

# Spot Safety Project Evaluation

## Project Information

Order ID: 41000028268

Project ID: 06-04-209

Location: SR 1429 (Old Pine Logging Rd / Slippery Log Rd) from SR 1005 (Peacock Rd) to SR 1434 (Kit Horne Road)

County: Columbus

City: Southwest of Whiteville

Division: 6

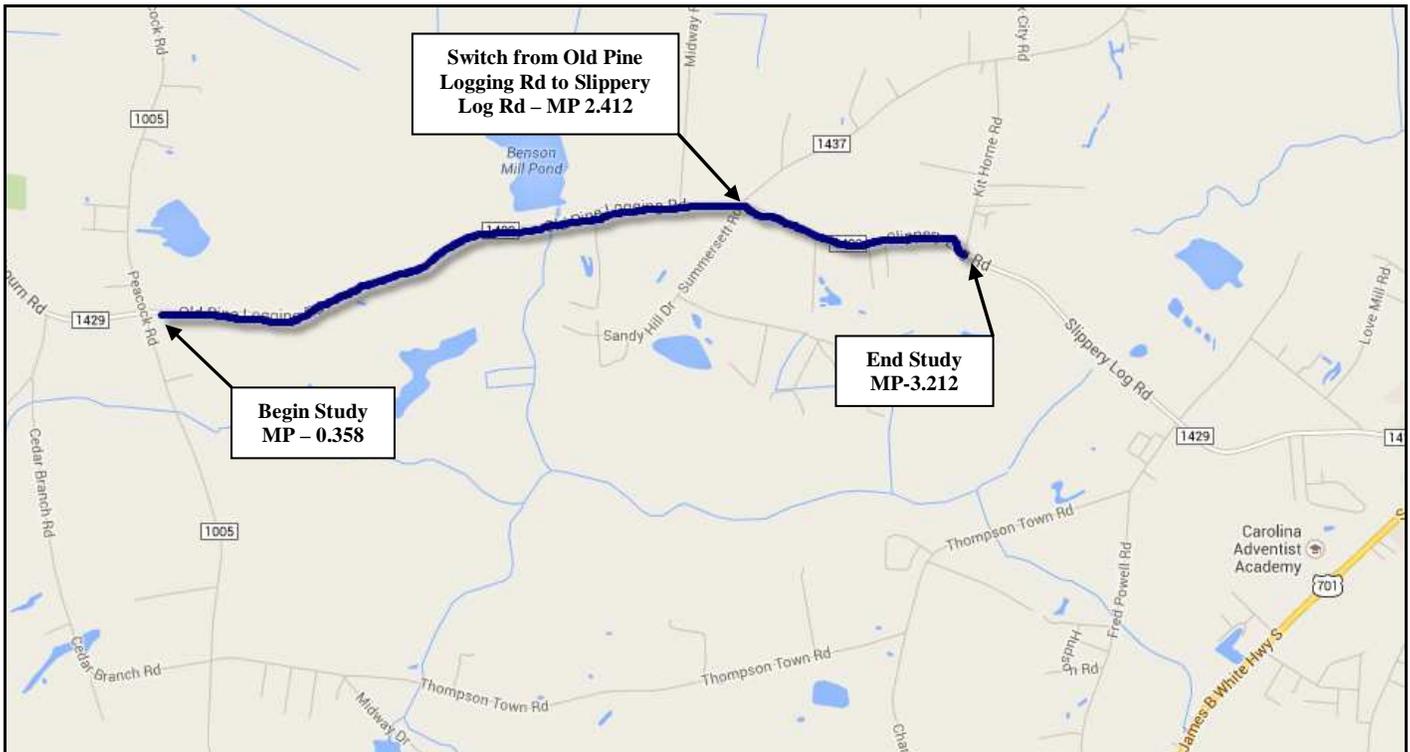
Signal ID: N/A

Countermeasure: Resurface Roadway and Re-Grade Shoulders

Project Completion: September 22, 2008

Project Cost: \$250,000

## Map and Aerial (from Google Maps – Coordinates are 34.311495,-78.767037)



## Naive Before and After Analysis

Before Period: April 1, 2003 through July 31, 2008 (5 years, 4 months)

Const. Period: August 1, 2008 through September 30, 2008

After Period: October 1, 2008 through January 31, 2014 (5 years, 4 months)

Analysis Criteria: Treatment data consisted of all crashes within the subject milepost range on SR 1429 (Old Pine Logging Road / Slippery Log Road) with a 0-foot y-line. All crashes from 150' east of SR 1005 (Peacock Road) to the SR 1434 (Kit Horne Road) intersection were included (MP 0.358 – 3.212).

