
Bridge Design Speed Investigation

010081

Structure #81 on SR 1332 (Little River Church Road) over Little River

Alexander County



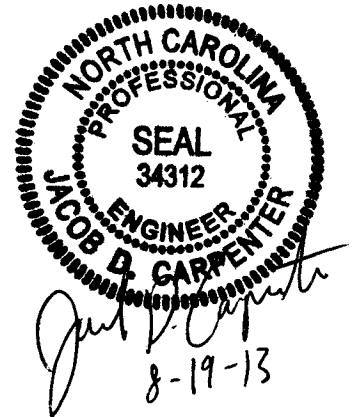
Document Prepared By:

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

August 19, 2013

Principal Investigator & Project Manager

Jacob D. Carpenter, PE
Regional Manager



Bridge and Approach Investigation Checklist

Project W02866

Description Bridge # 81 over Little River

Route SR 1332 (Little River Church Road)

Division 12

County Alexander

Existing Speed Limit 55 ☐ Posted ☒ Statutory

Reasonable & Comfortable Passenger Car Speed 45

Speed Data Observed estimated speeds of 35-55 mph.

Ball Bank Speed Study Bridge Speed good at 45 mph per BBI. BBI readings of 20+ through curve north of bridge at 40-45 mph.

Warning Signs at Bridge 4 Bridge end delineators, 2 Weight limit signs (19 ton SV, 25 ton TTST) Road Subject To Flooding, Stop Sign Ahead, Windy Road

Roadside Development Residential, Farmland, Power Sub Station

ADT History None Available Near Bridge, 600 ADT indicated on Crash Data

Pedestrian/Bicycle Traffic Minimal expected

Bridge and Approach Digital Photos Attached

Approach Lane Width 9-9.5 ft

Approach Shoulder Width 6-10 ft

Shoulder Type grass

Lane Width (existing bridge) 9.5 ft

Shoulder width (existing bridge) 2.5 ft (~24 ft total width)

Strategic Corridor / Thoroughfare Designation and Recommended Cross Section SR 1332 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 5/1/2003 to 4/30/2013. No collisions reported.

Comments Bridge in tangent, curver north of bridge. Stop sign south of bridge prevents acceleration to full speed (35mph max) northbound. Comfortable speed southbound after curve 45 mph.

Reasonable Bridge Speed 45

Investigated by: Jacob D. Carpenter, PE

Reviewed by: 

Northbound



Northbound



Southbound



Southbound





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

Study Criteria Summary

County: ALEXANDER **City:** All and Rural
Date: 5/1/2003 **to** 4/30/2013 **Study:** ALEXANDERBRIDGE81
Location: SR 1332 (Shew Rd- Little River Church Rd), from 50 feet south of SR 1331 to the intersection with SR 1333

Report Details

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
ALEXANDERBRIDGE81				76.8	8.4	600	40001332

Request Date	Courier Service	Phone No.	Ext.	Fax No.
--------------	-----------------	-----------	------	---------

County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
ALEXANDER	1	12	All and Rural		0	5/1/2003	4/30/2013	10.00

Location Text	Requestor
SR 1332 (Shew Rd- Little River Church Rd), from 50 feet south of SR 1331 to the intersection with SR 1333	

Fiche Roads	
Name	Code
SR 1332	40001332
SHEW	50027931
LITTLE RIVER CH	50017872

Strip Road					
Name	Code	Begin MP	End MP	Miles	Kilometers
SR 1332	40001332	0.939	1.059	0.120	0.193