

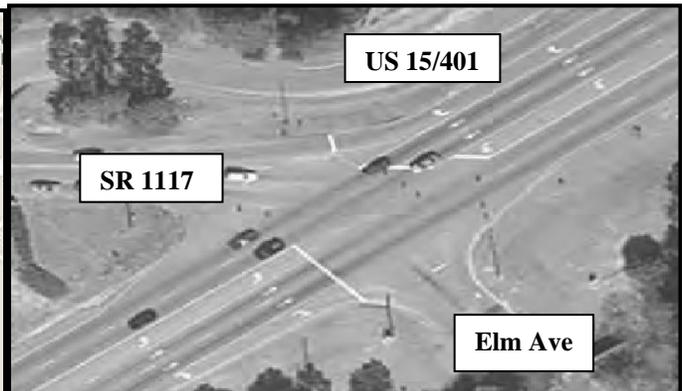
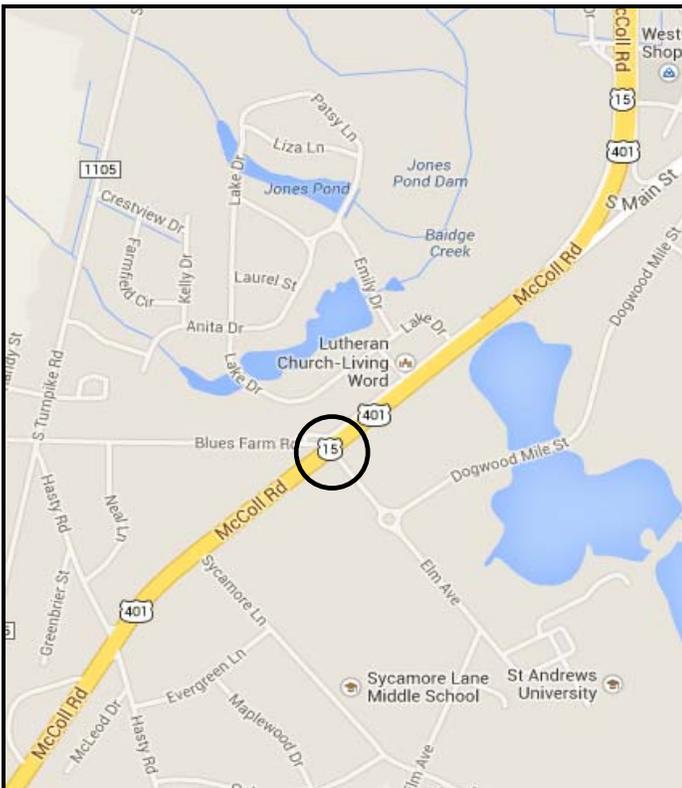
# Spot Safety Project Evaluation

## Project Information

Order ID: 41000027848  
Project ID: 08-04-223  
Location: US 15/401 at SR 1117 (Blues Farm Rd)/Elm Ave  
County: Scotland  
City: Laurinburg  
Division: 8  
Signal ID: 08-0373  
Countermeasure: Signal and Pavement Marking Revisions  
Project Completion: March 13, 2008      Project Cost: \$5,000

## Map and Aerial (from Google Maps & Scotland Co. GIS)

## Before Period (Top) & After Period (Bottom)



## Naive Before and After Analysis

- Before Period: April 1, 2002 through December 31, 2007 (5 years, 9 Months)
- Const. Period: January 1, 2008 through March 31, 2008
- After Period: April 1, 2008 through December 31, 2013 (5 years, 9 Months)
- Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection.
- Target Crashes: Frontal Impact Crashes were the target crashes for the applied countermeasure. Frontal Impact Crash types are: Left turn, same roadway; Left turn, different roadways; Right turn, same roadway; Right turn, different roadways; Head on; and Angle.

<u>Treatment Information</u>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Total Crashes	13	6	- 53.8 %
Total Crash Severity Index	3.85	2.23	- 41.6 %
Target Crashes	9	1	- 88.9 %
Target Crash Severity Index	4.29	8.40	+ 95.8 %
Volume (2005, 2011)	21,000	22,000	+ 4.7 %

<u>Injury Crash Summary</u>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	0	0	N/A
Class B injury Crashes	2	0	- 100.0 %
Class C Injury Crashes	3	1	- 66.7 %
Property Damage Only	8	5	- 37.5 %

### **Overall Summary Results**

Total Crashes:	- 54 %	(reduction)
Total Crash Severity:	- 42 %	(reduction)
Target Crashes:	- 89 %	(reduction)
Target Crash Severity:	+ 96 %	(increase)
Volume:	+ 5 %	(increase)

### **Items for Discussion/Concerns**

None

### **Data Prepared For**

The Traffic Safety Unit *of the*  
Transportation Mobility and Safety Division *of the*  
Division of Highways *of the*  
North Carolina Department of Transportation

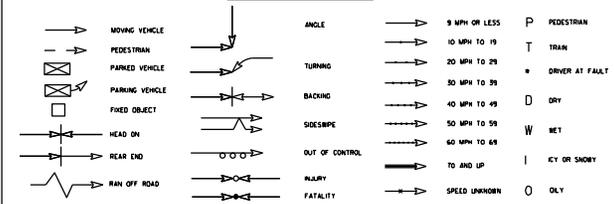
### **Data Prepared By**

Principal Investigator: Justin Green, EI  
Work Group/Consultant: NCDOT - Safety Evaluation Group  
Date: March 25, 2014

SR III7 (Blues Farm Rd)  
45 MPH  
ADT (Year)  
4,100 (2005)

