

Spot Safety Project Evaluation

Project Information

Order ID: 41000030096

Project ID: 04-06-211

Location: US 301 at SR 1165 (Forest Hills Rd)

County: Wilson

City: Wilson

Division: 4

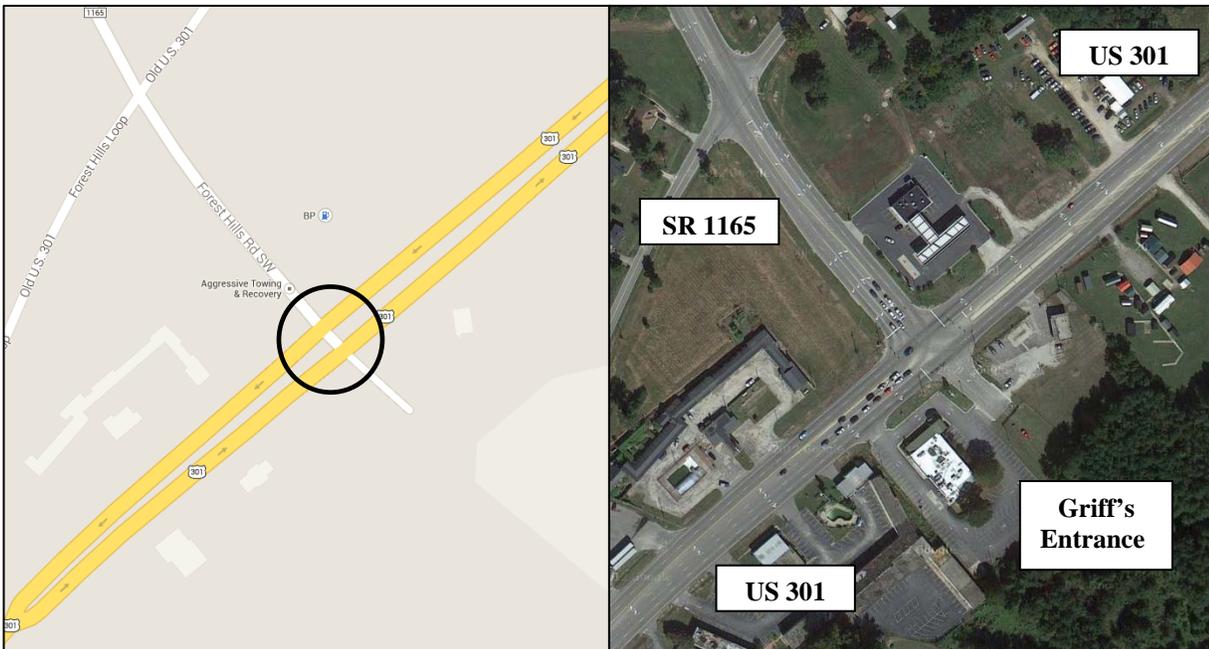
Signal ID: 04-0963

Countermeasure: Add NB left turn lanes on US 301, create service road opposite of SR 1165 and remove existing driveways, construct concrete islands on US 301, and revise signal plan

Project Completion: June 3, 2009

Project Cost: \$400,000

Map and Aerial (from Google Maps – Coordinates are 35.692035, -77.94374)



Naive Before and After Analysis

- Before Period: April 1, 2006 through October 31, 2008 (2 years 7 months)
(Previous Spot Safety Project was completed in February 2006)
- Const. Period: November 1, 2008 through January 31, 2009
(Based on crash report showing NB dual left turn lanes in February 2009)
- After Period: February 1, 2009 through June 30, 2014 (5 years 5 months)
- Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the US 301 and SR 1165/Griff's entrance approaches.
- Target Crashes: Frontal Impact Crashes (left-turn, same roadway; left-turn, different roadway; right-turn, same roadway; right-turn, different roadway; head-on; and angle crashes) in the intersection

<u>Treatment Information</u>	Before (2 years 7 months)	After (5 years 5 months)	Percent Reduction (-) Percent Increase (+)
Total Crashes	30	24	N/A
Total Severity Index	7.04	3.77	- 46.4 %
Total Crashes per Year	11.58	4.43	- 61.7 %
Target Crashes	8	6	N/A
Target Crash Severity Index	20.88	5.93	- 71.6 %
Target Crashes per Year	3.09	1.11	- 64.1 %
Volume (2007, 2011)	28,800	26,800	- 6.9 %

