

Legacy Mountain
Snow Basin Road
Traffic Impact Study

Ogden Valley, Utah

August 2021



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TRAFFIC STUDY



Legacy Mountain Snow Basin Road Traffic Impact Analysis

Ogden Valley, Utah

Category II

August 2021

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I. Introduction and Summary

This traffic impact analysis is for the proposed Legacy Mountain Subdivision located on the west side of Snow Basin Road in Ogden Valley, Utah. The site is planned to include 48 single family units and is projected to generate 36 AM and 48 PM peak hour trips and 453 daily trips. The site is planning 2 accesses to Old Basin Road, one at the existing Quail Lane and one at the existing Quail Hollow. The site will tie into Quail Lane via Nighthawk Lane and Quail Hollow via Legacy Drive.

SR 39 / Snow Basin Road currently operates with NBLR at LOS B or better in the AM and PM peak period. This is maintained with the addition of the site. In 2027 with and without the site the intersection operates with NBLR at LOS B or better in the AM and PM peak period. Site traffic increases the total intersection traffic by 13% in the AM peak period and 11% in the PM peak period. The addition of the WBL turn lane does not improve the operations of the intersection but will improve safety as it removes decelerating traffic out of the 55 MPH through lane. Snow Basin Road / Quail Lane operates with LOS A or better for all movements in 2022 and 2027.

Recommendations:

At the intersection of SR 39 and Old Basin Road a westbound left turn deceleration lane is recommended per UDOT standards for a Category 4 roadway. The current volumes exceed the threshold for this improvement and the additional traffic generated by the site will increase the need for this improvement. The proposed development is projected to double the amount of westbound left turn movements in the peak period.

II. Proposed Project

The proposed Legacy Mountain Subdivision is planned to include 48 single family units and is projected to generated 36 AM and 48 PM peak hour trips and 453 daily trips. The site is located on the west side of Snow Basin Road in Ogden Valley, Utah. The site is planning 2 accesses to Old Basin Road, one at the existing Quail Lane and one at the existing Quail Hollow. Quail Lane is located approximately 650 feet south of SR 39. The site will tie into Quail Lane via Nighthawk Lane. Quail Hollow is located approximately 1150 feet south of Quail Lane. The site will tie into Quail Hollow via Legacy Drive. Legacy Drive is proposed approximately 210 feet west of Snow Basin Road.

III. Study Area Conditions

The study area includes the following intersection.

- SR 39 / Snow Basin Road
- Quail Lane / Snow Basin Road (Site Access)

SR 39

SR 39 is currently a 2 lane facility with one lane in each direction. The 2019 AADT is 4,200 vehicles per day with a posted speed limit is 55 MPH. It is classified by UDOT as a Category 4 roadway.

Snow Basin Road

Snow Basin Road (Rt 3469) is currently a 2 lane facility with one lane in each direction. The 2019 AADT is 350 vehicles per day with a posted speed limit is 30 MPH.

The site location and conceptual site plan is shown in Figure 1. The access spacing is shown in Figure 2 and the existing geometry is shown in Figure 3.





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Figure 3

Existing Geometry

IV. Analysis of Existing Condition

The existing traffic counts were performed August 17, 2021 during the AM (7:00 – 9:00 AM) and PM (4:00 – 6:00 PM) peak periods. The 2021 Existing Traffic volumes used in the study are shown in Figure 4.

The 6th Edition Highway Capacity Manual defines the Level of Service (LOS) for both signalized and unsignalized intersections as a range of average experienced delay. LOS is a qualitative rating of traveler satisfaction from A to F whereby LOS A is good and LOS F poor. Table 1 shows the LOS range by delay for unsignalized and signalized intersections and accesses.

Table 1: Intersection LOS-Delay Relationship

	Unsignalized	Signalized
Level of Service	Total Delay per Vehicle (sec)	Total Delay per Vehicle (sec)
A	≤ 10.0	≤ 10.0
B	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
C	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
E	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	> 50.0	> 80.0

SR 39 / Snow Basin Road currently operates with NBLR at LOS A in the AM and LOS B in the PM peak period. Table 2 shows the Existing LOS.

Table 2: Existing Level of Service

Intersection	Delay (sec/veh)	
SR 39 / Snow Basin Road (NBLR)	9.3	A
	11.5	B

AM (PM)

Legend

N.T.S.

SR 39

SNOW BASIN ROAD

A
N

2000 ft

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Figure 4

Existing Traffic

V. Projected Traffic

A. Trip Generation

Trip generation for the site was done using The Institute of Transportation Engineers (ITE) *Trip Generation* (10th Edition) handbook. The site is planned to include 48 single family units and is projected to generated 36 AM and 48 PM peak hour trips and 453 daily trips. The trip generation for the site is shown in Table 3.

