

Spot Safety Project Evaluation

Project Information

Order ID: 41000033915
Project ID: 05-08-207
Location: SR 1107 (Stagecoach Road) at SR 1110 (Farrington Road)
County: Durham
City: Durham
Division: 5
Signal ID: 05-2361
Countermeasure: Install a traffic signal
Project Completion: November 2011
Project Cost: \$49,500.00

Map and Aerial (from Google maps – Coordinates are 35.888527, -78.982869)



Naive Before and After Analysis

Before Period: February 1, 2008 to August 31, 2011 (3 years, 7 months)

Const. Period: September 1, 2011 to November 30, 2011 (3 months)

After Period: December 1, 2011 to June 30, 2015 (3 years, 7 months)

Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the SR 1107 and SR 1110 approaches.

Target Crashes: Frontal Impact Crashes including angle; left-turn, different roadway; and left-turn same roadway type crashes.

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	10	8	-20.0%
Total Severity Index	11.50	2.90	-74.8%
Target Crashes	8	4	-55.6%
Target Crash Severity Index	14.20	2.90	-79.6%
Volume (2009, 2013)	14,800	16,200	9.5%

<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	3	0	-100.0%
Class C Injury Crashes	1	2	100.0%
Property Damage Only	5	6	20.0%

Overall Summary Results

Total Crashes:	-20.0 %	(Reduction)
Total Crash Severity:	-74.8 %	(Reduction)
Target Crashes:	-50.0 %	(Reduction)
Target Crash Severity:	-79.6 %	(Reduction)
Volume:	9.5 %	(Increase)

Items for Discussion/Concerns

The total crashes saw a reduction of 20.0% (10 to 8 crashes) between the before and after periods. The total crash severity reduced by 74.8%. Target crashes also reduced between the before and after periods by 50.0% (8 to 4 crashes). The severity of the target crashes was also reduced significantly by 79.6%.

Data Prepared For

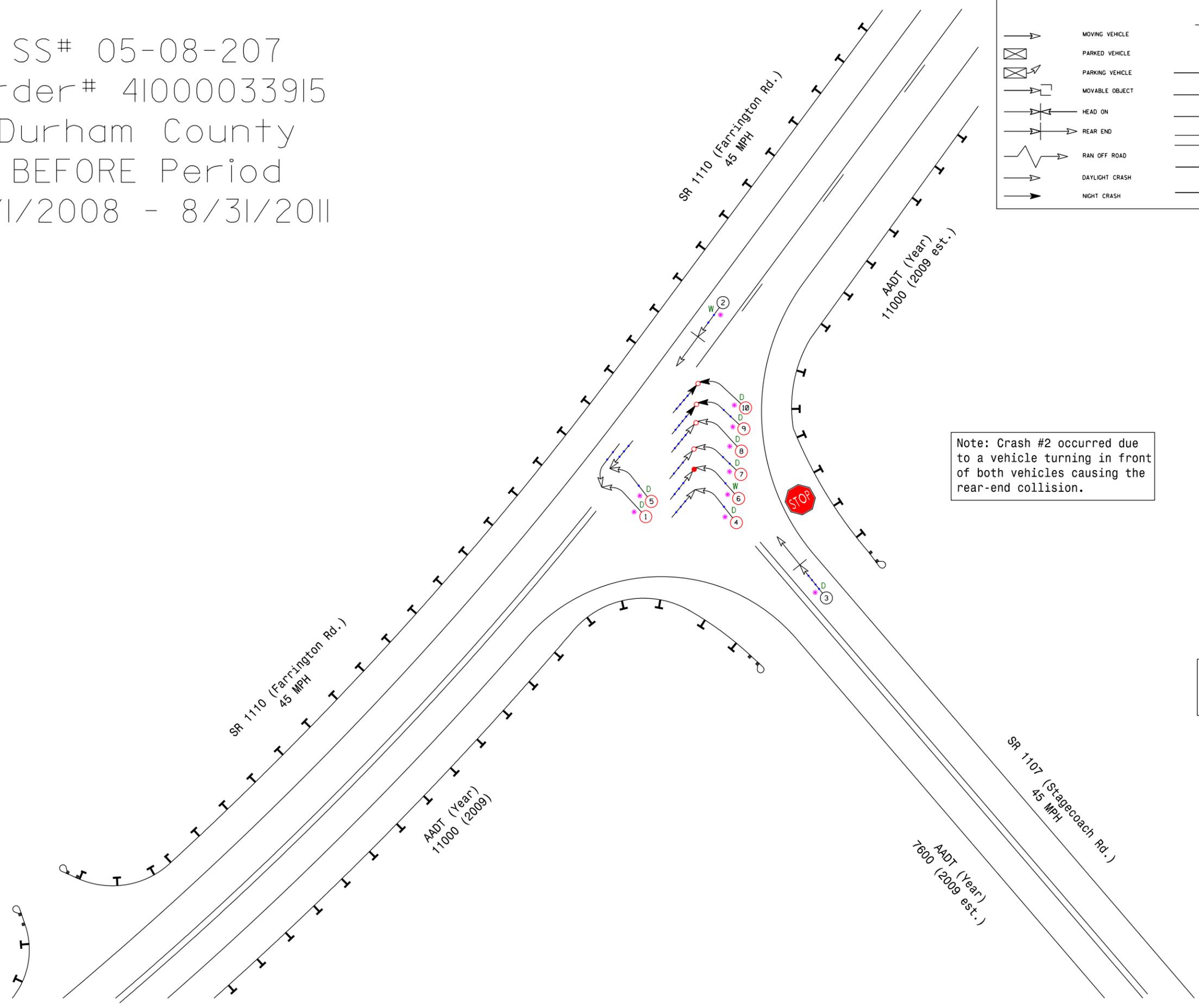
The Traffic Safety Unit *of the*
Transportation Mobility and Safety Division *of the*
Division of Highways *of the*
North Carolina Department of Transportation

