

Spot Safety Project Evaluation

Project Information

Order ID: 41000027643

Project ID: 03-02-200

Location: SR 1423 (Old 30 Road) from SR 1413 (Rocky Run Rd) to SR 1428 (Riggs Rd)

County: Onslow

City: Northeast of Jacksonville

Division: 3

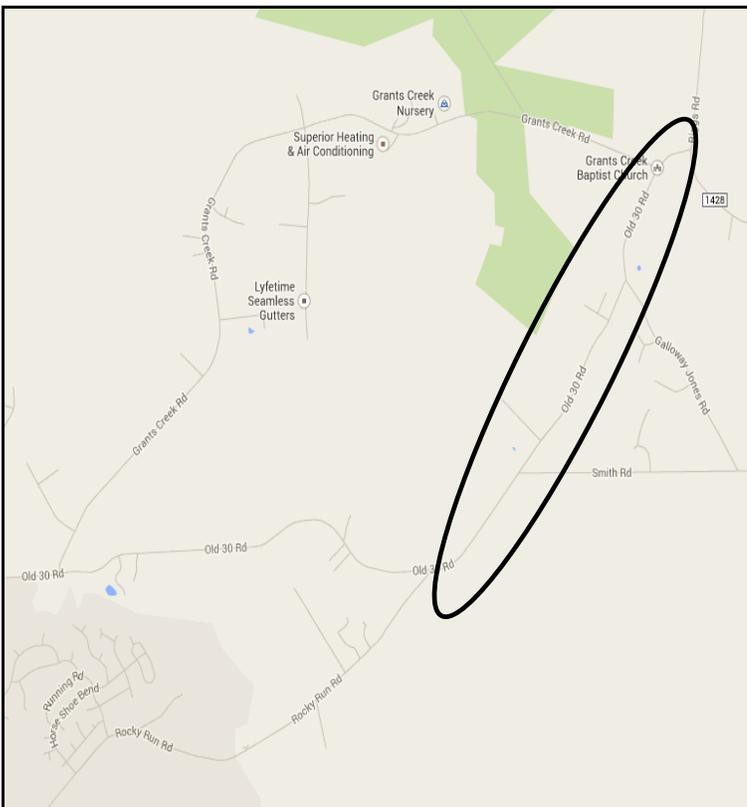
Signal ID: N/A

Countermeasure: Install 1.5-Foot Paved Shoulders on Both Sides of Roadway

Project Completion: March 16, 2010

Project Cost: \$120,000

Map and Aerial (from Google Maps)



Naive Before and After Analysis

Before Period: May 1, 2006 through December 31, 2009 (3 years, 8 months)

Const. Period: January 1, 2010 through March 31, 2010

After Period: April 1, 2010 through November 30, 2013 (3 years, 8 months)

Analysis Criteria: Treatment data consisted of all crashes on SR 1423 (Old 30 Road) within 150-feet north/east of SR 1413 (Rocky Run Road) to 150-feet south/west of SR 1428 (Riggs Road), Milepost 3.148 to 5.339, with a zero-foot y-line.

Target Crashes: Lane Departure Crashes – Run-Off Road (Left, Right, Straight), Fixed Object, Head-On, and Sideswipe (Opposite Direction). Sidestreet intersection run-through crashes are not considered as Lane Departure Target Crashes.

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	27	32	18.5 %
Total Severity Index	12.44	4.01	- 67.8 %
Target Crashes – Lane Departure	20	20	0.0 %
Target Crash Severity Index	11.91	4.70	- 60.5 %
Volume (2007, 2011)	1,000	1,100	10.0 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	1	0	- 100.0 %
Class A injury Crashes	2	0	- 100.0 %
Class B injury Crashes	7	4	- 42.9 %
Class C Injury Crashes	4	9	125.0 %
Property Damage Only	13	19	46.2 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Night Crashes	7	13	85.7 %
Wet Roadway Crashes	6	6	0.0 %
Alcohol/Drugs Involvement Crashes	3	3	0.0 %
Animal Hit Crashes	2	3	50.0 %
Total Crash Rate (100MVM)	918.95	990.85	7.8 %
Fatal Crash Rate (100MVM)	34.04	0.00	- 100.0 %

