Appendix

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D1
Site Code : Day 1
Start Date : 2/15/2020
Page No : 1

Groups Printed- General Traffic

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
07:45 AM	71	123	0	194	19	4	0	23	2	18	0	20	237
Total	71	123	0	194	19	4	0	23	2	18	0	20	237
08:00 AM	110	101	0	211	34	2	0	36	5	21	1	27	274
08:15 AM	124	70	0	194	29	2	0	31	5	26	0	31	256
08:30 AM	117	55	0	172	53	10	0	63	4	29	0	33	268
08:45 AM	125	46	0	171	48	7	0	55	6	32	4	42	268
Total	476	272	0	748	164	21	0	185	20	108	5	133	1066
09:00 AM	111	35	0	146	54	7	0	61	2	31	0	33	240
09:15 AM	94	27	0	121	51	6	0	57	4	31	0	35	213
09:30 AM	77	42	0	119	55	13	0	68	4	43	0	47	234

Total	282	104	0	386	160	26	0	186	10	105	0	115	687

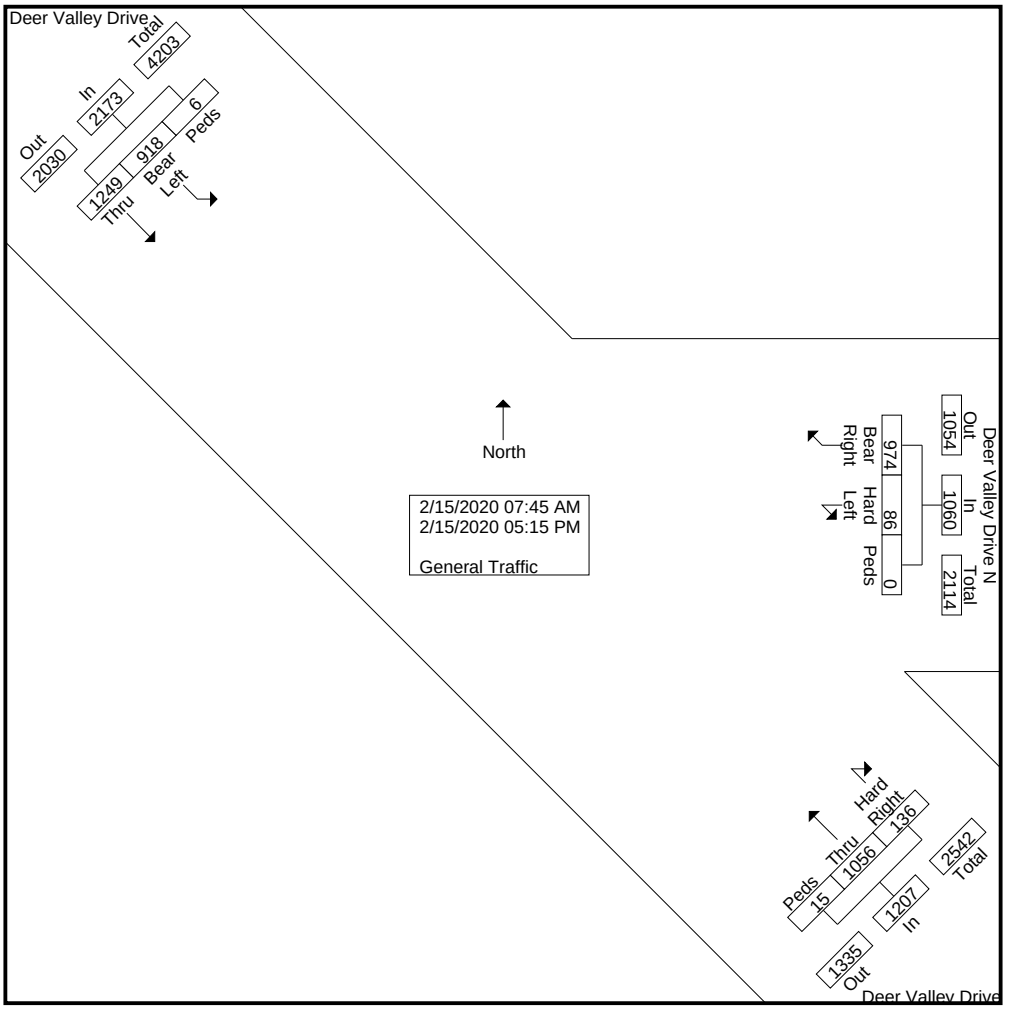
03:30 PM	81	47	0	128	67	4	0	71	13	69	0	82	281
03:45 PM	55	50	0	105	81	7	0	88	16	98	3	117	310
Total	136	97	0	233	148	11	0	159	29	167	3	199	591
04:00 PM	66	41	0	107	83	8	0	91	11	130	0	141	339
04:15 PM	46	49	6	101	73	3	0	76	18	155	0	173	350
04:30 PM	46	68	0	114	104	2	0	106	13	109	1	123	343
04:45 PM	54	58	0	112	71	5	0	76	13	91	2	106	294
Total	212	216	6	434	331	18	0	349	55	485	3	543	1326
05:00 PM	42	51	0	93	89	2	0	91	11	95	4	110	294
05:15 PM	30	55	0	85	63	4	0	67	9	78	0	87	239
Grand Total	1249	918	6	2173	974	86	0	1060	136	1056	15	1207	4440
Apprch %	57.5	42.2	0.3		91.9	8.1	0		11.3	87.5	1.2		
Total %	28.1	20.7	0.1	48.9	21.9	1.9	0	23.9	3.1	23.8	0.3	27.2	

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D1
Site Code : Day 1
Start Date : 2/15/2020
Page No : 2



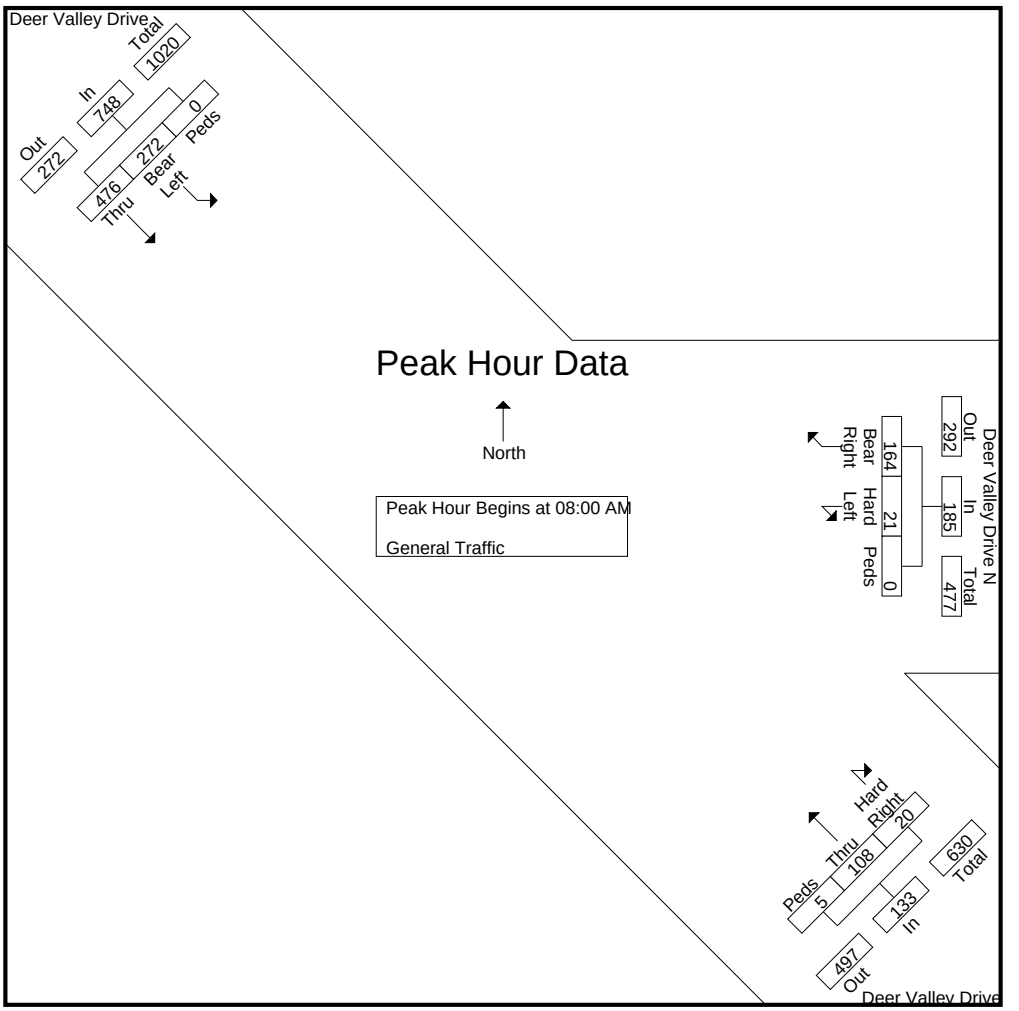
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D1
Site Code : Day 1
Start Date : 2/15/2020
Page No : 3

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 07:45 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	110	**101**	0	**211**	34	2	0	36	5	21	1	27	**274**
08:15 AM	124	70	0	194	29	2	0	31	5	26	0	31	256
08:30 AM	117	55	0	172	**53**	**10**	0	**63**	4	29	0	33	268
08:45 AM	**125**	46	0	171	48	7	0	55	**6**	**32**	**4**	**42**	268
Total Volume	476	272	0	748	164	21	0	185	20	108	5	133	1066
% App. Total	63.6	36.4	0		88.6	11.4	0		15	81.2	3.8		
PHF	.952	.673	.000	.886	.774	.525	.000	.734	.833	.844	.313	.792	.973



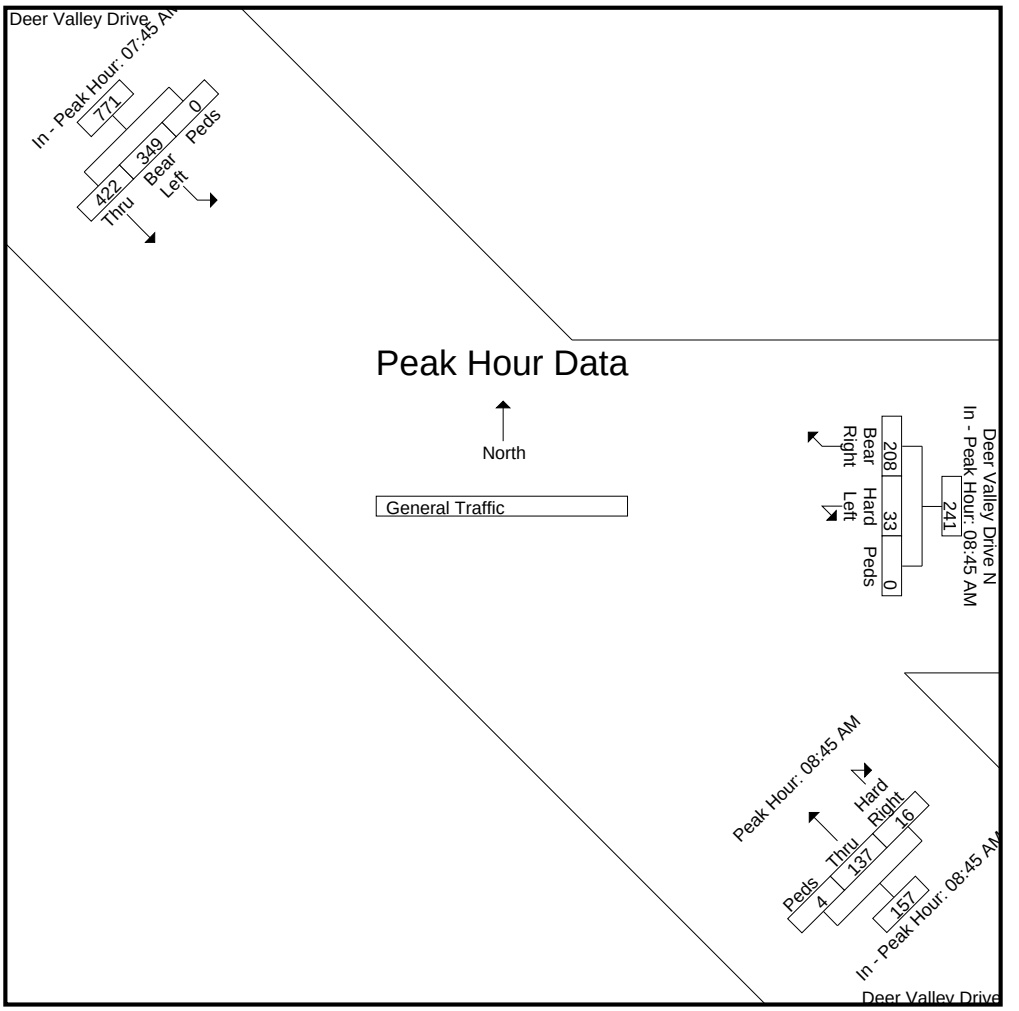
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D1
Site Code : Day 1
Start Date : 2/15/2020
Page No : 4

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 07:45 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	07:45 AM				08:45 AM				08:45 AM				
+0 mins.	71	**123**	0	194	48	7	0	55	**6**	32	**4**	42	
+15 mins.	110	101	0	**211**	54	7	0	61	2	31	0	33	
+30 mins.	**124**	70	0	194	51	6	0	57	4	31	0	35	
+45 mins.	117	55	0	172	**55**	**13**	0	**68**	4	**43**	0	**47**	
Total Volume	422	349	0	771	208	33	0	241	16	137	4	157	
% App. Total	54.7	45.3	0		86.3	13.7	0		10.2	87.3	2.5		
PHF	.851	.709	.000	.914	.945	.635	.000	.886	.667	.797	.250	.835	



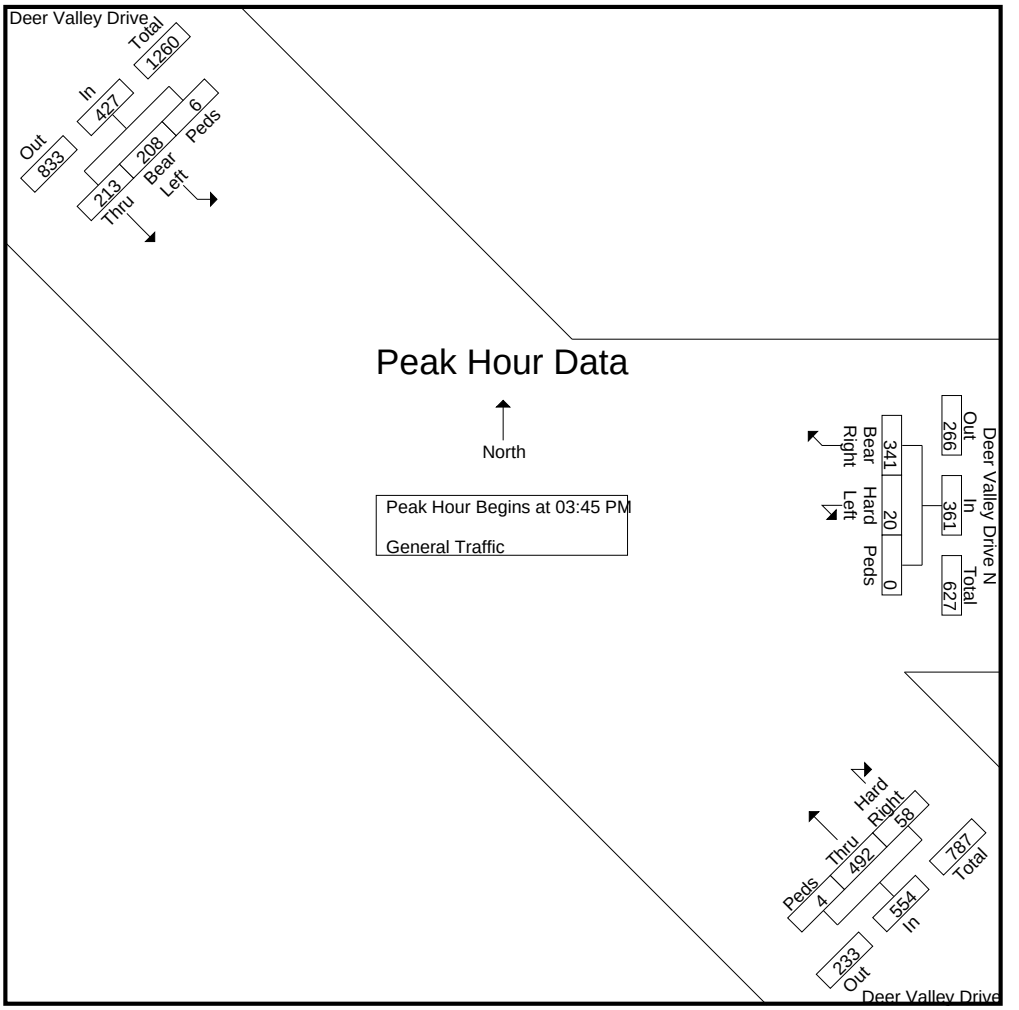
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D1
Site Code : Day 1
Start Date : 2/15/2020
Page No : 5

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 12:00 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 03:45 PM													
03:45 PM	55	50	0	105	81	7	0	88	16	98	**3**	117	310
04:00 PM	**66**	41	0	107	83	**8**	0	91	11	130	0	141	339
04:15 PM	46	49	**6**	101	73	3	0	76	**18**	**155**	0	**173**	**350**
04:30 PM	46	**68**	0	**114**	**104**	2	0	**106**	13	109	1	123	343
Total Volume	213	208	6	427	341	20	0	361	58	492	4	554	1342
% App. Total	49.9	48.7	1.4		94.5	5.5	0		10.5	88.8	0.7		
PHF	.807	.765	.250	.936	.820	.625	.000	.851	.806	.794	.333	.801	.959



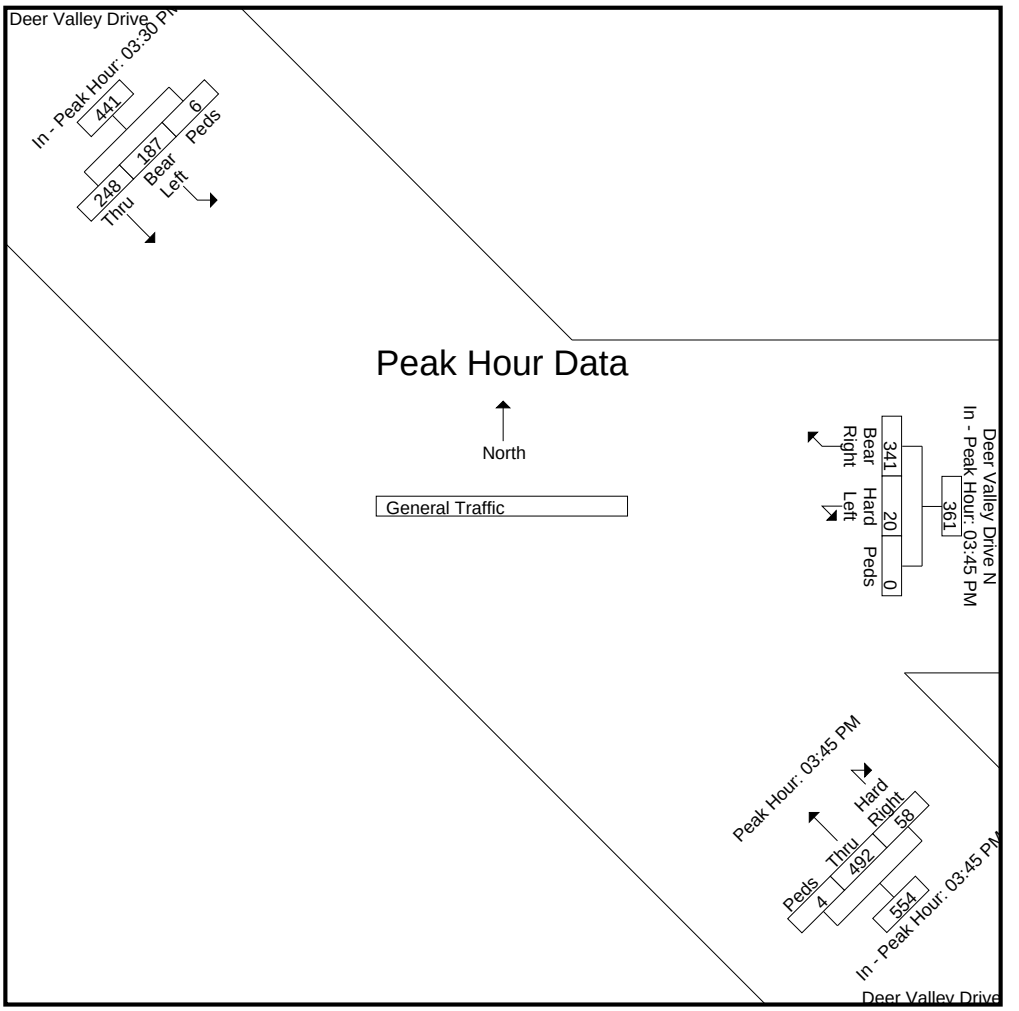
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D1
Site Code : Day 1
Start Date : 2/15/2020
Page No : 6

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 12:00 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	03:30 PM				03:45 PM				03:45 PM				
+0 mins.	**81**	47	0	**128**	81	7	0	88	16	98	**3**	117	
+15 mins.	55	**50**	0	105	83	**8**	0	91	11	130	0	141	
+30 mins.	66	41	0	107	73	3	0	76	**18**	**155**	0	**173**	
+45 mins.	46	49	**6**	101	**104**	2	0	**106**	13	109	1	123	
Total Volume	248	187	6	441	341	20	0	361	58	492	4	554	
% App. Total	56.2	42.4	1.4		94.5	5.5	0		10.5	88.8	0.7		
PHF	.765	.935	.250	.861	.820	.625	.000	.851	.806	.794	.333	.801	



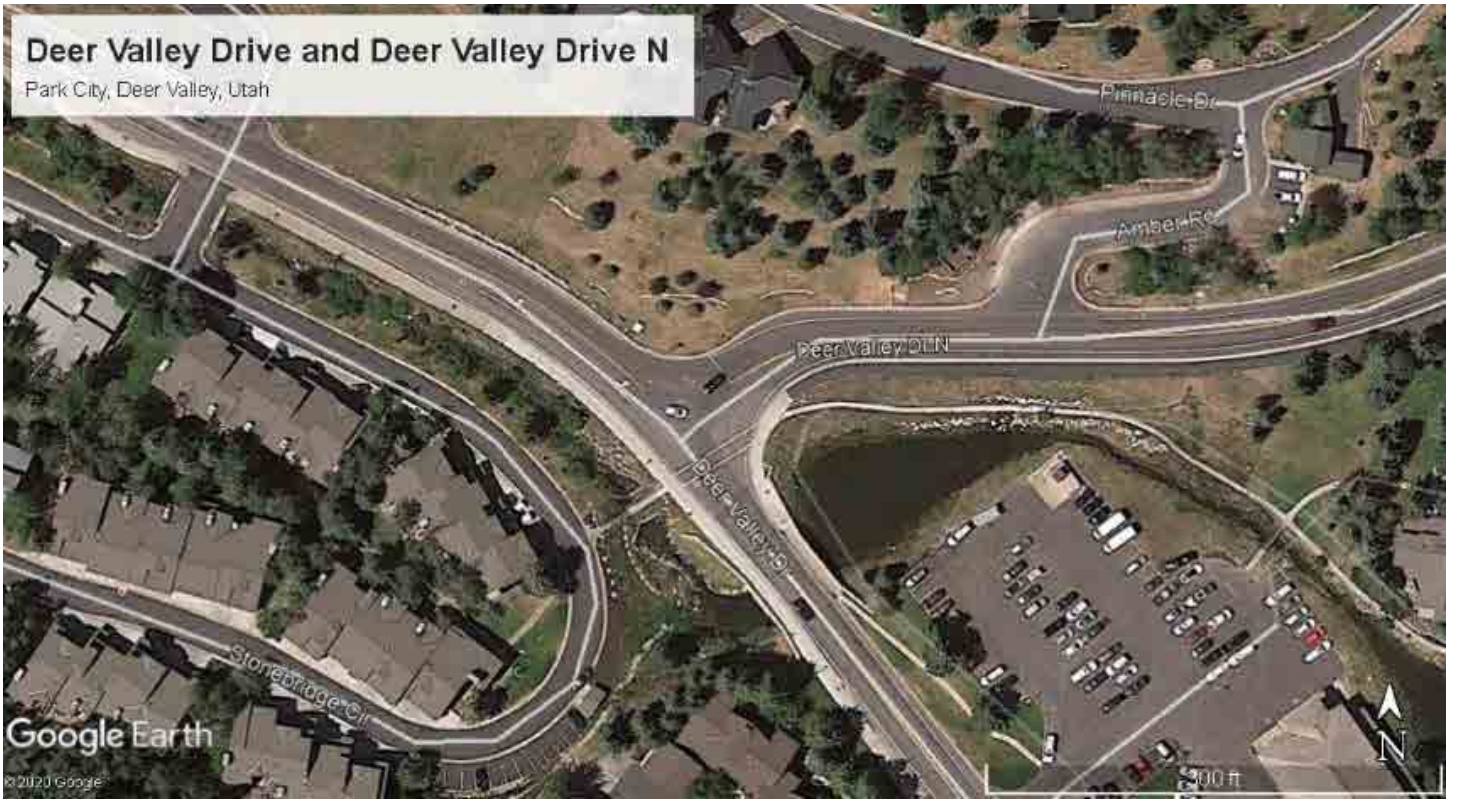
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D1
Site Code : Day 1
Start Date : 2/15/2020
Page No : 7

Image 1



L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D2
Site Code : Day 2
Start Date : 2/29/2020
Page No : 1

Groups Printed- General Traffic

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
07:45 AM	53	73	0	126	21	1	0	22	2	21	0	23	171
Total	53	73	0	126	21	1	0	22	2	21	0	23	171
08:00 AM	104	59	0	163	38	0	0	38	2	19	0	21	222
08:15 AM	150	70	0	220	32	1	0	33	3	19	0	22	275
08:30 AM	160	35	0	195	36	5	0	41	5	33	0	38	274
08:45 AM	173	39	0	212	38	1	0	39	2	48	0	50	301
Total	587	203	0	790	144	7	0	151	12	119	0	131	1072
09:00 AM	144	32	0	176	50	0	0	50	5	47	1	53	279
09:15 AM	128	36	0	164	53	4	0	57	2	42	0	44	265
09:30 AM	149	35	0	184	43	5	0	48	2	31	1	34	266

Total	421	103	0	524	146	9	0	155	9	120	2	131	810

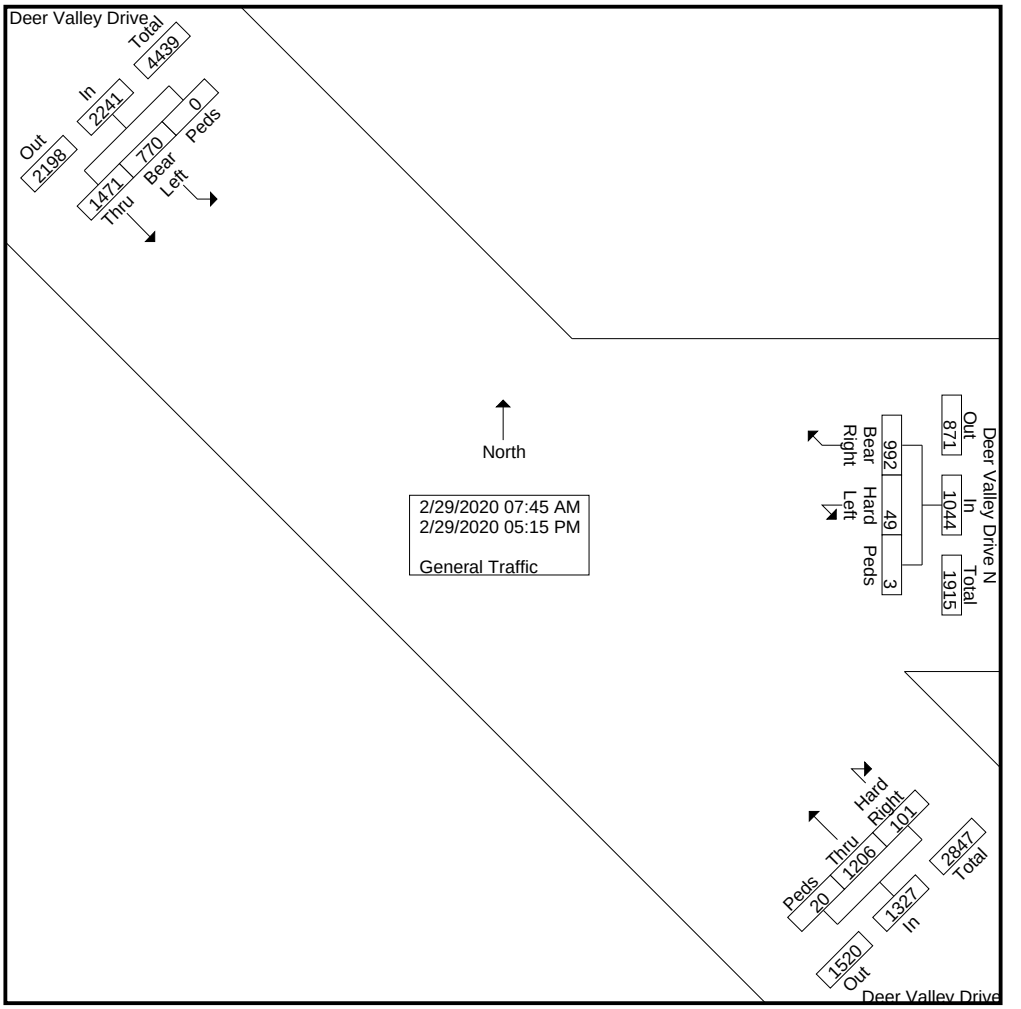
03:30 PM	66	48	0	114	103	3	1	107	10	111	0	121	342
03:45 PM	51	54	0	105	95	4	0	99	10	116	1	127	331
Total	117	102	0	219	198	7	1	206	20	227	1	248	673
04:00 PM	43	45	0	88	102	8	0	110	12	159	1	172	370
04:15 PM	63	52	0	115	76	8	2	86	9	140	0	149	350
04:30 PM	47	38	0	85	104	2	0	106	13	121	1	135	326
04:45 PM	57	61	0	118	66	2	0	68	6	97	4	107	293
Total	210	196	0	406	348	20	2	370	40	517	6	563	1339
05:00 PM	52	44	0	96	80	4	0	84	11	113	2	126	306
05:15 PM	31	49	0	80	55	1	0	56	7	89	9	105	241
Grand Total	1471	770	0	2241	992	49	3	1044	101	1206	20	1327	4612
Apprch %	65.6	34.4	0		95	4.7	0.3		7.6	90.9	1.5		
Total %	31.9	16.7	0	48.6	21.5	1.1	0.1	22.6	2.2	26.1	0.4	28.8	

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D2
Site Code : Day 2
Start Date : 2/29/2020
Page No : 2



