

Historic and Projected Traffic Counts and Volume-to-Capacity Ratio

Selected Roadways in the DCHC MPO

I-85 (From I-40 to the Durham County Line)									
Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
I-40 (Exit 163)	Old NC 86/Churton (Exit 164)	38,000	36,000	40,000	37,000	39,000	41,000	36,000	41,000
Old NC 86/Churton (Exit 164)	NC 86 (Exit 165)	43,000	41,000	46,000	43,000	45,000	47,000	38,000	44,000
NC 86 (Exit 165)	US 70 (Exit 170)	40,000	39,000	43,000	41,000	43,000	45,000	37,000	43,000
US 70 (Exit 170)	Durham County Line	49,000	47,000	52,000	49,000	51,000	53,000	42,000	50,000

Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity
I-40 (Exit 163)	Old NC 86/Churton (Exit 164)	38,000	124,380	0.31	62,220	0.50
Old NC 86/Churton (Exit 164)	NC 86 (Exit 165)	43,000	82,920	0.52	66,250	0.80
NC 86 (Exit 165)	US 70 (Exit 170)	40,000	82,920	0.48	75,030	0.90
US 70 (Exit 170)	Durham County Line	49,000	82,920	0.59	88,885	1.07

* Durham County Line is between US 70 and NC 147 Exits

Following notes are relevant for all tables in this document:

Note 1: Capacity is for Level of Service (LOS) E

Note 2: All 2035 count values found by an approximate average of several count values in the 2035 E+C Model over a stretch of the given road segment.

Note 3: All 2005 Capacity values found by using the 2005 Triangle Regional Model or the DCHC capacity tables

E+C = Existing roadway network plus any improvements under construction in 2007

N/A = Not Available

Volume/Capacity (V/C) Legend

< .60
.61 to .79
.80 to .99
1.0+

I-85 (From US 70 to Red Mill Road)									
Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
US 70 Bypass (Exit 178)	Club/Ferrell (Exit 179)	49,000	43,000	46,000	44,000	40,000	39,000	36,000	40,000
Club/Ferrell (Exit 179)	Glen School (Exit 180)	46,000	41,000	44,000	43,000	40,000	39,000	36,000	42,000
Glen School (Exit 180)	Red Mill (Exit 182)	44,000	40,000	44,000	42,000	41,000	40,000	38,000	44,000
Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity			
US 70 Bypass (Exit 178)	Club/Ferrell (Exit 179)	49,000	87,640	0.56	98,425	1.12			
Club/Ferrell (Exit 179)	Glen School (Exit 180)	46,000	82,920	0.55	89,275	1.08			
Glen School (Exit 180)	Red Mill (Exit 182)	44,000	82,920	0.53	87,495	1.06			

I-40 (From I-85 to the Durham County Line)

Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
US 15-501 (Exit 270)	NC 86/MLK (Exit 266)	69,000	63,000	68,000	59,000	56,000	51,000	56,000	56,000
NC 86/MLK (Exit 266)	New Hope Church (Exit 263)	67,000	61,000	65,000	58,000	55,000	52,000	55,000	55,000
New Hope Church (Exit 263)	Old NC 86 (Exit 261)	64,000	58,000	62,000	56,000	52,000	50,000	52,000	54,000
Old NC 86 (Exit 261)	I-85 (Exit 259)	58,000	52,000	54,000	49,000	46,000	45,000	45,000	47,000

Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity
US 15-501 (Exit 270)	NC 86/MLK (Exit 266)	69,000	85,640	0.81	101,215	1.18
NC 86/MLK (Exit 266)	New Hope Church (Exit 263)	67,000	82,920	0.81	97,225	1.17
New Hope Church (Exit 263)	Old NC 86 (Exit 261)	64,000	82,920	0.77	85,625	1.03
Old NC 86 (Exit 261)	I-85 (Exit 259)	58,000	82,920	0.70	78,895	0.95

* US 15-501 is close to the Orange and Durham County Line

NC 54 (From NC 55 to I-40 (Near Chapel Hill))

Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
NC 55/Apex Hwy	Revere	20,000	N/A	19,000	N/A	19,000	N/A	22,000	N/A
Revere	Barbee	17,000	N/A	18,000	N/A	16,000	N/A	17,000	N/A
Barbee	Fayetteville	16,000	N/A	16,000	N/A	17,000	N/A	16,000	N/A
Fayetteville	Southpoint Crossing Dr	22,000	N/A	23,000	N/A	N/A	N/A	33,000	N/A
Southpoint Crossing Dr	NC 751/Hope Valley	18,000	N/A	16,000	N/A	15,000	N/A	16,000	N/A
NC 751/Hope Valley	I-40	18,000	N/A	19,000	N/A	18,000	N/A	18,000	N/A

Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity
NC 55/Apex Hwy	Revere	20,000	17,460	1.15	21,750	1.25
Revere	Barbee	17,000	17,460	0.97	22,250	1.27
Barbee	Fayetteville	16,000	17,460	0.92	16,610	0.95
Fayetteville	Southpoint Crossing Dr	22,000	43,200	0.51	23,650	0.55
Southpoint Crossing Dr	NC 751/Hope Valley	18,000	17,460	1.03	23,650	1.35
NC 751/Hope Valley	I-40	18,000	17,460	1.03	21,000	1.20

I-40 (From NC 54 (Near Chapel Hill) to NC 55)									
Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
NC 54 (Exit 273)	NC 751 (Exit 274)	113,000	105,000	108,000	95,000	91,000	81,000	88,000	84,000
NC 751 (Exit 274)	Fayetteville Rd (Exit 276)	111,000	103,000	105,000	92,000	87,000	80,000	86,000	84,000
Fayetteville Rd (Exit 276)	NC 55/Apex Hwy (Exit 278)	121,000	111,000	113,000	99,000	95,000	89,000	93,000	89,000
Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity			
NC 54 (Exit 273)	NC 751 (Exit 274)	113,000	128,460	0.88	154,925	1.21			
NC 751 (Exit 274)	Fayetteville Rd (Exit 276)	111,000	128,460	0.86	149,825	1.17			
Fayetteville Rd (Exit 276)	NC 55/Apex Hwy (Exit 278)	121,000	128,460	0.94	164,000	1.28			
* This parallel route (I-40) was analyzed to compare to NC 54 (from NC 55 to I-40 near Chapel Hill)									
**Edited 2005 Capacity Pk Hr Dir Column Values from 4,282 to 6,423 (same capacity amount used for a similar 3 lane stretch of I-40 between Gorman St & US 1/I-440 in Raleigh)									

NC 54 (From I-40 to Barbee Chapel Road (near Meadowmont))

Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
Farrington Rd	Huntingridge	46,000	N/A	45,000	N/A	43,000	N/A	42,000	N/A
Huntingridge	Barbee Chapel Rd	42,000	N/A	42,000	N/A	42,000	N/A	44,000	N/A

Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity
Farrington Rd	Huntingridge	46,000	43,200	1.06	50,490	1.17
Huntingridge	Barbee Chapel Rd	42,000	35,000	1.20	55,245	1.58

**I-40 just before Farrington Road

Fayetteville Road (From Woodcroft Parkway to Riddle Road)

Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
Woodcroft Pkwy	Obie Dr	18,000	N/A	18,000	N/A	15,000	N/A	15,000	N/A
Obie Dr	Barbee Rd	17,000	N/A	17,000	N/A	15,000	N/A	15,000	N/A
Barbee Rd	MLK Pkwy	20,000	N/A	21,000	N/A	18,000	N/A	19,000	N/A
MLK Pkwy	Corwallis Rd	14,000	N/A	15,000	N/A	15,000	N/A	15,000	N/A
Corwallis Rd	Riddle Rd	21,000	N/A	23,000	N/A	20,000	N/A	19,000	N/A

Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity
Woodcroft Pkwy	Obie Dr	18,000	17,460	1.03	22,130	1.27
Obie Dr	Barbee Rd	17,000	17,460	0.97	20,275	1.16
Barbee Rd	MLK Pkwy	20,000	20,700	0.97	25,045	1.21
MLK Pkwy	Corwallis Rd	14,000	20,700	0.68	18,930	0.91
Corwallis Rd	Riddle Rd	21,000	25,900	0.81	31,315	1.21

