




















Appendix H
Existing Level of Service (LOS)

Intersection LOS

HCM Unsignalized Intersection Capacity Analysis

1: US 50 #1 & Grand Mesa Ave

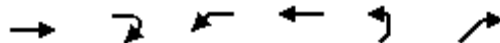
10/28/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	746	0	44	1492	10	2	0	3	2	0	34
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	811	0	48	1622	11	2	0	3	2	0	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												2
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1633			811			1740	2543	405	2136	2538	816
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1633			811			1740	2543	405	2136	2538	816
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			94			95	100	99	91	100	88
cM capacity (veh/h)	367			773			44	23	578	24	23	308
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	2	541	270	48	1081	551	5	39				
Volume Left	2	0	0	48	0	0	2	2				
Volume Right	0	0	0	0	0	11	3	37				
cSH	367	1700	1700	773	1700	1700	98	326				
Volume to Capacity	0.01	0.32	0.16	0.06	0.64	0.32	0.06	0.12				
Queue Length 95th (ft)	0	0	0	5	0	0	4	10				
Control Delay (s)	14.9	0.0	0.0	10.0	0.0	0.0	44.0	26.6				
Lane LOS	B			A			E	D				
Approach Delay (s)	0.0			0.3			44.0	26.6				
Approach LOS							E	D				
Intersection Summary												
Average Delay			0.7									
Intersection Capacity Utilization			58.2%		ICU Level of Service			B				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

2: US 50 #1 & Gunnison Blvd

10/28/2008



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑↑			↑↑	↘	
Volume (veh/h)	747	11	0	1543	0	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	795	12	0	1641	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				1069		
pX, platoon unblocked					0.67	
vC, conflicting volume			806		1621	403
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			806		929	403
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	99
cM capacity (veh/h)			777		170	580

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NE 1
Volume Total	530	277	821	821	5
Volume Left	0	0	0	0	0
Volume Right	0	12	0	0	5
cSH	1700	1700	1700	1700	580
Volume to Capacity	0.31	0.16	0.48	0.48	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	11.3
Lane LOS					B
Approach Delay (s)	0.0		0.0		11.3
Approach LOS					B

Intersection Summary					
Average Delay			0.0		
Intersection Capacity Utilization			52.7%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis

3: US 50 #1 & Santa Clara Ave

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑		↖	↑↑			↕			↕	
Volume (veh/h)	30	721	0	1	1484	2	0	0	1	0	0	41
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	784	0	1	1613	2	0	0	1	0	0	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					634							
pX, platoon unblocked	0.67						0.67	0.67		0.67	0.67	0.67
vC, conflicting volume	1615			784			1702	2466	392	2074	2465	808
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	923			784			1053	2199	392	1611	2198	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	93			100			100	100	100	100	100	94
cM capacity (veh/h)	466			792			102	25	590	41	25	710

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	33	522	261	1	1075	540	1	45
Volume Left	33	0	0	1	0	0	0	0
Volume Right	0	0	0	0	0	2	1	45
cSH	466	1700	1700	792	1700	1700	590	710
Volume to Capacity	0.07	0.31	0.15	0.00	0.63	0.32	0.00	0.06
Queue Length 95th (ft)	6	0	0	0	0	0	0	5
Control Delay (s)	13.3	0.0	0.0	9.5	0.0	0.0	11.1	10.4
Lane LOS	B			A			B	B
Approach Delay (s)	0.5			0.0			11.1	10.4
Approach LOS							B	B

Intersection Summary

Average Delay	0.4
Intersection Capacity Utilization	51.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

5: US 50 #1 & James St

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕			↕			↕	
Volume (veh/h)	0	532	0	0	1253	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	585	0	0	1377	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		513										
pX, platoon unblocked				0.98			0.98	0.98	0.98	0.98	0.98	0.98
vC, conflicting volume	1377			585			1273	1962	292	1669	1962	688
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1377			527			1232	1937	228	1638	1937	688
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	464			972			124	59	739	61	59	375

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	0	390	195	0	918	459	0	0
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	0	0
cSH	1700	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.00	0.23	0.11	0.00	0.54	0.27	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							A	A
Approach Delay (s)	0.0			0.0			0.0	0.0
Approach LOS							A	A

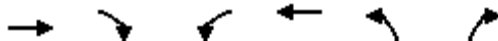
Intersection Summary

Average Delay	0.0
Intersection Capacity Utilization	38.0%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

6: US 50 #1 & Green Acre 1

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↗
Volume (veh/h)	530	0	0	1252	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	589	0	0	1391	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	1023					
pX, platoon unblocked						
vC, conflicting volume			589	1284	294	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			589	1284	294	
tC, single (s)			4.3	7.0	7.1	
tC, 2 stage (s)						
tF (s)			2.3	3.6	3.4	
p0 queue free %			100	100	100	
cM capacity (veh/h)			942	149	684	

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	393	196	696	696	0
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.23	0.12	0.41	0.41	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					A
Approach Delay (s)	0.0		0.0		0.0
Approach LOS					A

Intersection Summary					
Average Delay			0.0		
Intersection Capacity Utilization			37.9%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis

7: US 50 #1 & Elm Park

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Volume (veh/h)	522	4	5	1263	6	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	580	4	6	1403	7	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	1190					
pX, platoon unblocked						
vC, conflicting volume			584		1295	292
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			584		1295	292
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			99		95	99
cM capacity (veh/h)			946		145	687

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	387	198	6	702	702	13
Volume Left	0	0	6	0	0	7
Volume Right	0	4	0	0	0	7
cSH	1700	1700	946	1700	1700	240
Volume to Capacity	0.23	0.12	0.01	0.41	0.41	0.06
Queue Length 95th (ft)	0	0	0	0	0	4
Control Delay (s)	0.0	0.0	8.8	0.0	0.0	20.9
Lane LOS			A			C
Approach Delay (s)	0.0		0.0			20.9
Approach LOS						C

Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			44.9%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

8: US 50 #1 & Green Acre 2

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↗
Volume (veh/h)	519	1	0	1264	0	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	583	1	0	1420	0	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			584	1294	292	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			584	1294	292	
tC, single (s)			4.3	7.0	7.1	
tC, 2 stage (s)						
tF (s)			2.3	3.6	3.4	
p0 queue free %			100	100	99	
cM capacity (veh/h)			946	147	687	

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	389	196	710	710	10
Volume Left	0	0	0	0	0
Volume Right	0	1	0	0	10
cSH	1700	1700	1700	1700	687
Volume to Capacity	0.23	0.12	0.42	0.42	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	10.3
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.3
Approach LOS					B

Intersection Summary					
Average Delay			0.1		
Intersection Capacity Utilization			38.3%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis

9: US 50 #1 & Aspen St

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	512	2	1	1261	2	1	0	4	2	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	15	575	2	1	1417	2	1	0	4	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1419			578			1316	2027	289	1742	2027	710
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1419			578			1316	2027	289	1742	2027	710
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	97			100			99	100	99	96	100	100
cM capacity (veh/h)	446			952			107	51	690	50	51	363

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	15	384	194	1	945	475	6	2
Volume Left	15	0	0	1	0	0	1	2
Volume Right	0	0	2	0	0	2	4	0
cSH	446	1700	1700	952	1700	1700	330	50
Volume to Capacity	0.03	0.23	0.11	0.00	0.56	0.28	0.02	0.04
Queue Length 95th (ft)	3	0	0	0	0	0	1	3
Control Delay (s)	13.3	0.0	0.0	8.8	0.0	0.0	16.1	79.8
Lane LOS	B			A			C	F
Approach Delay (s)	0.3			0.0			16.1	79.8
Approach LOS							C	F

Intersection Summary

Average Delay	0.2
Intersection Capacity Utilization	44.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

10: US 50 #1 & Palmer St

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	512	0	0	1291	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	575	0	0	1451	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1451			575			1305	2030	288	1743	2030	725
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1451			575			1305	2030	288	1743	2030	725
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			100			100	100	100	100	100	100
cM capacity (veh/h)	434			954			111	52	691	52	52	354

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	2	384	192	967	484	0	0
Volume Left	2	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	0
cSH	434	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.23	0.11	0.57	0.28	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0
Control Delay (s)	13.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					A	A
Approach Delay (s)	0.1			0.0		0.0	0.0
Approach LOS						A	A

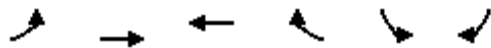
Intersection Summary

Average Delay	0.0
Intersection Capacity Utilization	39.0%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

11: US 50 #1 & Palisade St

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	12	514	1302	8	0	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	13	578	1463	9	0	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1472				1783	736
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1472				1783	736
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	97				100	98
cM capacity (veh/h)	425				66	348

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	13	289	289	975	497	6
Volume Left	13	0	0	0	0	0
Volume Right	0	0	0	0	9	6
cSH	425	1700	1700	1700	1700	348
Volume to Capacity	0.03	0.17	0.17	0.57	0.29	0.02
Queue Length 95th (ft)	2	0	0	0	0	1
Control Delay (s)	13.7	0.0	0.0	0.0	0.0	15.5
Lane LOS	B					C
Approach Delay (s)	0.3			0.0		15.5
Approach LOS						C

Intersection Summary

Average Delay		0.1				
Intersection Capacity Utilization		46.2%		ICU Level of Service		A
Analysis Period (min)		15				

Intersection has too many legs for HCM analysis.

HCM Unsignalized Intersection Capacity Analysis
 14: US 50 #1 & Dorothy Ave

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑	↘	↖	↑↑			↕			↕	
Volume (veh/h)	2	417	66	0	1070	10	33	0	3	13	0	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	2	469	74	0	1202	11	37	0	3	15	0	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		807										
pX, platoon unblocked				0.98			0.98	0.98	0.98	0.98	0.98	
vC, conflicting volume	1213			469			1097	1687	234	1450	1681	607
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1213			425			1064	1664	187	1423	1658	607
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			76	100	100	84	100	95
cM capacity (veh/h)	538			1071			157	88	791	89	89	425

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	2	234	234	74	0	801	412	40	37
Volume Left	2	0	0	0	0	0	0	37	15
Volume Right	0	0	0	74	0	0	11	3	22
cSH	538	1700	1700	1700	1700	1700	1700	168	171
Volume to Capacity	0.00	0.14	0.14	0.04	0.00	0.47	0.24	0.24	0.22
Queue Length 95th (ft)	0	0	0	0	0	0	0	22	20
Control Delay (s)	11.7	0.0	0.0	0.0	0.0	0.0	0.0	33.0	31.9
Lane LOS	B							D	D
Approach Delay (s)	0.0				0.0			33.0	31.9
Approach LOS								D	D













Intersection Summary

Average Delay	1.4
Intersection Capacity Utilization	40.7%
ICU Level of Service	A
Analysis Period (min)	15

Intersection Sign configuration not allowed in HCM analysis.

HCM Unsignalized Intersection Capacity Analysis
 16: US 50 #1 & WB On-Ramp

10/28/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↗			↗
Volume (veh/h)	0	366	0	0	790	0	0	0	3	0	0	360
Sign Control		Free			Free			Yield			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	398	0	0	859	0	0	0	3	0	0	391
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	859			398			1218	1257	199	1061	1257	429
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	859			398			1218	1257	199	1061	1257	429
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	30
cM capacity (veh/h)	741			1116			39	162	790	170	162	558
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	199	199	429	429	3	391						
Volume Left	0	0	0	0	0	0						
Volume Right	0	0	0	0	3	391						
cSH	1700	1700	1700	1700	790	558						
Volume to Capacity	0.12	0.12	0.25	0.25	0.00	0.70						
Queue Length 95th (ft)	0	0	0	0	0	139						
Control Delay (s)	0.0	0.0	0.0	0.0	9.6	25.2						
Lane LOS					A	D						
Approach Delay (s)	0.0		0.0		9.6	25.2						
Approach LOS					A	D						
Intersection Summary												
Average Delay			6.0									
Intersection Capacity Utilization			50.8%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: US 50 #1 & Frontage Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑	↗		↕			↕	
Volume (veh/h)	40	306	15	15	741	9	4	4	3	0	5	45
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	47	356	17	17	862	10	5	5	3	0	6	52
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	872			373			970	1356	178	1173	1363	431
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	872			373			970	1356	178	1173	1363	431
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	94			98			97	96	100	100	95	91
cM capacity (veh/h)	732			1140			164	130	816	128	128	556

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	47	178	178	17	17	431	431	10	13	58
Volume Left	47	0	0	0	17	0	0	0	5	0
Volume Right	0	0	0	17	0	0	0	10	3	52
cSH	732	1700	1700	1700	1140	1700	1700	1700	187	417
Volume to Capacity	0.06	0.10	0.10	0.01	0.02	0.25	0.25	0.01	0.07	0.14
Queue Length 95th (ft)	5	0	0	0	1	0	0	0	5	12
Control Delay (s)	10.3	0.0	0.0	0.0	8.2	0.0	0.0	0.0	25.7	15.0
Lane LOS	B				A				D	C
Approach Delay (s)	1.1				0.2				25.7	15.0
Approach LOS									D	C

Intersection Summary

Average Delay		1.3								
Intersection Capacity Utilization		37.9%		ICU Level of Service					A	
Analysis Period (min)		15								

HCM Unsignalized Intersection Capacity Analysis

18: US 50 WB #3 & 27 3/4 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	9	727	30	1	27	0	0	28	34
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	10	790	33	1	29	0	0	30	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	823	0			467			842	0	824	810	395
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	823	0			467			842	0	824	810	395
tC, single (s)	4.3	4.3			7.7			6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3	2.3			3.6			4.1	3.4	3.6	4.1	3.4
p0 queue free %	100	99			100			90	100	100	90	94
cM capacity (veh/h)	765	1579			400			286	1065	234	300	587

Direction, Lane #	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	10	395	395	33	30	67
Volume Left	10	0	0	0	1	0
Volume Right	0	0	0	33	0	37
cSH	1579	1700	1700	1700	289	410
Volume to Capacity	0.01	0.23	0.23	0.02	0.11	0.16
Queue Length 95th (ft)	0	0	0	0	9	15
Control Delay (s)	7.3	0.0	0.0	0.0	18.9	15.5
Lane LOS	A				C	C
Approach Delay (s)	0.1				18.9	15.5
Approach LOS				C		C

Intersection Summary

Average Delay	1.8	
Intersection Capacity Utilization	30.3%	ICU Level of Service A
Analysis Period (min)	15	

HCM Unsignalized Intersection Capacity Analysis

19: US 50 EB #2 & 27 3/4 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑	↖					↑			↖	
Volume (veh/h)	21	293	0	0	0	0	0	7	4	24	13	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	318	0	0	0	0	0	8	4	26	14	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			318			371	364	159	209	364	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			318			371	364	159	209	364	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			100			100	99	99	96	97	100
cM capacity (veh/h)	1579			1196			529	541	839	695	541	1065

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	NB 1	SB 1
Volume Total	23	159	159	0	12	40
Volume Left	23	0	0	0	0	26
Volume Right	0	0	0	0	4	0
cSH	1579	1700	1700	1700	621	632
Volume to Capacity	0.01	0.09	0.09	0.00	0.02	0.06
Queue Length 95th (ft)	1	0	0	0	1	5
Control Delay (s)	7.3	0.0	0.0	0.0	10.9	11.1
Lane LOS	A				B	B
Approach Delay (s)	0.5				10.9	11.1
Approach LOS					B	B

Intersection Summary

Average Delay	1.9
Intersection Capacity Utilization	23.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

20: US 50 WB #3 & Fairgrounds

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	0	8	739	6	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	9	803	7	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		419	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		419	0
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			99		99	100
cM capacity (veh/h)			1579		544	1065

Direction, Lane #	WB 1	WB 2	WB 3	NB 1
Volume Total	9	402	402	7
Volume Left	9	0	0	7
Volume Right	0	0	0	0
cSH	1579	1700	1700	544
Volume to Capacity	0.01	0.24	0.24	0.01
Queue Length 95th (ft)	0	0	0	1
Control Delay (s)	7.3	0.0	0.0	11.7
Lane LOS	A			B
Approach Delay (s)	0.1			11.7
Approach LOS				B

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		30.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