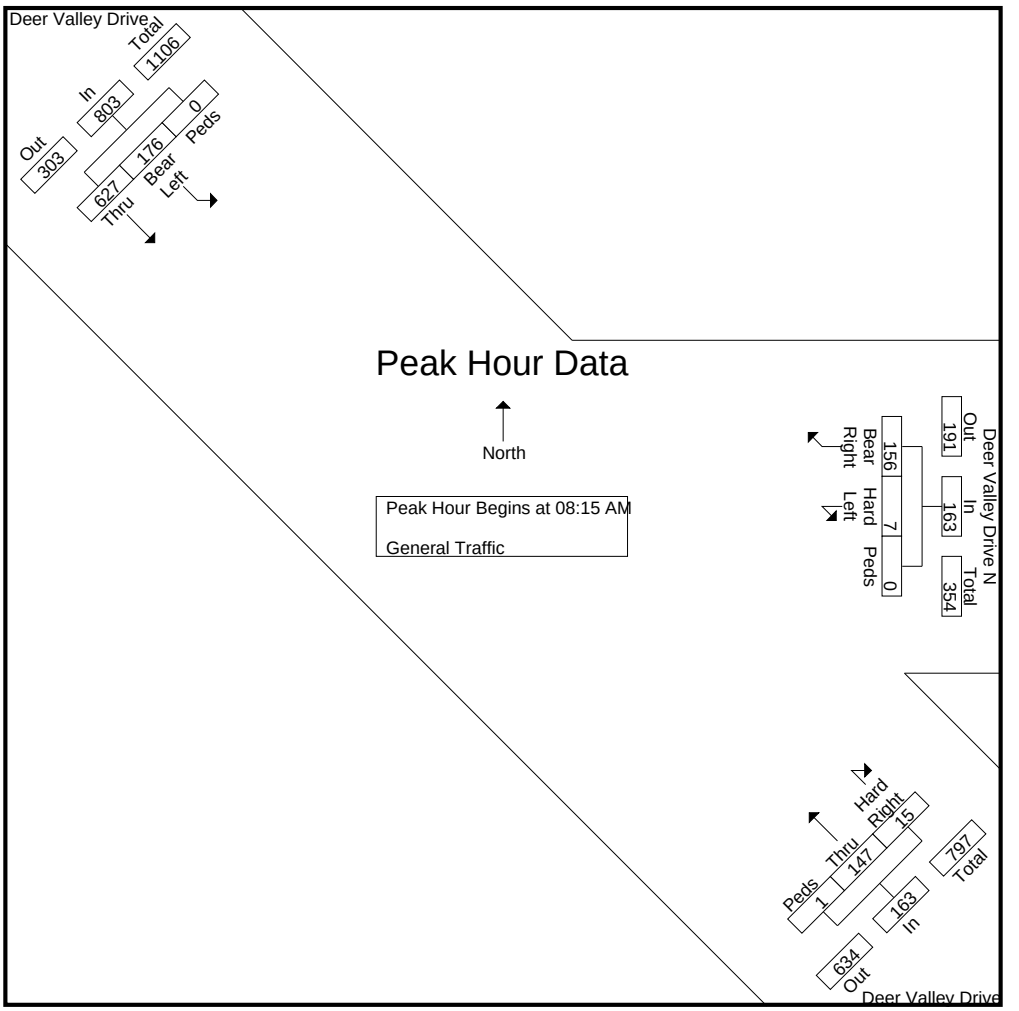
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D2
Site Code : Day 2
Start Date : 2/29/2020
Page No : 3

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 07:45 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:15 AM													
08:15 AM	150	**70**	0	**220**	32	1	0	33	3	19	0	22	275
08:30 AM	160	35	0	195	36	**5**	0	41	**5**	33	0	38	274
08:45 AM	**173**	39	0	212	38	1	0	39	2	**48**	0	50	**301**
09:00 AM	144	32	0	176	**50**	0	0	**50**	5	47	**1**	**53**	279
Total Volume	627	176	0	803	156	7	0	163	15	147	1	163	1129
% App. Total	78.1	21.9	0		95.7	4.3	0		9.2	90.2	0.6		
PHF	.906	.629	.000	.913	.780	.350	.000	.815	.750	.766	.250	.769	.938



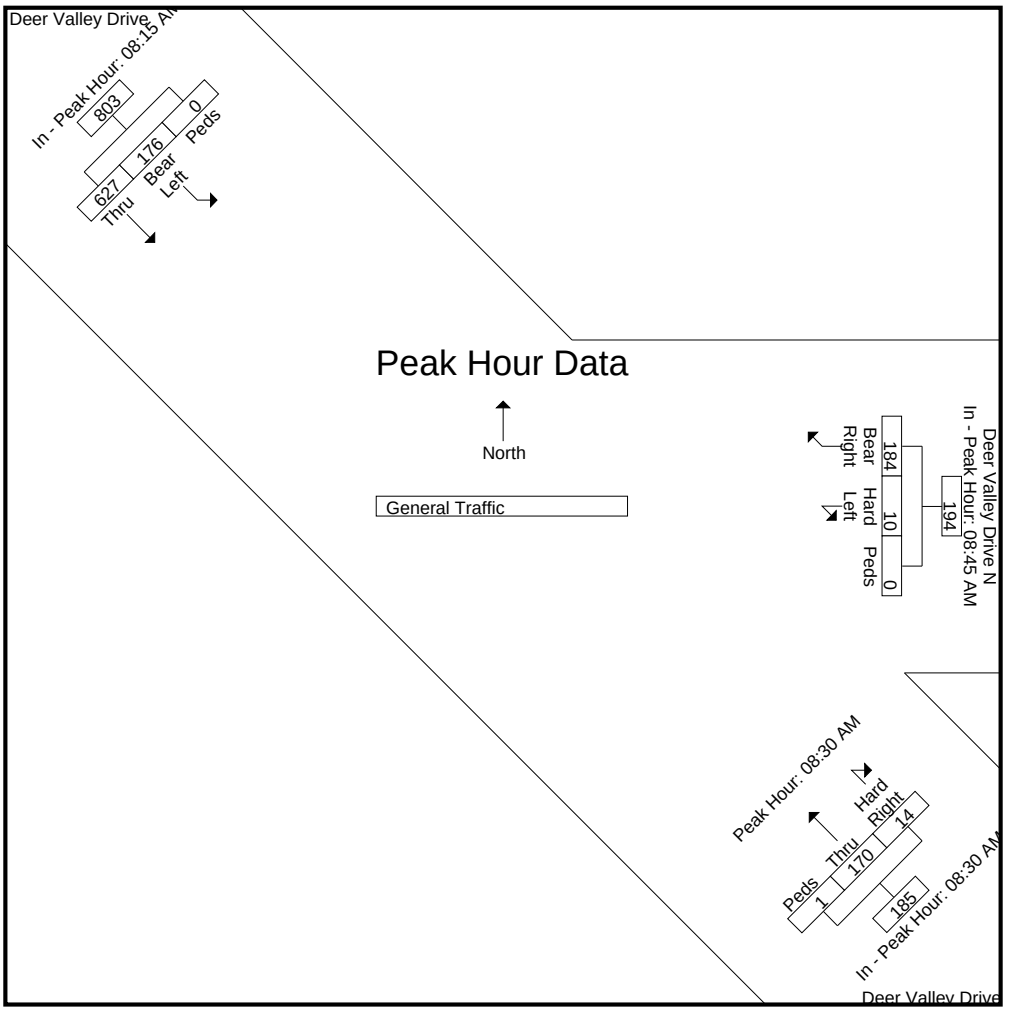
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D2
Site Code : Day 2
Start Date : 2/29/2020
Page No : 4

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 07:45 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	08:15 AM				08:45 AM				08:30 AM				
+0 mins.	150	**70**	0	**220**	38	1	0	39	**5**	33	0	38	
+15 mins.	160	35	0	195	50	0	0	50	2	**48**	0	50	
+30 mins.	**173**	39	0	212	**53**	4	0	**57**	5	47	**1**	**53**	
+45 mins.	144	32	0	176	43	**5**	0	48	2	42	0	44	
Total Volume	627	176	0	803	184	10	0	194	14	170	1	185	
% App. Total	78.1	21.9	0		94.8	5.2	0		7.6	91.9	0.5		
PHF	.906	.629	.000	.913	.868	.500	.000	.851	.700	.885	.250	.873	



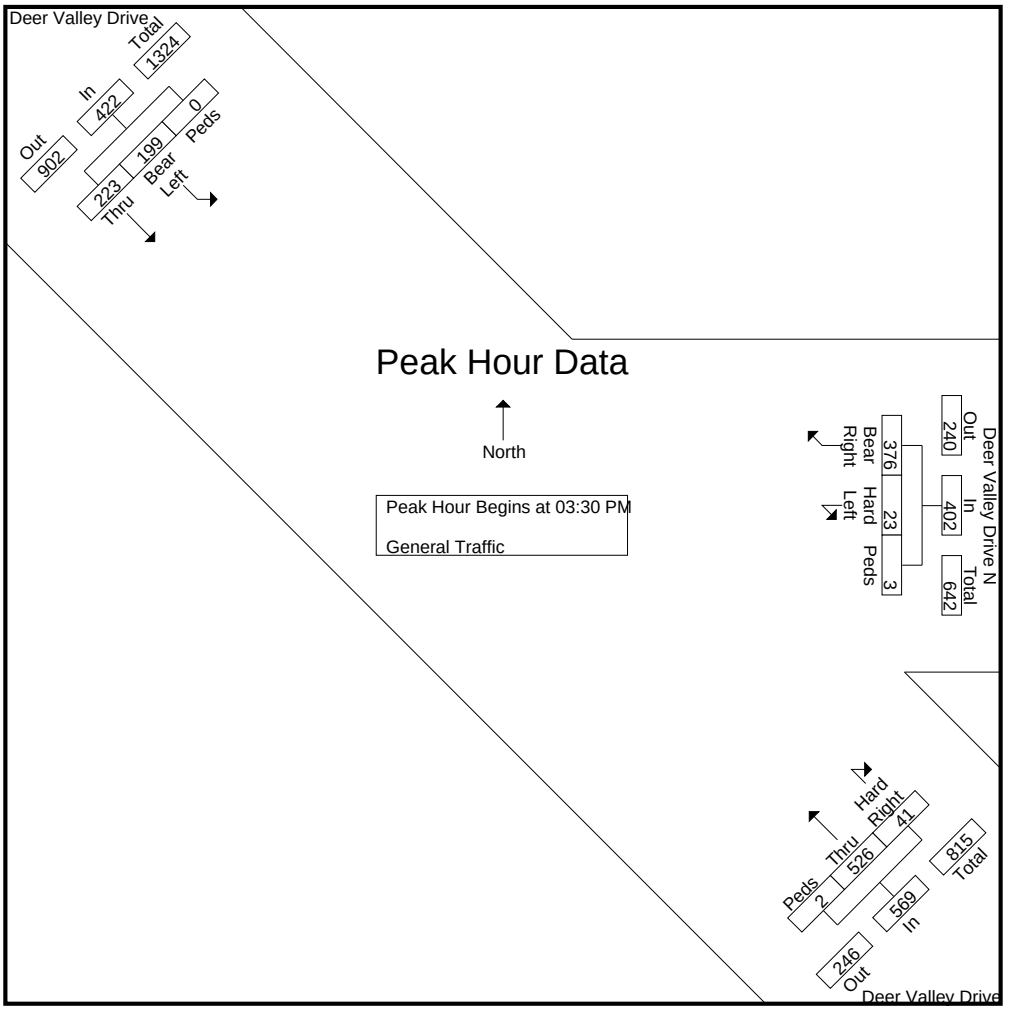
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D2
Site Code : Day 2
Start Date : 2/29/2020
Page No : 5

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	**Thru**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Hard Left**	**Peds**	**App. Total**	**Hard Right**	**Thru**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 12:00 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 03:30 PM													
03:30 PM	**66**	48	0	114	**103**	3	1	107	10	111	0	121	342
03:45 PM	51	**54**	0	105	95	4	0	99	10	116	**1**	127	331
04:00 PM	43	45	0	88	102	**8**	0	**110**	**12**	**159**	1	**172**	**370**
04:15 PM	63	52	0	**115**	76	8	**2**	86	9	140	0	149	350
Total Volume	223	199	0	422	376	23	3	402	41	526	2	569	1393
% App. Total	52.8	47.2	0		93.5	5.7	0.7		7.2	92.4	0.4		
PHF	.845	.921	.000	.917	.913	.719	.375	.914	.854	.827	.500	.827	.941



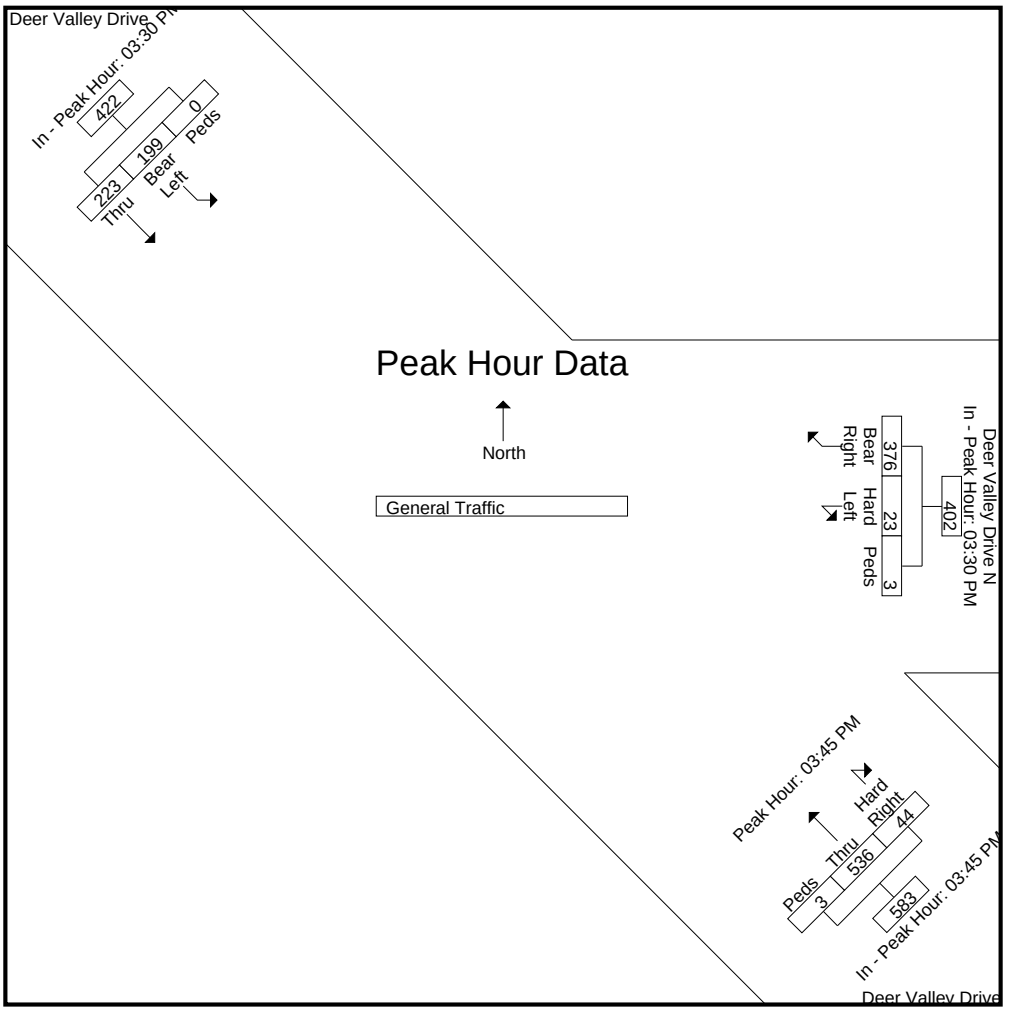
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D2
Site Code : Day 2
Start Date : 2/29/2020
Page No : 6

	Deer Valley Drive From Northwest				Deer Valley Drive N From East				Deer Valley Drive From Southeast				
Start Time	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	Hard Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	03:30 PM				03:30 PM				03:45 PM				
+0 mins.	**66**	48	0	114	**103**	3	1	107	10	116	**1**	127	
+15 mins.	51	**54**	0	105	95	4	0	99	12	**159**	1	**172**	
+30 mins.	43	45	0	88	102	**8**	0	**110**	9	140	0	149	
+45 mins.	63	52	0	**115**	76	8	**2**	86	**13**	121	1	135	
Total Volume	223	199	0	422	376	23	3	402	44	536	3	583	
% App. Total	52.8	47.2	0		93.5	5.7	0.7		7.5	91.9	0.5		
PHF	.845	.921	.000	.917	.913	.719	.375	.914	.846	.843	.750	.847	



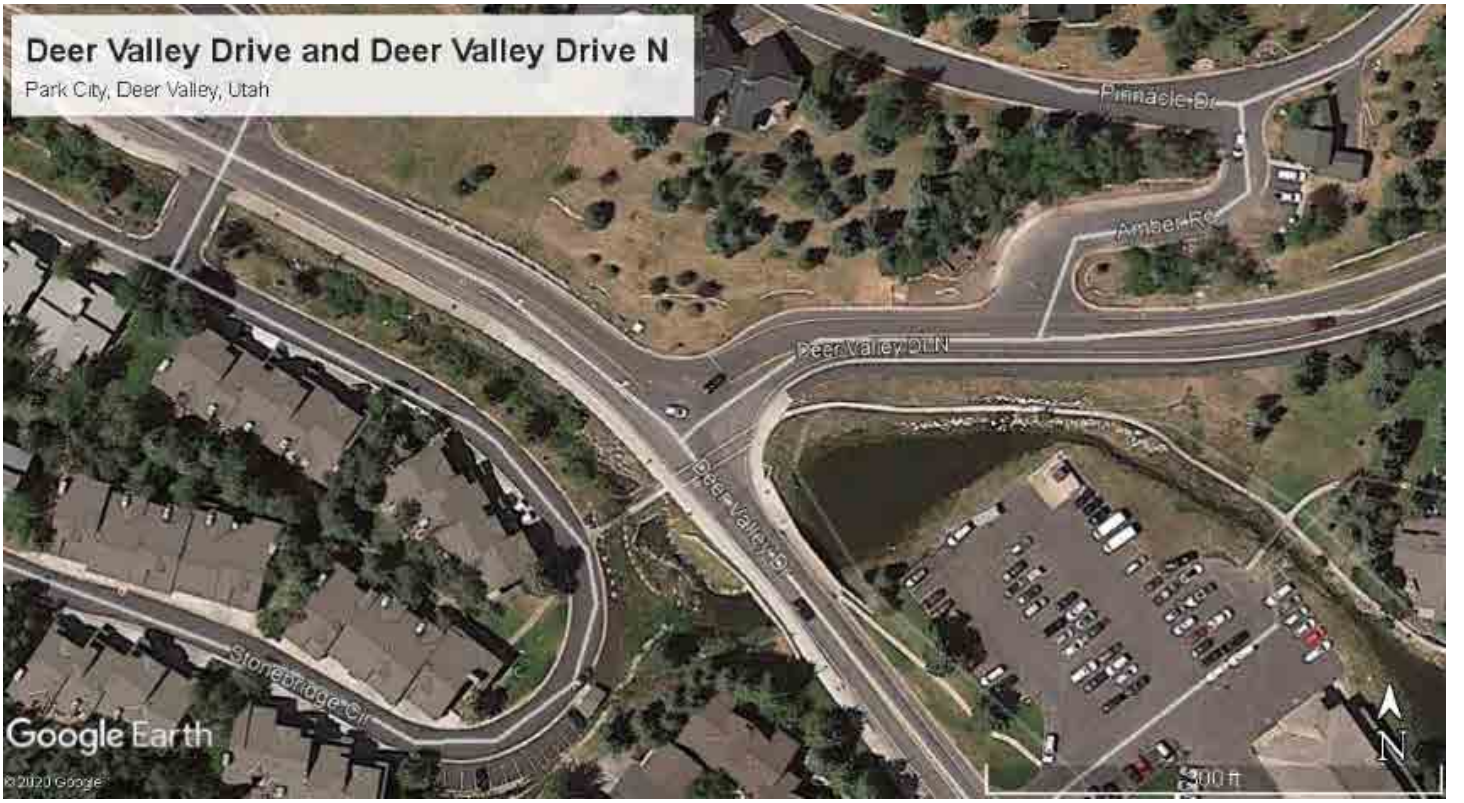
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0119
Intersection:Deer Valley/ Deer Valley N
City, State: Deer Valley, Utah
Control: Stop Sign

File Name : Deer Valley Dr & Deer Valley Dr N - D2
Site Code : Day 2
Start Date : 2/29/2020
Page No : 7

Image 1



L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Marsac Av
City, State: Park City, Utah
Control: Yields

File Name : Deer Valley Dr & Marsac Ave RDBT
Site Code : Saturday
Start Date : 12/19/2020
Page No : 1

Groups Printed- General Traffic - Turns

	Deer Valley Drive From North					Deer Valley Drive From East					Marsac Avenue From South					To Swede Alley (Buses Only) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:45 AM	1	105	141	0	247	37	2	5	0	44	3	19	0	1	23	1	3	1	0	5	319
Total	1	105	141	0	247	37	2	5	0	44	3	19	0	1	23	1	3	1	0	5	319
08:00 AM	2	59	173	0	234	30	2	1	0	33	12	23	0	1	36	1	3	0	1	5	308
08:15 AM	3	78	171	0	252	46	3	4	0	53	12	22	0	1	35	0	3	0	2	5	345
08:30 AM	1	79	171	0	251	39	4	11	0	54	13	22	0	2	37	3	7	0	1	11	353
08:45 AM	2	74	178	0	254	55	4	6	2	67	16	26	1	3	46	3	6	1	4	14	381
Total	8	290	693	0	991	170	13	22	2	207	53	93	1	7	154	7	19	1	8	35	1387
09:00 AM	3	70	140	0	213	74	4	4	2	84	8	31	0	8	47	4	3	1	6	14	358
09:15 AM	1	74	114	3	192	63	2	6	2	73	9	31	0	1	41	0	4	0	1	5	311
09:30 AM	1	66	116	0	183	75	0	2	2	79	7	35	0	0	42	0	3	1	1	5	309

Total	5	210	370	3	588	212	6	12	6	236	24	97	0	9	130	4	10	2	8	24	978

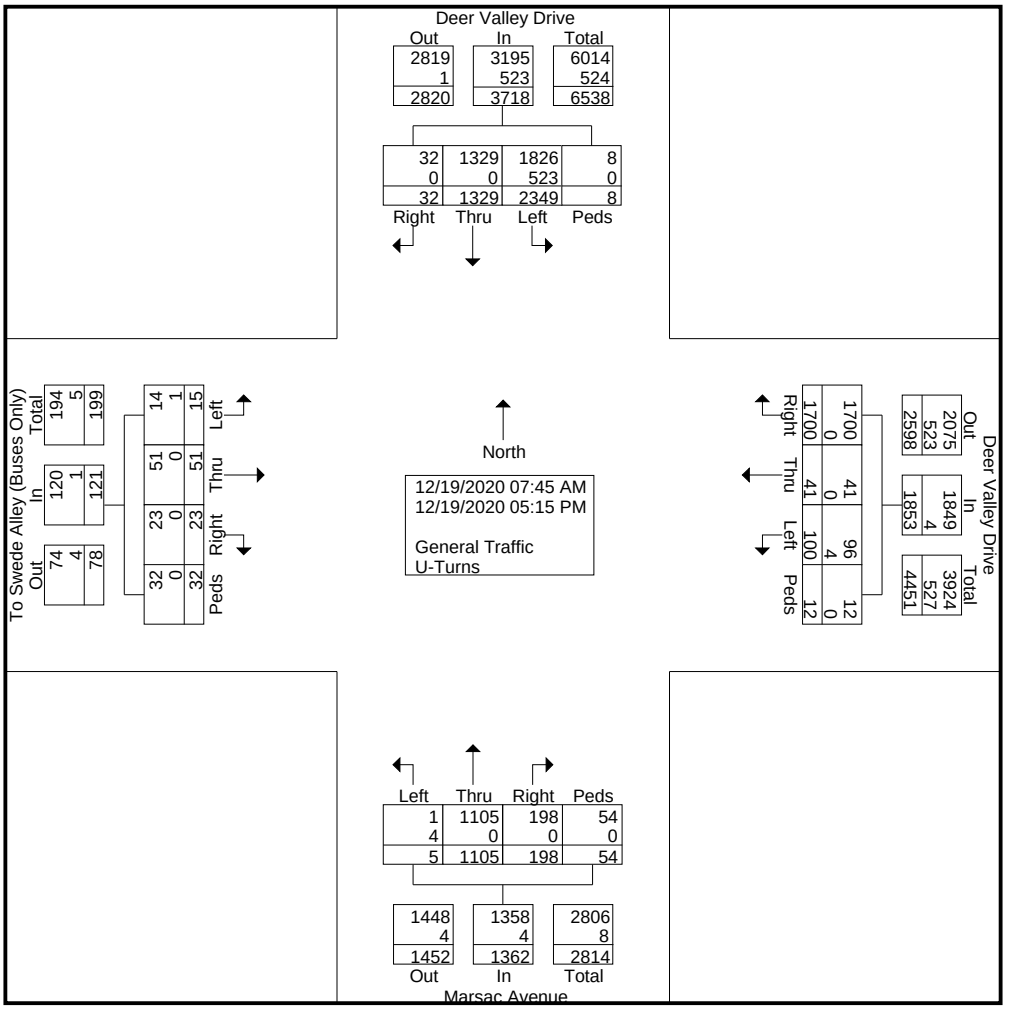
03:30 PM	5	97	155	0	257	155	2	7	0	164	18	97	0	5	120	4	0	3	0	7	548
03:45 PM	2	90	162	0	254	157	4	9	0	170	17	116	0	7	140	2	4	1	4	11	575
Total	7	187	317	0	511	312	6	16	0	334	35	213	0	12	260	6	4	4	4	18	1123
04:00 PM	1	101	141	0	243	177	1	12	0	190	9	106	1	7	123	1	2	0	3	6	562
04:15 PM	1	93	129	5	228	180	3	9	1	193	16	106	1	2	125	0	3	0	2	5	551
04:30 PM	2	91	144	0	237	176	4	5	0	185	16	100	0	7	123	2	2	4	1	9	554
04:45 PM	3	83	145	0	231	139	3	10	0	152	16	135	1	3	155	0	4	1	0	5	543
Total	7	368	559	5	939	672	11	36	1	720	57	447	3	19	526	3	11	5	6	25	2210
05:00 PM	1	74	135	0	210	129	3	5	1	138	11	104	0	3	118	1	2	1	2	6	472
05:15 PM	3	95	134	0	232	168	0	4	2	174	15	132	1	3	151	1	2	1	4	8	565
Grand Total	32	1329	2349	8	3718	1700	41	100	12	1853	198	1105	5	54	1362	23	51	15	32	121	7054
Apprch %	0.9	35.7	63.2	0.2		91.7	2.2	5.4	0.6		14.5	81.1	0.4	4		19	42.1	12.4	26.4		
Total %	0.5	18.8	33.3	0.1	52.7	24.1	0.6	1.4	0.2	26.3	2.8	15.7	0.1	0.8	19.3	0.3	0.7	0.2	0.5	1.7	
General Traffic	32	1329	1826	8	3195	1700	41	96	12	1849	198	1105	1	54	1358	23	51	14	32	120	6522
% General Traffic	100	100	77.7	100	85.9	100	100	96	100	99.8	100	100	20	100	99.7	100	100	93.3	100	99.2	92.5
U-Turns	0	0	523	0	523	0	0	4	0	4	0	0	4	0	4	0	0	1	0	1	532
% U-Turns	0	0	22.3	0	14.1	0	0	4	0	0.2	0	0	80	0	0.3	0	0	6.7	0	0.8	7.5

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Marsac Av
City, State: Park City, Utah
Control: Yields

File Name : Deer Valley Dr & Marsac Ave RDBT
Site Code : Saturday
Start Date : 12/19/2020
Page No : 2



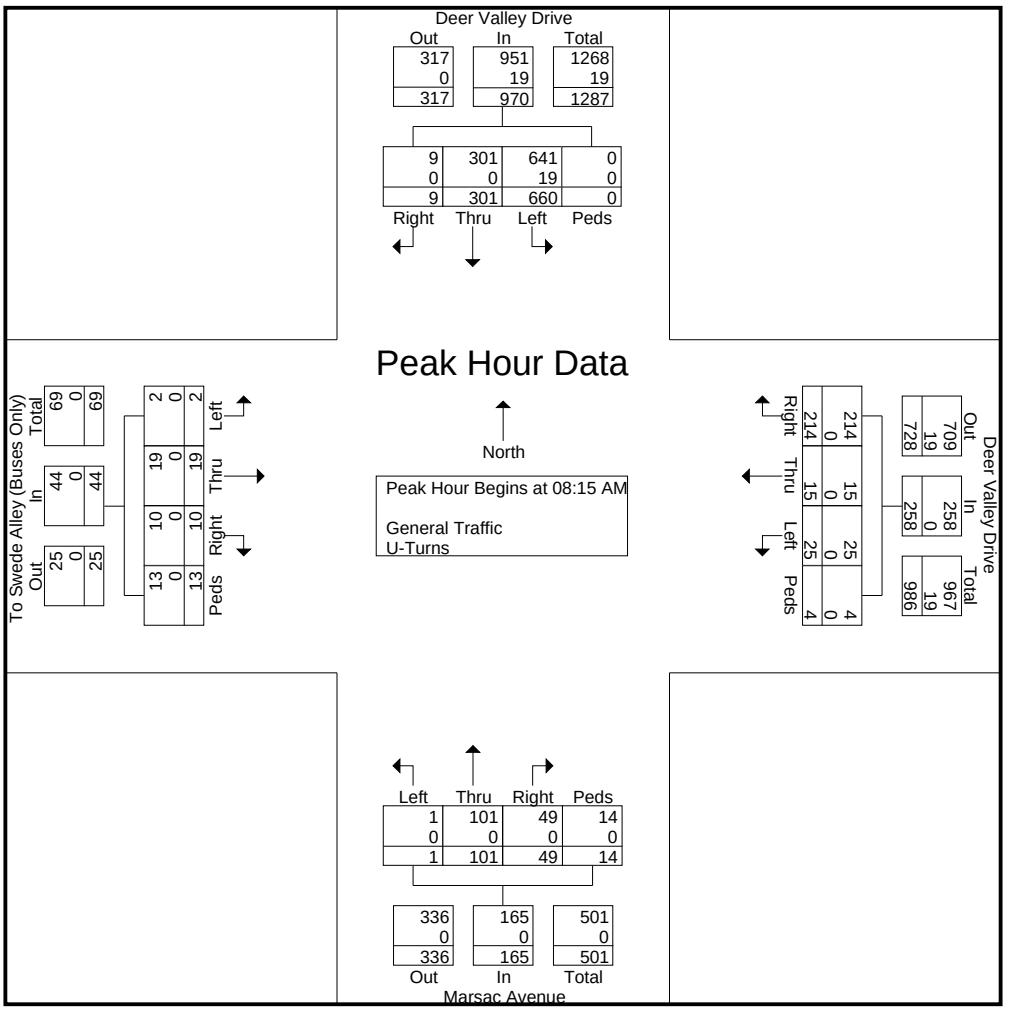
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Marsac Av
City, State: Park City, Utah
Control: Yields

