

Spot Safety Project Evaluation

Project Information

Order ID: 41000029427

Project ID: 03-07-209

Location: SR 1308 (Gum Branch Road) from 550-feet north/west of SR 1388 (Timothy Road) to SR 1986 (Mill Pond Drive)

County: Onslow

City: Half Moon

Division: 3

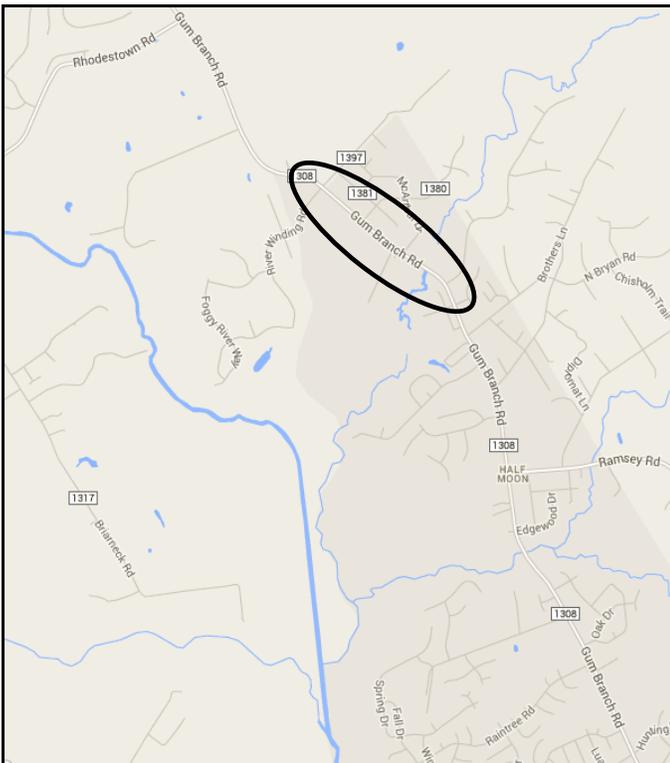
Signal ID: N/A

Countermeasure: Roadway Widening for Two-Way Center Turn Lane

Project Completion: May 15, 2008

Project Cost: \$800,000 (Spot Safety = \$173,000)

Map and Aerial (from Google Maps) – Coordinates: 34.843639,-77.473993



Naive Before and After Analysis

Before Period: April 1, 2002 through February 29, 2008 (5 years, 11 months)

Const. Period: March 1, 2008 through May 31, 2008

After Period: June 1, 2008 through April 30, 2014 (5 years, 11 months)

Analysis Criteria: Treatment data consisted of all crashes within the milepost study limits on SR 1308 with a 0-foot y-line. The study limits were from 550-feet west/north of SR 1388 (Timothy Road) to SR 1986 (Mill Pond Drive). SR 1308 Milepost Range: 6.296 to 7.177 (0.881 mile).

Target Crashes: SR 1308 (Gum Branch Road) Rear-End and Left-Turn Same Roadway Collisions

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	44	55	25.0 %
Total Severity Index	6.09	6.85	12.5 %
Target Crashes – Rear-End / LTSR	20	10	- 50.0 %
Target Crash Severity Index	4.33	3.22	- 25.6 %
Volume (2005, 2011)	14,000	16,000	14.3 %
Total Crash Rate (100 Million Veh Miles)	165.08	180.64	9.4 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	1	2	100.0 %
Class B injury Crashes	5	8	60.0 %
Class C Injury Crashes	15	15	0.0 %
Property Damage Only	23	30	30.4 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Night Crashes	13	23	76.9 %
Wet Roadway Crashes	8	6	- 25.0 %
Alcohol / Drug Involvement Crashes	5	8	60.0 %
Animal Crashes	5	11	120.0 %
Lane Departure Crashes	13	20	53.8 %
Lane Departure Severity Index	10.82	9.97	- 7.9 %

