT RESIDENTIAL

FOUR SEASON PEDESTRIAN PATH
CONNECTING WARM SPRINGS ROAD
TO THE RESORT AND HOTEL

RESORT CABINS

BOCCE & CROQUET LAWN

LAWN

WATERFEATURE
REFLECTION POOL

FIRE FEATURES (TYP)

POOL CABANAS

FOUR SEASON PROMENADE-
COMBINATION OF STONE PAVERS AND WOODEN
BOARDWALKS ADJACENT TO WARM SPRINGS CREEK
DECORATIVE BRIDGE TRAIL CONNECTION
TO RESORT AND HOTEL

CREEK-SIDE LANDSCAPE NATIVE PLANT MATERIAL
WITHIN WARM SPRINGS CREEK EASEMENT

POOL AND SPA AREA

BEACH

PROPERTY BOUNDARY (TYP)

VEHICULAR AND
PEDESTRIAN BRIDGE

TENNIS
COURTS

FISHING
COVE

PHASE 2 SUMMER PATH

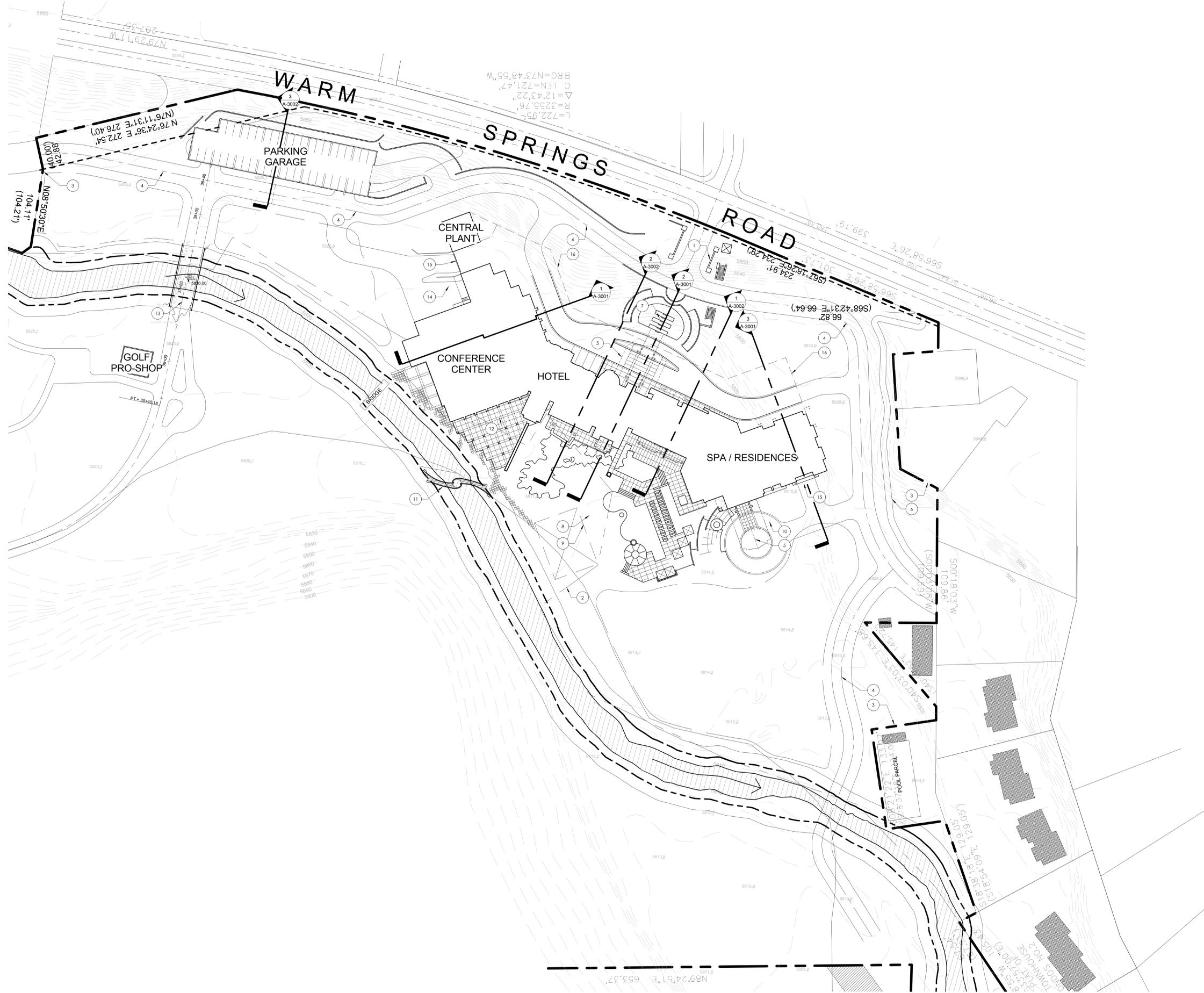
TRANSITIONAL LANDSCAPE PALETTE

BOTANICAL NAME	COMMON NAME	BOTANICAL NAME	COMMON NAME
DECIDUOUS TREES			
* BETULA SPECIES	BIRCH SPECIES	* ABIES BALSAMEA 'NANA'	BALSAM DWARF FIR
* HYDRANGEA PANICULATA 'GRANDIFLORA'	TREE HYDRANGEA	* BUXUS MICROPHYLLA X 'WINTER GEM'	WINTER GEM BOXWOOD
* MALUS SPECIES	CRABAPPLE SPECIES	* JUNIPERUS SPECIES	JUNIPER SPECIES
* POPULUS TREMULOIDES	POPKING ASPEN	* PINUS SPECIES	PINE SPECIES
* PRUNUS CERASIFERA 'NEWPORT'	NEWPORT PLUM	* PICEA ABIES 'PUMILA'	NORWAY PUMILA DWARF SPRUCE
* PRUNUS VIRGINIANA 'SHUBERT'	SHUBERT CHOCHECHERRY	* TAXUS X MEDIA 'TAUTONI'	TAUTON SPREADING YEW
* SALIX ALBA VITELLINA	GOLDEN WILLOW	VINES AND GROUND COVER	
* SORBUS SPECIES	MOUNTAIN ASH SPECIES	* ARCTOSTAPHYLOS UVA X URSI	KINCKADEENICK
* SYRINGA SPECIES	LILAC SPECIES	* LONICERA X BROWNIE 'DROPMORE SCARLET'	DROPMORE SCARLET HONEYSUCKLE
FRUIT TREES			
* MALUS SPECIES	APPLE SPECIES	* MAHONIA REPENS	CREEPING OREGON GRAPE
* PRUNUS SPECIES	APRICOT SPECIES	* PARTHENOCESSUS QUINQUEFOLIA	VIRGINIA CREEPER
* PRUNUS SPECIES	CHERRY SPECIES	* POLYGONUM ALBERTII	SILVER LACE VINE
* PRUNUS SPECIES	PLUM SPECIES	* VINCA MINOR	VINCA VINE
* PYRUS SPECIES	PEAR SPECIES	ANNUALS AND BULBS	
CONIFERS			
* ABIES SPECIES	FIR SPECIES	* ROCKY MOUNTAIN ANNUALS / BULBS	VARIOUS NATIVE ANNUALS / BULBS
* PICEA SPECIES	SPRUCE SPECIES	* NON-INDIGENOUS ANNUALS / BULBS	VARIOUS ANNUALS / BULBS
* PINUS SPECIES	PINE SPECIES	PLANTS DENOTED WITH AN * (ASTERISK) ARE NATIVE COMPATIBLE.	
SHRUBS			