File Name : Deer Valley Dr & Marsac Ave RDBT
Site Code : Saturday
Start Date : 12/19/2020
Page No : 3

	Deer Valley Drive From North					Deer Valley Drive From East					Marsac Avenue From South					To Swede Alley (Buses Only) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:15 AM																					
08:15 AM	**3**	78	171	0	252	46	3	4	0	53	12	22	0	1	35	0	3	0	2	5	345
08:30 AM	1	**79**	171	0	251	39	**4**	**11**	0	54	13	22	0	2	37	3	**7**	0	1	11	353
08:45 AM	2	74	**178**	0	**254**	55	4	6	**2**	67	**16**	26	**1**	3	46	3	6	**1**	4	**14**	**381**
09:00 AM	3	70	140	0	213	**74**	4	4	2	**84**	8	**31**	0	**8**	**47**	**4**	3	1	**6**	14	358
Total Volume	9	301	660	0	970	214	15	25	4	258	49	101	1	14	165	10	19	2	13	44	1437
% App. Total	0.9	31	68	0		82.9	5.8	9.7	1.6		29.7	61.2	0.6	8.5		22.7	43.2	4.5	29.5		
PHF	.750	.953	.927	.000	.955	.723	.938	.568	.500	.768	.766	.815	.250	.438	.878	.625	.679	.500	.542	.786	.943
General Traffic	9	301	641	0	951	214	15	25	4	258	49	101	1	14	165	10	19	2	13	44	1418
% General Traffic	100	100	97.1	0	98.0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	98.7
U-Turns	0	0	19	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
% U-Turns	0	0	2.9	0	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.3



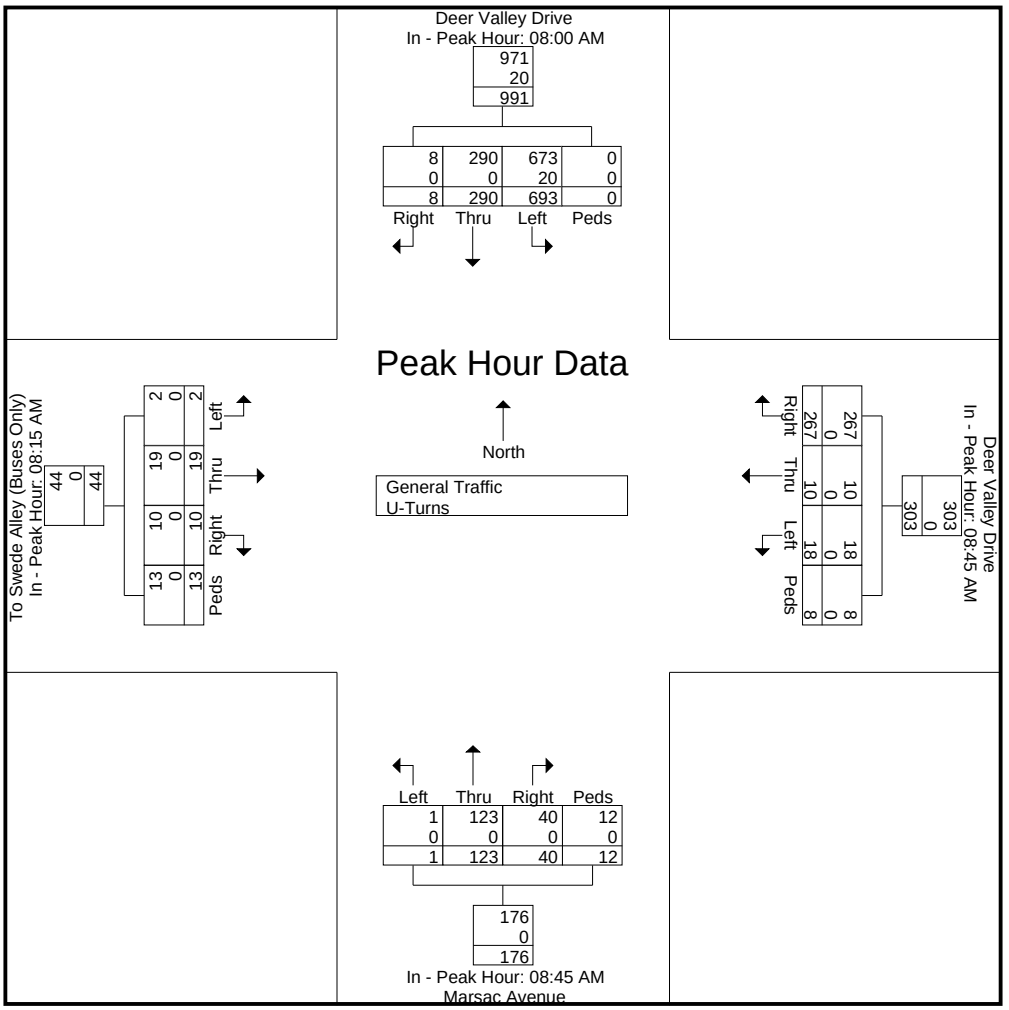
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Marsac Av
City, State: Park City, Utah
Control: Yields

File Name : Deer Valley Dr & Marsac Ave RDBT
Site Code : Saturday
Start Date : 12/19/2020
Page No : 4

	Deer Valley Drive From North					Deer Valley Drive From East					Marsac Avenue From South					To Swede Alley (Buses Only) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:00 AM					08:45 AM					08:45 AM					08:15 AM					
+0 mins.	2	59	173	0	234	55	**4**	**6**	**2**	67	**16**	26	**1**	3	46	0	3	0	2	5	
+15 mins.	**3**	78	171	0	252	74	4	4	2	**84**	8	31	0	**8**	**47**	3	**7**	0	1	11	
+30 mins.	1	**79**	171	0	251	63	2	6	2	73	9	31	0	1	41	3	6	**1**	4	**14**	
+45 mins.	2	74	**178**	0	**254**	**75**	0	2	2	79	7	**35**	0	0	42	**4**	3	1	**6**	14	
Total Volume	8	290	693	0	991	267	10	18	8	303	40	123	1	12	176	10	19	2	13	44	
% App. Total	0.8	29.3	69.9	0		88.1	3.3	5.9	2.6		22.7	69.9	0.6	6.8		22.7	43.2	4.5	29.5		
PHF	.667	.918	.973	.000	.975	.890	.625	.750	1.000	.902	.625	.879	.250	.375	.936	.625	.679	.500	.542	.786	
General Traffic	8	290	673	0	971	267	10	18	8	303	40	123	1	12	176	10	19	2	13	44	
% General Traffic	100	100	97.1	0	98	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
U-Turns	0	0	20	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% U-Turns	0	0	2.9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



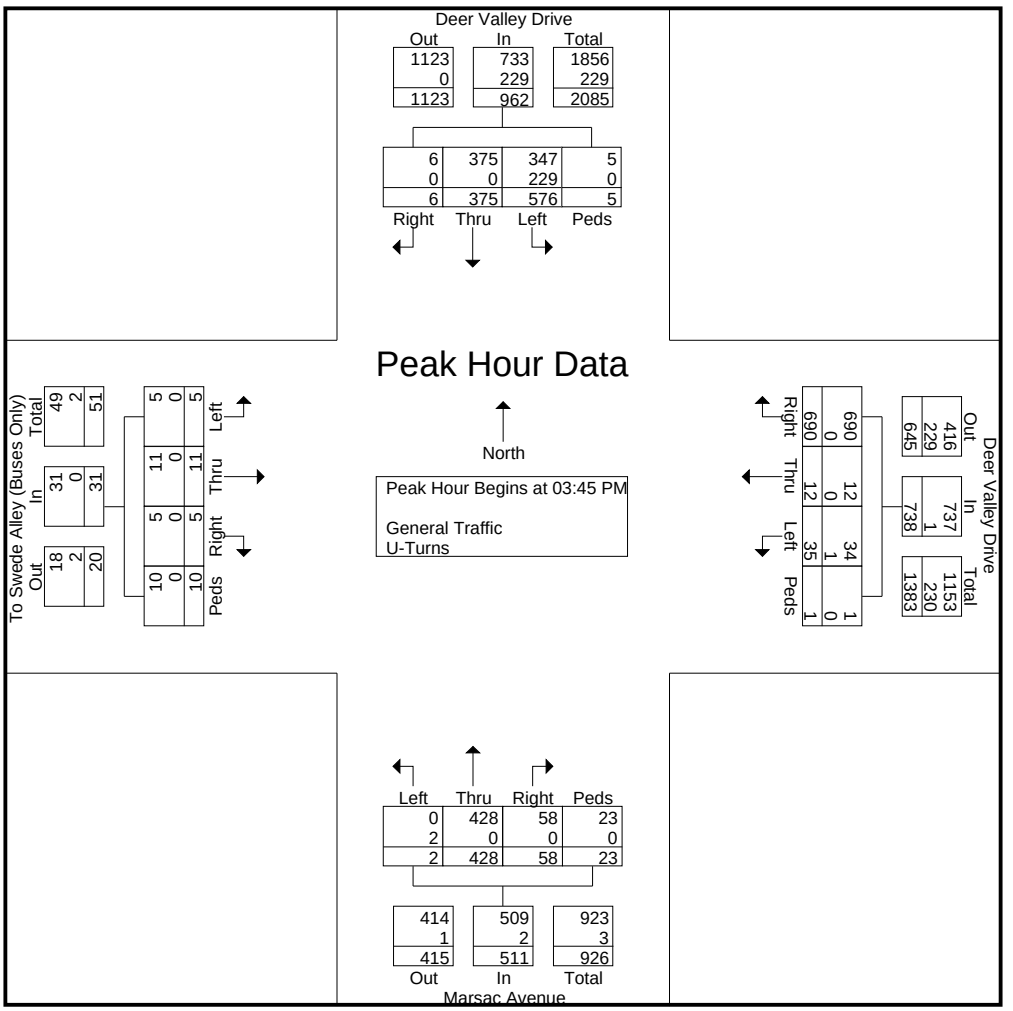
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Marsac Av
City, State: Park City, Utah
Control: Yields

File Name : Deer Valley Dr & Marsac Ave RDBT
Site Code : Saturday
Start Date : 12/19/2020
Page No : 5

	Deer Valley Drive From North					Deer Valley Drive From East					Marsac Avenue From South					To Swede Alley (Buses Only) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
03:45 PM	**2**	90	**162**	0	**254**	157	**4**	9	0	170	**17**	**116**	0	**7**	**140**	**2**	**4**	1	**4**	**11**	**575**
04:00 PM	1	**101**	141	0	243	177	1	**12**	0	190	9	106	**1**	7	123	1	2	0	3	6	562
04:15 PM	1	93	129	**5**	228	**180**	3	9	**1**	**193**	16	106	1	2	125	0	3	0	2	5	551
04:30 PM	2	91	144	0	237	176	4	5	0	185	16	100	0	7	123	2	2	**4**	1	9	554
Total Volume	6	375	576	5	962	690	12	35	1	738	58	428	2	23	511	5	11	5	10	31	2242
% App. Total	0.6	39	59.9	0.5		93.5	1.6	4.7	0.1		11.4	83.8	0.4	4.5		16.1	35.5	16.1	32.3		
PHF	.750	.928	.889	.250	.947	.958	.750	.729	.250	.956	.853	.922	.500	.821	.913	.625	.688	.313	.625	.705	.975
General Traffic	6	375	347	5	733	690	12	34	1	737	58	428	0	23	509	5	11	5	10	31	2010
% General Traffic	100	100	60.2	100	76.2	100	100	97.1	100	99.9	100	100	0	100	99.6	100	100	100	100	100	89.7
U-Turns	0	0	229	0	229	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	232
% U-Turns	0	0	39.8	0	23.8	0	0	2.9	0	0.1	0	0	100	0	0.4	0	0	0	0	0	10.3



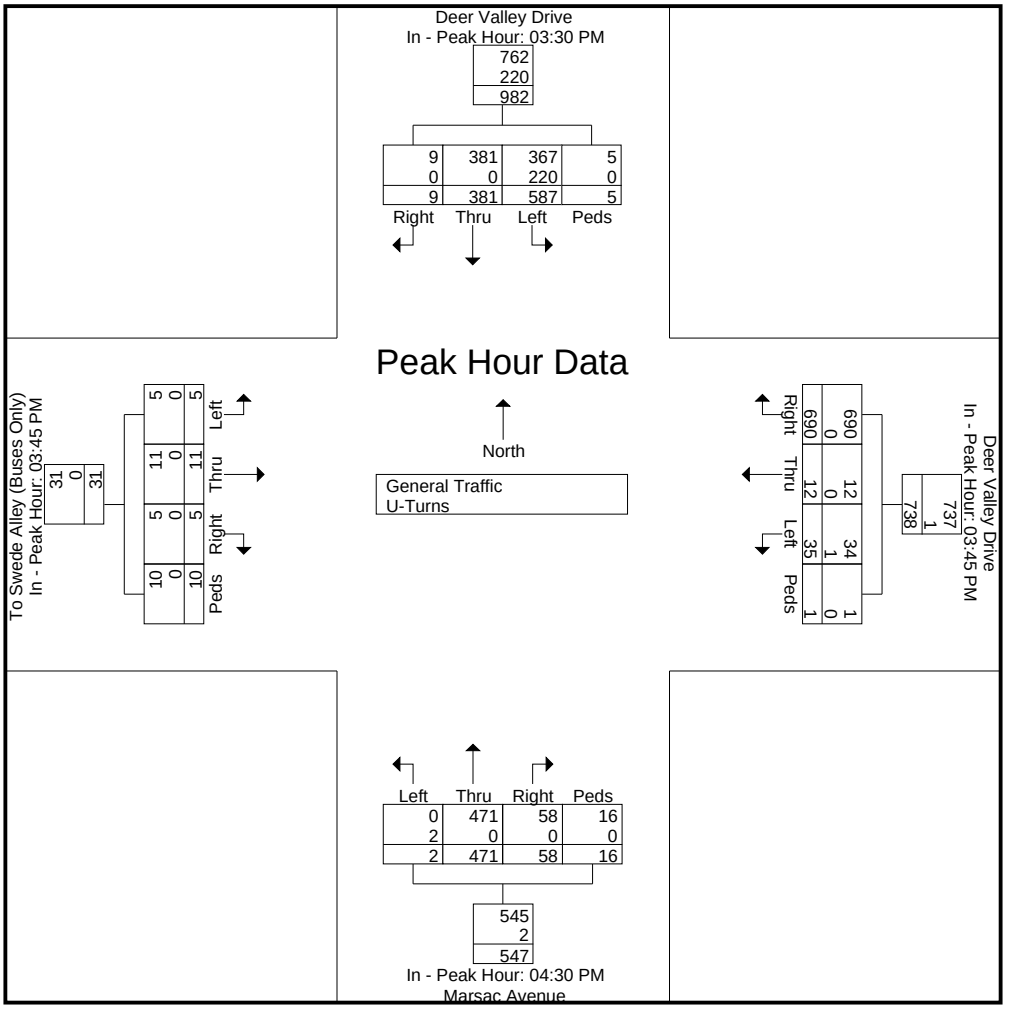
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Marsac Av
City, State: Park City, Utah
Control: Yields

File Name : Deer Valley Dr & Marsac Ave RDBT
Site Code : Saturday
Start Date : 12/19/2020
Page No : 6

	Deer Valley Drive From North					Deer Valley Drive From East					Marsac Avenue From South					To Swede Alley (Buses Only) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:30 PM					03:45 PM					04:30 PM					03:45 PM					
+0 mins.	**5**	97	155	0	**257**	157	**4**	9	0	170	**16**	100	0	**7**	123	**2**	**4**	1	**4**	**11**	
+15 mins.	2	90	**162**	0	254	177	1	**12**	0	190	16	**135**	**1**	3	**155**	1	2	0	3	6	
+30 mins.	1	**101**	141	0	243	**180**	3	9	**1**	**193**	11	104	0	3	118	0	3	0	2	5	
+45 mins.	1	93	129	**5**	228	176	4	5	0	185	15	132	1	3	151	2	2	**4**	1	9	
Total Volume	9	381	587	5	982	690	12	35	1	738	58	471	2	16	547	5	11	5	10	31	
% App. Total	0.9	38.8	59.8	0.5		93.5	1.6	4.7	0.1		10.6	86.1	0.4	2.9		16.1	35.5	16.1	32.3		
PHF	.450	.943	.906	.250	.955	.958	.750	.729	.250	.956	.906	.872	.500	.571	.882	.625	.688	.313	.625	.705	
General Traffic	9	381	367	5	762	690	12	34	1	737	58	471	0	16	545	5	11	5	10	31	
% General Traffic	100	100	62.5	100	77.6	100	100	97.1	100	99.9	100	100	0	100	99.6	100	100	100	100	100	
U-Turns	0	0	220	0	220	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	
% U-Turns	0	0	37.5	0	22.4	0	0	2.9	0	0.1	0	0	100	0	0.4	0	0	0	0	0	



L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Marsac Av
City, State: Park City, Utah
Control: Yields

File Name : Deer Valley Dr & Marsac Ave RDBT
Site Code : Saturday
Start Date : 12/19/2020
Page No : 7

Image 1

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Bonanza
City, State: Park City, Utah
Control: Signalized

File Name : Deer Valley Dr & Bonanza Dr
Site Code : Saturday
Start Date : 12/19/2020
Page No : 1

Groups Printed- General Traffic

	Bonanza Drive From Northeast				Deer Valley Drive From South				Deer Valley Drive From West				
Start Time	**Bear Right**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Left**	**Peds**	**App. Total**	**Right**	**Bear Left**	**Peds**	**App. Total**	**Int. Total**
07:45 AM	34	138	0	172	21	37	0	58	137	13	0	150	380
Total	34	138	0	172	21	37	0	58	137	13	0	150	380
08:00 AM	26	111	0	137	30	42	0	72	147	8	0	155	364
08:15 AM	49	115	0	164	24	60	0	84	141	14	0	155	403
08:30 AM	51	113	0	164	23	48	0	71	137	23	0	160	395
08:45 AM	40	130	0	170	32	58	0	90	137	23	0	160	420
Total	166	469	0	635	109	208	0	317	562	68	0	630	1582
09:00 AM	28	111	0	139	49	57	0	106	120	29	0	149	394
09:15 AM	22	85	0	107	27	70	0	97	112	34	0	146	350
09:30 AM	26	90	0	116	38	54	0	92	121	30	0	151	359

Total	76	286	0	362	114	181	0	295	353	93	0	446	1103

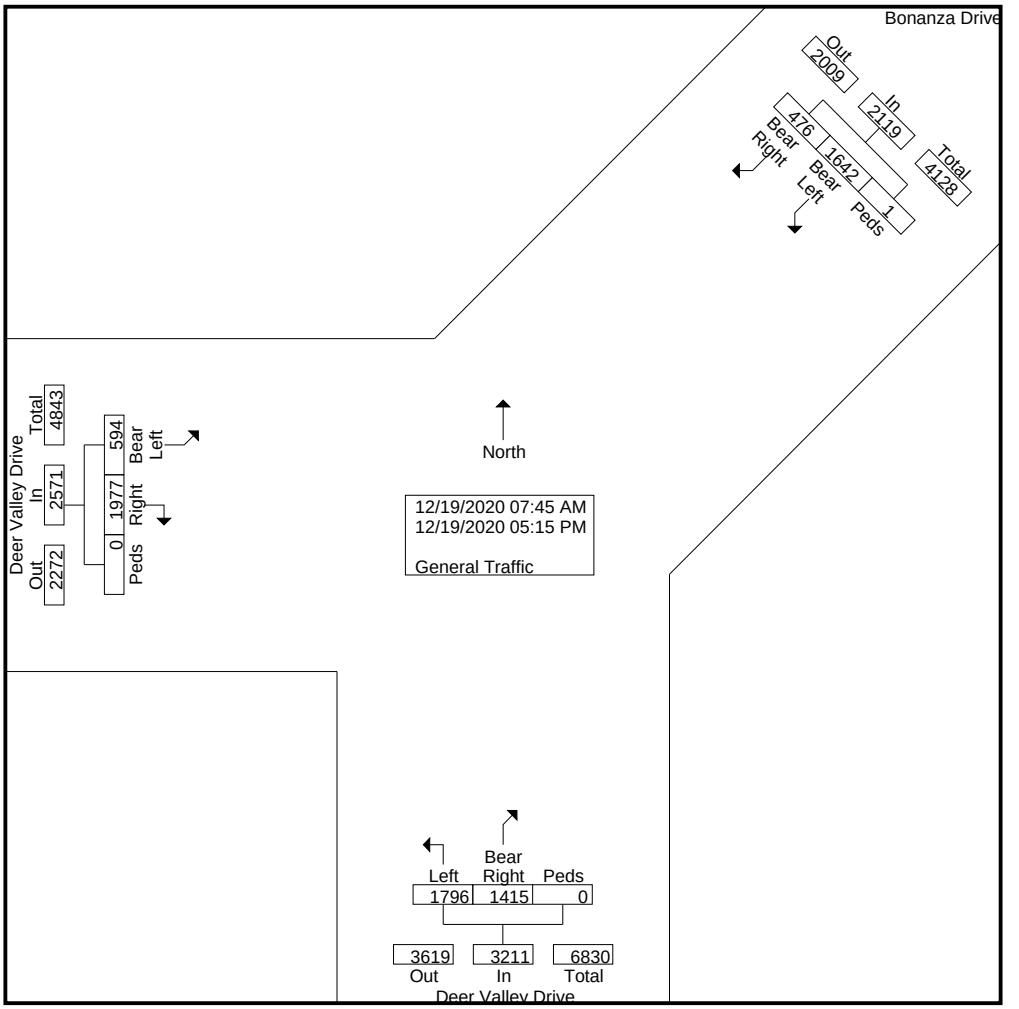
03:30 PM	23	90	0	113	146	174	0	320	120	58	0	178	611
03:45 PM	41	110	1	152	147	184	0	331	110	67	0	177	660
Total	64	200	1	265	293	358	0	651	230	125	0	355	1271
04:00 PM	25	92	0	117	155	175	0	330	119	59	0	178	625
04:15 PM	26	103	0	129	142	177	0	319	110	63	0	173	621
04:30 PM	31	94	0	125	176	182	0	358	99	50	0	149	632
04:45 PM	17	86	0	103	130	166	0	296	121	44	0	165	564
Total	99	375	0	474	603	700	0	1303	449	216	0	665	2442
05:00 PM	21	81	0	102	136	171	0	307	110	41	0	151	560
05:15 PM	16	93	0	109	139	141	0	280	136	38	0	174	563
Grand Total	476	1642	1	2119	1415	1796	0	3211	1977	594	0	2571	7901
Apprch %	22.5	77.5	0		44.1	55.9	0		76.9	23.1	0		
Total %	6	20.8	0	26.8	17.9	22.7	0	40.6	25	7.5	0	32.5	

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Bonanza
City, State: Park City, Utah
Control: Signalized

File Name : Deer Valley Dr & Bonanza Dr
Site Code : Saturday
Start Date : 12/19/2020
Page No : 2



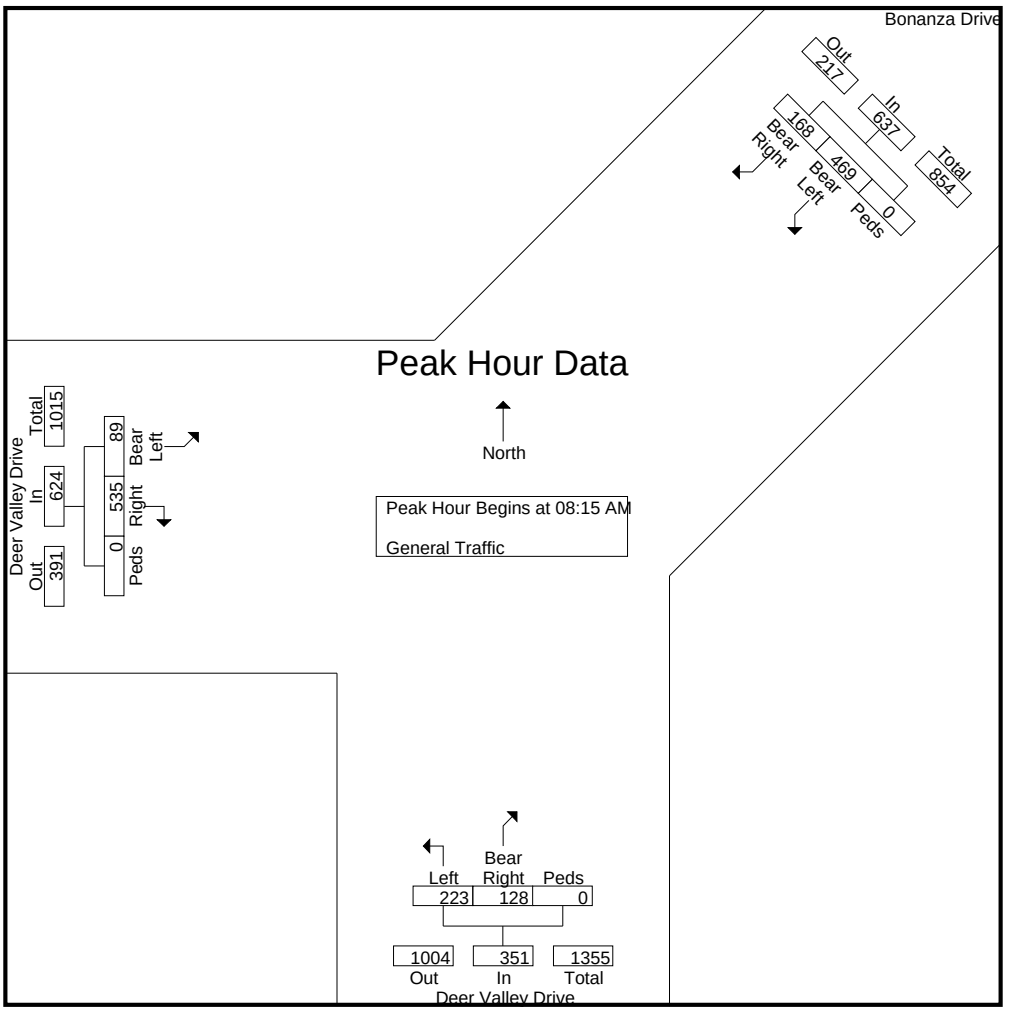
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Bonanza
City, State: Park City, Utah
Control: Signalized

File Name : Deer Valley Dr & Bonanza Dr
Site Code : Saturday
Start Date : 12/19/2020
Page No : 3

	Bonanza Drive From Northeast				Deer Valley Drive From South				Deer Valley Drive From West				
Start Time	Bear Right	Bear Left	**Peds**	**App. Total**	Bear Right	**Left**	**Peds**	**App. Total**	**Right**	Bear Left	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 07:45 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:15 AM													
08:15 AM	49	115	0	164	24	**60**	0	84	**141**	14	0	155	403
08:30 AM	**51**	113	0	164	23	48	0	71	137	23	0	**160**	395
08:45 AM	40	**130**	0	**170**	32	58	0	90	137	23	0	160	**420**
09:00 AM	28	111	0	139	**49**	57	0	**106**	120	**29**	0	149	394
Total Volume	168	469	0	637	128	223	0	351	535	89	0	624	1612
% App. Total	26.4	73.6	0		36.5	63.5	0		85.7	14.3	0		
PHF	.824	.902	.000	.937	.653	.929	.000	.828	.949	.767	.000	.975	.960



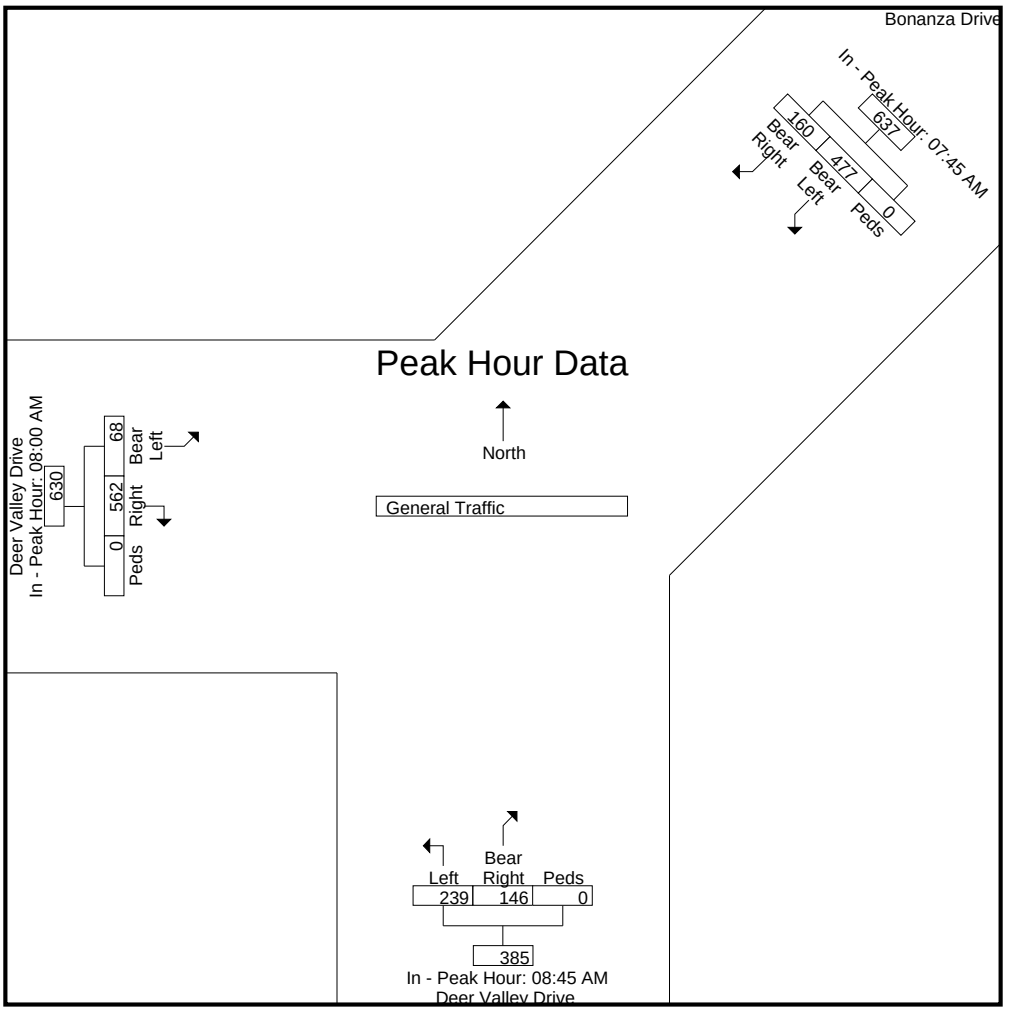
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Bonanza
City, State: Park City, Utah
Control: Signalized

File Name : Deer Valley Dr & Bonanza Dr
Site Code : Saturday
Start Date : 12/19/2020
Page No : 4

	Bonanza Drive From Northeast				Deer Valley Drive From South				Deer Valley Drive From West				
Start Time	**Bear Right**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Left**	**Peds**	**App. Total**	**Right**	**Bear Left**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 07:45 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	07:45 AM				08:45 AM				08:00 AM				
+0 mins.	34	**138**	0	**172**	32	58	0	90	**147**	8	0	155	
+15 mins.	26	111	0	137	**49**	57	0	**106**	141	14	0	155	
+30 mins.	49	115	0	164	27	**70**	0	97	137	**23**	0	**160**	
+45 mins.	**51**	113	0	164	38	54	0	92	137	23	0	160	
Total Volume	160	477	0	637	146	239	0	385	562	68	0	630	
% App. Total	25.1	74.9	0		37.9	62.1	0		89.2	10.8	0		
PHF	.784	.864	.000	.926	.745	.854	.000	.908	.956	.739	.000	.984	