Overall Summary Results

Total Crashes:	25 %	(increase)
Total Crash Severity:	13 %	(increase)
Target Crashes:	- 50 %	(reduction)
Target Crash Severity:	- 26 %	(reduction)
Volume:	14 %	(increase)

Additional Summary Results

Lane Departure Crashes:	54 %	(increase)
Night Roadway Crashes:	77 %	(increase)

Items for Discussion/Concerns

GIS plots of the whole 0.881 mile route are attached. Since there was a crash increase near the beginning of the study segment in the after period, a detailed Collision Diagram is provided. The collision diagram is plotted from Milepost 6.298 (550-foot north/west of SR 1388) to Milepost 6.428 (150-foot south/east of SR 1388). This highlighted segment experienced a crash increase from nine (9) collisions in the before period to nineteen (19) crashes in the after period.

There were two after period A-injury crashes in the study: Crash-102714610 resulted from an animal coming through the vehicle's windshield and Crash-104020126 resulted from a vehicle leaving the roadway and striking a tree.

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: July 10, 2014



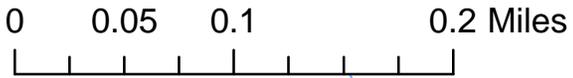
SS# 03-07-209 - ONSLOW COUNTY
SR 1308 (Gum Branch Rd) from 550' north of SR 1388 to SR 1986
Study Milepost Range 6.296 to 7.177
BEFORE PERIOD - 4/1/2002 to 2/29/2008 (5.92 Yrs)

Legend

TYPE

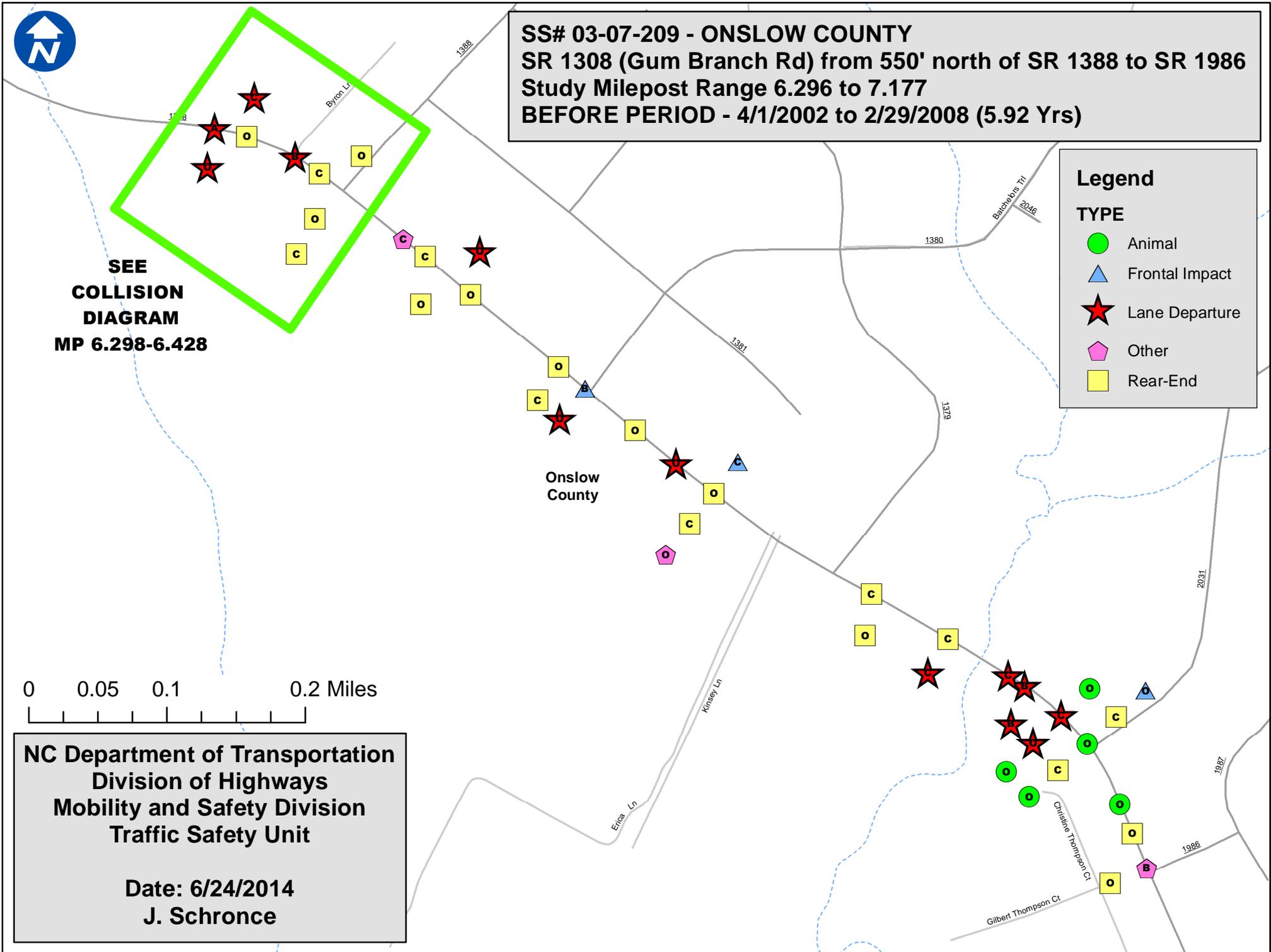
- Animal
- Frontal Impact
- Lane Departure
- Other
- Rear-End

