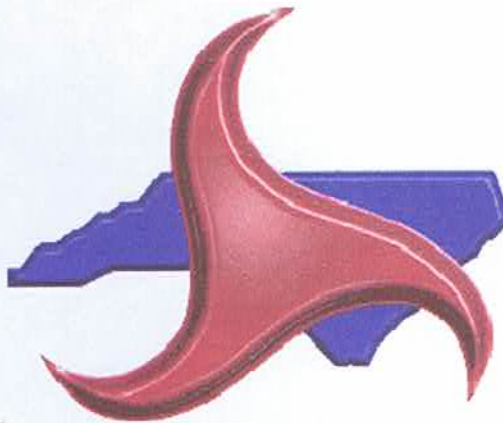


Bridge Design Speed Investigation

610157

Structure #157 on SR 1303 (Ophir Road) over Barnes Creek

Montgomery County

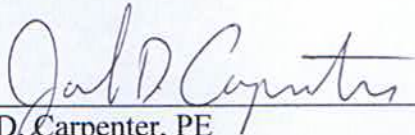


Document Prepared By:

Ramey Kemp & Associates, Inc.
8307 University Executive Park Drive, Suite 260
Charlotte, NC 28262

May 18, 2012

Principal Investigator & Project Manager



Jacob D. Carpenter, PE
Regional Manager



Bridge and Approach Investigation Checklist

Project 17BP.8.R.27

Description Bridge #157 over Barnes Creek

Route SR 1303 (Ophir Road)

Division 8

County Montgomery

Existing Speed Limit 55 ☐ Posted ☒ Statutory

Reasonable & Comfortable Passenger Car Speed 55

Speed Data Observed estimated speeds of approximately 55 mph (low sample size)

Ball Bank Speed Study 50 mph: NB - 13, SB - 13 - BBI Readings for curve South of bridge
55 mph: NB - 19, SB - 15 - Bridge speed good at 55 mph per BBI
60 mph: NB - N/A, SB - N/A

Warning Signs at Bridge 4 Bridge end delineators, 2 Weight limit signs (13 ton SV, 18 ton TTST)
Winding Road warning sign with 35 mph advisory speed
2 Narrow Bridge signs

Roadside Development Wooded

ADT History 300 vpd (2010)

Pedestrian/Bicycle Traffic Minimal expected

Bridge and Approach Digital Photos Attached

Approach Lane Width 9.5 ft

Approach Shoulder Width 0.5-1 ft paved, 2-6 ft+ grass
Shoulder Type paved + grass

Lane Width (existing bridge) 8 ft

Shoulder width (existing bridge) 1.5 ft (~19 ft total width)

Strategic Corridor / Thoroughfare Designation and Recommended Cross Section SR 1303 is classified as a rural local facility in the Statewide Functional Classification System. 2-lane cross-section recommended.

Crash History and Safety Considerations Crash analysis completed for 2/1/2002 to 1/31/2012. No collisions reported during study period.

Comments Curve south of Bridge.

Reasonable Bridge Speed 55

Investigated by: Jacob D. Carpenter, PE

Reviewed by: 

County: Montgomery

Route: SR 1303 (Ophir Road)