21: US 50 EB #2 & Fairgrounds

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗					↖			↙	
Volume (veh/h)	0	302	6	0	0	0	0	6	0	0	8	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	328	7	0	0	0	0	7	0	0	9	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			335			333	328	164	167	335	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			335			333	328	164	167	335	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	99	100	100	98	100
cM capacity (veh/h)	1579			1179			575	576	833	758	571	1065

Direction, Lane #	EB 1	EB 2	EB 3	NB 1	SB 1
Volume Total	164	164	7	7	9
Volume Left	0	0	0	0	0
Volume Right	0	0	7	0	0
cSH	1700	1700	1700	576	571
Volume to Capacity	0.10	0.10	0.00	0.01	0.02
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	11.3	11.4
Lane LOS				B	B
Approach Delay (s)	0.0			11.3	11.4
Approach LOS				B	B

Intersection Summary

Average Delay	0.5
Intersection Capacity Utilization	30.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

22: US 50 EB #2 & KOA

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Volume (veh/h)	300	3	0	0	0	13
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	349	3	0	0	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			352		351	176
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			352		351	176
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	98
cM capacity (veh/h)			1161		605	818

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	233	120	15
Volume Left	0	0	0
Volume Right	0	3	15
cSH	1700	1700	818
Volume to Capacity	0.14	0.07	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	9.5
Lane LOS			A
Approach Delay (s)	0.0		9.5
Approach LOS			A

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization		18.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

23: US 50 WB #3 & 28 1/2 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕	↗		↖			↘	↗
Volume (veh/h)	0	0	0	8	677	7	49	56	0	0	18	42
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	0	9	769	8	56	64	0	0	20	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	777			0			461	795	0	819	788	385
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	777			0			461	795	0	819	788	385
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			99			86	79	100	100	93	92
cM capacity (veh/h)	797			1579			409	306	1065	215	309	597

Direction, Lane #	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	9	385	385	8	119	68
Volume Left	9	0	0	0	56	0
Volume Right	0	0	0	8	0	48
cSH	1579	1700	1700	1700	346	466
Volume to Capacity	0.01	0.23	0.23	0.00	0.34	0.15
Queue Length 95th (ft)	0	0	0	0	37	13
Control Delay (s)	7.3	0.0	0.0	0.0	20.8	14.0
Lane LOS	A				C	B
Approach Delay (s)	0.1				20.8	14.0
Approach LOS					C	B

Intersection Summary

Average Delay	3.6
Intersection Capacity Utilization	37.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

24: US 50 EB #2 & 28 1/2 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	275	1	0	0	0	0	69	14	8	18	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	41	312	1	0	0	0	0	78	16	9	20	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			314			405	394	156	293	395	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			314			405	394	156	293	395	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	97			100			100	85	98	98	96	100
cM capacity (veh/h)	1579			1201			491	514	843	528	513	1065

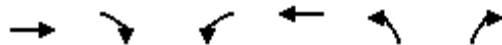
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	NB 1	SB 1
Volume Total	41	156	156	1	94	30
Volume Left	41	0	0	0	0	9
Volume Right	0	0	0	1	16	0
cSH	1579	1700	1700	1700	550	518
Volume to Capacity	0.03	0.09	0.09	0.00	0.17	0.06
Queue Length 95th (ft)	2	0	0	0	15	5
Control Delay (s)	7.3	0.0	0.0	0.0	12.9	12.4
Lane LOS	A				B	B
Approach Delay (s)	0.8				12.9	12.4
Approach LOS					B	B

Intersection Summary

Average Delay	3.9
Intersection Capacity Utilization	22.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
 25: US 50 EB #2 & Rainbow Dr

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑				↑
Volume (veh/h)	323	3	0	0	0	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	385	4	0	0	0	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			388		385	192
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			388		385	192
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	98
cM capacity (veh/h)			1125		575	798

Direction, Lane #	EB 1	EB 2	EB 3	NB 1
Volume Total	192	192	4	14
Volume Left	0	0	0	0
Volume Right	0	0	4	14
cSH	1700	1700	1700	798
Volume to Capacity	0.11	0.11	0.00	0.02
Queue Length 95th (ft)	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	9.6
Lane LOS				A
Approach Delay (s)	0.0			9.6
Approach LOS				A

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		18.9%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 26: US 50 WB #3 & Tennessee St

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	690	0	0	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	862	0	0	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	862				862	431
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	862				862	431
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	99
cM capacity (veh/h)	738				283	556

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	575	288	4
Volume Left	0	0	0
Volume Right	0	0	4
cSH	1700	1700	556
Volume to Capacity	0.34	0.17	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	11.5
Lane LOS			B
Approach Delay (s)	0.0		11.5
Approach LOS			B

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		29.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 27: US 50 WB #3 & Indiana St

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	680	1	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	0	0	840	1	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	841				840	420
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	841				840	420
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	100
cM capacity (veh/h)	753				292	565

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	560	281	0
Volume Left	0	0	0
Volume Right	0	1	0
cSH	1700	1700	1700
Volume to Capacity	0.33	0.17	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0		0.0
Approach LOS			A

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		22.2%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 28: US 50 WB #3 & Dee Vee Dr

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↕↕	↗	
Volume (veh/h)	0	0	0	667	1	0
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	0	0	767	1	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0	383	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	383	0	
tC, single (s)			4.3	7.0	7.1	
tC, 2 stage (s)						
tF (s)			2.3	3.6	3.4	
p0 queue free %			100	100	100	
cM capacity (veh/h)			1579	576	1065	

Direction, Lane #	WB 1	WB 2	NB 1
Volume Total	256	511	1
Volume Left	0	0	1
Volume Right	0	0	0
cSH	1579	1700	576
Volume to Capacity	0.00	0.30	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	11.3
Lane LOS	B		
Approach Delay (s)	0.0		11.3
Approach LOS	B		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	28.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

29: US 50 EB #2 & Dee Vee Dr

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔			↔	
Volume (veh/h)	1	337	0	0	0	0	0	0	0	1	0	0
Sign Control		Free			Free			Stop			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	1	387	0	0	0	0	0	0	0	1	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			387			390	390	194	196	390	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			387			390	390	194	196	390	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1579			1126			529	530	797	729	530	1065

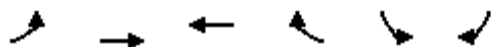
Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	195	194	0	1
Volume Left	1	0	0	1
Volume Right	0	0	0	0
cSH	1579	1700	1700	729
Volume to Capacity	0.00	0.11	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	9.9
Lane LOS	A		A	A
Approach Delay (s)	0.0		0.0	9.9
Approach LOS			A	A

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		19.3%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

30: US 50 WB #3 & Elm Dr

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	667	0	0	4
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	0	0	794	0	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	794				794	397
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	794				794	397
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	99
cM capacity (veh/h)	785				313	586

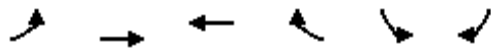
Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	529	265	5
Volume Left	0	0	0
Volume Right	0	0	5
cSH	1700	1700	586
Volume to Capacity	0.31	0.16	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	11.2
Lane LOS			B
Approach Delay (s)	0.0		11.2
Approach LOS			B

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		28.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

31: US 50 WB #3 & Reta Dr

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	668	0	0	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	726	0	0	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			389			
pX, platoon unblocked	0.91				0.91	0.91
vC, conflicting volume	726				726	363
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	499				499	100
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	100
cM capacity (veh/h)	927				442	834

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	484	242	2
Volume Left	0	0	0
Volume Right	0	0	2
cSH	1700	1700	834
Volume to Capacity	0.28	0.14	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	9.3
Lane LOS			A
Approach Delay (s)	0.0		9.3
Approach LOS			A

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		28.5%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

32: US 50 EB #2 &

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	NBR2	SWL	SWR
Lane Configurations											
Volume (veh/h)	73	239	4	0	0	0	0	0	3	0	0
Sign Control		Free			Free		Stop			Stop	
Grade		0%			0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	79	260	4	0	0	0	0	0	3	0	0
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)											
Percent Blockage											
Right turn flare (veh)											
Median type		None			None						
Median storage (veh)											
Upstream signal (ft)					424						
pX, platoon unblocked											
vC, conflicting volume	0			264			418	418	130	423	0
vC1, stage 1 conf vol											
vC2, stage 2 conf vol											
vCu, unblocked vol	0			264			418	418	130	423	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	6.7	7.1
tC, 2 stage (s)											
tF (s)	2.3			2.3			3.6	4.1	3.4	4.1	3.4
p0 queue free %	95			100			100	100	100	100	100
cM capacity (veh/h)	1579			1254			485	485	877	482	1065

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	NB 1
Volume Total	79	130	130	4	3
Volume Left	79	0	0	0	0
Volume Right	0	0	0	4	3
cSH	1579	1700	1700	1700	877
Volume to Capacity	0.05	0.08	0.08	0.00	0.00
Queue Length 95th (ft)	4	0	0	0	0
Control Delay (s)	7.4	0.0	0.0	0.0	9.1
Lane LOS	A				A
Approach Delay (s)	1.7				9.1
Approach LOS					A

Intersection Summary		
Average Delay		1.8
Intersection Capacity Utilization	16.6%	ICU Level of Service
Analysis Period (min)		15
		A

HCM Unsignalized Intersection Capacity Analysis
 38: US 50 EB #2 & Redrock Rd

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Volume (veh/h)	288	4	0	0	0	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	324	4	0	0	0	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	595					
pX, platoon unblocked						
vC, conflicting volume			328		326	164
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			328		326	164
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	99
cM capacity (veh/h)			1186		627	833

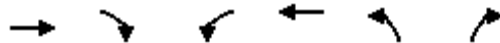
Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	216	112	9
Volume Left	0	0	0
Volume Right	0	4	9
cSH	1700	1700	833
Volume to Capacity	0.13	0.07	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	9.4
Lane LOS			A
Approach Delay (s)	0.0		9.4
Approach LOS			A

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		18.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

39: US 50 WB #3 & 29 1/4 Rd

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↕↕	↕	
Volume (veh/h)	0	0	0	653	18	0
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	0	742	20	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	1002					
pX, platoon unblocked						
vC, conflicting volume				0	371	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol				0	371	0
tC, single (s)				4.3	7.0	7.1
tC, 2 stage (s)						
tF (s)				2.3	3.6	3.4
p0 queue free %				100	97	100
cM capacity (veh/h)				1579	587	1065

Direction, Lane #	WB 1	WB 2	NB 1
Volume Total	247	495	20
Volume Left	0	0	20
Volume Right	0	0	0
cSH	1579	1700	587
Volume to Capacity	0.00	0.29	0.03
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.0	11.4
Lane LOS	B		
Approach Delay (s)	0.0	11.4	
Approach LOS	B		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

40: US 50 EB #2 & 29 1/4 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔			↔	
Volume (veh/h)	0	292	7	0	0	0	0	18	2	0	0	0
Sign Control		Free			Free			Stop			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	332	8	0	0	0	0	20	2	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		969										
pX, platoon unblocked												
vC, conflicting volume	0			340			336	336	170	178	340	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			340			336	336	170	178	340	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	96	100	100	100	100
cM capacity (veh/h)	1579			1174			579	570	826	728	567	1065

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	166	174	23	0
Volume Left	0	0	0	0
Volume Right	0	8	2	0
cSH	1579	1700	588	1700
Volume to Capacity	0.00	0.10	0.04	0.00
Queue Length 95th (ft)	0	0	3	0
Control Delay (s)	0.0	0.0	11.4	0.0
Lane LOS			B	A
Approach Delay (s)	0.0		11.4	0.0
Approach LOS			B	A

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization	28.1%		ICU Level of Service
Analysis Period (min)	15		A

HCM Unsignalized Intersection Capacity Analysis

41: US 50 #4 & 29 1/2 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑	↗		↕			↕	
Volume (veh/h)	7	289	2	0	540	2	35	1	3	6	0	65
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	321	2	0	600	2	39	1	3	7	0	72
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	602			323			709	939	161	777	939	300
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	602			323			709	939	161	777	939	300
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			100			86	100	100	98	100	89
cM capacity (veh/h)	931			1191			275	250	837	273	250	679

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	8	161	161	2	0	300	300	2	43	79
Volume Left	8	0	0	0	0	0	0	0	39	7
Volume Right	0	0	0	2	0	0	0	2	3	72
cSH	931	1700	1700	1700	1700	1700	1700	1700	290	603
Volume to Capacity	0.01	0.09	0.09	0.00	0.00	0.18	0.18	0.00	0.15	0.13
Queue Length 95th (ft)	1	0	0	0	0	0	0	0	13	11
Control Delay (s)	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.6	11.9
Lane LOS	A								C	B
Approach Delay (s)	0.2				0.0				19.6	11.9
Approach LOS									C	B

Intersection Summary

Average Delay	1.8
Intersection Capacity Utilization	30.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

42: US 50 #4 & 29 3/4 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↕			↕	
Volume (veh/h)	8	275	7	6	516	3	24	0	6	2	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	9	309	8	7	580	3	27	0	7	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	583			317			630	924	154	772	928	290
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	583			317			630	924	154	772	928	290
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			99			92	100	99	99	100	100
cM capacity (veh/h)	947			1198			350	254	845	273	252	689

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	9	154	154	8	7	290	290	3	34	2
Volume Left	9	0	0	0	7	0	0	0	27	2
Volume Right	0	0	0	8	0	0	0	3	7	0
cSH	947	1700	1700	1700	1198	1700	1700	1700	396	273
Volume to Capacity	0.01	0.09	0.09	0.00	0.01	0.17	0.17	0.00	0.09	0.01
Queue Length 95th (ft)	1	0	0	0	0	0	0	0	7	1
Control Delay (s)	8.8	0.0	0.0	0.0	8.0	0.0	0.0	0.0	14.9	18.3
Lane LOS	A				A				B	C
Approach Delay (s)	0.2				0.1				14.9	18.3
Approach LOS									B	C

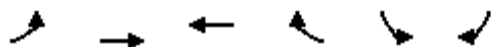
Intersection Summary

Average Delay	0.7
Intersection Capacity Utilization	24.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

43: US 50 #4 & 30 Rd

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	4	268	520	2	0	7
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	301	584	2	0	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	587				744	292
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	587				744	292
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	99
cM capacity (veh/h)	944				336	687

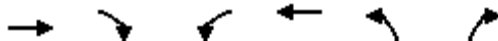
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	4	151	151	292	292	2	8
Volume Left	4	0	0	0	0	0	0
Volume Right	0	0	0	0	0	2	8
cSH	944	1700	1700	1700	1700	1700	687
Volume to Capacity	0.00	0.09	0.09	0.17	0.17	0.00	0.01
Queue Length 95th (ft)	0	0	0	0	0	0	1
Control Delay (s)	8.8	0.0	0.0	0.0	0.0	0.0	10.3
Lane LOS	A						B
Approach Delay (s)	0.1			0.0			10.3
Approach LOS							B

Intersection Summary							
Average Delay			0.1				
Intersection Capacity Utilization			24.4%		ICU Level of Service		A
Analysis Period (min)			15				

HCM Unsignalized Intersection Capacity Analysis

44: US 50 #4 & S Frontage Rd

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Volume (veh/h)	270	0	2	538	4	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	303	0	2	604	4	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			303		610	152
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			303		610	152
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		99	99
cM capacity (veh/h)			1212		412	849

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	202	101	2	302	302	11
Volume Left	0	0	2	0	0	4
Volume Right	0	0	0	0	0	7
cSH	1700	1700	1212	1700	1700	596
Volume to Capacity	0.12	0.06	0.00	0.18	0.18	0.02
Queue Length 95th (ft)	0	0	0	0	0	1
Control Delay (s)	0.0	0.0	8.0	0.0	0.0	11.2
Lane LOS			A			B
Approach Delay (s)	0.0		0.0			11.2
Approach LOS						B

Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			24.9%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

45: US 50 #4 & 31 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↖	↗		↕	
Volume (veh/h)	7	263	1	5	518	24	2	0	14	20	0	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	292	1	6	576	27	2	0	16	22	0	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	602			292			610	921	146	748	894	288
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	602			292			610	921	146	748	894	288
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			100			99	100	98	92	100	100
cM capacity (veh/h)	931			1224			361	255	856	282	265	691