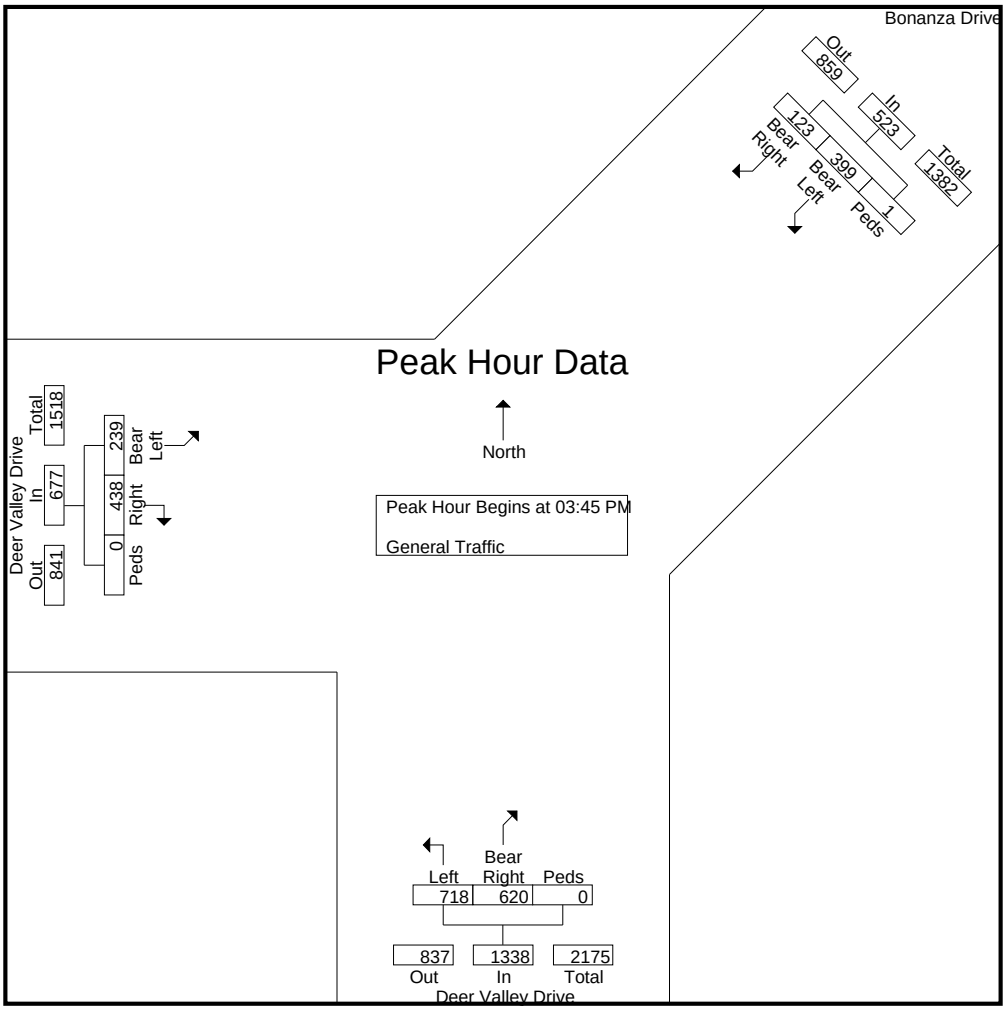
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Bonanza
City, State: Park City, Utah
Control: Signalized

File Name : Deer Valley Dr & Bonanza Dr
Site Code : Saturday
Start Date : 12/19/2020
Page No : 5

	Bonanza Drive From Northeast				Deer Valley Drive From South				Deer Valley Drive From West				
Start Time	**Bear Right**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Left**	**Peds**	**App. Total**	**Right**	**Bear Left**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 12:00 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 03:45 PM													
03:45 PM	**41**	**110**	**1**	**152**	147	**184**	0	331	110	**67**	0	177	**660**
04:00 PM	25	92	0	117	155	175	0	330	**119**	59	0	**178**	625
04:15 PM	26	103	0	129	142	177	0	319	110	63	0	173	621
04:30 PM	31	94	0	125	**176**	182	0	**358**	99	50	0	149	632
Total Volume	123	399	1	523	620	718	0	1338	438	239	0	677	2538
% App. Total	23.5	76.3	0.2		46.3	53.7	0		64.7	35.3	0		
PHF	.750	.907	.250	.860	.881	.976	.000	.934	.920	.892	.000	.951	.961



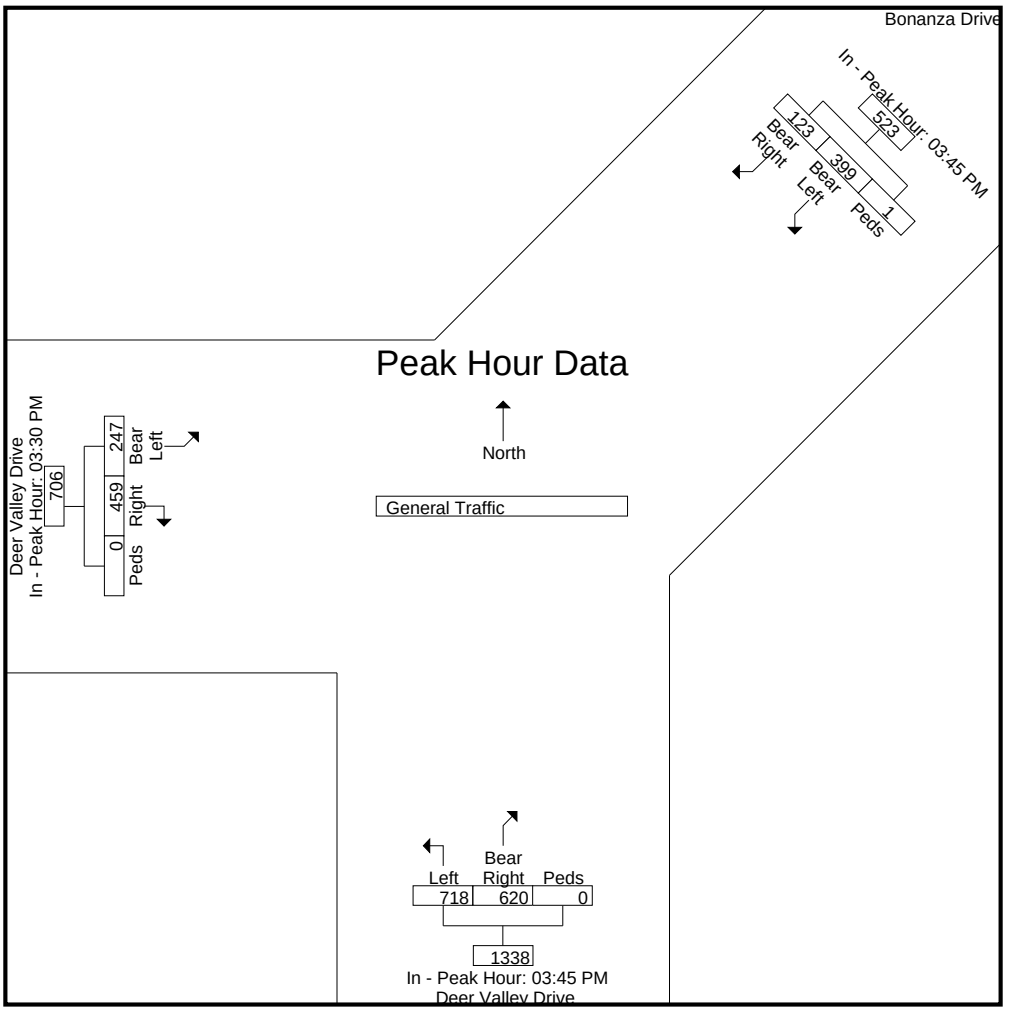
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Bonanza
City, State: Park City, Utah
Control: Signalized

File Name : Deer Valley Dr & Bonanza Dr
Site Code : Saturday
Start Date : 12/19/2020
Page No : 6

	Bonanza Drive From Northeast				Deer Valley Drive From South				Deer Valley Drive From West				
Start Time	**Bear Right**	**Bear Left**	**Peds**	**App. Total**	**Bear Right**	**Left**	**Peds**	**App. Total**	**Right**	**Bear Left**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 12:00 PM to 05:15 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	03:45 PM				03:45 PM				03:30 PM				
+0 mins.	**41**	**110**	**1**	**152**	147	**184**	0	331	**120**	58	0	**178**	
+15 mins.	25	92	0	117	155	175	0	330	110	**67**	0	177	
+30 mins.	26	103	0	129	142	177	0	319	119	59	0	178	
+45 mins.	31	94	0	125	**176**	182	0	**358**	110	63	0	173	
Total Volume	123	399	1	523	620	718	0	1338	459	247	0	706	
% App. Total	23.5	76.3	0.2		46.3	53.7	0		65	35	0		
PHF	.750	.907	.250	.860	.881	.976	.000	.934	.956	.922	.000	.992	



L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FEHR0124
Intersection: Deer Valley Dr / Bonanza
City, State: Park City, Utah
Control: Signalized

File Name : Deer Valley Dr & Bonanza Dr
Site Code : Saturday
Start Date : 12/19/2020
Page No : 7

Image 1

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Existing**
Volume and Delay by Movement **AM Peak Hour**

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	147	138	93.7%	0.5	0.3	A
	Right Turn	15	14	95.3%	0.2	0.4	A
	Subtotal	162	152	93.8%	0.5	0.3	A
SB	Left Turn	176	178	101.2%	2.9	0.6	A
	Through	627	629	100.3%	1.1	0.2	A
	Right Turn						
	Subtotal	803	807	100.5%	1.5	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	7	6	84.3%	7.2	5.5	A
	Through						
	Right Turn	156	154	98.5%	4.8	0.9	A
	Subtotal	163	160	97.9%	4.9	1.0	A
Total		1,128	1,118	99.1%	1.9	0.2	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	263	265	100.8%	12.2	2.0	B
	Right Turn	151	154	101.7%	2.9	0.7	A
	Subtotal	414	419	101.1%	8.8	1.4	A
SB	Left Turn	105	92	88.0%	12.1	3.3	B
	Through	631	627	99.4%	8.7	1.1	A
	Right Turn						
	Subtotal	736	719	97.7%	9.1	1.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	553	552	99.9%	15.5	1.8	B
	Through						
	Right Turn	198	197	99.3%	4.8	1.0	A
	Subtotal	751	749	99.7%	12.6	1.6	B
Total		1,901	1,887	99.3%	10.4	0.9	B

Intersection 6 **Park Avenue-Bonanza Drive/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	35	97.5%	27.3	7.1	C
	Through	191	189	99.1%	47.7	4.8	D
	Right Turn	67	66	98.2%	17.8	5.8	B
	Subtotal	294	290	98.7%	38.5	3.0	D
SB	Left Turn	477	429	89.9%	198.6	26.8	F
	Through	169	156	92.4%	162.5	28.8	F
	Right Turn	901	840	93.2%	53.3	15.6	D
	Subtotal	1,547	1,425	92.1%	109.2	18.5	F
EB	Left Turn	320	324	101.3%	38.8	4.7	D
	Through	172	163	94.7%	22.7	5.6	C
	Right Turn	16	18	111.3%	14.3	9.8	B
	Subtotal	508	505	99.4%	32.8	4.1	C
WB	Left Turn	50	49	97.2%	66.0	7.2	E
	Through	253	283	111.7%	45.0	7.9	D
	Right Turn	215	209	97.2%	7.9	2.2	A
	Subtotal	518	540	104.3%	32.7	4.5	C
Total		2,867	2,760	96.3%	72.9	9.2	E

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	58	90.2%	22.1	5.0	C
	Through	28	31	109.3%	23.1	3.7	C
	Right Turn	101	100	99.3%	2.5	0.4	A
	Subtotal	193	189	97.7%	11.7	2.0	B
SB	Left Turn	54	54	99.1%	19.8	5.5	B
	Through	71	74	104.8%	22.6	3.3	C
	Right Turn	29	29	101.4%	4.4	1.0	A
	Subtotal	154	157	102.1%	18.8	2.7	B
EB	Left Turn	22	24	110.5%	9.2	3.8	A
	Through	230	234	101.6%	16.6	3.2	B
	Right Turn	95	94	98.8%	7.9	3.0	A
	Subtotal	347	352	101.4%	13.9	2.5	B
WB	Left Turn	287	298	103.8%	12.5	2.5	B
	Through	324	336	103.8%	7.7	1.6	A
	Right Turn	47	47	100.4%	4.8	1.9	A
	Subtotal	658	681	103.6%	9.7	1.7	A
Total		1,352	1,379	102.0%	12.1	1.6	B

MOVEMENT SUMMARY

Site: 101 [Existing AM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	1	100.0	0.157	13.4	LOS B	0.6	14.5	0.63	0.63	0.63	33.7
8	T1	127	3.0	0.157	7.8	LOS A	0.6	14.5	0.63	0.63	0.63	34.3
18b	R3	62	3.0	0.157	7.8	LOS A	0.6	14.5	0.63	0.63	0.63	32.5
Approach		189	3.5	0.157	7.9	LOS A	0.6	14.5	0.63	0.63	0.63	33.7
SouthEast: RoadName												
3bx	L3	32	3.0	0.142	4.3	LOS A	0.5	14.7	0.29	0.17	0.29	35.9
3ax	L1	19	100.0	0.142	7.1	LOS A	0.5	14.7	0.29	0.17	0.29	34.5
18ax	R1	269	3.0	0.142	4.3	LOS A	0.6	15.2	0.29	0.17	0.29	35.6
Approach		320	8.8	0.142	4.4	LOS A	0.6	15.2	0.29	0.17	0.29	35.5
North: Deer Valley Drive												
7u	U	23	3.0	0.748	14.3	LOS B	8.6	221.4	0.52	0.26	0.52	30.4
7a	L1	804	3.0	0.748	14.3	LOS B	8.6	221.4	0.52	0.26	0.52	29.5
4	T1	378	3.0	0.748	8.1	LOS A	8.6	221.4	0.32	0.15	0.32	33.5
14	R2	12	100.0	0.204	7.2	LOS A	0.9	23.5	0.20	0.09	0.20	34.5
Approach		1217	3.9	0.748	12.3	LOS B	8.6	221.4	0.45	0.23	0.45	30.7
West: Transit Center												
5	L2	2	100.0	0.159	18.6	LOS C	0.3	11.7	0.68	0.68	0.68	29.6
12a	R1	23	100.0	0.159	18.6	LOS C	0.3	11.7	0.68	0.68	0.68	29.2
12	R2	13	100.0	0.159	18.6	LOS C	0.3	11.7	0.68	0.68	0.68	28.6
Approach		38	100.0	0.159	18.6	LOS C	0.3	11.7	0.68	0.68	0.68	29.0
All Vehicles		1765	6.9	0.748	10.5	LOS B	8.6	221.4	0.45	0.27	0.45	31.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Existing**
Volume and Delay by Movement **PM Peak Hour**

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	526	533	101.3%	1.9	0.4	A
	Right Turn	41	38	93.7%	1.4	0.7	A
	Subtotal	567	571	100.7%	1.8	0.3	A
SB	Left Turn	199	192	96.7%	8.2	1.5	A
	Through	223	224	100.4%	0.5	0.1	A
	Right Turn						
	Subtotal	422	416	98.7%	4.1	0.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	23	25	110.4%	41.3	20.1	E
	Through						
	Right Turn	379	378	99.8%	33.8	16.9	D
	Subtotal	402	404	100.4%	34.3	16.9	D
Total		1,391	1,391	100.0%	12.3	5.4	B

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	754	651	86.4%	272.5	62.6	F
	Right Turn	651	530	81.4%	362.3	85.3	F
	Subtotal	1,405	1,181	84.1%	313.9	69.1	F
SB	Left Turn	251	211	84.2%	21.4	2.7	C
	Through	460	420	91.3%	7.6	1.8	A
	Right Turn						
	Subtotal	711	632	88.8%	12.5	1.4	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	419	421	100.5%	29.5	5.5	C
	Through						
	Right Turn	129	129	100.2%	29.6	9.4	C
	Subtotal	548	550	100.4%	29.5	5.8	C
Total		2,664	2,363	88.7%	164.8	16.6	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	35	36	101.4%	34.7	6.9	C
	Through	395	394	99.8%	53.5	3.6	D
	Right Turn	68	68	99.4%	29.5	9.6	C
	Subtotal	498	497	99.9%	48.9	3.0	D
SB	Left Turn	495	355	71.7%	223.5	21.1	F
	Through	363	268	73.7%	177.4	9.3	F
	Right Turn	364	260	71.3%	54.5	9.4	D
	Subtotal	1,222	882	72.2%	159.9	13.0	F
EB	Left Turn	633	645	101.8%	83.4	11.7	F
	Through	277	278	100.4%	29.4	6.6	C
	Right Turn	36	38	104.4%	18.6	4.8	B
	Subtotal	946	960	101.5%	65.1	7.9	E
WB	Left Turn	75	66	88.0%	68.4	16.1	E
	Through	239	244	102.2%	46.6	8.1	D
	Right Turn	640	522	81.5%	72.1	1.5	E
	Subtotal	954	832	87.2%	64.0	3.8	E
Total		3,620	3,172	87.6%	88.7	2.8	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	176	148	84.1%	32.3	6.4	C
	Through	89	84	93.9%	27.7	4.7	C
	Right Turn	479	395	82.4%	10.3	2.2	B
	Subtotal	744	627	84.2%	17.8	2.9	B
SB	Left Turn	90	90	99.7%	31.9	7.1	C
	Through	55	57	103.6%	38.1	8.7	D
	Right Turn	63	64	100.8%	5.3	1.3	A
	Subtotal	208	210	101.1%	25.8	4.7	C
EB	Left Turn	71	70	98.7%	15.2	2.4	B
	Through	584	578	99.0%	23.3	2.4	C
	Right Turn	149	152	102.2%	18.0	4.6	B
	Subtotal	804	801	99.6%	21.6	2.3	C
WB	Left Turn	218	214	98.3%	18.0	3.2	B
	Through	384	379	98.7%	10.4	2.2	B
	Right Turn	46	44	96.5%	6.3	3.1	A
	Subtotal	648	638	98.4%	12.6	2.1	B
Total		2,404	2,275	94.6%	18.4	2.4	B

MOVEMENT SUMMARY

Site: 101 [Existing PM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	1	100.0	0.344	13.5	LOS B	1.5	38.8	0.64	0.65	0.68	32.9
8	T1	454	3.0	0.344	9.0	LOS A	1.5	38.8	0.64	0.65	0.68	33.8
18b	R3	62	3.0	0.344	9.0	LOS A	1.5	38.8	0.64	0.65	0.68	32.1
Approach		516	3.2	0.344	9.0	LOS A	1.5	38.8	0.64	0.65	0.68	33.6
SouthEast: RoadName												
3bx	L3	36	3.0	0.559	14.3	LOS B	3.7	97.6	0.74	0.91	1.23	31.7
3ax	L1	13	100.0	0.559	19.1	LOS C	3.7	97.6	0.74	0.91	1.23	30.4
18ax	R1	732	3.0	0.559	14.2	LOS B	3.8	98.4	0.75	0.91	1.23	31.0
Approach		782	4.6	0.559	14.3	LOS B	3.8	98.4	0.75	0.91	1.23	31.0
North: Deer Valley Drive												
7u	U	242	3.0	0.617	10.2	LOS B	5.3	134.5	0.36	0.17	0.36	31.9
7a	L1	368	3.0	0.617	10.2	LOS B	5.3	134.5	0.36	0.17	0.36	31.0
4	T1	398	3.0	0.617	7.1	LOS A	5.3	134.5	0.27	0.12	0.27	33.7
14	R2	6	100.0	0.169	6.8	LOS A	0.7	18.8	0.18	0.08	0.18	34.6
Approach		1014	3.6	0.617	9.0	LOS A	5.3	134.5	0.32	0.15	0.32	32.2
West: Transit Center												
5	L2	5	100.0	0.078	14.1	LOS B	0.1	5.8	0.61	0.61	0.61	31.0
12a	R1	12	100.0	0.078	14.1	LOS B	0.1	5.8	0.61	0.61	0.61	30.5
12	R2	5	100.0	0.078	14.1	LOS B	0.1	5.8	0.61	0.61	0.61	29.9
Approach		22	100.0	0.078	14.1	LOS B	0.1	5.8	0.61	0.61	0.61	30.5
All Vehicles		2334	4.8	0.617	10.8	LOS B	5.3	134.5	0.54	0.52	0.71	32.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Existing Plus Project**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	69	67	97.0%	6.6	3.7	A
	Through	272	266	97.8%	0.7	0.1	A
	Right Turn						
	Subtotal	341	333	97.6%	1.8	0.8	A
SB	Left Turn						
	Through	666	679	102.0%	2.2	0.3	A
	Right Turn	15	16	108.7%	1.1	0.7	A
	Subtotal	681	695	102.1%	2.2	0.2	A
EB	Left Turn	15	14	94.7%	14.4	10.3	B
	Through						
	Right Turn	120	123	102.5%	10.1	2.9	B
	Subtotal	135	137	101.6%	10.4	2.9	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,157	1,165	100.7%	3.0	0.5	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	98.1%	5.2	1.1	A
	Through						
	Right Turn						
	Subtotal	16	16	98.1%	5.2	1.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	178	181	101.9%	0.8	0.3	A
	Right Turn	20	21	103.0%	1.0	0.5	A
	Subtotal	198	202	102.0%	0.8	0.2	A
WB	Left Turn						
	Through	41	40	98.0%	0.1	0.1	A
	Right Turn						
	Subtotal	41	40	98.0%	0.1	0.1	A
Total		255	258	101.1%	1.1	0.2	A

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	52	49	94.6%	24.1	11.8	C
	Through						
	Right Turn	5	6	114.0%	14.7	13.5	B
	Subtotal	57	55	96.3%	23.4	12.1	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	690	699	101.3%	3.1	0.6	A
	Right Turn	196	200	101.8%	2.1	0.6	A
	Subtotal	886	899	101.4%	2.9	0.6	A
WB	Left Turn	2	2	95.0%	5.1	9.4	A
	Through	330	328	99.3%	2.2	0.6	A
	Right Turn						
	Subtotal	332	330	99.3%	2.3	0.7	A
Total		1,275	1,283	100.7%	3.6	0.7	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	302	297	98.4%	12.9	2.6	B
	Right Turn	167	169	100.9%	2.9	0.7	A
	Subtotal	469	466	99.3%	9.4	1.8	A
SB	Left Turn	105	98	93.3%	12.7	1.7	B
	Through	673	646	96.0%	9.9	1.3	A
	Right Turn						
	Subtotal	778	744	95.6%	10.3	1.2	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	570	584	102.4%	15.9	2.1	B
	Through						
	Right Turn	198	195	98.4%	5.5	1.0	A
	Subtotal	768	779	101.4%	13.2	1.9	B
Total		2,015	1,988	98.7%	11.2	1.3	B

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	37	102.5%	24.0	9.1	C
	Through	191	183	95.8%	48.3	6.5	D
	Right Turn	67	69	103.6%	14.6	9.5	B
	Subtotal	294	289	98.4%	38.2	6.7	D
SB	Left Turn	519	436	84.1%	204.6	13.3	F
	Through	169	144	85.1%	166.2	17.4	F
	Right Turn	901	782	86.8%	51.9	10.0	D
	Subtotal	1,589	1,362	85.7%	113.9	7.7	F
EB	Left Turn	320	322	100.6%	36.3	4.4	D
	Through	172	176	102.3%	24.4	4.5	C
	Right Turn	16	18	111.3%	17.0	10.8	B
	Subtotal	508	516	101.5%	31.5	4.1	C
WB	Left Turn	50	43	85.2%	55.9	9.9	E
	Through	253	276	109.2%	46.8	5.1	D
	Right Turn	254	259	101.9%	10.0	2.3	A
	Subtotal	557	578	103.7%	31.3	2.8	C
Total		2,948	2,744	93.1%	73.6	3.9	E

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	61	95.3%	23.7	3.8	C
	Through	28	28	98.6%	23.2	4.8	C
	Right Turn	117	113	96.4%	3.0	0.3	A
	Subtotal	209	201	96.4%	12.2	2.6	B
SB	Left Turn	54	53	98.7%	19.7	3.9	B
	Through	71	71	100.3%	22.3	4.5	C
	Right Turn	29	31	108.3%	4.4	1.3	A
	Subtotal	154	156	101.2%	17.8	3.6	B
EB	Left Turn	22	21	93.6%	11.5	5.4	B
	Through	230	237	103.0%	16.2	2.6	B
	Right Turn	95	98	102.6%	8.2	1.7	A
	Subtotal	347	355	102.3%	13.6	2.3	B
WB	Left Turn	304	304	100.0%	13.1	1.7	B
	Through	324	337	104.1%	7.7	1.1	A
	Right Turn	47	48	101.9%	5.6	2.8	A
	Subtotal	675	689	102.1%	10.0	1.1	B
Total		1,385	1,402	101.2%	12.1	1.3	B

MOVEMENT SUMMARY

Site: 101 [Existing Plus Project AM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	1	100.0	0.178	14.8	LOS B	0.6	16.2	0.65	0.65	0.65	33.2
8	T1	127	3.0	0.178	8.7	LOS A	0.6	16.3	0.65	0.65	0.65	33.9
18b	R3	70	3.0	0.178	8.7	LOS A	0.6	16.3	0.65	0.65	0.65	32.1
Approach		198	3.5	0.178	8.7	LOS A	0.6	16.3	0.65	0.65	0.65	33.2
SouthEast: RoadName												
3bx	L3	40	3.0	0.179	4.6	LOS A	0.7	19.1	0.30	0.18	0.30	35.8
3ax	L1	23	100.0	0.179	7.5	LOS A	0.7	19.1	0.30	0.18	0.30	34.3
18ax	R1	340	3.0	0.179	4.6	LOS A	0.8	19.8	0.30	0.18	0.30	35.4
Approach		404	8.6	0.179	4.8	LOS A	0.8	19.8	0.30	0.18	0.30	35.4
North: Deer Valley Drive												
7u	U	23	3.0	0.806	17.4	LOS C	10.7	273.9	0.67	0.37	0.67	29.2
7a	L1	880	3.0	0.806	17.4	LOS C	10.7	273.9	0.67	0.37	0.67	28.4
4	T1	378	3.0	0.806	8.8	LOS A	10.7	273.9	0.37	0.20	0.37	33.2
14	R2	12	100.0	0.220	7.4	LOS A	1.0	25.6	0.23	0.11	0.23	34.3
Approach		1293	3.9	0.806	14.8	LOS B	10.7	273.9	0.58	0.32	0.58	29.7
West: Transit Center												
5	L2	2	100.0	0.191	20.8	LOS C	0.3	13.9	0.71	0.71	0.71	28.8
12a	R1	28	100.0	0.191	20.8	LOS C	0.3	13.9	0.71	0.71	0.71	28.4
12	R2	13	100.0	0.191	20.8	LOS C	0.3	13.9	0.71	0.71	0.71	27.8
Approach		43	100.0	0.191	20.8	LOS C	0.3	13.9	0.71	0.71	0.71	28.2
All Vehicles		1937	6.9	0.806	12.2	LOS B	10.7	273.9	0.53	0.33	0.53	31.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Existing Plus Project**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	22	90.8%	4.1	2.5	A
	Through	706	711	100.7%	1.2	0.1	A
	Right Turn						
	Subtotal	730	733	100.4%	1.3	0.1	A
SB	Left Turn						
	Through	302	305	100.9%	1.3	0.2	A
	Right Turn	15	15	102.0%	0.9	0.5	A
	Subtotal	317	320	100.9%	1.3	0.2	A
EB	Left Turn	15	16	106.7%	10.8	6.1	B
	Through						
	Right Turn	69	69	100.1%	4.1	0.8	A
	Subtotal	84	85	101.3%	5.1	1.3	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,131	1,138	100.6%	1.6	0.1	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	78	77	98.7%	5.3	0.5	A
	Through						
	Right Turn						
	Subtotal	78	77	98.7%	5.3	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	64	69	107.2%	0.5	0.4	A
	Right Turn	10	11	114.0%	0.3	0.3	A
	Subtotal	74	80	108.1%	0.5	0.4	A
WB	Left Turn						
	Through	92	88	95.9%	0.3	0.1	A
	Right Turn						
	Subtotal	92	88	95.9%	0.3	0.1	A
Total		244	245	100.5%	2.0	0.4	A

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	158	153	96.9%	27.8	8.0	D
	Through						
	Right Turn	12	12	100.0%	22.9	16.5	C
	Subtotal	170	165	97.1%	27.4	8.4	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	355	359	101.2%	0.9	0.2	A
	Right Turn	67	71	106.3%	0.6	0.3	A
	Subtotal	422	431	102.0%	0.8	0.2	A
WB	Left Turn	7	8	107.1%	5.0	3.0	A
	Through	747	749	100.2%	3.9	0.3	A
	Right Turn						
	Subtotal	754	756	100.3%	3.9	0.3	A
Total		1,346	1,352	100.4%	5.6	1.1	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	804	690	85.8%	282.5	81.9	F
	Right Turn	671	539	80.3%	357.9	64.4	F
	Subtotal	1,475	1,229	83.3%	317.2	70.4	F
SB	Left Turn	251	204	81.3%	20.7	4.9	C
	Through	512	416	81.3%	8.8	1.1	A
	Right Turn						
	Subtotal	763	620	81.3%	12.7	2.1	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	440	443	100.6%	28.7	6.5	C
	Through						
	Right Turn	129	126	97.9%	22.2	7.1	C
	Subtotal	569	569	100.0%	27.3	5.3	C
Total		2,807	2,418	86.2%	164.4	17.1	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	35	34	97.1%	32.9	9.0	C
	Through	395	394	99.7%	51.1	4.5	D
	Right Turn	68	70	102.2%	31.3	5.7	C
	Subtotal	498	497	99.8%	47.4	4.0	D
SB	Left Turn	547	381	69.6%	221.4	12.8	F
	Through	363	262	72.1%	178.3	9.6	F
	Right Turn	364	260	71.5%	50.1	5.3	D
	Subtotal	1,274	903	70.9%	159.7	7.8	F
EB	Left Turn	633	640	101.1%	69.0	10.0	E
	Through	277	273	98.5%	32.8	4.0	C
	Right Turn	36	36	100.8%	22.0	13.2	C
	Subtotal	946	949	100.3%	56.8	7.9	E
WB	Left Turn	75	70	92.9%	69.1	11.8	E
	Through	239	219	91.8%	58.4	9.3	E
	Right Turn	690	594	86.0%	57.4	2.7	E
	Subtotal	1,004	883	87.9%	58.6	3.6	E
Total		3,722	3,232	86.8%	83.4	3.4	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	176	147	83.5%	32.1	6.5	C
	Through	89	83	93.0%	36.2	9.7	D
	Right Turn	499	412	82.6%	11.0	1.8	B
	Subtotal	764	642	84.0%	18.5	2.2	B
SB	Left Turn	90	89	98.3%	31.2	6.4	C
	Through	55	55	100.4%	37.0	5.4	D
	Right Turn	63	64	101.3%	5.2	0.9	A
	Subtotal	208	208	99.8%	24.6	3.6	C
EB	Left Turn	71	71	100.6%	13.2	2.7	B
	Through	584	595	101.8%	23.7	2.8	C
	Right Turn	149	151	101.3%	18.3	4.6	B
	Subtotal	804	817	101.6%	21.9	2.5	C
WB	Left Turn	239	237	99.2%	18.6	2.4	B
	Through	384	387	100.7%	11.1	1.6	B
	Right Turn	46	48	105.2%	7.0	4.2	A
	Subtotal	669	672	100.5%	13.5	1.5	B
Total		2,445	2,338	95.6%	18.8	1.1	B