Data Prepared By

Principal Investigator: Ross Oliver
Work Group/Consultant: Hatch Mott MacDonald
Date: August 14, 2015

SS# 05-08-207
 Order# 41000033915
 Durham County
 BEFORE Period
 2/1/2008 - 8/31/2011

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



Note: Crash #2 occurred due to a vehicle turning in front of both vehicles causing the rear-end collision.

Target Crashes



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

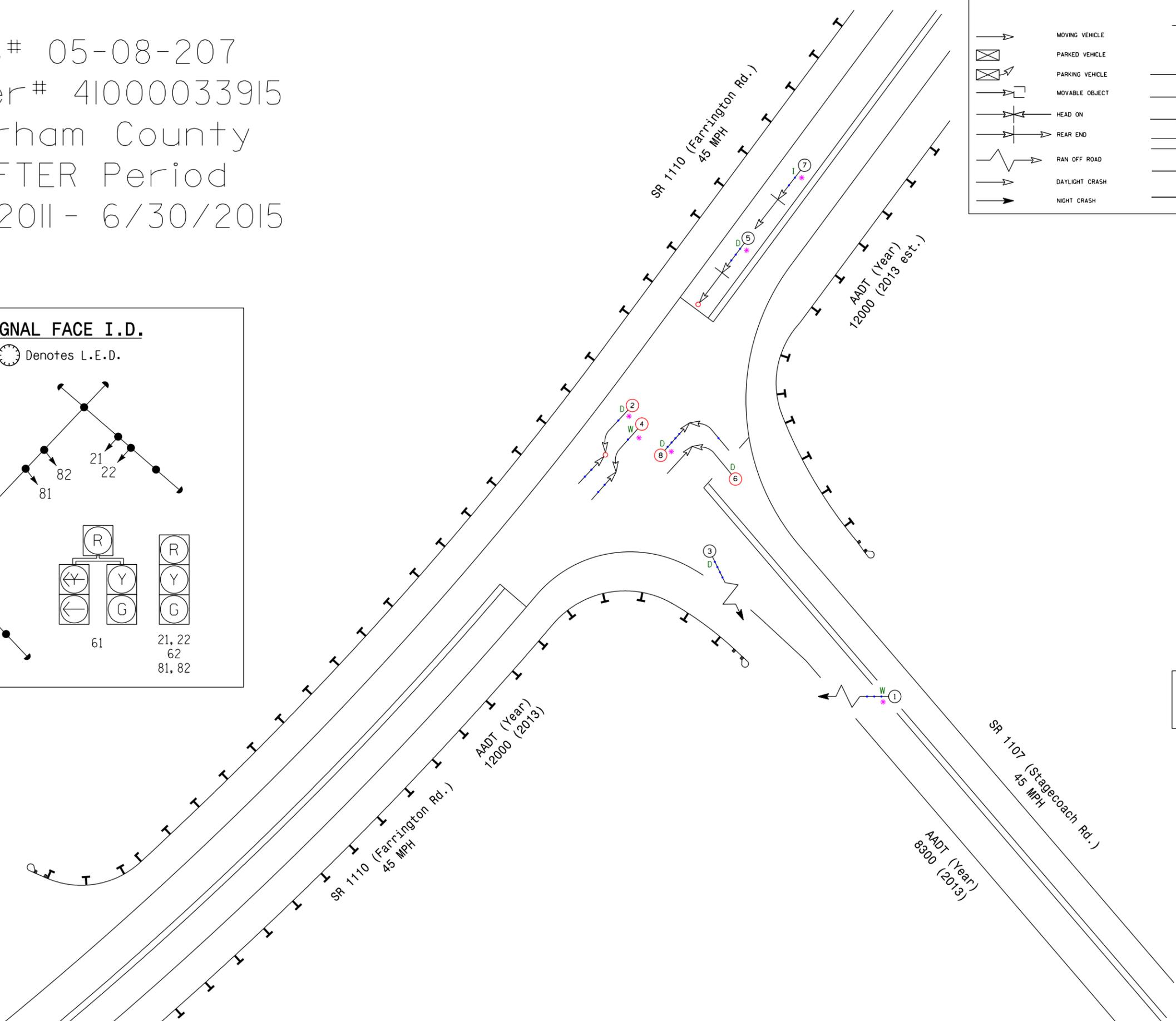
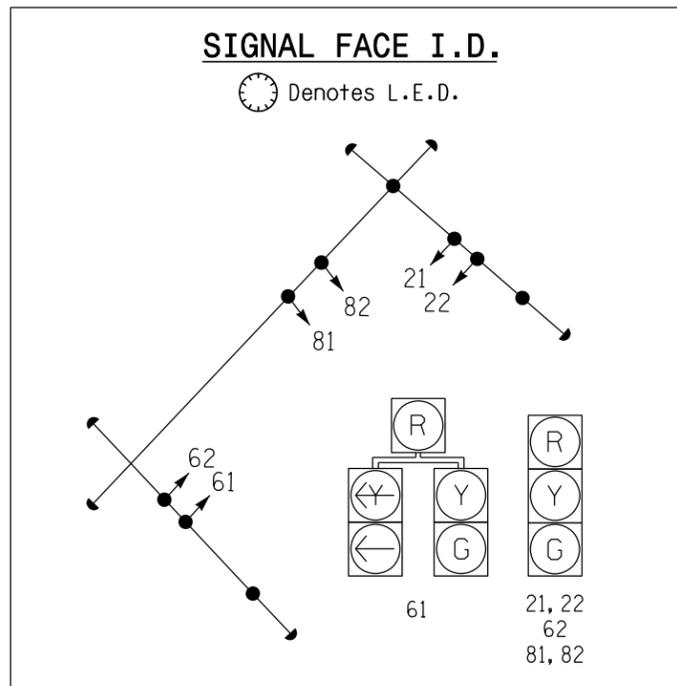
TRAFFIC SAFETY UNIT

Date: 8/14/2015 Prepared By: R. Oliver



SS# 05-08-207
 Order# 41000033915
 Durham County
 AFTER Period
 12/1/2011 - 6/30/2015

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



Target Crashes



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

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