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	8	146	146	1	6	288	288	27	18	26
Volume Left	8	0	0	0	6	0	0	0	2	22
Volume Right	0	0	0	1	0	0	0	27	16	3
cSH	931	1700	1700	1700	1224	1700	1700	1700	978	306
Volume to Capacity	0.01	0.09	0.09	0.00	0.00	0.17	0.17	0.02	0.02	0.08
Queue Length 95th (ft)	1	0	0	0	0	0	0	0	1	7
Control Delay (s)	8.9	0.0	0.0	0.0	8.0	0.0	0.0	0.0	10.0	17.9
Lane LOS	A				A				B	C
Approach Delay (s)	0.2				0.1				10.0	17.9
Approach LOS									B	C

Intersection Summary

Average Delay	0.8
Intersection Capacity Utilization	28.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
 47: US 50 #7 & CDOT

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑↑	↵	
Volume (veh/h)	376	13	0	626	0	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	392	14	0	652	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			405		609	196
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			405		609	196
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	99
cM capacity (veh/h)			1108		413	794

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1
Volume Total	196	196	14	0	217	217	217	5
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	14	0	0	0	0	5
cSH	1700	1700	1700	1700	1700	1700	1700	794
Volume to Capacity	0.12	0.12	0.01	0.00	0.13	0.13	0.13	0.01
Queue Length 95th (ft)	0	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
Lane LOS								A
Approach Delay (s)	0.0			0.0				9.6
Approach LOS								A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

48: US 50 #7 & Willow Bend Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↕			↕	
Volume (veh/h)	0	367	0	1	622	0	12	0	1	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	432	0	1	732	0	14	0	1	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	732			432			800	1166	216	950	1166	366
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	732			432			800	1166	216	950	1166	366
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			95	100	100	100	100	100
cM capacity (veh/h)	830			1083			266	184	771	205	184	614

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	0	216	216	0	1	366	366	0	15	0
Volume Left	0	0	0	0	1	0	0	0	14	0
Volume Right	0	0	0	0	0	0	0	0	1	0
cSH	1700	1700	1700	1700	1083	1700	1700	1700	280	1700
Volume to Capacity	0.00	0.13	0.13	0.00	0.00	0.22	0.22	0.00	0.05	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	4	0
Control Delay (s)	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	18.6	0.0
Lane LOS					A				C	A
Approach Delay (s)	0.0				0.0				18.6	0.0
Approach LOS									C	A

Intersection Summary

Average Delay	0.2
Intersection Capacity Utilization	27.2%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

49: US 50 #7 & 3247

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕			↕			↕	
Volume (veh/h)	3	364	0	0	628	0	1	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	428	0	0	739	0	1	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	739			428			805	1174	214	960	1174	369
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	739			428			805	1174	214	960	1174	369
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	825			1086			263	181	773	202	181	611

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	4	285	143	0	493	246	1	0
Volume Left	4	0	0	0	0	0	1	0
Volume Right	0	0	0	0	0	0	0	0
cSH	825	1700	1700	1700	1700	1700	263	1700
Volume to Capacity	0.00	0.17	0.08	0.00	0.29	0.14	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0	0
Control Delay (s)	9.4	0.0	0.0	0.0	0.0	0.0	18.8	0.0
Lane LOS	A						C	A
Approach Delay (s)	0.1			0.0			18.8	0.0
Approach LOS							C	A

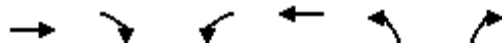
Intersection Summary

Average Delay		0.0						
Intersection Capacity Utilization		27.4%		ICU Level of Service			A	
Analysis Period (min)		15						

HCM Unsignalized Intersection Capacity Analysis

50: US 50 #7 & 1st St

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↓
Volume (veh/h)	364	2	0	622	6	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	428	2	0	732	7	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			431		794	214
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			431		794	214
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		98	99
cM capacity (veh/h)			1084		313	773

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	214	214	2	0	366	366	15
Volume Left	0	0	0	0	0	0	7
Volume Right	0	0	2	0	0	0	8
cSH	1700	1700	1700	1700	1700	1700	461
Volume to Capacity	0.13	0.13	0.00	0.00	0.22	0.22	0.03
Queue Length 95th (ft)	0	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	13.1
Lane LOS							B
Approach Delay (s)	0.0			0.0			13.1
Approach LOS							B

Intersection Summary			
Average Delay			0.2
Intersection Capacity Utilization	27.2%		ICU Level of Service
Analysis Period (min)	15		A

HCM Unsignalized Intersection Capacity Analysis

51: US 50 #7 & 3rd St

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↕			↕	
Volume (veh/h)	30	341	0	1	527	0	0	0	0	5	0	83
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	34	392	0	1	606	0	0	0	0	6	0	95
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	606			392			861	1069	196	873	1069	303
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	606			392			861	1069	196	873	1069	303
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	96			100			100	100	100	97	100	86
cM capacity (veh/h)	928			1121			200	203	794	228	203	676

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	34	196	196	0	1	303	303	0	0	101
Volume Left	34	0	0	0	1	0	0	0	0	6
Volume Right	0	0	0	0	0	0	0	0	0	95
cSH	928	1700	1700	1700	1121	1700	1700	1700	1700	608
Volume to Capacity	0.04	0.12	0.12	0.00	0.00	0.18	0.18	0.00	0.00	0.17
Queue Length 95th (ft)	3	0	0	0	0	0	0	0	0	15
Control Delay (s)	9.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0	0.0	12.1
Lane LOS	A				A				A	B
Approach Delay (s)	0.7				0.0				0.0	12.1
Approach LOS									A	B

Intersection Summary

Average Delay	1.4
Intersection Capacity Utilization	33.3%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

52: US 50 #7 & SH 141A

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	↑↑	↑	↓	↑↑	↓		
Volume (veh/h)	286	63	5	450	68	3	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	
Hourly flow rate (vph)	345	76	6	542	82	4	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage (veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			420			628	172
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			420			628	172
tC, single (s)			4.3			7.0	7.1
tC, 2 stage (s)							
tF (s)			2.3			3.6	3.4
p0 queue free %			99			79	100
cM capacity (veh/h)			1094			399	823

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	172	172	76	6	271	271	86
Volume Left	0	0	0	6	0	0	82
Volume Right	0	0	76	0	0	0	4
cSH	1700	1700	1700	1094	1700	1700	408
Volume to Capacity	0.10	0.10	0.04	0.01	0.16	0.16	0.21
Queue Length 95th (ft)	0	0	0	0	0	0	19
Control Delay (s)	0.0	0.0	0.0	8.3	0.0	0.0	16.1
Lane LOS				A	C		
Approach Delay (s)	0.0			0.1		16.1	
Approach LOS						C	

Intersection Summary			
Average Delay			1.4
Intersection Capacity Utilization	23.1%		ICU Level of Service
Analysis Period (min)			15
A			

Intersection Sign configuration not allowed in HCM analysis.

Intersection Sign configuration not allowed in HCM analysis.

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Intersection Sign configuration not allowed in HCM analysis.

Intersection Sign configuration not allowed in HCM analysis.

HCM Signalized Intersection Capacity Analysis

4: US 50 #1 & Unawweep Ave

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↖	↗		↖	↗
Volume (vph)	189	525	6	1	1244	0	10	1	2	13	3	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0			5.0	5.0		5.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	1671	3343	1495	1671	3343			1682	1495		1690	1495
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.83	1.00		0.79	1.00
Satd. Flow (perm)	1671	3343	1495	1671	3343			1466	1495		1395	1495
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	203	565	6	1	1338	0	11	1	2	14	3	238
RTOR Reduction (vph)	0	0	1	0	0	0	0	0	2	0	0	0
Lane Group Flow (vph)	203	565	5	1	1338	0	0	12	0	0	17	238
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Over
Protected Phases	1	6		5	2			4			4	1
Permitted Phases			6			2	4		4	4		
Actuated Green, G (s)	29.3	79.3	79.3	1.1	51.1			4.6	4.6		4.6	29.3
Effective Green, g (s)	29.3	79.3	79.3	1.1	51.1			4.6	4.6		4.6	29.3
Actuated g/C Ratio	0.29	0.79	0.79	0.01	0.51			0.05	0.05		0.05	0.29
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0			5.0	5.0		5.0	4.0
Vehicle Extension (s)	3.0	5.0	5.0	2.5	3.5			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	490	2651	1186	18	1708			67	69		64	438
v/s Ratio Prot	0.12	0.17		0.00	c0.40							c0.16
v/s Ratio Perm			0.00					0.01	0.00		c0.01	
v/c Ratio	0.41	0.21	0.00	0.06	0.78			0.18	0.00		0.27	0.54
Uniform Delay, d1	28.4	2.6	2.1	48.9	19.9			45.9	45.5		46.1	29.7
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	0.2	0.0	0.9	3.7			1.3	0.0		2.2	1.4
Delay (s)	29.0	2.8	2.2	49.9	23.6			47.2	45.5		48.3	31.1
Level of Service	C	A	A	D	C			D	D		D	C
Approach Delay (s)		9.6			23.6			46.9			32.3	
Approach LOS		A			C			D			C	

Intersection Summary

HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

13: US 50 #1 & 27 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	435	24	27	1047	22	139	20	15	27	29	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.5	5.5		5.5	5.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.96	1.00		0.98	1.00
Satd. Flow (prot)	1671	3343	1495	1671	3343	1495		1686	1495		1718	1495
Flt Permitted	0.19	1.00	1.00	0.48	1.00	1.00		0.71	1.00		0.80	1.00
Satd. Flow (perm)	339	3343	1495	842	3343	1495		1247	1495		1413	1495
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	40	478	26	30	1151	24	153	22	16	30	32	35
RTOR Reduction (vph)	0	0	10	0	0	5	0	0	12	0	0	28
Lane Group Flow (vph)	40	478	16	30	1151	19	0	175	4	0	62	7
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6		6	2		2	4		4	8		8
Actuated Green, G (s)	64.3	60.7	60.7	63.9	60.5	60.5		19.4	19.4		19.4	19.4
Effective Green, g (s)	64.3	60.7	60.7	63.9	60.5	60.5		19.4	19.4		19.4	19.4
Actuated g/C Ratio	0.64	0.61	0.61	0.64	0.60	0.60		0.19	0.19		0.19	0.19
Clearance Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.5	5.5		5.5	5.5
Vehicle Extension (s)	2.2	2.2	2.2	2.2	2.2	2.2		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	266	2029	907	566	2023	904		242	290		274	290
v/s Ratio Prot	c0.01	0.14		0.00	c0.34							
v/s Ratio Perm	0.09		0.01	0.03		0.01		c0.14	0.00		0.04	0.00
v/c Ratio	0.15	0.24	0.02	0.05	0.57	0.02		0.72	0.01		0.23	0.02
Uniform Delay, d1	7.5	9.0	7.8	6.6	11.9	7.9		37.8	32.6		34.0	32.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	0.3	0.0	0.0	1.2	0.0		10.2	0.0		0.4	0.0
Delay (s)	7.6	9.3	7.8	6.7	13.1	7.9		48.0	32.6		34.4	32.7
Level of Service	A	A	A	A	B	A		D	C		C	C
Approach Delay (s)		9.1			12.8			46.7			33.8	
Approach LOS		A			B			D			C	

Intersection Summary

HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: US 50 WB #3 & 29 Rd

10/28/2008



Movement	WBT	WBR	SBT	SBR2	NEL
Lane Configurations	↑↑	↑	↑↑	↑	↑
Volume (vph)	574	68	51	91	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	9.0	9.0	6.5	6.5	6.0
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00
Flt Protected	1.00	1.00	1.00	1.00	0.95
Satd. Flow (prot)	3343	1495	3343	1495	1671
Flt Permitted	1.00	1.00	1.00	1.00	0.95
Satd. Flow (perm)	3343	1495	3343	1495	1671
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.92
Adj. Flow (vph)	631	75	56	100	79
RTOR Reduction (vph)	0	32	0	90	0
Lane Group Flow (vph)	631	43	56	10	79
Turn Type		Perm		Perm	
Protected Phases	6		4		5
Permitted Phases		6		4	
Actuated Green, G (s)	52.0	52.0	8.8	8.8	7.7
Effective Green, g (s)	52.0	52.0	8.8	8.8	7.7
Actuated g/C Ratio	0.58	0.58	0.10	0.10	0.09
Clearance Time (s)	9.0	9.0	6.5	6.5	6.0
Vehicle Extension (s)	4.0	4.0	6.0	6.0	2.0
Lane Grp Cap (vph)	1932	864	327	146	143
v/s Ratio Prot	c0.19		c0.02		c0.05
v/s Ratio Perm		0.03		0.01	
v/c Ratio	0.33	0.05	0.17	0.07	0.55
Uniform Delay, d1	9.9	8.3	37.3	36.9	39.5
Progression Factor	1.82	3.87	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.7	0.5	2.6
Delay (s)	18.4	32.1	38.0	37.4	42.1
Level of Service	B	C	D	D	D
Approach Delay (s)	19.9		37.6		42.1
Approach LOS	B		D		D

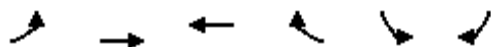
Intersection Summary

HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

34: US 50 EB #2 & 29 Rd

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↑↑	
Volume (vph)	0	239	0	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.5	
Lane Util. Factor		0.95			0.97	
Fr _t		1.00			1.00	
Fl _t Protected		1.00			0.95	
Satd. Flow (prot)		3343			3242	
Fl _t Permitted		1.00			0.95	
Satd. Flow (perm)		3343			3242	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	263	0	0	56	0
RTOR Reduction (vph)	0	0	0	0	51	0
Lane Group Flow (vph)	0	263	0	0	5	0
Turn Type						
Protected Phases		2			4	
Permitted Phases						
Actuated Green, G (s)		68.7			8.8	
Effective Green, g (s)		68.7			8.8	
Actuated g/C Ratio		0.76			0.10	
Clearance Time (s)		6.0			6.5	
Vehicle Extension (s)		3.0			6.0	
Lane Grp Cap (vph)		2552			317	
v/s Ratio Prot		c0.08			c0.00	
v/s Ratio Perm						
v/c Ratio		0.10			0.02	
Uniform Delay, d ₁		2.7			36.7	
Progression Factor		1.00			1.00	
Incremental Delay, d ₂		0.1			0.1	
Delay (s)		2.8			36.8	
Level of Service		A			D	
Approach Delay (s)		2.8	0.0		36.8	
Approach LOS		A	A		D	
Intersection Summary						
HCM Average Control Delay			8.8		HCM Level of Service	A
HCM Volume to Capacity ratio			0.09			
Actuated Cycle Length (s)			90.0		Sum of lost time (s)	12.5
Intersection Capacity Utilization			26.3%		ICU Level of Service	A
Analysis Period (min)			15			
c	Critical Lane Group					

HCM Signalized Intersection Capacity Analysis

35: US 50 WB #3 & Sundance Dr

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↑	
Volume (vph)	0	0	0	662	35	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	
Lane Util. Factor				0.95	1.00	
Flt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3343	1671	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3343	1671	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	736	39	0
RTOR Reduction (vph)	0	0	0	0	32	0
Lane Group Flow (vph)	0	0	0	736	7	0
Turn Type						
Protected Phases				6	5 8	
Permitted Phases						
Actuated Green, G (s)				61.3	16.7	
Effective Green, g (s)				61.3	16.7	
Actuated g/C Ratio				0.68	0.19	
Clearance Time (s)				6.0		
Vehicle Extension (s)				3.0		
Lane Grp Cap (vph)				2277	310	
v/s Ratio Prot				c0.22	c0.00	
v/s Ratio Perm						
v/c Ratio				0.32	0.02	
Uniform Delay, d1				5.9	30.0	
Progression Factor				1.00	1.00	
Incremental Delay, d2				0.4	0.0	
Delay (s)				6.2	30.0	
Level of Service				A	C	
Approach Delay (s)	0.0			6.2	30.0	
Approach LOS	A			A	C	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

