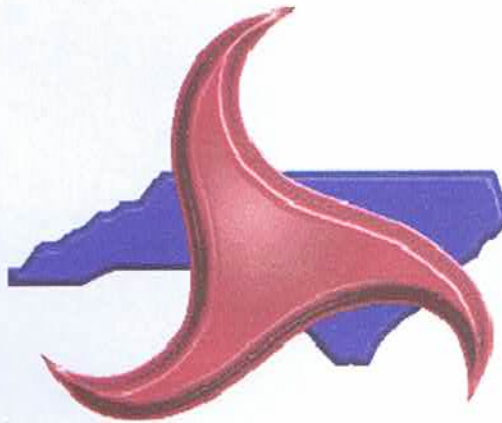


# Bridge Design Speed Investigation

**220255**

Structure #255 on SR 1207 (Wood Road) over Branch

Cleveland County



Document Prepared By:

Ramey Kemp & Associates, Inc.  
8307 University Executive Park Drive, Suite 260  
Charlotte, NC 28262

June 18, 2012

**Principal Investigator & Project Manager**

Jacob D. Carpenter, PE  
Regional Manager



# Bridge and Approach Investigation Checklist

Project 17BP.12.R.22

Description Bridge #255 over Branch

Route SR 1207 (Wood Road)

Division 12

County Cleveland

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Existing Speed Limit 55 ☐ Posted ☒ Statutory

Reasonable & Comfortable Passenger Car Speed 55

Speed Data Observed estimated speeds of 50-60 mph.

Ball Bank Speed Study 50 mph: EB - 8, WB - 9  
55 mph: EB - 11, WB - 12 - Bridge speed good at 55 mph per BBI  
60 mph: EB - 13, WB - 14

Warning Signs at Bridge 4 Bridge end delineators, 2 Weight limit signs (25 ton SV, 36 ton TTST)

Roadside Development Residential, Wooded, Farmland

ADT History 510 vpd (2009)

Pedestrian/Bicycle Traffic Minimal expected

Bridge and Approach Digital Photos Attached

Approach Lane Width 8 ft

Approach Shoulder Width 0-1 ft paved + 8+ ft grass  
Shoulder Type paved + grass

Lane Width (existing bridge) 8.5 ft

Shoulder width (existing bridge) 3.5 ft (~24 ft total width)

Strategic Corridor / Thoroughfare Designation and Recommended Cross Section SR 1207 is classified as a rural local facility in the Statewide Functional Classification System. 2-lane cross-section recommended.

Crash History and Safety Considerations Crash analysis completed for 1/1/2002 to 12/31/2011. One collision reported; single vehicle collision with a tree.

Comments Curve west of bridge, bridge in sag.

Reasonable Bridge Speed 55

Investigated by: Jacob D. Carpenter, PE

Reviewed by: 