MOVEMENT SUMMARY

Site: 101 [Existing Plus Project PM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	1	100.0	0.385	15.4	LOS C	1.8	47.1	0.68	0.73	0.84	32.3
8	T1	454	3.0	0.385	10.4	LOS B	1.8	47.1	0.68	0.73	0.84	33.1
18b	R3	72	3.0	0.385	10.4	LOS B	1.8	47.1	0.68	0.73	0.84	31.5
Approach		526	3.2	0.385	10.4	LOS B	1.8	47.1	0.68	0.73	0.84	32.9
SouthEast: RoadName												
3bx	L3	46	3.0	0.634	16.9	LOS C	4.9	129.2	0.78	1.00	1.44	30.6
3ax	L1	18	100.0	0.634	21.7	LOS C	4.9	129.2	0.78	1.00	1.44	29.3
18ax	R1	818	3.0	0.634	16.7	LOS C	5.1	130.4	0.79	1.00	1.44	29.9
Approach		883	5.0	0.634	16.8	LOS C	5.1	130.4	0.79	1.00	1.44	30.0
North: Deer Valley Drive												
7u	U	242	3.0	0.684	12.1	LOS B	6.6	168.0	0.47	0.25	0.47	31.1
7a	L1	458	3.0	0.684	12.1	LOS B	6.6	168.0	0.47	0.25	0.47	30.2
4	T1	398	3.0	0.684	7.7	LOS A	6.6	168.0	0.33	0.17	0.33	33.4
14	R2	6	100.0	0.187	7.1	LOS A	0.8	21.1	0.22	0.10	0.22	34.4
Approach		1104	3.5	0.684	10.5	LOS B	6.6	168.0	0.42	0.22	0.42	31.5
West: Transit Center												
5	L2	5	100.0	0.105	15.9	LOS C	0.2	7.7	0.65	0.65	0.65	30.4
12a	R1	17	100.0	0.105	15.9	LOS C	0.2	7.7	0.65	0.65	0.65	29.9
12	R2	5	100.0	0.105	15.9	LOS C	0.2	7.7	0.65	0.65	0.65	29.3
Approach		27	100.0	0.105	15.9	LOS C	0.2	7.7	0.65	0.65	0.65	29.9
All Vehicles		2540	5.0	0.684	12.7	LOS B	6.6	168.0	0.60	0.60	0.86	31.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Existing Plus Project - Mitigated**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	69	67	97.0%	21.4	11.1	C
	Through	272	269	99.0%	3.7	0.6	A
	Right Turn						
	Subtotal	341	336	98.6%	7.4	2.4	A
SB	Left Turn						
	Through	666	662	99.4%	8.1	2.1	A
	Right Turn	15	15	102.7%	5.5	5.0	A
	Subtotal	681	678	99.5%	8.1	2.2	A
EB	Left Turn	15	13	88.0%	10.0	6.8	A
	Through						
	Right Turn	120	124	103.6%	5.8	1.3	A
	Subtotal	135	138	101.9%	6.0	1.4	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,157	1,151	99.5%	7.7	2.0	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	17	107.5%	4.3	0.5	A
	Through						
	Right Turn						
	Subtotal	16	17	107.5%	4.3	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	178	180	101.2%	6.6	0.3	A
	Right Turn	20	21	104.0%	3.5	0.6	A
	Subtotal	198	201	101.5%	6.3	0.3	A
WB	Left Turn						
	Through	41	41	100.2%	5.7	0.4	A
	Right Turn						
	Subtotal	41	41	100.2%	5.7	0.4	A
Total		255	259	101.7%	6.1	0.3	A

Intersection 3 **Deer Valley Drive West-Bonanza Drive/Deer Valley Drive East** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	52	52	100.8%	13.5	2.7	B
	Through						
	Right Turn	5	5	102.0%	10.2	11.0	B
	Subtotal	57	58	100.9%	13.4	2.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	690	687	99.6%	7.2	3.6	A
	Right Turn	196	198	100.8%	5.7	3.2	A
	Subtotal	886	885	99.8%	6.8	3.5	A
WB	Left Turn	2	2	90.0%	5.4	8.3	A
	Through	330	326	98.7%	4.3	0.6	A
	Right Turn						
	Subtotal	332	327	98.6%	4.4	0.6	A
Total		1,275	1,270	99.6%	6.6	2.6	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	302	306	101.2%	12.8	2.2	B
	Right Turn	167	170	101.8%	2.8	0.4	A
	Subtotal	469	476	101.4%	9.0	1.4	A
SB	Left Turn	105	95	90.2%	12.4	2.4	B
	Through	673	642	95.4%	9.3	1.6	A
	Right Turn						
	Subtotal	778	737	94.7%	9.7	1.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	570	578	101.4%	17.2	2.2	B
	Through						
	Right Turn	198	200	100.9%	5.7	1.3	A
	Subtotal	768	778	101.3%	14.3	1.9	B
Total		2,015	1,990	98.7%	11.4	1.3	B

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	36	99.4%	26.8	10.2	C
	Through	191	197	102.9%	52.5	5.5	D
	Right Turn	67	65	97.0%	14.5	7.0	B
	Subtotal	294	297	101.2%	41.3	6.4	D
SB	Left Turn	519	431	83.1%	214.3	13.4	F
	Through	169	144	85.1%	179.7	15.2	F
	Right Turn	901	781	86.7%	54.8	11.8	D
	Subtotal	1,589	1,356	85.4%	118.7	8.3	F
EB	Left Turn	320	312	97.6%	38.3	4.5	D
	Through	172	176	102.4%	24.5	4.6	C
	Right Turn	16	17	105.0%	13.4	12.1	B
	Subtotal	508	505	99.4%	32.7	3.7	C
WB	Left Turn	50	49	97.2%	64.4	9.1	E
	Through	253	282	111.4%	46.8	5.2	D
	Right Turn	254	260	102.2%	8.7	2.5	A
	Subtotal	557	590	105.9%	32.3	3.9	C
Total		2,948	2,749	93.2%	76.1	3.1	E

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	59	92.8%	22.2	4.8	C
	Through	28	29	101.8%	20.6	6.9	C
	Right Turn	117	116	98.9%	3.1	0.8	A
	Subtotal	209	204	97.4%	11.7	1.9	B
SB	Left Turn	54	57	104.8%	19.9	3.2	B
	Through	71	72	101.4%	26.3	2.8	C
	Right Turn	29	30	102.1%	4.4	0.9	A
	Subtotal	154	158	102.7%	19.6	2.6	B
EB	Left Turn	22	20	90.0%	12.8	3.9	B
	Through	230	227	98.5%	17.8	4.2	B
	Right Turn	95	102	107.1%	9.0	2.1	A
	Subtotal	347	348	100.3%	15.1	3.7	B
WB	Left Turn	304	306	100.7%	14.1	1.5	B
	Through	324	322	99.4%	7.9	1.2	A
	Right Turn	47	49	103.2%	4.3	1.5	A
	Subtotal	675	677	100.3%	10.6	0.9	B
Total		1,385	1,387	100.1%	12.8	0.8	B

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Existing Plus Project - Mitigated**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	24	99.2%	5.9	2.2	A
	Through	706	697	98.8%	4.6	1.3	A
	Right Turn						
	Subtotal	730	721	98.8%	4.7	1.3	A
SB	Left Turn						
	Through	302	303	100.4%	3.2	0.7	A
	Right Turn	15	14	92.0%	2.1	1.5	A
	Subtotal	317	317	100.0%	3.1	0.7	A
EB	Left Turn	15	14	96.0%	8.5	3.1	A
	Through						
	Right Turn	69	73	105.9%	4.4	0.9	A
	Subtotal	84	88	104.2%	5.1	1.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,131	1,126	99.5%	4.3	1.0	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	78	79	101.4%	4.9	0.4	A
	Through						
	Right Turn						
	Subtotal	78	79	101.4%	4.9	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	64	68	106.6%	5.8	0.7	A
	Right Turn	10	10	96.0%	2.1	1.2	A
	Subtotal	74	78	105.1%	5.4	0.8	A
WB	Left Turn						
	Through	92	92	99.8%	5.6	0.2	A
	Right Turn						
	Subtotal	92	92	99.8%	5.6	0.2	A
Total		244	249	101.9%	5.4	0.3	A

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	158	158	99.8%	15.9	2.6	B
	Through						
	Right Turn	12	14	115.0%	9.7	5.1	A
	Subtotal	170	172	100.9%	15.4	2.6	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	355	356	100.2%	5.2	1.1	A
	Right Turn	67	71	105.4%	4.0	1.3	A
	Subtotal	422	426	101.0%	5.0	1.0	A
WB	Left Turn	7	7	101.4%	11.3	7.0	B
	Through	747	747	100.0%	12.1	1.4	B
	Right Turn						
	Subtotal	754	754	100.0%	12.2	1.4	B
Total		1,346	1,352	100.4%	10.3	1.1	B

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	804	761	94.6%	153.2	65.1	F
	Right Turn	671	611	91.0%	188.2	84.5	F
	Subtotal	1,475	1,372	93.0%	168.5	72.7	F
SB	Left Turn	251	216	86.1%	22.2	2.6	C
	Through	512	448	87.5%	7.5	1.9	A
	Right Turn						
	Subtotal	763	664	87.1%	12.2	1.5	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	440	449	101.9%	30.0	7.9	C
	Through						
	Right Turn	129	130	101.1%	23.3	7.3	C
	Subtotal	569	579	101.7%	28.4	6.9	C
Total		2,807	2,615	93.1%	95.5	36.1	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	35	36	103.7%	29.6	9.5	C
	Through	395	406	102.8%	46.5	3.9	D
	Right Turn	68	71	103.7%	29.1	9.1	C
	Subtotal	498	513	103.0%	42.6	3.1	D
SB	Left Turn	547	382	69.8%	223.9	19.9	F
	Through	363	248	68.4%	177.3	8.5	F
	Right Turn	364	261	71.6%	46.9	5.7	D
	Subtotal	1,274	891	69.9%	158.7	11.9	F
EB	Left Turn	633	637	100.6%	67.6	13.7	E
	Through	277	277	99.9%	33.4	4.4	C
	Right Turn	36	33	92.2%	24.9	12.6	C
	Subtotal	946	947	100.1%	56.4	9.3	E
WB	Left Turn	75	67	89.7%	63.6	9.5	E
	Through	239	257	107.4%	46.0	7.5	D
	Right Turn	690	610	88.4%	57.9	3.6	E
	Subtotal	1,004	934	93.0%	54.8	3.8	D
Total		3,722	3,285	88.3%	81.3	3.3	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	176	159	90.6%	39.1	15.2	D
	Through	89	88	98.7%	38.7	11.0	D
	Right Turn	499	450	90.1%	10.4	2.7	B
	Subtotal	764	697	91.2%	20.7	6.7	C
SB	Left Turn	90	88	97.7%	27.8	5.5	C
	Through	55	56	101.3%	38.4	8.0	D
	Right Turn	63	63	100.0%	5.3	1.0	A
	Subtotal	208	207	99.3%	23.3	4.2	C
EB	Left Turn	71	66	92.5%	13.2	2.5	B
	Through	584	587	100.5%	25.1	3.8	C
	Right Turn	149	154	103.4%	18.6	6.4	B
	Subtotal	804	807	100.3%	22.8	4.0	C
WB	Left Turn	239	247	103.5%	17.9	3.2	B
	Through	384	396	103.1%	11.0	1.5	B
	Right Turn	46	49	106.3%	7.8	4.0	A
	Subtotal	669	692	103.5%	13.4	2.0	B
Total		2,445	2,402	98.2%	19.6	3.8	B

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Opening Year Background**
Volume and Delay by Movement **AM Peak Hour**

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	150	146	97.4%	0.6	0.4	A
	Right Turn	15	18	122.0%	0.7	0.4	A
	Subtotal	165	164	99.6%	0.6	0.3	A
SB	Left Turn	180	179	99.5%	2.8	0.4	A
	Through	635	622	98.0%	1.0	0.2	A
	Right Turn						
	Subtotal	815	801	98.3%	1.4	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	10	10	95.0%	12.2	7.8	B
	Through						
	Right Turn	160	170	106.0%	4.7	1.1	A
	Subtotal	170	179	105.4%	5.1	1.2	A
Total		1,150	1,145	99.5%	1.9	0.3	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	265	265	100.0%	12.8	2.3	B
	Right Turn	160	165	103.3%	2.8	0.6	A
	Subtotal	425	430	101.2%	9.1	1.7	A
SB	Left Turn	110	93	84.7%	12.7	2.1	B
	Through	630	602	95.5%	8.5	1.0	A
	Right Turn						
	Subtotal	740	695	93.9%	9.1	0.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	570	563	98.8%	15.9	2.4	B
	Through						
	Right Turn	210	205	97.6%	5.0	1.3	A
	Subtotal	780	768	98.4%	12.9	2.1	B
Total		1,945	1,893	97.3%	10.7	1.3	B

Intersection 6 **Park Avenue-Bonanza Drive/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	73	96.9%	30.4	6.1	C
	Through	195	195	100.2%	53.0	5.8	D
	Right Turn	75	78	104.4%	25.2	4.3	C
	Subtotal	345	346	100.4%	41.7	3.8	D
SB	Left Turn	480	397	82.6%	159.1	52.1	F
	Through	170	136	79.8%	144.8	52.8	F
	Right Turn	1,185	997	84.2%	102.9	17.3	F
	Subtotal	1,835	1,530	83.4%	122.4	10.8	F
EB	Left Turn	425	422	99.3%	40.3	4.6	D
	Through	295	288	97.6%	29.4	3.8	C
	Right Turn	35	37	106.6%	22.3	10.4	C
	Subtotal	755	747	98.9%	34.9	3.6	C
WB	Left Turn	50	49	98.4%	108.5	11.8	F
	Through	375	391	104.2%	92.8	8.5	F
	Right Turn	215	212	98.7%	14.5	3.4	B
	Subtotal	640	652	101.9%	68.6	6.8	E
Total		3,575	3,275	91.6%	83.5	6.4	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	68	97.7%	22.1	6.3	C
	Through	30	31	102.0%	27.0	4.8	C
	Right Turn	110	107	97.0%	2.8	1.0	A
	Subtotal	210	206	98.0%	13.7	2.1	B
SB	Left Turn	60	59	99.0%	18.7	5.3	B
	Through	75	77	102.5%	25.0	4.8	C
	Right Turn	30	34	113.7%	4.3	1.0	A
	Subtotal	165	170	103.3%	18.6	3.2	B
EB	Left Turn	25	26	105.2%	11.7	3.0	B
	Through	265	274	103.5%	17.4	2.7	B
	Right Turn	100	99	99.2%	9.2	2.7	A
	Subtotal	390	400	102.5%	15.0	2.2	B
WB	Left Turn	315	304	96.5%	14.2	1.5	B
	Through	370	374	101.2%	9.4	1.6	A
	Right Turn	55	57	103.8%	5.8	3.3	A
	Subtotal	740	735	99.4%	11.1	1.6	B
Total		1,505	1,511	100.4%	13.3	1.2	B

MOVEMENT SUMMARY

Site: 101 [2022 BG AM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	5	100.0	0.171	14.1	LOS B	0.6	15.6	0.63	0.63	0.63	33.7
8	T1	128	3.0	0.171	8.3	LOS A	0.6	15.8	0.64	0.64	0.64	33.9
18b	R3	64	3.0	0.171	8.2	LOS A	0.6	15.8	0.64	0.64	0.64	32.3
Approach		197	5.6	0.171	8.4	LOS A	0.6	15.8	0.64	0.64	0.64	33.4
SouthEast: RoadName												
3bx	L3	32	3.0	0.149	4.4	LOS A	0.5	15.4	0.31	0.19	0.31	35.8
3ax	L1	21	100.0	0.149	7.3	LOS A	0.5	15.4	0.31	0.19	0.31	34.4
18ax	R1	277	3.0	0.149	4.4	LOS A	0.6	16.0	0.31	0.19	0.31	35.5
Approach		330	9.3	0.149	4.6	LOS A	0.6	16.0	0.31	0.19	0.31	35.4
North: Deer Valley Drive												
7u	U	27	3.0	0.776	15.7	LOS C	9.5	242.6	0.60	0.32	0.60	29.9
7a	L1	819	3.0	0.776	15.7	LOS C	9.5	242.6	0.60	0.32	0.60	29.0
4	T1	383	3.0	0.776	8.8	LOS A	9.5	242.6	0.36	0.19	0.36	33.1
14	R2	16	100.0	0.212	7.3	LOS A	0.9	24.3	0.22	0.11	0.22	34.4
Approach		1245	4.2	0.776	13.5	LOS B	9.5	242.6	0.52	0.28	0.52	30.2
West: Transit Center												
5	L2	5	100.0	0.203	20.2	LOS C	0.3	15.0	0.69	0.69	0.69	28.9
12a	R1	27	100.0	0.203	20.2	LOS C	0.3	15.0	0.69	0.69	0.69	28.5
12	R2	16	100.0	0.203	20.2	LOS C	0.3	15.0	0.69	0.69	0.69	27.9
Approach		48	100.0	0.203	20.2	LOS C	0.3	15.0	0.69	0.69	0.69	28.3
All Vehicles		1819	7.8	0.776	11.5	LOS B	9.5	242.6	0.50	0.31	0.50	31.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	535	534	99.8%	1.9	0.4	A
	Right Turn	45	43	96.4%	1.2	0.4	A
	Subtotal	580	577	99.6%	1.9	0.3	A
SB	Left Turn	205	202	98.3%	7.5	1.9	A
	Through	230	233	101.4%	0.7	0.3	A
	Right Turn						
	Subtotal	435	435	100.0%	3.8	1.1	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	25	28	110.4%	48.9	24.4	E
	Through						
	Right Turn	385	393	102.1%	45.3	33.0	E
	Subtotal	410	421	102.6%	45.9	32.4	E
Total		1,425	1,433	100.6%	15.6	9.5	C

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	755	707	93.7%	185.6	75.9	F
	Right Turn	670	596	89.0%	236.7	94.8	F
	Subtotal	1,425	1,303	91.5%	208.9	82.9	F
SB	Left Turn	265	189	71.1%	22.3	3.3	C
	Through	460	353	76.6%	6.6	1.7	A
	Right Turn						
	Subtotal	725	541	74.6%	12.2	1.5	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	435	432	99.4%	32.1	9.2	C
	Through						
	Right Turn	140	146	104.0%	36.6	18.5	D
	Subtotal	575	578	100.5%	33.4	11.2	C
Total		2,725	2,422	88.9%	122.5	43.5	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	55	55	100.0%	39.1	8.7	D
	Through	395	397	100.5%	52.9	4.9	D
	Right Turn	70	69	98.7%	33.0	8.0	C
	Subtotal	520	521	100.2%	48.6	4.5	D
SB	Left Turn	495	352	71.0%	224.1	14.6	F
	Through	365	262	71.8%	189.1	10.6	F
	Right Turn	555	397	71.5%	57.5	8.5	E
	Subtotal	1,415	1,010	71.4%	149.7	9.7	F
EB	Left Turn	1,070	665	62.1%	92.2	4.6	F
	Through	470	292	62.1%	31.1	11.1	C
	Right Turn	80	48	59.5%	23.9	8.7	C
	Subtotal	1,620	1,004	62.0%	71.3	4.0	E
WB	Left Turn	75	66	87.7%	73.5	16.7	E
	Through	310	303	97.8%	58.0	19.3	E
	Right Turn	640	514	80.3%	72.1	2.4	E
	Subtotal	1,025	883	86.2%	67.9	8.5	E
Total		4,580	3,418	74.6%	90.3	2.5	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	185	163	88.2%	44.1	12.6	D
	Through	90	80	89.0%	34.3	6.4	C
	Right Turn	520	437	84.1%	13.8	3.9	B
	Subtotal	795	681	85.6%	23.5	4.8	C
SB	Left Turn	100	98	97.6%	26.7	4.0	C
	Through	55	60	108.2%	41.7	9.7	D
	Right Turn	70	68	97.6%	5.7	1.2	A
	Subtotal	225	225	100.2%	24.2	4.4	C
EB	Left Turn	75	74	98.7%	15.5	2.9	B
	Through	670	671	100.1%	27.5	4.6	C
	Right Turn	155	156	100.7%	22.0	2.6	C
	Subtotal	900	901	100.1%	25.6	3.8	C
WB	Left Turn	240	239	99.6%	21.9	3.5	C
	Through	440	447	101.7%	12.1	1.5	B
	Right Turn	55	58	105.5%	8.1	2.9	A
	Subtotal	735	744	101.3%	14.9	1.7	B
Total		2,655	2,551	96.1%	21.7	2.3	C

MOVEMENT SUMMARY

Site: 101 [2022 BG PM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	1	100.0	0.358	14.0	LOS B	1.6	41.8	0.65	0.68	0.73	32.7
8	T1	460	3.0	0.358	9.4	LOS A	1.6	41.8	0.65	0.68	0.73	33.6
18b	R3	66	3.0	0.358	9.4	LOS A	1.6	41.8	0.65	0.68	0.73	32.0
Approach		526	3.2	0.358	9.4	LOS A	1.6	41.8	0.65	0.68	0.73	33.4
SouthEast: RoadName												
3bx	L3	40	3.0	0.580	15.2	LOS C	4.0	104.5	0.75	0.93	1.29	31.3
3ax	L1	15	100.0	0.580	20.0	LOS C	4.0	104.5	0.75	0.93	1.29	30.0
18ax	R1	742	3.0	0.580	15.0	LOS C	4.1	105.5	0.76	0.94	1.29	30.6
Approach		798	4.8	0.580	15.1	LOS C	4.1	105.5	0.76	0.94	1.29	30.7
North: Deer Valley Drive												
7u	U	242	3.0	0.633	10.7	LOS B	5.5	141.6	0.39	0.20	0.39	31.8
7a	L1	374	3.0	0.633	10.7	LOS B	5.5	141.6	0.39	0.20	0.39	30.8
4	T1	404	3.0	0.633	7.4	LOS A	5.5	141.6	0.29	0.14	0.29	33.4
14	R2	10	100.0	0.173	6.9	LOS A	0.7	19.2	0.20	0.09	0.20	34.6
Approach		1030	4.0	0.633	9.4	LOS A	5.5	141.6	0.35	0.17	0.35	32.1
West: Transit Center												
5	L2	10	100.0	0.126	15.3	LOS C	0.2	9.4	0.62	0.62	0.62	30.3
12a	R1	15	100.0	0.126	15.3	LOS C	0.2	9.4	0.62	0.62	0.62	29.9
12	R2	10	100.0	0.126	15.3	LOS C	0.2	9.4	0.62	0.62	0.62	29.3
Approach		35	100.0	0.126	15.3	LOS C	0.2	9.4	0.62	0.62	0.62	29.9
All Vehicles		2390	5.5	0.633	11.4	LOS B	5.5	141.6	0.56	0.55	0.75	31.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Opening Year Plus Project**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	75	107.3%	5.9	1.6	A
	Through	279	278	99.7%	0.7	0.2	A
	Right Turn						
	Subtotal	349	353	101.2%	1.8	0.4	A
SB	Left Turn						
	Through	676	678	100.2%	2.0	0.2	A
	Right Turn	15	16	103.3%	1.7	0.8	A
	Subtotal	691	693	100.3%	2.0	0.2	A
EB	Left Turn	15	14	95.3%	13.5	5.1	B
	Through						
	Right Turn	124	130	104.6%	10.1	3.1	B
	Subtotal	139	144	103.6%	10.5	3.0	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,179	1,190	101.0%	3.0	0.6	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	100.0%	4.5	0.7	A
	Through						
	Right Turn						
	Subtotal	16	16	100.0%	4.5	0.7	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	182	191	105.1%	0.9	0.3	A
	Right Turn	20	20	101.5%	0.8	0.9	A
	Subtotal	202	212	104.8%	0.9	0.3	A
WB	Left Turn						
	Through	42	45	106.0%	0.1	0.2	A
	Right Turn						
	Subtotal	42	45	106.0%	0.1	0.2	A
Total		260	272	104.7%	1.0	0.3	A

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Opening Year Plus Project**
Volume and Delay by Movement **AM Peak Hour**

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	53	55	103.0%	24.9	9.2	C
	Through						
	Right Turn	5	6	112.0%	12.2	11.9	B
	Subtotal	58	60	103.8%	24.0	8.7	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	700	701	100.2%	3.1	0.7	A
	Right Turn	199	208	104.4%	2.4	0.7	A
	Subtotal	899	909	101.1%	3.0	0.7	A
WB	Left Turn	3	3	86.7%	8.7	18.2	A
	Through	336	344	102.4%	2.5	0.6	A
	Right Turn						
	Subtotal	339	347	102.3%	2.6	0.8	A
Total		1,296	1,316	101.5%	3.9	1.0	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	304	303	99.8%	14.2	1.8	B
	Right Turn	176	177	100.3%	3.4	0.6	A
	Subtotal	480	480	100.0%	10.1	1.4	B
SB	Left Turn	110	100	91.0%	13.7	1.6	B
	Through	672	633	94.2%	9.8	1.3	A
	Right Turn						
	Subtotal	782	733	93.8%	10.3	1.1	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	587	603	102.7%	16.7	1.7	B
	Through						
	Right Turn	210	212	101.1%	5.0	1.1	A
	Subtotal	797	815	102.2%	14.1	1.5	B
Total		2,059	2,028	98.5%	11.8	0.8	B

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	82	109.7%	33.3	8.0	C
	Through	165	170	103.0%	52.9	5.7	D
	Right Turn	75	76	100.8%	20.9	6.0	C
	Subtotal	315	328	104.1%	40.7	4.2	D
SB	Left Turn	522	411	78.7%	199.6	26.1	F
	Through	170	135	79.5%	171.0	24.3	F
	Right Turn	1,185	951	80.3%	92.2	19.5	F
	Subtotal	1,877	1,497	79.8%	129.5	4.8	F
EB	Left Turn	425	410	96.5%	38.7	3.7	D
	Through	295	298	100.8%	28.9	3.2	C
	Right Turn	35	35	100.6%	17.6	5.3	B
	Subtotal	755	743	98.4%	33.8	3.5	C
WB	Left Turn	50	46	92.2%	115.7	19.3	F
	Through	375	399	106.4%	90.0	9.7	F
	Right Turn	254	247	97.3%	13.6	2.9	B
	Subtotal	679	692	102.0%	64.6	8.0	E
Total		3,626	3,260	89.9%	84.8	2.9	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	69	98.3%	25.9	5.0	C
	Through	30	29	97.0%	20.0	6.9	C
	Right Turn	126	122	96.7%	3.1	0.7	A
	Subtotal	226	220	97.2%	12.3	1.6	B
SB	Left Turn	60	60	99.5%	22.1	2.8	C
	Through	75	73	97.9%	27.4	5.2	C
	Right Turn	30	32	107.0%	5.1	1.2	A
	Subtotal	165	165	100.1%	21.4	3.1	C
EB	Left Turn	25	22	86.0%	12.7	4.4	B
	Through	265	271	102.1%	19.0	2.2	B
	Right Turn	100	104	104.2%	11.4	3.1	B
	Subtotal	390	396	101.6%	16.7	2.4	B
WB	Left Turn	332	338	101.7%	14.2	1.8	B
	Through	370	372	100.5%	8.4	1.6	A
	Right Turn	55	60	109.5%	4.5	1.0	A
	Subtotal	757	770	101.7%	10.6	1.0	B
Total		1,538	1,551	100.9%	13.6	1.2	B

MOVEMENT SUMMARY

Site: 101 [2022 Plus Project AM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	5	100.0	0.193	15.5	LOS C	0.7	17.5	0.66	0.66	0.66	33.2
8	T1	128	3.0	0.193	9.2	LOS A	0.7	17.7	0.66	0.66	0.66	33.4
18b	R3	72	3.0	0.193	9.2	LOS A	0.7	17.7	0.66	0.66	0.66	31.9
Approach		205	5.5	0.193	9.4	LOS A	0.7	17.7	0.66	0.66	0.66	32.9
SouthEast: RoadName												
3bx	L3	40	3.0	0.187	4.8	LOS A	0.7	20.0	0.32	0.20	0.32	35.7
3ax	L1	26	100.0	0.187	7.7	LOS A	0.7	20.0	0.32	0.20	0.32	34.2
18ax	R1	348	3.0	0.187	4.7	LOS A	0.8	20.7	0.32	0.20	0.32	35.3
Approach		414	9.0	0.187	4.9	LOS A	0.8	20.7	0.32	0.20	0.32	35.3
North: Deer Valley Drive												
7u	U	27	3.0	0.835	19.5	LOS C	11.8	302.3	0.77	0.45	0.77	28.5
7a	L1	895	3.0	0.835	19.5	LOS C	11.8	302.3	0.77	0.45	0.77	27.7
4	T1	383	3.0	0.835	9.7	LOS A	11.8	302.3	0.42	0.24	0.42	32.7
14	R2	16	100.0	0.228	7.6	LOS A	1.0	26.5	0.25	0.13	0.25	34.3
Approach		1320	4.2	0.835	16.5	LOS C	11.8	302.3	0.67	0.39	0.67	29.0
West: Transit Center												
5	L2	5	100.0	0.238	22.7	LOS C	0.4	17.7	0.72	0.73	0.75	28.0
12a	R1	31	100.0	0.238	22.7	LOS C	0.4	17.7	0.72	0.73	0.75	27.6
12	R2	16	100.0	0.238	22.7	LOS C	0.4	17.7	0.72	0.73	0.75	27.1
Approach		52	100.0	0.238	22.7	LOS C	0.4	17.7	0.72	0.73	0.75	27.5
All Vehicles		1991	7.8	0.835	13.5	LOS B	11.8	302.3	0.60	0.38	0.60	30.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Opening Year Plus Project**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	39	99.7%	4.1	0.6	A
	Through	810	822	101.4%	1.4	0.2	A
	Right Turn						
	Subtotal	849	860	101.3%	1.5	0.2	A
SB	Left Turn						
	Through	409	397	96.9%	1.5	0.2	A
	Right Turn	15	14	95.3%	0.8	0.6	A
	Subtotal	424	411	96.9%	1.5	0.2	A
EB	Left Turn	15	14	91.3%	19.4	9.7	C
	Through						
	Right Turn	82	81	99.1%	6.4	1.8	A
	Subtotal	97	95	97.9%	8.0	2.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,370	1,366	99.7%	2.0	0.2	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	78	80	102.8%	5.3	0.5	A
	Through						
	Right Turn						
	Subtotal	78	80	102.8%	5.3	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	77	75	97.4%	0.4	0.3	A
	Right Turn	10	9	88.0%	0.2	0.3	A
	Subtotal	87	84	96.3%	0.3	0.2	A
WB	Left Turn						
	Through	107	110	102.4%	0.3	0.1	A
	Right Turn						
	Subtotal	107	110	102.4%	0.3	0.1	A
Total		272	274	100.6%	1.9	0.3	A

