

# Spot Safety Project Evaluation

## Project Information

Order ID: 41000033924

Project ID: 08-10-4940

Location: US 1 Southbound from 0.07 mile southwest of SR 1423 (Farrell Road) to 0.52 mile northeast of SR 1423 (Farrell Road)

County: Lee

City: Sanford

Division: 8

Signal ID: N/A

Countermeasure: Wedge the southbound inside travel lane to improve cross slope.

Project Completion: April 2011

Project Cost: \$290,000.00

## Map and Aerial (from Google maps – Coordinates are 35.590339,-79.119603)



## Naive Before and After Analysis

Before Period: September 1, 2006 to January 31, 2011 (4 years, 5 months)

Const. Period: February 1, 2011 to April 30, 2011 (3 months)

After Period: May 1, 2011 to September 30, 2015 (4 years, 5 months)

Analysis Criteria: Treatment data consisted of all crashes on US 1 (Southbound) with a 0-foot y-line and within the milepost range from 19.288 to 19.878

Target Crashes: Wet Road Lane departure crashes – Run-Off Road (right, left, straight); Fixed Object; Sideswipe (opposite direction), Rollover and Head-on.

<u>Treatment Information</u>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Total Crashes	38	7	-81.6%
Total Severity Index	4.36	6.29	+44.3%
Target Crashes	30	3	-90.0%
Target Crash Severity Index	2.48	5.93	+139.1%
Volume (2008, 2013) – ½ Point Data	9,000	10,500	+16.7%

<u>Injury Crash Summary</u>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Fatal injury Crashes	1	0	-100.0%
Class A injury Crashes	0	0	0.0%
Class B injury Crashes	1	1	0.0%
Class C Injury Crashes	6	4	-33.3%
Property Damage Only	30	2	-93.3%

### **Overall Summary Results**

Total Crashes:	-81.6 %	(Reduction)
Total Crash Severity:	44.3 %	(Increase)
Target Crashes:	-90.0 %	(Reduction)
Target Crash Severity:	139.1 %	(Increase)
Volume:	16.7 %	(Increase)

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

The total crashes experienced a decrease of 81.6 % (38 to 7 crashes) between the before and after periods. The wet road lane departure target crashes experienced a decrease of 90.0% (30 to 3 crashes) between the before and after periods. The total crash severity experienced an increase of 44.3% between the before and after periods. The wet road lane departure target crash severity experienced an increase of 139.1% between the before and after periods.

### **Data Prepared For**

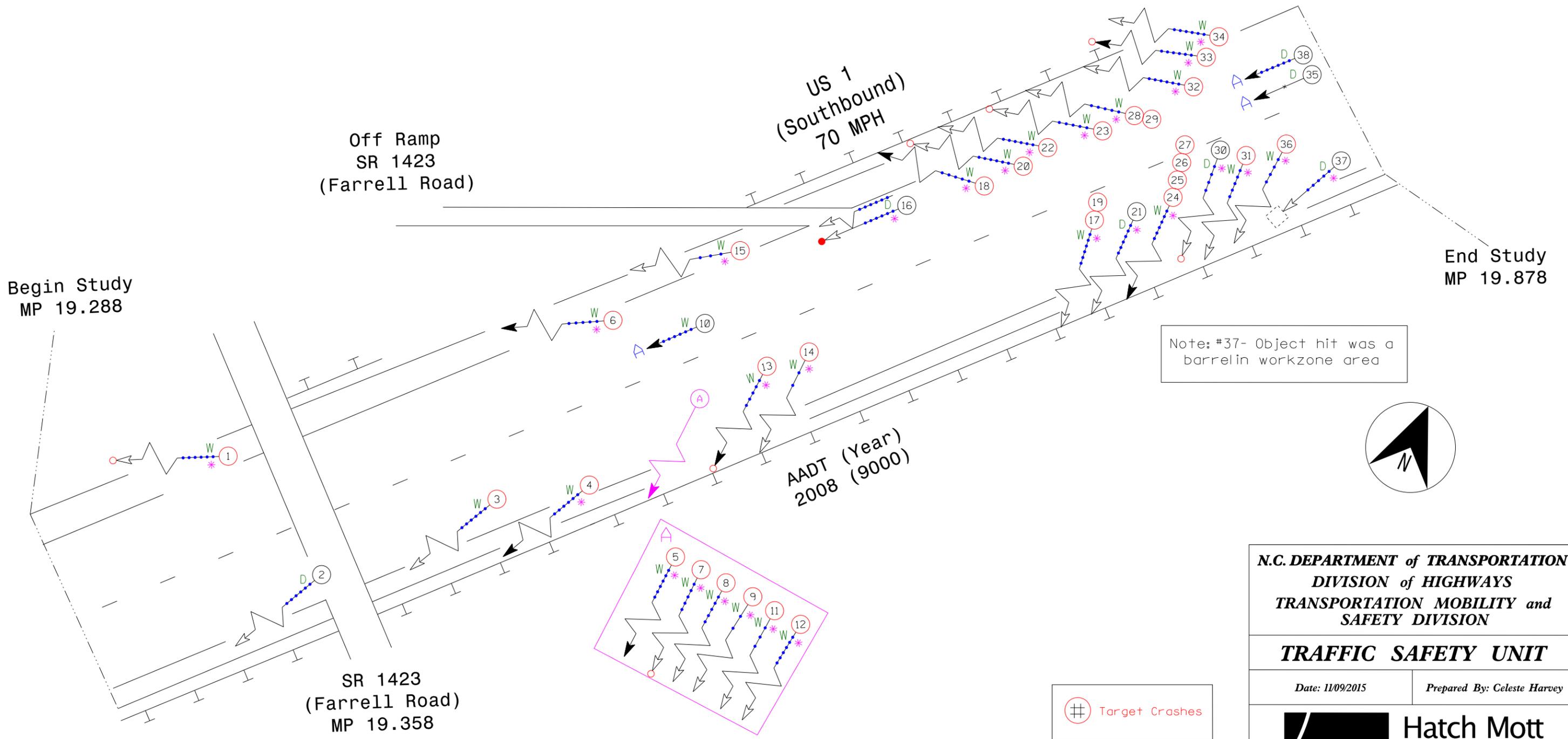
The Traffic Safety Unit *of the*  
Transportation Mobility and Safety Division *of the*  
Division of Highways *of the*  
North Carolina Department of Transportation