**County:** Cleveland

**Route:** SR 1207 (Wood Road)

**Date:** 4/16/12

**Northwestbound**



**Northwestbound**

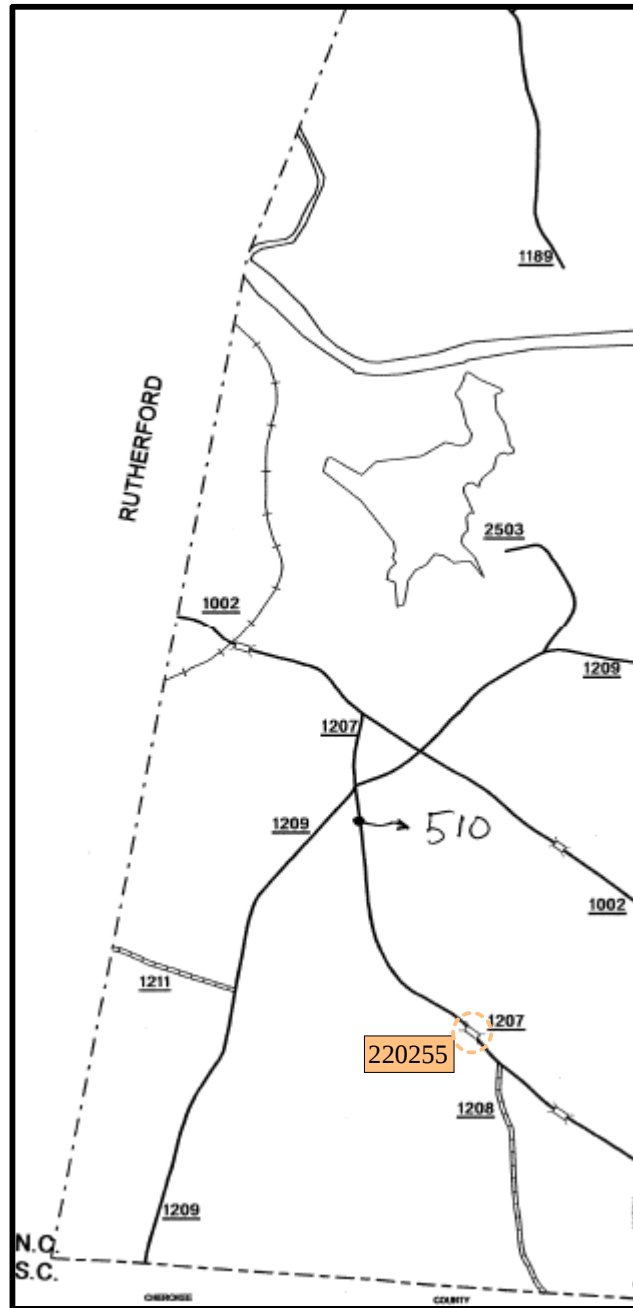


**Southeastbound**



**Southeastbound**





Bridge Location Map - Bridge #220255

# Bridge Approach Speed Crash Analysis Request

Order # 41000018016

500 feet on Both Sides of Bridge Number 255 on Secondary Route 1207 (McGraw Road) over  
Branch in Cleveland County

Document Prepared By:

Safety Planning Group  
Traffic Safety Systems Management Unit  
Transportation Mobility and Safety Division  
North Carolina Department of Transportation

**Note:** The crash statistics have been generated and are available through North Carolina's Crash Database. This database provides an inventory of **reported** crashes on record that have occurred at this location. Please note that many traffic crashes go unreported for a variety of reasons, and this report simply provides a listing of all crashes on record that occurred within 0 feet of the section described above.

**North Carolina Department of Transportation  
Traffic Engineering Accident Analysis System  
Strip Analysis Report**

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**Study Criteria Summary**

**County:** CLEVELAND      **City:** All and Rural  
**Date:** 01/01/2002    **to** 12/31/2011      **Study:** 41000018016  
**Location:** 500 feet on Both Sides of Bridge Number 255 on Secondary Route 1207 (McGraw Road) over Branch

**Report Details**

| Acc No                                                                                                                    | Crash ID  | Milepost | Date                | Accident Type | Total Damage | Injuries |   |   |   | Condition |   |   | Road |    | Trfc Ctl |    |
|---------------------------------------------------------------------------------------------------------------------------|-----------|----------|---------------------|---------------|--------------|----------|---|---|---|-----------|---|---|------|----|----------|----|
|                                                                                                                           |           |          |                     |               |              | F        | A | B | C | R         | L | W | Ch   | Ci | Dv       | Op |
| 1                                                                                                                         | 102981502 | 1.570    | 10/09/2010<br>02:32 | FIXED OBJECT  | \$ 5500      | 0        | 1 | 2 | 0 | 1         | 5 | 1 | 3    | 0  | 13       | 1  |
| <b>Unit    1 : 1      Alchl/Drgs:   1      Speed:   60 MPH   Dir:   N      Veh Mnvr/Ped Actn:   4      Obj Strk:   33</b> |           |          |                     |               |              |          |   |   |   |           |   |   |      |    |          |    |

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**Legend for  
Report Details:**

Acc No - Accident Number  
Injuries: F - Fatal, A - Class A, B - Class B, C - Class C  
Condition: R - Road Surface, L - Ambient Light, W - Weather  
Rd Ch - Road Character  
Rd Ci - Roadway Contributing Circumstances  
Trfc Ctl - Traffic Control: Dv - Device, Op - Operating  
Alchl/Drgs - Alcohol Drugs Suspected  
Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action  
Obj Strk - Object Struck

