

Spot Safety Project Evaluation

Project Information

Order ID: 41000030495

Project ID: 05-08-228

Location: US 64 Bypass (Westbound) approaching SR 2516 (Hodge Rd)

County: Wake

City: Knightdale

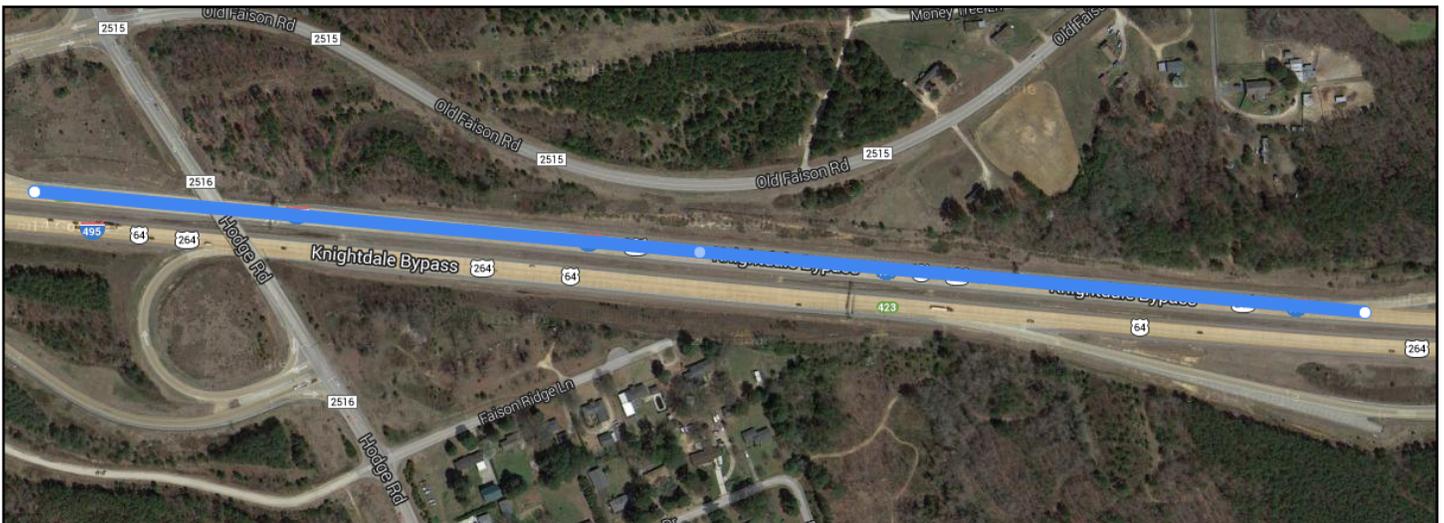
Division: 5

Signal ID: N/A

Countermeasure: Add an EXIT ONLY panel to the existing Advance Guide sign and Exit Direction sign (both overhead) for Hodge Rd to warn motorists of the EXIT ONLY condition

Project Completion: May 7, 2009 Project Cost: \$50,500

Map and Aerial (from Google Maps – Coordinates are 35.768371,-78.515864)



Naive Before and After Analysis

Before Period: August 1, 2005 through March 31, 2009 (3.67 yrs)

Construction Period: April 1, 2009 through June 30, 2009

After Period: July 1, 2009 through February 28, 2013 (3.67 yrs)

Note: The Before Period was limited due to this portion of US 64 being under construction in early 2005.

Analysis Criteria: Treatment data consisted of all crashes along US 64 Bypass (Westbound) from I-540 on-ramp to SR 2516 (Hodge Rd) off-ramp.

Target Crashes: The target crashes for this project are Ran Off Road and Sideswipe – Same Direction Crashes in the right two lanes of the road.

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	11	10	- 9.1 %
Total Severity Index	3.69	1.74	- 52.9 %
Target Crashes	5	3	- 40.0 %
Target Crash Severity Index	3.96	3.47	- 12.5 %
Volume (2007, 2011)	55,100	62,000	12.5 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	0	0	N/A
Class B injury Crashes	2	1	- 50.0 %
Class C Injury Crashes	2	0	- 100.0 %
Property Damage Only	7	9	28.6 %

Overall Summary Results

Total Crashes:	- 9 %	(reduction)
Total Crash Severity:	- 53 %	(reduction)
Target Crashes:	- 40 %	(reduction)
Target Crash Severity:	- 13 %	(reduction)
Volume:	+ 13 %	(increase)

Items for Discussion/Concerns

There is a pattern of Ran Off Road crashes at the gore for the exit at SR 2516 (Hodge Road) in both the Before Period (4 crashes) and the After Period (3 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: Ian Pike, Engineering Assistant
Checked by: Brad Robinson, PE