Table 3: Trip Generation for Site

Land Use Type	Density	Land Use #	Trip Rate	Trips	% In	% Out	Trips In	Trips Out
AM								
Single Family	48 Units	210	0.74	36	25%	75%	9	27
PM								
Single Family	48 Units	210	0.99	48	63%	37%	30	18
Daily								
Single Family	48 Units	210	9.44	453				

B. Trip Distribution

Project site traffic was applied to the origin-destination (O-D) for the site. Origin-destination was determined from evaluating the existing traffic patterns and hourly traffic volumes on each leg of the included intersections as well as the location of retail centers and freeways relative to this site. This was used as a baseline for origin destination and engineering judgment was applied to this to determine the following OD for the site. Origin Destination is shown in Figure 5. Site trip distribution is shown in Figure 6.

- 55% to/from west on SR 39
- 45% to/from east on SR 39

Snow Basin Road south of SR 39 is generating traffic similar to approximately 65 single family homes, approximately half of these homes were assigned to Quail Lane as existing traffic. While some site traffic may use Quail Hollow, to provide a conservative analysis all site traffic was placed a Quail Lane.



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Figure 5

Origin Destination

VI. Growth

Growth in the area was determined from the 2019 Traffic Counts and 2050 projections from Wasatch Front Regional Council. The volumes utilized to determine growth in the area is shown in Table 4. Based on this data an average annual growth of 1.04% was found. The growth factor for 2027 is 1.06.

Table 4: Growth Projections

	SR 39 (West)	SR 39 (East)	Snow Basin Road
2019	4200	3900	350
2050	5800	4700	550
Growth	1.05%	0.60%	1.47%

Background traffic is determined by multiplying the existing traffic by the growth factor for 2027. 2027 Background Traffic is shown in Figure 7. Total traffic in the area for the future projection years is derived by adding the non-site volume forecasts to the site trip distribution. 2022 Total Traffic is shown in Figure 8. 2027 Total Traffic is shown in Figure 9.

AM (PM)

Legend

SR 39

SNOW BASIN ROAD



2000 ft

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Figure 7

2027 Background Traffic

AM (PM)

Legend

N.T.S.

SR 39

SNOW BASIN ROAD

(37) 37

(1) 1

24/4

(44) (14)

(1) (9)

