



CLARK NEXSEN

NC 54 Multimodal Analysis - Town of Chapel Hill Section									
Delay Summary									
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)
NC-54 & Hamilton Road (Signalized)									
EBT -	21	28	35	12	20	17	20	33	27
WBT -	15	80	144	3	14	20	16	53	111
NBL -	82	588	167	87	632	117	77	395	175
NC-54 & Environ/Rogerson Dr (Signalized)									
EBT -	1	1	0	0	0	0	2	2	0
WBT -	0	0	0	0	0	0	0	0	0
NBR -	27	37	42	12	33	36	7	3	2
NC-54 & Burning Tree Dr (Signalized)									
EBT -	45	101	10	6	7	4	9	12	6
WBT -	9	15	4	1	1	2	9	13	2
NBT -	87	85	64	87	95	57	211	65	68
NC-54 & W Barbee Chapel Rd/Business Park Driveway (Signalized)									
EBT -	9	11	3	4	4	8	11	14	7
WBT -	10	12	7	20	20	4	18	22	25
NBL -	92	106	122	205	244	118	253	643	210
NC-54 & Meadowmont Lane (Signalized)									
EBT -	20	21	39	14	14	25	35	69	18
WBT -	12	17	11	7	7	4	12	19	2
NBL -	64	65	72	72	69	47	65	63	58
NC-54 & East Barbee Chapel Road (Signalized)									
EBT -	21	69	70	6	8	5	11	15	15
WBT -	25	25	27	21	23	23	32	41	41
SBL -	171	408	137	66	69	51	114	146	63

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						
Condition	AM Peak-Hour Delay (Sec)	Existing Volumes	Mid-Day Peak-Hour Delay (Sec)	Existing Volumes	PM Peak-Hour Delay (Sec)	Existing Volumes
NC-54 & Hamilton Road (Signalized)						
Existing (2016) Traffic	Overall -	20	Overall -	12	Overall -	22
	EBL - 8	23	EBL - 4	49	EBL - 23	50
	EBT - 21	1689	EBT - 12	1254	EBT - 20	1968
	EBR -	101	EBR - 0	36	EBR -	53
	WBL - 27	43	WBL - 2	64	WBL - 39	90
	WBT - 15	2096	WBT - 3	1299	WBT - 16	1904
	WBR -	19	WBR - 0	28	WBR -	61
	NBL - 82	117	NBL - 87	113	NBL - 77	148
	NBT - 41	28	NBT - 52	11	NBT - 47	25
	NBR - 52	89	NBR - 69	80	NBR - 62	102
	SBL - 43	53	SBL - 60	43	SBL - 56	86
	SBT - 45	31	SBT - 58	13	SBT - 52	30
	SBR -	31	SBR - 0	23	SBR -	41
NC-54 & Environ/Rogerson Dr (Signalized)						
Existing (2016) Traffic	Overall -	1	Overall -	0	Overall -	1
	EBL - 2	0	EBL - 2	0	EBL - 7	0
	EBT - 1	1806	EBT - 0	1351	EBT - 2	2117
	EBR - 20	54	EBR - 2	40	EBR - 6	31
	WBL - 3	59	WBL - 1	41	WBL - 3	35
	WBT -	1938	WBT -	1402	WBT -	2015
	WBR -	0	WBR -	0	WBR -	1
	NBL -	0	NBL -	0	NBL -	0
	NBT -	0	NBT -	0	NBT -	0
	NBR - 27	17	NBR - 12	68	NBR - 2	69
	SBL -	0	SBL -	0	SBL -	0
	SBT -	0	SBT -	0	SBT -	0
	SBR - 0	5	SBR -	0	SBR -	4
NC-54 & Burning Tree Dr (Signalized)						
Existing (2016) Traffic	Overall -	25	Overall -	4	Overall -	17
	EBL - 4	18	EBL - 5	54	EBL - 7	44
	EBT - 45	1734	EBT - 6	1338	EBT - 9	2156
	EBR -	42	EBR -	34	EBR -	18
	WBL - 33	147	WBL - 3	84	WBL - 211	157
	WBT - 9	2142	WBT - 1	1366	WBT - 9	2056
	WBR -	15	WBR -	10	WBR -	38
	NBL -	24	NBL -	36	NBL -	37
	NBT - 87	4	NBT - 87	6	NBT - 65	16
	NBR - 28	150	NBR - 25	101	NBR - 45	165
	SBL -	31	SBL -	20	SBL -	29
	SBT - 95	19	SBT - 39	5	SBT - 61	21
	SBR -	31	SBR -	31	SBR -	31

