

Spot Safety Project Evaluation

Project Information

Order ID: 41000028027

Project ID: 06-07-220

Location: SR 1408 (Bonanza Drive) at Glen Canyon Drive/Westover Community School

County: Cumberland

City: Fayetteville

Division: 6

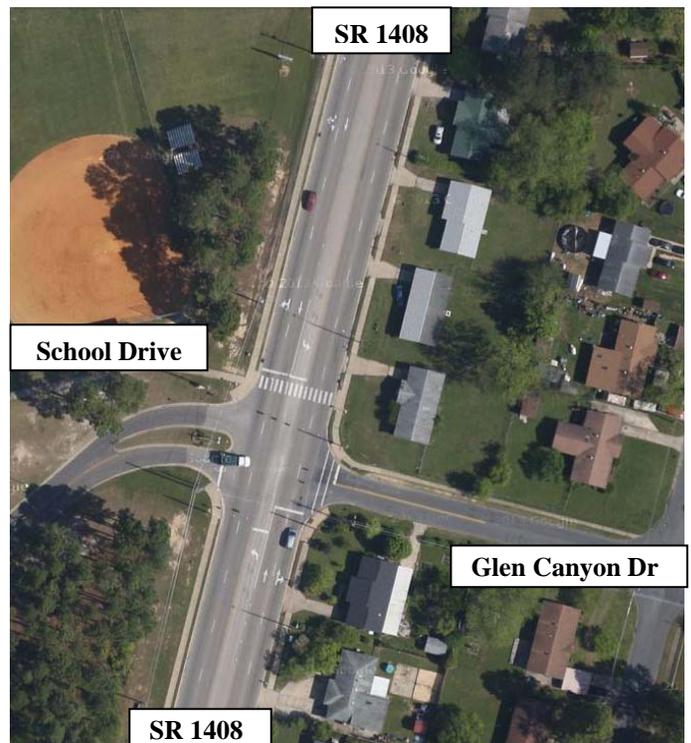
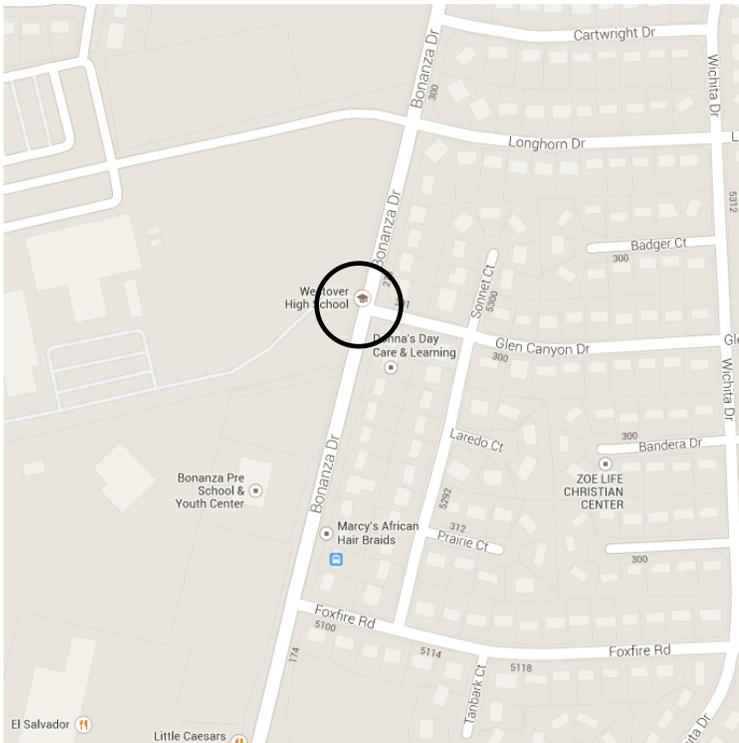
Signal ID: 06-0922

Countermeasure: Install signal with pedestrian indication
(Implemented November 2008)

Project Completion: March 19, 2009

Project Cost: \$100,000

Map and Aerial (from Google Maps - 35.083978,-78.987354)



Naive Before and After Analysis

Before Period: July 1, 2003 through September 30, 2008 (5 years 3 months)

Const. Period: October 1, 2008 through December 31, 2008

After Period: January 1, 2009 through March 31, 2014 (5 years 3 months)

Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the SR 1408 and Glen Canyon Drive/School Drive approaches.