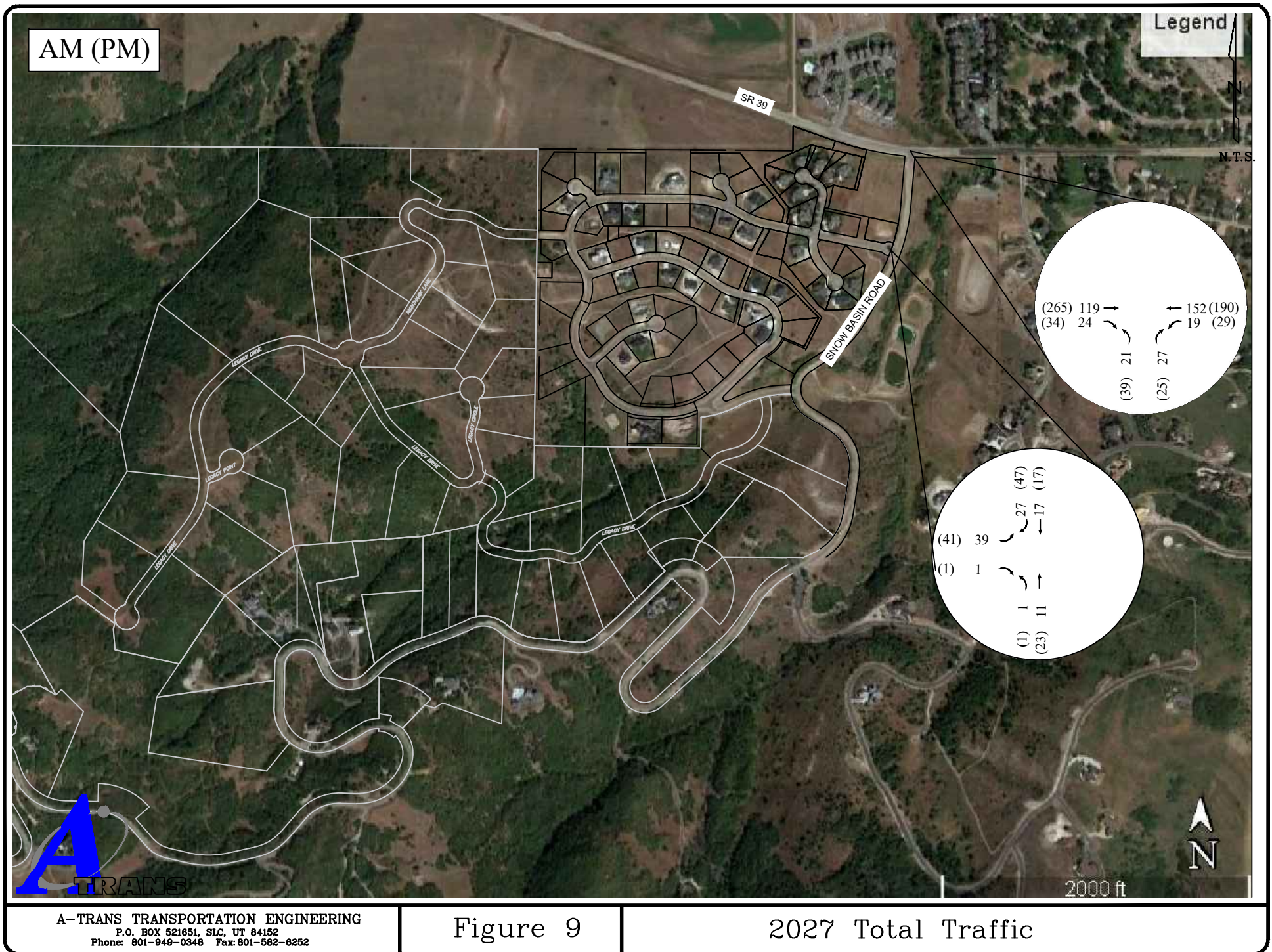


2000 ft

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Figure 8

2022 Total Traffic



VII. Traffic Analysis

A. Level of Service Analysis

The intersection and access analysis evaluates the performance of each intersection and access using the measure of performance of delay and level of service (LOS). Tables 5-7 show the intersection and access analysis.

Analysis Results

- SR 39 / Snow Basin Road currently operates with NBLR at LOS B or better in the AM and PM peak period. This is maintained with the addition of the site. In 2027 with and without the site the intersection operates with NBLR at LOS B or better in the AM and PM peak period. Site traffic increases the total intersection traffic by 13% in the AM peak period and 11% in the PM peak period. The addition of the WBL turn lane does not improve the operations of the intersection but will improve safety as it removes decelerating traffic out of the 55 MPH through lane.
- Snow Basin Road / Quail Lane operates with LOS A or better for all movements in 2022 and 2027.

Table 5: SR 39 / Snow Basin Road Intersection Analysis

		NBLR		WBLT	
2021 Existing	AM	9.3	A	7.5	A
	PM	11.5	B	7.8	A
2022 Total	AM	9.7	A	7.5	A
	PM	12.0	B	7.9	A
2027 Background	AM	9.4	A	7.5	A
	PM	11.7	B	7.9	A
2027 Total	AM	10.0	B	7.6	A
	PM	13.1	B	8.1	A
2027 Total (With Separate WBL)	AM	10.0	B	7.6	A
	PM	13.1	B	8.1	A

Table 6: Snow Basin Road / Quail Lane Intersection Analysis

		NBLT		EBLR	
2021 Existing	AM	7.3	A	8.9	A
	PM	7.3	A	9.0	A
2022 Total	AM	7.4	A	9.1	A
	PM	7.4	A	9.2	A
2027 Background	AM	7.3	A	8.9	A
	PM	7.3	A	9.0	A
2027 Total	AM	7.4	A	9.1	A
	PM	7.4	A	9.3	A

B. Queue Analysis

Based on the projected traffic, queue storage length requirements can be evaluated to determine if sufficient storage space exists to accommodate the projected demand. The intersection and accesses included in this traffic study are analyzed for queue storage capacity utilizing the HCM analysis and are done through Synchro. The EBR at SR 39 / Snow Basin Road is expected to have a queue of 1 vehicle (25 feet), 150 feet are provided. The recommended WBL turn lane is expected to have a queue of 1 vehicle (25 feet), a minimum of 100 feet plus taper is recommended.

C. Access and Roadway Category

According to the UDOT, SR 390 is categorized as a Category 4 roadway. As per UDOT Administrative Rule R930-6, signal spacing is required at 2,640 feet, street spacing is required at 660 feet and access spacing is required at 500 feet or by variance. The site is utilizing Snow Basin Road which ties into SR 39 at an unsignalized location.

According to UDOT Administrative Rule R930-6 a Category 4 roadway requires:

- A left turn deceleration lane with taper and storage length is required for any access with a projected peak hour left ingress turning volume greater than 10 vehicles per hour. The taper length must be included in the required deceleration length.
- A right turn deceleration lane and taper length is required for any access with a projected peak hour right ingress turning volume greater than 25 vehicles per hour. The taper length must be included in the required deceleration length.
- A right turn acceleration lane and taper length is required for any access with a projected peak hour right turning volume greater than 50 vehicles per hour when the posted speed on the highway is greater than 40 mph. The taper length must be included in the required acceleration length. A right turn acceleration lane may also be required at a signalized intersection if a free-right turn is needed to maintain an appropriate level of service for the intersection.
- Right turn deceleration and acceleration lanes are generally not required on roadways with three or more travel lanes in the direction of the right turn.
- A left turn acceleration lane may be required if it will be a benefit to the safety and operation of the roadway.
- A left turn acceleration lane is generally not required where the posted speed is less than 45 mph, the intersection is signalized, or the acceleration lane would interfere with the left turn ingress movements to any other access.

The current volumes for the westbound left turn deceleration lane at SR 39 and Old Basin Road exceed the threshold for this improvement and the additional traffic generated by the site will increase the need for this improvement.