NC 751 (From US 64 in Chatham County to Fayetteville Road in Durham County)									
Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
US 64	Lewter Shop Rd	7,300	7,700	8,900	9,500	10,000	9,000	8,900	7,400
Lewter Shop Rd	Marthas Chapel Rd	7,700	8,100	9,600	10,000	11,000	9,600	9,700	8,200
Marthas Chapel Rd	O Kelly Chapel Rd	N/A	N/A	9,500	N/A	11,000	N/A	8,800	N/A
O Kelly Chapel Rd	Fayetteville Rd	11,000	N/A	12,000	N/A	12,000	N/A	9,900	N/A
Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity			
US 64	Lewter Shop Rd	7,300	21,400	0.34	23,040	1.08			
Lewter Shop Rd	Marthas Chapel Rd	7,700	21,400	0.36	21,910	1.02			
Marthas Chapel Rd	O Kelly Chapel Rd	9,500	21,400	0.44	21,000	0.98			
O Kelly Chapel Rd	Fayetteville Rd	11,000	21,400	0.51	31,870	1.49			

* 2009 capacity based on rural, 55mph with turn bays.

NC 55 (From I-40 to US 64)									
Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
I-40	NC 54	30,000	N/A	27,000	N/A	26,000	N/A	31,000	N/A
NC 54	Sedwick	16,000	N/A	15,000	N/A	N/A	N/A	21,000	N/A
Sedwick	TW Alexander	16,000	N/A	15,000	N/A	N/A	N/A	14,000	N/A
TW Alexander	Hopson	18,000	N/A	17,000	N/A	N/A	N/A	15,000	N/A
Hopson	Kit Creek	17,000	N/A	17,000	N/A	N/A	N/A	15,000	N/A
Hopson 2	Kit Creek 2	17,000	N/A	18,000	N/A	N/A	N/A	16,000	N/A
Kit Creek	Carpenter Fire Station	29,000	N/A	25,000	N/A	N/A	N/A	16,000	N/A
Carpenter Fire Station	High House/Green Level	30,000	N/A	28,000	N/A	N/A	N/A	N/A	N/A
High House/Green Level	Jenks/Old Jenks	29,000	N/A	27,000	N/A	19,000	N/A	N/A	N/A
Jenks/Old Jenks	US 64	30,000	N/A	N/A	N/A	26,000	N/A	25,000	N/A

Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity
I-40	NC 54	30,000	35,000	0.86	65,200	1.86
NC 54	Sedwick	16,000	35,000	0.46	48,840	1.40
Sedwick	TW Alexander	16,000	35,000	0.46	48,130	1.38
TW Alexander	Hopson	18,000	35,000	0.51	52,480	1.50
Hopson	Kit Creek	17,000	35,000	0.49	50,000	1.43
Hopson 2	Kit Creek 2	17,000	35,000	0.49	50,000	1.43
Kit Creek	Carpenter Fire Station	29,000	35,000	0.83	60,000	1.71
Carpenter Fire Station	High House/Green Level	30,000	35,000	0.86	68,000	1.94
High House/Green Level	Jenks/Old Jenks	29,000	43,200	0.67	49,250	1.14
Jenks/Old Jenks	US 64	30,000	43,200	0.69	44,420	1.03

* NC 55 was analyzed as a parallel route to NC 751

**Hopson Creek to Kit Creek has 2 different AADT traffic count points within its boundaries

***Capacity increased to 1,750 from original model values highlighted to right of table

Churton Street (From NC 86 to I-85)									
Segment Begin	Segment End	2009 AADT	2008 AADT	2007 AADT	2006 AADT	2005 AADT	2004 AADT	2003 AADT	2002 AADT
US 70 Business/NC 86	Orange Grove	17,000	N/A	18,000	N/A	16,000	N/A	19,000	N/A
Orange Grove	I-85	19,000	N/A	18,000	N/A	18,000	N/A	20,000	N/A
Segment Begin	Segment End	2009 AADT	2005 Daily Capacity (2 Way)	2009 V/C Using 2005 Capacity	2035 Model Counts E+C	2035 V/C Using 2005 Capacity			
US 70 Business/NC 86	Orange Grove	17,000	14,520	1.17	13,075	0.90			
Orange Grove	I-85	19,000	15,800	1.20	23,190	1.47			