

# Spot Safety Project Evaluation

## Project Information

Order ID: 41000019450

Project ID: 06-06-211

Location: SR 1404 (Morganton Rd) and SR 1403 (Reilly Rd)

County: Cumberland

City: Fayetteville

Division: 6

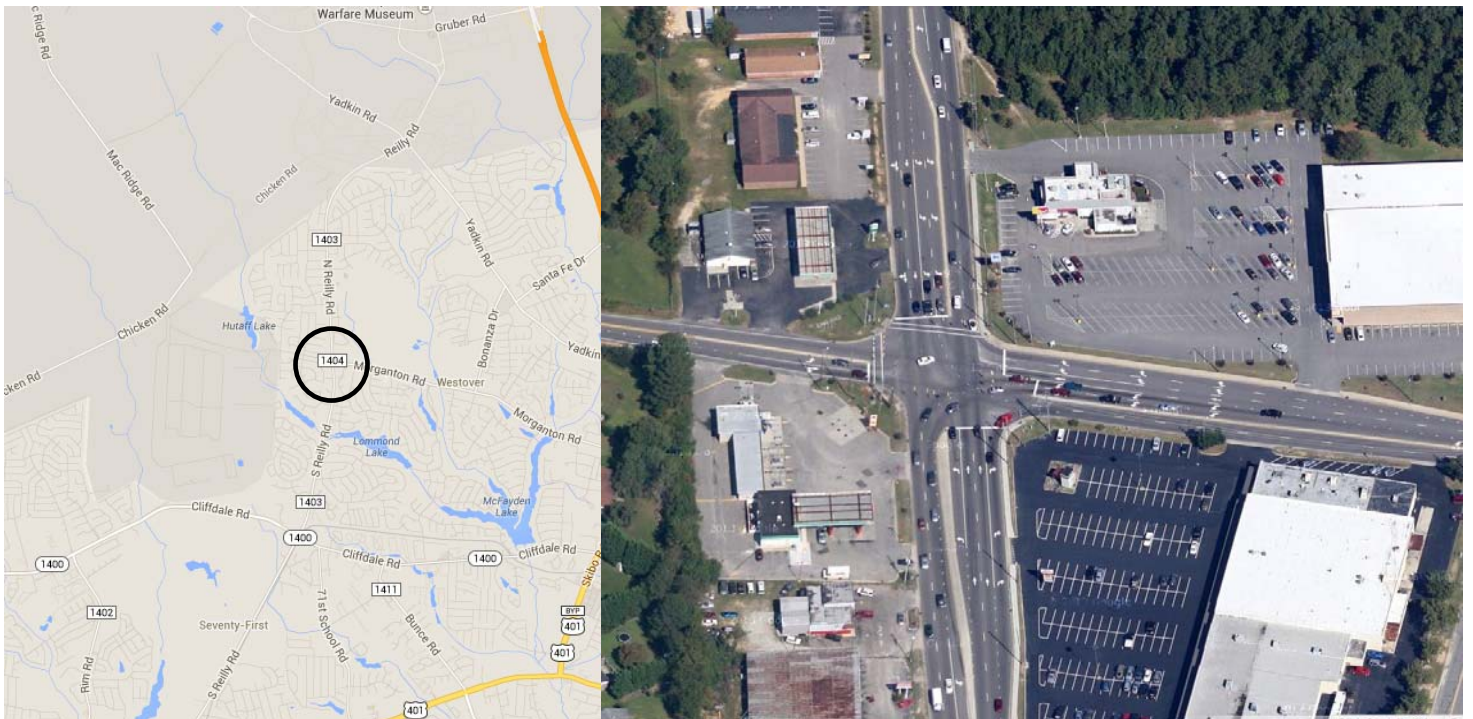
Signal ID: 06-0369

Countermeasure: Concrete islands were installed on all approaches for approximately 300 feet.

Project Completion: January 25, 2011

Project Cost: \$86,000

## Map and Aerial (from Google Maps – Coordinates are 35.082792, -79.010206)



**Naive Before and After Analysis**

Before Period: January 1, 2008 through December 31, 2010 (3 years)

Const. Period: January 1, 2011 through February 28, 2011

After Period: March 1, 2011 through February 28, 2014 (3 years)

Analysis Criteria: Treatment data consisted of all crashes within approximately 300 feet of the subject intersection (the length of each concrete island)

Target Crashes: Crashes involving a vehicle either entering or exiting one of the driveways in the subject area and attempting to cross the opposing lanes of traffic. These include left turn-same roadway, left turn-different roadway, and angle crashes.

