

5 – Crashes

Purpose

The crash safety data identifies intersections and roadway sections that are possibly deficient in terms of safety. At a minimum, the final CTP will identify these intersections and roadway sections in the problem statements of the roadways that are selected for improvements. In addition, the MPO and NCDOT will consider creating a list of individual intersections for further study and possible improvements.

Background

This crash data is from the North Carolina Highway Safety Improvement Program (HSIP). Using data from 2009 through 2013, it shows intersections and roadway sections that meet at least one of several warrants to be classified as potentially hazardous (PH).

It is helpful to understand the purpose of HSIP while considering how the CTP might use this safety information. The purpose of the HSIP is to provide a systematic process that identifies, reviews and addresses specific traffic safety concerns on NCDOT roadways. The basic program steps include:

- A system of safety warrants is developed to identify locations that are possibly deficient.
- Locations that meet warrant criteria are categorized as potentially hazardous (PH) locations.
- Detailed crash analyses are performed on the PH locations with the more severe and correctable crash patterns.
- The Regional Traffic Engineering staff completes engineering field investigations, cost studies and other reviews to develop safety recommendations.
- Depending on the cost and nature of the countermeasures, the investigations may result in requesting adjustments or repairs, developing Spot Safety or Hazard Elimination projects, making adjustments to current TIP project plans or using other funding sources to initiate countermeasures.
- Selected projects are evaluated to determine the effectiveness of countermeasures.

Additional HSIP information can be found at the Web page for the 2014 NC Highway Safety Improvement Program (HSIP) report -- <http://tinyurl.com/2014safetyreport> (See pages 5-7 for Safety Warrant descriptions.)

Content

- The crash map is on page 5-3.
- The table of intersections is on page 5-4 through 5-6.
- The table of roadway sections is on page 5-7 through 5-8.
- The following link provides an interactive online map of this crash data sponsored by NCDOT -- <http://tinyurl.com/mo2okgg>

NOTE: Crash Crash location information is from the NCDOT-Traffic Safety Systems Section, 2014 NC Highway Safety Improvement Program (HSIP) report (<http://tinyurl.com/2014safetyreport>). See pages 5-7 for Safety Warrant descriptions. This map indicate AUTO ONLY crashes.

