

Spot Safety Project Evaluation

Project Information

Order ID: 41000028036

Project ID: 01-06-202

Location: NC 344 (Halstead Boulevard Extension) at SR 1307 (Forest Park Road)

County: Pasquotank

City: Elizabeth City

Division: 1

Signal ID: 01-0749

Countermeasure: Install traffic signal

Project Completion: Between October 5, 2007 and March 16, 2008

Project Cost: \$157,000.00

Map and Aerial (from Google Maps – Coordinates are 36.297522,-76.263185)



Naive Before and After Analysis

Before Period: July 1, 2004 through October 31, 2007 (3 years, 4 months)

Const. Period: November 1, 2007 through February 29, 2008

After Period: March 1, 2008 through February 28, 2014 (6 years)

Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the NC 344 and SR 1307 approaches.

Target Crashes: Frontal impact crashes including:

- Left-turn, same roadway
- Left-turn, different roadways
- Right-turn, same roadway
- Right-turn, different roadways
- Head-on
- Angle

<u>Treatment Information</u>	Before (3 yrs, 4 mo)	After (6 yrs)	Percent Reduction (-) Percent Increase (+)
Total Crashes	14	28	N/A
Total Crashes per Year	4.2	4.7	+11.1 %
Total Severity Index	4.2	3.9	-6.3 %
Target Crashes	13	16	N/A
Target Crashes per Year	3.9	2.7	-31.6 %
Target Crash Severity Index	3.8	4.2	+10.2 %
Volume (2006, 2010)	10,500	17,000	+61.9 %

<u>Injury Crash Summary</u>	Before (3 yrs, 4 mo)	After (6 yrs)	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes per Year	0.0	0.0	N/A
Class A injury Crashes per Year	0.0	0.0	N/A
Class B injury Crashes per Year	0.9	0.5	-44.4 %
Class C Injury Crashes per Year	0.9	1.3	+48.2 %
Property Damage Only per Year	2.4	2.8	+18.1 %

<u>Additional Information</u>	Before (3 yrs, 4 mo)	After (6 yrs)	Percent Reduction (-) Percent Increase (+)
Rear End Crashes per Year	0.3	1.2	+289.0 %

Overall Summary Results

Total Crashes per Year:	+11.1 %	(increase)
Total Crash Severity:	-6.3 %	(reduction)
Target Crashes per Year:	-31.6 %	(reduction)
Target Crash Severity:	+10.2 %	(increase)
Volume:	+61.9 %	(increase)

Additional Summary Results

Rear End Crashes per Year	+289.0 %	(increase)
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Items for Discussion/Concerns

Total Crashes per year experienced an increase of 11.1% between the before and after periods while the Total Target Crashes per Year experienced a decrease of 31.6 %.

The Total Crash Severity experienced a decrease of 6.3% between the before and after periods while the Target Crash Severity experienced a 10.2% increase.

Rear End Crashes per Year experienced a 289% increase 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

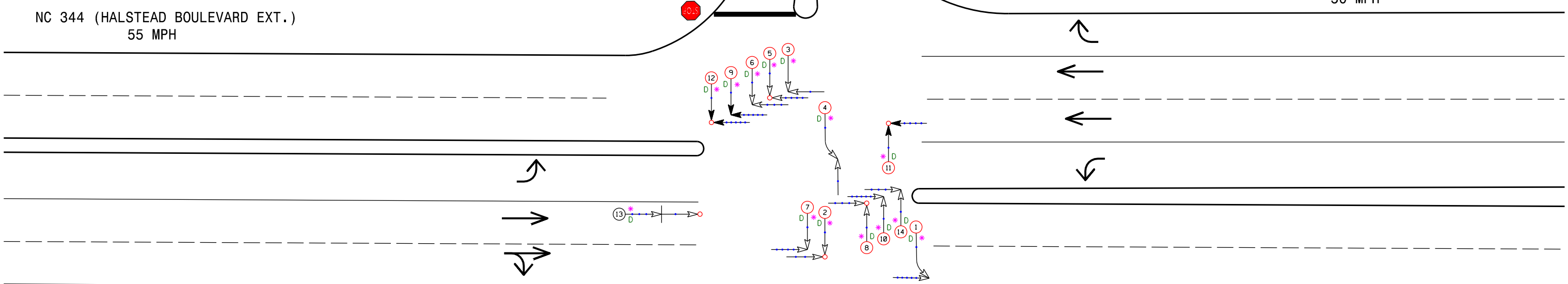
Data Prepared By

Principal Investigator: Hillary Millen, EI
Work Group/Consultant: Hatch Mott MacDonald
Date: April 8, 2014

SS# 01-06-202
 Order# 41000028036
 Pasquotank County
 BEFORE Period
 7/1/2004 - 10/31/2007



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
			A ANIMAL
			P PEDESTRIAN
			B BICYCLE
			T TRAIN
			* DRIVER AT FAULT
			D DRY
			W WET
			I ICY OR SNOWY
			O Other



Note: The before and after time periods are not equal

Frontal Impact Target Crashes

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

TRAFFIC SAFETY UNIT

Date: 4/7/2014 Prepared By: Hillary Millen, EI



AAADT (Year)
 3500 (2006)

SR 1307 (FOREST PARK ROAD)
 35 MPH

AAADT (Year)
 7400 (2006)