<b><u>Treatment Information</u></b>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Total Crashes	120	72	-40.0
Total Severity Index	2.97	2.75	-7.4
Target Crashes	27	1	-96.3
Target Crash Severity Index	4.01	1	-75.1
Volume (2009, 2012)	49,500	46,900	-5.3

<b><u>Injury Crash Summary</u></b>	<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	3	0	-100.0
Class C Injury Crashes	8	0	-100.0
Property Damage Only	16	1	-93.8

## **Overall Summary Results**

Total Crashes:	- 40 %	(reduction)
Total Crash Severity:	- 7 %	(reduction)
Target Crashes:	- 96 %	(reduction)
Target Crash Severity:	- 75 %	(reduction)
Volume:	- 5 %	(reduction)

## **Items for Discussion/Concerns**

There were four crashes in the after period that, according to the crash reports, involved vehicles making U-turns around the concrete medians. Two occurred on the western leg of SR 1404, both involving westbound vehicles. The other two occurred on the northern leg of SR 1403, with one involving northbound vehicles and the other involving southbound vehicles.

## **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

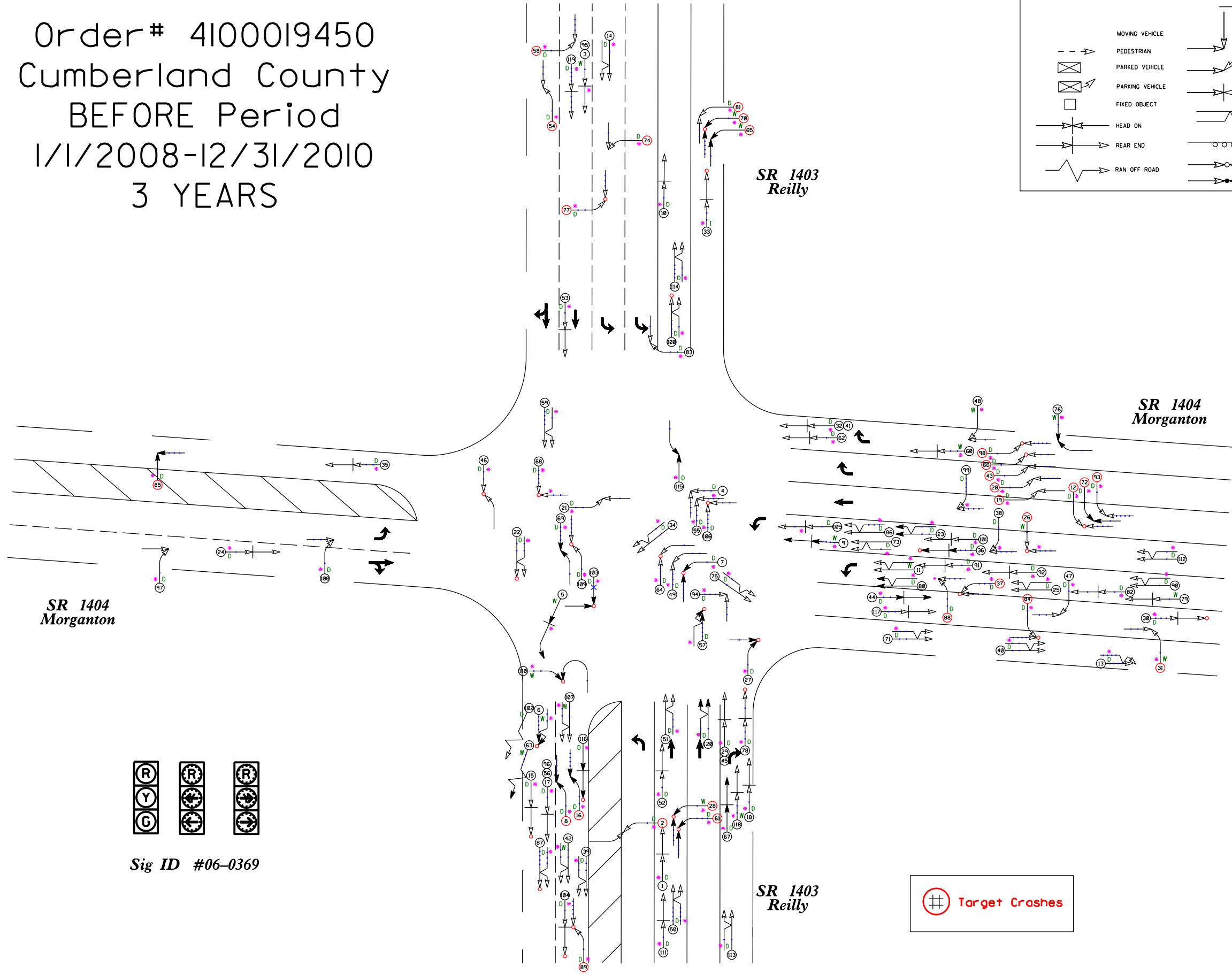
## **Data Prepared By**

Principal Investigator: Brad Robinson, PE  
Work Group/Consultant: NCDOT - Safety Evaluation Group  
Date: April 30, 2014

Order# 4100019450  
 Cumberland County  
 BEFORE Period  
 1/1/2008-12/31/2010  
 3 YEARS