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Opening Year Plus Project**
Volume and Delay by Movement **PM Peak Hour**

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	171	174	101.5%	75.9	46.5	F
	Through						
	Right Turn	14	14	100.7%	46.6	47.1	E
	Subtotal	185	188	101.5%	74.6	45.7	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	460	447	97.2%	1.1	0.2	A
	Right Turn	79	75	95.4%	0.7	0.2	A
	Subtotal	539	523	97.0%	1.0	0.2	A
WB	Left Turn	8	7	91.3%	5.5	4.3	A
	Through	850	868	102.1%	4.1	0.4	A
	Right Turn						
	Subtotal	858	875	102.0%	4.1	0.4	A
Total		1,582	1,586	100.2%	10.5	4.9	B

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	805	767	95.2%	129.0	88.7	F
	Right Turn	690	645	93.5%	162.3	127.5	F
	Subtotal	1,495	1,412	94.4%	143.2	105.0	F
SB	Left Turn	265	170	64.1%	22.6	3.2	C
	Through	512	342	66.8%	7.8	1.7	A
	Right Turn						
	Subtotal	777	512	65.9%	12.9	1.7	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	456	444	97.3%	28.1	5.8	C
	Through						
	Right Turn	140	134	95.4%	23.8	10.2	C
	Subtotal	596	577	96.9%	27.2	6.1	C
Total		2,868	2,501	87.2%	86.8	55.2	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	55	50	91.6%	31.7	8.2	C
	Through	395	388	98.1%	49.9	3.2	D
	Right Turn	70	69	98.1%	32.9	11.0	C
	Subtotal	520	507	97.4%	45.7	3.6	D
SB	Left Turn	547	360	65.8%	224.5	11.9	F
	Through	365	241	66.1%	177.0	7.9	F
	Right Turn	555	375	67.6%	56.9	11.2	E
	Subtotal	1,467	976	66.6%	151.6	8.8	F
EB	Left Turn	1,070	660	61.7%	88.9	4.3	F
	Through	470	289	61.6%	37.6	14.0	D
	Right Turn	80	48	59.8%	21.5	12.6	C
	Subtotal	1,620	997	61.6%	71.8	2.6	E
WB	Left Turn	75	71	94.1%	83.2	24.1	F
	Through	310	302	97.3%	74.7	16.2	E
	Right Turn	690	604	87.5%	53.5	4.3	D
	Subtotal	1,075	976	90.8%	62.1	5.0	E
Total		4,682	3,457	73.8%	87.7	2.0	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	185	162	87.7%	41.7	16.1	D
	Through	90	91	100.8%	37.5	11.5	D
	Right Turn	540	453	83.9%	13.5	5.7	B
	Subtotal	815	706	86.7%	23.5	9.0	C
SB	Left Turn	100	99	98.5%	33.5	6.4	C
	Through	55	50	91.3%	42.1	10.2	D
	Right Turn	70	68	97.4%	5.2	1.0	A
	Subtotal	225	217	96.4%	26.1	3.9	C
EB	Left Turn	75	70	93.2%	14.7	3.2	B
	Through	670	674	100.6%	27.9	2.9	C
	Right Turn	155	152	98.2%	22.6	4.9	C
	Subtotal	900	896	99.6%	26.2	2.9	C
WB	Left Turn	261	256	98.1%	20.9	3.0	C
	Through	440	438	99.6%	11.4	1.3	B
	Right Turn	55	53	97.1%	7.2	2.6	A
	Subtotal	756	748	98.9%	14.4	1.3	B
Total		2,696	2,567	95.2%	22.1	3.4	C

MOVEMENT SUMMARY

Site: 101 [2022 Plus Project PM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	1	100.0	0.400	15.9	LOS C	2.0	50.1	0.69	0.75	0.89	32.1
8	T1	460	3.0	0.400	10.9	LOS B	2.0	50.2	0.69	0.75	0.89	32.9
18b	R3	76	3.0	0.400	10.9	LOS B	2.0	50.2	0.69	0.75	0.89	31.3
Approach		536	3.2	0.400	10.9	LOS B	2.0	50.2	0.69	0.75	0.89	32.6
SouthEast: RoadName												
3bx	L3	51	3.0	0.656	18.1	LOS C	5.2	138.7	0.79	1.04	1.53	30.1
3ax	L1	20	100.0	0.656	22.9	LOS C	5.2	138.7	0.79	1.04	1.53	28.9
18ax	R1	828	3.0	0.656	17.8	LOS C	5.5	140.0	0.80	1.04	1.52	29.5
Approach		899	5.2	0.656	18.0	LOS C	5.5	140.0	0.80	1.04	1.52	29.5
North: Deer Valley Drive												
7u	U	242	3.0	0.701	12.7	LOS B	6.9	177.2	0.51	0.28	0.51	30.9
7a	L1	464	3.0	0.701	12.7	LOS B	6.9	177.2	0.51	0.28	0.51	29.9
4	T1	404	3.0	0.701	8.2	LOS A	6.9	177.2	0.36	0.19	0.36	33.2
14	R2	10	100.0	0.192	7.2	LOS A	0.8	21.6	0.23	0.11	0.23	34.5
Approach		1120	3.9	0.701	11.0	LOS B	6.9	177.2	0.45	0.25	0.45	31.3
West: Transit Center												
5	L2	10	100.0	0.157	17.4	LOS C	0.3	11.7	0.66	0.66	0.66	29.6
12a	R1	20	100.0	0.157	17.4	LOS C	0.3	11.7	0.66	0.66	0.66	29.2
12	R2	10	100.0	0.157	17.4	LOS C	0.3	11.7	0.66	0.66	0.66	28.6
Approach		40	100.0	0.157	17.4	LOS C	0.3	11.7	0.66	0.66	0.66	29.2
All Vehicles		2596	5.7	0.701	13.5	LOS B	6.9	177.2	0.62	0.63	0.92	30.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Opening Year Plus Project - Mitigated**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	67	96.3%	19.8	8.2	B
	Through	279	285	102.1%	4.1	0.9	A
	Right Turn						
	Subtotal	349	352	100.9%	7.3	2.3	A
SB	Left Turn						
	Through	676	685	101.3%	9.2	2.3	A
	Right Turn	15	15	100.7%	6.8	4.3	A
	Subtotal	691	700	101.3%	9.2	2.3	A
EB	Left Turn	15	17	111.3%	7.6	4.0	A
	Through						
	Right Turn	124	120	96.5%	6.0	0.8	A
	Subtotal	139	136	98.1%	6.2	0.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,179	1,189	100.8%	8.3	1.9	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	15	93.8%	4.3	0.4	A
	Through						
	Right Turn						
	Subtotal	16	15	93.8%	4.3	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	182	180	99.0%	6.6	0.3	A
	Right Turn	20	23	117.0%	4.1	1.4	A
	Subtotal	202	204	100.8%	6.4	0.3	A
WB	Left Turn						
	Through	42	40	94.3%	5.7	0.2	A
	Right Turn						
	Subtotal	42	40	94.3%	5.7	0.2	A
Total		260	258	99.3%	6.2	0.2	A

Intersection 3 **Deer Valley Drive West-Bonanza Drive/Deer Valley Drive East** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	53	49	93.0%	15.5	5.2	B
	Through						
	Right Turn	5	5	106.0%	5.6	11.2	A
	Subtotal	58	55	94.1%	15.0	5.5	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	700	708	101.1%	6.8	1.9	A
	Right Turn	199	199	99.8%	5.9	2.2	A
	Subtotal	899	907	100.8%	6.6	2.0	A
WB	Left Turn	3	3	103.3%	23.6	46.4	C
	Through	336	347	103.2%	7.1	5.4	A
	Right Turn						
	Subtotal	339	350	103.2%	7.4	5.9	A
Total		1,296	1,311	101.1%	7.2	2.5	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	304	297	97.6%	12.5	2.0	B
	Right Turn	176	177	100.3%	3.3	0.9	A
	Subtotal	480	473	98.6%	9.1	1.2	A
SB	Left Turn	110	101	92.0%	13.1	2.6	B
	Through	672	663	98.7%	9.8	1.0	A
	Right Turn						
	Subtotal	782	765	97.8%	10.2	0.9	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	587	587	100.0%	16.1	1.9	B
	Through						
	Right Turn	210	214	102.0%	5.2	1.1	A
	Subtotal	797	801	100.5%	13.3	1.9	B
Total		2,059	2,039	99.0%	11.2	0.9	B

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	73	97.2%	32.0	5.3	C
	Through	165	159	96.5%	51.6	8.3	D
	Right Turn	75	81	108.1%	22.0	6.8	C
	Subtotal	315	313	99.5%	39.3	4.5	D
SB	Left Turn	392	334	85.3%	83.1	22.5	F
	Through	170	145	85.4%	80.9	17.2	F
	Right Turn	1,185	1,013	85.5%	119.8	1.9	F
	Subtotal	1,747	1,492	85.4%	107.9	6.6	F
EB	Left Turn	425	424	99.9%	40.1	4.0	D
	Through	295	296	100.4%	23.0	2.8	C
	Right Turn	35	34	98.0%	16.1	8.7	B
	Subtotal	755	755	100.0%	32.3	3.3	C
WB	Left Turn	50	47	93.6%	99.7	17.2	F
	Through	375	396	105.7%	93.2	10.6	F
	Right Turn	254	237	93.2%	12.0	2.3	B
	Subtotal	679	680	100.1%	64.5	6.4	E
Total		3,496	3,240	92.7%	74.9	3.5	E

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	70	68	96.7%	22.6	4.3	C
	Through	30	32	107.7%	17.6	7.8	B
	Right Turn	126	121	96.1%	3.4	1.0	A
	Subtotal	226	221	97.8%	12.3	2.4	B
SB	Left Turn	60	57	94.3%	22.4	8.3	C
	Through	75	74	98.1%	27.8	4.0	C
	Right Turn	30	33	109.3%	4.0	1.2	A
	Subtotal	165	163	98.8%	21.1	3.0	C
EB	Left Turn	25	24	96.0%	14.1	4.1	B
	Through	265	258	97.2%	19.1	2.6	B
	Right Turn	100	104	103.6%	10.1	2.6	B
	Subtotal	390	385	98.7%	16.3	2.2	B
WB	Left Turn	332	332	100.1%	14.7	2.8	B
	Through	370	362	97.9%	8.6	1.7	A
	Right Turn	55	56	102.5%	6.1	3.3	A
	Subtotal	757	751	99.2%	11.1	2.3	B
Total		1,538	1,520	98.8%	13.6	2.1	B

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **Opening Year Plus Project - Mitigated**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	40	101.8%	10.9	3.1	B
	Through	810	818	101.0%	7.1	2.2	A
	Right Turn						
	Subtotal	849	857	101.0%	7.3	2.1	A
SB	Left Turn						
	Through	409	409	99.9%	3.7	0.9	A
	Right Turn	15	15	101.3%	2.9	1.7	A
	Subtotal	424	424	100.0%	3.7	0.8	A
EB	Left Turn	15	15	96.7%	8.9	3.6	A
	Through						
	Right Turn	82	84	102.8%	4.3	0.7	A
	Subtotal	97	99	101.9%	5.0	1.1	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,370	1,380	100.7%	6.0	1.4	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	78	77	99.1%	4.7	0.3	A
	Through						
	Right Turn						
	Subtotal	78	77	99.1%	4.7	0.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	77	76	98.8%	6.2	0.6	A
	Right Turn	10	13	133.0%	2.9	1.2	A
	Subtotal	87	89	102.8%	5.8	0.4	A
WB	Left Turn						
	Through	107	107	100.2%	5.8	0.4	A
	Right Turn						
	Subtotal	107	107	100.2%	5.8	0.4	A
Total		272	274	100.7%	5.5	0.2	A

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	171	170	99.5%	18.9	2.1	B
	Through						
	Right Turn	14	13	93.6%	17.6	9.5	B
	Subtotal	185	183	99.1%	18.6	2.0	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	460	460	100.1%	7.3	0.9	A
	Right Turn	79	81	102.3%	4.6	1.9	A
	Subtotal	539	541	100.4%	6.9	0.9	A
WB	Left Turn	8	7	92.5%	18.7	13.2	B
	Through	850	864	101.6%	13.9	3.2	B
	Right Turn						
	Subtotal	858	871	101.5%	13.9	3.2	B
Total		1,582	1,596	100.9%	12.0	1.8	B

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	805	772	95.9%	128.5	66.2	F
	Right Turn	690	641	92.9%	160.6	103.9	F
	Subtotal	1,495	1,413	94.5%	142.1	81.9	F
SB	Left Turn	265	178	67.2%	22.5	6.0	C
	Through	512	356	69.4%	8.6	1.7	A
	Right Turn						
	Subtotal	777	534	68.7%	13.2	2.1	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	456	453	99.3%	32.9	6.6	C
	Through						
	Right Turn	140	134	95.7%	24.2	6.1	C
	Subtotal	596	587	98.5%	30.8	5.3	C
Total		2,868	2,533	88.3%	85.9	42.4	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	55	53	96.9%	35.3	7.4	D
	Through	395	388	98.2%	52.7	4.3	D
	Right Turn	70	74	105.3%	30.8	8.6	C
	Subtotal	520	515	99.0%	47.7	4.2	D
SB	Left Turn	547	364	66.6%	225.4	17.6	F
	Through	365	238	65.2%	180.9	10.2	F
	Right Turn	555	363	65.4%	52.1	4.0	D
	Subtotal	1,467	965	65.8%	149.4	10.7	F
EB	Left Turn	1,070	671	62.7%	90.5	2.8	F
	Through	470	310	66.0%	34.5	9.0	C
	Right Turn	80	53	66.5%	26.3	14.7	C
	Subtotal	1,620	1,035	63.9%	70.4	3.9	E
WB	Left Turn	75	65	86.3%	102.5	22.3	F
	Through	310	277	89.5%	79.5	14.4	E
	Right Turn	690	601	87.0%	54.1	3.2	D
	Subtotal	1,075	943	87.7%	65.6	6.0	E
Total		4,682	3,457	73.8%	87.5	3.7	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	185	167	90.2%	46.7	20.6	D
	Through	90	83	92.1%	36.3	8.2	D
	Right Turn	540	469	86.9%	15.7	6.1	B
	Subtotal	815	719	88.2%	25.9	10.2	C
SB	Left Turn	100	100	100.0%	35.7	6.4	D
	Through	55	54	97.5%	43.8	5.1	D
	Right Turn	70	65	92.3%	5.0	1.2	A
	Subtotal	225	218	97.0%	28.8	3.3	C
EB	Left Turn	75	74	98.5%	14.8	3.8	B
	Through	670	691	103.1%	30.6	5.6	C
	Right Turn	155	150	96.9%	24.1	6.1	C
	Subtotal	900	915	101.7%	28.5	5.2	C
WB	Left Turn	261	257	98.6%	22.1	4.5	C
	Through	440	429	97.6%	10.4	2.6	B
	Right Turn	55	56	101.1%	6.6	2.2	A
	Subtotal	756	742	98.2%	14.2	2.8	B
Total		2,696	2,594	96.2%	23.6	4.6	C

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **2040 Background**
Volume and Delay by Movement **AM Peak Hour**

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	185	188	101.4%	0.7	0.3	A
	Right Turn	15	18	119.3%	0.5	0.5	A
	Subtotal	200	206	102.8%	0.7	0.3	A
SB	Left Turn	220	217	98.8%	3.6	0.5	A
	Through	740	736	99.4%	1.5	0.3	A
	Right Turn						
	Subtotal	960	953	99.3%	1.9	0.3	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	10	8	80.0%	18.5	7.7	C
	Through						
	Right Turn	190	196	103.2%	5.0	0.7	A
	Subtotal	200	204	102.1%	5.5	0.8	A
Total		1,360	1,363	100.2%	2.3	0.3	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	275	272	99.0%	33.4	22.2	C
	Right Turn	200	199	99.4%	3.5	1.1	A
	Subtotal	475	471	99.2%	20.5	13.4	C
SB	Left Turn	125	101	80.7%	12.6	1.9	B
	Through	655	561	85.6%	9.7	1.5	A
	Right Turn						
	Subtotal	780	662	84.8%	10.1	1.3	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	700	689	98.4%	23.1	7.1	C
	Through						
	Right Turn	225	219	97.5%	14.0	8.7	B
	Subtotal	925	909	98.2%	20.9	7.5	C
Total		2,180	2,041	93.6%	17.1	6.1	B

Intersection 6 **Park Avenue-Bonanza Drive/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	115	116	100.9%	32.1	4.2	C
	Through	195	192	98.4%	48.7	5.3	D
	Right Turn	75	70	93.5%	27.0	5.7	C
	Subtotal	385	378	98.2%	39.5	3.2	D
SB	Left Turn	480	278	57.8%	74.5	5.3	E
	Through	170	101	59.1%	74.8	6.2	E
	Right Turn	1,720	991	57.6%	127.4	5.0	F
	Subtotal	2,370	1,369	57.8%	113.3	4.1	F
EB	Left Turn	640	657	102.7%	58.0	9.1	E
	Through	410	411	100.2%	25.7	2.6	C
	Right Turn	60	58	97.0%	22.3	8.0	C
	Subtotal	1,110	1,126	101.5%	44.6	5.4	D
WB	Left Turn	50	39	77.6%	114.4	20.3	F
	Through	460	416	90.4%	96.3	8.3	F
	Right Turn	215	190	88.6%	16.3	4.6	B
	Subtotal	725	645	89.0%	73.2	4.7	E
Total		4,590	3,518	76.7%	76.3	2.9	E

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	66	88.4%	24.2	4.5	C
	Through	30	31	103.3%	25.9	8.2	C
	Right Turn	125	116	92.7%	4.6	1.5	A
	Subtotal	230	213	92.7%	14.5	2.9	B
SB	Left Turn	70	73	104.0%	21.4	4.0	C
	Through	75	76	101.1%	30.8	6.0	C
	Right Turn	35	40	114.6%	5.1	0.9	A
	Subtotal	180	189	104.8%	21.6	2.9	C
EB	Left Turn	25	23	93.6%	14.8	3.7	B
	Through	370	376	101.6%	20.9	2.0	C
	Right Turn	115	119	103.6%	12.0	2.7	B
	Subtotal	510	518	101.6%	18.9	1.9	B
WB	Left Turn	360	347	96.4%	16.4	1.2	B
	Through	515	505	98.1%	9.7	0.9	A
	Right Turn	60	59	99.0%	7.0	3.5	A
	Subtotal	935	912	97.5%	12.2	0.7	B
Total		1,855	1,832	98.7%	15.4	1.0	B

MOVEMENT SUMMARY

Site: 101 [2040 BG AM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	5	100.0	0.214	16.5	LOS C	0.7	19.4	0.67	0.67	0.67	32.8
8	T1	128	3.0	0.214	9.9	LOS A	0.8	19.6	0.67	0.67	0.67	33.1
18b	R3	85	3.0	0.214	9.9	LOS A	0.8	19.6	0.68	0.68	0.68	31.5
Approach		218	5.4	0.214	10.1	LOS B	0.8	19.6	0.67	0.67	0.67	32.5
SouthEast: RoadName												
3bx	L3	48	3.0	0.179	4.7	LOS A	0.7	18.9	0.32	0.20	0.32	35.4
3ax	L1	27	100.0	0.179	7.6	LOS A	0.7	18.9	0.32	0.20	0.32	34.0
18ax	R1	319	3.0	0.179	4.7	LOS A	0.8	19.7	0.32	0.20	0.32	35.3
Approach		394	9.6	0.179	4.9	LOS A	0.8	19.7	0.32	0.20	0.32	35.2
North: Deer Valley Drive												
7u	U	27	3.0	0.882	23.9	LOS C	24.0	613.3	0.94	0.68	1.15	27.0
7a	L1	941	3.0	0.882	23.9	LOS C	24.0	613.3	0.94	0.68	1.15	26.3
4	T1	399	3.0	0.882	11.2	LOS B	24.0	613.3	0.49	0.32	0.55	32.1
14	R2	16	100.0	0.241	7.8	LOS A	1.1	28.3	0.27	0.14	0.27	34.2
Approach		1383	4.1	0.882	20.0	LOS C	24.0	613.3	0.80	0.57	0.97	27.8
West: Transit Center												
5	L2	5	100.0	0.259	24.8	LOS C	0.4	19.8	0.74	0.79	0.88	27.3
12a	R1	32	100.0	0.259	24.8	LOS C	0.4	19.8	0.74	0.79	0.88	26.9
12	R2	16	100.0	0.259	24.8	LOS C	0.4	19.8	0.74	0.79	0.88	26.4
Approach		53	100.0	0.259	24.8	LOS C	0.4	19.8	0.74	0.79	0.88	26.8
All Vehicles		2048	7.8	0.882	16.2	LOS C	24.0	613.3	0.69	0.52	0.81	29.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **2040 Background**
Volume and Delay by Movement **PM Peak Hour**

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	635	644	101.4%	2.0	0.3	A
	Right Turn	45	46	103.1%	1.1	0.6	A
	Subtotal	680	690	101.5%	2.0	0.3	A
SB	Left Turn	250	248	99.2%	10.2	3.8	B
	Through	270	263	97.4%	0.8	0.3	A
	Right Turn						
	Subtotal	520	511	98.3%	5.2	1.9	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	25	21	82.0%	193.7	86.8	F
	Through						
	Right Turn	455	426	93.6%	187.3	83.1	F
	Subtotal	480	446	93.0%	188.2	82.8	F
Total		1,680	1,648	98.1%	54.1	21.3	F

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	785	709	90.3%	258.0	84.7	F
	Right Turn	820	710	86.5%	286.8	104.1	F
	Subtotal	1,605	1,419	88.4%	271.2	91.1	F
SB	Left Turn	290	191	66.0%	21.8	5.5	C
	Through	470	343	72.9%	7.5	1.9	A
	Right Turn						
	Subtotal	760	534	70.3%	12.7	2.7	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	530	529	99.8%	38.5	11.6	D
	Through						
	Right Turn	155	156	100.5%	30.3	13.1	C
	Subtotal	685	685	100.0%	36.5	11.1	D
Total		3,050	2,638	86.5%	149.8	40.2	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	80	82	102.8%	37.5	6.5	D
	Through	395	387	97.9%	54.5	4.6	D
	Right Turn	70	69	97.9%	35.6	8.1	D
	Subtotal	545	537	98.6%	49.3	3.9	D
SB	Left Turn	495	354	71.5%	225.0	11.2	F
	Through	365	255	69.8%	182.4	12.8	F
	Right Turn	805	578	71.7%	56.2	10.1	E
	Subtotal	1,665	1,187	71.3%	133.5	9.0	F
EB	Left Turn	1,320	667	50.5%	92.2	4.9	F
	Through	490	246	50.2%	35.3	13.2	D
	Right Turn	85	42	49.9%	28.1	16.4	C
	Subtotal	1,895	955	50.4%	74.5	3.6	E
WB	Left Turn	75	57	75.7%	125.6	30.1	F
	Through	450	389	86.4%	92.3	5.1	F
	Right Turn	640	472	73.7%	63.6	7.0	E
	Subtotal	1,165	917	78.7%	79.5	3.5	E
Total		5,270	3,596	68.2%	91.0	2.4	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	215	180	83.5%	44.4	8.6	D
	Through	90	82	91.0%	44.2	9.1	D
	Right Turn	590	474	80.4%	17.2	4.1	B
	Subtotal	895	736	82.2%	26.9	5.7	C
SB	Left Turn	105	110	104.6%	38.9	11.5	D
	Through	55	53	96.9%	43.8	8.8	D
	Right Turn	75	78	103.9%	7.0	1.4	A
	Subtotal	235	241	102.6%	30.5	7.5	C
EB	Left Turn	85	82	96.6%	47.4	45.1	D
	Through	940	935	99.5%	69.1	49.2	E
	Right Turn	180	180	100.1%	69.1	48.5	E
	Subtotal	1,205	1,197	99.4%	67.6	48.8	E
WB	Left Turn	265	264	99.7%	25.9	4.3	C
	Through	620	627	101.2%	13.2	2.5	B
	Right Turn	55	59	107.8%	8.8	4.1	A
	Subtotal	940	951	101.2%	16.7	2.8	B
Total		3,275	3,125	95.4%	40.2	21.0	D

MOVEMENT SUMMARY

Site: 101 [2040 BG PM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	1	100.0	0.410	15.7	LOS C	2.1	52.8	0.68	0.75	0.89	32.1
8	T1	480	3.0	0.410	10.8	LOS B	2.1	52.9	0.68	0.75	0.89	32.9
18b	R3	86	3.0	0.410	10.8	LOS B	2.1	52.9	0.68	0.75	0.89	31.3
Approach		567	3.2	0.410	10.8	LOS B	2.1	52.9	0.68	0.75	0.89	32.7
SouthEast: RoadName												
3bx	L3	51	3.0	0.690	19.9	LOS C	5.9	154.8	0.82	1.09	1.66	29.4
3ax	L1	15	100.0	0.690	24.9	LOS C	5.9	154.8	0.82	1.09	1.66	28.2
18ax	R1	864	3.0	0.690	19.8	LOS C	6.1	155.9	0.82	1.09	1.65	28.8
Approach		929	4.6	0.690	19.8	LOS C	6.1	155.9	0.82	1.09	1.65	28.8
North: Deer Valley Drive												
7u	U	247	3.0	0.695	12.5	LOS B	6.9	176.1	0.48	0.26	0.48	31.0
7a	L1	434	3.0	0.695	12.5	LOS B	6.9	176.1	0.48	0.26	0.48	30.1
4	T1	429	3.0	0.695	8.3	LOS A	6.9	176.1	0.34	0.17	0.34	33.1
14	R2	10	100.0	0.190	7.1	LOS A	0.8	21.5	0.22	0.10	0.22	34.5
Approach		1121	3.9	0.695	10.8	LOS B	6.9	176.1	0.43	0.22	0.43	31.4
West: Transit Center												
5	L2	10	100.0	0.138	16.9	LOS C	0.2	10.2	0.65	0.65	0.65	29.7
12a	R1	15	100.0	0.138	16.9	LOS C	0.2	10.2	0.65	0.65	0.65	29.3
12	R2	10	100.0	0.138	16.9	LOS C	0.2	10.2	0.65	0.65	0.65	28.7
Approach		35	100.0	0.138	16.9	LOS C	0.2	10.2	0.65	0.65	0.65	29.2
All Vehicles		2653	5.3	0.695	14.1	LOS B	6.9	176.1	0.62	0.65	0.96	30.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **2040 Plus Project**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	81	82	101.2%	6.9	1.6	A
	Through	334	345	103.1%	0.9	0.1	A
	Right Turn						
	Subtotal	415	427	102.8%	2.0	0.2	A
SB	Left Turn						
	Through	789	795	100.8%	2.4	0.3	A
	Right Turn	15	17	113.3%	1.8	0.5	A
	Subtotal	804	812	101.0%	2.3	0.3	A
EB	Left Turn	15	13	83.3%	29.3	10.2	D
	Through						
	Right Turn	155	157	101.0%	21.9	10.3	C
	Subtotal	170	169	99.4%	22.4	10.0	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,389	1,408	101.3%	4.8	1.7	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	16	99.4%	4.2	1.6	A
	Through						
	Right Turn						
	Subtotal	16	16	99.4%	4.2	1.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	213	215	100.9%	1.1	0.3	A
	Right Turn	20	18	87.5%	0.6	0.6	A
	Subtotal	233	232	99.7%	1.0	0.3	A
WB	Left Turn						
	Through	53	52	97.2%	0.2	0.1	A
	Right Turn						
	Subtotal	53	52	97.2%	0.2	0.1	A
Total		302	300	99.3%	1.1	0.3	A

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **2040 Plus Project**
Volume and Delay by Movement **AM Peak Hour**

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	63	98.3%	44.5	23.0	E
	Through						
	Right Turn	5	4	86.0%	14.8	14.8	B
	Subtotal	69	67	97.4%	42.9	22.7	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	813	818	100.6%	4.8	1.2	A
	Right Turn	230	228	99.2%	4.1	1.3	A
	Subtotal	1,043	1,046	100.3%	4.6	1.2	A
WB	Left Turn	3	3	83.3%	3.2	6.8	A
	Through	391	403	103.0%	2.7	0.5	A
	Right Turn						
	Subtotal	394	405	102.9%	2.8	0.5	A
Total		1,506	1,519	100.8%	5.8	1.6	A

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	314	301	95.8%	102.7	85.6	F
	Right Turn	216	213	98.8%	23.7	29.0	C
	Subtotal	530	514	97.0%	71.6	63.5	E
SB	Left Turn	125	105	83.8%	16.9	7.8	B
	Through	697	605	86.8%	9.0	1.0	A
	Right Turn						
	Subtotal	822	710	86.3%	10.2	1.6	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	717	690	96.2%	40.5	15.4	D
	Through						
	Right Turn	225	227	101.1%	45.7	35.2	D
	Subtotal	942	917	97.4%	42.1	19.4	D
Total		2,294	2,141	93.3%	37.9	21.7	D

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	115	108	94.0%	32.8	5.7	C
	Through	195	197	100.9%	50.1	6.7	D
	Right Turn	75	75	99.9%	22.8	6.4	C
	Subtotal	385	380	98.6%	40.8	5.2	D
SB	Left Turn	522	306	58.6%	79.9	13.1	E
	Through	170	94	55.1%	76.4	7.8	E
	Right Turn	1,720	999	58.1%	124.6	5.0	F
	Subtotal	2,412	1,399	58.0%	111.9	4.3	F
EB	Left Turn	640	654	102.1%	55.7	7.1	E
	Through	410	430	105.0%	29.8	6.6	C
	Right Turn	60	60	100.3%	26.1	8.9	C
	Subtotal	1,110	1,144	103.1%	44.6	5.3	D
WB	Left Turn	50	38	75.8%	107.9	21.6	F
	Through	460	417	90.7%	99.1	6.7	F
	Right Turn	254	212	83.3%	17.8	3.7	B
	Subtotal	764	667	87.3%	73.9	5.0	E
Total		4,671	3,589	76.8%	75.7	1.8	E

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	73	97.1%	30.8	5.0	C
	Through	30	28	94.7%	35.9	6.1	D
	Right Turn	141	131	93.2%	3.5	0.5	A
	Subtotal	246	233	94.6%	15.8	3.0	B
SB	Left Turn	70	71	101.9%	23.5	5.0	C
	Through	75	77	102.1%	31.1	7.8	C
	Right Turn	35	37	104.9%	5.0	0.8	A
	Subtotal	180	185	102.6%	22.6	4.9	C
EB	Left Turn	25	22	86.4%	13.2	5.0	B
	Through	370	371	100.2%	22.0	3.4	C
	Right Turn	115	120	104.4%	14.8	5.8	B
	Subtotal	510	512	100.5%	19.7	3.7	B
WB	Left Turn	377	383	101.5%	20.6	3.5	C
	Through	515	527	102.2%	9.0	0.9	A
	Right Turn	60	63	104.8%	5.7	3.1	A
	Subtotal	952	972	102.1%	13.7	1.9	B
Total		1,888	1,902	100.7%	16.5	2.5	B

