



**CLARK NEXSEN**

NC 54 Multimodal Analysis - Town of Chapel Hill Section									
Delay Summary (Burning Tree Dr & W. Barbee Chapel Rd as Synchronized Streets)									
Movement	AM Peak-Hour Delay (seconds)			Mid-Day Peak-Hour Delay (seconds)*			PM Peak-Hour Delay (seconds)		
	Existing (2016)	Future No Build (2030)	Future Build (2030)	Existing (2016)	Future No Build (2030)	Future Build (2030)	Existing (2016)	Future No Build (2030)	Future Build (2030)
<b>NC-54 &amp; Hamilton Road (Signalized)</b>									
EBT -	21	28	23	12	20	15	20	33	35
WBT -	15	80	24	3	14	3	16	53	53
NBL -	82	588	54	87	632	82	77	395	311
<b>NC-54 &amp; Environ/Rogerson Dr (Signalized)</b>									
EBT -	1	1	3	0	0	2	2	2	15
WBT -	0	0	4	0	0	2	0	0	4
NBR -	27	37	32	12	33	33	7	3	3
<b>NC-54 &amp; Burning Tree Dr (Signalized)</b>									
EBT -	45	101	8	6	7	6	9	12	8
WBT -	9	15	9	1	1	1	9	13	8
NBT -	87	85	0	87	95	0	211	65	0
<b>NC-54 &amp; W Barbee Chapel Rd/Business Park Driveway (Signalized)</b>									
EBT -	9	11	10	4	4	3	11	14	7
WBT -	10	12	11	20	20	13	18	22	9
NBL -	92	106	0	205	244	0	253	643	0
<b>NC-54 &amp; Meadowmont Lane (Signalized)</b>									
EBT -	20	21	31	14	14	15	35	69	73
WBT -	12	17	17	7	7	8	12	19	21
NBL -	64	65	60	72	69	69	65	63	63
<b>NC-54 &amp; East Barbee Chapel Road (Signalized)</b>									
EBT -	21	69	32	6	8	7	11	15	15
WBT -	25	25	27	21	23	23	32	41	41
SBL -	171	408	134	66	69	68	114	146	146

Reported delays represent seconds per vehicle delay rounded to the nearest whole second, with the overall intersection delay representing a weighted average of total intersection delay.

\*Note: Mid-day peak hour analysis studied the 1:00-2:00 PM time period at each study intersection.

NC 54 Multimodal Analysis - Town of Chapel Hill Section						
Delay Summary (Burning Tree Dr & W. Barbee Chapel Rd as Synchronized Streets)						
Condition	AM Peak-Hour Delay (Sec)	2030 Volumes	Mid-Day Peak-Hour Delay (Sec)	2030 Volumes	PM Peak-Hour Delay (Sec)	2030 Volumes
<b>NC-54 &amp; Hamilton Road (Signalized)</b>						
Future (2030) Traffic Build	Overall -	24	Overall -	13	Overall -	65
	EBL -	9	EBL -	6	EBL -	393
	EBT -	23	EBT -	15	EBT -	35
	EBR -		EBR -	0	EBR -	61
	WBL -	24	WBL -	5	WBL -	46
	WBT -	24	WBT -	3	WBT -	53
	WBR -		WBR -	0	WBR -	280
	NBL -	54	NBL -	82	NBL -	311
	NBT -	26	NBT -	48	NBT -	43
	NBR -	35	NBR -	64	NBR -	53
	SBL -	28	SBL -	56	SBL -	58
	SBT -	29	SBT -	54	SBT -	62
	SBR -		SBR -	0	SBR -	135
<b>NC-54 &amp; Environ/Rogerson Dr (Signalized)</b>						
Future (2030) Traffic Build	Overall -	15	Overall -	3	Overall -	10
	EBL -	1	EBL -	0	EBL -	0
	EBT -	3	EBT -	2	EBT -	15
	EBR -	1	EBR -	0	EBR -	3
	WBL -	405	WBL -	6	WBL -	60
	WBT -	4	WBT -	2	WBT -	4
	WBR -		WBR -	0	WBR -	1
	NBL -		NBL -	0	NBL -	0
	NBT -		NBT -	0	NBT -	0
	NBR -	32	NBR -	33	NBR -	3
	SBL -		SBL -	0	SBL -	0
	SBT -		SBT -	0	SBT -	0
	SBR -	0	SBR -	0	SBR -	5
<b>NC-54 &amp; Burning Tree Dr (Signalized)</b>						
Future (2030) Traffic Build	Overall -	24	Overall -	5	Overall -	31
	EBL -	5	EBL -	7	EBL -	16
	EBT -	8	EBT -	6	EBT -	8
	EBR -		EBR -		EBR -	45
	WBL -	266	WBL -	17	WBL -	440
	WBT -	9	WBT -	1	WBT -	8
	WBR -		WBR -		WBR -	62
	NBL -		NBL -		NBL -	0
	NBT -	0	NBT -	0	NBT -	0
	NBR -	45	NBR -	42	NBR -	158
	SBL -		SBL -		SBL -	0
	SBT -	0	SBT -		SBT -	0
	SBR -	1	SBR -	4	SBR -	21