36: Sundance Dr &

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖			↖				↑				
Volume (vph)	2	0	0	1	0	0	0	33	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0				6.0				
Lane Util. Factor	1.00			1.00				1.00				
Frt	1.00			1.00				1.00				
Flt Protected	0.95			0.95				1.00				
Satd. Flow (prot)	1671			1671				1759				
Flt Permitted	0.95			0.95				1.00				
Satd. Flow (perm)	1671			1671				1759				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	0	0	1	0	0	0	36	0	0	0	0
RTOR Reduction (vph)	2	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	1	0	0	0	36	0	0	0	0
Turn Type	Prot			Prot								
Protected Phases	5			1				8				
Permitted Phases												
Actuated Green, G (s)	4.2			1.2				6.5				
Effective Green, g (s)	4.2			1.2				6.5				
Actuated g/C Ratio	0.05			0.01				0.07				
Clearance Time (s)	6.0			6.0				6.0				
Vehicle Extension (s)	3.0			3.0				3.0				
Lane Grp Cap (vph)	78			22				127				
v/s Ratio Prot	0.00			c0.00				c0.02				
v/s Ratio Perm												
v/c Ratio	0.00			0.05				0.28				
Uniform Delay, d1	40.9			43.8				39.5				
Progression Factor	1.00			1.00				0.07				
Incremental Delay, d2	0.0			0.9				1.2				
Delay (s)	40.9			44.7				4.1				
Level of Service	D			D				A				
Approach Delay (s)		40.9			44.7			4.1			0.0	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	7.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	79.3
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

37: US 50 EB #2 & Sundance Dr

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑					↑			↑	
Volume (vph)	0	287	8	0	0	0	0	33	2	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0					6.0			6.0	
Lane Util. Factor		0.95	1.00					1.00			1.00	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		3343	1495					1747			1759	
Flt Permitted		1.00	1.00					1.00			1.00	
Satd. Flow (perm)		3343	1495					1747			1759	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	319	9	0	0	0	0	37	2	0	1	0
RTOR Reduction (vph)	0	0	3	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	319	6	0	0	0	0	37	0	0	1	0
Turn Type		Perm					Split					
Protected Phases		2						8		1	1	
Permitted Phases			2									
Actuated Green, G (s)		64.3	64.3					6.5			1.2	
Effective Green, g (s)		64.3	64.3					6.5			1.2	
Actuated g/C Ratio		0.71	0.71					0.07			0.01	
Clearance Time (s)		6.0	6.0					6.0			6.0	
Vehicle Extension (s)		3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)		2388	1068					126			23	
v/s Ratio Prot		c0.10						c0.02			c0.00	
v/s Ratio Perm			0.00									
v/c Ratio		0.13	0.01					0.29			0.04	
Uniform Delay, d1		4.1	3.7					39.6			43.8	
Progression Factor		0.82	0.74					1.00			0.10	
Incremental Delay, d2		0.1	0.0					1.3			0.8	
Delay (s)		3.4	2.7					40.9			5.4	
Level of Service		A	A					D			A	
Approach Delay (s)		3.4			0.0			40.9			5.4	
Approach LOS		A			A			D			A	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.15		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

46: US 50 WB #6 & 141B

10/28/2008



Movement	WBT	WBR	NBT	SBL	SBR
Lane Configurations	↑↑	↑	↑	↑	↑
Volume (vph)	451	150	73	157	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	5.6	5.6
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	0.85
Flt Protected	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3343	1495	1759	1671	1495
Flt Permitted	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3343	1495	1759	1671	1495
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	501	167	81	174	91
RTOR Reduction (vph)	0	70	0	0	76
Lane Group Flow (vph)	501	97	81	174	15
Turn Type		Perm		Prot	custom
Protected Phases	6		5	4	
Permitted Phases		6	5		4
Actuated Green, G (s)	60.8	60.8	9.3	17.2	17.2
Effective Green, g (s)	60.8	60.8	9.3	17.2	17.2
Actuated g/C Ratio	0.58	0.58	0.09	0.16	0.16
Clearance Time (s)	6.0	6.0	6.0	5.6	5.6
Vehicle Extension (s)	5.0	5.0	4.0	4.0	4.0
Lane Grp Cap (vph)	1938	867	156	274	245
v/s Ratio Prot	c0.15		c0.05	c0.10	
v/s Ratio Perm		0.06			0.01
v/c Ratio	0.26	0.11	0.52	0.64	0.06
Uniform Delay, d1	10.9	9.9	45.7	40.9	37.0
Progression Factor	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.3	3.8	5.3	0.1
Delay (s)	11.2	10.2	49.5	46.3	37.2
Level of Service	B	B	D	D	D
Approach Delay (s)	11.0		49.5		
Approach LOS	B		D		

Intersection Summary

HCM Average Control Delay	22.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	104.9	Sum of lost time (s)	17.6
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

1: US 50 #1 & Grand Mesa Ave

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	1769	1	23	1035	0	2	0	0	1	0	41
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1923	1	25	1125	0	2	0	0	1	0	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												2
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1125			1924			2565	3105	962	2143	3105	562
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1125			1924			2565	3105	962	2143	3105	562
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			91			78	100	100	95	100	90
cM capacity (veh/h)	583			280			10	9	245	24	9	455

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	3	1282	642	25	750	375	2	46
Volume Left	3	0	0	25	0	0	2	1
Volume Right	0	0	1	0	0	0	0	45
cSH	583	1700	1700	280	1700	1700	10	466
Volume to Capacity	0.01	0.75	0.38	0.09	0.44	0.22	0.22	0.10
Queue Length 95th (ft)	0	0	0	7	0	0	13	8
Control Delay (s)	11.2	0.0	0.0	19.1	0.0	0.0	449.7	17.4
Lane LOS	B			C			F	C
Approach Delay (s)	0.0			0.4			449.7	17.4
Approach LOS							F	C

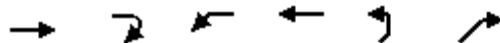
Intersection Summary

Average Delay	0.7
Intersection Capacity Utilization	58.9%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

2: US 50 #1 & Gunnison Blvd

10/28/2008



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑↑			↑↑	↘	
Volume (veh/h)	1771	7	0	1029	0	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	1884	7	0	1095	0	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				1069		
pX, platoon unblocked					0.86	
vC, conflicting volume			1891		2435	946
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1891		2340	946
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	99
cM capacity (veh/h)			289		24	251

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NE 1
Volume Total	1256	635	547	547	2
Volume Left	0	0	0	0	0
Volume Right	0	7	0	0	2
cSH	1700	1700	1700	1700	251
Volume to Capacity	0.74	0.37	0.32	0.32	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	19.4
Lane LOS					C
Approach Delay (s)	0.0		0.0		19.4
Approach LOS					C

Intersection Summary					
Average Delay			0.0		
Intersection Capacity Utilization			59.2%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis

3: US 50 #1 & Santa Clara Ave

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	1733	0	1	1001	8	0	0	0	1	0	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	44	1844	0	1	1065	9	0	0	0	1	0	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					634							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1073			1844			2491	3006	922	2080	3002	537
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	720			1844			2398	3008	922	1912	3003	85
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	94			100			100	100	100	97	100	97
cM capacity (veh/h)	709			302			12	9	261	31	9	793

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	44	1229	615	1	710	363	0	27
Volume Left	44	0	0	1	0	0	0	1
Volume Right	0	0	0	0	0	9	0	26
cSH	709	1700	1700	302	1700	1700	1700	399
Volume to Capacity	0.06	0.72	0.36	0.00	0.42	0.21	0.00	0.07
Queue Length 95th (ft)	5	0	0	0	0	0	0	5
Control Delay (s)	10.4	0.0	0.0	17.0	0.0	0.0	0.0	14.7
Lane LOS	B			C			A	B
Approach Delay (s)	0.2			0.0			0.0	14.7
Approach LOS							A	B

Intersection Summary

Average Delay	0.3
Intersection Capacity Utilization	57.9%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

5: US 50 #1 & James St

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Volume (veh/h)	0	1502	0	0	794	1	0	0	0	1	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	1548	0	0	819	1	0	0	0	1	0	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		513										
pX, platoon unblocked				0.77			0.77	0.77	0.77	0.77	0.77	
vC, conflicting volume	820			1548			1962	2368	774	1593	2368	410
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	820			1113			1650	2178	106	1171	2178	410
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	99	100	99
cM capacity (veh/h)	767			454			47	33	699	108	33	574

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	0	1032	516	0	546	274	0	5
Volume Left	0	0	0	0	0	0	0	1
Volume Right	0	0	0	0	0	1	0	4
cSH	1700	1700	1700	1700	1700	1700	1700	309
Volume to Capacity	0.00	0.61	0.30	0.00	0.32	0.16	0.00	0.02
Queue Length 95th (ft)	0	0	0	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.9
Lane LOS							A	C
Approach Delay (s)	0.0			0.0			0.0	16.9
Approach LOS							A	C

Intersection Summary

Average Delay	0.0
Intersection Capacity Utilization	51.5%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

6: US 50 #1 & Green Acre 1

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↗
Volume (veh/h)	1507	10	0	793	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1570	10	0	826	0	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	1023					
pX, platoon unblocked			0.76	0.76	0.76	0.76
vC, conflicting volume			1580	1988	790	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1140	1674	105	
tC, single (s)			4.3	7.0	7.1	
tC, 2 stage (s)						
tF (s)			2.3	3.6	3.4	
p0 queue free %			100	100	100	
cM capacity (veh/h)			439	62	695	

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	1047	534	413	413	1
Volume Left	0	0	0	0	0
Volume Right	0	10	0	0	1
cSH	1700	1700	1700	1700	695
Volume to Capacity	0.62	0.31	0.24	0.24	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	10.2
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.2
Approach LOS					B

Intersection Summary					
Average Delay			0.0		
Intersection Capacity Utilization			52.0%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis

7: US 50 #1 & Elm Park

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Volume (veh/h)	1508	10	13	794	5	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1587	11	14	836	5	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	1190					
pX, platoon unblocked			0.77	0.77	0.77	0.77
vC, conflicting volume			1598	2038	799	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1168	1743	124	
tC, single (s)			4.3	7.0	7.1	
tC, 2 stage (s)						
tF (s)			2.3	3.6	3.4	
p0 queue free %			97	90	98	
cM capacity (veh/h)			429	54	677	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	1058	540	14	418	418	22
Volume Left	0	0	14	0	0	5
Volume Right	0	11	0	0	0	17
cSH	1700	1700	429	1700	1700	181
Volume to Capacity	0.62	0.32	0.03	0.25	0.25	0.12
Queue Length 95th (ft)	0	0	2	0	0	10
Control Delay (s)	0.0	0.0	13.7	0.0	0.0	27.7
Lane LOS			B			D
Approach Delay (s)	0.0		0.2			27.7
Approach LOS						D
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			52.0%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

8: US 50 #1 & Green Acre 2

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Volume (veh/h)	1501	15	0	794	0	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1547	15	0	819	0	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1563		1964	781
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1563		1964	781
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	98
cM capacity (veh/h)			391		51	325

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	1032	531	409	409	7
Volume Left	0	0	0	0	0
Volume Right	0	15	0	0	7
cSH	1700	1700	1700	1700	325
Volume to Capacity	0.61	0.31	0.24	0.24	0.02
Queue Length 95th (ft)	0	0	0	0	2
Control Delay (s)	0.0	0.0	0.0	0.0	16.3
Lane LOS					C
Approach Delay (s)	0.0		0.0		16.3
Approach LOS					C

Intersection Summary					
Average Delay			0.0		
Intersection Capacity Utilization			52.0%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis

9: US 50 #1 & Aspen St

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕			↕			↕	
Volume (veh/h)	9	1498	6	8	805	0	6	2	3	3	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	9	1544	6	8	830	0	6	2	3	3	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	830			1551			1999	2412	775	1641	2415	415
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	830			1551			1999	2412	775	1641	2415	415
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			98			81	93	99	95	100	100
cM capacity (veh/h)	760			396			32	29	328	57	29	570

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	9	1030	521	8	553	277	11	5
Volume Left	9	0	0	8	0	0	6	3
Volume Right	0	0	6	0	0	0	3	2
cSH	760	1700	1700	396	1700	1700	41	89
Volume to Capacity	0.01	0.61	0.31	0.02	0.33	0.16	0.27	0.06
Queue Length 95th (ft)	1	0	0	2	0	0	23	5
Control Delay (s)	9.8	0.0	0.0	14.3	0.0	0.0	122.4	48.1
Lane LOS	A			B			F	E
Approach Delay (s)	0.1			0.1			122.4	48.1
Approach LOS							F	E

Intersection Summary

Average Delay	0.8
Intersection Capacity Utilization	51.6%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

10: US 50 #1 & Palmer St

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	1475	0	0	787	4	2	0	3	3	0	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	1603	0	0	855	4	2	0	3	3	0	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	860			1603			2054	2476	802	1676	2474	430
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	860			1603			2054	2476	802	1676	2474	430
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	99			100			93	100	99	94	100	98
cM capacity (veh/h)	740			377			29	27	315	57	27	557

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	7	1069	534	570	289	5	13
Volume Left	7	0	0	0	0	2	3
Volume Right	0	0	0	0	4	3	10
cSH	740	1700	1700	1700	1700	64	176
Volume to Capacity	0.01	0.63	0.31	0.34	0.17	0.08	0.07
Queue Length 95th (ft)	1	0	0	0	0	7	6
Control Delay (s)	9.9	0.0	0.0	0.0	0.0	66.5	27.2
Lane LOS	A					F	D
Approach Delay (s)	0.0			0.0		66.5	27.2
Approach LOS						F	D

Intersection Summary

Average Delay	0.3
Intersection Capacity Utilization	50.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

11: US 50 #1 & Palisade St

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑↑	↑↗		↘	
Volume (veh/h)	15	1475	770	7	2	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	16	1569	819	7	2	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	827				1639	413
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	827				1639	413
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	98				97	99
cM capacity (veh/h)	763				84	571





















Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	16	785	785	546	280	5
Volume Left	16	0	0	0	0	2
Volume Right	0	0	0	0	7	3
cSH	763	1700	1700	1700	1700	172
Volume to Capacity	0.02	0.46	0.46	0.32	0.16	0.03
Queue Length 95th (ft)	2	0	0	0	0	2
Control Delay (s)	9.8	0.0	0.0	0.0	0.0	26.6
Lane LOS	A					D
Approach Delay (s)	0.1			0.0		26.6
Approach LOS						D

Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			50.8%		ICU Level of Service	A
Analysis Period (min)			15			

Intersection has too many legs for HCM analysis.

HCM Unsignalized Intersection Capacity Analysis
 14: US 50 #1 & Dorothy Ave

10/28/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	1138	265	29	700	3	30	1	6	9	1	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	19	1211	282	31	745	3	32	1	6	10	1	19
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		807										
pX, platoon unblocked				0.77			0.77	0.77	0.77	0.77	0.77	0.77
vC, conflicting volume	748			1211			1703	2059	605	1459	2057	374
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	748			681			1319	1780	0	1002	1778	374
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	98			95			58	98	99	93	98	97
cM capacity (veh/h)	818			670			76	55	822	135	55	607
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	SB 1			
Volume Total	19	605	605	282	31	496	251	39	30			
Volume Left	19	0	0	0	31	0	0	32	10			
Volume Right	0	0	0	282	0	0	3	6	19			
cSH	818	1700	1700	1700	670	1700	1700	88	244			
Volume to Capacity	0.02	0.36	0.36	0.17	0.05	0.29	0.15	0.45	0.12			
Queue Length 95th (ft)	2	0	0	0	4	0	0	46	10			
Control Delay (s)	9.5	0.0	0.0	0.0	10.6	0.0	0.0	75.2	21.8			
Lane LOS	A				B			F	C			
Approach Delay (s)	0.1				0.4			75.2	21.8			
Approach LOS								F	C			
Intersection Summary												
Average Delay				1.7								
Intersection Capacity Utilization			42.7%		ICU Level of Service				A			
Analysis Period (min)			15									

Intersection Sign configuration not allowed in HCM analysis.