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Traffic Engineering Accident Analysis System  
Strip Analysis Report

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**Summary Statistics**

**High Level Crash Summary**

| <b>Crash Type</b>                 | <b>Number of<br/>Crashes</b> | <b>Percent<br/>of Total</b> |
|-----------------------------------|------------------------------|-----------------------------|
| Total Crashes                     | 1                            | 100.00                      |
| Fatal Crashes                     | 0                            | 0.00                        |
| Non-Fatal Injury Crashes          | 1                            | 100.00                      |
| Total Injury Crashes              | 1                            | 100.00                      |
| Property Damage Only Crashes      | 0                            | 0.00                        |
| Night Crashes                     | 1                            | 100.00                      |
| Wet Crashes                       | 0                            | 0.00                        |
| Alcohol/Drugs Involvement Crashes | 1                            | 100.00                      |

**Crash Severity Summary**

| <b>Crash Type</b>            | <b>Number of<br/>Crashes</b> | <b>Percent<br/>of Total</b> |
|------------------------------|------------------------------|-----------------------------|
| Total Crashes                | 1                            | 100.00                      |
| Fatal Crashes                | 0                            | 0.00                        |
| Class A Crashes              | 1                            | 100.00                      |
| Class B Crashes              | 0                            | 0.00                        |
| Class C Crashes              | 0                            | 0.00                        |
| Property Damage Only Crashes | 0                            | 0.00                        |

**Vehicle Exposure Statistics**

Annual ADT = 360

Total Length = 0.2 (Miles)                      0.322 (Kilometers)

Total Vehicle Exposure = 0.26 (MVMT)                      0.42 (MVKMT)

| <b>Crash Rate</b>    | <b>Crashes Per 100 Million<br/>Vehicle Miles</b> | <b>Crashes Per 100 Million<br/>Vehicle Kilometers</b> |
|----------------------|--------------------------------------------------|-------------------------------------------------------|
| Total Crash Rate     | 380.31                                           | 236.31                                                |
| Fatal Crash Rate     | 0.00                                             | 0.00                                                  |
| Non Fatal Crash Rate | 380.31                                           | 236.31                                                |
| Night Crash Rate     | 380.31                                           | 236.31                                                |
| Wet Crash Rate       | 0.00                                             | 0.00                                                  |
| EPDO Rate            | 29207.73                                         | 18148.84                                              |

**North Carolina Department of Transportation  
Traffic Engineering Accident Analysis System  
Strip Analysis Report**

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**Miscellaneous Statistics**

|                                      |         |
|--------------------------------------|---------|
| Severity Index =                     | 76.80   |
| EPDO Crash Index =                   | 76.80   |
| Estimated Property Damage Total = \$ | 5500.00 |

**Accident Type Summary**

| <b>Accident Type</b> | <b>Number of<br/>Crashes</b> | <b>Percent<br/>of Total</b> |
|----------------------|------------------------------|-----------------------------|
| FIXED OBJECT         | 1                            | 100.00                      |

**Injury Summary**

| <b>Injury Type</b>       | <b>Number of<br/>Injuries</b> | <b>Percent<br/>of Total</b> |
|--------------------------|-------------------------------|-----------------------------|
| Fatal Injuries           | 0                             | 0.00                        |
| Class A Injuries         | 1                             | 33.33                       |
| Class B Injuries         | 2                             | 66.67                       |
| Class C Injuries         | 0                             | 0.00                        |
| Total Non-Fatal Injuries | 3                             | 100.00                      |
| Total Injuries           | 3                             | 100.00                      |

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Traffic Engineering Accident Analysis System  
Strip Analysis Report

---

**Monthly Summary**

| <b>Month</b> | <b>Number of<br/>Crashes</b> | <b>Percent<br/>of Total</b> |
|--------------|------------------------------|-----------------------------|
| Jan          | 0                            | 0.00                        |
| Feb          | 0                            | 0.00                        |
| Mar          | 0                            | 0.00                        |
| Apr          | 0                            | 0.00                        |
| May          | 0                            | 0.00                        |
| Jun          | 0                            | 0.00                        |
| Jul          | 0                            | 0.00                        |
| Aug          | 0                            | 0.00                        |
| Sep          | 0                            | 0.00                        |
| Oct          | 1                            | 100.00                      |
| Nov          | 0                            | 0.00                        |
| Dec          | 0                            | 0.00                        |