Target Crashes: Lane Departure – Ran-Off Road (Left, Right, Straight), Sideswipe (Opposite Direction), Fixed Object, and Head-On

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	34	56	64.7 %
Total Severity Index	6.49	4.20	- 35.3 %
Target Crashes – Lane Departure	20	29	45.0 %
Target Crash Severity Index	9.23	6.42	- 30.4 %
Volume (2005, 2011)	2,700	2,700	0.0 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	1	1	0.0 %
Class A injury Crashes	0	0	N/A
Class B injury Crashes	6	2	- 66.7 %
Class C Injury Crashes	9	12	33.3 %
Property Damage Only	18	41	127.8 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Night Crashes	18	31	72.2 %
Wet Roadway Crashes	5	16	220.0 %
Alcohol / Drug Involvement Crashes	1	1	0.0 %
Animal Crashes	7	16	128.6 %
Lane Departure – Wet Roadway	5	15	200.0 %
Lane Departure Wet Severity Index	19.12	9.51	- 50.3 %

## Overall Summary Results

Total Crashes:	65 %	(increase)
Total Crash Severity:	- 35 %	(reduction)
Target Crashes:	45 %	(increase)
Target Crash Severity:	- 30 %	(reduction)
Volume:	0 %	(no change)

## Additional Summary Results

Wet Roadway Crashes:	220 %	(increase)
Wet Lane Departure Crashes:	200 %	(increase)

## Items for Discussion/Concerns

From the *GIS Collision Diagrams*, the crash patterns along this segment remained consistent through the evaluation. The pattern in the curve east to the SR 1005 intersection (MP 0.80 to 1.00) has been plotted independently due to the increase in crashes from three (3) in the before period to nine (9) in the after period.

Both the before and after period fatal collisions along this route were lane departure crashes under wet roadway conditions. These crashes also both occurred in the curve east of the SR 1005 intersection. Wet roadway lane departure crashes increased at this location (MP 0.80 to 1.00) from two (2) in the before period to seven (7) in the after period.

Weather data was also examined to compare natural rainfall/winter weather events during the analysis that affect roadway conditions. Historical weather data was obtained from the State Climate Office of North Carolina at the closest collection point (Whiteville: NWHI). The date ranges match the study periods and “Total Days of Rain/Snow” must have precipitation that is equal to or greater than 0.01 inches of recorded measurement.

<b>Weather Information (NWHI)</b>	<b>Before 5.33 Yrs</b>	<b>After 5.33 Yrs</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Total Days of Rain / Snow	602	588	- 2.3 %
Avg Days of WET Conditions per Year	112.9	110.3	- 2.3 %
Precipitation Totals (inches)	259.86 in	225.96 in	- 13.0 %
Average Precipitation Total per Year (in)	48.75 in	42.39 in	- 13.0 %
Avg Precip per Day of Wet Conditions	0.43 in	0.38 in	- 11.6 %