<b>NC-54 &amp; W Barbee Chapel Rd/Business Park Driveway (Signalized)</b>									
Future (2030) Traffic Build	Overall -	19		Overall -	9		Overall -	11	
	EBL -	193	257	EBL -	37	233	EBL -	70	248
	EBT -	10	2354	EBT -	3	1594	EBT -	7	2581
	EBR -	2	95	EBR -	0	51	EBR -	1	31
	WBL -	37	99	WBL -	4	41	WBL -	2	6
	WBT -	11	2622	WBT -	13	1702	WBT -	9	2424
	WBR -	0	44	WBR -	0	48	WBR -	0	24
	NBL -	0	0	NBL -	0	0	NBL -	0	0
	NBT -	0	0	NBT -	0	0	NBT -	0	0
	NBR -	3	22	NBR -	8	74	NBR -	31	145
	SBL -	0	0	SBL -	0	0	SBL -	0	0
	SBT -	0	0	SBT -	0	0	SBT -	0	0
	SBR -	3	126	SBR -	4	205	SBR -	8	229
<b>NC-54 &amp; Meadowmont Lane (Signalized)</b>									
Future (2030) Traffic Build	Overall -	25		Overall -	17		Overall -	45	
	EBL -	60	164	EBL -	73	172	EBL -	64	253
	EBT -	31	1505	EBT -	15	1280	EBT -	73	2117
	EBR -	5	182	EBR -	1	62	EBR -	2	75
	WBL -	40	560	WBL -	39	62	WBL -	34	55
	WBT -	17	2441	WBT -	8	1374	WBT -	21	1964
	WBR -	0	174	WBR -	0	127	WBR -	2	113
	NBL -	60	95	NBL -	69	31	NBL -	63	143
	NBT -	58	6	NBT -	39	18	NBT -	75	28
	NBR -	0	40	NBR -	0	71	NBR -	20	450
	SBL -	56	76	SBL -	67	152	SBL -	66	219
	SBT -	58	36	SBT -	61	26	SBT -	57	18
	SBR -	9	132	SBR -	7	187	SBR -	30	227
<b>NC-54 &amp; East Barbee Chapel Road (Signalized)</b>									
Future (2030) Traffic Build	Overall -	43		Overall -	19		Overall -	35	
	EBL -	7	15	EBL -	5	45	EBL -	61	132
	EBT -	32	2255	EBT -	7	1210	EBT -	15	1757
	EBR -	1	221	EBR -	0	106	EBR -	0	205
	WBL -	15	6	WBL -	15	6	WBL -	29	22
	WBT -	27	1551	WBT -	23	1283	WBT -	41	2074
	WBR -	1	186	WBR -	1	209	WBR -	20	842
	NBL -	79	162	NBL -	65	82	NBL -	59	125
	NBT -	70	44	NBT -	62	46	NBT -	62	118
	NBR -		16	NBR -		10	NBR -		26
	SBL -	134	677	SBL -	68	207	SBL -	146	283
	SBT -	122	99	SBT -	62	44	SBT -	136	68
	SBR -		87	SBR -		53	SBR -		30