**Daily Summary**

| <b>Day</b> | <b>Number of<br/>Crashes</b> | <b>Percent<br/>of Total</b> |
|------------|------------------------------|-----------------------------|
| Mon        | 0                            | 0.00                        |
| Tue        | 0                            | 0.00                        |
| Wed        | 0                            | 0.00                        |
| Thu        | 0                            | 0.00                        |
| Fri        | 0                            | 0.00                        |
| Sat        | 1                            | 100.00                      |
| Sun        | 0                            | 0.00                        |

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Traffic Engineering Accident Analysis System  
Strip Analysis Report

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**Hourly Summary**

| <b>Hour</b> | <b>Number of<br/>Crashes</b> | <b>Percent<br/>of Total</b> |
|-------------|------------------------------|-----------------------------|
| 0000-0059   | 0                            | 0.00                        |
| 0100-0159   | 0                            | 0.00                        |
| 0200-0259   | 1                            | 100.00                      |
| 0300-0359   | 0                            | 0.00                        |
| 0400-0459   | 0                            | 0.00                        |
| 0500-0559   | 0                            | 0.00                        |
| 0600-0659   | 0                            | 0.00                        |
| 0700-0759   | 0                            | 0.00                        |
| 0800-0859   | 0                            | 0.00                        |
| 0900-0959   | 0                            | 0.00                        |
| 1000-1059   | 0                            | 0.00                        |
| 1100-1159   | 0                            | 0.00                        |
| 1200-1259   | 0                            | 0.00                        |
| 1300-1359   | 0                            | 0.00                        |
| 1400-1459   | 0                            | 0.00                        |
| 1500-1559   | 0                            | 0.00                        |
| 1600-1659   | 0                            | 0.00                        |
| 1700-1759   | 0                            | 0.00                        |
| 1800-1859   | 0                            | 0.00                        |
| 1900-1959   | 0                            | 0.00                        |
| 2000-2059   | 0                            | 0.00                        |
| 2100-2159   | 0                            | 0.00                        |
| 2200-2259   | 0                            | 0.00                        |
| 2300-2359   | 0                            | 0.00                        |

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Traffic Engineering Accident Analysis System  
Strip Analysis Report

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**Light and Road Conditions Summary**

| Condition | Dry | Wet | Other | Total |
|-----------|-----|-----|-------|-------|
| Day       | 0   | 0   | 0     | 0     |
| Dark      | 1   | 0   | 0     | 1     |
| Other     | 0   | 0   | 0     | 0     |
| Total     | 1   | 0   | 0     | 1     |

**Object Struck Summary**

| Object Type | Times Struck | Percent of Total |
|-------------|--------------|------------------|
| TREE        | 1            | 100.00           |

**Vehicle Type Summary**

| Vehicle Type  | Number Involved | Percent of Total |
|---------------|-----------------|------------------|
| PASSENGER CAR | 1               | 100.00           |

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Traffic Engineering Accident Analysis System  
Strip Analysis Report

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**Yearly Totals Summary**

**Accident Totals**

| <b>Year</b> | <b>Total<br/>Accidents</b> | <b>Fatal<br/>Accidents</b> | <b>Injury<br/>Accidents</b> | <b>Property Damage<br/>Only Accidents</b> |
|-------------|----------------------------|----------------------------|-----------------------------|-------------------------------------------|
| 2002        | 0                          | 0                          | 0                           | 0                                         |
| 2003        | 0                          | 0                          | 0                           | 0                                         |
| 2004        | 0                          | 0                          | 0                           | 0                                         |
| 2005        | 0                          | 0                          | 0                           | 0                                         |
| 2006        | 0                          | 0                          | 0                           | 0                                         |
| 2007        | 0                          | 0                          | 0                           | 0                                         |
| 2008        | 0                          | 0                          | 0                           | 0                                         |
| 2009        | 0                          | 0                          | 0                           | 0                                         |
| 2010        | 1                          | 0                          | 1                           | 0                                         |
| 2011        | 0                          | 0                          | 0                           | 0                                         |
| Total       | 1                          | 0                          | 1                           | 0                                         |