MOVEMENT SUMMARY

Site: 101 [2040 Plus Project AM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	5	100.0	0.241	18.2	LOS C	0.8	21.6	0.71	0.71	0.71	32.3
8	T1	128	3.0	0.241	11.1	LOS B	0.9	21.9	0.71	0.71	0.71	32.5
18b	R3	94	3.0	0.241	11.1	LOS B	0.9	21.9	0.71	0.71	0.71	31.0
Approach		227	5.3	0.241	11.3	LOS B	0.9	21.9	0.71	0.71	0.71	31.9
SouthEast: RoadName												
3bx	L3	56	3.0	0.216	5.1	LOS A	0.8	23.7	0.33	0.21	0.33	35.3
3ax	L1	31	100.0	0.216	8.0	LOS A	0.8	23.7	0.33	0.21	0.33	33.9
18ax	R1	390	3.0	0.216	5.0	LOS A	1.0	24.7	0.33	0.21	0.33	35.1
Approach		478	9.3	0.216	5.2	LOS A	1.0	24.7	0.33	0.21	0.33	35.0
North: Deer Valley Drive												
7u	U	27	3.0	0.945	32.7	LOS D	51.9	1328.3	1.00	1.12	1.91	24.5
7a	L1	1017	3.0	0.945	32.7	LOS D	51.9	1328.3	1.00	1.12	1.91	23.9
4	T1	399	3.0	0.945	13.1	LOS B	51.9	1328.3	0.49	0.44	0.75	31.3
14	R2	16	100.0	0.258	8.1	LOS A	1.2	30.7	0.29	0.17	0.29	34.1
Approach		1459	4.1	0.945	27.1	LOS D	51.9	1328.3	0.85	0.93	1.58	25.6
West: Transit Center												
5	L2	5	100.0	0.301	28.2	LOS D	0.5	24.1	0.76	0.87	1.07	26.2
12a	R1	36	100.0	0.301	28.2	LOS D	0.5	24.1	0.76	0.87	1.07	25.9
12	R2	16	100.0	0.301	28.2	LOS D	0.5	24.1	0.76	0.87	1.07	25.4
Approach		57	100.0	0.301	28.2	LOS D	0.5	24.1	0.76	0.87	1.07	25.8
All Vehicles		2220	7.8	0.945	20.8	LOS C	51.9	1328.3	0.72	0.75	1.21	27.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **2040 Plus Project**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	69	69	99.4%	5.2	1.0	A
	Through	950	940	99.0%	1.7	0.2	A
	Right Turn						
	Subtotal	1,019	1,009	99.0%	1.9	0.2	A
SB	Left Turn						
	Through	482	485	100.5%	1.7	0.1	A
	Right Turn	15	16	104.0%	1.2	0.7	A
	Subtotal	497	500	100.6%	1.7	0.1	A
EB	Left Turn	15	15	98.7%	25.1	15.2	D
	Through						
	Right Turn	94	98	103.7%	10.2	6.7	B
	Subtotal	109	112	103.0%	12.4	8.6	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,625	1,621	99.8%	2.7	0.9	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	78	75	96.0%	24.4	48.9	C
	Through						
	Right Turn						
	Subtotal	78	75	96.0%	24.4	48.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	89	94	105.6%	0.5	0.3	A
	Right Turn	10	11	105.0%	0.2	0.2	A
	Subtotal	99	105	105.6%	0.5	0.3	A
WB	Left Turn						
	Through	137	138	100.7%	8.8	16.9	A
	Right Turn						
	Subtotal	137	138	100.7%	8.8	16.9	A
Total		314	317	101.1%	8.6	14.4	A

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	201	167	83.2%	343.7	130.6	F
	Through						
	Right Turn	14	13	92.1%	337.8	152.0	F
	Subtotal	215	180	83.8%	344.9	131.9	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	533	534	100.1%	1.3	0.3	A
	Right Turn	91	95	104.6%	0.9	0.4	A
	Subtotal	624	629	100.8%	1.2	0.3	A
WB	Left Turn	8	9	107.5%	7.6	6.0	A
	Through	990	987	99.7%	4.3	0.3	A
	Right Turn						
	Subtotal	998	996	99.8%	4.3	0.4	A
Total		1,837	1,805	98.2%	38.6	11.6	E

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	835	746	89.3%	211.8	68.1	F
	Right Turn	840	740	88.1%	266.5	71.8	F
	Subtotal	1,675	1,486	88.7%	240.4	69.5	F
SB	Left Turn	290	179	61.9%	23.1	3.5	C
	Through	522	363	69.6%	8.2	1.4	A
	Right Turn						
	Subtotal	812	543	66.8%	13.5	2.0	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	551	551	99.9%	39.9	11.0	D
	Through						
	Right Turn	155	159	102.6%	28.4	7.9	C
	Subtotal	706	710	100.5%	37.6	9.8	D
Total		3,193	2,738	85.7%	139.5	30.3	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	80	85	106.1%	36.3	5.2	D
	Through	395	396	100.2%	52.7	3.8	D
	Right Turn	70	65	92.4%	38.5	9.9	D
	Subtotal	545	545	100.1%	48.6	3.0	D
SB	Left Turn	547	357	65.3%	232.6	13.4	F
	Through	365	233	63.7%	181.5	11.0	F
	Right Turn	805	548	68.1%	55.0	8.0	D
	Subtotal	1,717	1,137	66.2%	137.1	8.0	F
EB	Left Turn	1,320	662	50.2%	89.9	3.8	F
	Through	490	240	49.0%	37.1	13.0	D
	Right Turn	85	46	53.5%	29.4	11.8	C
	Subtotal	1,895	948	50.0%	74.4	4.2	E
WB	Left Turn	75	56	75.1%	110.7	11.3	F
	Through	450	389	86.4%	97.7	5.6	F
	Right Turn	690	544	78.8%	43.1	4.1	D
	Subtotal	1,215	989	81.4%	67.7	2.3	E
Total		5,372	3,620	67.4%	88.4	2.2	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	215	175	81.2%	54.5	15.6	D
	Through	90	79	87.7%	52.4	11.8	D
	Right Turn	610	491	80.4%	19.6	5.3	B
	Subtotal	915	744	81.3%	31.2	7.6	C
SB	Left Turn	105	105	100.4%	40.1	8.7	D
	Through	55	55	100.0%	44.4	10.3	D
	Right Turn	75	80	107.2%	7.5	2.8	A
	Subtotal	235	241	102.5%	29.9	4.5	C
EB	Left Turn	85	90	106.1%	26.3	10.2	C
	Through	940	943	100.3%	47.8	14.2	D
	Right Turn	180	190	105.3%	50.4	18.3	D
	Subtotal	1,205	1,222	101.4%	46.9	14.4	D
WB	Left Turn	286	282	98.7%	25.7	3.3	C
	Through	620	618	99.6%	13.0	1.6	B
	Right Turn	55	56	102.2%	11.3	3.0	B
	Subtotal	961	956	99.5%	16.6	1.8	B
Total		3,316	3,163	95.4%	32.8	6.1	C

MOVEMENT SUMMARY

Site: 101 [2040 Plus Project PM]

Deer Valley Drive / Marsac Avenue Roundabout
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Marsac Avenue												
3	L2	1	100.0	0.457	18.1	LOS C	2.4	62.0	0.72	0.82	1.04	31.3
8	T1	480	3.0	0.457	12.7	LOS B	2.4	62.0	0.72	0.82	1.04	32.1
18b	R3	96	3.0	0.457	12.7	LOS B	2.4	62.0	0.72	0.82	1.04	30.5
Approach		577	3.2	0.457	12.7	LOS B	2.4	62.0	0.72	0.82	1.04	31.8
SouthEast: RoadName												
3bx	L3	61	3.0	0.768	24.8	LOS C	7.9	209.7	0.86	1.24	2.02	27.6
3ax	L1	20	100.0	0.768	29.8	LOS D	7.9	209.7	0.86	1.24	2.02	26.6
18ax	R1	949	3.0	0.768	24.5	LOS C	8.2	211.1	0.87	1.24	2.00	27.2
Approach		1030	4.9	0.768	24.7	LOS C	8.2	211.1	0.87	1.24	2.00	27.2
North: Deer Valley Drive												
7u	U	247	3.0	0.765	15.3	LOS C	8.7	222.9	0.63	0.37	0.63	29.8
7a	L1	524	3.0	0.765	15.3	LOS C	8.7	222.9	0.63	0.37	0.63	29.0
4	T1	429	3.0	0.765	9.3	LOS A	8.7	222.9	0.41	0.23	0.41	32.7
14	R2	10	100.0	0.209	7.4	LOS A	0.9	23.9	0.25	0.13	0.25	34.4
Approach		1211	3.8	0.765	13.1	LOS B	8.7	222.9	0.55	0.32	0.55	30.4
West: Transit Center												
5	L2	10	100.0	0.172	19.3	LOS C	0.3	12.6	0.69	0.69	0.69	28.9
12a	R1	20	100.0	0.172	19.3	LOS C	0.3	12.6	0.69	0.69	0.69	28.5
12	R2	10	100.0	0.172	19.3	LOS C	0.3	12.6	0.69	0.69	0.69	27.9
Approach		40	100.0	0.172	19.3	LOS C	0.3	12.6	0.69	0.69	0.69	28.5
All Vehicles		2859	5.4	0.768	17.3	LOS C	8.7	222.9	0.70	0.76	1.17	29.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **2040 Plus Project - Mitigated**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	81	77	94.6%	29.7	7.6	C
	Through	334	331	99.2%	4.7	0.8	A
	Right Turn						
	Subtotal	415	408	98.3%	9.8	2.6	A
SB	Left Turn						
	Through	789	811	102.8%	14.5	5.1	B
	Right Turn	15	15	98.0%	13.7	6.9	B
	Subtotal	804	826	102.7%	14.4	5.1	B
EB	Left Turn	15	13	83.3%	10.4	6.2	B
	Through						
	Right Turn	155	157	101.2%	7.5	1.2	A
	Subtotal	170	169	99.6%	7.6	1.2	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,389	1,404	101.0%	12.3	3.4	B

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	17	106.9%	3.9	0.4	A
	Through						
	Right Turn						
	Subtotal	16	17	106.9%	3.9	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	213	212	99.7%	6.7	0.4	A
	Right Turn	20	17	86.5%	3.2	1.0	A
	Subtotal	233	230	98.6%	6.4	0.4	A
WB	Left Turn						
	Through	53	50	95.1%	6.1	0.3	A
	Right Turn						
	Subtotal	53	50	95.1%	6.1	0.3	A
Total		302	297	98.4%	6.2	0.3	A

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	63	98.8%	26.7	4.6	C
	Through						
	Right Turn	5	5	96.0%	11.8	12.6	B
	Subtotal	69	68	98.6%	26.3	4.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	813	833	102.4%	14.0	3.7	B
	Right Turn	230	227	98.5%	11.9	3.5	B
	Subtotal	1,043	1,059	101.5%	13.6	3.6	B
WB	Left Turn	3	2	76.7%	12.9	24.7	B
	Through	391	394	100.7%	5.7	2.4	A
	Right Turn						
	Subtotal	394	396	100.5%	5.9	2.7	A
Total		1,506	1,523	101.1%	12.3	2.5	B

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	314	308	98.0%	51.1	40.5	D
	Right Turn	216	215	99.5%	4.7	3.2	A
	Subtotal	530	523	98.6%	31.5	24.9	C
SB	Left Turn	125	101	80.7%	15.5	3.1	B
	Through	697	583	83.7%	8.8	1.7	A
	Right Turn						
	Subtotal	822	684	83.2%	9.8	1.5	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	717	703	98.0%	34.8	21.7	C
	Through						
	Right Turn	225	214	95.2%	23.8	20.0	C
	Subtotal	942	917	97.4%	32.1	20.6	C
Total		2,294	2,124	92.6%	24.1	13.1	C

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	115	114	99.2%	34.2	3.9	C
	Through	195	192	98.3%	50.2	7.7	D
	Right Turn	75	83	110.9%	27.1	9.9	C
	Subtotal	385	389	101.0%	39.9	4.9	D
SB	Left Turn	522	308	59.1%	75.1	8.4	E
	Through	170	98	57.4%	76.1	9.0	E
	Right Turn	1,720	996	57.9%	125.1	3.5	F
	Subtotal	2,412	1,402	58.1%	110.7	4.1	F
EB	Left Turn	640	640	99.9%	57.2	11.7	E
	Through	410	391	95.3%	28.7	3.8	C
	Right Turn	60	61	101.2%	22.3	8.6	C
	Subtotal	1,110	1,091	98.3%	45.5	7.0	D
WB	Left Turn	50	39	78.0%	126.0	27.7	F
	Through	460	414	90.0%	97.4	9.2	F
	Right Turn	254	213	84.0%	16.7	4.1	B
	Subtotal	764	666	87.2%	74.7	5.9	E
Total		4,671	3,548	76.0%	75.8	2.8	E

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	69	92.0%	28.1	5.3	C
	Through	30	29	95.3%	29.9	12.0	C
	Right Turn	141	134	94.9%	3.8	1.1	A
	Subtotal	246	231	94.1%	14.7	2.4	B
SB	Left Turn	70	69	97.9%	22.9	4.7	C
	Through	75	79	105.7%	28.9	3.8	C
	Right Turn	35	34	95.7%	4.9	1.3	A
	Subtotal	180	181	100.7%	22.4	3.8	C
EB	Left Turn	25	24	97.6%	12.9	3.9	B
	Through	370	367	99.1%	21.2	3.5	C
	Right Turn	115	114	98.8%	13.6	3.8	B
	Subtotal	510	505	99.0%	19.2	3.2	B
WB	Left Turn	377	374	99.1%	16.8	4.0	B
	Through	515	515	99.9%	8.9	1.4	A
	Right Turn	60	64	105.8%	6.3	2.5	A
	Subtotal	952	952	100.0%	12.0	2.2	B
Total		1,888	1,869	99.0%	15.3	2.4	B

SimTraffic Post-Processor **Snow Park Village**
Average Results from 10 Runs **2040 Plus Project - Mitigated**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **Deer Valley Drive East/Doe Pass Road** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	69	70	101.0%	13.7	2.8	B
	Through	950	940	99.0%	10.3	1.7	B
	Right Turn						
	Subtotal	1,019	1,010	99.1%	10.5	1.7	B
SB	Left Turn						
	Through	482	477	98.9%	5.1	1.0	A
	Right Turn	15	16	108.0%	4.2	2.9	A
	Subtotal	497	493	99.2%	5.0	1.0	A
EB	Left Turn	15	16	106.0%	9.5	3.2	A
	Through						
	Right Turn	94	89	94.6%	4.7	0.7	A
	Subtotal	109	105	96.1%	5.4	0.7	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,625	1,608	98.9%	8.5	1.2	A

Intersection 2 **Deer Valley Drive West/Doe Pass Road** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	78	82	105.3%	4.9	0.4	A
	Through						
	Right Turn						
	Subtotal	78	82	105.3%	4.9	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	89	85	95.1%	6.0	0.5	A
	Right Turn	10	9	94.0%	3.4	1.4	A
	Subtotal	99	94	94.9%	5.7	0.5	A
WB	Left Turn						
	Through	137	136	99.2%	6.1	0.3	A
	Right Turn						
	Subtotal	137	136	99.2%	6.1	0.3	A
Total		314	312	99.4%	5.7	0.3	A

Intersection 3 **Deer Valley Drive West/Deer Valley Drive East** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	201	203	100.7%	28.8	3.7	C
	Through						
	Right Turn	14	15	107.1%	22.5	8.5	C
	Subtotal	215	218	101.2%	28.2	3.3	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	533	531	99.6%	7.0	1.2	A
	Right Turn	91	85	93.3%	5.5	1.1	A
	Subtotal	624	616	98.7%	6.8	1.1	A
WB	Left Turn	8	7	88.8%	15.7	8.6	B
	Through	990	993	100.3%	17.4	3.9	B
	Right Turn						
	Subtotal	998	1,001	100.3%	17.4	3.9	B
Total		1,837	1,834	99.8%	15.2	2.5	B

Intersection 5 **Deer Valley Drive/Bonanza Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	835	755	90.4%	221.4	74.0	F
	Right Turn	840	726	86.5%	277.0	94.0	F
	Subtotal	1,675	1,482	88.4%	248.6	83.4	F
SB	Left Turn	290	185	63.6%	23.4	3.8	C
	Through	522	355	68.0%	7.4	1.6	A
	Right Turn						
	Subtotal	812	540	66.5%	13.0	1.3	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	551	556	101.0%	44.5	8.7	D
	Through						
	Right Turn	155	151	97.2%	29.0	7.3	C
	Subtotal	706	707	100.1%	41.3	8.1	D
Total		3,193	2,728	85.4%	143.0	40.9	F

Intersection 6 **Park Avenue/Empire Avenue-Deer Valley Drive** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	80	82	102.9%	35.5	4.9	D
	Through	395	406	102.8%	55.9	2.8	E
	Right Turn	70	71	102.0%	41.1	9.2	D
	Subtotal	545	560	102.7%	51.1	3.3	D
SB	Left Turn	547	352	64.4%	236.6	11.0	F
	Through	365	244	66.7%	189.5	13.0	F
	Right Turn	805	535	66.4%	61.1	8.2	E
	Subtotal	1,717	1,130	65.8%	146.4	8.6	F
EB	Left Turn	1,320	655	49.6%	91.5	3.6	F
	Through	490	248	50.7%	32.3	8.1	C
	Right Turn	85	41	48.2%	22.7	14.1	C
	Subtotal	1,895	944	49.8%	73.0	4.2	E
WB	Left Turn	75	57	76.5%	123.5	13.9	F
	Through	450	387	86.1%	90.9	6.2	F
	Right Turn	690	533	77.3%	44.6	6.2	D
	Subtotal	1,215	978	80.5%	67.7	1.6	E
Total		5,372	3,612	67.2%	89.4	1.9	F

Intersection 7 **Monitor Drive-Bonanza Drive/SR-248** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	215	174	80.7%	55.3	15.4	E
	Through	90	83	92.7%	44.4	6.4	D
	Right Turn	610	498	81.7%	20.1	6.7	C
	Subtotal	915	755	82.5%	31.0	6.9	C
SB	Left Turn	105	106	100.9%	35.6	7.9	D
	Through	55	56	102.0%	43.3	6.6	D
	Right Turn	75	78	104.4%	7.2	2.4	A
	Subtotal	235	240	102.3%	27.8	3.7	C
EB	Left Turn	85	85	99.4%	39.9	25.5	D
	Through	940	938	99.7%	66.9	34.2	E
	Right Turn	180	179	99.2%	65.2	29.3	E
	Subtotal	1,205	1,201	99.6%	64.8	32.8	E
WB	Left Turn	286	283	99.0%	26.2	3.2	C
	Through	620	619	99.8%	13.0	1.9	B
	Right Turn	55	55	100.0%	9.9	3.7	A
	Subtotal	961	957	99.6%	16.9	2.0	B
Total		3,316	3,153	95.1%	39.0	13.4	D

Project: UT20-2245
Description: Snow Park Transportation Study

Park City Minimum Parking Rates Based *Nonshared* Parking Demand Summary

Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
	Quantity	Unit	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj 6 AM	Peak Mo Adj December	Estimated Parking Demand	Peak Hr Adj 6 AM	Peak Mo Adj December	Estimated Parking Demand
Retail																		
Retail (<400 ksf)	25,866	sf GLA	3.22	100%	100%	3.22	ksf GLA	3.20	100%	100%	3.20	ksf GLA	100%	100%	84	100%	100%	83
Employee			0.78	100%	100%	0.78		0.80	100%	100%	0.80		100%	100%	21	100%	100%	21
Food and Beverage																		
Entertainment and Institutions																		
Convention Center	30,879	sf GLA	5.73	100%	100%	5.73	ksf GLA	5.73	100%	100%	5.73	ksf GLA	100%	100%	177	100%	100%	177
Employee			0.52	100%	100%	0.52		0.52	100%	100%	0.52		100%	100%	17	100%	100%	17
Hotel and Residential																		
Hotel-Business		keys	0.87	100%	100%	0.87	key	0.87	100%	100%	0.87	key	100%	100%	-	100%	100%	-
Hotel-Leisure	193	keys	0.87	100%	100%	0.87	key	0.87	100%	100%	0.87	key	100%	100%	168	100%	100%	168
Hotel Employees	193	keys	0.13	100%	100%	0.13	key	0.13	100%	100%	0.13	key	100%	100%	25	100%	100%	25
Restaurant/Lounge	5,451	sf GLA	4.24	100%	100%	4.24	ksf GLA	4.26	100%	100%	4.26	ksf GLA	100%	100%	24	100%	100%	24
Meeting/Banquet (0 to 20 sq ft/key)		sf GLA	0.00	100%	100%	0.00	ksf GLA	0.00	100%	100%	0.00	ksf GLA	100%	100%	-	100%	100%	-
Meeting/Banquet (20 to 50 sq ft/key)		sf GLA	0.00	100%	100%	0.00	ksf GLA	0.00	100%	100%	0.00	ksf GLA	100%	100%	-	100%	100%	-
Meeting/Banquet (50 to 100 sq ft/key)		sf GLA	0.00	100%	100%	0.00	ksf GLA	0.00	100%	100%	0.00	ksf GLA	100%	100%	-	100%	100%	-
Convention (100 to 200 sq ft/key)		sf GLA	0.00	100%	100%	0.00	ksf GLA	5.50	100%	100%	5.50	ksf GLA	100%	100%	-	100%	100%	-
Convention (> 200 sq ft/key)		sf GLA	4.58	100%	100%	4.58	ksf GLA	4.58	100%	100%	4.58	ksf GLA	100%	100%	-	100%	100%	-
Restaurant/Meeting Employees	5,451	sf GLA	0.76	100%	100%	0.76	ksf GLA	0.74	100%	100%	0.74	ksf GLA	100%	100%	5	100%	100%	5
Residential, Urban																0%		
Studio Efficiency		units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	100%	100%	-	100%	100%	-
1 Bedroom	11	units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	100%	100%	-	100%	100%	-
2 Bedrooms		units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	100%	100%	-	100%	100%	-
3+ Bedrooms	132	units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	100%	100%	-	100%	100%	-
Reserved	100%	res spaces	1.44	100%	100%	1.44	unit	1.41	100%	100%	1.41	unit	100%	100%	206	100%	100%	201
Visitor	143	units	0.06	100%	100%	0.06	unit	0.08	100%	100%	0.08	unit	100%	100%	9	100%	100%	13
Office																		
Additional Land Uses																		
Ski Resort (as observed during data collection)	1	count	1,500	100%	100%	1,500	count	1,500	100%	100%	1,500	count	100%	100%	1,500	100%	100%	1,500
Employee			0.00	100%	100%	0.00		0.00	100%	100%	0.00		100%	100%	-	100%	100%	-
													Customer/Visitor		1,962	Customer		1,965
													Employee/Resident		68	Employee/Resident		68
													Reserved		206	Reserved		201
													Total		2,236	Total		2,234

Project: UT20-2245
Description: Snow Park Transportation Study

Park City Minimum Parking Rates Based *Shared* Parking Demand Summary

Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
	Quantity	Unit	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj 1 PM	Peak Mo Adj December	Estimated Parking Demand	Peak Hr Adj 12 PM	Peak Mo Adj December	Estimated Parking Demand
Retail																		
Retail (<400 ksf)	25,866	sf GLA	3.22	100%	97%	3.11	ksf GLA	3.20	100%	97%	3.09	ksf GLA	100%	100%	81	100%	100%	80
Employee			0.78	100%	100%	0.78		0.80	100%	100%	0.80		100%	100%	21	100%	100%	21
Food and Beverage																		
Entertainment and Institutions																		
Convention Center	30,879	sf GLA	5.73	100%	87%	4.97	ksf GLA	5.73	100%	87%	4.97	ksf GLA	100%	100%	153	100%	100%	153
Employee			0.52	100%	100%	0.52		0.52	100%	100%	0.52		100%	100%	17	100%	100%	17
Hotel and Residential																		
Hotel-Business		keys	0.87	49%	100%	0.42	key	0.87	53%	100%	0.46	key	55%	60%	-	55%	60%	-
Hotel-Leisure	193	keys	0.87	50%	100%	0.43	key	0.87	50%	100%	0.43	key	65%	50%	27	65%	50%	27
Hotel Employees	193	keys	0.13	100%	100%	0.13	key	0.13	100%	100%	0.13	key	100%	50%	13	100%	50%	13
Restaurant/Lounge	5,451	sf GLA	4.24	72%	90%	2.75	ksf GLA	4.26	72%	70%	2.15	ksf GLA	100%	100%	16	100%	100%	12
Meeting/Banquet (0 to 20 sq ft/key)		sf GLA	0.00	81%	90%	0.00	ksf GLA	0.00	36%	90%	0.00	ksf GLA	65%	100%	-	65%	100%	-
Meeting/Banquet (20 to 50 sq ft/key)		sf GLA	0.00	81%	90%	0.00	ksf GLA	0.00	36%	90%	0.00	ksf GLA	65%	100%	-	65%	100%	-
Meeting/Banquet (50 to 100 sq ft/key)		sf GLA	0.00	81%	90%	0.00	ksf GLA	0.00	36%	90%	0.00	ksf GLA	65%	100%	-	65%	100%	-
Convention (100 to 200 sq ft/key)		sf GLA	0.00	81%	90%	0.00	ksf GLA	5.50	36%	90%	1.78	ksf GLA	100%	100%	-	100%	100%	-
Convention (> 200 sq ft/key)		sf GLA	4.58	81%	90%	3.34	ksf GLA	4.58	36%	90%	1.49	ksf GLA	100%	100%	-	100%	100%	-
Restaurant/Meeting Employees	5,451	sf GLA	0.76	100%	100%	0.76	ksf GLA	0.74	100%	100%	0.74	ksf GLA	100%	100%	5	100%	100%	5
Residential, Urban																0%		
Studio Efficiency		units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	50%	100%	-	68%	100%	-
1 Bedroom	11	units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	50%	100%	-	68%	100%	-
2 Bedrooms		units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	50%	100%	-	68%	100%	-
3+ Bedrooms	132	units	0.00	100%	100%	0.00	unit	0.00	100%	100%	0.00	unit	50%	100%	-	68%	100%	-
Reserved	100%	res spaces	1.44	100%	100%	1.44	unit	1.41	100%	100%	1.41	unit	100%	100%	206	100%	100%	201
Visitor	143	units	0.06	100%	100%	0.06	unit	0.08	100%	100%	0.08	unit	20%	100%	2	20%	100%	3
Office																		
Additional Land Uses																		
Ski Resort (as observed during data collection)	1	count	1,500	100%	100%	1,500	count	1,500	100%	100%	1,500	count	100%	100%	1,500	100%	100%	1,500
Employee			0.00	100%	100%	0.00		0.00	100%	100%	0.00		100%	100%	-	100%	100%	-

	Weekday		Weekend	
Customer/Visitor	1,779		Customer	1,776
Employee/Resident	56		Employee/Resident	56
Reserved	206		Reserved	201
Total	2,041		Total	2,032
Shared Parking Reduction	9%			9%

Attachment A: Trip Generation Memorandum

FEHR PEERS

MEMORANDUM

Date: January 21, 2022

To: Alexandra Ananth, Park City Planning

From: Fehr & Peers

Subject: **Revised Trip Generation Estimates for the Snow Park Village Traffic Impact Study**

UT20-2245

This memorandum presents revised trip generation estimates for the proposed Snow Park Village project at Deer Valley Resort. The original trip generation estimates included in the Traffic Impact Study (April 2021) were reviewed by Park City staff and Wall Consulting Group (WCG), a third-party reviewer retained by the City. Park City staff, through WCG, requested revisions to the trip generation estimates with supporting documentation and/or rationale. Revisions presented in this memorandum are based on an updated land use plan, a local precedent study, comparable trip resort analysis, published trip generation rates from the Institute of Transportation Engineers, and mode shift assumptions derived from the Summit County travel demand model. This memorandum is an intermediate deliverable while additional details regarding site access and circulation are being resolved.

In summary, revised trip generation estimates for the Snow Park Village project show 2,276 daily trips, 162 trips in the Saturday AM peak-hour, and 204 trips in the Saturday PM peak hour. When compared with estimates included in the April 2021 traffic impact study, this results in an 60 percent increase in estimated daily trips, 80 percent increase in the Saturday AM peak-hour trips, and a 148 percent increase in the Saturday PM peak-hour trips.

Trip Generation Estimates

Trip generation estimates focus on Saturday AM and PM peak-hour operations due to the nature of how a ski resort operates: skier traffic is consistently highest on Saturdays. Updated trip generation estimates for Snow Park Village are presented below in **Table 1**.

Key Revisions

Trip generation estimates in this memorandum incorporate several key revisions, including:

- Updated resort hotel trip generation rates taken from the 2018 Canyons Village Transportation Master Plan
- Assumed mode shift away from private car taken from MXD, the Environmental Protection Agency's approved trip generation method, and the Summit County travel demand model for all proposed land uses
- Reductions in trip generation rates due to the implementation of paid parking for day skiers and most proposed land uses
- Reliance on trip internalization derived from MXD and the Summit County travel demand model for most proposed land uses
- The rate of internal capture assumed due to complementary land uses derived from analysis at a peer resort (Palisades at Tahoe, formerly known as Squaw Valley)

This combination of updates represents a much more conservative foundation for subsequent traffic analysis. Each of these changes and justification for each are described in greater detail below.

Resort Hotel Trip Generation Rates

The third-party reviewers (WCG) noted that the resort hotel trip generation rates appeared unreasonably low based on observed trip generation rates recorded during the development of the 2018 Canyons Village Transportation Master Plan. While there are a handful of key factors that might result in trip generation rates closer to those in the original Snow Park Village Traffic Impact Study, including proximity to the interstate and other complementary land uses, estimates in this memorandum used the local rates recorded at the Canyons.

Assumed Mode Shift

To avoid double-counting potential reductions, as was the case in the original Snow Park Village traffic impact study, the trip generation estimates in this memorandum rely solely on mode shift derived from the MXD methodology and underlying assumptions from the regional travel demand model. These reductions, which are shown in the columns titled "% Walk/Bike" and "% Transit," are applied to all proposed land uses. This results in a more conservative and defensible analysis,

however, it does not account for the planned changes to transit service in Park City and the world-class transit facility proposed as part of the Snow Park Village project. Potential mode shift to transit for those traveling to and from Deer Valley may be higher following such improvements.

Reduction in Vehicle Trips due to Implementation of Paid Parking

Charging for parking is a reliable method by which to influence mode choice, and Deer Valley intends to implement paid parking as part of the Snow Park Village proposal. The original Snow Park Village traffic study assumed a reduction in vehicle trips of nearly 18% and applied it to all land uses. This reduction was developed based on approximately 50 studies on the effects of paid parking from across the United States. WCG noted this reduction seemed high based on assumptions about typical Deer Valley clientele and their assumed willingness to pay for fees in addition to lift tickets, meal, lessons, and/or equipment rentals.