HCM Unsignalized Intersection Capacity Analysis

16: US 50 #1 & WB On-Ramp

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑				↗			↗
Volume (veh/h)	0	807	0	0	538	0	0	0	6	0	0	180
Sign Control		Free			Free			Yield			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	877	0	0	585	0	0	0	7	0	0	196
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	585			877			1365	1462	439	1030	1462	292
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	585			877			1365	1462	439	1030	1462	292
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	99	100	100	71
cM capacity (veh/h)	946			729			72	121	550	177	121	686

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	439	439	292	292	7	196
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	7	196
cSH	1700	1700	1700	1700	550	686
Volume to Capacity	0.26	0.26	0.17	0.17	0.01	0.29
Queue Length 95th (ft)	0	0	0	0	1	29
Control Delay (s)	0.0	0.0	0.0	0.0	11.6	12.3
Lane LOS					B	B
Approach Delay (s)	0.0		0.0		11.6	12.3
Approach LOS					B	B

Intersection Summary

Average Delay		1.5				
Intersection Capacity Utilization		32.7%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis
 17: US 50 #1 & Frontage Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑	↗		↕			↕	
Volume (veh/h)	124	726	1	10	475	4	6	4	9	1	5	57
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	129	756	1	10	495	4	6	4	9	1	5	59
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	499			757			1345	1534	378	1164	1531	247
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	499			757			1345	1534	378	1164	1531	247
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	87			99			92	96	98	99	94	92
cM capacity (veh/h)	1020			811			82	94	603	121	94	735

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	129	378	378	1	10	247	247	4	20	66
Volume Left	129	0	0	0	10	0	0	0	6	1
Volume Right	0	0	0	1	0	0	0	4	9	59
cSH	1020	1700	1700	1700	811	1700	1700	1700	146	454
Volume to Capacity	0.13	0.22	0.22	0.00	0.01	0.15	0.15	0.00	0.14	0.14
Queue Length 95th (ft)	11	0	0	0	1	0	0	0	11	13
Control Delay (s)	9.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	33.6	14.3
Lane LOS	A				A				D	B
Approach Delay (s)	1.3				0.2				33.6	14.3
Approach LOS									D	B


















Intersection Summary

Average Delay		1.9								
Intersection Capacity Utilization		38.3%		ICU Level of Service					A	
Analysis Period (min)		15								

HCM Unsignalized Intersection Capacity Analysis

18: US 50 WB #3 & 27 3/4 Rd

10/28/2008

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	0	0	0	0	434	49	1	84	0	0	119	32	
Sign Control		Free			Free			Stop			Stop		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly flow rate (vph)	0	0	0	0	457	52	1	88	0	0	125	34	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None					None							
Median storage (veh)													
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	508				0			325	508	0	501	457	228
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	508				0			325	508	0	501	457	228
tC, single (s)	4.3				4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)													
tF (s)	2.3				2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100				100			100	80	100	100	74	96
cM capacity (veh/h)	1012				1579			451	453	1065	374	485	756
Direction, Lane #	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1							
Volume Total	0	228	228	52	89	159							
Volume Left	0	0	0	0	1	0							
Volume Right	0	0	0	52	0	34							
cSH	1700	1700	1700	1700	453	525							
Volume to Capacity	0.00	0.13	0.13	0.03	0.20	0.30							
Queue Length 95th (ft)	0	0	0	0	18	32							
Control Delay (s)	0.0	0.0	0.0	0.0	14.9	14.8							
Lane LOS					B	B							
Approach Delay (s)	0.0				14.9	14.8							
Approach LOS					B	B							
Intersection Summary													
Average Delay				4.9									
Intersection Capacity Utilization				26.9%	ICU Level of Service					A			
Analysis Period (min)				15									

HCM Unsignalized Intersection Capacity Analysis

19: US 50 EB #2 & 27 3/4 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	83	678	2	0	0	0	0	2	10	113	6	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	87	714	2	0	0	0	0	2	11	119	6	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			716			892	888	357	533	891	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			716			892	888	357	533	891	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	94			100			100	99	98	70	98	100
cM capacity (veh/h)	1579			842			214	256	623	390	255	1065

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	NB 1	SB 1
Volume Total	87	357	357	2	13	125
Volume Left	87	0	0	0	0	119
Volume Right	0	0	0	2	11	0
cSH	1579	1700	1700	1700	502	380
Volume to Capacity	0.06	0.21	0.21	0.00	0.03	0.33
Queue Length 95th (ft)	4	0	0	0	2	35
Control Delay (s)	7.4	0.0	0.0	0.0	12.4	19.1
Lane LOS	A				B	C
Approach Delay (s)	0.8				12.4	19.1
Approach LOS					B	C

Intersection Summary

Average Delay	3.4
Intersection Capacity Utilization	38.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
 20: US 50 WB #3 & Fairgrounds

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	0	0	18	479	6	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	19	515	6	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0		296	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		296	0
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			99		99	100
cM capacity (veh/h)			1579		647	1065

Direction, Lane #	WB 1	WB 2	WB 3	NB 1
Volume Total	19	258	258	6
Volume Left	19	0	0	6
Volume Right	0	0	0	0
cSH	1579	1700	1700	647
Volume to Capacity	0.01	0.15	0.15	0.01
Queue Length 95th (ft)	1	0	0	1
Control Delay (s)	7.3	0.0	0.0	10.6
Lane LOS	A		B	
Approach Delay (s)	0.3		10.6	
Approach LOS			B	

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

21: US 50 EB #2 & Fairgrounds

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗					↑			↖	
Volume (veh/h)	0	759	10	0	0	0	0	6	0	0	18	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	816	11	0	0	0	0	6	0	0	19	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			827			826	816	408	411	827	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			827			826	816	408	411	827	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	98	100	100	93	100
cM capacity (veh/h)	1579			762			242	299	576	502	294	1065

Direction, Lane #	EB 1	EB 2	EB 3	NB 1	SB 1
Volume Total	408	408	11	6	19
Volume Left	0	0	0	0	0
Volume Right	0	0	11	0	0
cSH	1700	1700	1700	299	294
Volume to Capacity	0.24	0.24	0.01	0.02	0.07
Queue Length 95th (ft)	0	0	0	2	5
Control Delay (s)	0.0	0.0	0.0	17.3	18.1
Lane LOS				C	C
Approach Delay (s)	0.0			17.3	18.1
Approach LOS				C	C

Intersection Summary				
Average Delay			0.5	
Intersection Capacity Utilization		42.9%		ICU Level of Service A
Analysis Period (min)		15		

HCM Unsignalized Intersection Capacity Analysis
 22: US 50 EB #2 & KOA

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Volume (veh/h)	754	15	0	0	0	13
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	820	16	0	0	0	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			836		828	418
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			836		828	418
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	98
cM capacity (veh/h)			756		298	567

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	546	289	14
Volume Left	0	0	0
Volume Right	0	16	14
cSH	1700	1700	567
Volume to Capacity	0.32	0.17	0.02
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.0	11.5
Lane LOS			B
Approach Delay (s)	0.0		11.5
Approach LOS			B

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		31.3%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

23: US 50 WB #3 & 28 1/2 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	34	461	4	32	116	0	0	14	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	0	36	490	4	34	123	0	0	15	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	495			0			339	567	0	624	563	245
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	495			0			339	567	0	624	563	245
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			98			94	70	100	100	96	98
cM capacity (veh/h)	1024			1579			540	409	1065	270	412	737

Direction, Lane #	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	36	245	245	4	157	29
Volume Left	36	0	0	0	34	0
Volume Right	0	0	0	4	0	14
cSH	1579	1700	1700	1700	432	523
Volume to Capacity	0.02	0.14	0.14	0.00	0.36	0.05
Queue Length 95th (ft)	2	0	0	0	41	4
Control Delay (s)	7.3	0.0	0.0	0.0	18.0	12.3
Lane LOS	A				C	B
Approach Delay (s)	0.5				18.0	12.3
Approach LOS					C	B

Intersection Summary

Average Delay	4.8
Intersection Capacity Utilization	34.0%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

24: US 50 EB #2 & 28 1/2 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	96	654	18	0	0	0	0	52	4	5	43	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	102	696	19	0	0	0	0	55	4	5	46	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			715			923	900	348	584	919	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			715			923	900	348	584	919	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	94			100			100	78	99	98	81	100
cM capacity (veh/h)	1579			843			176	249	631	300	243	1065

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	NB 1	SB 1
Volume Total	102	348	348	19	60	51
Volume Left	102	0	0	0	0	5
Volume Right	0	0	0	19	4	0
cSH	1579	1700	1700	1700	260	248
Volume to Capacity	0.06	0.20	0.20	0.01	0.23	0.21
Queue Length 95th (ft)	5	0	0	0	22	19
Control Delay (s)	7.4	0.0	0.0	0.0	22.9	23.3
Lane LOS	A				C	C
Approach Delay (s)	0.9				22.9	23.3
Approach LOS					C	C

Intersection Summary

Average Delay		3.6				
Intersection Capacity Utilization		31.2%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis
 25: US 50 EB #2 & Rainbow Dr

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗				↗
Volume (veh/h)	667	19	0	0	0	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	733	21	0	0	0	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			754		733	366
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			754		733	366
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	99
cM capacity (veh/h)			814		343	614

Direction, Lane #	EB 1	EB 2	EB 3	NB 1
Volume Total	366	366	21	3
Volume Left	0	0	0	0
Volume Right	0	0	21	3
cSH	1700	1700	1700	614
Volume to Capacity	0.22	0.22	0.01	0.01
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	10.9
Lane LOS				B
Approach Delay (s)	0.0			10.9
Approach LOS				B

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		28.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 26: US 50 WB #3 & Tennessee St

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	493	0	0	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	536	0	0	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	536				536	268
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	536				536	268
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	100
cM capacity (veh/h)	988				460	712

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	357	179	2
Volume Left	0	0	0
Volume Right	0	0	2
cSH	1700	1700	712
Volume to Capacity	0.21	0.11	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	10.1
Lane LOS			B
Approach Delay (s)	0.0		10.1
Approach LOS			B

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		23.6%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 27: US 50 WB #3 & Indiana St

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	520	3	0	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	542	3	0	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	545				543	272
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	545				543	272
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	100
cM capacity (veh/h)	980				455	708

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	361	184	1
Volume Left	0	0	0
Volume Right	0	3	1
cSH	1700	1700	708
Volume to Capacity	0.21	0.11	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	10.1
Lane LOS			B
Approach Delay (s)	0.0		10.1
Approach LOS			B

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		24.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 28: US 50 WB #3 & Dee Vee Dr

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↕↕	↕	
Volume (veh/h)	0	0	0	532	3	0
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	0	572	3	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			0	286	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	286	0	
tC, single (s)			4.3	7.0	7.1	
tC, 2 stage (s)						
tF (s)			2.3	3.6	3.4	
p0 queue free %			100	100	100	
cM capacity (veh/h)			1579	665	1065	

Direction, Lane #	WB 1	WB 2	NB 1
Volume Total	191	381	3
Volume Left	0	0	3
Volume Right	0	0	0
cSH	1579	1700	665
Volume to Capacity	0.00	0.22	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	10.4
Lane LOS	B		
Approach Delay (s)	0.0		10.4
Approach LOS	B		

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	29.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

29: US 50 EB #2 & Dee Vee Dr

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔			↔	
Volume (veh/h)	3	687	0	0	0	0	0	0	1	0	2	0
Sign Control		Free			Free			Stop			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	3	739	0	0	0	0	0	0	1	0	2	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			739			746	745	369	377	745	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			739			746	745	369	377	745	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	100	100	100	99	100
cM capacity (veh/h)	1579			825			289	329	611	539	329	1065

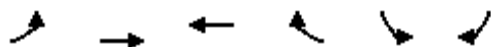
Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	373	369	1	2
Volume Left	3	0	0	0
Volume Right	0	0	1	0
cSH	1579	1700	611	329
Volume to Capacity	0.00	0.22	0.00	0.01
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.1	0.0	10.9	16.0
Lane LOS	A		B	C
Approach Delay (s)	0.0		10.9	16.0
Approach LOS			B	C

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		29.1%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis

30: US 50 WB #3 & Elm Dr

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	531	1	0	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	565	1	0	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	566				565	283
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	566				565	283
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	100
cM capacity (veh/h)	962				441	696

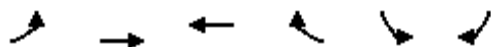
Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	377	189	1
Volume Left	0	0	0
Volume Right	0	1	1
cSH	1700	1700	696
Volume to Capacity	0.22	0.11	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	10.2
Lane LOS			B
Approach Delay (s)	0.0		10.2
Approach LOS			B

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		24.7%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

31: US 50 WB #3 & Reta Dr

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	498	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	524	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			389			
pX, platoon unblocked	0.94				0.94	0.94
vC, conflicting volume	524				524	262
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	360				360	80
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	100
cM capacity (veh/h)	1082				560	886

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	349	175	0
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1700	1700
Volume to Capacity	0.21	0.10	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0		0.0
Approach LOS			A

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		17.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

32: US 50 EB #2 &

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	NBR2	SWL	SWR
Lane Configurations	↘	↑↑	↗					↘			
Volume (veh/h)	119	581	6	0	0	0	0	0	1	0	0
Sign Control		Free			Free		Stop			Stop	
Grade		0%			0%		0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	125	612	6	0	0	0	0	0	1	0	0
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)											
Percent Blockage											
Right turn flare (veh)											
Median type		None			None						
Median storage (veh)											
Upstream signal (ft)					424						
pX, platoon unblocked											
vC, conflicting volume	0			618			862	862	306	868	0
vC1, stage 1 conf vol											
vC2, stage 2 conf vol											
vCu, unblocked vol	0			618			862	862	306	868	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	6.7	7.1
tC, 2 stage (s)											
tF (s)	2.3			2.3			3.6	4.1	3.4	4.1	3.4
p0 queue free %	92			100			100	100	100	100	100
cM capacity (veh/h)	1579			918			225	258	673	256	1065

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	NB 1
Volume Total	125	306	306	6	1
Volume Left	125	0	0	0	0
Volume Right	0	0	0	6	1
cSH	1579	1700	1700	1700	673
Volume to Capacity	0.08	0.18	0.18	0.00	0.00
Queue Length 95th (ft)	6	0	0	0	0
Control Delay (s)	7.5	0.0	0.0	0.0	10.4
Lane LOS	A				B
Approach Delay (s)	1.3				10.4
Approach LOS					B

Intersection Summary				
Average Delay			1.3	
Intersection Capacity Utilization		26.1%		ICU Level of Service
Analysis Period (min)		15		A

HCM Unsignalized Intersection Capacity Analysis
 38: US 50 EB #2 & Redrock Rd

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Volume (veh/h)	651	4	0	0	0	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	757	5	0	0	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	595					
pX, platoon unblocked			0.95		0.95	0.95
vC, conflicting volume			762		759	381
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			650		647	250
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	99
cM capacity (veh/h)			850		372	697

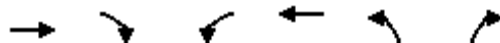
Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	505	257	5
Volume Left	0	0	0
Volume Right	0	5	5
cSH	1700	1700	697
Volume to Capacity	0.30	0.15	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	10.2
Lane LOS			B
Approach Delay (s)	0.0		10.2
Approach LOS			B

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization	28.1%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

39: US 50 WB #3 & 29 1/4 Rd

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↕↕	↕	
Volume (veh/h)	0	0	0	463	27	0
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	0	0	538	31	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	1002					
pX, platoon unblocked						
vC, conflicting volume			0	269	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0	269	0	
tC, single (s)			4.3	7.0	7.1	
tC, 2 stage (s)						
tF (s)			2.3	3.6	3.4	
p0 queue free %			100	95	100	
cM capacity (veh/h)			1579	681	1065	
Direction, Lane #	WB 1	WB 2	NB 1			
Volume Total	179	359	31			
Volume Left	0	0	31			
Volume Right	0	0	0			
cSH	1579	1700	681			
Volume to Capacity	0.00	0.21	0.05			
Queue Length 95th (ft)	0	0	4			
Control Delay (s)	0.0	0.0	10.5			
Lane LOS			B			
Approach Delay (s)	0.0		10.5			
Approach LOS			B			
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			43.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