SEE COLLISION DIAGRAM MP 6.298-6.428



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

Date: 6/24/2014
J. Schronce



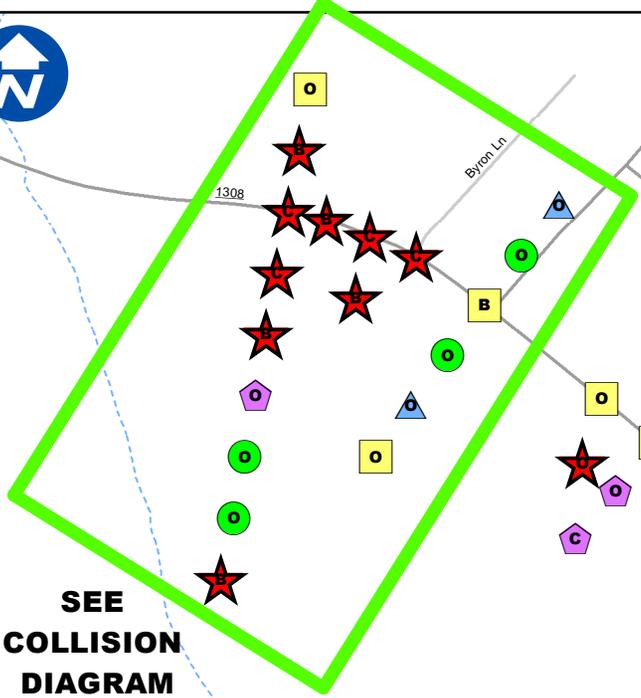


SS# 03-07-209 - ONSLOW COUNTY
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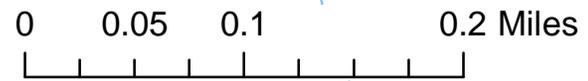
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TYPE