### **Data Prepared By**

Principal Investigator: Celeste M. Harvey  
Work Group/Consultant: Hatch Mott MacDonald  
Date: November 9, 2015

SS# 08-10-4940  
 Order# 41000033924  
 Lee County  
 BEFORE Period  
 9/1/2006 - 1/31/2011

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



Note: #37- Object hit was a barrel in workzone area

# Target Crashes

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

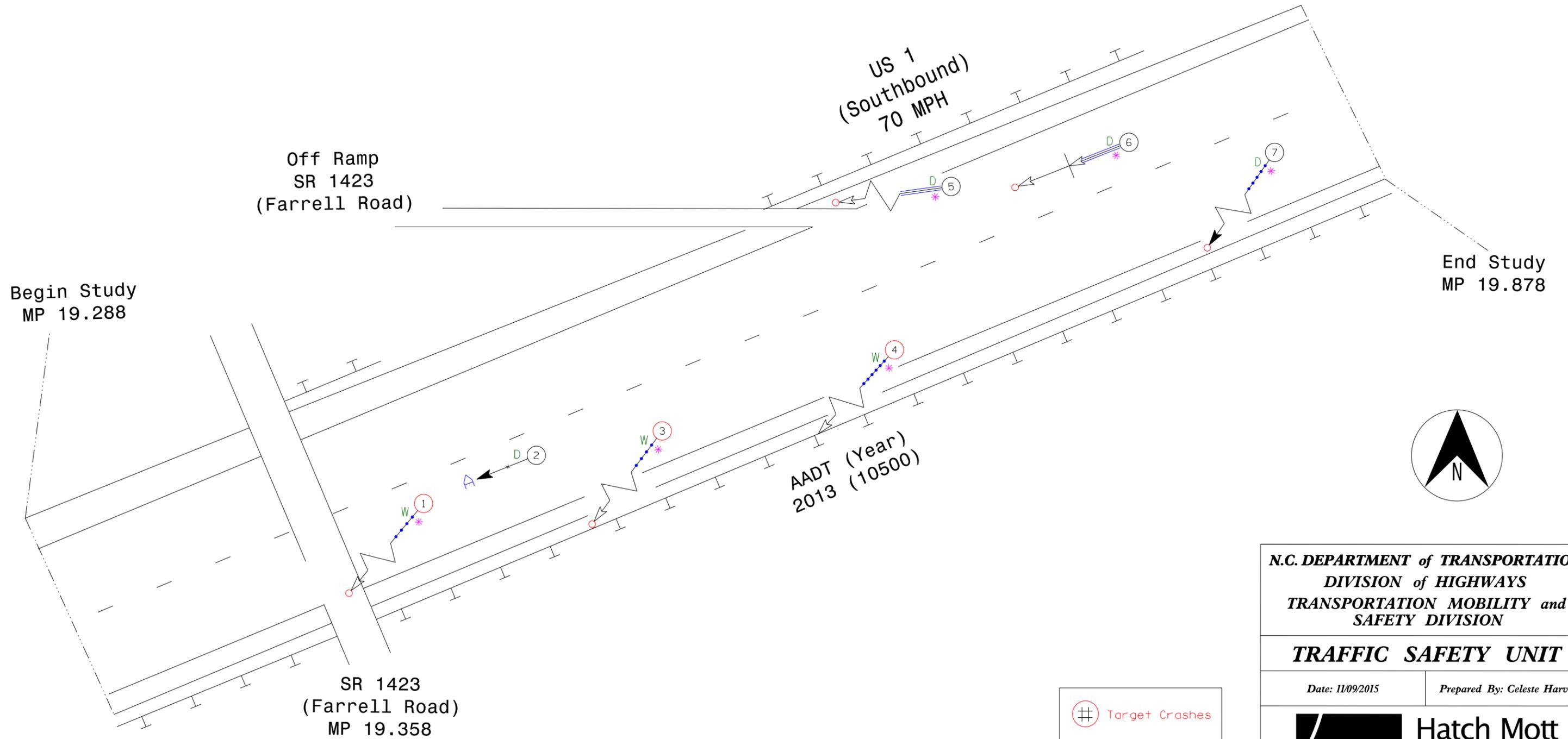
**TRAFFIC SAFETY UNIT**

Date: 11/09/2015 Prepared By: Celeste Harvey



SS# 08-10-4940  
 Order# 41000033924  
 Lee County  
 AFTER Period  
 5/1/2011 - 9/30/2015

LEGEND			
	MOVING VEHICLE		ANGLE
	PARKED VEHICLE		TURNING
	PARKING VEHICLE		BACKING
	MOVABLE OBJECT		SIDESWIPE
	HEAD ON		INJURY
	REAR END		FATALITY
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**DIVISION of HIGHWAYS**  
**TRANSPORTATION MOBILITY and SAFETY DIVISION**

**TRAFFIC SAFETY UNIT**

Date: 11/09/2015      Prepared By: Celeste Harvey