Overall Summary Results

Total Crashes:	19 %	(increase)
Total Crash Severity:	- 68 %	(reduction)
Target Crashes:	0 %	(no change)
Target Crash Severity:	- 61 %	(reduction)
Volume:	10 %	(increase)

Additional Summary Results

Night Roadway Crashes:	86 %	(increase)
Total Crash Rate (100MVM):	8%	(increase)

Items for Discussion/Concerns

The subject location experienced a slight increase in overall crashes with the same number of lane departure collisions throughout the study. However, severe injury crashes (fatal and A-injury) were eliminated in the after period.

Referencing the *collision diagrams*, the curve near Rocky Run Road (MP 3.148) experienced seven (7) lane departure crashes in the vicinity during the before period. This location dropped to three (3) collisions in the after period. However, the curve located at SR 1426 (MP 4.677) experienced an increase in crashes from ten (10) in the before period to eleven (11) in the after period.

The before period fatal crash at SR 1427 resulted from a motorist that failed to stop at the 3-leg intersection which lead to an angle collision.

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: March 6, 2014

LEGEND

	MOVING VEHICLE		ANGLE		9 MPH OR LESS		P PEDESTRIAN
	PARKED VEHICLE		TURNING		10 MPH TO 19		T TRAIN
	PARKING VEHICLE		BACKING		20 MPH TO 29		* DRIVER AT FAULT
	FIRE D OBJECT		SIDESWIPE		30 MPH TO 39		D DRY
	HEAD ON		REAR END		40 MPH TO 49		W WET
	RAN OFF ROAD		INJURY		50 MPH TO 59		I ICY OR SNOWY
			FATALITY		70 AND UP		O OTHER
					SPEED UNKNOWN		

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 Onslow County
 BEFORE Period
 5/1/06 - 12/31/09
 3.67 Years

ADT (Year)
 1,000 (2007)