VIII. Conclusions

This analysis is for the proposed Legacy Mountain Subdivision located on the west side of Snow Basin Road in Ogden Valley, Utah. The site is planned to include 48 single family units and is projected to generated 36 AM and 48 PM peak hour trips and 453 daily trips. The site is planning 2 accesses to Old Basin Road, one at the existing Quail Lane and one at the existing Quail Hollow. The site will tie into Quail Lane via Nighthawk Lane and Quail Hollow via Legacy Drive.

The following comments are made about the site:

- SR 39 / Snow Basin Road currently operates with NBLR at LOS B or better in the AM and PM peak period. This is maintained with the addition of the site. In 2027 with and without the site the intersection operates with NBLR at LOS B or better in the AM and PM peak period. Site traffic increases the total intersection traffic by 13% in the AM peak period and 11% in the PM peak period. The addition of the WBL turn lane does not improve the operations of the intersection but will improve safety as it removes decelerating traffic out of the 55 MPH through lane.
- Snow Basin Road / Quail Lane operates with LOS A or better for all movements in 2022 and 2027.
- The current volumes for the westbound left turn deceleration lane at SR 39 and Old Basin Road exceed the threshold for this improvement and the additional traffic generated by the site will increase the need for this improvement.
- The recommended WBL turn lane is expected to have a queue of 1 vehicle (25 feet), a minimum of 100 feet plus taper is recommended.

Recommendations:

At the intersection of SR 39 and Old Basin Road a westbound left turn deceleration lane is recommended per UDOT standards for a Category 4 roadway. The current volumes exceed the threshold for this improvement and the additional traffic generated by the site will increase the need for this improvement. The proposed development is projected to double the amount of westbound left turn movements in the peak period.



APPENDICES

Appendix A	Traffic Counts and Projections
Appendix B	Without Site Intersection Analyses
Appendix C	With Site Intersection Analysis



Appendix A Traffic Counts and Projections

AM PEAK HOUR VOLUMES

INTERSECTION: **Snow Basin Road** and **SR 39**

Ped = 0

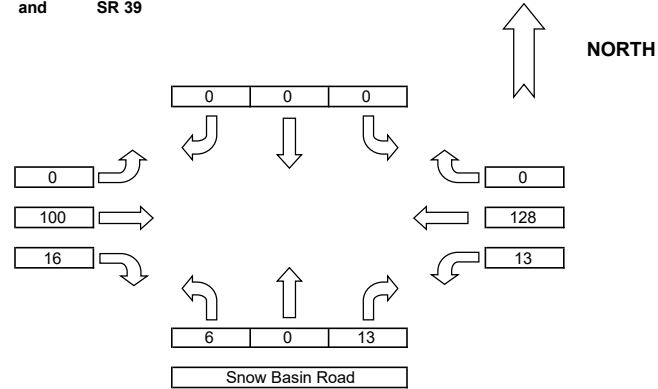
N-S STREET: **Snow Basin Road**
E-W STREET: **SR 39**

PK HR VOLUME:	276
PHF:	0.92
PEAK HOUR:	
FROM: TO:	
8:00 AM 9:00 AM	

COUNT DATE: **August 17, 2021**
Day of the Week: **Tuesday**
NOTES:

COUNT TIME:
FROM: **7:00 AM**
TO: **9:00 AM**

SR 39



AM Traffic

COUNT DATA INPUT:

Name: Barry

Name: Barry

Name: Barry

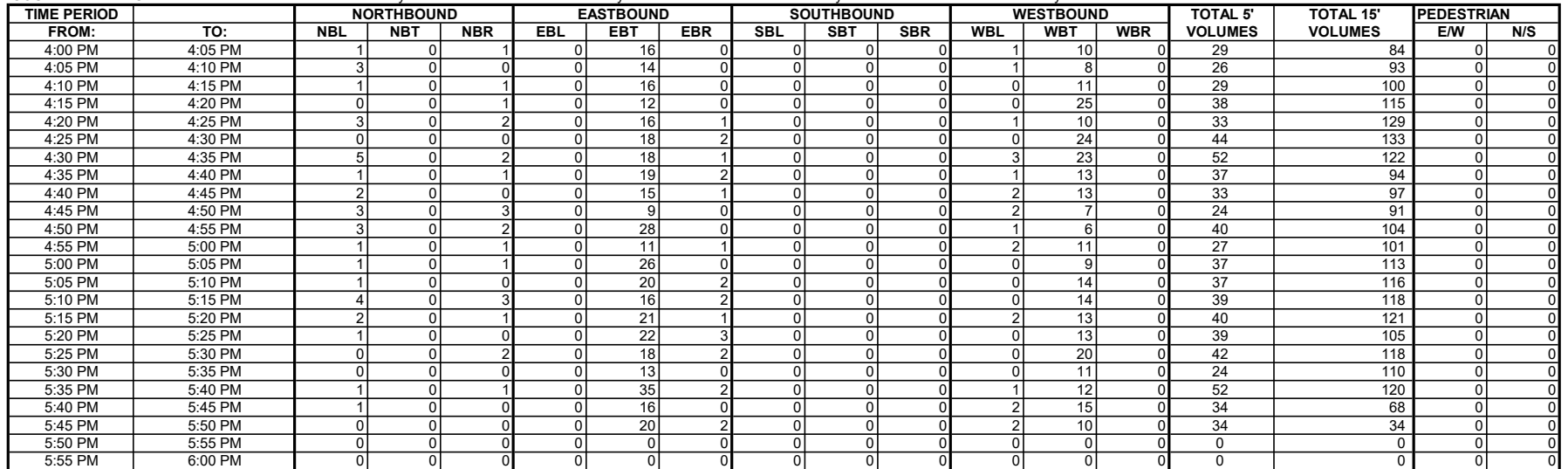
Name: Barry

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5' VOLUMES	TOTAL 15' VOLUMES	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR			E/W	N/S
7:00 AM	7:05 AM	0	0	0	0	13	3	0	0	0	1	10	0	27	69	0	0
7:05 AM	7:10 AM	1	0	1	0	7	1	0	0	0	0	12	0	22	63	0	0
7:10 AM	7:15 AM	1	0	1	0	10	1	0	0	0	1	6	0	20	76	0	0
7:15 AM	7:20 AM	1	0	0	0	7	0	0	0	0	2	11	0	21	73	0	0
7:20 AM	7:25 AM	4	0	0	0	11	1	0	0	0	2	17	0	35	70	0	0
7:25 AM	7:30 AM	3	0	0	0	6	3	0	0	0	1	4	0	17	58	0	0
7:30 AM	7:35 AM	1	0	0	0	5	1	0	0	0	0	11	0	18	64	0	0
7:35 AM	7:40 AM	0	0	2	0	6	0	0	0	0	0	15	0	23	68	0	0
7:40 AM	7:45 AM	0	0	2	0	3	1	0	0	0	1	16	0	23	66	0	0
7:45 AM	7:50 AM	0	0	0	0	8	2	0	0	0	2	10	0	22	69	0	0
7:50 AM	7:55 AM	1	0	0	0	5	2	0	0	0	2	11	0	21	72	0	0
7:55 AM	8:00 AM	0	0	0	0	12	1	0	0	0	2	11	0	26	67	0	0
8:00 AM	8:05 AM	1	0	1	0	10	2	0	0	0	1	10	0	25	67	0	0
8:05 AM	8:10 AM	0	0	1	0	5	0	0	0	0	1	9	0	16	57	0	0
8:10 AM	8:15 AM	0	0	0	0	9	1	0	0	0	0	16	0	26	66	0	0
8:15 AM	8:20 AM	0	0	0	0	7	0	0	0	0	2	6	0	15	69	0	0
8:20 AM	8:25 AM	1	0	1	0	6	2	0	0	0	1	14	0	25	75	0	0
8:25 AM	8:30 AM	0	0	1	0	13	1	0	0	0	2	12	0	29	75	0	0
8:30 AM	8:35 AM	0	0	4	0	6	4	0	0	0	0	7	0	21	66	0	0
8:35 AM	8:40 AM	2	0	2	0	9	2	0	0	0	1	9	0	25	66	0	0
8:40 AM	8:45 AM	0	0	1	0	6	0	0	0	0	0	13	0	20	66	0	0
8:45 AM	8:50 AM	2	0	1	0	9	0	0	0	0	2	7	0	21	74	0	0
8:50 AM	8:55 AM	0	0	1	0	7	0	0	0	0	1	16	0	25	53	0	0
8:55 AM	9:00 AM	0	0	0	0	13	4	0	0	0	2	9	0	28	28	0	0

INTERSECTION: **Snow Basin Road** and **SR 39**

NORTH

SR 39



TRIP GENERATION

ITE 10th Ed	Size	Land Use	Trip Rate			Trips			In / Out %				New			
			AM	PM	Daily	AM	PM	Daily	AM IN	AM Out	PM IN	PM OUT	AM IN	AM Out	PM IN	PM OUT
Single Family	48.000	210	0.74	0.99	9.44	36	48	453	25%	75%	63%	37%	9	27	30	18
			0	0	0	0	0	0	0%	0%	0%	0%	0	0	0	0
			0	0	0	0	0	0	0%	0%	0%	0%	0	0	0	0
Total						36	48	453					9	27	30	18

Long Term Growth

1.04%	Growth Factor	Years	Analysis Year
	1.01	1	2022
	1.06	6	2027
	1.22	19	2040

Straight line growth assumed between 2016 and 2040

SR 39 (West)			
2019	4,200	Traffic on Utah Highways	
2050	5,800	Wasatch Front Regional Council	
growth	1.05%		

SR 39 (East)			
2019	3,900	Traffic on Utah Highways	
2050	4,700	Wasatch Front Regional Council	
growth	0.60%		