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NC 54 Multimodal Analysis - Town of Chapel Hill Section			
Delay Summary			
Condition	AM Peak-Hour Delay (seconds)	Mid-Day Peak-Hour Delay (seconds)*	PM Peak-Hour Delay (seconds)
<b>NC-54 &amp; Hamilton Road (Signalized)</b>			
Future (2030) Traffic No Build	EBT - 28	EBT - 20	EBT - 33
	WBT - 80	WBT - 14	WBT - 53
	NBL - 588	NBL - 632	NBL - 395
<b>NC-54 &amp; Environ/Rogerson Dr (Signalized)</b>			
Future (2030) Traffic No Build	EBT - 1	EBT - 0	EBT - 2
	WBT - 0	WBT - 0	WBT - 0
	NBR - 37	NBR - 33	EBL - 10
<b>NC-54 &amp; Burning Tree Dr (Signalized)</b>			
Future (2030) Traffic No Build	EBT - 101	EBT - 7	EBT - 12
	WBT - 15	WBT - 1	WBT - 13
	NBT - 85	NBT - 95	WBL - 325
<b>NC-54 &amp; W Barbee Chapel Rd/Business Park Driveway (Signalized)</b>			
Future (2030) Traffic No Build	EBT - 11	EBT - 4	EBT - 14
	WBT - 12	WBT - 20	WBT - 22
	NBL - 106	NBL - 244	NBL - 643
<b>NC-54 &amp; Meadowmont Lane (Signalized)</b>			
Future (2030) Traffic No Build	EBT - 21	EBT - 14	EBT - 69
	WBT - 17	WBT - 7	WBT - 19
	NBL - 65	EBL - 74	NBT - 75
<b>NC-54 &amp; East Barbee Chapel Road (Signalized)</b>			
Future (2030) Traffic No Build	EBT - 69	EBT - 8	EBT - 15
	WBT - 25	WBT - 23	WBT - 41
	SBL - 408	SBL - 69	SBL - 146

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\*Note: Mid-day peak hour analysis studied the 1:00-2:00 PM time period at each study intersection.

NC 54 Multimodal Analysis - Town of Chapel Hill Section						
Delay Summary						
Condition	AM Peak-Hour Delay (Sec)	2030 Volumes	Mid-Day Peak-Hour Delay (Sec)	2030 Volumes	PM Peak-Hour Delay (Sec)	2030 Volumes
<b>NC-54 &amp; Hamilton Road (Signalized)</b>						
Future (2030) Traffic No Build	Overall -	73		Overall -	44	
	EBL -	175	278	EBL -	104	276
	EBT -	28	1951	EBT -	20	1451
	EBR -		116	EBR -	0	41
	WBL -	30	49	WBL -	8	74
	WBT -	80	2419	WBT -	14	1503
	WBR -		274	WBR -	0	252
	NBL -	588	135	NBL -	632	130
	NBT -	39	32	NBT -	42	13
	NBR -	48	102	NBR -	51	92
	SBL -	46	113	SBL -	58	118
	SBT -	58	88	SBT -	78	84
	SBR -		88	SBR -	0	95
Overall -	64		Overall -	64		
EBL -	342	268	EBL -	342	268	
EBT -	33	2297	EBT -	33	2297	
EBR -		61	EBR -		61	
WBL -	46	104	WBL -	46	104	
WBT -	53	2224	WBT -	53	2224	
WBR -		280	WBR -		280	
NBL -	395	170	NBL -	395	170	
NBT -	43	29	NBT -	43	29	
NBR -	54	117	NBR -	54	117	
SBL -	59	187	SBL -	59	187	
SBT -	66	123	SBT -	66	123	
SBR -		135	SBR -		135	
<b>NC-54 &amp; Environ/Rogerson Dr (Signalized)</b>						
Future (2030) Traffic No Build	Overall -	2		Overall -	1	
	EBL -	3	0	EBL -	2	0
	EBT -	1	2077	EBT -	0	1554
	EBR -	87	62	EBR -	4	46
	WBL -	4	68	WBL -	2	47
	WBT -		2229	WBT -		1612
	WBR -		0	WBR -		0
	NBL -		0	NBL -		0
	NBT -		0	NBT -		0
	NBR -	37	20	NBR -	33	78
	SBL -		0	SBL -		0
	SBT -		0	SBT -		0
	SBR -	0	6	SBR -	0	0
Overall -	1		Overall -	1		
EBL -	10	0	EBL -	10	0	
EBT -	2	2435	EBT -	2	2435	
EBR -	24	36	EBR -	24	36	
WBL -	4	40	WBL -	4	40	
WBT -		2317	WBT -		2317	
WBR -		1	WBR -		1	
NBL -		0	NBL -		0	
NBT -		0	NBT -		0	
NBR -	3	79	NBR -	3	79	
SBL -		0	SBL -		0	
SBT -		0	SBT -		0	
SBR -	0	5	SBR -	0	5	
<b>NC-54 &amp; Burning Tree Dr (Signalized)</b>						
Future (2030) Traffic No Build	Overall -	50		Overall -	5	
	EBL -	7	21	EBL -	8	62
	EBT -	101	1994	EBT -	7	1539
	EBR -		48	EBR -		39
	WBL -	36	169	WBL -	9	97
	WBT -	15	2463	WBT -	1	1571
	WBR -		17	WBR -		12
	NBL -		28	NBL -		41
	NBT -	85	5	NBT -	95	7
	NBR -	28	173	NBR -	28	116
	SBL -		36	SBL -		23
	SBT -	99	22	SBT -	44	6
	SBR -		36	SBR -		36
Overall -	24		Overall -	24		
EBL -	15	51	EBL -	15	51	
EBT -	12	2479	EBT -	12	2479	
EBR -		21	EBR -		21	
WBL -	325	181	WBL -	325	181	
WBT -	13	2364	WBT -	13	2364	
WBR -		44	WBR -		44	
NBL -		43	NBL -		43	
NBT -	65	18	NBT -	65	18	
NBR -	49	190	NBR -	49	190	
SBL -		33	SBL -		33	
SBT -	65	24	SBT -	65	24	
SBR -		36	SBR -		36	