Work Group/Consultant: NCDOT - Safety Evaluation Group

Date: August 13, 2014

SS# 05-08-228
 Order# 41000030495
 Wake County
 BEFORE Period
 8/1/05 - 3/31/09

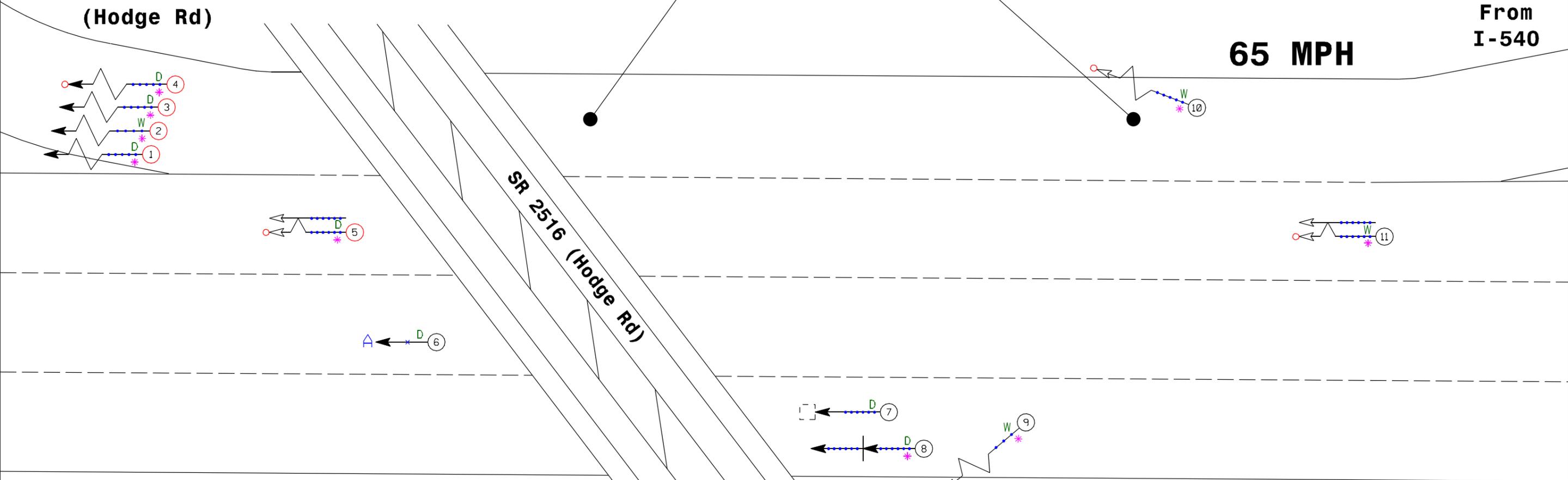
LEGEND			
	MOVING VEHICLE		ANGLE
	PARKED VEHICLE		TURNING
	PARKING VEHICLE		BACKING
	MOVABLE OBJECT		SIDESWIPE
	HEAD ON		INJURY
	REAR END		FATALITY
	RAN OFF ROAD		9 MPH OR LESS
	DAYLIGHT CRASH		10 MPH TO 19
	NIGHT CRASH		20 MPH TO 29
			30 MPH TO 39
			40 MPH TO 49
			50 MPH TO 59
			60 MPH TO 69
			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

Hodge Rd

**To SR 2516
(Hodge Rd)**

**From
I-540**

65 MPH



**ADT (Year)
56,000 (2007)**

**US 64/264 Bypass
Westbound**

Target Crashes

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

TRAFFIC SAFETY UNIT

Date: September 2014 Prepared By: Ian Pike

SS# 05-08-228
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 Wake County
 AFTER Period
 7/1/09 - 2/28/13

Note: Crash #3 not considered a target crash. Vehicle had a tire blow out.

LEGEND

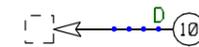
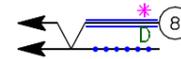
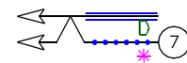
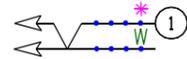
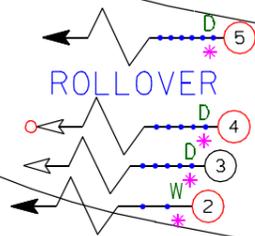
	MOVING VEHICLE		ANGLE		9 MPH OR LESS		A ANIMAL
	PARKED VEHICLE		TURNING		10 MPH TO 19		P PEDESTRIAN
	PARKING VEHICLE		BACKING		20 MPH TO 29		B BICYCLE
	MOVABLE OBJECT		SIDESWIPE		30 MPH TO 39		T TRAIN
	HEAD ON		INJURY		40 MPH TO 49		* DRIVER AT FAULT
	REAR END		FATALITY		50 MPH TO 59		D DRY
	RAN OFF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

Hodge Rd
Exit ↗ Only

To SR 2516
 (Hodge Rd)

From
 I-540

70 MPH



ADT (Year)
 62,000 (2011)

US 64/264 Bypass
 Westbound

Target Crashes



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

TRAFFIC SAFETY UNIT

Date: September 2014

Prepared By: Ian Pike