Snow Basin Road			
2019	350	Traffic on Utah Highways	
2050	550	Wasatch Front Regional Council	
growth	1.47%		

2019	51.61	4200	
2020	51.61	4252	1.23%
2021	51.61	4303	1.21%
2022	51.61	4355	1.20%
2023	51.61	4406	1.19%
2024	51.61	4458	1.17%
2025	51.61	4510	1.16%
2026	51.61	4561	1.14%
2027	51.61	4613	1.13%
2028	51.61	4665	1.12%
2029	51.61	4716	1.11%
2030	51.61	4768	1.09%
2031	51.61	4819	1.08%
2032	51.61	4871	1.07%
2033	51.61	4923	1.06%
2034	51.61	4974	1.05%
2035	51.61	5026	1.04%
2036	51.61	5077	1.03%
2037	51.61	5129	1.02%
2038	51.61	5181	1.01%
2039	51.61	5232	1.00%
2040	51.61	5284	0.99%
2041	51.61	5335	0.98%
2042	51.61	5387	0.97%
2043	51.61	5439	0.96%
2044	51.61	5490	0.95%
2045	51.61	5542	0.94%
2046	51.61	5594	0.93%
2047	51.61	5645	0.92%
2048	51.61	5697	0.91%
2049	51.61	5748	0.91%
2050	51.61	5800	0.90%
			1.05%

2019	25.81	3900	
2020	25.81	3926	0.66%
2021	25.81	3952	0.66%
2022	25.81	3977	0.65%
2023	25.81	4003	0.65%
2024	25.81	4029	0.64%
2025	25.81	4055	0.64%
2026	25.81	4081	0.64%
2027	25.81	4106	0.63%
2028	25.81	4132	0.63%
2029	25.81	4158	0.62%
2030	25.81	4184	0.62%
2031	25.81	4210	0.62%
2032	25.81	4235	0.61%
2033	25.81	4261	0.61%
2034	25.81	4287	0.61%
2035	25.81	4313	0.60%
2036	25.81	4339	0.60%
2037	25.81	4365	0.59%
2038	25.81	4390	0.59%
2039	25.81	4416	0.59%
2040	25.81	4442	0.58%
2041	25.81	4468	0.58%
2042	25.81	4494	0.58%
2043	25.81	4519	0.57%
2044	25.81	4545	0.57%
2045	25.81	4571	0.57%
2046	25.81	4597	0.56%
2047	25.81	4623	0.56%
2048	25.81	4648	0.56%
2049	25.81	4674	0.56%
2050	25.81	4700	0.55%
			0.60%

2019	6.45	350	
2020	6.45	356	1.84%
2021	6.45	363	1.81%
2022	6.45	369	1.78%
2023	6.45	376	1.75%
2024	6.45	382	1.72%
2025	6.45	389	1.69%
2026	6.45	395	1.66%
2027	6.45	402	1.63%
2028	6.45	408	1.61%
2029	6.45	415	1.58%
2030	6.45	421	1.56%
2031	6.45	427	1.53%
2032	6.45	434	1.51%
2033	6.45	440	1.49%
2034	6.45	447	1.47%
2035	6.45	453	1.44%
2036	6.45	460	1.42%
2037	6.45	466	1.40%
2038	6.45	473	1.38%
2039	6.45	479	1.37%
2040	6.45	485	1.35%
2041	6.45	492	1.33%
2042	6.45	498	1.31%
2043	6.45	505	1.29%
2044	6.45	511	1.28%
2045	6.45	518	1.26%
2046	6.45	524	1.25%
2047	6.45	531	1.23%
2048	6.45	537	1.22%
2049	6.45	544	1.20%
2050	6.45	550	1.19%
			1.47%

Trip Distribution

SR 39 / Snow Basin Road 1.19					
	2021	Site	2022	2027	2027
AM	Existing	Traffic	Total	Growth	Total
EBL			0	0	0
EBT	100		100	119	119
EBR	16	5	21	19	24
WBL	13	4	17	15	19
WBT	128		128	152	152
WBR			0	0	0
NBL	6	15	21	7	22
NBT			0	0	0
NBR	13	12	25	15	27
SBL			0	0	0
SBT			0	0	0
SBR			0	0	0

East 254 302
 West 250 298
 North 0 0
 South 48 57

	2021	Site	2022	2027	2027
PM	Existing	Traffic	Total	Growth	Total
EBL			0	0	0
EBT	223		223	265	265
EBR	15	16	31	18	34
WBL	13	14	27	15	29
WBT	160		160	190	190
WBR			0	0	0
NBL	24	10	34	29	39
NBT			0	0	0
NBR	14	8	22	17	25
SBL			0	0	0
SBT			0	0	0
SBR			0	0	0

East 410 488
 West 422 502
 North 0 0
 South 66 79

13.04%

Snow Basin Road / Quail Lane 1.19					
	2021	Site	2022	2027	2027
AM	Existing	Traffic	Total	Growth	Total
EBL	10	27	37	12	39
EBT			0	0	0
EBR	1		1	1	1
WBL			0	0	0
WBT			0	0	0
WBR			0	0	0
NBL	1		1	1	1
NBT	9		9	11	11
NBR			0	0	0
SBL			0	0	0
SBT	14		14	17	17
SBR	15	9	24	18	27