NC-54 & W Barbee Chapel Rd/Business Park Driveway (Signalized)									
Future (2030) Traffic No Build	Overall -	14		Overall -	15		Overall -	28	
	EBL -	69	224	EBL -	33	185	EBL -	54	187
	EBT -	11	2349	EBT -	4	1572	EBT -	14	2550
	EBR -	3	86	EBR -	1	43	EBR -	1	30
	WBL -	46	99	WBL -	6	41	WBL -	2	6
	WBT -	12	2605	WBT -	20	1670	WBT -	22	2338
	WBR -	0	41	WBR -	0	36	WBR -	0	16
	NBL -	106	17	NBL -	244	32	NBL -	643	86
	NBT -	36	3	NBT -	21	12	NBT -	18	8
	NBR -		2	NBR -		30	NBR -		51
	SBL -	58	5	SBL -	60	22	SBL -	55	31
	SBT -	20	9	SBT -	15	8	SBT -	11	1
SBR -		112	SBR -		175	SBR -		197	
NC-54 & Meadowmont Lane (Signalized)									
Future (2030) Traffic No Build	Overall -	22		Overall -	16		Overall -	43	
	EBL -	51	144	EBL -	74	128	EBL -	55	159
	EBT -	21	1505	EBT -	14	1280	EBT -	69	2117
	EBR -	3	182	EBR -	3	62	EBR -	2	75
	WBL -	44	560	WBL -	39	62	WBL -	33	55
	WBT -	17	2441	WBT -	7	1374	WBT -	19	1964
	WBR -	1	174	WBR -	0	127	WBR -	2	113
	NBL -	65	95	NBL -	69	31	NBL -	63	143
	NBT -	62	6	NBT -	39	18	NBT -	75	28
	NBR -	0	40	NBR -	0	71	NBR -	20	450
	SBL -	61	76	SBL -	67	152	SBL -	66	219
	SBT -	64	36	SBT -	61	26	SBT -	57	18
SBR -	11	132	SBR -	7	187	SBR -	33	227	
NC-54 & East Barbee Chapel Road (Signalized)									
Future (2030) Traffic No Build	Overall -	96		Overall -	19		Overall -	35	
	EBL -	8	15	EBL -	5	45	EBL -	60	132
	EBT -	69	2261	EBT -	8	1231	EBT -	15	1757
	EBR -	1	264	EBR -	0	127	EBR -	0	205
	WBL -	41	49	WBL -	26	27	WBL -	29	22
	WBT -	25	1551	WBT -	23	1304	WBT -	41	2074
	WBR -	2	186	WBR -	1	209	WBR -	20	842
	NBL -	57	162	NBL -	64	82	NBL -	59	125
	NBT -	53	44	NBT -	62	46	NBT -	62	118
	NBR -		16	NBR -		10	NBR -		26
	SBL -	408	677	SBL -	69	207	SBL -	146	283
	SBT -	378	99	SBT -	63	44	SBT -	136	68
SBR -		87	SBR -		53	SBR -		30	