NC-54 & W Barbee Chapel Rd/Business Park Driveway (Signalized)									
Existing (2016) Traffic	Overall -	11		Overall -	13		Overall -	19	
	EBL -	58	195	EBL -	18	161	EBL -	49	163
	EBT -	9	2043	EBT -	4	1367	EBT -	11	2217
	EBR -	2	75	EBR -	1	37	EBR -	1	26
	WBL -	24	86	WBL -	6	36	WBL -	2	5
	WBT -	10	2265	WBT -	20	1452	WBT -	18	2033
	WBR -	0	36	WBR -	0	31	WBR -	0	14
	NBL -	92	15	NBL -	205	28	NBL -	253	75
	NBT -	36	3	NBT -	23	10	NBT -	18	7
	NBR -		2	NBR -		26	NBR -		44
	SBL -	59	4	SBL -	61	19	SBL -	55	27
	SBT -	20	8	SBT -	16	7	SBT -	11	1
	SBR -		97	SBR -		152	SBR -		171
NC-54 & Meadowmont Lane (Signalized)									
Existing (2016) Traffic	Overall -	20		Overall -	16		Overall -	27	
	EBL -	53	125	EBL -	72	111	EBL -	56	138
	EBT -	20	1309	EBT -	14	1113	EBT -	35	1841
	EBR -	3	158	EBR -	2	54	EBR -	2	65
	WBL -	42	487	WBL -	43	54	WBL -	29	48
	WBT -	12	2123	WBT -	7	1195	WBT -	12	1708
	WBR -	1	151	WBR -	0	110	WBR -	1	98
	NBL -	64	83	NBL -	69	27	NBL -	63	124
	NBT -	61	5	NBT -	39	16	NBT -	63	24
	NBR -	0	35	NBR -	0	62	NBR -	17	391
	SBL -	61	66	SBL -	67	132	SBL -	65	190
	SBT -	63	31	SBT -	62	23	SBT -	57	16
	SBR -	9	115	SBR -	8	163	SBR -	29	197
NC-54 & East Barbee Chapel Road (Signalized)									
Existing (2016) Traffic	Overall -	43		Overall -	18		Overall -	28	
	EBL -	7	13	EBL -	3	39	EBL -	58	115
	EBT -	21	1961	EBT -	6	1052	EBT -	11	1495
	EBR -	0	192	EBR -	0	92	EBR -	0	170
	WBL -	15	5	WBL -	14	5	WBL -	17	11
	WBT -	25	1349	WBT -	21	1116	WBT -	32	1770
	WBR -	1	162	WBR -	1	182	WBR -	11	732
	NBL -	58	141	NBL -	65	71	NBL -	59	109
	NBT -	53	38	NBT -	62	40	NBT -	62	103
	NBR -		14	NBR -		9	NBR -		23
	SBL -	171	589	SBL -	66	180	SBL -	114	246
	SBT -	157	86	SBT -	59	38	SBT -	106	59
	SBR -		76	SBR -		46	SBR -		26

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
NC-54 & Hamilton Road (Signalized)						
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	
NC-54 & Environ/Rogerson Dr (Signalized)						
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	
NC-54 & Burning Tree Dr (Signalized)						
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