40: US 50 EB #2 & 29 1/4 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Volume (veh/h)	0	620	20	0	0	0	0	27	0	0	0	0
Sign Control		Free			Free			Stop			Yield	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	721	23	0	0	0	0	31	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		969										
pX, platoon unblocked				0.98			0.98	0.98	0.98	0.98	0.98	0.98
vC, conflicting volume	0			744			733	733	372	376	744	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			695			683	683	315	319	695	0
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			100	91	100	100	100	100
cM capacity (veh/h)	1579			839			317	351	649	543	345	1065
Direction, Lane #	EB 1	EB 2	NB 1	SB 1								
Volume Total	360	384	31	0								
Volume Left	0	0	0	0								
Volume Right	0	23	0	0								
cSH	1579	1700	351	1700								
Volume to Capacity	0.00	0.23	0.09	0.00								
Queue Length 95th (ft)	0	0	7	0								
Control Delay (s)	0.0	0.0	16.3	0.0								
Lane LOS			C	A								
Approach Delay (s)	0.0		16.3	0.0								
Approach LOS			C	A								
Intersection Summary												
Average Delay			0.7									
Intersection Capacity Utilization			27.8%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

41: US 50 #4 & 29 1/2 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑	↗		↕			↕	
Volume (veh/h)	58	505	48	3	379	3	14	0	3	4	1	47
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	64	555	53	3	416	3	15	0	3	4	1	52
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	420			608			949	1109	277	828	1158	208
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	420			608			949	1109	277	828	1158	208
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	94			100			92	100	100	98	99	93
cM capacity (veh/h)	1094			927			183	187	702	240	174	779

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	64	277	277	53	3	208	208	3	19	57
Volume Left	64	0	0	0	3	0	0	0	15	4
Volume Right	0	0	0	53	0	0	0	3	3	52
cSH	1094	1700	1700	1700	927	1700	1700	1700	210	629
Volume to Capacity	0.06	0.16	0.16	0.03	0.00	0.12	0.12	0.00	0.09	0.09
Queue Length 95th (ft)	5	0	0	0	0	0	0	0	7	7
Control Delay (s)	8.5	0.0	0.0	0.0	8.9	0.0	0.0	0.0	23.8	11.3
Lane LOS	A				A				C	B
Approach Delay (s)	0.8				0.1				23.8	11.3
Approach LOS									C	B

Intersection Summary

Average Delay	1.4
Intersection Capacity Utilization	32.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

42: US 50 #4 & 29 3/4 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑	↘	↗	↑↑	↘		↕			↕	
Volume (veh/h)	3	522	27	12	343	4	20	0	2	3	1	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	3	587	30	13	385	4	22	0	2	3	1	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	390			617			825	1010	293	715	1036	193
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	390			617			825	1010	293	715	1036	193
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			99			91	100	100	99	99	99
cM capacity (veh/h)	1123			919			247	225	686	302	217	798

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	3	293	293	30	13	193	193	4	25	16
Volume Left	3	0	0	0	13	0	0	0	22	3
Volume Right	0	0	0	30	0	0	0	4	2	11
cSH	1123	1700	1700	1700	919	1700	1700	1700	262	517
Volume to Capacity	0.00	0.17	0.17	0.02	0.01	0.11	0.11	0.00	0.09	0.03
Queue Length 95th (ft)	0	0	0	0	1	0	0	0	8	2
Control Delay (s)	8.2	0.0	0.0	0.0	9.0	0.0	0.0	0.0	20.2	12.2
Lane LOS	A				A				C	B
Approach Delay (s)	0.0				0.3				20.2	12.2
Approach LOS									C	B

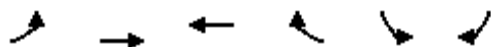
Intersection Summary

Average Delay	0.8
Intersection Capacity Utilization	25.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

43: US 50 #4 & 30 Rd

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑↑	↑↑	↘	↙	
Volume (veh/h)	5	520	363	12	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	5	542	378	12	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	391				659	189
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	391				659	189
tC, single (s)	4.3				7.0	7.1
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	100				100	100
cM capacity (veh/h)	1123				381	802

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	5	271	271	189	189	12	0
Volume Left	5	0	0	0	0	0	0
Volume Right	0	0	0	0	0	12	0
cSH	1123	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.00	0.16	0.16	0.11	0.11	0.01	0.00
Queue Length 95th (ft)	0	0	0	0	0	0	0
Control Delay (s)	8.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A						A
Approach Delay (s)	0.1			0.0			0.0
Approach LOS							A

Intersection Summary							
Average Delay			0.0				
Intersection Capacity Utilization			17.7%		ICU Level of Service		A
Analysis Period (min)			15				

HCM Unsignalized Intersection Capacity Analysis

44: US 50 #4 & S Frontage Rd

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Volume (veh/h)	554	2	3	366	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	565	2	3	373	0	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			567		759	284
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			567		759	284
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		100	100
cM capacity (veh/h)			960		329	696

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	377	190	3	187	187	1
Volume Left	0	0	3	0	0	0
Volume Right	0	2	0	0	0	1
cSH	1700	1700	960	1700	1700	696
Volume to Capacity	0.22	0.11	0.00	0.11	0.11	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	8.8	0.0	0.0	10.2
Lane LOS			A			B
Approach Delay (s)	0.0		0.1			10.2
Approach LOS						B

Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			25.4%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

45: US 50 #4 & 31 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↖	↗		↕	
Volume (veh/h)	22	489	27	10	350	4	27	1	10	9	1	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	23	520	29	11	372	4	29	1	11	10	1	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	377			520			784	965	260	701	961	186
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	377			520			784	965	260	701	961	186
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	98			99			89	100	99	97	100	99
cM capacity (veh/h)	1137			1001			263	236	721	301	237	806

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	23	260	260	29	11	186	186	4	40	19
Volume Left	23	0	0	0	11	0	0	0	29	10
Volume Right	0	0	0	29	0	0	0	4	11	9
cSH	1137	1700	1700	1700	1001	1700	1700	1700	356	409
Volume to Capacity	0.02	0.15	0.15	0.02	0.01	0.11	0.11	0.00	0.11	0.05
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	10	4
Control Delay (s)	8.2	0.0	0.0	0.0	8.6	0.0	0.0	0.0	17.7	14.2
Lane LOS	A				A				C	B
Approach Delay (s)	0.3				0.2				17.7	14.2
Approach LOS									C	B

Intersection Summary

Average Delay	1.3
Intersection Capacity Utilization	32.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

47: US 50 #7 & CDOT

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑↑	↓	↓
Volume (veh/h)	673	3	3	415	17	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	748	3	3	461	19	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			751		908	374
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			751		908	374
tC, single (s)			4.3		7.0	7.1
tC, 2 stage (s)						
tF (s)			2.3		3.6	3.4
p0 queue free %			100		93	100
cM capacity (veh/h)			816		263	607





















Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1
Volume Total	374	374	3	3	154	154	154	21
Volume Left	0	0	0	3	0	0	0	19
Volume Right	0	0	3	0	0	0	0	2
cSH	1700	1700	1700	816	1700	1700	1700	279
Volume to Capacity	0.22	0.22	0.00	0.00	0.09	0.09	0.09	0.08
Queue Length 95th (ft)	0	0	0	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	9.4	0.0	0.0	0.0	18.9
Lane LOS				A				C
Approach Delay (s)	0.0			0.1		18.9		
Approach LOS							C	

Intersection Summary

Average Delay	0.3	
Intersection Capacity Utilization	28.6%	ICU Level of Service A
Analysis Period (min)	15	

HCM Unsignalized Intersection Capacity Analysis
 48: US 50 #7 & Willow Bend Rd

10/28/2008

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	672	8	0	464	2	3	0	1	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	738	9	0	510	2	3	0	1	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	512			747			993	1251	369	879	1257	255
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	512			747			993	1251	369	879	1257	255
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			98	100	100	100	100	100
cM capacity (veh/h)	1009			819			191	163	611	232	162	726
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	0	369	369	9	0	255	255	2	4	0		
Volume Left	0	0	0	0	0	0	0	0	3	0		
Volume Right	0	0	0	9	0	0	0	2	1	0		
cSH	1700	1700	1700	1700	1700	1700	1700	1700	231	1700		
Volume to Capacity	0.00	0.22	0.22	0.01	0.00	0.15	0.15	0.00	0.02	0.00		
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	1	0		
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.9	0.0		
Lane LOS									C	A		
Approach Delay (s)	0.0				0.0				20.9	0.0		
Approach LOS									C	A		
Intersection Summary												
Average Delay			0.1									
Intersection Capacity Utilization			28.6%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

49: US 50 #7 & 3247

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕			↕			↕	
Volume (veh/h)	0	670	2	0	461	2	1	0	2	2	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	736	2	0	507	2	1	0	2	2	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	509			738			993	1246	369	878	1246	254
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	509			738			993	1246	369	878	1246	254
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	100			100			99	100	100	99	100	100
cM capacity (veh/h)	1012			825			191	164	611	232	164	727
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	0	491	248	0	338	171	3	4				
Volume Left	0	0	0	0	0	0	1	2				
Volume Right	0	0	2	0	0	2	2	2				
cSH	1700	1700	1700	1700	1700	1700	352	352				
Volume to Capacity	0.00	0.29	0.15	0.00	0.20	0.10	0.01	0.01				
Queue Length 95th (ft)	0	0	0	0	0	0	1	1				
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	15.3	15.4				
Lane LOS							C	C				
Approach Delay (s)	0.0			0.0			15.3	15.4				
Approach LOS							C	C				
Intersection Summary												
Average Delay			0.1									
Intersection Capacity Utilization			28.6%				ICU Level of Service		A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

50: US 50 #7 & 1st St

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	
Volume (veh/h)	685	9	1	470	12	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	737	10	1	505	13	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			746			991 368
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			746			991 368
tC, single (s)			4.3			7.0 7.1
tC, 2 stage (s)						
tF (s)			2.3			3.6 3.4
p0 queue free %			100			94 99
cM capacity (veh/h)			819			232 612

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	368	368	10	1	253	253	20
Volume Left	0	0	0	1	0	0	13
Volume Right	0	0	10	0	0	0	8
cSH	1700	1700	1700	819	1700	1700	301
Volume to Capacity	0.22	0.22	0.01	0.00	0.15	0.15	0.07
Queue Length 95th (ft)	0	0	0	0	0	0	5
Control Delay (s)	0.0	0.0	0.0	9.4	0.0	0.0	17.8
Lane LOS				A	C		
Approach Delay (s)	0.0			0.0		17.8	
Approach LOS						C	

Intersection Summary			
Average Delay			0.3
Intersection Capacity Utilization	28.9%		ICU Level of Service A
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis

51: US 50 #7 & 3rd St

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	614	1	2	454	7	3	2	3	5	1	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	82	633	1	2	468	7	3	2	3	5	1	31
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	475			634			1068	1277	316	958	1271	234
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	475			634			1068	1277	316	958	1271	234
tC, single (s)	4.3			4.3			7.7	6.7	7.1	7.7	6.7	7.1
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.6	4.1	3.4	3.6	4.1	3.4
p0 queue free %	92			100			98	99	100	97	99	96
cM capacity (veh/h)	1042			905			151	144	662	188	146	750

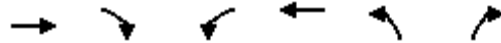
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	82	316	316	1	2	234	234	7	8	37
Volume Left	82	0	0	0	2	0	0	0	3	5
Volume Right	0	0	0	1	0	0	0	7	3	31
cSH	1042	1700	1700	1700	905	1700	1700	1700	209	490
Volume to Capacity	0.08	0.19	0.19	0.00	0.00	0.14	0.14	0.00	0.04	0.08
Queue Length 95th (ft)	6	0	0	0	0	0	0	0	3	6
Control Delay (s)	8.8	0.0	0.0	0.0	9.0	0.0	0.0	0.0	22.9	13.0
Lane LOS	A				A				C	B
Approach Delay (s)	1.0				0.0				22.9	13.0
Approach LOS									C	B

Intersection Summary

Average Delay	1.1
Intersection Capacity Utilization	33.6%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
 52: US 50 #7 & SH 141A

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	
Volume (veh/h)	544	67	8	409	58	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	573	71	8	431	61	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			643			805 286
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			643			805 286
tC, single (s)			4.3			7.0 7.1
tC, 2 stage (s)						
tF (s)			2.3			3.6 3.4
p0 queue free %			99			80 99
cM capacity (veh/h)			898			305 693

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	286	286	71	8	215	215	65
Volume Left	0	0	0	8	0	0	61
Volume Right	0	0	71	0	0	0	4
cSH	1700	1700	1700	898	1700	1700	317
Volume to Capacity	0.17	0.17	0.04	0.01	0.13	0.13	0.21
Queue Length 95th (ft)	0	0	0	1	0	0	19
Control Delay (s)	0.0	0.0	0.0	9.0	0.0	0.0	19.3
Lane LOS				A	C		
Approach Delay (s)	0.0			0.2		19.3	
Approach LOS						C	

Intersection Summary			
Average Delay			1.2
Intersection Capacity Utilization	25.2%		ICU Level of Service A
Analysis Period (min)			15

Intersection Sign configuration not allowed in HCM analysis.

Intersection Sign configuration not allowed in HCM analysis.

Intersection Sign configuration not allowed in HCM analysis.

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Intersection Sign configuration not allowed in HCM analysis.

Intersection Sign configuration not allowed in HCM analysis.

HCM Signalized Intersection Capacity Analysis

4: US 50 #1 & Unawweep Ave

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↖	↗		↖	↗
Volume (vph)	251	1496	5	1	803	0	39	11	8	8	0	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0			5.0	5.0		5.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.96	1.00		0.95	1.00
Satd. Flow (prot)	1671	3343	1495	1671	3343			1694	1495		1671	1495
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.77	1.00		0.72	1.00
Satd. Flow (perm)	1671	3343	1495	1671	3343			1353	1495		1271	1495
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	267	1591	5	1	854	0	41	12	9	9	0	204
RTOR Reduction (vph)	0	0	1	0	0	0	0	0	8	0	0	0
Lane Group Flow (vph)	267	1591	4	1	854	0	0	53	1	0	9	204
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Over
Protected Phases	1	6		5	2			4			4	1
Permitted Phases			6			2	4		4	4		
Actuated Green, G (s)	24.3	75.6	75.6	1.1	52.4			8.3	8.3		8.3	24.3
Effective Green, g (s)	24.3	75.6	75.6	1.1	52.4			8.3	8.3		8.3	24.3
Actuated g/C Ratio	0.24	0.76	0.76	0.01	0.52			0.08	0.08		0.08	0.24
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0			5.0	5.0		5.0	4.0
Vehicle Extension (s)	3.0	5.0	5.0	2.5	3.5			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	406	2527	1130	18	1752			112	124		105	363
v/s Ratio Prot	c0.16	c0.48		0.00	0.26							0.14
v/s Ratio Perm			0.00					c0.04	0.00		0.01	
v/c Ratio	0.66	0.63	0.00	0.06	0.49			0.47	0.01		0.09	0.56
Uniform Delay, d1	34.1	5.7	3.0	48.9	15.2			43.8	42.1		42.3	33.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	3.8	1.2	0.0	0.9	1.0			3.1	0.0		0.4	2.0
Delay (s)	37.9	6.9	3.0	49.9	16.2			46.9	42.1		42.7	35.2
Level of Service	D	A	A	D	B			D	D		D	D
Approach Delay (s)		11.3			16.2			46.2			35.5	
Approach LOS		B			B			D			D	