Target Crashes: Target 1 – Frontal Impact Crashes (left-turn, same roadway; left-turn, different roadway; right-turn, same roadway; right-turn, different roadway; head-on; and angle crashes)

Target 2 – Pedestrian Crashes

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	5	8	+ 60.0 %
Total Severity Index	19.12	3.77	- 80.0 %
Target 1 (Frontal Impact Crashes)	1	1	0.0 %
Target 1 Crash Severity Index	1.00	1.00	0.0 %
Target 2 (Pedestrian Crashes)	2	1	- 50.0 %
Target 2 Crash Severity Index	38.90	8.40	- 78.4 %
Total Target Crashes	3	2	- 33.3 %
Total Target Severity Index	26.27	4.70	- 82.1 %
Volume (2006, 2011)	25,800	21,800	- 15.5 %

<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	0	0	N/A
Class C Injury Crashes	2	3	+ 50.0 %
Property Damage Only	2	5	+150.0 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Frontal Impact Crashes (Target 1)	1	1	0.0 %
Pedestrian Crashes (Target 2)	2	1	- 50.0 %
Rear End Crashes	2	5	+ 150.0 %

Overall Summary Results

Total Crashes:	+ 60 %	(increase)
Total Crash Severity:	- 80 %	(reduction)
Target 1 Crashes:	0 %	(no change)
Target 1 Crash Severity:	0 %	(no change)
Target 2 Crashes:	- 50 %	(reduction)
Target 2 Crash Severity:	- 78 %	(reduction)
Total Target Crashes:	- 33 %	(reduction)
Total Target Crash Severity:	- 82 %	(reduction)
Volume:	- 16 %	(reduction)

Additional Summary Results

Frontal Impact Crashes (Target 1):	0 %	(no change)
Pedestrian Crashes (Target 2):	- 50 %	(reduction)
Rear End Crashes:	+ 150 %	(increase)

Items for Discussion/Concerns

The target 1 crashes (frontal impact crashes) remained the same (1 crash), while target 2 crashes (pedestrian crashes) decreased (2 to 1 crash). There was an increase in rear end crashes (2 to 5 crashes).

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: May 30, 2014

SS# 06-07-220
 Order# 41000028027
 Cumberland County
 BEFORE Period
 7/1/03 - 9/30/08

Westover Community School Drive
 25 MPH
 2006 ADT - 1,000 (Assumed)