Reductions in trip generation due to the implementation of paid parking at Deer Valley have been scaled back to present a more conservative estimate of how parking pricing will affect trip generation. While we agree that some Deer Valley clientele may be much less sensitive to additional costs associated with a day's skiing as presented in the traffic study, almost 45% of existing trips to and from Deer Valley start and end at points along the Wasatch Front, residents of which are more likely to alter their behavior based on willingness to pay (note the massive increase in peripheral on-street parking at a greater distance to ski lifts at Deer Valley's IKON pass-sharing resort, Solitude). Lastly, reductions in trip generation due to the implementation of parking pricing are applied only to the resort hotel-, shopping center-, and recreational community center-generated trips, as proposed residential uses at the site are unlikely to require that residents pay for parking on a daily basis.

Trip Internalization Derived from MXD

A fundamental element of the Snow Park Village proposal is to provide amenities, services, and entertainment options that complement each other and the ski resort itself. This means that peak-hour trips that might occur without complementary land uses are either delayed (so that they do not occur during the peak hours) or do not require a vehicle trip due to proximity of different uses. Trip internalization rates, presented in **Table 1** under the column heading "% Internal Capture" are applied only to the residential-, resort hotel-, and recreational community center-generated trips, and present a more conservative rate of internalization than presented in the original Snow Park Village traffic impact study.

Trip Internalization Derived from Squaw Valley

While the residential, hotel, and community center uses are expected to be destinations unto themselves that will generate a measurable number of peak-hour vehicle trips, the food service and retail uses (shown in **Table 1** as "Shopping enter") are expected to almost exclusively serve guests already at Deer Valley rather than guests traveling to Deer Valley explicitly for those services.

To support this assumption, trip generation estimates for the shopping center uses in this memorandum rely on trip internalization estimates derived from an origin-destination survey conducted at the Squaw Valley, California resort in 2011. Surveys conducted showed that 95-97% of customers at dining and retail uses in a similar context (ski resort base village) were already at the village for other purposes, and did not travel solely for the dining/retail use. Reductions based on the data from Squaw Valley are presented under the column heading "% Resort Int. Capt." And are applied only to the shopping center uses. We assume that employees for these uses will almost exclusively arrive and depart during off-peak periods, resulting in lower reductions for daily trips generated by the shopping center uses.

Conclusion

Trip generation estimates prepared for the original Snow Park Village traffic impact study were based on an older land use plan, double-counted some reductions in vehicle trips, applied others to incorrect land uses, and over-emphasized the potential reductions in vehicle trips derived from paid parking. However, this memorandum relies on several assumptions that are fundamental to the Snow Park Village proposal:

- Complementary land uses will reduce peak-hour vehicle trips by providing alternatives to driving
- Employees will typically arrive and depart during off-peak periods
- Charging for parking is one of the most powerful tools available for influencing mode choice, relying on an appropriate pricing structure being implemented

The trip generation estimates presented in this memorandum represent a conservative set of analyses that will inform a fully revised traffic impact study for the Snow Park Village Project.

Attachment B: Snow Park Village Parking Management Plan

FEHR PEERS

MEMORANDUM

Date: January 21, 2022

To: Rich Wagner, Deer Valley

From: Fehr & Peers

Subject: Snow Park Village MPD Parking Response

UT20-2245

The current parking experience at Deer Valley follows a well-established surface parking scenario, typical of ski resorts. There are five large surface lots that hold approximately 1,340 cars. There is also a long-standing agreement with Park City to allow for overflow parking on parts of Deer Valley Drive on peak visitation days.

Parking Layout

The proposed redevelopment of the base area (Snow Park) will change the parking experience in three significant ways:

- Parking will be in structures;
- There will be a paid parking program, with variable pricing based on season and demand;
- There will be a robust parking management program that includes parking and availability information to visitors as they approach the development, parking garages, and once within, and will rely heavily on Deer Valley's high-quality customer service provided by trained staff.

For phase 1, the proposed parking garages will be on four levels. Each level will have a prescribed function as outlined below. Parking loading will be managed level by level, utilizing guest services staff and electronic messaging. To help ensure that the majority of traffic coming to Snow Park does not conflict with transit on Doe Pass Road, signing, striping, and prominent wayfinding will direct the majority of personal vehicles to use Deer Valley Drive East to enter the garages, while transit and shuttle vehicles will be directed to Deer Valley Drive West and/or Doe Pass Road. The primary entrances to the garages, for levels P2, P3, and P4, will be from Deer Valley Drive East. There are no internal garage connections between levels allowing each level of the garage to serve

as an independent programmable parking resource. The layout and uses are shown in the attached *Parking Allocation* figure.

P1 Parking – this level will be divided between two user groups with a total of 406 stalls. Hotel/condo uses will have 202 stalls. The other 204 stalls may be utilized by valet parking and/or credentialed access users. Access to this area is from Doe Pass near the intersection Deer Valley Drive west. Due to its restricted uses, demand for spaces on P1 is expected to be relatively low, with hotel patrons parking vehicles for multiple days at once. In addition, it is unlikely that all hotel patrons will need to park at times that coincide with peak day skier arrival, further reducing the expected number of vehicles on Doe Pass Road during peak hours.

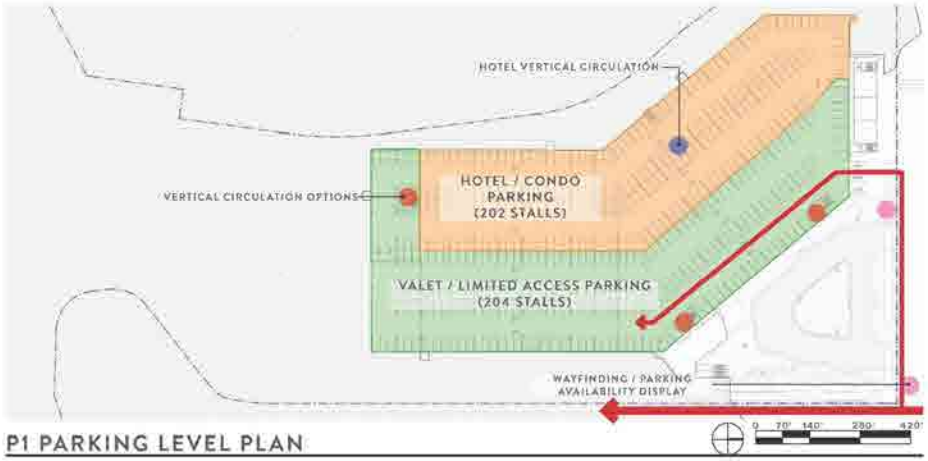
P2 Parking – this level will have 368 stalls. It will primarily be used for winter day skiers and summer resort guests during those seasons, transient parking and special event parking during event periods. Access is provided on Deer Valley Drive East, however an auxiliary exit is provided accessing Doe Pass to add flexibility in managing egress and minimize potential congestion during periods of peak parking demand and special events.

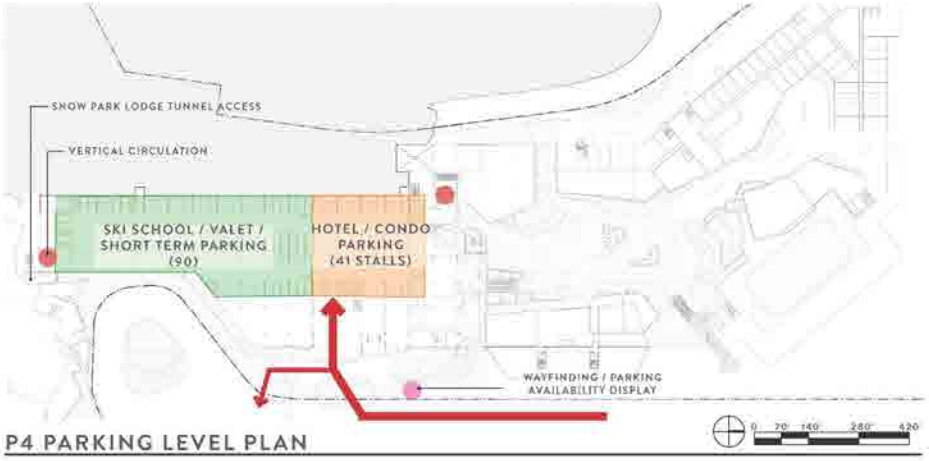
P3 Parking – the primary users for this level will be similar to P2; day users, transient parking, special event parking as well as space dedicated to ski school drop-off/pick-up. There are 375 stalls for these uses. There are an additional 80 stalls for hotel/condo use, for a total of 455 stalls. Access is primarily to/from Deer Valley Drive, however an auxiliary entrance/exit is provided accessing Deer Valley Drive West/Royal Street intersection, which will be dedicated to hotel and condominium uses.

P4 Parking – there are 90 stalls for ski school, valet, and short-term parking on this level. "Short-term" means for visitor parking less than 30 minutes for such purposes as pick-up/drop-off, kiss 'n' ride, and so on. The balance of the parking on this level is 41 for hotel/condo uses.

North Parcel – The north parcel will consist of an additional 450 stalls. These will initially remain surface parking. This area will eventually consist of two levels, NP1 and NP2, and the total parking stalls will remain at 450. The north parcel will have the same level of parking management, including paid parking, and parking management technology, communications via multiple platforms, and high-touch customer service.

Structured parking layouts ae shown below in **Figure 1**.





Source: IBI Group

Figure 1

Parking Level Layouts

Paid Parking

A paid parking scheme will be implemented in a manner that ensures transactions for inbound traffic do not cause delays which could impact adjacent streets. The price will vary by season and is an important tool to encourage all visitors to travel by modes other than driving alone. Signs and parking processes will be designed to maximize efficiency and minimize congestion.

Recognizing that the much of the typical clientele of Deer Valley are less price-sensitive than many potential parkers, pricing may be adjusted following initial implementation to ensure that the preferred reductions in peak parking demand are achieved.

Communications

To achieve the smoothest parking operations possible, parking information will be made available on Deer Valley's website and integrated into any platforms through which ski passes might be purchased. Additionally, hotel and condominium uses will be expected to incentivize arrival options that do not require parking on-site.

Parking availability by level will be integrated into the design of Snow Park. Parking information will be part of the dynamic wayfinding program included in the development. This information will be available to the visitor via electronic messaging at key decision points along Deer Valley Drive East, including at the newly-configured "Y" intersection of Deer Valley Drives East and West, and as the driver approaches the garage entrances. Parking communication may also be integrated into various phone and web apps operated by the resort, city, county, etc.

Once inside the parking levels, parking availability and general internal wayfinding will be incorporated into the design to improve access rates, guiding visitors to available spaces. The exact technologies and vendors have not been determined at this point, but it will employ the most appropriate and technologically advanced parking and transportation systems to ensure an efficient and user-friendly parking experience with minimal impact on adjacent streets.

Attachment C: Snow Park Village Transportation Demand Management Plan

Snow Park Village

TDM Plan

Prepared for:
Deer Valley

January 2022

UT20-2245

FEHR PEERS

Table of Contents

Table of Figures

This page intentionally left blank.

1. Project Description and TDM Approach

This Transportation Demand Management (TDM) Plan describes the proposed approach to reduce the total number of vehicle trips at the Snow Park Village project at Deer Valley Resort in Park City, Utah. The Park City Municipal Corporation (PCMC), through its planning department review of the project application, has requested that a standalone TDM Plan be developed for the project. In addition, the City adopted a TDM Plan in 2016 that specifies how the City seeks to reduce vehicle trips through TDM strategies. A reduction in vehicle trips will reduce local pollution, greenhouse gas emissions and improve the quality of life for all who live and work in Park City by reducing vehicle traffic.

This document describes how Deer Valley intends to reduce the number of single-occupancy vehicle (SOV) trips to Snow Park Village using a variety of TDM options. This plan is based heavily on PCMC's existing TDM plan and strategies therein, adopted in August 2016.

Additionally, this plan formalizes TDM offerings that are already provided by Deer Valley to guests and employees for some time. In addition to describing existing offerings, this plan includes new TDM measures to help reduce SOV trips and monitor program effectiveness through ongoing collaboration with PCMC staff and other major destinations in Park City.

1.1 Project Description

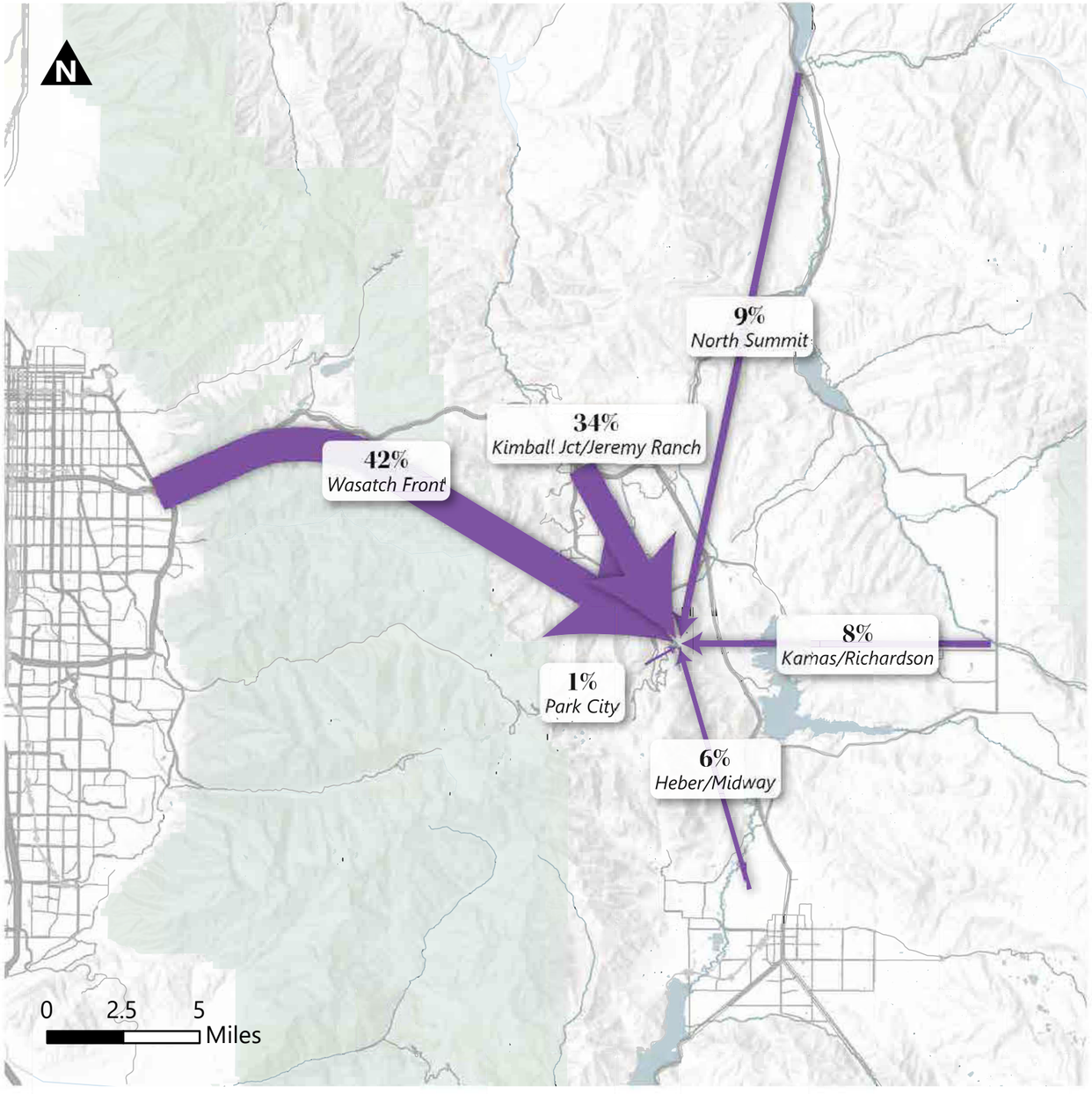
Snow Park Village proposes to repurpose the existing surface parking lots of the Snow Park base area at Deer Valley Resort for a mixed-use development including hotel, residential, retail and events center uses. Snow Park Village is approximately 1.5 miles from downtown Park City and approximately 2.5 miles from the Pak City Mountain Resort base area. Snow Park Village's location in Park City is shown in **Figure 1**.

The bulk of activity at the Snow Park Village is expected to take place during normal business hours. Parking at the site will be priced and include standard and ADA-compliant spaces. Central to the success of the project, a multimodal mobility hub is proposed on Deer Valley Drive, will facilitate non-automobile connections to key destinations in Park City, elsewhere in Summit County, and the Salt Lake Valley. Full build-out of Snow Park Village will include a network of dedicated pedestrian paths within the project, as well as connections to area cycling and pedestrian facilities.

Project Location

1.2 TDM Approach

The success of a TDM program relies on creating a system to manage travel demand that shifts the behavior of those traveling to and from Snow Park from using single occupant vehicles to options other than driving alone. The following sections describe the menu of transportation choices that will make it easier and more convenient to use modes other than driving alone. Through an evaluation of anonymized mobile phone data, provided by a third-party vendor, this Plan has been assembled with the knowledge that a substantial portion of those traveling to and from Deer Valley do so from points around the region. The origins and destinations of Deer Valley's guests and employees are dispersed throughout northern Utah, with the largest share traveling to and from points along the Wasatch Front, as shown in **Figure 2.** This variety of travel patters requires a robust and diverse program to reduce drive alone trips. A diverse and flexible TDM program will allow Deer Valley to match the transportation services to the travel needs of all traveling to and from Snow Park Village. The TDM Plan described in the following sections supports the project's commitment to managing vehicle traffic to and from Snow Park Village while maintaining flexibility in response to changing travel behavior and regional transportation investments.



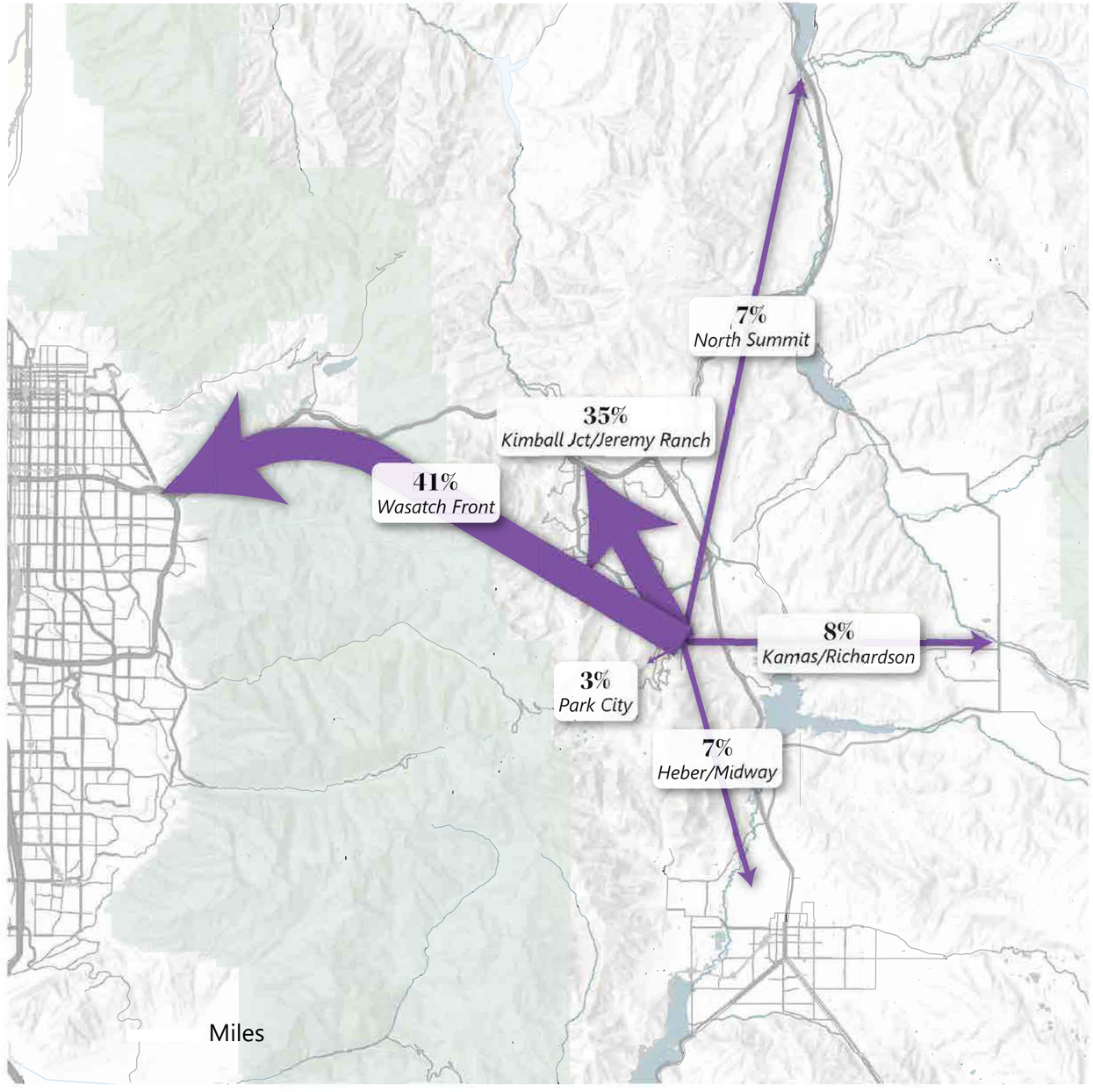


Figure 2

Deer Valley Origin-Destination AM Incoming - PM Outgoing Trends

2. Snow Park Village TDM Program

2.1 Primary TDM measures

Deer Valley will provide a variety of opportunities for those traveling to and from Snow Park to choose travel modes that are not driving alone. These are categorized as incentivizing using transit, riding a bicycle, sharing a car, or some combination thereof. A summary of the Primary TDM measures can be found in **Table 1**.

Table 1: Primary TDM Measures

Measure	Status	Description
Transit pass subsidy	Existing Program	Subsidized UTA transit passes for Deer Valley employees living in Salt Lake Valley and Utah Valley
Bicycle Amenities and Perks	New Program	Bicycle repair tools and dedicated bicycle parking at key locations
Education and Promotion	Existing Program	Educational and promotional events to encourage travelers to use by modes other than driving alone.
Parking Management	New Program	Efficient, constrained, and priced parking to discourage drive-alone trips
Employee Transit	Existing Program	Operate designated employee transit to facilitate efficient employee commutes through an appealing alternative
Real-Time Messaging	New Program	Communicate traffic conditions in real time to travelers
Appoint a TDM Coordinator	New Program	Identify a staff member to oversee the TDM program

Source: Deer Valley

More detailed descriptions of the Primary TDM Measures can be found below.

To incentivize traveling by bicycle, Deer Valley plans to implement the bicycling-based TDM strategies listed in **Table 2**.

Table 2: Bicycling and Walking TDM Strategies

Biking/Walking Strategies	Status	Target User Groups	Description
Implement Bicycle Parking at Key Destinations and Transit Stops	New Program	Day Guests Commuters Employees	Snow Park Village's site plan includes the provision of safe and convenient locations to park bicycles, encouraging their use and removing barriers such as frustration in finding secure parking and bicycle theft. This includes the proposed mobility hub on Deer Valley Drive, a key connecting point for trips to and from Snow Park.
Expand e-Bike Share	New Program	Day Guests Commuters Employees	Snow Park Village will include a relocated PCMC e-bike-share station with direct access to the mobility hub. This will expand coverage of the existing e-bike share service in Park City and enable more non-automobile trips for people traveling to and from Snow Park Village.
Install Bicycle Repair Stand	New Program	Day Guests Commuters Employees	Deer Valley will install two do-it-yourself bicycle repair stands: one at the proposed mobility hub on Deer Valley Drive, and another seasonal stand at the Silver Lake Express base. The repair stands may include an air pump and basic tools to make minor bicycle repairs. Additional repair options include full-service bike shop(s) during the summer season and on-mountain assistance from Bike Patrol.

Source: Deer Valley

To incentivize traveling by modes other than driving alone, Deer Valley plans to implement the parking-based TDM strategies listed in **Table 3.**

Table 3: Demand Management TDM Strategies

Demand Management Strategies	Status	Target User Groups	Description
Implement Real-Time Information Messaging	New Program	Day Skiers Employees	Deer Valley plans to work with the City, UDOT, and Summit County to deploy VMS boards and other messaging systems at key locations, including approach roads, parking areas, and ski lift bases, to inform those traveling to and from Snow Park Village of current traffic and parking conditions. Additionally, Deer Valley will use its website, social media platforms, and mobile application to notify guests in real time. This will enable

			visitors to make more informed transportation choices allowing for better demand management.
Provide Additional Evening Recreation Opportunities/Amenities:	New Program	Day Skiers Employees Overnight Guests	Providing additional activities, food and beverage options, and/or entertainment for visitors after the ski day has ended is an essential element of the Snow Park Village proposal. Providing opportunities for day skiers to linger at the base area longer will better distribute peak-hour outbound vehicle trips.

Source: Deer Valley

To incentivize traveling by modes other than driving alone, Deer Valley plans to implement the parking-based TDM strategies listed in **Table 4.**

Table 4: Policy-Based TDM Strategies

Policy Strategies	Status	Target User Groups	Description
Provide Employee Housing	Existing Program	Employees	Deer Valley has and will continue to provide subsidized housing for its employees in and around Park City. The locations of this housing allow for shorter commutes with access to public transit or shuttles, and increases the likelihood of ridesharing among employees. Any active, full-time staff member is eligible for employee housing. Employee housing is distributed throughout Park City and Heber City in areas that are served by public and employee transit.
Provide Employee Amenities	Existing Program	Employees	Deer Valley employees are able use various on-site amenities that will be provided at Snow Park Village, including employee dining rooms that offer discounted meals, and employee locker rooms that allow for storage of personal items to reduce the need for trips off-site during shift changes and during mealtimes.
Childcare	Existing Program	Day Skiers Employees Overnight Guests	Parents managing childcare are among those who are most attached to private vehicles for personal travel, and providing on-site childcare in the form of both nursery/day care programs, and on-mountain options for active childcare will reduce the need for parents to make multiple local trips and enable their use of non-SOV modes by collocating services. Deer Valley employees are eligible for discounted childcare programs.

Source: Deer Valley

To incentivize traveling by modes other than driving alone, Deer Valley plans to implement the parking-based TDM strategies listed in **Table 5.**

Table 5: Parking TDM Strategies

Parking Strategies	Status	Target User Groups	Description
Implementation of Efficient Parking Schemes	Existing Program	Day Skiers Employees	Deer Valley will continue to assess the need for remote or satellite parking areas for days on which parking demand requires additional capacity beyond that which is provided at the base area itself. The only designated off-site parking location that has been used by Deer Valley is Treasure Mountain Middle School, and is used solely on days of particularly high demand.
Implement Parking Demand Management	New Program	Day Skiers Employees	A fundamental aspect of Snow Park Village's proposed parking system is to charge for parking, a direct incentive to those traveling to Deer Valley to more efficiently utilize vehicle capacity, specifically for day skiers. The cost of parking at Snow Park Village will be set at a level that will incentivize higher-occupancy vehicles when traveling to and from Snow Park, a direct disincentive to drive alone. While many Deer Valley patrons are likely less price sensitive to additional charges such as paid parking, available data suggests that a substantial portion of day traffic originates from points along the Wasatch Front, from where patrons are expected to be more price sensitive to parking fees, increasing their likelihood of mode shift.

Source: Deer Valley

To incentivize traveling by modes other than driving alone, Deer Valley plans to implement the programmatic TDM strategies listed in **Table 6.**

Table 6: Program-Based TDM Strategies

Programmatic Strategies	Status	Target User Groups	Description
Establish a TDM Coordinator	New Program	Employees Day Skiers Overnight Guests	Deer Valley will identify an existing staff member to act as the TDM coordinator, a central source for TDM program information. The TDM coordinator may fill many roles, but may be responsible for: real-time messaging of traffic conditions to travelers, distribute information on new or adapted TDM program offerings, and evaluate the effectiveness and use of TDM program elements. The TDM coordinator will also continue to explore new TDM options that best serve Deer Valley guests and/or employees. The TDM coordinator will be the main point of contact with the City and will facilitate communication in connection with the proposed monitoring program. This coordinator will meet with Park City staff on a regular basis to discuss on-going adjustments to the TDM measures.
Provide Tailored Information and Promotions	Existing Program	Employees Day Skiers Overnight Guests	Deer Valley will develop and distribute targeted messaging and promotions to ensure that different user groups are aware of the TDM measures most relevant to their needs. These promotions may include gamification to further incentivize non-drive alone trips. Deer Valley supports a mobile app used by employees that allows them to organize rides sharing, and identify transit, bike and walking options for their commute. The application also offers incentives to Deer Valley employees for not driving alone to work. Deer Valley will encourage all ski area-serving businesses (namely hotels and other lodging) to further emphasize their transportation offerings that allow guests to rely less on private vehicles and more on shared mobility.

Source: Deer Valley

To incentivize traveling to and from Snow Park by transit, Deer Valley plans to implement the transit-based TDM strategies listed in **Table 7.**

Table 7: Transit TDM Strategies

Transit Strategies	Status	Target User Groups	Description
Provide Employee Transit	Existing Program	Employees	To complement public transit service and supplement in certain areas where public transit may not yet exist, Deer Valley will continue to provide private employee transit to and from Snow Park to allow Deer Valley employees to travel longer distances (such as from Heber City) on employee shuttles. Deer Valley contracts through Le Bus to operate full-sized coach buses for their employees. In a typical (non-Covid) year, Deer Valley provides three AM peak-period and two PM peak-period shuttle runs to serve their employees living in River's Edge and Heber City.
Subsidize Transit Passes for Inter-City Commuters	Existing Program	Employees	Deer Valley provides subsidized Utah Transit Authority passes to employees commuting to Deer Valley from Utah and Salt Lake Valleys.

Source: Deer Valley

3. Program Monitoring and Adaptation

Deer Valley has a strong interest in making trips to and from Snow Park Village as efficient and enjoyable as possible. Doing so is not only a way to improve the overall experience for all who visit Snow Park, but it also allows Deer Valley to contribute to shared goals for reducing traffic impacts within Park City and Summit County.

3.1 Monitoring Program

Deer Valley will conduct internal monitoring to best understand how various user groups are getting to Snow Park, how best to improve their experiences, and how to optimize their experience while minimizing their impact on area traffic and the environment. Elements of the TDM program may be adapted, added, or eliminated over time as Deer Valley strives to achieve maximum effectiveness with its TDM program. The Snow Park TDM program will change over time as travel behaviors change and the transportation context around Snow Park evolves.

The TDM coordinator will be responsible for ongoing collaboration and coordination with PCMC staff to ensure that goals are shared and TDM measures managed by Deer Valley are complementing those enacted by the City. To that end, semiannual meetings will take place among Deer Valley, PCMC staff, and other TDM coordinators:

- Prior to each ski season, relevant parties will gather to share relevant updates for the upcoming season, and identify potential opportunities for collaboration, share expectations for the coming months, and discuss performance metrics to be tracked
- Following each ski season, the same parties will meet to share lessons learned and review program performance as recorded by agreed-upon performance metrics, and establish potential action items during the off-season

With ongoing updates to local transit service operated by both Park City Transit and High Valley Transit, Deer Valley will strive to avoid duplication of transit service offerings. Deer Valley's TDM program is intended to support the use of public transit among the public rather than act as an alternative to public transit service. As public transit coverage expands, Deer Valley will adapt its program to support local transit agencies.