SR 1307 (FOREST PARK ROAD)
 35 MPH

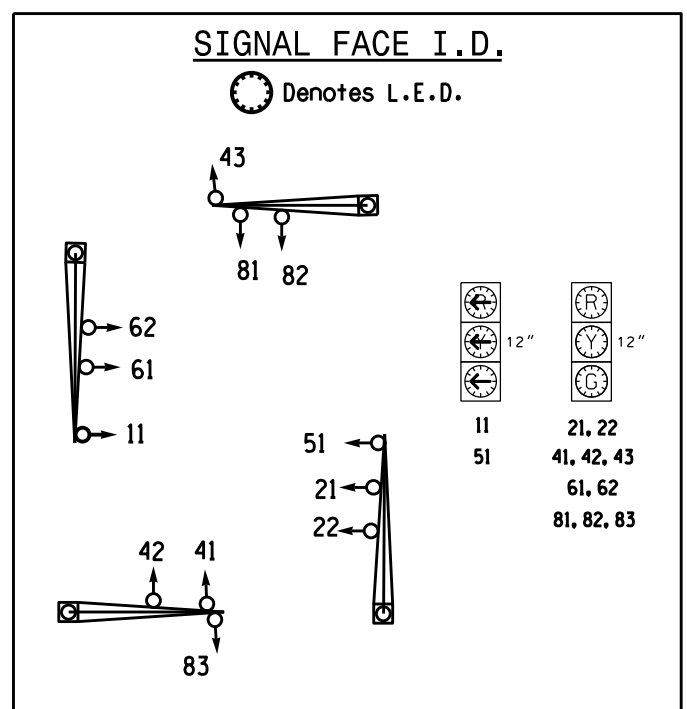
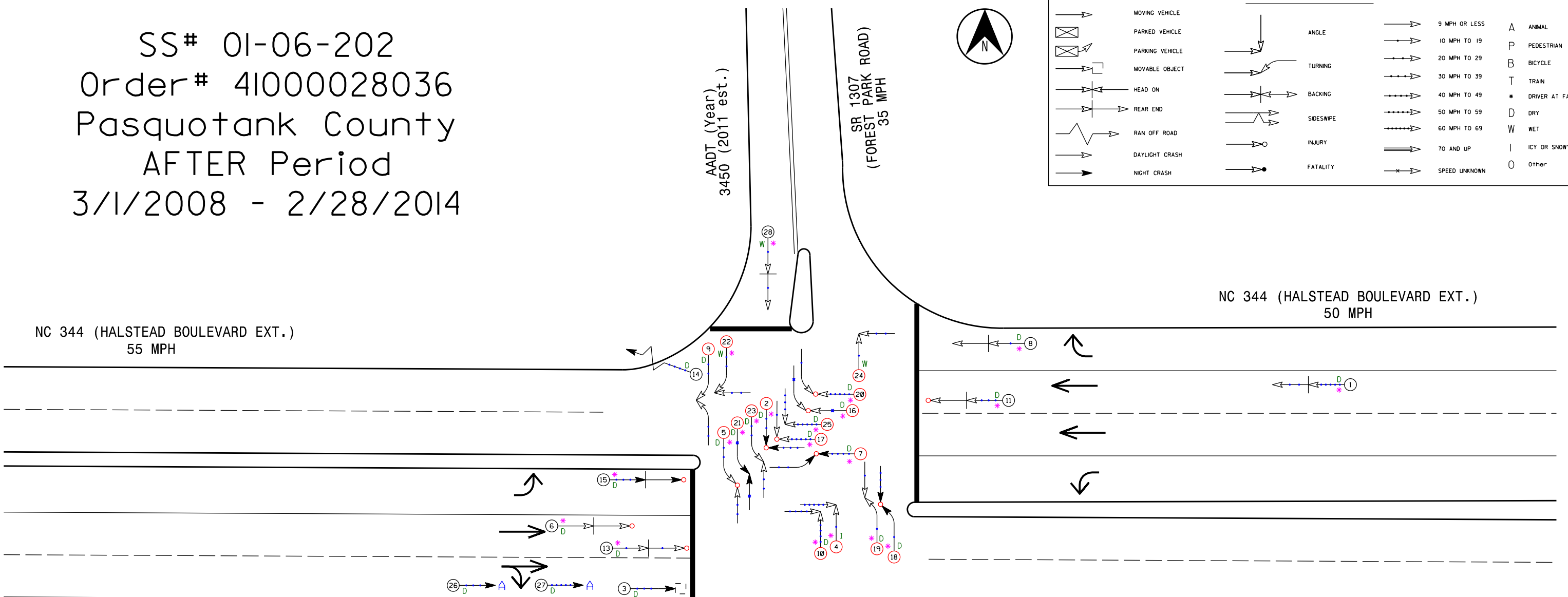
AAADT (Year)
 8300 (2006)

AAADT (Year)
 1890 (2006 Est.)

SS# 01-06-202
 Order# 41000028036
 Pasquotank County
 AFTER Period
 3/1/2008 - 2/28/2014



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



AADT (Year)
15000 (2011)

AADT (Year)
13000 (2011)

Note: The before and after time periods are not equal

Frontal Impact Target Crashes

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

TRAFFIC SAFETY UNIT

Date: 4/8/2014 Prepared By: Hillary Millen, EI



AADT (Year)
2500 (2011)

SR 1307 (FOREST PARK ROAD)
35 MPH