

Spot Safety Project Evaluation

Project Information

Order ID: 41000029909

Project ID: 06-09-206

Location: SR 1924 (Barker Ten Mile Rd) from NC-20 to SR 1006 (Great Marsh Church Rd)

County: Robeson

City: East of Saint Pauls

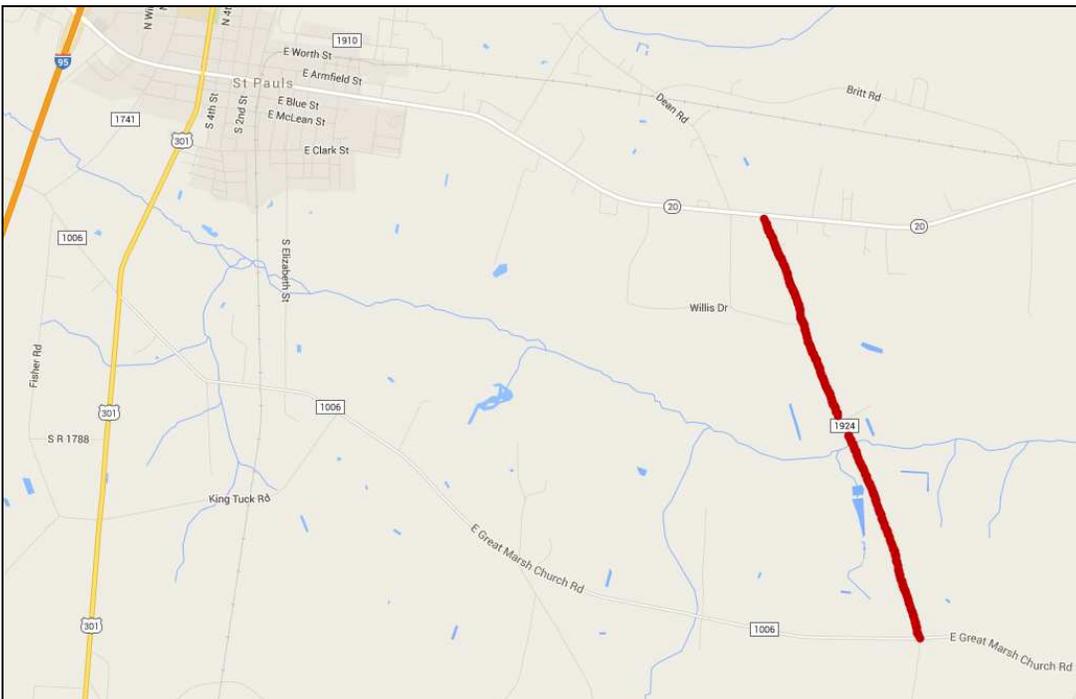
Division: 6

Signal ID: N/A

Countermeasure: Widen for 2-Foot Paved Shoulders with Safety Edge on both sides of roadway (2.1 miles) and install guardrail on Bridge #59 approaches

Project Completion: December 2011 (File - 1/9/2012) Project Cost: \$280,000

Map and Aerial (from Google Maps) – Coordinates 34.782072, -78.922689



Naive Before and After Analysis

Before Period: May 1, 2008 through September 30, 2011 (3 years, 5 months)

Const. Period: October 1, 2011 through December 31, 2011

After Period: January 1, 2012 through May 31, 2015 (3 years, 5 months)

Analysis Criteria: Treatment data consisted of all crashes on SR 1924 (Barker Ten Mile Road) from 150-feet south of NC-20 (Milepost 0.028) to the SR 1006 (Great Marsh Church Road) Intersection (MP 2.110) with a 0-foot y-line.

Target Crashes: Lane Departure Crashes were the selected Target Crashes for both countermeasures. Lane Departure Crashes include: Ran-off Road (Right, Left, and Straight); Fixed Object; Rollover; and Head-On. Crashes located at the bridge guardrail installation are also reported below.

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	9	11	22.2 %
Total Severity Index	12.71	9.91	- 22.0 %
Lane Departure Target Crashes	5	5	0.0
LD Target Crash Severity Index	19.12	16.16	- 15.5 %
Stuck Bridge / Crashed into Creek	4	2	- 50.0 %
Bridge Crash Severity Index	23.65	1.00	- 95.8 %
Volume (2010, 2013)	2,900	3,000	3.4 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	1	1	0.0 %
Class A injury Crashes	0	0	0.0 %
Class B injury Crashes	2	0	- 100.0 %
Class C Injury Crashes	2	3	50.0 %
Property Damage Only	4	7	75.0 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Night Crashes	4	4	0.0 %
Wet Roadway Crashes (Codes 2-3)	1	1	0.0 %
Alcohol/Drugs Involvement Crashes	3	3	0.0 %
Animal Crashes	1	3	100+ %

Overall Summary Results

Total Crashes:	22 %	(increase)
Total Crash Severity:	- 22 %	(reduction)
Target Crashes:	0 %	(no change)
Target Crash Severity:	- 16 %	(reduction)
Volume:	3 %	(increase)

Additional Summary Results

Struck Bridge (Guardrail Target):	- 50 %	(reduction)
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Items for Discussion/Concerns

This 2.1 mile segment of roadway experienced similar crashes through the evaluation. However, crashes striking Bridge #59 or landing in the creek reduced by 50 percent. The before period fatal was a bridge-rail lane departure crash.