DRAFT
Working Copy
Crash Locations
that Exceed One
Safety Warrant
2009-2013

**Durham-Chapel Hill-
 Carrboro MPO**

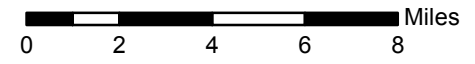
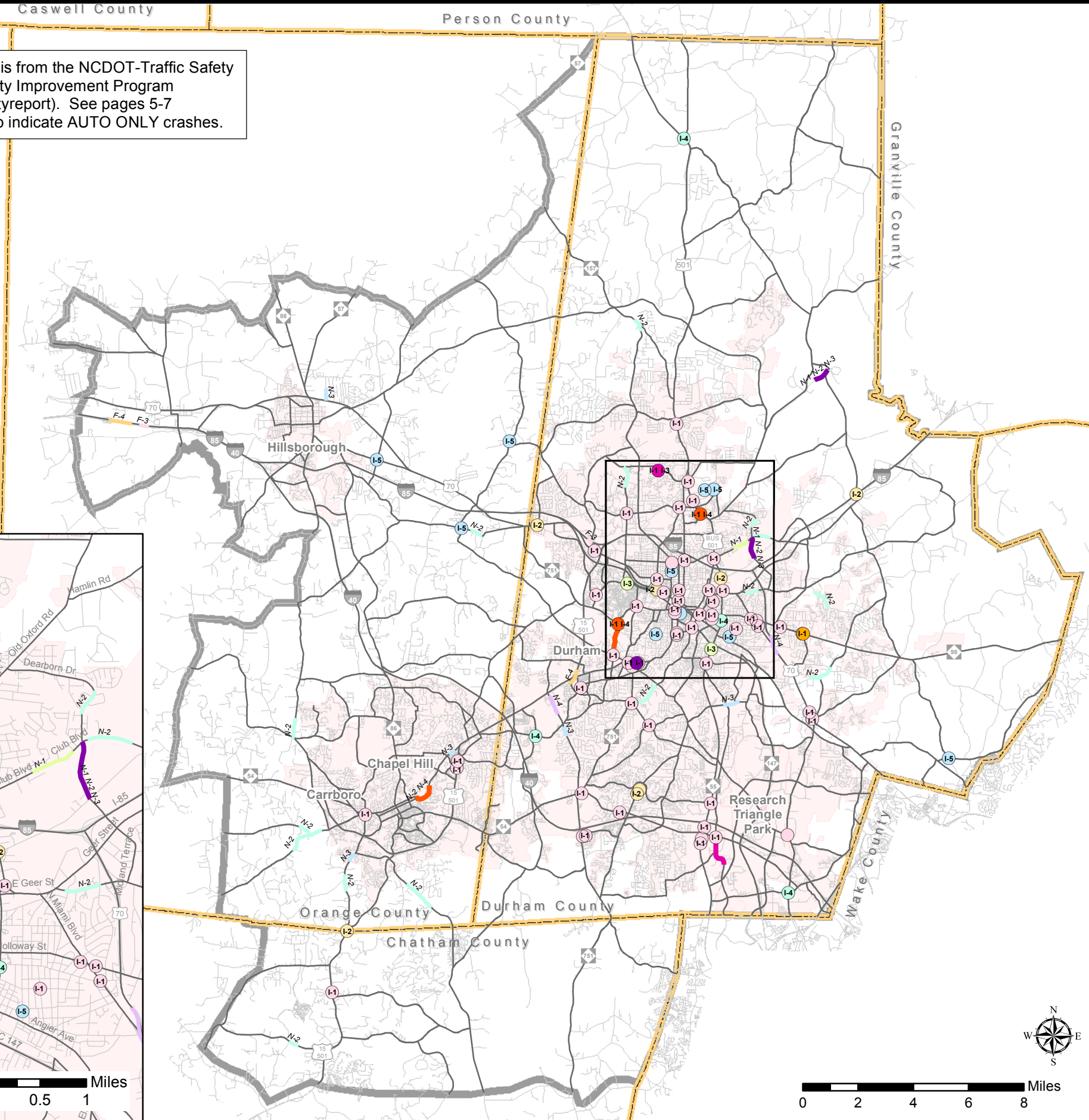
Map date: December 5, 2014

Legend

- Intersection Safety Warrants**
- I-1: Frontal Impact; I-2: Last Year Increase
 - I-1: Frontal Impact; I-3: Frequency with a Severity Index Minimum
 - I-1: Frontal Impact; I-4: Night Location
 - I-2: Last Year Increase; I-4: Night Location
 - I-1: Frontal Impact
 - I-2: Last Year Increase
 - I-3: Frequency with a Severity Index Minimum
 - I-4: Night Location
 - I-5: Chronic Crossing Pattern

- Section Safety Warrants**
- N-1: Run Off Road during Wet Road Conditions; N-2: Run Off Road; N-3: Wet Road Condition (Non-Freeway)
 - N-2: Run Off Road; N-3: Wet Road Condition (Non-Freeway)
 - N-2: Run Off Road; N-4: Non-Intersection Night Location (Non-Freeway)
 - F-3: Wet Road Condition (Freeway)
 - F-4: Night Location (Freeway)
 - N-1: Run Off Road during Wet Road Conditions (Non-Freeway)
 - N-2: Run Off Road (Non-Freeway)
 - N-3: Wet Road Condition (Non-Freeway)
 - N-4: Non-Intersection Night Location (Non-Freeway)
 - DCHC MPO Planning Boundary
 - County Boundary
 - Municipal Boundary

Downtown Durham Inset



Base map date: September 18, 2009

2014 HSIP - Potentially Hazardous Intersection Locations

Crash Locations that Potentially Exceed at Least One Safety Warrant (2009-2013)