Intersection Summary

HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

13: US 50 #1 & 27 Rd

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	1323	75	27	675	50	87	36	20	85	41	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.5	5.5		5.5	5.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.97	1.00		0.97	1.00
Satd. Flow (prot)	1671	3343	1495	1671	3343	1495		1699	1495		1702	1495
Flt Permitted	0.35	1.00	1.00	0.14	1.00	1.00		0.66	1.00		0.68	1.00
Satd. Flow (perm)	615	3343	1495	243	3343	1495		1155	1495		1188	1495
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	70	1407	80	29	718	53	93	38	21	90	44	9
RTOR Reduction (vph)	0	0	18	0	0	16	0	0	17	0	0	7
Lane Group Flow (vph)	70	1407	62	29	718	37	0	131	4	0	134	2
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6		6	2		2	4		4	8		8
Actuated Green, G (s)	68.4	63.4	63.4	65.0	61.7	61.7		16.8	16.8		16.8	16.8
Effective Green, g (s)	68.4	63.4	63.4	65.0	61.7	61.7		16.8	16.8		16.8	16.8
Actuated g/C Ratio	0.68	0.63	0.63	0.65	0.62	0.62		0.17	0.17		0.17	0.17
Clearance Time (s)	4.0	7.0	7.0	4.0	7.0	7.0		5.5	5.5		5.5	5.5
Vehicle Extension (s)	2.2	2.2	2.2	2.2	2.2	2.2		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	473	2119	948	205	2063	922		194	251		200	251
v/s Ratio Prot	c0.01	c0.42		0.00	0.21							
v/s Ratio Perm	0.09		0.04	0.09		0.02		c0.11	0.00		0.11	0.00
v/c Ratio	0.15	0.66	0.07	0.14	0.35	0.04		0.68	0.01		0.67	0.01
Uniform Delay, d1	5.3	11.6	7.0	7.8	9.3	7.5		39.0	34.7		39.0	34.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	1.7	0.1	0.2	0.5	0.1		8.9	0.0		8.5	0.0
Delay (s)	5.4	13.2	7.1	8.0	9.8	7.6		48.0	34.7		47.5	34.7
Level of Service	A	B	A	A	A	A		D	C		D	C
Approach Delay (s)		12.6			9.6			46.2			46.7	
Approach LOS		B			A			D			D	

Intersection Summary

HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: US 50 WB #3 & 29 Rd

10/28/2008



Movement	WBT	WBR	SBT	SBR2	NEL
Lane Configurations	↑↑	↑	↑↑	↑	↑
Volume (vph)	421	73	95	109	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	9.0	9.0	6.5	6.5	6.0
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00
Flt Protected	1.00	1.00	1.00	1.00	0.95
Satd. Flow (prot)	3343	1495	3343	1495	1671
Flt Permitted	1.00	1.00	1.00	1.00	0.95
Satd. Flow (perm)	3343	1495	3343	1495	1671
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	453	78	102	117	128
RTOR Reduction (vph)	0	39	0	101	0
Lane Group Flow (vph)	453	39	102	16	128
Turn Type		Perm		Perm	
Protected Phases	6		4		5
Permitted Phases		6		4	
Actuated Green, G (s)	44.9	44.9	12.3	12.3	11.3
Effective Green, g (s)	44.9	44.9	12.3	12.3	11.3
Actuated g/C Ratio	0.50	0.50	0.14	0.14	0.13
Clearance Time (s)	9.0	9.0	6.5	6.5	6.0
Vehicle Extension (s)	4.0	4.0	6.0	6.0	2.0
Lane Grp Cap (vph)	1668	746	457	204	210
v/s Ratio Prot	c0.14		c0.03		c0.08
v/s Ratio Perm		0.03		0.01	
v/c Ratio	0.27	0.05	0.22	0.08	0.61
Uniform Delay, d1	13.1	11.6	34.6	33.9	37.3
Progression Factor	1.67	3.61	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	0.7	0.5	3.4
Delay (s)	22.2	42.0	35.3	34.4	40.7
Level of Service	C	D	D	C	D
Approach Delay (s)	25.2		34.8		40.7
Approach LOS	C		C		D

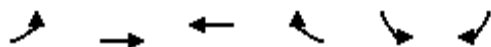
Intersection Summary

HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	21.5
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

34: US 50 EB #2 & 29 Rd

10/28/2008



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↑↑	
Volume (vph)	0	577	0	0	96	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.5	
Lane Util. Factor		0.95			0.97	
Fr _t		1.00			1.00	
Fl _t Protected		1.00			0.95	
Satd. Flow (prot)		3343			3242	
Fl _t Permitted		1.00			0.95	
Satd. Flow (perm)		3343			3242	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	620	0	0	103	0
RTOR Reduction (vph)	0	0	0	0	89	0
Lane Group Flow (vph)	0	620	0	0	14	0
Turn Type						
Protected Phases		2			4	
Permitted Phases						
Actuated Green, G (s)		65.2			12.3	
Effective Green, g (s)		65.2			12.3	
Actuated g/C Ratio		0.72			0.14	
Clearance Time (s)		6.0			6.5	
Vehicle Extension (s)		3.0			6.0	
Lane Grp Cap (vph)		2422			443	
v/s Ratio Prot		c0.19			c0.00	
v/s Ratio Perm						
v/c Ratio		0.26			0.03	
Uniform Delay, d ₁		4.2			33.7	
Progression Factor		1.00			1.00	
Incremental Delay, d ₂		0.3			0.1	
Delay (s)		4.5			33.8	
Level of Service		A			C	
Approach Delay (s)		4.5	0.0		33.8	
Approach LOS		A	A		C	
Intersection Summary						
HCM Average Control Delay			8.6		HCM Level of Service	A
HCM Volume to Capacity ratio			0.22			
Actuated Cycle Length (s)			90.0		Sum of lost time (s)	12.5
Intersection Capacity Utilization			32.2%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

35: US 50 WB #3 & Sundance Dr

10/28/2008



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↘	
Volume (vph)	0	0	0	495	12	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	
Lane Util. Factor				0.95	1.00	
Flt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3343	1671	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3343	1671	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	556	13	0
RTOR Reduction (vph)	0	0	0	0	10	0
Lane Group Flow (vph)	0	0	0	556	3	0
Turn Type						
Protected Phases				6	5	8
Permitted Phases						
Actuated Green, G (s)				55.6	22.4	
Effective Green, g (s)				55.6	22.4	
Actuated g/C Ratio				0.62	0.25	
Clearance Time (s)				6.0		
Vehicle Extension (s)				3.0		
Lane Grp Cap (vph)				2065	416	
v/s Ratio Prot				c0.17	c0.00	
v/s Ratio Perm						
v/c Ratio				0.27	0.01	
Uniform Delay, d1				7.9	25.4	
Progression Factor				1.00	1.00	
Incremental Delay, d2				0.3	0.0	
Delay (s)				8.2	25.4	
Level of Service				A	C	
Approach Delay (s)	0.0			8.2	25.4	
Approach LOS	A			A	C	

Intersection Summary

HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

36: Sundance Dr &

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖			↖				↗				
Volume (vph)	5	0	0	3	0	0	0	7	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			3.5				6.0				
Lane Util. Factor	1.00			1.00				1.00				
Frt	1.00			1.00				1.00				
Flt Protected	0.95			0.95				1.00				
Satd. Flow (prot)	1671			1671				1759				
Flt Permitted	0.95			0.95				1.00				
Satd. Flow (perm)	1671			1671				1759				
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	6	0	0	3	0	0	0	8	0	0	0	0
RTOR Reduction (vph)	5	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	1	0	0	3	0	0	0	8	0	0	0	0
Turn Type	Prot			Prot								
Protected Phases	5			1				8				
Permitted Phases												
Actuated Green, G (s)	12.0			1.3				4.4				
Effective Green, g (s)	12.0			1.3				4.4				
Actuated g/C Ratio	0.13			0.01				0.05				
Clearance Time (s)	6.0			3.5				6.0				
Vehicle Extension (s)	3.0			3.0				3.0				
Lane Grp Cap (vph)	223			24				86				
v/s Ratio Prot	c0.00			c0.00				c0.00				
v/s Ratio Perm												
v/c Ratio	0.00			0.12				0.09				
Uniform Delay, d1	33.8			43.8				40.9				
Progression Factor	1.00			1.00				0.33				
Incremental Delay, d2	0.0			2.3				0.5				
Delay (s)	33.8			46.1				13.8				
Level of Service	C			D				B				
Approach Delay (s)		33.8			46.1			13.8			0.0	
Approach LOS		C			D			B			A	

Intersection Summary

HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.03		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	71.1
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

37: US 50 EB #2 & Sundance Dr

10/28/2008



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗					↑			↖	
Volume (vph)	0	646	23	0	0	0	0	7	10	0	3	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0					6.0			3.5	
Lane Util. Factor		0.95	1.00					1.00			1.00	
Frt		1.00	0.85					0.92			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		3343	1495					1622			1759	
Flt Permitted		1.00	1.00					1.00			1.00	
Satd. Flow (perm)		3343	1495					1622			1759	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	726	26	0	0	0	0	8	11	0	3	0
RTOR Reduction (vph)	0	0	6	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	726	20	0	0	0	0	9	0	0	3	0
Turn Type		Perm							Split			
Protected Phases		2						8		1	1	
Permitted Phases			2									
Actuated Green, G (s)		68.8	68.8					4.4			1.3	
Effective Green, g (s)		68.8	68.8					4.4			1.3	
Actuated g/C Ratio		0.76	0.76					0.05			0.01	
Clearance Time (s)		6.0	6.0					6.0			3.5	
Vehicle Extension (s)		3.0	3.0					3.0			3.0	
Lane Grp Cap (vph)		2556	1143					79			25	
v/s Ratio Prot		c0.22						c0.01			c0.00	
v/s Ratio Perm			0.01									
v/c Ratio		0.28	0.02					0.11			0.12	
Uniform Delay, d1		3.2	2.5					40.9			43.8	
Progression Factor		0.84	0.76					1.00			0.04	
Incremental Delay, d2		0.3	0.0					0.6			2.1	
Delay (s)		2.9	1.9					41.5			3.8	
Level of Service		A	A					D			A	
Approach Delay (s)		2.9			0.0			41.5			3.8	
Approach LOS		A			A			D			A	

Intersection Summary

HCM Average Control Delay	3.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

46: US 50 #6 & 141B

10/28/2008



Movement	WBT	WBR	NBT	SBL	SBR
Lane Configurations	↑↑	↑	↑	↑	↑
Volume (vph)	230	231	59	233	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	5.6	5.6
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	0.85
Flt Protected	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3343	1495	1759	1671	1495
Flt Permitted	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3343	1495	1759	1671	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	237	238	61	240	134
RTOR Reduction (vph)	0	104	0	0	83
Lane Group Flow (vph)	237	134	61	240	51
Turn Type		Perm		Prot	custom
Protected Phases	6		5	4	
Permitted Phases		6	5		4
Actuated Green, G (s)	60.9	60.9	8.5	21.5	21.5
Effective Green, g (s)	60.9	60.9	8.5	21.5	21.5
Actuated g/C Ratio	0.56	0.56	0.08	0.20	0.20
Clearance Time (s)	6.0	6.0	6.0	5.6	5.6
Vehicle Extension (s)	5.0	5.0	4.0	4.0	4.0
Lane Grp Cap (vph)	1876	839	138	331	296
v/s Ratio Prot	0.07		c0.03	c0.14	
v/s Ratio Perm		c0.09			0.03
v/c Ratio	0.13	0.16	0.44	0.73	0.17
Uniform Delay, d1	11.2	11.5	47.7	40.7	36.1
Progression Factor	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.4	3.1	8.2	0.4
Delay (s)	11.4	11.9	50.8	48.9	36.5
Level of Service	B	B	D	D	D
Approach Delay (s)	11.6		50.8		
Approach LOS	B		D		

Intersection Summary

HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	108.5	Sum of lost time (s)	17.6
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Arterial LOS

Arterial Level of Service
Existing

3/12/2008

Arterial Level of Service: EB US 50 #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Grand Mesa Ave	1	0.4	10.9	0.1	45
Gunnison Blvd	6	0.1	4.3	0.0	42
Santa Clara Ave	8	0.3	6.8	0.1	44
UnawEEP Ave	11	1.4	11.3	0.1	38
	121	0.4	5.0	0.1	41
	14	0.1	3.5	0.0	42
Green Acre 1	107	0.2	8.0	0.1	43
Elm Park	15	0.1	2.6	0.0	45
Green Acre 2	19	0.2	5.5	0.1	41
Aspen St	24	0.1	3.3	0.0	44
Palmer St	20	0.2	6.0	0.1	43
Palisade St	27	0.2	6.3	0.1	46
Linden Ave	28	0.5	9.2	0.1	43
27 Rd	32	8.2	31.1	0.3	34
Dorothy Ave	35	2.5	14.6	0.2	38
EB Off-Ramp	38	0.2	5.4	0.1	45
EB On-Ramp	40	0.2	9.3	0.1	46
Frontage Rd	43	0.6	17.0	0.2	42
US 50 EB #2	117	0.1	4.4	0.1	44
Total		16.2	164.3	1.9	41

Arterial Level of Service: WB US 50 #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Frontage Rd	43	0.6	4.6	0.1	43
WB On-Ramp	40	1.4	15.9	0.2	45
EB Off-Ramp	38	1.2	11.0	0.1	39
Dorothy Ave	35	1.3	7.3	0.1	33
27 Rd	32	10.5	22.4	0.2	25
	28	4.6	26.5	0.3	40
Palisade St	27	1.1	10.9	0.1	36
Palmer St	20	0.5	6.9	0.1	42
Aspen St	24	0.5	6.3	0.1	41
Green Acre 2	19	0.2	3.1	0.0	47
Elm Park	15	0.4	5.8	0.1	39
Green Acre 1	107	0.2	2.6	0.0	43
James St	14	1.6	9.4	0.1	37
	121	2.4	5.5	0.0	26
UnawEEP Ave	11	12.3	16.4	0.1	12
Santa Clara Ave	8	4.6	14.2	0.1	31
Gunnison Blvd	6	1.0	7.0	0.1	42
Grand Mesa Ave	1	1.0	5.7	0.0	33
Total		45.2	181.6	1.7	34

Arterial Level of Service: WB US 50 WB #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
29 1/4 Rd	75	0.8	11.2	0.1	47
	138	0.4	8.9	0.1	44
Sundance Dr	71	2.8	9.3	0.1	31
29 Rd	68	12.6	21.6	0.1	19
Reta Dr	66	2.6	8.5	0.1	31
Elm Dr	64	0.9	15.6	0.2	44
Dee Vee Dr	62	0.1	2.0	0.0	45
Indiana St	61	0.4	4.4	0.1	47
Tennessee St	59	0.5	5.7	0.1	49
28 1/2 Rd	51	1.1	14.1	0.2	53
Fairgrounds	49	2.6	41.9	0.6	52
	127	0.5	9.2	0.1	43
27 3/4 Rd	46	0.5	10.6	0.1	43
	130	0.4	8.8	0.1	43
US 50 EB #2	117	0.6	13.8	0.2	42
Total		26.8	185.7	2.2	43

Arterial Level of Service: EB US 50 EB #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
27 3/4 Rd	110	0.5	21.5	0.3	44
Fairgrounds	109	0.5	19.2	0.2	44
	136	0.1	4.6	0.1	47
KOA	112	0.5	16.5	0.2	54
28 1/2 Rd	54	0.7	19.9	0.3	54
Rainbow Dr	113	0.4	10.4	0.2	55
Dee Vee Dr	115	0.5	12.8	0.2	53
Reta Dr	56	0.4	16.3	0.2	47
29 Rd	116	2.9	9.3	0.1	31
	133	1.0	5.7	0.1	37
Sundance Dr	114	2.5	7.0	0.1	29
Redrock Rd	118	1.0	9.9	0.1	41
29 1/4 Rd	119	0.4	5.6	0.1	46
US 50 WB #3	120	0.2	11.8	0.1	45
Total		11.6	170.3	2.2	46

Arterial Level of Service: EB US 50 #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
29 1/2 Rd	78	0.3	9.0	0.1	52
	131	0.2	6.5	0.1	53
29 3/4 Rd	80	0.3	13.8	0.2	54
30 Rd	84	0.4	18.7	0.3	55
	85	0.4	22.1	0.3	54
S Frontage Rd	124	0.5	22.9	0.3	53
	87	0.3	9.0	0.1	54
US 50 EB #5	134	0.9	32.7	0.5	53
Total		3.3	134.7	2.0	53

Arterial Level of Service: WB US 50 #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
31 Rd	87	1.6	32.2	0.5	54
	124	0.4	9.4	0.1	52
S Frontage Rd	85	0.9	23.0	0.3	53
30 Rd	84	1.0	22.4	0.3	53
29 3/4 Rd	80	1.0	19.8	0.3	52
	131	0.8	14.5	0.2	51
29 1/2 Rd	78	1.0	7.3	0.1	47
US 50 WB #3	120	0.4	10.9	0.1	42
Total		7.1	139.5	2.0	52