This segment did experience an After Period fatal crash at the curve located just north of the SR 1006 intersection. The collision involved a single motorcycle leaving the roadway to the right. The motorcyclist was under the influence and not wearing a proper helmet. The fatal investigation report indicates "no roadway fault apparent."

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: Jason B. Schronce, P.E.
Work Group/Consultant: NCDOT - Safety Evaluation Group
Date: August 28, 2015

SS# 06-09-206 (Robeson County)
SR 1924 (Barker Ten Mile Road) - MP 0.028 to 2.110
BEFORE PERIOD - 5/1/2008 to 9/30/2011 (3.42 Yrs)

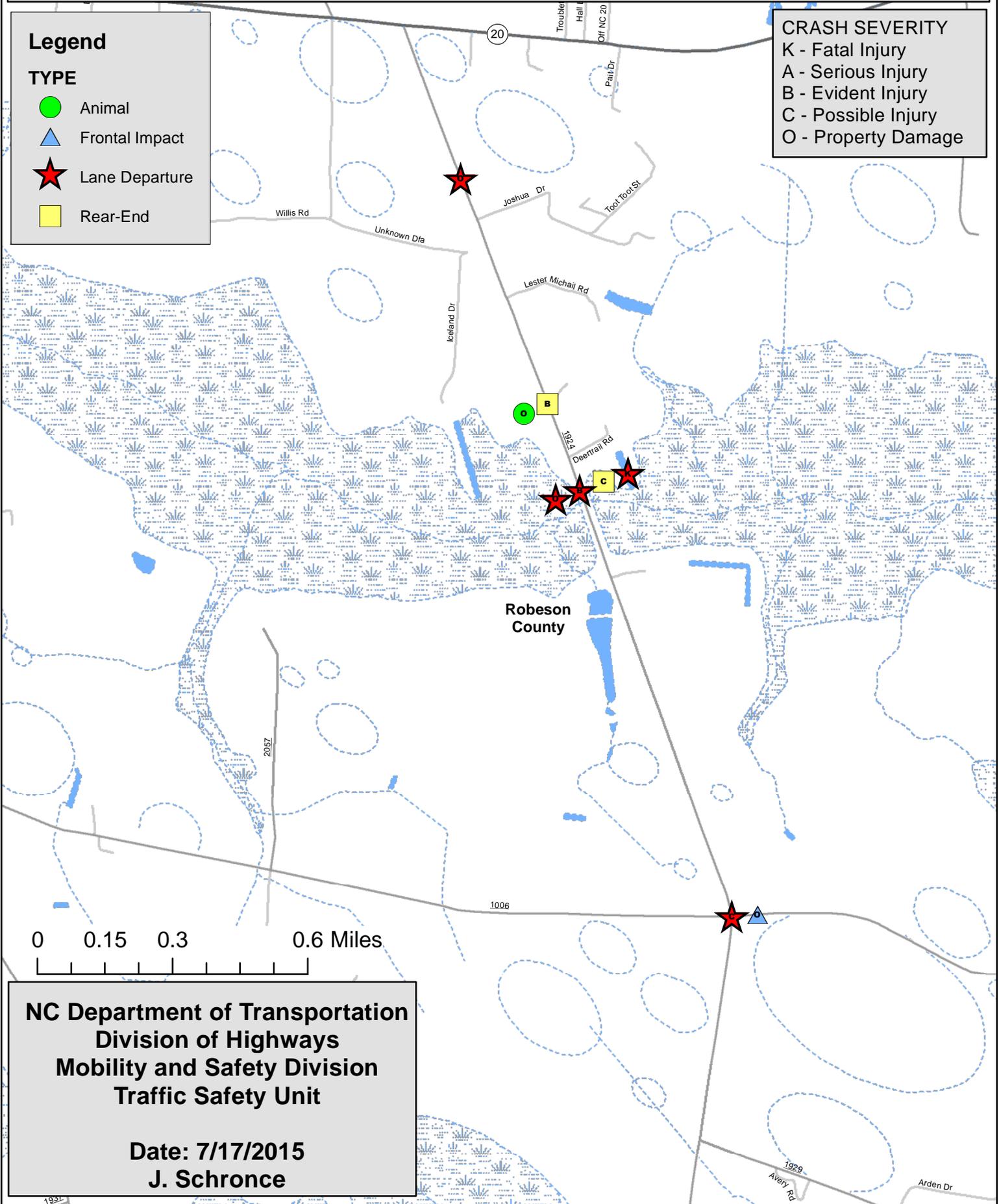


Legend

TYPE

-  Animal
-  Frontal Impact
-  Lane Departure
-  Rear-End

- CRASH SEVERITY**
- K - Fatal Injury
 - A - Serious Injury
 - B - Evident Injury
 - C - Possible Injury
 - O - Property Damage