* ACER SPECIES	MAPLE SPECIES	PLANTS DENOTED WITH A * (BULLET) ARE ENHANCED.	
* AMELANCHIER ALNIFOLIA 'REGENT'	REGENT SERVICEBERRY	LANDSCAPE NOTES	
* BERBERIS SPECIES	BARBERRY SPECIES	LANDSCAPE PLAN IS SCHEMATIC IN NATURE. ACTUAL PLANT LOCATIONS, QUANTITIES, AND SELECTIONS SHALL BE DETERMINED DURING THE DESIGN REVIEW PROCESS AND CONSTRUCTION DOCUMENT PHASE.	
* CORNUS ALBA 'BALHALO'	IVORY HALO DOGWOOD	SELECTIVE PLACEMENT OF TREES AND LARGE SHRUB MASSINGS WILL BE UTILIZED TO REDUCE AND/OR PREVENT THE SPREAD OF ANY POTENTIAL FIRES. LANDSCAPE SHALL ALSO BE DESIGNED TO PROVIDE CLEAR AND UNOBSTRUCTED ACCESS FOR EMERGENCY PERSONNEL IN THE EVENT OF A FIRE.	
* CORTYLIS AMERICANA	AMERICAN HAZELNUT	ADDITIONAL PLANT MATERIAL MAY BE INTRODUCED IF IT BECOMES AVAILABLE THROUGH LOCAL NURSERIES AND IF THEY ARE CONSISTENT WITH THE OVERALL THEME OF THE PROJECT.	
* COTONEASTER SPECIES	COTONEASTER SPECIES	ALL TREES USED ON THE PROJECT SHALL EITHER BE NURSERY GROWN OR SALVAGED FROM ON-SITE. EXACT QUANTITIES AND LOCATIONS SHALL BE DETERMINED DURING THE DESIGN REVIEW PROCESS AND CONSTRUCTION DOCUMENT PHASE.	
* DAPHNE MEZEREUM	FEBRUARY DAPHNE	TRANSITIONAL LANDSCAPE PALETTE SHALL CONSIST WITH THE ADJACENT PLANT LIST ALONG WITH THE PLANTS LISTED AS PART OF THE NATIVE PLANT PALETTE. ALL PLANTS UTILIZED WITHIN THE WARM SPRINGS CREEK EASEMENT SHALL BE FROM THE NATIVE PLANT PALETTES.	
* EUCONYMUS ALATA 'COMPACTA'	DWARF BURNING BUSH		
* FORSYTHIA X 'MEADOWLARK'	MEADOWLARK FORSYTHIA		
* HIPPOPHAE RHAMNOIDES	SEA BUCKTHORN		
* HYDRANGEA SPECIES	HYDRANGEA SPECIES		
* PHILADELPHUS LEWISII 'BLIZZARD'	BLIZZARD MOCKORANGE		
* PHYSOCARPUS OPULIFOLIUS 'DART'S GOLD'	DART'S GOLD NINEBARK		
* POTENTILLA SPECIES	POTENTILLA SPECIES		
* PRUNUS SPECIES	CHOCHECHERRY SPECIES		
* RHODODENDRON X 'N. LIGHTS'	NORTHERN LIGHTS SERIES AZALEA		
* RHUS SPECIES	SUMAC SPECIES		
* RIBES SPECIES	CURRANT SPECIES		
* ROSA SPECIES	ROSE SPECIES		
* SALIX SPP. 'FLAME'	FLAME WILLOW		
* SPIRAEA SPECIES	SPIRAEA SPECIES		
* SAMPHORICARPOS ALBUS	SNOWBERRY		
* SYRINGA SPECIES	LILAC SPECIES		
* VIBURNUM SPECIES	CRANBERRY BUSH SPECIES		