INTERSECTION LOCATIONS

No.	Road A	Road B	No. Crashes	Severity Index	Warrant				
					I-1 Frontal Impact	I-2 Last Year Increase	I-3 Frequency with a Severity Index Minimum	I-4 Night Location	I-5 Chronic Crossing Pattern
CHATHAM									
1	US 15	LYSTRA RD (SR 1721)	25	4.55	Y				
DURHAM									
2	ANDERSON ST	DUKE UNIVERSITY RD	30	2.97	Y				
3	ARCHDALE DR (SR 2295)	MARTIN LUTHER KING JR PKWY	39	2.9	Y				
4	BROAD ST (SR 1322)	W MARKHAM AVE	33	2.35	Y				
5	CARPENTER POND RD (SR 1901)	OLIVE BRANCH RD (SR 1905)	26	7.33					Y
6	DOWD ST	N ELIZABETH ST	31	5.35	Y				
7	E CORNWALLIS RD (SR 1121)	S MIAMI BLVD (SR 1959)	40	3.59	Y				
8	ERWIN RD (SR 1320)	TRENT DR	37	6.3			Y		
9	FAYETTEVILLE RD (SR 1118)	GENEVA DR	29	3.55		Y			
10	HILLANDALE RD (SR 1321)	W CARVER ST (SR 1407)	32	2.39	Y				
11	HORTON RD (SR 1443)	STADIUM DR	50	6.4	Y		Y		
12	HYDE PARK AVE	E MAIN ST	32	4.24					Y
13	I 85	RED MILL RD (SR 1632)	35	4.17		Y			
14	JACKSON ST	WILLARD ST	30	2.73					Y
15	KENT ST	W LAKEWOOD AVE	41	4.25					Y
16	MARTIN LUTHER KING JR PKWY	ROXBORO ST	59	4.54	Y				
17	MEDICAL PARK DR	BEN FRANKLIN BLVD	20	3.59					Y
18	MORREENE RD (SR 1317)	ERWIN RD (SR 1320)	53	3.23	Y				
19	N BUCHANAN BLVD	W KNOX ST	48	4.4					Y
20	N DRIVER ST	TAYLOR ST	26	2.99	Y				
21	N DUKE ST (SR 1445)	W CLUB BLVD	56	3.25	Y				
22	N ELIZABETH ST	LIBERTY ST	28	3.38	Y				
23	N GREGSON ST (SR 1327)	W TRINITY AVE	28	3.38	Y				
24	NC 54	HOPSON RD (SR 1978)	34	4.05				Y	
25	NC 54	SOUTHPOINT CROSSING DR	26	2.99	Y				
26	NC 54	S ALSTON AVE (SR 1945)	30	1.99	Y				
27	NC 54	GARRETT RD	55	2.88	Y				
28	NC 55	CAMDEN AVE (SR 1671)	26	1.28		Y			
29	NC 55	SR 2205	29	5.14	Y				
30	NC 55	MEREDITH DR	61	2.21	Y				
31	NC 55	PARK FORTY PLAZA	38	2.75	Y				

*Any ranking of locations are for analysis and investigation purposes ONLY.

This list is not an effective "Top Ten Most Dangerous Locations in the State" type of list.

2014 HSIP - Potentially Hazardous Intersection Locations

Crash Locations that Potentially Exceed at Least One Safety Warrant (2009-2013)

INTERSECTION LOCATIONS

No.	Road A	Road B	No. Crashes	Severity Index	Warrant				
					I-1 Frontal Impact	I-2 Last Year Increase	I-3 Frequency with a Severity Index Minimum	I-4 Night Location	I-5 Chronic Crossing Pattern
32	NC 55	SR 1182	36	3.26	Y				
33	NC 55	DAYTON ST	42	6.02	Y				
34	NC 55	LINWOOD AVE	59	6.86			Y		
35	NC 55	LIBERTY ST	52	4.45				Y	
36	NC 55	AVONDALE DR (SR 1357)	46	3.41	Y				
37	NC 751	DUKE UNIVERSITY RD	27	1.82	Y			Y	
38	NC 751	W CORNWALLIS RD (SR 1308)	27	4.01	Y				
39	NC 98	HARDEE ST	45	3.8	Y				
40	NC 98	ADAMS ST	28	4.7	Y				
41	NC 98	LYNN RD EXT (SR 1919)	61	5.03	Y				
42	NC 98	SR 1844	28	3.38		Y		Y	
43	RENAISSANCE PKWY	LEONARDO DR	27	2.64	Y				
44	S DUKE ST (SR 1445)	W LAKEWOOD AVE	30	1.99	Y				
45	S GREGSON ST (SR 1361)	JACKSON ST	33	2.35	Y				
46	SW DURHAM PKWY (SR 1110)	OLD CHAPEL HILL RD (SR 2220)	35	4.22				Y	
47	SWIFT AVE (SR 1322)	W PETTIGREW ST	43	2.03		Y			
48	UNIVERSITY DR	WESTGATE DR	38	3.14	Y				
49	US 15BUS	W CORNWALLIS RD (SR 1308)	51	4.95	Y				
50	US 15BUS	S DUKE ST (SR 1445)	36	3.06	Y				
51	US 15BUS	S ROXBORO ST (SR 1365)	55	3.96	Y				
52	US 15BUS	NC 98	28	5.49	Y				
53	US 15BUS	E TRINITY AVE	33	3.69	Y				
54	US 15BUS SB COUPLET	S ROXBORO ST (SR 1365)	103	3.87	Y				
55	US 15BUS SB COUPLET	SR 1364	26	4.13	Y	Y			
56	US 501	OMEGA RD	37	2.8	Y				
57	US 501	QUAIL ROOST FARM RD (SR 1468)	23	2.61				Y	
58	US 501BUS	DAVIDSON AVE	53	2.4	Y				
59	US 501BUS	OLYMPIC AVE	27	5.73	Y			Y	
60	US 501BUS	FRASIER ST	28	2.59	Y				
61	US 501BUS	HORTON RD (SR 1443)	93	3.17	Y				
62	US 70	MARLY DR (SR 1957)	45	4.99	Y				
63	US 70	PEYTON AVE (SR 1957)	55	3.99	Y				
64	US 70BUS	SPARGER RD (SR 1400)	31	3.86		Y			