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			
NC-54 & Hamilton Road (Signalized)									
Future (2030) Traffic Build	Overall -	94	Overall -	23	Overall -	68			
	EBL -	170	278	EBL -	48	276	EBL -	159	268
	EBT -	35	1951	EBT -	17	1451	EBT -	27	2297
	EBR -		116	EBR -	0	41	EBR -		61
	WBL -	49	49	WBL -	14	74	WBL -	43	104
	WBT -	144	2419	WBT -	20	1503	WBT -	111	2224
	WBR -		274	WBR -	0	252	WBR -		280
	NBL -	167	135	NBL -	117	130	NBL -	175	170
	NBT -	34	32	NBT -	24	13	NBT -	37	29
	NBR -	40	102	NBR -	31	92	NBR -	46	117
	SBL -	38	113	SBL -	34	118	SBL -	49	187
	SBT -	45	88	SBT -	42	84	SBT -	53	123
	SBR -		88	SBR -	0	95	SBR -		135
NC-54 & Environ/Rogerson Dr (Signalized)									
Future (2030) Traffic Build	Overall -	1	Overall -	1	Overall -	0			
	EBL -	1	0	EBL -	2	0	EBL -	2	0
	EBT -	0	2077	EBT -	0	1554	EBT -	0	2435
	EBR -	72	62	EBR -	4	46	EBR -	29	36
	WBL -	1	68	WBL -	2	47	WBL -	1	40
	WBT -		2229	WBT -		1612	WBT -		2317
	WBR -		0	WBR -		0	WBR -		1
	NBL -		0	NBL -		0	NBL -		0
	NBT -		0	NBT -		0	NBT -		0
	NBR -	42	20	NBR -	36	78	NBR -	2	79
	SBL -		0	SBL -		0	SBL -		0
	SBT -		0	SBT -		0	SBT -		0
	SBR -	0	6	SBR -		0	SBR -	0	5
NC-54 & Burning Tree Dr (Signalized)									
Future (2030) Traffic Build	Overall -	9	Overall -	4	Overall -	8			
	EBL -	10	21	EBL -	6	62	EBL -	23	51
	EBT -	10	1994	EBT -	4	1539	EBT -	6	2479
	EBR -		48	EBR -		39	EBR -		21
	WBL -	40	169	WBL -	11	97	WBL -	83	181
	WBT -	4	2463	WBT -	2	1571	WBT -	2	2364
	WBR -		17	WBR -		12	WBR -		44
	NBL -		28	NBL -		41	NBL -		43
	NBT -	64	5	NBT -	57	7	NBT -	68	18
	NBR -	34	173	NBR -	16	116	NBR -	47	190
	SBL -		36	SBL -		23	SBL -		33
	SBT -	69	22	SBT -	28	6	SBT -	68	24
	SBR -		36	SBR -		36	SBR -		36

NC-54 & W Barbee Chapel Rd/Business Park Driveway (Signalized)									
Future (2030) Traffic Build	Overall -	10		Overall -	8		Overall -	20	
	EBL -	104	224	EBL -	25	185	EBL -	65	187
	EBT -	3	2349	EBT -	8	1572	EBT -	7	2550
	EBR -	0	86	EBR -	1	43	EBR -	0	30
	WBL -	30	99	WBL -	4	41	WBL -	6	6
	WBT -	7	2605	WBT -	4	1670	WBT -	25	2338
	WBR -	0	41	WBR -	0	36	WBR -	0	16
	NBL -	122	17	NBL -	118	32	NBL -	210	86
	NBT -	41	3	NBT -	17	12	NBT -	15	8
	NBR -		2	NBR -		30	NBR -		51
	SBL -	67	5	SBL -	43	22	SBL -	47	31
	SBT -	25	9	SBT -	13	8	SBT -	9	1
	SBR -		112	SBR -		175	SBR -		197
NC-54 & Meadowmont Lane (Signalized)									
Future (2030) Traffic Build	Overall -	26		Overall -	17		Overall -	17	
	EBL -	60	144	EBL -	46	128	EBL -	74	159
	EBT -	39	1505	EBT -	25	1280	EBT -	18	2117
	EBR -	7	182	EBR -	2	62	EBR -	0	75
	WBL -	52	560	WBL -	43	62	WBL -	30	55
	WBT -	11	2441	WBT -	4	1374	WBT -	2	1964
	WBR -	0	174	WBR -	0	127	WBR -	0	113
	NBL -	72	95	NBL -	47	31	NBL -	58	143
	NBT -	70	6	NBT -	28	18	NBT -	63	28
	NBR -	2	40	NBR -	2	71	NBR -	19	450
	SBL -	66	76	SBL -	46	152	SBL -	72	219
	SBT -	70	36	SBT -	43	26	SBT -	58	18
	SBR -	17	132	SBR -	9	187	SBR -	29	227
NC-54 & East Barbee Chapel Road (Signalized)									
Future (2030) Traffic Build	Overall -	61		Overall -	16		Overall -	30	
	EBL -	6	15	EBL -	3	45	EBL -	43	132
	EBT -	70	2261	EBT -	5	1231	EBT -	15	1757
	EBR -	1	264	EBR -	1	127	EBR -	0	205
	WBL -	26	49	WBL -	12	27	WBL -	13	22
	WBT -	27	1551	WBT -	23	1304	WBT -	41	2074
	WBR -	1	186	WBR -	1	209	WBR -	14	842
	NBL -	105	162	NBL -	52	82	NBL -	76	125
	NBT -	94	44	NBT -	49	46	NBT -	94	118
	NBR -		16	NBR -		10	NBR -		26
	SBL -	137	677	SBL -	51	207	SBL -	63	283
	SBT -	126	99	SBT -	45	44	SBT -	61	68
	SBR -		87	SBR -		53	SBR -		30