SR 1427
 GRANTS CREEK RD
 MP-5.177

END STUDY
 MP-5.339

SR 2357
 BUCKSKIN DR
 MP-4.498

SR 1426
 GALLOWAY JONES RD
 MP-4.677

CRANBERRY LN

SR 1425
 SMITH RD
 MP-3.720

BEGIN STUDY
 MP-3.148

SR 1423
 OLD 30 ROAD
 55-MPH

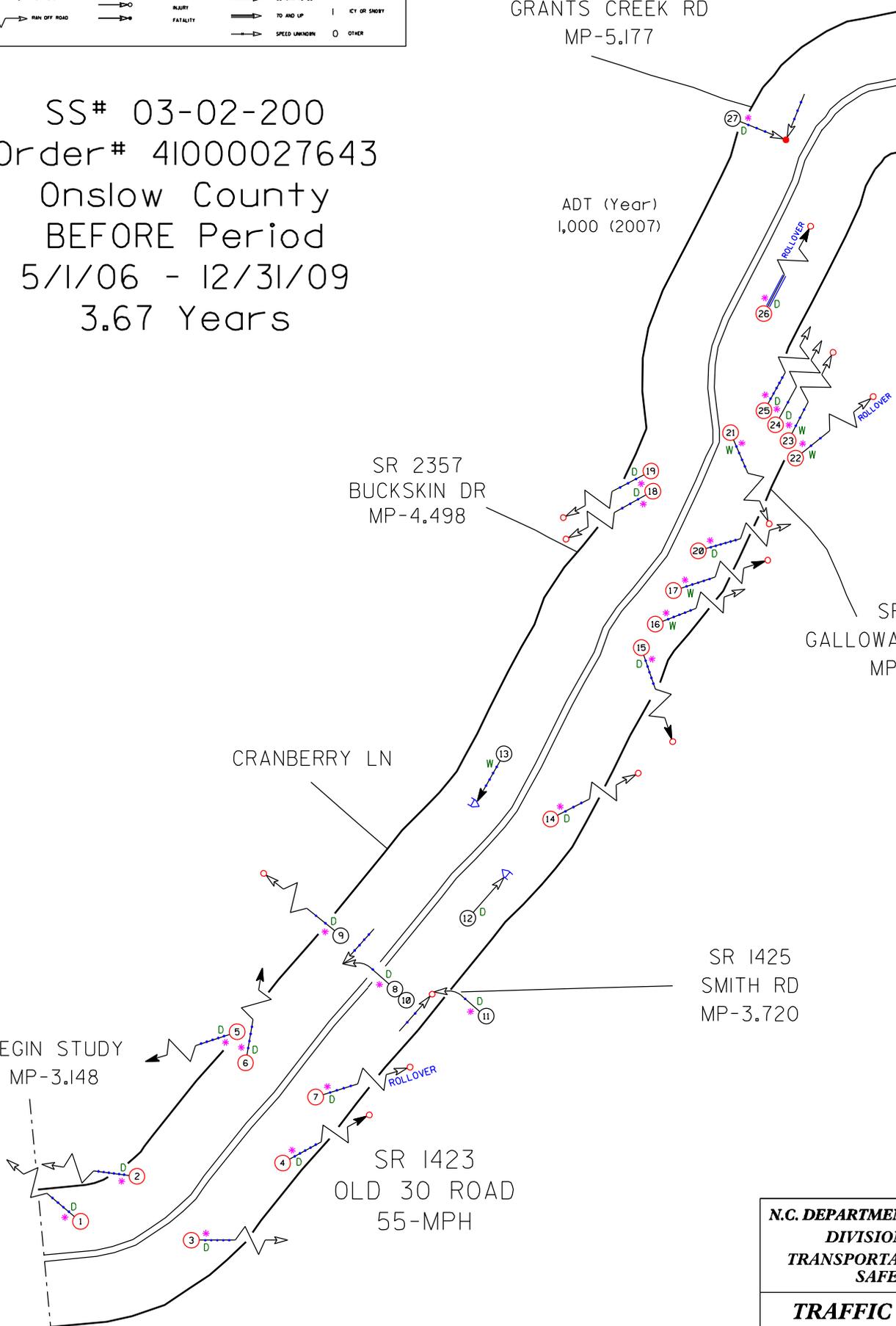
Lane Departure
 Target Crashes

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

TRAFFIC SAFETY UNIT

Date: 2-14-2014

Prepared By: J. Schronce



LEGEND

	MOVING VEHICLE		ANGLE		9 MPH OR LESS		P PEDESTRIAN
	PARKED VEHICLE		TURNING		10 MPH TO 19		T TRAIN
	PARKING VEHICLE		BACKING		20 MPH TO 29		* DRIVER AT FAULT
	FIRE D OBJECT		SIDESWIPE		30 MPH TO 39		D DRY
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 AFTER Period
 4/1/10 - 11/30/13
 3.67 Years

ADT (Year)
 1,100 (2011)