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This list is not an effective "Top Ten Most Dangerous Locations in the State" type of list.

2014 HSIP - Potentially Hazardous Intersection Locations

Crash Locations that Potentially Exceed at Least One Safety Warrant (2009-2013)

INTERSECTION LOCATIONS

No.	Road A	Road B	No. Crashes	Severity Index	Warrant				
					I-1	I-2	I-3	I-4	I-5
					Frontal Impact	Last Year Increase	Frequency with a Severity Index Minimum	Night Location	Chronic Crossing Pattern
65	US 70BUS	CHRISTIAN AVE	59	1.88	Y				
66	US 70BUS	BUCHANAN BLVD	35	2.48				Y	
67	US 70BUS	N GREGSON ST (SR 1327)	54	2.64	Y				
68	US 70BUS	N ELIZABETH ST	26	2.71	Y				
69	US 70BUS	RAYNOR ST	40	3.04	Y				
70	US 70BUS	LIBERTY ST	30	3.47	Y				
71	US 70BUS WB COUplet	N GREGSON ST (SR 1327)	56	2.59	Y				
72	W CARVER ST (SR 1407)	BROAD ST	28	3.38	Y				
73	W CHAPEL HILL ST (SR 1127)	S GREGSON ST (SR 1327)	35	3.33	Y				
74	W CLUB BLVD	GUESS RD	34	2.74	Y				
75	W CORNWALLIS RD (SR 1158)	HOPE VALLEY RD	36	3.26	Y				
ORANGE									
76	MAIN ST (SR 1010)	HILLSBOROUGH RD (SR 1772)	26	2.99	Y				
77	OLD NC 10 (SR 1710)	MT HERMON CHURCH RD (SR 1713)	20	8.86					Y
78	PLEASANT GREEN RD (SR 1567)	COLE MILL RD (SR 1569)	20	7.38					Y
79	US 15	SMITH LEVEL RD (SR 1919)	36	2.44		Y			
80	US 15	WILLOW DR	67	4.89	Y				
81	US 15	ELLIOT RD	52	3.13	Y				
82	US 70BUS	LAWRENCE RD (SR 1709)	36	4.08					Y

NOTE: Crash location information is from the NCDOT-Traffic Safety Systems Section, 2014 NC Highway Safety Improvement Program (HSIP) report (<http://tinyurl.com/2014safetyreport>). See pages 5-7 for Safety Warrant descriptions.