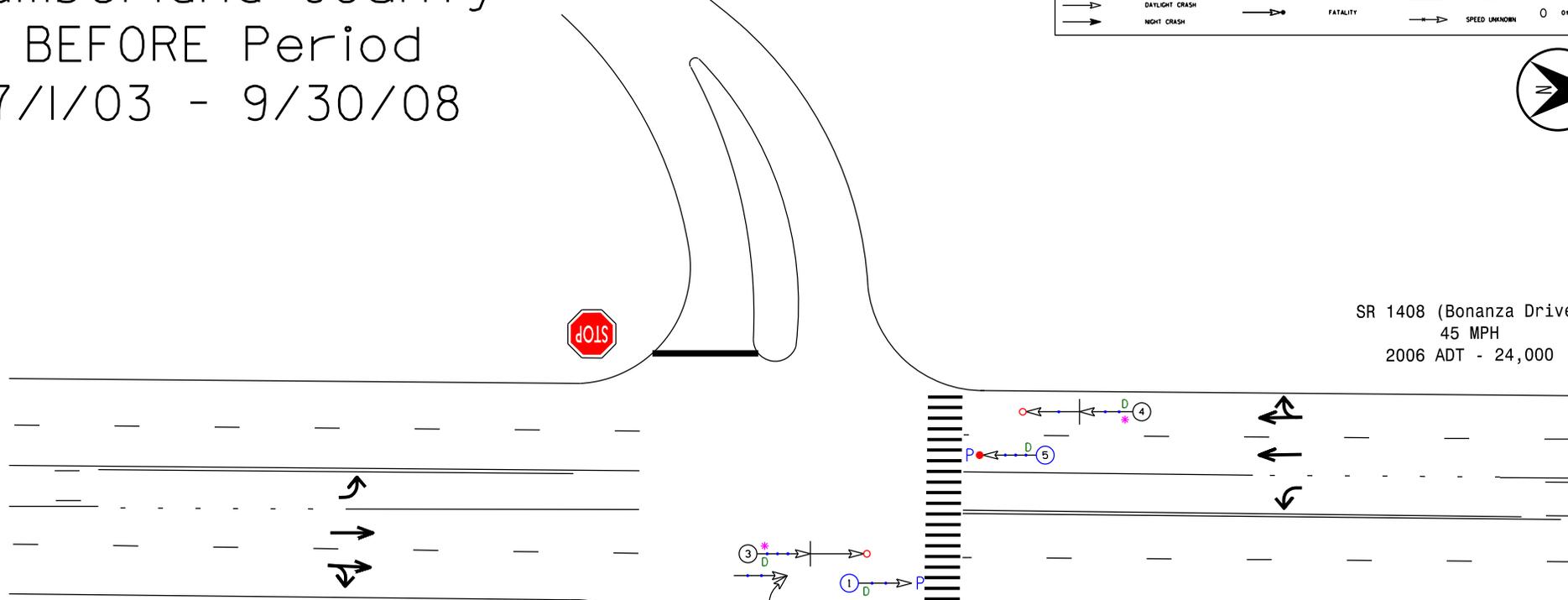
LEGEND							
	MOVING VEHICLE		ANGLE		9 MPH OR LESS		A ANIMAL
	PARKED VEHICLE		TURNING		10 MPH TO 19		P PEDESTRIAN
	PARKING VEHICLE		BACKING		20 MPH TO 29		B BICYCLE
	MOVABLE OBJECT		SIDESWIPE		30 MPH TO 39		T TRUCK
	HEAD ON		INJURY		40 MPH TO 49		* DRIVER AT FAULT
	REAR END		FATALITY		50 MPH TO 59	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



SR 1408 (Bonanza Drive)
 45 MPH
 2006 ADT - 24,000

SR 1408 (Bonanza Drive)
 45 MPH
 2006 ADT - 24,000

Glen Canyon Drive
 25 MPH
 2006 ADT - 2,500 (Assumed)