END STUDY
 MP-5.339

COUNTERMEASURE:
 1.5 Foot Paved Shoulders
 on both sides of roadway

BEGIN STUDY
 MP-3.148

SR 1423
 OLD 30 ROAD
 55-MPH

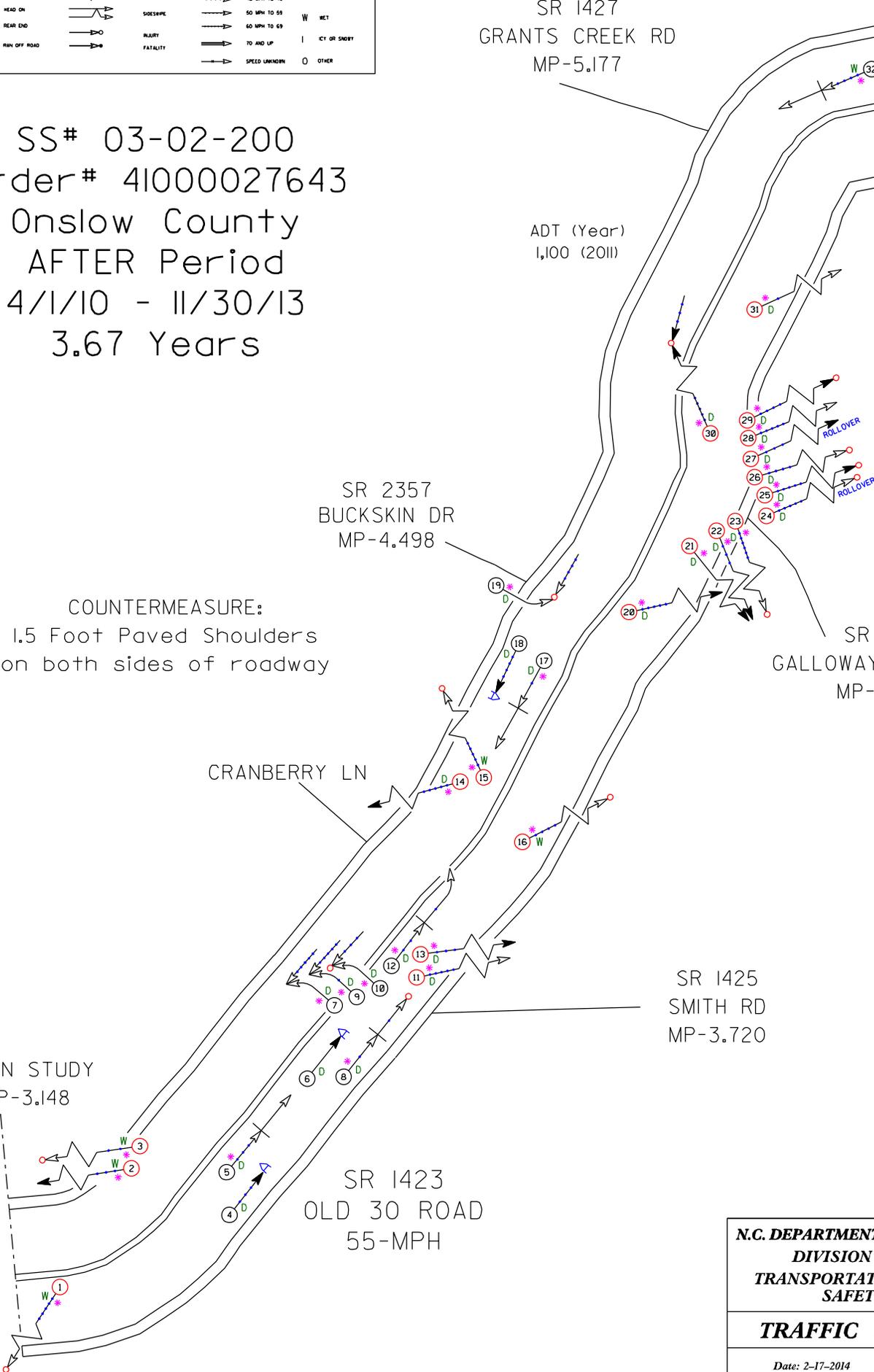
CRANBERRY LN

SR 2357
 BUCKSKIN DR
 MP-4.498

SR 1427
 GRANTS CREEK RD
 MP-5.177

SR 1425
 SMITH RD
 MP-3.720

SR 1426
 GALLOWAY JONES RD
 MP-4.677



Lane Departure
 Target Crashes

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Date: 2-17-2014 Prepared By: J. Schronce