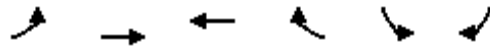


Queues 2: Gibson & Entrance

UNM Gibson Commercial District
2015 PM Peak Hour - Build - With Left Out at Gibson - Improved



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	253	1269	2657	164	139	330
v/c Ratio	0.82	0.31	0.83	0.16	0.59	0.83
Control Delay	52.5	3.4	9.4	0.3	60.0	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	3.4	9.4	0.3	60.0	37.2
Queue Length 50th (ft)	137	77	503	1	103	98
Queue Length 95th (ft)	226	91	133	m1	172	#209
Internal Link Dist (ft)		630	638		1192	
Turn Bay Length (ft)	250			250		
Base Capacity (vph)	369	4068	3187	1043	236	444
Starvation Cap Reductn	0	0	15	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.31	0.84	0.16	0.59	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
3: Gibson & University

UNM Gibson Commercial District
2015 PM Peak Hour - Build - With Left Out at Gibson - Improved



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	118	1214	61	57	2357	198	66	82	258	34	215
v/c Ratio	0.52	0.35	0.05	0.17	0.74	0.16	0.35	0.50	0.78	0.17	0.57
Control Delay	30.5	8.5	0.7	6.4	18.8	1.1	46.3	31.7	69.8	48.2	37.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	8.5	0.7	6.4	18.8	1.1	46.3	31.7	69.8	48.2	37.7
Queue Length 50th (ft)	46	173	1	10	423	0	43	19	102	24	117
Queue Length 95th (ft)	79	228	m2	25	605	22	80	68	#161	54	177
Internal Link Dist (ft)		638			1234			706		1327	
Turn Bay Length (ft)	250		250	250		250	250		250		
Base Capacity (vph)	241	3458	1252	340	3187	1251	187	272	337	350	389
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	12	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.35	0.05	0.17	0.74	0.16	0.35	0.30	0.77	0.10	0.55

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

5: Cesar Chavez & University

UNM Gibson Commercial District
2015 PM Peak Hour - Build - With Left Out at Gibson - Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	387	476	143	104	506	122	159	325	74	138	386	342
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Flt	1.00	0.97		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	4909		1770	3436		1770	3539	1583	1770	3539	1583
Flt Permitted	0.24	1.00		0.33	1.00		0.35	1.00	1.00	0.44	1.00	1.00
Satd. Flow (perm)	455	4909		621	3436		651	3539	1583	815	3539	1583
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)	425	523	157	114	556	134	175	357	81	152	424	376
RTOR Reduction (vph)	0	71	0	0	29	0	0	0	60	0	0	67
Lane Group Flow (vph)	425	609	0	114	661	0	175	357	21	152	424	309
Turn Type	pm+pt			pm+pt			pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	38.5	29.7		24.3	19.5		19.6	13.4	18.2	19.4	13.3	28.3
Effective Green, g (s)	38.5	29.7		24.3	19.5		19.6	13.4	18.2	19.4	13.3	28.3
Actuated g/C Ratio	0.55	0.42		0.35	0.28		0.28	0.19	0.26	0.28	0.19	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	532	2083		294	957		281	677	412	309	672	640
v/s Ratio Prot	c0.17	0.12		0.03	0.19		c0.06	0.10	0.00	0.04	c0.12	0.10
v/s Ratio Perm	c0.27			0.11			0.12		0.01	0.09		0.09
v/c Ratio	0.80	0.29		0.39	0.69		0.62	0.53	0.05	0.49	0.63	0.48
Uniform Delay, d1	17.9	13.2		19.7	22.6		20.3	25.5	19.4	20.1	26.1	15.4
Progression Factor	0.77	0.16		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.2	0.3		0.9	4.1		4.3	0.7	0.1	1.2	1.9	0.6
Delay (s)	21.0	2.4		20.6	26.6		24.5	26.2	19.5	21.3	28.0	16.0
Level of Service	C	A		C	C		C	C	B	C	C	B
Approach Delay (s)		9.5			25.8			24.8			22.2	
Approach LOS		A			C			C			C	
Intersection Summary												
HCM Average Control Delay			19.5			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			70.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			72.1%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: Cesar Chavez & Langham