East 0 0
 West 27 32
 North 48 57
 South 25 30

72.00%

	2021	Site	2022	2027	2027
PM	Existing	Traffic	Total	Growth	Total
EBL	19	18	37	23	41
EBT			0	0	0
EBR	1		1	1	1
WBL			0	0	0
WBT			0	0	0
WBR			0	0	0
NBL	1		1	1	1
NBT	19		19	23	23
NBR			0	0	0
SBL			0	0	0
SBT	14		14	17	17
SBR	14	30	44	17	47

East 0 0
 West 35 42
 North 66 79
 South 35 42

70.59%

ArcGIS ▾ UDOT Access Category Identification Map

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Details

Basemap

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UT-39, Ogden, UT, 84401, USA

Legend

ROW Access Categories

UDOT Access Category
Identification

- Category 1
- Category 2
- Category 3
- Category 4
- Category 5
- Category 6
- Category 7
- Category 8

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Appendix B Without Site Intersection Analyses

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	100	16	13	128	6	13
Future Vol, veh/h	100	16	13	128	6	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	17	14	139	7	14

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	126
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1460
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1460
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	854	-	-	1460	-
HCM Lane V/C Ratio	0.024	-	-	0.01	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
2: Snow Basin Road & Quail Lane

08/24/2021

Intersection

Int Delay, s/veh 2.1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 10 1 1 9 14 15

Future Vol, veh/h 10 1 1 9 14 15

Conflicting Peds, #/hr 0 0 0 0 0 14

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 11 1 1 10 15 16

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 49 37 45 0 - 0

Stage 1 37 - - - - -

Stage 2 12 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 960 1035 1563 - - -

Stage 1 985 - - - - -

Stage 2 1011 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 934 1021 1542 - - -

Mov Cap-2 Maneuver 934 - - - - -

Stage 1 971 - - - - -

Stage 2 998 - - - - -

Approach EB NB SB

HCM Control Delay, s 8.9 0.7 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1542 - 941 - -

HCM Lane V/C Ratio 0.001 - 0.013 - -

HCM Control Delay (s) 7.3 0 8.9 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0 - -

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	223	15	13	160	24	14
Future Vol, veh/h	223	15	13	160	24	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	265	18	15	190	29	17

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	283
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1279
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1279
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	603	-	-	1279	-
HCM Lane V/C Ratio	0.075	-	-	0.012	-
HCM Control Delay (s)	11.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
2: Snow Basin Road & Quail Lane

08/24/2021

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	1	1	19	14	14
Future Vol, veh/h	19	1	1	19	14	14
Conflicting Peds, #/hr	0	0	0	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	1	1	23	17	17

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	65	40	48
Stage 1	40	-	-
Stage 2	25	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	941	1031	1559
Stage 1	982	-	-
Stage 2	998	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	916	1017	1538
Mov Cap-2 Maneuver	916	-	-
Stage 1	968	-	-
Stage 2	985	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1538	-	921	-	-
HCM Lane V/C Ratio	0.001	-	0.026	-	-
HCM Control Delay (s)	7.3	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	100	16	13	128	6	13
Future Vol, veh/h	100	16	13	128	6	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	115	18	15	147	7	15

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	133
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1452
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1452
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	842	-	-	1452	-
HCM Lane V/C Ratio	0.026	-	-	0.01	-
HCM Control Delay (s)	9.4	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
2: Snow Basin Road & Quail Lane

08/24/2021

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	1	1	9	14	15
Future Vol, veh/h	10	1	1	9	14	15
Conflicting Peds, #/hr	0	0	0	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	1	1	10	16	17

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	51	39	47
Stage 1	39	-	-
Stage 2	12	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	958	1033	1560
Stage 1	983	-	-
Stage 2	1011	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	932	1019	1539
Mov Cap-2 Maneuver	932	-	-
Stage 1	969	-	-
Stage 2	998	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1539	-	939	-	-
HCM Lane V/C Ratio	0.001	-	0.013	-	-
HCM Control Delay (s)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	223	15	13	160	24	14
Future Vol, veh/h	223	15	13	160	24	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	281	19	16	202	30	18

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	300
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1261
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1261
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	582	-	-	1261	-
HCM Lane V/C Ratio	0.082	-	-	0.013	-
HCM Control Delay (s)	11.7	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th TWSC
2: Snow Basin Road & Quail Lane

08/24/2021

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	1	1	19	14	14
Future Vol, veh/h	19	1	1	19	14	14
Conflicting Peds, #/hr	0	0	0	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	1	1	24	18	18