**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: Jason B. Schronce, EI

Work Group/Consultant: NCDOT - Safety Evaluation Group

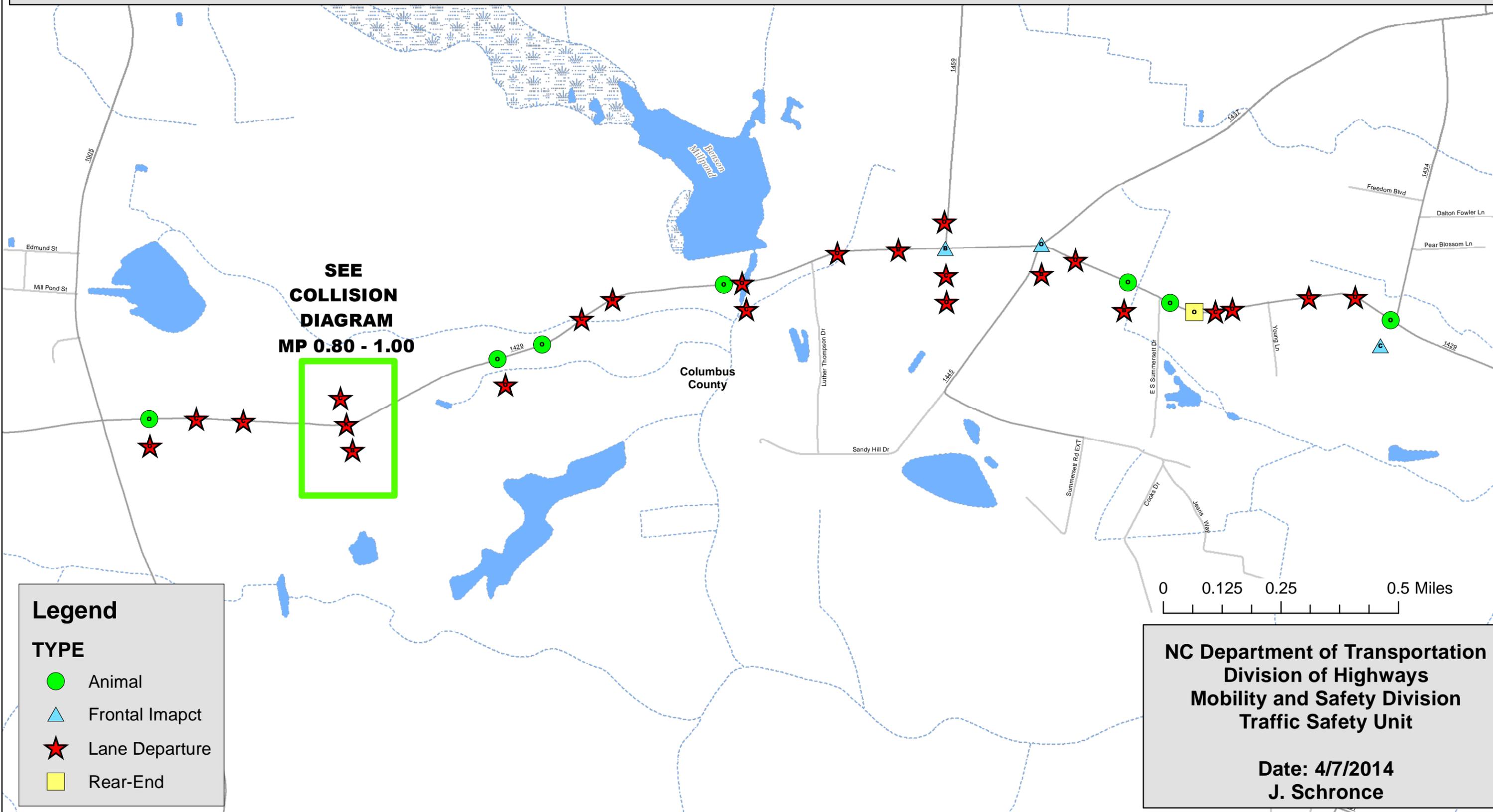
Date: April 10, 2014

# SS# 06-04-209 - COLUMBUS COUNTY

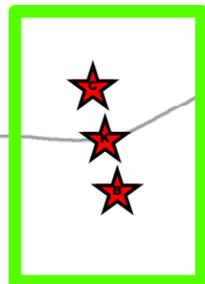
## SR 1429 (Old Pine Logging Rd / Slippery Log Rd) From SR 1005 (Peacock Rd) to SR 1434 (Kit Horne Rd)