<u>Injury Crash Summary</u>	Before (Total)	Before (Per year)	After (Total)	After (Per year)	Percent Reduction (-) Percent Increase (+) (Per year)
Fatal injury Crashes	2	0.77	0	0.00	- 100.0 %
Class A injury Crashes	0	0.00	0	0.00	N/A
Class B injury Crashes	0	0.00	1	0.18	+ 100.0 %
Class C Injury Crashes	4	1.54	8	1.48	- 3.9 %
Property Damage Only	24	9.27	15	2.77	- 70.1 %
Total Injury Crashes	6	2.32	9	1.66	- 28.4 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Frontal Impact Crashes Per Year (Target)	3.09	1.11	- 64.1 %
Sideswipe Crashes	12	4	N/A
Sideswipe Crashes (per year)	4.63	0.74	- 84.0 %
Rear End Crashes	9	11	N/A
Rear End Crashes (per year)	3.47	2.03	- 41.5 %

Overall Summary Results

Total Crashes (per year):	- 62 %	(reduction)
Total Crash Severity:	- 46 %	(reduction)
Target Crashes (per year):	- 64 %	(reduction)
Target Crash Severity:	- 72 %	(reduction)
Volume:	- 7 %	(reduction)

Additional Summary Results

Frontal Impact Crashes (per year):	- 64 %	(reduction)
Sideswipe Crashes (per year):	- 84 %	(reduction)
Rear End Crashes (per year):	- 42 %	(reduction)

Items for Discussion/Concerns

The study intersection experienced a 62 % reduction in total crashes per year (11.58 to 4.43 crashes per year).

The target crashes per year (Frontal Impact Crashes) experienced a 64 % reduction (3.10 to 1.11 crashes per year).

The study intersection experienced a decrease in sideswipe crashes per year (4.63 to 0.74 crashes per year) and rear end crashes per year (3.47 to 2.03 crashes per year).

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: Andrew Covington, EI
Work Group/Consultant: AECOM
Date: September 5, 2014

SS# 04-06-211
 Order# 41000030096
 Wilson County
 BEFORE Period
 4/1/2006 - 10/31/2008
 2.59 Years

