

# Spot Safety Project Evaluation

## Project Information

Order ID: 41000030097

Project ID: 02-06-209

Location: US 70 at the west intersection of SR 1247 (Chatham Street)

County: Carteret

City: North of Newport

Division: 2

Signal ID: N/A

Countermeasure: Install mainline leftover within existing median opening

Project Completion: August 26, 2009 Project Cost: \$235,000

## Map and Aerial (from Google Maps – Co-ordinates are 34.826424, -76.876047)



## Naive Before and After Analysis

- Before Period: April 1, 2003 through September 30, 2008 (5 years 6 months)
- Const. Period: October 1, 2008 through December 31, 2008 (3 months)  
(Crash report showed the leftover in January 2009)
- After Period: January 1, 2009 through June 30, 2014 (5 years 6 months)
- Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the US 70 and SR 1247 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	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	5	4	- 20.0 %
Total Severity Index	35.76	2.85	- 92.0 %
Target Crashes	3	0	- 100.0 %
Target Crash Severity Index	31.20	0	- 100.0 %
Volume (2005, 2011)	24,400	22,800	- 6.6 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	2	0	- 100.0 %
Class B injury Crashes	1	1	0.00 %
Class C Injury Crashes	2	0	- 100.0 %
Property Damage Only	0	3	+ 100.0 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Frontal Impact Crashes (Target)	3	0	- 100.0 %
Rear End Crashes	1	2	+ 100 %

### **Overall Summary Results**

Total Crashes:	- 20 %	(reduction)
Total Crash Severity:	- 92 %	(reduction)
Target Crashes:	- 100 %	(reduction)
Target Crash Severity:	- 100 %	(reduction)
Volume:	- 7 %	(reduction)

### **Additional Summary Results**

Frontal Impact Crashes (Target):	- 100 %	(reduction)
Rear End Crashes:	+ 100 %	(increase)

### **Items for Discussion/Concerns**

The study intersection experienced an elimination of target frontal impact crashes (3 to 0 crashes).

The intersection experienced an increase in rear end crashes (1 to 2 crashes).