- Target 1- Frontal Impact Crashes
- Target 2- Pedestrian Crashes

AECOM

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

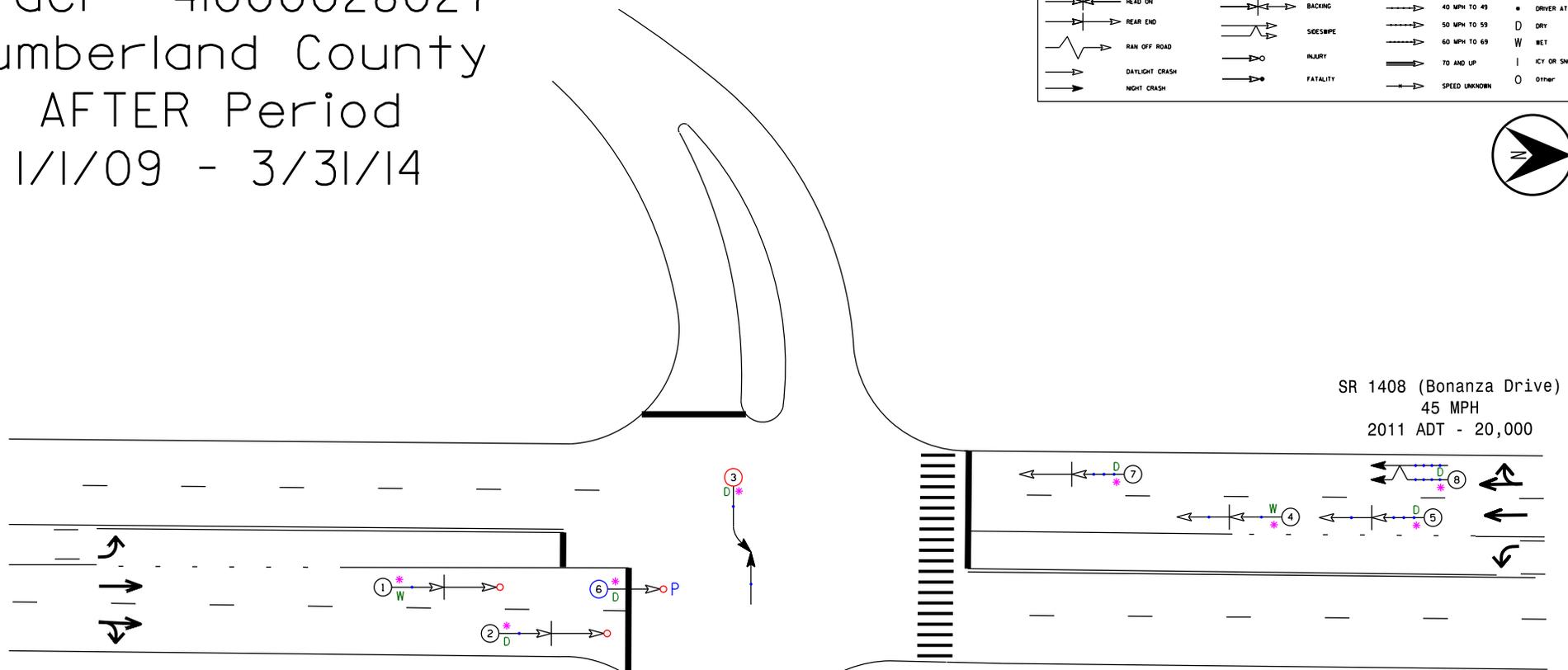
TRAFFIC SAFETY UNIT

Date: 5-30-2014	Prepared By: Andrew Covington, EI
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SS# 06-07-220
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 Cumberland County
 AFTER Period
 1/1/09 - 3/31/14

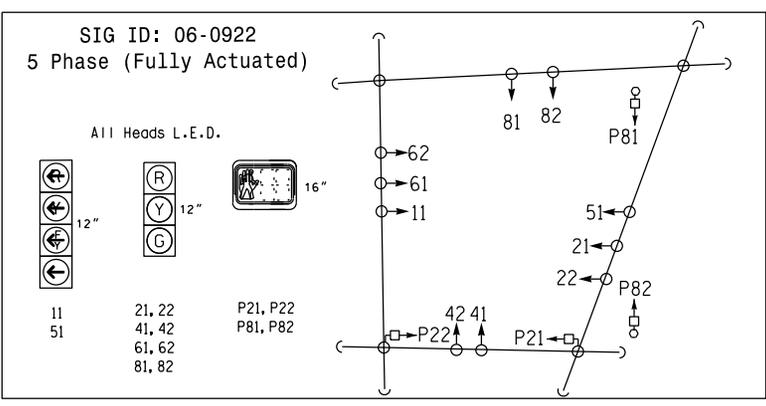
Westover Community School Drive
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Glen Canyon Drive
 25 MPH
 2011 ADT - 2,500 (Assumed)

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

TRAFFIC SAFETY UNIT

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