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	67	41	50
Stage 1	41	-	-
Stage 2	26	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	938	1030	1557
Stage 1	981	-	-
Stage 2	997	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	913	1016	1536
Mov Cap-2 Maneuver	913	-	-
Stage 1	967	-	-
Stage 2	984	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1536	-	918	-	-
HCM Lane V/C Ratio	0.001	-	0.027	-	-
HCM Control Delay (s)	7.3	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Appendix C With Site Intersection Analyses

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	100	21	17	128	21	25
Future Vol, veh/h	100	21	17	128	21	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	23	18	139	23	27

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	132
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1453
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1453
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	813	-	-	1453	-
HCM Lane V/C Ratio	0.062	-	-	0.013	-
HCM Control Delay (s)	9.7	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
2: Snow Basin Road & Quail Lane

08/24/2021

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	1	1	9	14	24
Future Vol, veh/h	37	1	1	9	14	24
Conflicting Peds, #/hr	0	0	0	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	1	1	10	15	26

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	54	42	55
Stage 1	42	-	-
Stage 2	12	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	954	1029	1550
Stage 1	980	-	-
Stage 2	1011	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	928	1015	1529
Mov Cap-2 Maneuver	928	-	-
Stage 1	966	-	-
Stage 2	998	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1529	-	930	-	-
HCM Lane V/C Ratio	0.001	-	0.044	-	-
HCM Control Delay (s)	7.4	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	223	31	27	160	34	22
Future Vol, veh/h	223	31	27	160	34	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	265	37	32	190	40	26

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	302
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1259
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1259
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	583	-	-	1259	-
HCM Lane V/C Ratio	0.114	-	-	0.026	-
HCM Control Delay (s)	12	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

HCM 6th TWSC
2: Snow Basin Road & Quail Lane

08/24/2021

Intersection

Int Delay, s/veh 3.1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 37 1 1 19 14 44

Future Vol, veh/h 37 1 1 19 14 44

Conflicting Peds, #/hr 0 0 0 0 0 14

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 84 84 84 84 84 84

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 44 1 1 23 17 52

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 82 57 83 0 - 0

Stage 1 57 - - - - -

Stage 2 25 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 920 1009 1514 - - -

Stage 1 966 - - - - -

Stage 2 998 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 895 996 1494 - - -

Mov Cap-2 Maneuver 895 - - - - -

Stage 1 952 - - - - -

Stage 2 985 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.2 0.4 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1494 - 897 - -

HCM Lane V/C Ratio 0.001 - 0.05 - -

HCM Control Delay (s) 7.4 0 9.2 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	119	24	19	152	22	27
Future Vol, veh/h	119	24	19	152	22	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	129	26	21	165	24	29

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	155
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1425
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1425
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	775	-	-	1425	-
HCM Lane V/C Ratio	0.069	-	-	0.014	-
HCM Control Delay (s)	10	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
2: Snow Basin Road & Quail Lane

08/24/2021

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	1	1	11	17	27
Future Vol, veh/h	39	1	1	11	17	27
Conflicting Peds, #/hr	0	0	0	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	1	1	12	18	29
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	61	47	61	0	-	0
Stage 1	47	-	-	-	-	-
Stage 2	14	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	945	1022	1542	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	919	1008	1521	-	-	-
Mov Cap-2 Maneuver	919	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	996	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.1	0.6		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1521	-	921	-	-	
HCM Lane V/C Ratio	0.001	-	0.047	-	-	
HCM Control Delay (s)	7.4	0	9.1	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	265	34	29	190	39	25
Future Vol, veh/h	265	34	29	190	39	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	315	40	35	226	46	30

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	355
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1204
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1204
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	522	-	-	1204	-
HCM Lane V/C Ratio	0.146	-	-	0.029	-
HCM Control Delay (s)	13.1	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

HCM 6th TWSC
2: Snow Basin Road & Quail Lane

08/24/2021

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	1	1	23	17	47
Future Vol, veh/h	41	1	1	23	17	47
Conflicting Peds, #/hr	0	0	0	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	1	1	27	20	56

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	91	62	90	0	-	0
Stage 1	62	-	-	-	-	-
Stage 2	29	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	909	1003	1505	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	994	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	884	990	1485	-	-	-
Mov Cap-2 Maneuver	884	-	-	-	-	-
Stage 1	948	-	-	-	-	-
Stage 2	981	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1485	-	886	-	-
HCM Lane V/C Ratio	0.001	-	0.056	-	-
HCM Control Delay (s)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	119	24	19	152	22	27
Future Vol, veh/h	119	24	19	152	22	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	129	26	21	165	24	29

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	155
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1425
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1425
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	775	-	-	1425	-
HCM Lane V/C Ratio	0.069	-	-	0.014	-
HCM Control Delay (s)	10	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
1: Snow Basin Road & SR 39

08/24/2021

Intersection

Int Delay, s/veh 1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	265	34	29	190	39	25
Future Vol, veh/h	265	34	29	190	39	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	315	40	35	226	46	30

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	355
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1204
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1204
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	523	-	-	1204	-
HCM Lane V/C Ratio	0.146	-	-	0.029	-
HCM Control Delay (s)	13.1	-	-	8.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-