### **Data Prepared For**

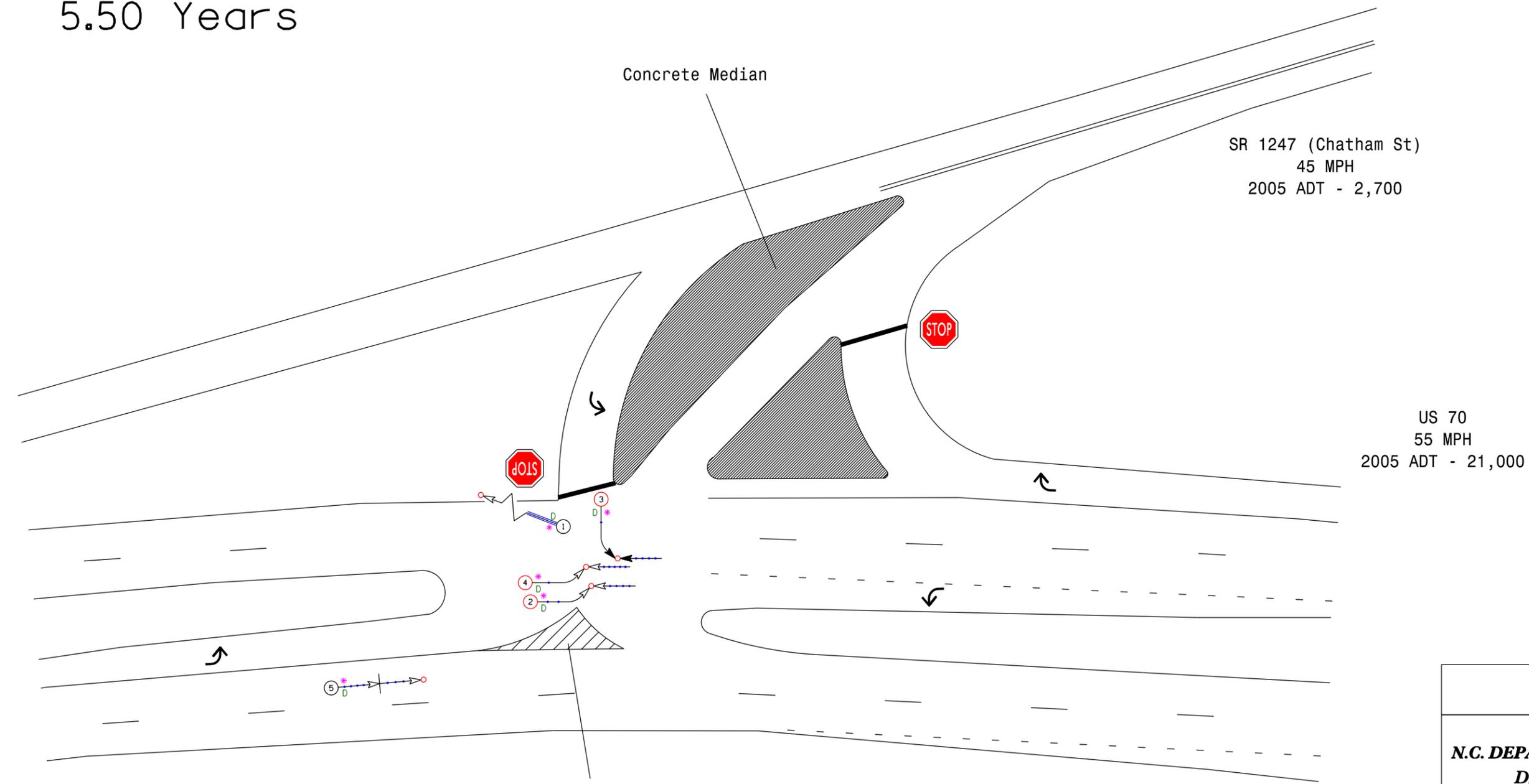
The Traffic Safety Unit *of the*  
Transportation Mobility and Safety Division *of the*  
Division of Highways *of the*  
North Carolina Department of Transportation

### **Data Prepared By**

Principal Investigator: Andrew Covington, EI  
Work Group/Consultant: AECOM  
Date: September 12, 2014

SS# 02-06-209  
 Order# 41000030097  
 Carteret County  
 BEFORE Period  
 4/1/2003 - 9/30/08  
 5.50 Years