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

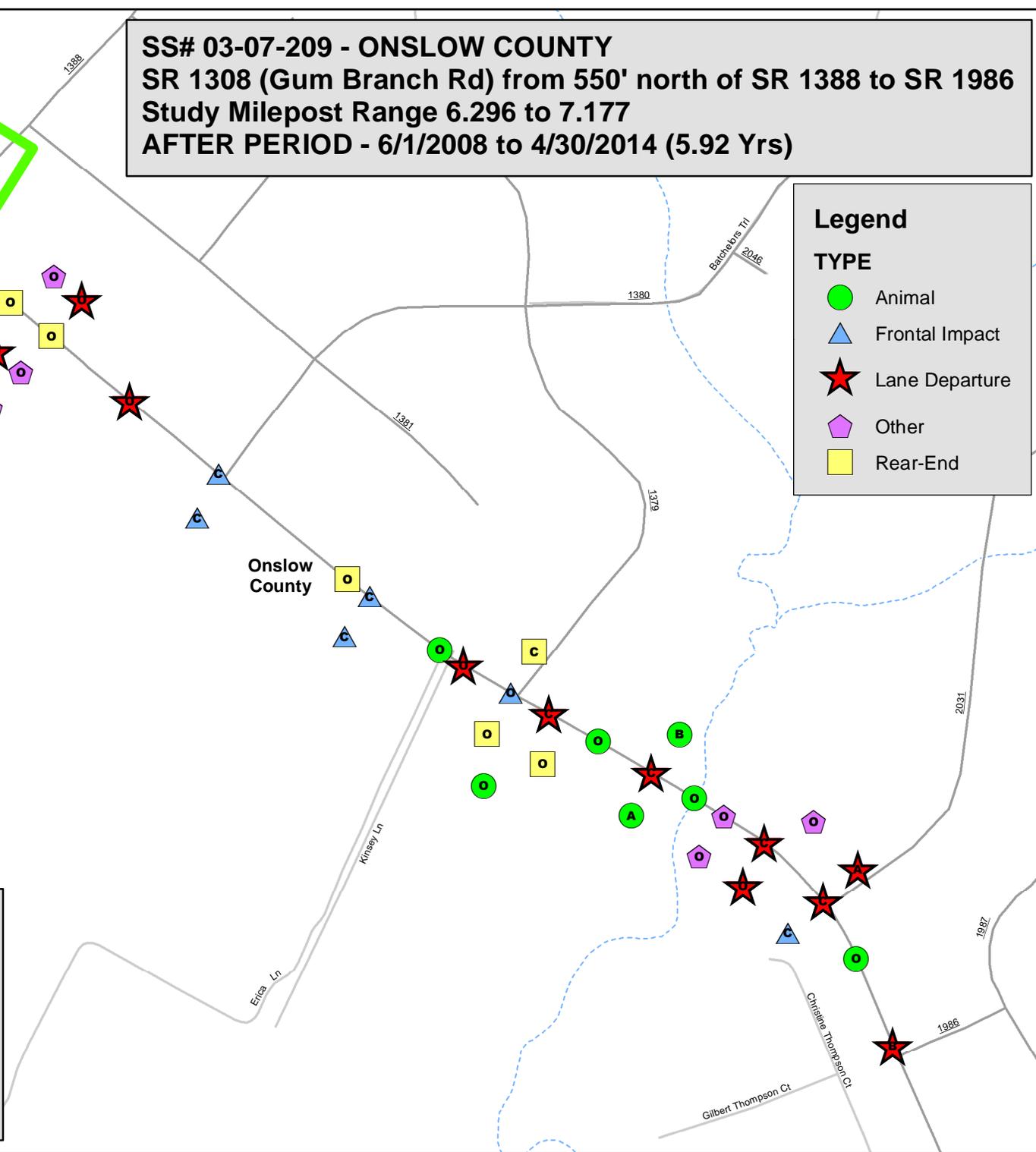


SEE COLLISION DIAGRAM
MP 6.298-6.428



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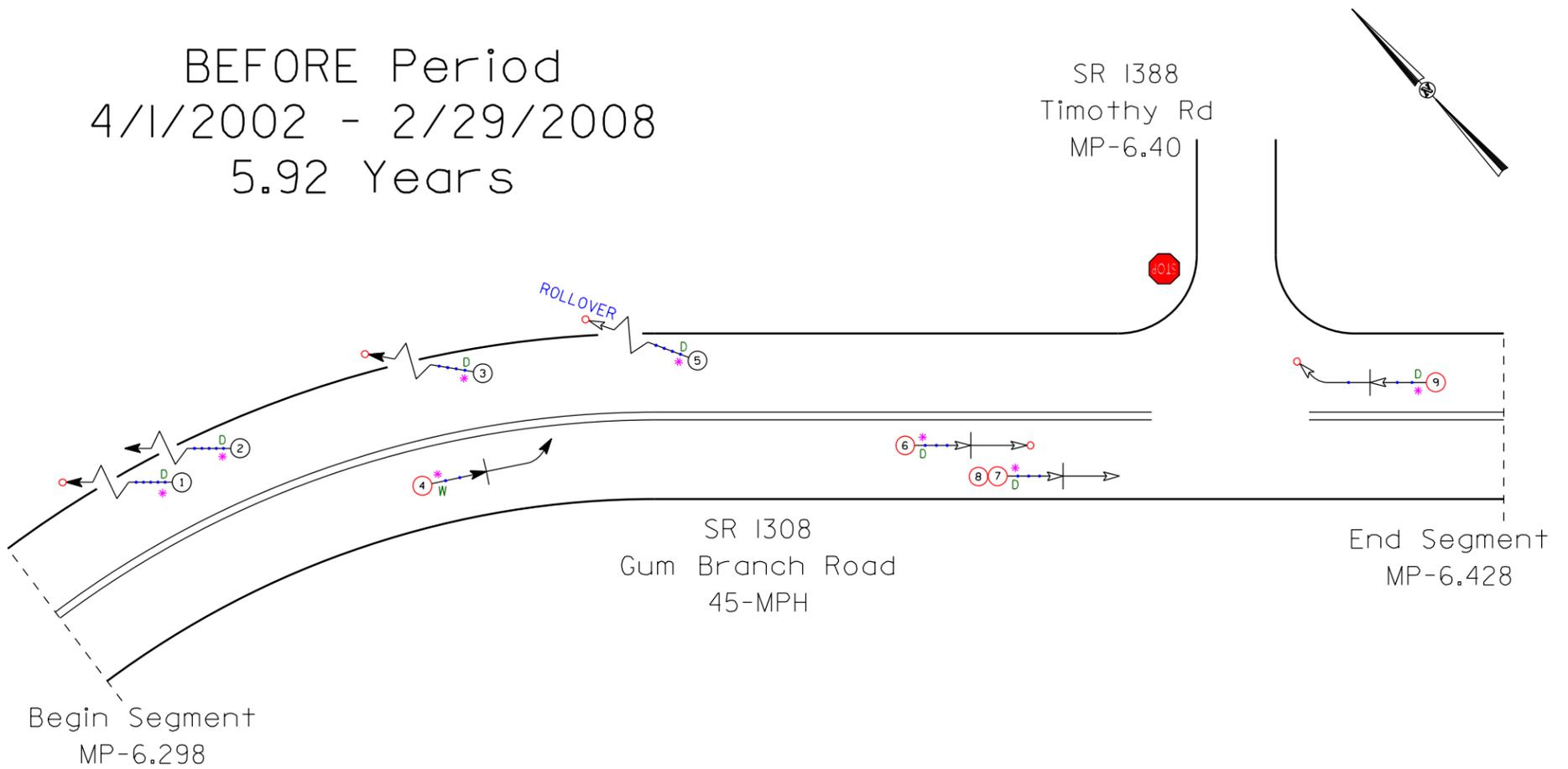
Date: 6/24/2014