US 15/US 401 (McCull Rd)  
45 MPH  
ADT (Year)  
16,000 (2005)

LEGEND



SS# 08-04-223  
Order# 41000027848  
Scotland County  
BEFORE Period  
4/1/02 - 12/31/07

US 15/US 401 (McCull Rd)  
45 MPH  
ADT (Year)  
20,000 (2005)

Elm Avenue  
25 MPH  
ADT (Year)  
1,000 (2005) (Est)

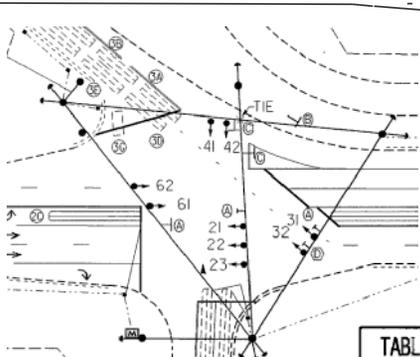
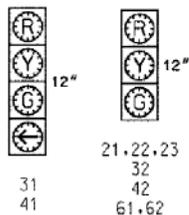


TABLE OF OPERATION

SIGNAL FACE	PHASE			
	Ø 2 + 6	Ø 3	Ø 4	F L Y Ø 1
21, 22, 23	G	R	R	Y
31	R	G	R	R
32	R	G	R	R
41	R	R	G	R
42	R	R	G	R
61, 62	G	R	R	Y

SIGNAL FACE I.D.

⊙ Denotes L.E.D.



⊕ Frontal Impact Crashes

**N.C. DEPARTMENT of TRANSPORTATION**  
**DIVISION of HIGHWAYS**  
**TRANSPORTATION MOBILITY and SAFETY DIVISION**  
**TRAFFIC SAFETY UNIT**  
 Date: March 2014 Prepared By: J. Green

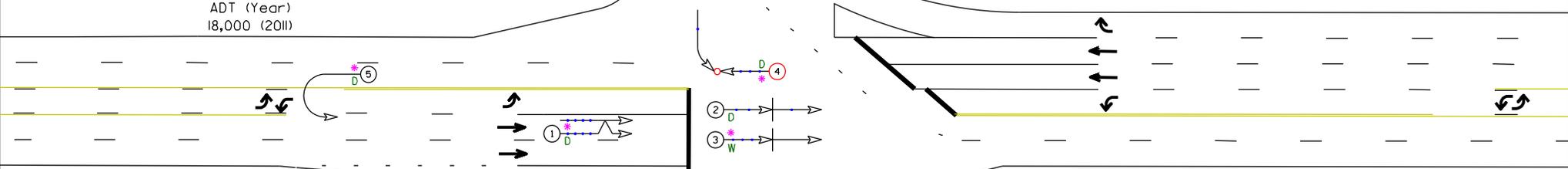
SR III7 (Blues Farm Rd)  
45 MPH  
ADT (Year)  
4,100 (2011)

US I5/US 401 (McCull Rd)  
45 MPH  
ADT (Year)  
18,000 (2011)

SS# 08-04-223  
Order# 41000027848  
Scotland County  
AFTER Period  
4/1/08 - 12/31/13

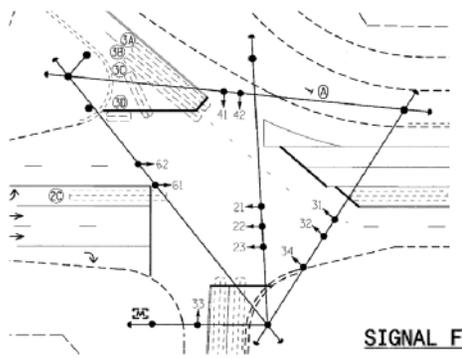
**LEGEND**

	MOVING VEHICLE		ANGLE		5 MPH OR LESS		PEDESTRIAN
	PEDESTRIAN		TURNING		10 MPH TO 19		TRAIN
	PARKING VEHICLE		BACKING		20 MPH TO 29		DRIVER AT FAULT
	FIXED OBJECT		SIDESWIPe		30 MPH TO 39		DRY
	HEAD ON		OUT OF CONTROL		40 MPH TO 49		WET
	REAR END		FLIPPED		50 MPH TO 59		ICE OR SNOW
	RAN OFF ROAD		HADRY		60 MPH TO 69		FATALITY
			FATALITY		TO AND UP		SPEED UNKNOWN
					70 MPH TO 79		ONLY

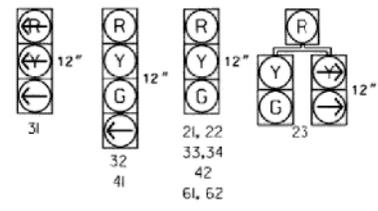


US I5/US 401 (McCull Rd)  
45 MPH  
ADT (Year)  
20,000 (2011)

Elm Avenue  
25 MPH  
ADT (Year)  
1,000 (2011) (Est)



**SIGNAL FACE I.D.**  
All Heads L.E.D.



SIGNAL FACE	PHASE			
	0 2, 6	0 3	0 4	FLASH
21, 22	G	R	R	Y
23	G	R	R	Y
31	R	R	R	R
32	R	G	R	R
33, 34	R	G	R	R
41	R	R	G	R
42	R	R	G	R
61, 62	G	R	R	Y

Frontal Impact Crashes

**N.C. DEPARTMENT of TRANSPORTATION**  
**DIVISION of HIGHWAYS**  
**TRANSPORTATION MOBILITY and SAFETY DIVISION**

**TRAFFIC SAFETY UNIT**

Date: March 2014      Prepared By: J. Green