**Injury Totals**

| <b>Year</b> | <b>Fatal Injuries</b> | <b>Class A, B,<br/>or C Injuries</b> |
|-------------|-----------------------|--------------------------------------|
| 2002        | 0                     | 0                                    |
| 2003        | 0                     | 0                                    |
| 2004        | 0                     | 0                                    |
| 2005        | 0                     | 0                                    |
| 2006        | 0                     | 0                                    |
| 2007        | 0                     | 0                                    |
| 2008        | 0                     | 0                                    |
| 2009        | 0                     | 0                                    |
| 2010        | 0                     | 3                                    |
| 2011        | 0                     | 0                                    |
| Total       | 0                     | 3                                    |

**Miscellaneous Totals**

| <b>Year</b> | <b>Property Damage</b> | <b>EPDO Index</b> |
|-------------|------------------------|-------------------|
| 2002        | \$ 0                   | 0.00              |
| 2003        | \$ 0                   | 0.00              |
| 2004        | \$ 0                   | 0.00              |
| 2005        | \$ 0                   | 0.00              |
| 2006        | \$ 0                   | 0.00              |

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Traffic Engineering Accident Analysis System  
Strip Analysis Report**

| <b>Year</b> | <b>Property Damage</b> | <b>EPDO Index</b> |
|-------------|------------------------|-------------------|
| 2007        | \$ 0                   | 0.00              |
| 2008        | \$ 0                   | 0.00              |
| 2009        | \$ 0                   | 0.00              |
| 2010        | \$ 5500                | 76.80             |
| 2011        | \$ 0                   | 0.00              |
| Total       | \$ 5500                | 76.80             |

**Type of Accident Totals**

| <b>Year</b> | <b>Left Turn</b> | <b>Right Turn</b> | <b>Rear End</b> | <b>Run Off Road &amp;<br/>Fixed Object</b> | <b>Angle</b> | <b>Side Swipe</b> | <b>Other</b> |
|-------------|------------------|-------------------|-----------------|--------------------------------------------|--------------|-------------------|--------------|
| 2002        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| 2003        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| 2004        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| 2005        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| 2006        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| 2007        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| 2008        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| 2009        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| 2010        | 0                | 0                 | 0               | 1                                          | 0            | 0                 | 0            |
| 2011        | 0                | 0                 | 0               | 0                                          | 0            | 0                 | 0            |
| Total       | 0                | 0                 | 0               | 1                                          | 0            | 0                 | 0            |

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Traffic Engineering Accident Analysis System  
Strip Analysis Report

Strip Diagram

| Features               | Milepost | Crash IDs |
|------------------------|----------|-----------|
|                        | 1.490    |           |
|                        | 1.500    |           |
|                        | 1.510    |           |
|                        | 1.520    |           |
|                        | 1.530    |           |
|                        | 1.540    |           |
|                        | 1.550    |           |
|                        | 1.560    |           |
|                        | 1.570    | 102981502 |
| BEGIN BRIDGE STRUCTURE | 1.580    |           |
| Structure:220255       | 1.590    |           |
| END BRIDGE STRUCTURE   | 1.600    |           |
|                        | 1.610    |           |
|                        | 1.620    |           |
|                        | 1.630    |           |
|                        | 1.640    |           |
|                        | 1.650    |           |
|                        | 1.660    |           |
|                        | 1.670    |           |
|                        | 1.680    |           |
|                        | 1.690    |           |