**LEGEND**

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

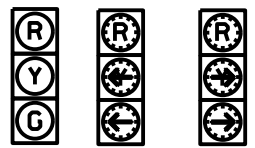


SR 1404  
Morganton

SR 1403  
Reilly

SR 1404  
Morganton

SR 1403  
Reilly



Sig ID #06-0369

Target Crashes

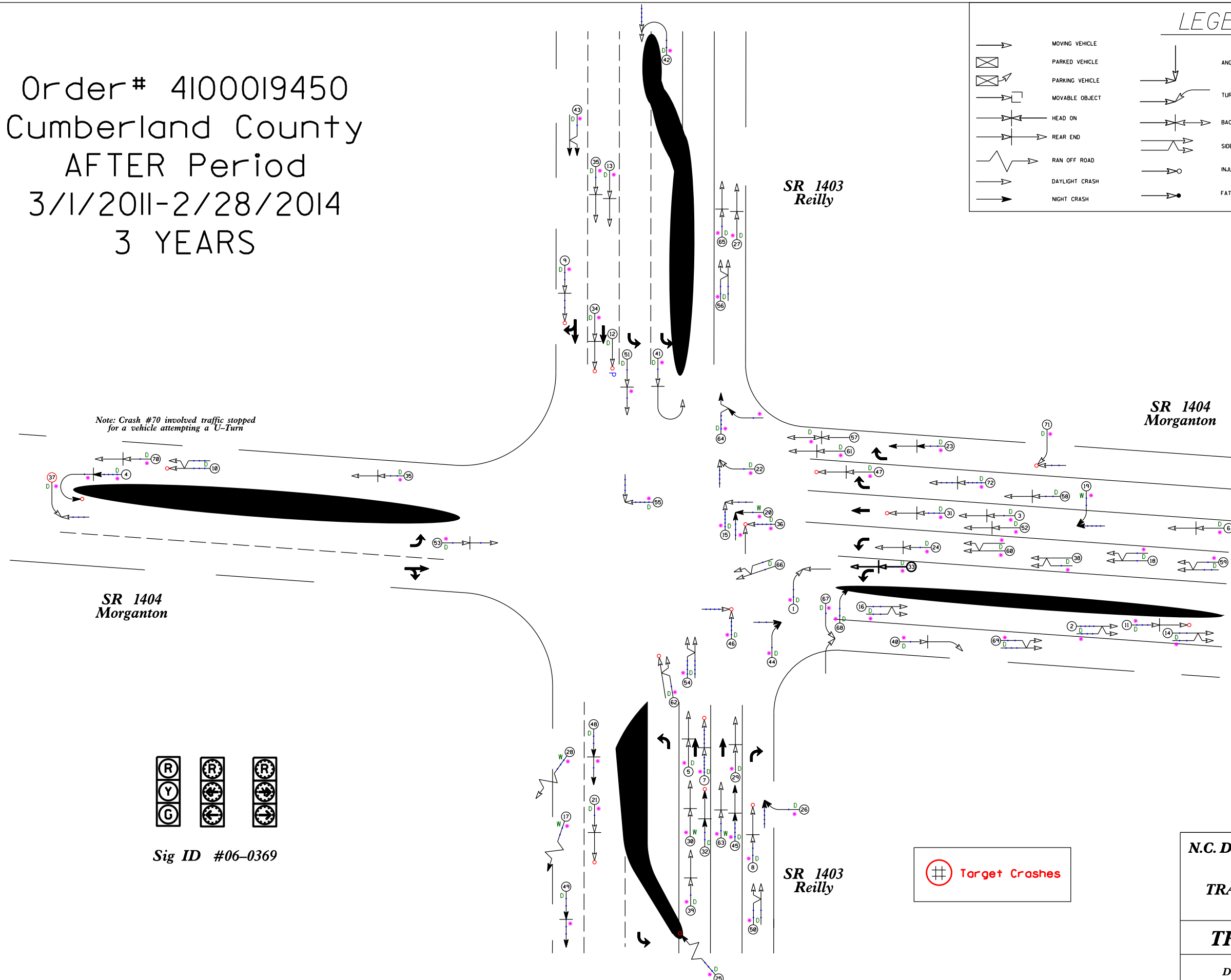
**N.C. DEPARTMENT of TRANSPORTATION**  
 DIVISION of HIGHWAYS  
 TRANSPORTATION MOBILITY and  
 SAFETY DIVISION

**TRAFFIC SAFETY UNIT**

Date: May 2012

Prepared By: bdr

Order # 4100019450  
 Cumberland County  
 AFTER Period  
 3/1/2011-2/28/2014  
 3 YEARS



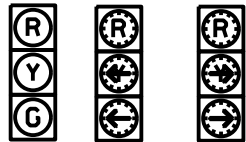
Note: Crash #70 involved traffic stopped for a vehicle attempting a U-Turn

SR 1404 Morganton

SR 1403 Reilly

SR 1404 Morganton

SR 1403 Reilly



Sig ID #06-0369

⊕ Target Crashes

**LEGEND**

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

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

**TRAFFIC SAFETY UNIT**

Date: April 2014

Prepared By: bdr