

Spot Safety Project Evaluation

Project Information

Order ID: 41000030098

Project ID: 04-08-210

Location: Bridges 135 and 136 on SR 1435 (Womble Rd)

County: Nash

City: North of Nashville

Division: 4

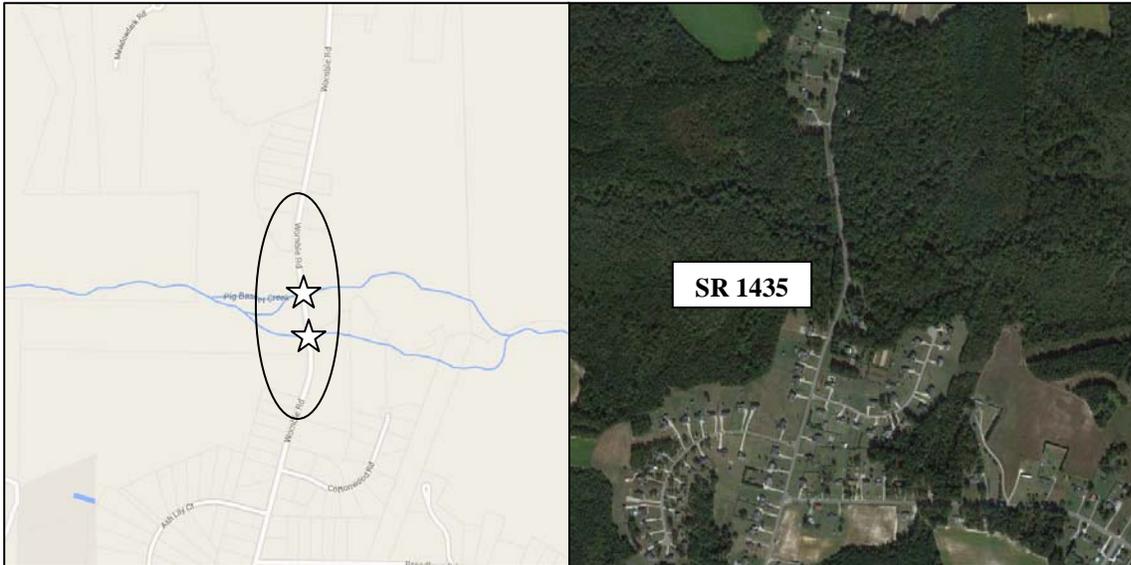
Signal ID: N/A

Countermeasure: Install new guardrail along SR 1435 connecting twin bridges located 500 feet apart

Project Completion: September 22, 2009

Project Cost: \$57,000

Map and Aerial (from Google Maps)



Naive Before and After Analysis

Before Period: December 1, 2004 through July 31, 2009 (4 years 8 months)

Const. Period: August 1, 2009 through October 31, 2009

After Period: November 1, 2009 through June 30, 2014 (4 years 8 months)

Analysis Criteria: Treatment data consisted of all crashes on SR 1435 (Womble Rd) within 500-feet south of bridge 136 to 500-feet north of bridge 135, Milepost 1.536 to 1.833, 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	6	2	- 66.7 %
Total Severity Index	17.33	4.70	- 72.9 %
Target Crashes – Lane Departure	6	1	- 83.3 %
Target Crash Severity Index	17.33	1.00	- 94.2 %
Volume (2007, 2012)	1,600	1,500	- 6.3 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	1	0	- 100.0 %
Class A injury Crashes	0	0	N/A
Class B injury Crashes	1	0	- 100.0 %
Class C Injury Crashes	2	1	- 50.0 %
Property Damage Only	2	1	- 50.0 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Night Crashes	2	1	- 50.0 %
Wet Roadway Crashes	3	1	- 66.7 %
Alcohol/Drugs Involvement Crashes	1	0	- 100.0 %
Total Crash Rate (100MVM)	740.98	263.61	- 64.4 %
Fatal Crash Rate (100MVM)	123.50	0.00	- 100.0 %

Overall Summary Results

Total Crashes:	- 67 %	(reduction)
Total Crash Severity:	- 73 %	(reduction)
Target Crashes:	- 83 %	(reduction)
Target Crash Severity:	- 94 %	(reduction)
Volume:	- 6 %	(reduction)

Additional Summary Results

Total Crash Rate (100MVM)	- 64 %	(reduction)
Fatal Crash Rate (100MVM):	- 100 %	(reduction)

Items for Discussion/Concerns

The study section experienced a 67 % reduction in total crashes (6 to 2 crashes).

The target crashes (Lane Departure Crashes) experienced an 83 % reduction (6 to 1 crashes).

The section experienced a 100 % reduction in fatal crashes (1 to 0 crashes).

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: Andrew Covington, EI
Work Group/Consultant: AECOM
Date: September 19, 2014

LEGEND

	MOVING VEHICLE		ANGLE		9 MPH OR LESS		A ANIMAL
	PARKED VEHICLE		TURNING		10 MPH TO 19		P PEDESTRIAN
	MOVABLE OBJECT		BACKING		20 MPH TO 29		B BICYCLE
	HEAD ON		SIDESWIPE		30 MPH TO 39		T TRAIN
	REAR END		INJURY		40 MPH TO 49		• DRIVER AT FAULT
	RAN OFF ROAD		FATALITY		50 MPH TO 59		D DRY
	DAYLIGHT CRASH				60 MPH TO 69		W WET
	NIGHT CRASH				70 AND UP		I Icy or Snowy
					SPEED UNKNOWN		O Other

SS# 04-08-210
 Order# 41000030098
 Nash County
 BEFORE Period
 12/1/2004 - 7/31/2009
 4.67 Years

END STUDY
 MP-1.833

BRIDGE #135
 MP-1.735

SR 1435
 Womble Rd
 45-MPH

ADT (Year)
 1,600 (2007)

BRIDGE #136
 MP-1.636

1575 WOMBLE RD

Lane Departure
 Target Crashes

BEGIN STUDY
 MP-1.536

AECOM

Prepared For:
 N.C. DEPARTMENT of TRANSPORTATION
 DIVISION of HIGHWAYS
 TRANSPORTATION MOBILITY and
 SAFETY DIVISION

TRAFFIC SAFETY UNIT

Date: 9-19-2014

Prepared By: Andrew Covington, E.I.

LEGEND

	MOVING VEHICLE		ANGLE		9 MPH OR LESS		A ANIMAL
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 AFTER Period
 11/1/2009 - 6/30/2014
 4.67 Years

END STUDY
 MP-1.833

BRIDGE #135
 MP-1.735

BRIDGE #136
 MP-1.636

SR 1435
 Womble Rd
 45-MPH

ADT (Year)
 1,500 (2012)

1575 WOMBLE RD



Lane Departure Target Crashes
 Guardrail

BEGIN STUDY
 MP-1.536

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