Arterial Level of Service: WB US 50 WB #6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
141B	90	9.7	18.1	0.1	25
US 50 EB #5	134	3.2	13.1	0.1	41
Total		12.9	31.3	0.3	32

Arterial Level of Service: EB US 50 #7

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	111	0.2	8.7	0.1	50
CDOT	92	0.2	6.5	0.1	54
	122	0.8	30.9	0.5	53
	142	1.2	37.9	0.6	53
Willow Bend Rd	94	0.6	9.3	0.1	53
	132	0.3	12.5	0.2	44
3247	97	1.3	36.1	0.5	52
1st St	100	0.3	5.1	0.1	58
3rd St	102	0.8	18.7	0.3	52
SH 141A	104	0.8	12.0	0.2	52
	72	0.3	10.3	0.1	43
Total		6.8	187.9	2.7	52

Arterial Level of Service: WB US 50 #7

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	72	0.3	5.6	0.1	44
SH 141A	104	0.2	9.0	0.1	49
3rd St	102	0.8	11.9	0.2	52
1st St	100	0.6	18.2	0.3	53
3247	97	0.4	5.6	0.1	53
	132	1.0	43.3	0.5	43
Willow Bend Rd	94	0.5	11.1	0.2	49
	142	0.4	9.4	0.1	52
	122	1.7	38.8	0.6	52
CDOT	92	0.9	29.4	0.5	56
	111	0.2	6.7	0.1	52
US 50 EB #5	125	0.4	8.5	0.1	52
Total		7.5	197.5	2.8	50

Arterial Level of Service: EB US 50 EB #5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	139	0.2	3.8	0.0	46
	140	0.7	10.0	0.1	52
US 50 #7	125	0.4	6.5	0.1	46
Total		1.2	20.3	0.3	49

Arterial Level of Service
Existing

3/12/2008

Arterial Level of Service: EB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Grand Mesa Ave	1	1.2	11.9	0.1	42	43	1.0
Gunnison Blvd	6	0.4	4.5	0.0	39	40	0.4
Santa Clara Ave	8	0.9	7.5	0.1	39	40	0.9
Unawweep Ave	11	5.6	15.6	0.1	28	26	7.0
	121	1.4	6.0	0.1	34	34	1.5
	14	0.5	3.9	0.0	37	37	0.5
Green Acre 1	107	1.2	9.0	0.1	39	39	1.3
Elm Park	15	0.5	3.0	0.0	39	39	0.5
Green Acre 2	19	0.9	6.1	0.1	36	36	0.9
Aspen St	24	0.5	3.6	0.0	41	40	0.5
Palmer St	20	0.7	6.4	0.1	40	40	0.7
Palisade St	27	0.6	6.7	0.1	43	42	0.7
Linden Ave	28	1.4	10.1	0.1	40	40	1.3
27 Rd	32	15.1	38.6	0.3	27	27	15.7
Dorothy Ave	35	5.0	17.5	0.2	31	32	4.9
EB Off-Ramp	38	0.3	5.7	0.1	43	43	0.3
EB On-Ramp	40	0.3	9.2	0.1	46	46	0.3
Frontage Rd	43	1.0	17.5	0.2	41	41	0.9
US 50 EB #2	117	0.2	4.5	0.1	43	43	0.2
Total		37.9	187.3	1.9	36	36	39.7

Arterial Level of Service: EB #1

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
Grand Mesa Ave	42	1.3	42	1.3
Gunnison Blvd	39	0.5	39	0.4
Santa Clara Ave	39	0.9	39	0.9
Unawweep Ave	29	4.9	29	4.9
	35	1.3	34	1.5
	38	0.4	37	0.6
Green Acre 1	40	1.0	38	1.4
Elm Park	40	0.4	38	0.6
Green Acre 2	37	0.8	36	1.0
Aspen St	41	0.4	41	0.5
Palmer St	41	0.6	41	0.6
Palisade St	43	0.6	43	0.6
Linden Ave	40	1.4	39	1.4
27 Rd	28	14.5	27	15.1
Dorothy Ave	32	4.8	31	5.4
EB Off-Ramp	43	0.3	42	0.3
EB On-Ramp	47	0.3	46	0.4
Frontage Rd	41	1.0	41	1.1
US 50 EB #2	43	0.2	43	0.2
Total	36	35.8	36	38.1

Arterial Level of Service
Existing

3/12/2008

Arterial Level of Service: WB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Frontage Rd	43	0.3	4.4	0.1	43	43	0.3
WB On-Ramp	40	0.7	15.9	0.2	45	45	0.8
EB Off-Ramp	38	0.5	10.1	0.1	42	42	0.6
Dorothy Ave	35	0.6	6.7	0.1	36	36	0.6
27 Rd	32	9.5	21.6	0.2	25	26	9.3
B 3/4 Road	28	3.5	25.6	0.3	41	41	3.5
Palisade St	27	0.7	10.5	0.1	37	38	0.6
Palmer St	20	0.5	6.8	0.1	43	43	0.4
Aspen St	24	0.4	6.1	0.1	43	43	0.4
Green Acre 2	19	0.1	3.0	0.0	48	49	0.1
Elm Park	15	0.3	5.6	0.1	40	40	0.3
Green Acre 1	107	0.1	2.5	0.0	45	45	0.1
James St	14	0.8	8.7	0.1	40	40	0.9
	121	1.4	4.5	0.0	32	31	1.5
UnawEEP Ave	11	12.0	16.1	0.1	13	12	12.7
Santa Clara Ave	8	3.8	13.5	0.1	32	32	3.7
Gunnison Blvd	6	0.6	6.6	0.1	45	45	0.6
Grand Mesa Ave	1	0.5	5.1	0.0	35	35	0.5
Total		36.3	173.7	1.7	36	36	36.9

Arterial Level of Service: WB #1

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
Frontage Rd	43	0.3	43	0.4
WB On-Ramp	45	0.6	45	0.7
EB Off-Ramp	42	0.5	42	0.5
Dorothy Ave	36	0.6	36	0.7
27 Rd	25	9.9	26	9.3
B 3/4 Road	41	3.7	42	3.3
Palisade St	36	0.9	37	0.7
Palmer St	42	0.5	43	0.5
Aspen St	42	0.4	43	0.3
Green Acre 2	48	0.2	49	0.1
Elm Park	40	0.2	40	0.3
Green Acre 1	44	0.1	45	0.1
James St	40	0.9	40	0.8
	32	1.4	33	1.2
UnawEEP Ave	13	11.4	13	12.1
Santa Clara Ave	32	3.9	32	3.7
Gunnison Blvd	44	0.6	45	0.5
Grand Mesa Ave	35	0.4	35	0.5
Total	36	36.4	36	35.6

Arterial Level of Service: WB #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
29 1/4 Rd	75	0.6	11.0	0.1	48	48	0.7
	138	0.4	9.0	0.1	44	43	0.4
Sundance Dr	71	4.7	11.3	0.1	26	24	5.3
29 Rd	68	20.7	30.0	0.1	14	16	16.9
Reta Dr	66	3.7	9.4	0.1	28	28	3.6
Elm Dr	64	1.1	16.0	0.2	43	43	1.3
Dee Vee Dr	62	0.1	2.0	0.0	45	44	0.1
Indiana St	61	0.3	4.4	0.1	46	46	0.4
Tennessee St	59	0.3	5.4	0.1	52	52	0.3
28 1/2 Rd	51	1.0	14.5	0.2	52	52	0.9
	Fairgrounds	49	2.2	42.0	0.6	52	52
27 3/4 Rd	127	0.3	9.0	0.1	44	44	0.3
	46	0.4	10.6	0.1	43	43	0.5
US 50 EB #2	130	0.3	8.6	0.1	44	43	0.4
	117	0.4	13.3	0.2	44	44	0.4
Total		36.7	196.6	2.2	40	41	33.6

Arterial Level of Service: WB #3

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
29 1/4 Rd	48	0.6	48	0.6
	43	0.4	44	0.3
Sundance Dr	27	4.3	26	4.5
29 Rd	13	21.8	13	23.5
Reta Dr	28	3.8	28	3.6
Elm Dr	42	1.2	43	0.8
Dee Vee Dr	44	0.1	45	0.1
Indiana St	46	0.4	47	0.3
Tennessee St	51	0.4	53	0.2
28 1/2 Rd	51	1.2	52	0.9
Fairgrounds	52	2.2	52	2.3
	43	0.4	44	0.3
27 3/4 Rd	43	0.4	43	0.4
	43	0.3	44	0.2
US 50 EB #2	43	0.4	44	0.4
Total	40	37.9	40	38.5

Arterial Level of Service: EB #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
27 3/4 Rd	110	1.0	22.1	0.3	43	42	1.1
Fairgrounds	109	0.8	19.7	0.2	43	43	0.9
	136	0.2	4.7	0.1	46	45	0.2
KOA	112	0.9	17.4	0.2	52	51	0.9
28 1/2 Rd	54	1.4	20.9	0.3	51	51	1.4
Rainbow Dr	113	0.6	11.0	0.2	52	51	0.7
Dee Vee Dr	115	9.3	21.6	0.2	32	17	28.2
Reta Dr	56	34.5	51.6	0.2	15	6	119.5
29 Rd	116	26.6	33.0	0.1	9	3	89.0
	133	15.7	20.3	0.1	10	3	59.6
Sundance Dr	114	13.2	17.7	0.1	12	4	51.2
Redrock Rd	118	0.7	9.8	0.1	41	40	1.1
29 1/4 Rd	119	0.5	5.7	0.1	45	45	0.4
US 50 #3	120	0.4	12.5	0.1	43	43	0.3
Total		105.9	267.8	2.2	30	15	354.7

Arterial Level of Service: EB #2

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
27 3/4 Rd	43	1.0	42	1.0
Fairgrounds	44	0.7	43	0.8
	46	0.2	46	0.2
KOA	52	0.9	52	0.9
28 1/2 Rd	51	1.4	51	1.3
Rainbow Dr	52	0.6	52	0.5
Dee Vee Dr	53	0.8	52	0.8
Reta Dr	43	1.0	42	1.0
29 Rd	27	4.6	25	5.2
	34	1.5	34	1.6
Sundance Dr	35	1.2	39	0.7
Redrock Rd	42	0.7	42	0.5
29 1/4 Rd	45	0.5	44	0.6
US 50 #3	43	0.5	42	0.5
Total	45	15.4	44	15.6

Arterial Level of Service: EB #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
29 1/2 Rd	78	0.5	9.4	0.1	49	50	0.4
	131	0.2	6.6	0.1	52	53	0.2
29 3/4 Rd	80	0.5	13.7	0.2	55	56	0.4
30 Rd	84	0.6	19.5	0.3	53	53	0.6
S Frontage Rd	85	0.8	21.8	0.3	54	56	0.7
	124	0.9	23.4	0.3	52	52	0.8
31 Rd	87	0.4	9.3	0.1	53	53	0.4
US 50 EB #5	134	1.4	33.2	0.5	52	53	1.1
Total		5.4	136.9	2.0	53	54	4.5

Arterial Level of Service: EB #4

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
29 1/2 Rd	49	0.6	50	0.5
	52	0.3	52	0.2
29 3/4 Rd	54	0.5	54	0.6
30 Rd	53	0.7	53	0.7
S Frontage Rd	54	0.8	54	0.8
	52	0.9	52	0.9
31 Rd	52	0.5	53	0.5
US 50 EB #5	52	1.6	52	1.6
Total	52	5.8	52	5.7

Arterial Level of Service: WB #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
31 Rd	87	1.2	32.5	0.5	53	53	1.3
	124	0.4	9.4	0.1	52	52	0.3
S Frontage Rd	85	0.7	22.6	0.3	54	54	0.7
30 Rd	84	0.7	22.2	0.3	53	53	0.8
29 3/4 Rd	80	0.7	19.5	0.3	53	53	0.7
	131	0.6	14.3	0.2	52	52	0.6
29 1/2 Rd	78	0.8	7.0	0.1	49	49	0.8
US 50 #3	120	0.3	10.4	0.1	44	44	0.3
Total		5.4	137.9	2.0	52	52	5.5

Arterial Level of Service: WB #4

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
31 Rd	53	1.2	53	1.1
	52	0.4	52	0.4
S Frontage Rd	54	0.7	54	0.7
30 Rd	53	0.7	54	0.7
29 3/4 Rd	52	0.8	53	0.6
	52	0.6	52	0.5
29 1/2 Rd	49	0.8	49	0.7
US 50 #3	45	0.3	45	0.3
Total	52	5.6	52	5.1

Arterial Level of Service: WB #6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
141B	90	9.6	18.0	0.1	25	27	8.7
US 50 EB #5	134	3.0	12.9	0.1	42	41	3.0
Total		12.6	30.9	0.3	32	33	11.7

Arterial Level of Service: WB #6

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
141B	26	9.5	24	10.6
US 50 EB #5	42	2.9	41	3.1
Total	32	12.4	31	13.7

Arterial Level of Service: EB #7

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	111	0.0	0.0	0.1		0.3	0.3
CDOT	92	0.3	6.6	0.1	53	53	0.3
	122	1.3	32.3	0.5	52	53	1.2
	141	1.7	36.0	0.5	52	52	1.7
Willow Bend Rd	94	0.9	11.6	0.2	51	51	0.9
	132	0.5	12.6	0.2	43	43	0.4
3247	97	1.8	36.7	0.5	51	51	1.7
1st St	100	0.4	5.2	0.1	57	57	0.4
3rd St	102	1.1	19.2	0.3	51	51	1.0
SH 141A	104	1.0	12.3	0.2	50	51	0.9
	72	0.4	10.4	0.1	42	43	0.3
Total		9.4	183.0	2.7	53	51	9.1

Arterial Level of Service: EB #7

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
	0.0			
CDOT	53	0.3	53	0.3
	52	1.5	52	1.4
	52	1.9	52	1.6
Willow Bend Rd	51	1.0	51	0.9
	43	0.5	43	0.5
3247	51	1.9	51	1.8
1st St	57	0.4	57	0.3
3rd St	50	1.2	51	1.2
SH 141A	50	1.1	50	1.0
	42	0.4	42	0.4
Total	50	10.4	53	9.3

Arterial Level of Service: WB #7

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	72	0.3	5.6	0.1	45	45	0.3
SH 141A	104	0.1	8.9	0.1	50	50	0.1
3rd St	102	0.5	11.7	0.2	53	53	0.5
1st St	100	0.4	18.2	0.3	53	54	0.3
3247	97	0.3	5.5	0.1	54	54	0.3
	132	0.6	42.7	0.5	44	44	0.5
Willow Bend Rd	94	0.3	10.9	0.2	50	50	0.3
	141	0.3	11.1	0.2	53	53	0.3
	122	0.9	35.4	0.5	53	53	0.9
CDOT	92	0.5	29.8	0.5	57	56	0.5
	111	0.1	6.6	0.1	52	53	0.1
US 50 EB #5	125	0.3	8.3	0.1	53	54	0.3
Total		4.6	194.5	2.8	51	51	4.4

Arterial Level of Service: WB #7

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
	45	0.3	45	0.3
SH 141A	50	0.1	50	0.2
3rd St	53	0.5	53	0.5
1st St	53	0.4	53	0.4
3247	54	0.3	54	0.4
	44	0.5	44	0.7
Willow Bend Rd	50	0.2	50	0.3
	53	0.2	53	0.3
	53	0.9	53	1.0
CDOT	57	0.5	57	0.6
	52	0.1	52	0.2
US 50 EB #5	53	0.3	53	0.4
Total	51	4.3	51	5.1

Arterial Level of Service: EB #5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	139	0.3	4.4	0.1	45	45	0.3
	140	1.0	10.0	0.1	50	50	1.0
US 50 #7	125	0.6	6.8	0.1	44	44	0.6
Total		1.8	21.2	0.3	47	47	1.8

Arterial Level of Service: EB #5

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay
	45	0.3	45	0.3
	50	1.1	50	0.9
US 50 #7	44	0.6	44	0.6
Total	47	2.0	47	1.8