### Study Milepost Range 0.358 - 3.212

### BEFORE PERIOD - 4/1/2003 to 7/31/2008 (5.33 Yrs)



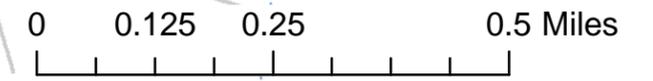
**SEE  
COLLISION  
DIAGRAM  
MP 0.80 - 1.00**



**Legend**

**TYPE**

- Animal
- Frontal Impact
- Lane Departure
- Rear-End



**NC Department of Transportation  
Division of Highways  
Mobility and Safety Division  
Traffic Safety Unit**

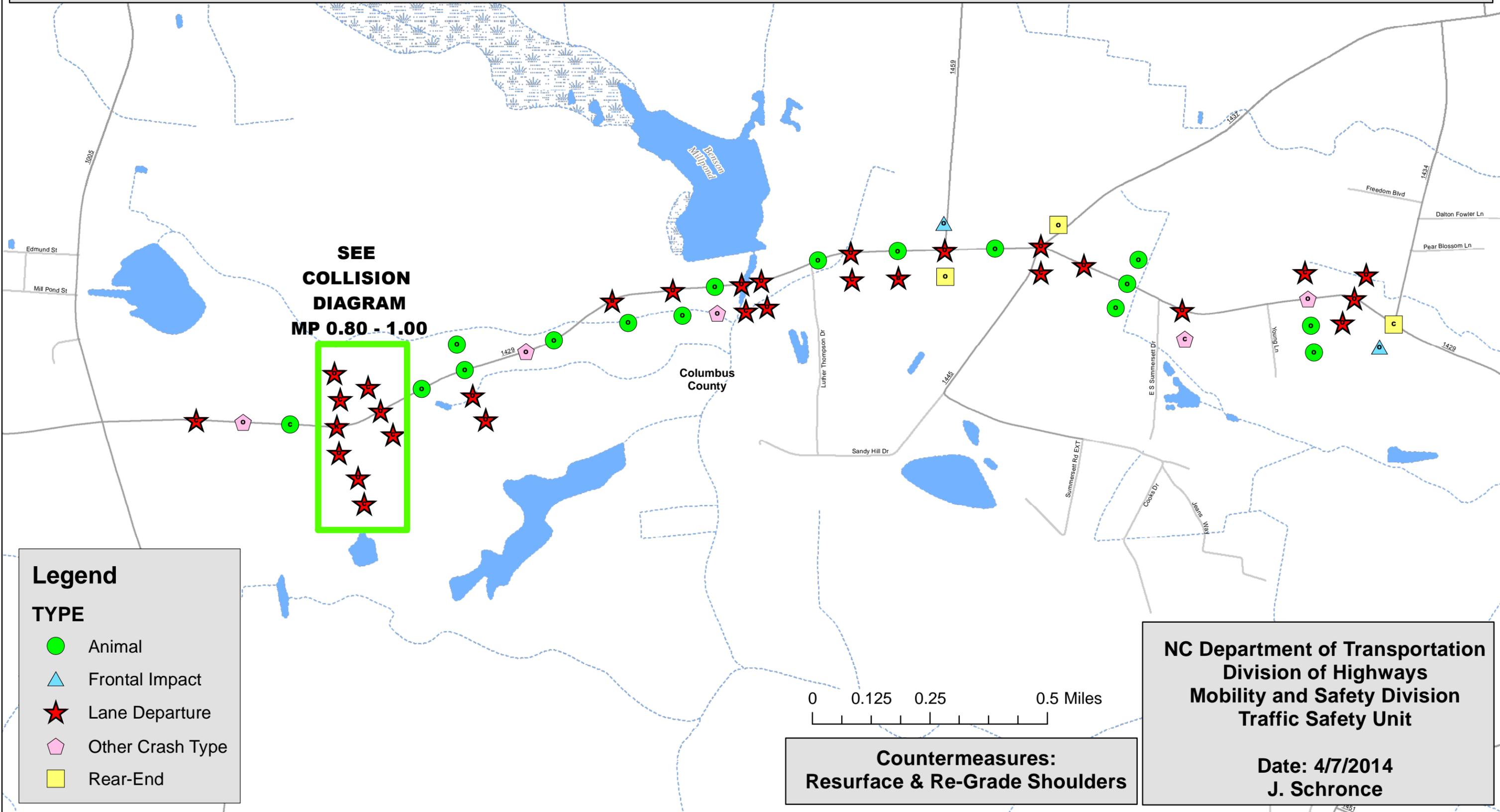
**Date: 4/7/2014  
J. Schronce**

**SS# 06-04-209 - COLUMBUS COUNTY**

**SR 1429 (Old Pine Logging Rd / Slippery Log Rd) From SR 1005 (Peacock