NC Department of Transportation
Division of Highways
Mobility and Safety Division
Traffic Safety Unit

Date: 7/17/2015
J. Schronce

SS# 06-09-206 (Robeson County)
SR 1924 (Barker Ten Mile Road) - MP 0.028 to 2.110
AFTER PERIOD - 1/1/2012 to 5/31/2015 (3.42 Yrs)

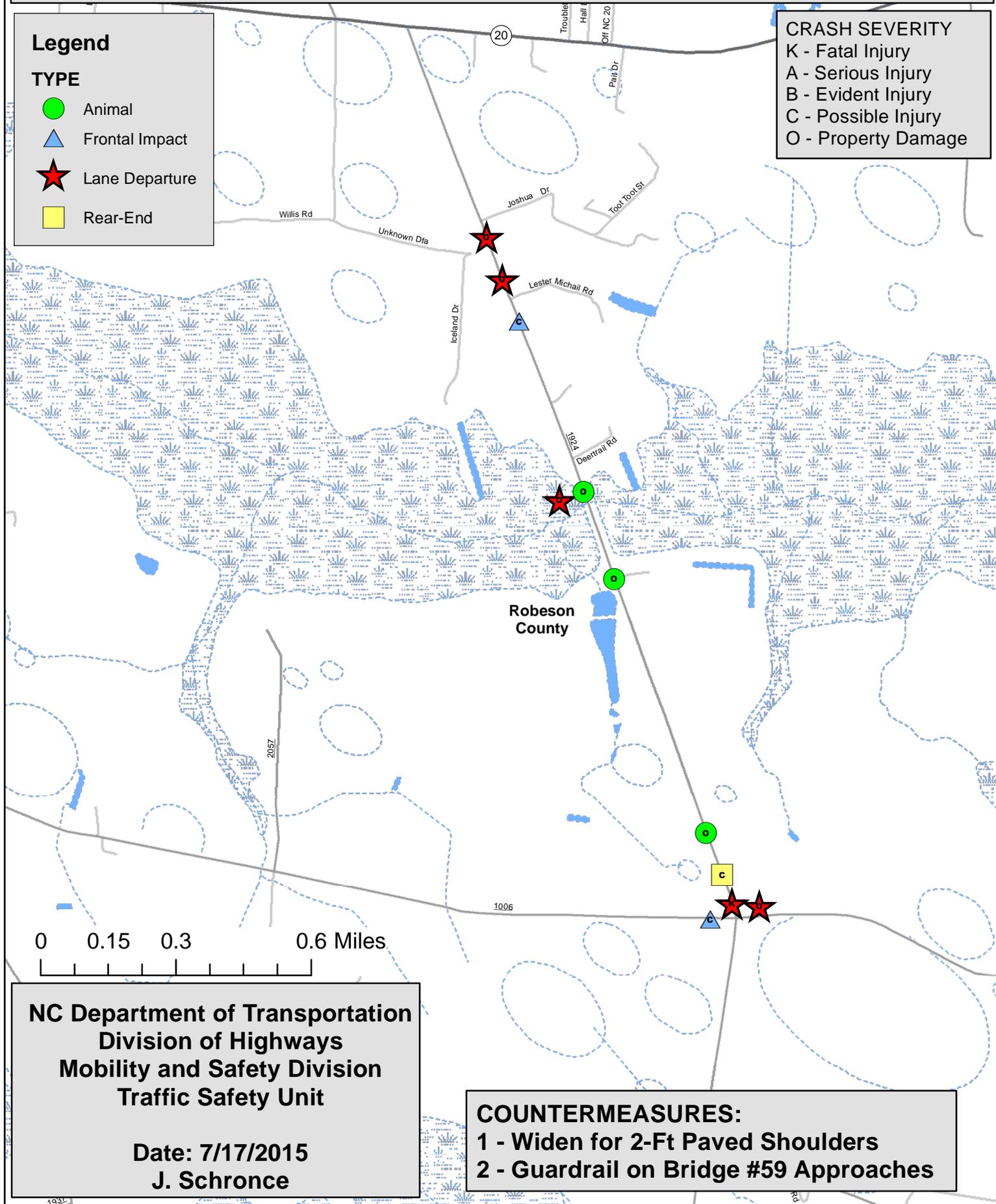


Legend

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0 0.15 0.3 0.6 Miles

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COUNTERMEASURES:

- 1 - Widen for 2-Ft Paved Shoulders
- 2 - Guardrail on Bridge #59 Approaches