SR 1165 (Forest Hills Road)
 45 MPH
 2007 ADT - 19,000

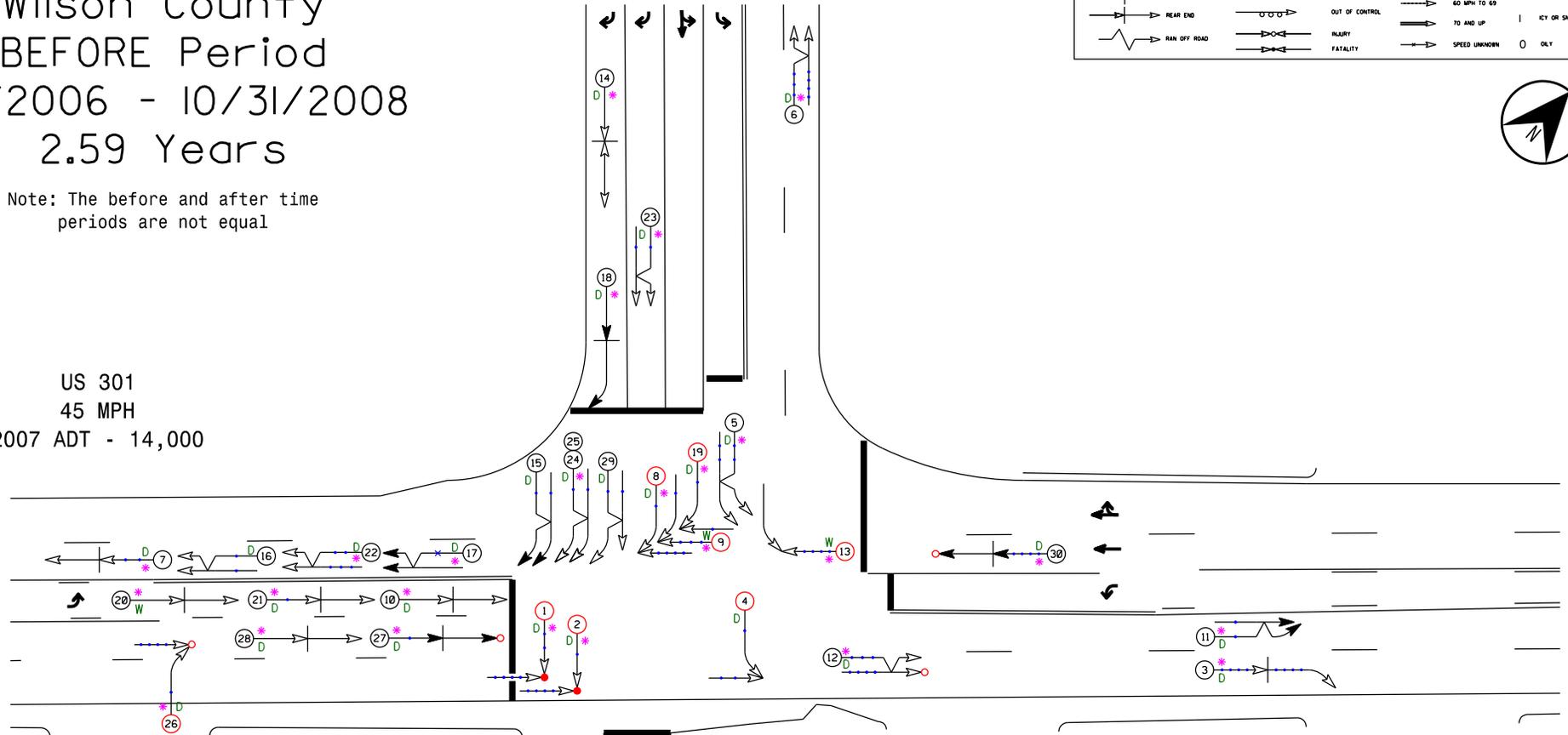
LEGEND

	MOVING VEHICLE		ANGLE		1 MPH OR LESS		PEDESTRIAN
	PEDESTRIAN		TURNING		10 MPH TO 19		TRAIN
	PAKED VEHICLE		BACKING		20 MPH TO 29		DRIVER AT FAULT
	PAKED VEHICLE		SIDESWIPE		30 MPH TO 39		DRY
	FIXED OBJECT		OUT OF CONTROL		40 MPH TO 49		WET
	HEAD ON		HURRY		50 MPH TO 59		ICY OR SNOW
	NEAR END		FATALITY		60 MPH TO 69		SPEED UNKNOWN
	RAN OFF ROAD				TO AND UP		ONLY

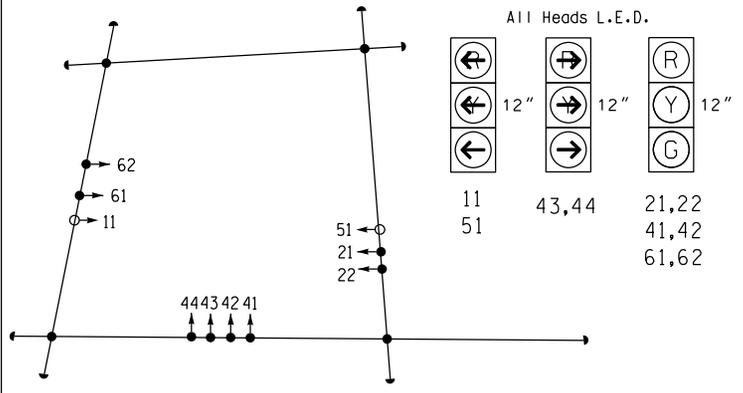


Note: The before and after time periods are not equal

US 301
 45 MPH
 2007 ADT - 14,000



SIG ID No. 04-0963 (4 Phase Fully Actuated)



Commercial Drive
 Speed Unposted
 2007 ADT - Assume 500

US 301
 45 MPH
 2007 ADT - 24,000

Frontal Impact Crashes

AECOM

Prepared For:
 N.C. DEPARTMENT of TRANSPORTATION
 DIVISION of HIGHWAYS
 TRANSPORTATION MOBILITY and SAFETY DIVISION

TRAFFIC SAFETY UNIT

Date: 9-5-2014 Prepared By: Andrew Covington, EI