Rd) to SR 1434 (Kit Horne Rd)**

**Study Milepost Range 0.358 - 3.212**

**AFTER PERIOD - 10/1/2008 to 1/31/2014 (5.33 Yrs)**



**Legend**

**TYPE**

-  Animal
-  Frontal Impact
-  Lane Departure
-  Other Crash Type
-  Rear-End

0 0.125 0.25 0.5 Miles

**Countermeasures:  
Resurface & Re-Grade Shoulders**

**NC Department of Transportation  
Division of Highways  
Mobility and Safety Division  
Traffic Safety Unit**

**Date: 4/7/2014  
J. Schronce**

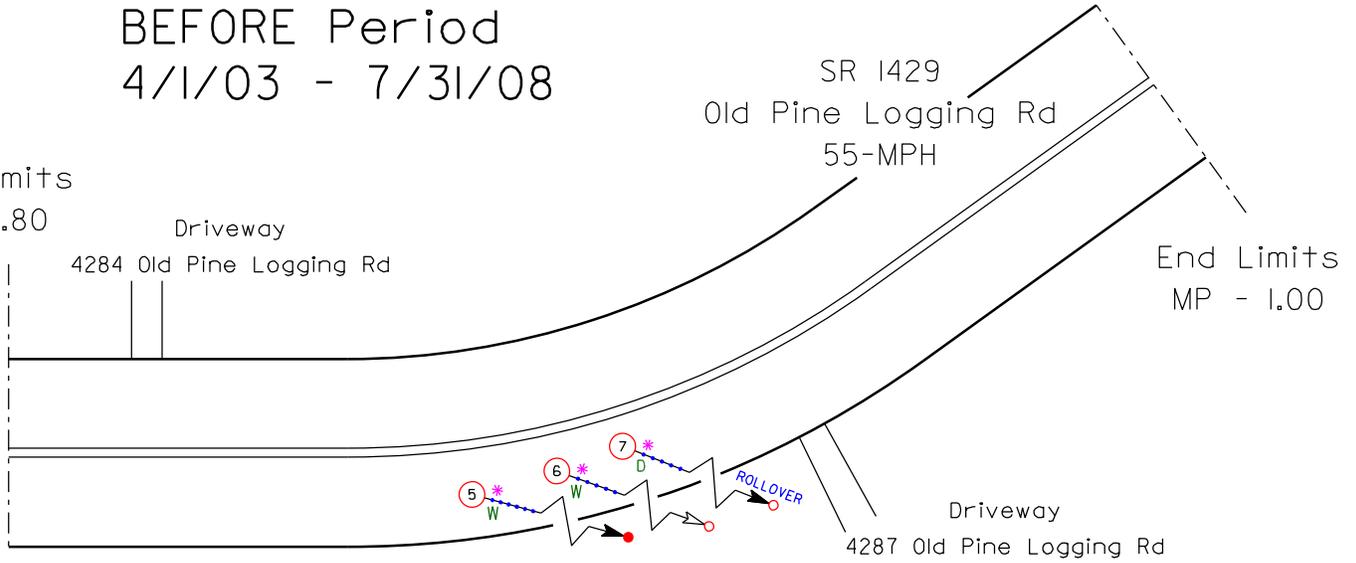
SS# 06-04-209  
 Order# 41000028268  
 Columbus County