**North Carolina Department of Transportation  
Traffic Engineering Accident Analysis System  
Strip Analysis Report**

**Study Criteria**

| Study Name  | Log No.     | PH No. | TIP No. | K/A Cf. | B/C Cf. | ADT | ADT Route |
|-------------|-------------|--------|---------|---------|---------|-----|-----------|
| 41000018016 | 41000018016 |        |         | 76.8    | 8.4     | 360 | 40001207  |

| Request Date | Courier Service | Phone No.     | Ext. | Fax No. |
|--------------|-----------------|---------------|------|---------|
| 02/23/2012   |                 | (704)480-5291 |      |         |

| County    |      |      | Municipality  |      |            |            |            |       |
|-----------|------|------|---------------|------|------------|------------|------------|-------|
| Name      | Code | Div. | Name          | Code | Y-Line Ft. | Begin Date | End Date   | Years |
| CLEVELAND | 22   | 12   | All and Rural |      | 0          | 01/01/2002 | 12/31/2011 | 10.00 |

| Location Text                                                                                    | Requestor                                                         |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 500 feet on Both Sides of Bridge Number 255 on<br>Secondary Route 1207 (McGraw Road) over Branch | Jimmy Hamrick, PE<br>High Country & Foothills Region<br>Shelby NC |

| Fiche Roads |          |
|-------------|----------|
| Name        | Code     |
| SR 1207     | 40001207 |
| MCRAW       | 50019501 |

| Strip Road |          |          |        |       |            |
|------------|----------|----------|--------|-------|------------|
| Name       | Code     | Begin MP | End MP | Miles | Kilometers |
| SR 1207    | 40001207 | 1.490    | 1.690  | 0.200 | 0.322      |

**North Carolina Department of Transportation  
Traffic Engineering Accident Analysis System  
Fiche, Intersection, and Strip Reports Code Index**

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**T - Type of Accident Codes**

0 = UNKNOWN  
1 = RAN OFF ROAD - RIGHT  
2 = RAN OFF ROAD - LEFT  
3 = RAN OFF ROAD - STRAIGHT  
4 = JACKKNIFE  
5 = OVERTURN/ROLLOVER  
13 = OTHER NON-COLLISION  
14 = PEDESTRIAN  
15 = PEDALCYCLIST  
16 = RR TRAIN, ENGINE  
17 = ANIMAL  
18 = MOVABLE OBJECT  
19 = FIXED OBJECT  
20 = PARKED MOTOR VEHICLE  
21 = REAR END, SLOW OR STOP  
22 = REAR END, TURN  
23 = LEFT TURN, SAME ROADWAY  
24 = LEFT TURN, DIFFERENT ROADWAYS  
25 = RIGHT TURN, SAME ROADWAY  
26 = RIGHT TURN, DIFFERENT ROADWAYS  
27 = HEAD ON  
28 = SIDESWIPE, SAME DIRECTION  
29 = SIDESWIPE, OPPOSITE DIRECTION  
30 = ANGLE  
31 = BACKING UP  
32 = OTHER COLLISION WITH VEHICLE

**F - Road Feature Codes**

0 = NO SPECIAL FEATURE  
1 = BRIDGE  
2 = BRIDGE APPROACH  
3 = UNDERPASS  
4 = DRIVEWAY, PUBLIC  
5 = DRIVEWAY, PRIVATE  
6 = ALLEY INTERSECTION  
7 = FOUR-WAY INTERSECTION  
8 = T-INTERSECTION  
9 = Y-INTERSECTION  
10 = TRAFFIC CIRCLE/ROUNDBOUT  
11 = FIVE-POINT, OR MORE  
12 = RELATED TO INTERSECTION  
13 = NON-INTERSECTION MEDIAN CROSSING  
14 = END OR BEGINNING - DIVIDED HIGHWAY  
15 = OFF RAMP ENTRY  
16 = OFF RAMP PROPER  
17 = OFF RAMP TERMINAL ON CROSSROAD  
18 = MERGE LANE BETWEEN ON AND OFF RAMP  
19 = ON RAMP ENTRY  
20 = ON RAMP PROPER  
21 = ON RAMP TERMINAL ON CROSSROAD  
22 = RAILROAD CROSSING  
23 = TUNNEL  
24 = SHARED-USE PATHS OR TRAILS  
25 = OTHER

**R - Road Condition Codes**

1 = DRY  
2 = WET  
3 = WATER (STANDING, MOVING)  
4 = ICE  
5 = SNOW  
6 = SLUSH  
7 = SAND, MUD, DIRT, GRAVEL  
8 = FUEL, OIL  
9 = OTHER  
10 = UNKNOWN