WARM SPRINGS RANCH RESORT
Project Address: WARM SPRINGS ROAD
KEICHUM, IDAHO
Project Issue Date: 9/26/2011
Project Number: AP1103
Project Status: SCHEMATIC DESIGN
Reviewed By: STAFF

NUM.	ISSUE TITLE	DATE

LANDSCAPE SITE PLAN



#	DESCRIPTION
1	RESORT ENTRY WITH DIRECTIONAL AND MONUMENT SIGNAGE
2	COUNTY / CITY LIMITS
3	PROPERTY LINE
4	CENTERLINE OF NEW ROAD
5	PORTE COCHERE
6	PEDESTRIAN PATH
7	MAIN ENTRY WATER FEATURE
8	EVENT LAWN
9	DASHED LINE INDICATES PORTABLE EVENT TENT
10	RESIDENTIAL DROP-OFF
11	DECORATIVE BRIDGE TRAIL CONNECTION
12	EVENT TERRACE
13	VEHICULAR AND PEDESTRIAN BRIDGE
14	LOADING DOCK
15	ENTRY TO UNDERGROUND GARAGE
16	DASHED LINE INDICATES PARKING GARAGE BELOW

WARM SPRINGS RANCH RESORT

Project Address: WARM SPRINGS ROAD
KECHUM, IDAHO
Project Issue Date: 10/3/2011
Project Number: AP1103
Project Status: SCHEMATIC DESIGN
Reviewed By: STAFF

NUM.	ISSUE TITLE	DATE

1 ARCHITECTURAL SITE PLAN
SCALE: 1" = 50'-0"

ARCHITECTURAL SITE PLAN

A-1110

NOT FOR CONSTRUCTION

APPENDIX D

95th Percentile Queue Length Reports

SimTraffic Queueing Report

Project: Ketchum Warm Springs Ranch Resort TIS

Time Period: PM Peak Hour

95th Percentile Queue Length (feet)