LEGEND							
	MOVING VEHICLE		ANGLE		9 MPH OR LESS		PEDESTRIAN
	PAIRED VEHICLE		TURNING		10 MPH TO 19		TRAIN
	PARKING VEHICLE		BACKING		20 MPH TO 29		DRIVER AT FAULT
	FIXED OBJECT		HEAD ON		30 MPH TO 39		DRY
	HEAD ON		REAR END		40 MPH TO 49		WET
	REAR END		RAN OFF ROAD		50 MPH TO 59		ICY OR SNOWY
	RAN OFF ROAD		ROLLOVER		60 MPH TO 69		FATALITY
	ROLLOVER		ROADSIDE		70 AND UP		SPEED UNKNOWN
	ROADSIDE		INJURY				OTHER
	INJURY		FATALITY				
	FATALITY						

BEFORE Period  
 4/1/03 - 7/31/08

Begin Limits  
 MP - 0.80

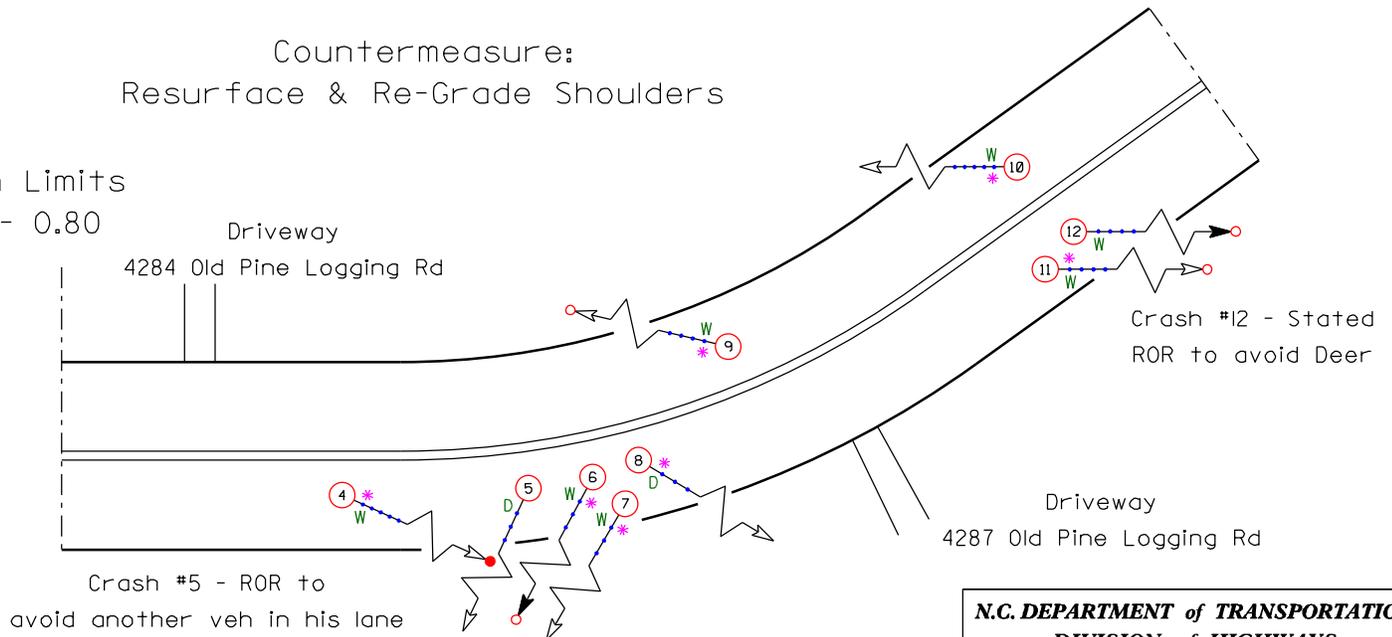


AFTER Period  
 10/1/08 - 1/31/14

Countermeasure:  
 Resurface & Re-Grade Shoulders

Begin Limits  
 MP - 0.80

End Limits  
 MP - 1.00



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

**TRAFFIC SAFETY UNIT**

Date: 4-7-2014

Prepared By: J. Schronce

Lane Departure  
 Target Crashes