**L - Light Condition Codes**

1 = DAYLIGHT  
2 = DUSK  
3 = DAWN  
4 = DARK - LIGHTED ROADWAY  
5 = DARK - ROADWAY NOT LIGHTED  
6 = DARK - UNKNOWN LIGHTING  
7 = OTHER  
8 = UNKNOWN

**W - Weather Condition Codes**

1 = CLEAR  
2 = CLOUDY  
3 = RAIN  
4 = SNOW  
5 = FOG, SMOG, SMOKE  
6 = SLEET, HAIL, FREEZING RAIN/DRIZZLE  
7 = SEVERE CROSSWINDS  
8 = BLOWING SAND, DIRT, SNOW  
9 = OTHER

**S - Accident Severity Codes**

K = FATAL  
A = A-LEVEL INJURY  
B = B-LEVEL INJURY  
C = C-LEVEL INJURY  
O = PROPERTY DAMAGE ONLY

**Ch - Road Character**

1 = STRAIGHT, LEVEL  
2 = STRAIGHT, HILLCREST  
3 = STRAIGHT, GRADE  
4 = STRAIGHT, BOTTOM (SAG)  
5 = CURVE, LEVEL  
6 = CURVE, HILLCREST  
7 = CURVE, GRADE  
8 = CURVE, BOTTOM (SAG)  
9 = OTHER

**Op - Traffic Control Operating**

1 = YES  
2 = NO  
3 = UNKNOWN

**North Carolina Department of Transportation  
Traffic Engineering Accident Analysis System  
Fiche, Intersection, and Strip Reports Code Index**

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**Veh Mnvr - Vehicle Maneuver Codes**

1 = STOPPED IN TRAVEL LANE  
2 = PARKED OUT OF TRAVEL LANES  
3 = PARKED IN TRAVEL LANES  
4 = GOING STRAIGHT AHEAD  
5 = CHANGING LANES OR MERGING  
6 = PASSING  
7 = MAKING RIGHT TURN  
8 = MAKING LEFT TURN  
9 = MAKING U-TURN  
10 = BACKING  
11 = SLOWING OR STOPPING  
12 = STARTING IN ROADWAY  
13 = PARKING  
14 = LEAVING PARKED POSITION  
15 = AVOIDING OBJECT IN ROAD

**Dv - Traffic Control Device**

0 = NO CONTROL PRESENT  
1 = STOP SIGN  
2 = YIELD SIGN  
3 = STOP AND GO SIGNAL  
4 = FLASHING SIGNAL WITH STOP SIGN  
5 = FLASHING SIGNAL WITHOUT STOP SIGN  
6 = RR GATE AND FLASHER  
7 = RR FLASHER  
8 = RR CROSSBUCKS ONLY  
9 = HUMAN CONTROL  
10 = WARNING SIGN  
11 = SCHOOL ZONE SIGNS  
12 = FLASHING STOP AND GO SIGNAL  
13 = DOUBLE YELLOW LINE, NO PASSING ZONE  
14 = OTHER

**Alchl/Drugs - Driver Alcohol/Drugs Suspected Status Codes**

0 = NO  
1 = YES - ALCOHOL, IMPAIRMENT SUSPECTED  
2 = YES - ALCOHOL, NO IMPAIRMENT DETECTED  
3 = YES - OTHER DRUGS, IMPAIRMENT SUSPECTED  
4 = YES - OTHER DRUGS, NO IMPAIRMENT DETECTED  
5 = YES - ALCOHOL AND OTHER DRUGS, IMPAIRMENT SUSPECTED  
6 = YES - ALCOHOL AND OTHER DRUGS, NO IMPAIRMENT DETECTED  
7 = UNKNOWN

**Ped Actn - Pedestrian Action Codes**

1 = ENTERING OR CROSSING SPECIFIED LOCATION  
2 = WALKING, RIDING, RUNNING/JOGGING WITH TRAFFIC  
3 = WALKING, RIDING, RUNNING/JOGGING AGAINST TRAFFIC  
4 = WORKING  
5 = PUSHING VEHICLE  
6 = APPROACHING OR LEAVING VEHICLE  
7 = PLAYING  
8 = STANDING  
9 = OTHER