Intersection	Time Period	EB			NB	NE	NW	SB			SE	WB		
		L	LTR	TR	LR	LR	LTR	LR	LT	R	L	L	LT	TR
Saddle Drive & Warm Springs Road	Existing (2012) Background	--	36	--	--	--	33	--	--	--	37	49	--	39
Warm Springs Road & Bald Mountain Road	Existing (2012) Background	--	--	--	26	--	--	--	--	--	--	--	29	--
Warm Springs Road & Flower Drive	Existing (2012) Background	--	--	--	--	--	--	9	--	--	--	--	--	--
Warm Springs Road & Four Seasons Way	Existing (2012) Background	--	--	--	--	--	--	23	--	--	--	--	--	--
Warm Springs Road & Geezer Alley	Existing (2012) Background	--	--	--	--	4	--	--	--	--	--	--	6	--
Warm Springs Road & Lewis Street	Existing (2012) Background	43	--	170	14	--	--	--	129	35	--	--	--	199

SimTraffic Queueing Report

Project: Ketchum Warm Springs TS

Time Period: PM Peak Hour

95th Percentile Queue Length (feet)



Project #: UT11-316

Intersection	Time Period	EB				NB	NW	SB			SE	WB		
		L	LT	LTR	TR	LR	LTR	LR	LT	R	L	L	LTR	TR
Bald Mtn. Road & Flower Drive	Existing (2012) Plus Project	--	53	--	--	--	--	--	--	--	--	--	--	54
Saddle Drive & Warm Springs Road	Existing (2012) Plus Project	--	--	30	--	--	34	--	--	--	44	55	--	42
Warm Springs Road & Flower Drive	Existing (2012) Plus Project	--	--	--	--	46	--	8	--	--	--	--	70	--
Warm Springs Road & Lewis Street	Existing (2012) Plus Project	66	--	--	210	15	--	--	137	42	--	--	--	199

SimTraffic Queuing Report

Project: Ketchum Warm Springs TS

Time Period: PM Peak Hour

95th Percentile Queue Length (feet)



Project #: UT11-316

Intersection	Time Period	EB				NB		NE	NW	SB			SE		WB		
		L	LT	LTR	TR	LR	LTR	LR	LTR	LR	LT	R	L	TR	L	LT	TR
Saddle Drive & Warm Springs Road	Future (2018) Background - Mitigated	--	--	45	--	--	--	--	69	--	--	--	62	2	118	--	188
Warm Springs Road & Bald Mountain Road	Future (2018) Background - Mitigated	--	--	--	--	30	--	--	--	--	--	--	--	--	--	38	--
Warm Springs Road & Flower Drive	Future (2018) Background - Mitigated	--	16	--	--	--	--	--	--	22	--	--	--	--	--	--	--
Warm Springs Road & Four Seasons Way	Future (2018) Background - Mitigated	--	15	--	--	--	--	--	--	38	--	--	--	--	--	--	5
Warm Springs Road & Geezer Alley	Future (2018) Background - Mitigated	--	--	--	--	--	--	12	--	--	--	--	--	--	--	22	--
Warm Springs Road & Lewis Street	Future (2018) Background - Mitigated	86	--	--	290	--	29	--	--	--	277	81	--	--	11	--	766

SimTraffic Queuing Report
Project: Ketchum Warm Springs Ranch Resort TIS

Time Period: PM Peak Hour
 95th Percentile Queue Length (feet)



Project #: UT11-316

Intersection	Time Period	B4	EB			NB		NW	SB			SE		WB			
		T	L	LT	LTR	TR	LR	LTR	LTR	LR	LT	R	L	TR	L	LTR	TR
Bald Mtn. Road & Flower Drive	Existing (2018) Plus Project	--	--	54	--	--	--	--	--	--	--	--	--	--	--	--	56
Saddle Drive & Warm Springs Road	Existing (2018) Plus Project	--	--	--	39	--	--	--	105	--	--	--	80	25	145	--	274
Warm Springs Road & Flower Drive	Existing (2018) Plus Project	--	--	--	17	--	42	--	--	24	--	--	--	--	--	132	--
Warm Springs Road & Four Seasons Way	Existing (2018) Plus Project	2	--	33	--	--	--	--	--	38	--	--	--	--	--	--	--
Warm Springs Road & Lewis Street	Existing (2018) Plus Project	--	105	--	--	364	--	32	--	--	360	96	--	--	31	--	963