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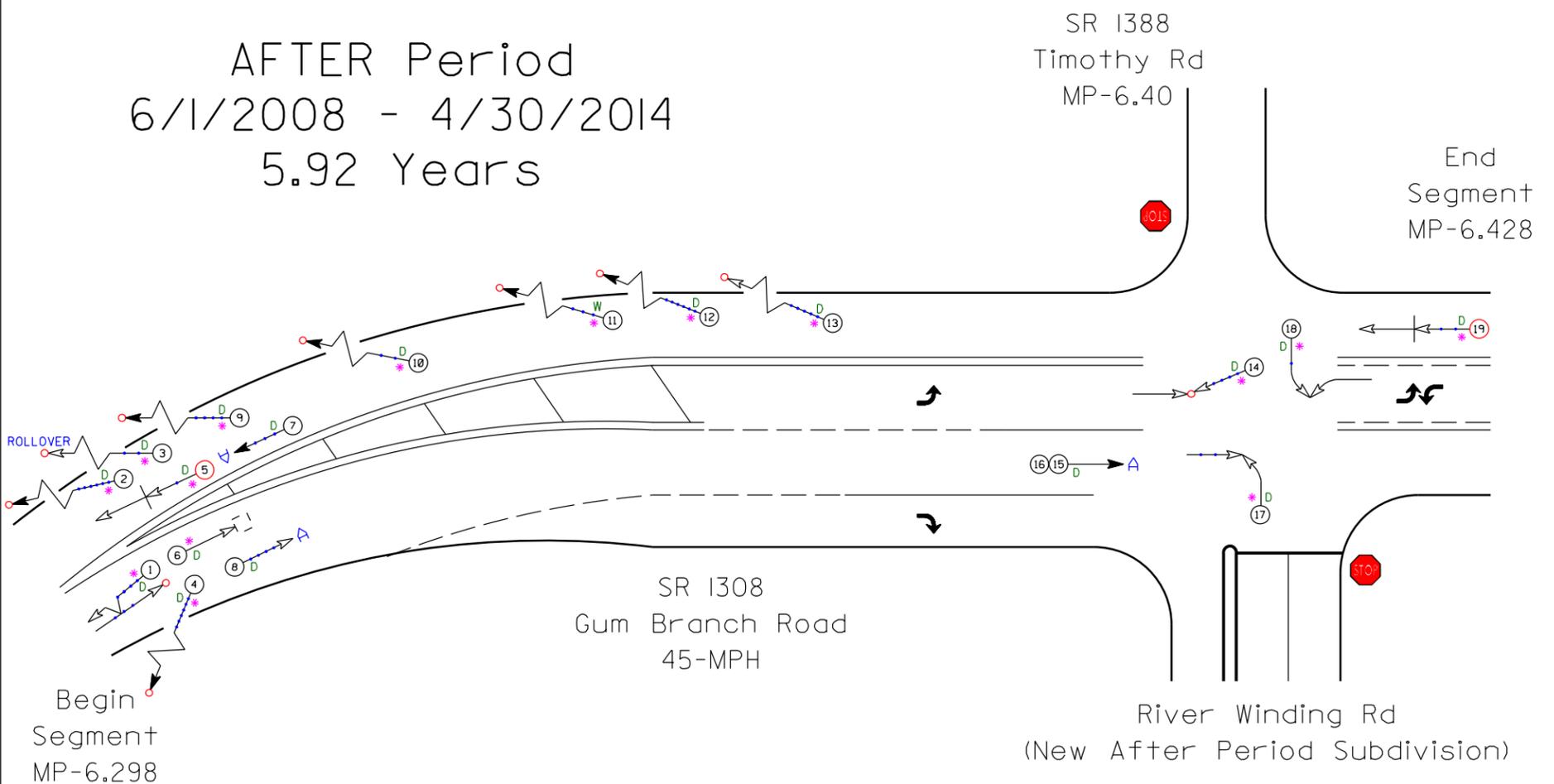
SS# 03-07-209
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 Onslow County

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

BEFORE Period
 4/1/2002 - 2/29/2008
 5.92 Years



AFTER Period
 6/1/2008 - 4/30/2014
 5.92 Years



COUNTERMEASURE:

Widen for Two-Way Center Turn Lane
 from MP 6.296 to 7.177 (0.881mile)

Rear-End / LTSR
 Target Crashes

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

TRAFFIC SAFETY UNIT

Date: 6-25-2014 Prepared By: J. Schronce