**Ci - Roadway Contributing Circumstances**

0 = NONE (NO UNUSUAL CONDITIONS)  
1 = ROAD SURFACE CONDITION  
2 = DEBRIS  
3 = RUT, HOLES, BUMPS  
4 = WORK ZONE (CONSTRUCTION, MAINTENANCE, UTILITY)  
5 = WORN TRAVEL-POLISHED SURFACE  
6 = OBSTRUCTION IN ROADWAY  
7 = TRAFFIC CONTROL DEVICE INOPERATIVE, NOT VISIBLE OR MISSING  
8 = SHOULDERS LOW, SOFT OR HIGH  
9 = NO SHOULDERS  
10 = NON-HIGHWAY WORK  
11 = OTHER  
12 = UNKNOWN

**North Carolina Department of Transportation  
Traffic Engineering Accident Analysis System  
Fiche, Intersection, and Strip Reports Code Index**

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**Obj Strk - Object Struck Codes**

14 = PEDESTRIAN  
15 = PEDALCYCLIST  
17 = ANIMAL  
18 = MOVABLE OBJECT  
20 = PARKED MOTOR VEHICLE  
33 = TREE  
34 = UTILITY POLE  
35 = LUMINAIRE POLE NON-BREAKAWAY  
36 = LUMINAIRE POLE BREAKAWAY  
37 = OFFICIAL HIGHWAY SIGN NON-BREAKAWAY  
38 = OFFICIAL HIGHWAY SIGN BREAKAWAY  
39 = OVERHEAD SIGN SUPPORT  
40 = COMMERCIAL SIGN  
41 = GUARDRAIL END ON SHOULDER  
42 = GUARDRAIL FACE ON SHOULDER  
43 = GUARDRAIL END IN MEDIAN  
44 = GUARDRAIL FACE IN MEDIAN  
45 = SHOULDER BARRIER END  
46 = SHOULDER BARRIER FACE  
47 = MEDIAN BARRIER END  
48 = MEDIAN BARRIER FACE  
49 = BRIDGE RAIL END  
50 = BRIDGE RAIL FACE  
51 = OVERHEAD PART UNDERPASS  
52 = PIER ON SHOULDER OF UNDERPASS  
53 = PIER IN MEDIAN OF UNDERPASS  
54 = ABUTMENT OF UNDERPASS  
55 = TRAFFIC ISLAND CURB OR MEDIAN  
56 = CATCH BASIN OR CULVERT ON SHOULDER  
57 = CATCH BASIN OR CULVERT ON MEDIAN  
58 = DITCH  
59 = EMBANKMENT  
60 = MAILBOX  
61 = FENCE OR FENCE POST  
62 = CONTRUCTION BARRIER  
63 = CRASH CUSHION  
64 = OTHER FIXED OBJECT

**Unit # - Vehicle Style Codes**

1 = PASSENGER CAR  
2 = PICKUP  
3 = LIGHT TRUCK (MINI-VAN, PANEL)  
4 = SPORT UTILITY  
5 = VAN  
6 = COMMERCIAL BUS  
7 = SCHOOL BUS  
8 = ACTIVITY BUS  
9 = OTHER BUS  
10 = SINGLE UNIT TRUCK (2-AXLE, 6-TIRE)  
11 = SINGLE UNIT TRUCK (3 OR MORE AXLES)  
12 = TRUCK/TRAILER  
13 = TRUCK/TRACTOR  
14 = TRACTOR/SEMI-TRAILER  
15 = TRACTOR/DOULBES  
16 = UNKNOWN HEAVY TRUCK  
17 = TAXICAB  
18 = FARM EQUIPMENT  
19 = FARM TRACTOR  
20 = MOTORCYCLE  
21 = MOPED  
22 = MOTOR SCOOTER OR MOTOR BIKE  
23 = PEDALCYCLE  
24 = PEDESTRIAN  
25 = MOTOR HOME/RECREATIONAL VEHICLE  
26 = OTHER  
27 = ALL TERRAIN VEHICLE (ATV)  
28 = FIRETRUCK  
29 = EMS VEHICLE, AMBULANCE, RESCUE SQUAD  
30 = MILITARY  
31 = POLICE  
32 = UNKNOWN