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2014 HSIP - Potentially Hazardous Section Locations

Crash Locations that Potentially Exceed at Least One Safety Warrant (2009-2013)

SECTION LOCATIONS

					Warrant							
					F-1	F-2	F-3	F-4	N-1	N-2	N-3	N-4
					Freeway				Non-Freeway			
No.	Road A	Road B	No. Crashes	Severity Index	Run Off Road during Wet Road Conditions	Run Off Road	Wet Road Condition	Night Location	Run Off Road during Wet Road Conditions2	Run Off Road2	Wet Road Condition2	Non-Intersection Night Location
CHATHAM												
1	ANDREWS STORE RD (SR 1528)	PARKER HERNDON RD (SR 1526)	16	3.78						Y		
DURHAM												
2	COOK RD	DUNN AVE	80	3.22						Y		
3	GLENBROOK DR	DUBONNETT PL	20	2.11						Y		
4	I 85	COLE MILL RD (SR 1401)	30	1.99			Y					
5	NC 147	E CORNWALLIS RD (SR 1121)	30	2.23			Y					
6	NC 157 (GUESS RD)	MILTON RD (SR 1456)	15	14.6						Y		
7	NC 751 (ACADEMY RD)	PINECREST RD	34	4.97						Y		Y
8	GARRETT RD (SR 1116)	CAVALIER AVE	24	2.54							Y	
9	GARRETT RD (SR 1116)	MILLENNIUM DR	19	1.78								Y
10	RIDDLE RD (SR 1171)	S BRIGGS AVE	28	2.59							Y	
11	HILLANDALE RD (SR 1321)	PEPPERTREE ST	36	3.06						Y		
12	DEARBORN DR (SR 1666)	DEER RUN	19	4.51						Y		
13	E CLUB BLVD (SR 1669)	JONES PARK DR	15	2.97						Y		
14	E CLUB BLVD (SR 1669)	KISS DR	30	3.71					Y			
15	MIDLAND TERRACE (SR 1709)	CUSTOM DR	26	3.85					Y	Y	Y	
16	TEKNIKA PKWY (SR 1794)	RED MILL RD (SR 1632)	15	3.96					Y	Y	Y	
17	CHEEK RD (SR 1800)	ANDOVER DR	18	3.47						Y		
18	S MINERAL SPRINGS RD / PLEASANT DR (SR 1815)	S MINERAL SPRINGS RD (SR 1917)	27	4.01							Y	
19	CLAYTON RD (SR 1825)	GLENROSE DR	21	7.43						Y		
20	S ALSTON AVE (SR 1945)	SEDWICK RD (SR 1977)	37	3.2						Y	Y	
21	S ROXBORO ST / ARCHDALE DR (SR 2295)	OAK RIDGE BLVD	25	3.07						Y		
22	US 15	US 15BUS SB COUplet	33	1.9				Y				
23	US 70	US 70BUS WB COUplet	25	1.89								Y
24	W WOODCROFT PKWY	SANDSTONE RIDGE DR	22	3.69							Y	
ORANGE												
25	FRANKLIN ST (SR 1010)	CAROLINA AVE	61	3.18						Y		Y
26	FRANKLIN ST (SR 1010)	MILTON AVE	41	2.62							Y	
27	I 40	BUCKHORN RD (SR 1114)	43	4.31				Y				

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2014 HSIP - Potentially Hazardous Section Locations

Crash Locations that Potentially Exceed at Least One Safety Warrant (2009-2013)

28	I 40	MT WILLING RD (SR 1120)	30	2.97			Y				
29	JONES FERRY RD (SR 1942)	CRYSTAL SPRINGS CT	29	2.79					Y		
30	JONES FERRY RD / OLD GREENSBORO RD (SR 1005)	OLD SCHOOL RD (SR 1941)	26	15.5					Y		
31	MT CARMEL CHURCH RD (SR 1008)	PARKER RD (SR 1916)	31	5.12					Y		
32	OLD NC 10	MURPHY SCHOOL RD (SR 1714)	17	2.74					Y		
33	OLD NC 86	STONEY HILL RD	18	3.06					Y		
34	ORANGE HIGH SCHOOL RD (SR 1588)	US 70	17	6.76						Y	
35	SMITH LEVEL RD (SR 1919)	ROCK HAVEN RD	15	3.47						Y	
36	SMITH LEVEL RD (SR 1919)	NORTHSIDE DR (SR 1964)	15	2.97					Y		

BOLD = Section locations that are not included in the CTP Study Roads.

Yellow fill = Not shown on map.

NOTE: Crash location information is from the NCDOT-Traffic Safety Systems Section, 2014 NC Highway Safety Improvement Program (HSIP) report (<http://tinyurl.com/2014safetyreport>).

See pages 5-7 for safety warrant details.