Date: 3/15/12

Northbound



Northbound

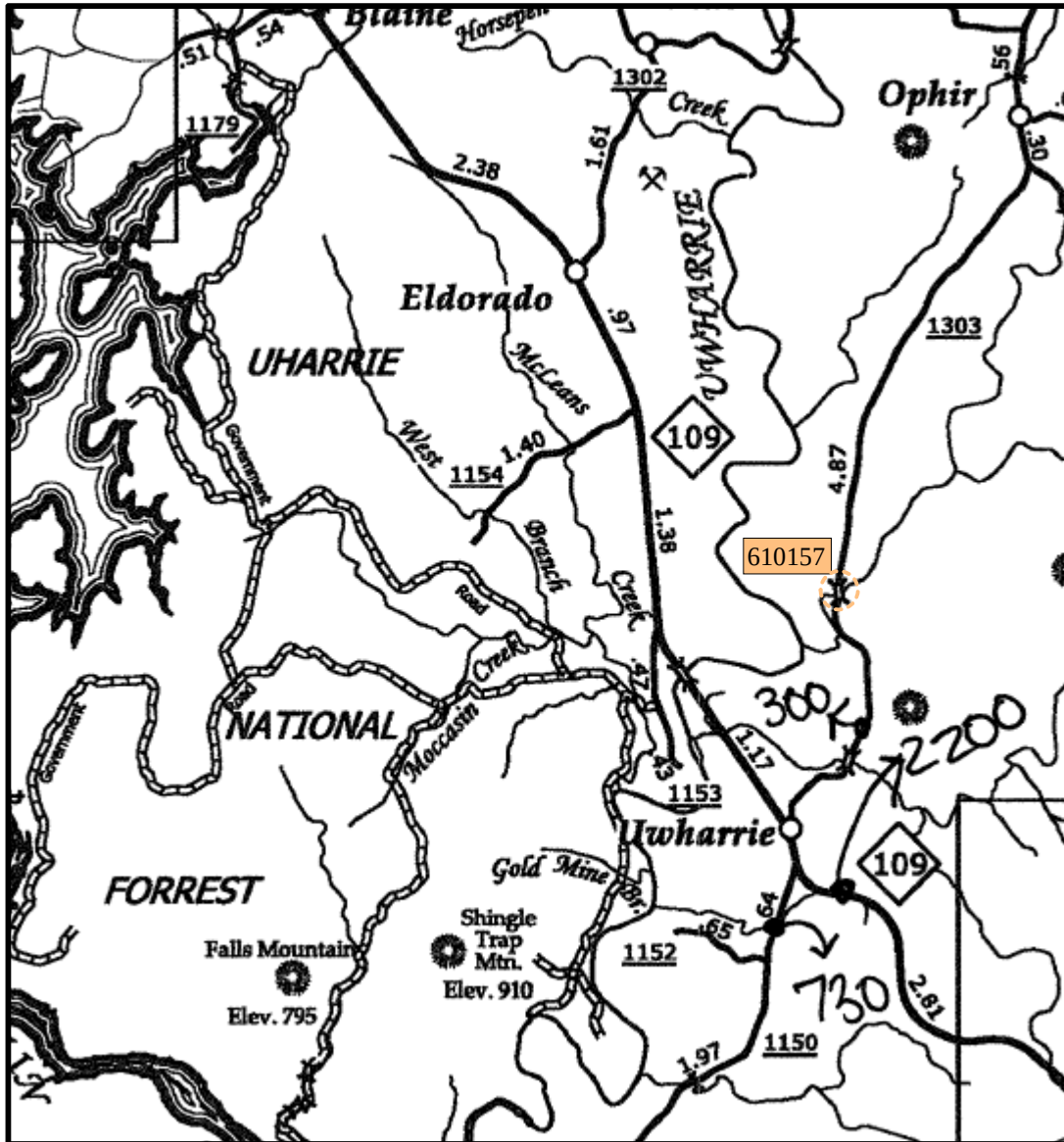


Southbound



Southbound





Bridge Location Map - Bridge #610157

Bridge Approach Speed Crash Analysis Request

Order # 41000018630

**500 feet on Both Sides of Bridge Number 157 on Secondary Route 1303 (Ophir Road)
over Barnes Creek in Montgomery County**

Document Prepared By:

Safety Planning Group
Traffic Safety Systems Management Unit
Transportation Mobility and Safety Division
North Carolina Department of Transportation

Note: The crash statistics have been generated and are available through North Carolina's Crash Database. This database provides an inventory of **reported** crashes on record that have occurred at this location. Please note that many traffic crashes go unreported for a variety of reasons, and this report simply provides a listing of all crashes on record that occurred within 0 feet of the section described above.

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Strip Analysis Report

Study Criteria Summary

County: MONTGOMERY **City:** All and Rural
Date: 02/01/2002 **to** 01/31/2012 **Study:** 41000018630
Location: 500 feet on Both Sides of Bridge Number 157 on Secondary Route 1303 (Ophir Road) over Barnes Creek

Report Details

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
41000018630	41000018630			76.8	8.4	330	40001303

Request Date	Courier Service	Phone No.	Ext.	Fax No.
03/22/2012		(919)773-2778		

County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
MONTGOMERY	61	8	All and Rural		0	02/01/2002	01/31/2012	10.00

Location Text	Requestor
500 feet on Both Sides of Bridge Number 157 on Secondary Route 1303 (Ophir Road) over Barnes Creek	Kelly L. Becker, PE Capital Region Raleigh NC

Fiche Roads

Name	Code
SR 1303	40001303
OPHIR	50023004

Strip Road

Name	Code	Begin MP	End MP	Miles	Kilometers
SR 1303	40001303	2.943	3.145	0.202	0.325