UNM Gibson Commercial District
2015 PM Peak Hour - Build - With Left Out at Gibson - Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	128	1039	134	4	1256	1	136	1	33	6	0	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Flt	1.00	0.98		1.00	1.00		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4998		1770	5085		1770	1590		1770	1583	
Flt Permitted	0.19	1.00		0.19	1.00		0.41	1.00		0.73	1.00	
Satd. Flow (perm)	358	4998		358	5085		770	1590		1362	1583	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	151	1222	158	5	1478	1	160	1	39	7	0	241
RTOR Reduction (vph)	0	24	0	0	0	0	0	26	0	0	168	0
Lane Group Flow (vph)	151	1356	0	5	1479	0	160	14	0	7	73	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	29.8	29.8		21.6	21.6		26.8	22.6		20.0	19.2	
Effective Green, g (s)	29.8	29.8		21.6	21.6		26.8	22.6		20.0	19.2	
Actuated g/C Ratio	0.43	0.43		0.31	0.31		0.38	0.32		0.29	0.27	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	334	2128		127	1569		355	513		394	434	
v/s Ratio Prot	0.06	c0.27		0.00	c0.29		c0.03	0.01		0.00	0.05	
v/s Ratio Perm	0.13			0.01			c0.15			0.00		
v/c Ratio	0.45	0.64		0.04	0.94		0.45	0.03		0.02	0.17	
Uniform Delay, d1	22.9	15.8		18.5	23.6		15.2	16.2		17.9	19.3	
Progression Factor	0.85	0.77		0.75	0.75		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.6		0.1	11.7		0.9	0.1		0.0	0.8	
Delay (s)	20.4	12.9		14.0	29.3		16.1	16.3		17.9	20.2	
Level of Service	C	B		B	C		B	B		B	C	
Approach Delay (s)		13.6			29.3			16.2			20.1	
Approach LOS		B			C			B			C	
Intersection Summary												
HCM Average Control Delay			20.9			HCM Level of Service				C		
HCM Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			70.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			64.9%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

7: Cesar Chavez & I-25 NB

UNM Gibson Commercial District

2015 PM Peak Hour - Build - With Left Out at Gibson - Improved

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	487	716	0	0	730	674	104	7	83	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.96	1.00			
Satd. Flow (prot)	1752	3505			3539	1583		1745	1553			
Flt Permitted	0.18	1.00			1.00	1.00		0.96	1.00			
Satd. Flow (perm)	338	3505			3539	1583		1745	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	513	754	0	0	768	709	109	7	87	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	513	754	0	0	768	709	0	116	87	0	0	0
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	2%	2%	2%
Turn Type	pm+pt					Free	Perm		Free			
Protected Phases	7	4			8			2				
Permitted Phases	4					Free	2		Free			
Actuated Green, G (s)	46.0	46.0			23.4	70.0		16.0	70.0			
Effective Green, g (s)	46.0	46.0			23.4	70.0		16.0	70.0			
Actuated g/C Ratio	0.66	0.66			0.33	1.00		0.23	1.00			
Clearance Time (s)	4.0	4.0			4.0			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	598	2303			1183	1583		399	1553			
v/s Ratio Prot	c0.23	0.22			0.22							
v/s Ratio Perm	c0.34					c0.45		0.07	0.06			
v/c Ratio	0.86	0.33			0.65	0.45		0.29	0.06			
Uniform Delay, d1	14.2	5.2			19.8	0.0		22.3	0.0			
Progression Factor	1.00	1.00			0.39	1.00		1.00	1.00			
Incremental Delay, d2	11.7	0.1			2.0	0.7		1.8	0.1			
Delay (s)	25.9	5.3			9.8	0.7		24.1	0.1			
Level of Service	C	A			A	A		C	A			
Approach Delay (s)		13.6			5.4			13.8			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			9.5		HCM Level of Service				A			
HCM Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			70.0		Sum of lost time (s)				4.0			
Intersection Capacity Utilization			63.3%		ICU Level of Service				B			
Analysis Period (min)			15									
c Critical Lane Group												