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



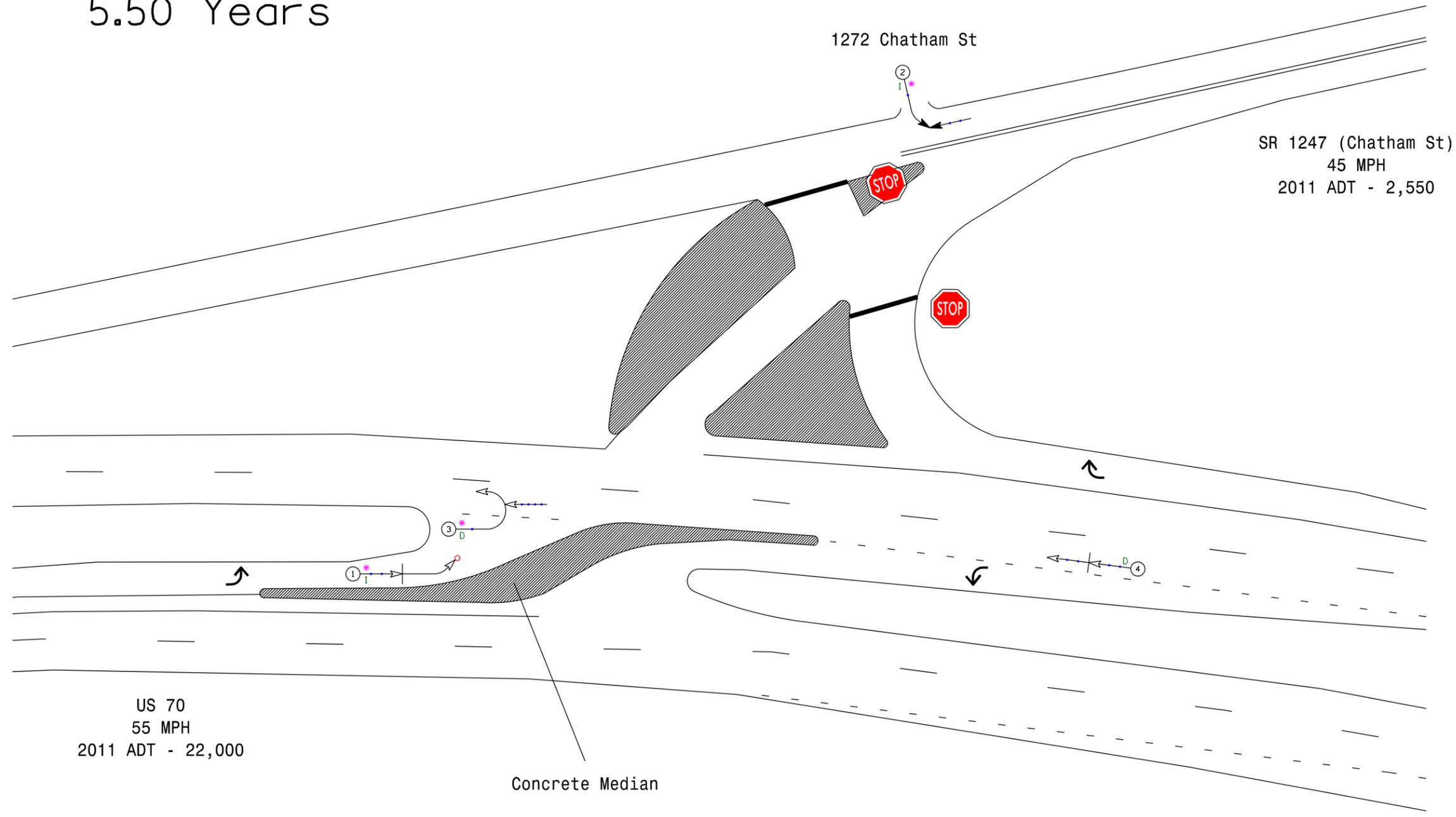
US 70  
 55 MPH  
 2005 ADT - 25,000

Frontal Impact Crashes

**AECOM**  
 Prepared for:  
 N.C. DEPARTMENT of TRANSPORTATION  
 DIVISION of HIGHWAYS  
 TRANSPORTATION MOBILITY and SAFETY DIVISION  
**TRAFFIC SAFETY UNIT**  
 Date: 9-12-2014      Prepared By: Andrew Covington, EI

SS# 02-06-209  
 Order# 41000030097  
 Carteret County  
 AFTER Period  
 1/1/2009 - 6/30/2014  
 5.50 Years

LEGEND			
	MOVING VEHICLE		ANGLE
	PARKED VEHICLE		TURNING
	PARKING VEHICLE		BACKING
	MOVABLE OBJECT		SIDESWIPE
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			D DRY
			W WET
			I ICY OR SNOWY
			O Other



US 70  
 55 MPH  
 2011 ADT - 21,000

US 70  
 55 MPH  
 2011 ADT - 22,000

Concrete Median

Frontal Impact Crashes

**AECOM**  
 Prepared for:  
**N.C. DEPARTMENT of TRANSPORTATION**  
**DIVISION of HIGHWAYS**  
**TRANSPORTATION MOBILITY and SAFETY DIVISION**  
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