

Bridge Design Speed Investigation

Bridge #677 on SR 1397 (Surrett Cove Rd) over Bald Fork Creek
Buncombe County



Document Prepared By:

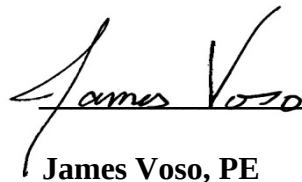
Mattern & Craig, Inc.
Consulting Engineers - Surveyors
12 Broad Street
Asheville, NC 28801
(828) 254-2201
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Commission No: 3350

June 21, 2013



Investigating Engineer


James Voso, PE

Bridge and Approach Investigation Checklist

Project 17BP.13.PE.1
Description Replace Bridge #677 on SR 1397 (Surrett Cove Rd) over Bald Fork Creek
Route SR 1397 (Surrett Cove Road)
Division 13
County Buncombe

Existing Speed Limit 55 mph ☐ Posted ☒ Statutory

Reasonable & Comfortable
Passenger Car Speed 25 mph

Speed Data N/A

Ball Bank Speed Study Curve east of Bridge #677 had a ball bank indication of 12 at 25 mph.

Warning Signs at Bridge 4 Bridge End Delineators, Weight Limit (15 tons - single vehicle,
20 tons - truck tractor semitrailer), One Lane Bridge Signs

Roadside Development Wooded south of bridge and farm land north of bridge.

ADT History Not available

Pedestrian/Bicycle Traffic Low

Bridge and Approach
Digital Photos (attached)

Approach Lane Width 8.5'

Approach Shoulder Width: 4.5'
Shoulder Type grass

Lane Width (existing bridge) 14' one lane

Shoulder width (existing bridge) 2.5'

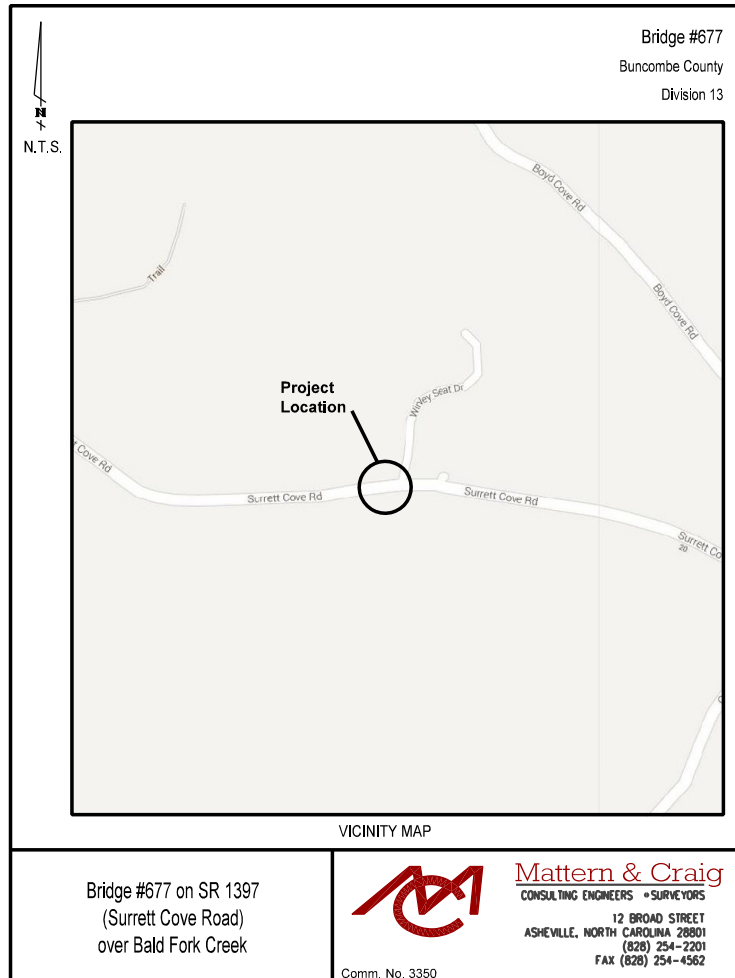
Strategic Corridor / Thoroughfare
Designation and Recommended
Cross Section Not a Strategic Corridor/Thoroughfare. Two lane cross section at 25
mph based on 3R guidelines.

Crash History and
Safety Considerations No crashes reported (4/1/2003 - 3/31/2013, 10 years)

Comments Private road near northeast corner of bridge. Bridge number posted on
bridge.

Reasonable Bridge Speed 25 mph

Investigated by: Mathew Bolden Reviewed by: James Voso



Bridge #677

Buncombe County

Division 13

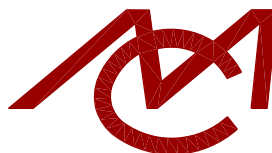


Eastbound Approach



Eastbound Approach at bridge

Bridge #677 on SR 1397
(Surrett Cove Road)
over Bald Fork Creek



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Bridge #677

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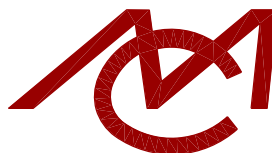


Westbound Approach



Westbound Approach at bridge

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

Study Criteria Summary

County: BUNCOMBE **City:** All and Rural
Date: 04/01/2003 **to** 03/31/2013 **Study:** BUNCOMBEBRIDGE677
Location: SR 1397 (Surrett Cove Rd) from 500 feet west of Brdige 677 to 500 feet east of the bridge

Report Details

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
BUNCOMBEBRIDGE677				76.8	8.4	50	40001397

Request Date	Courier Service	Phone No.	Ext.	Fax No.
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County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
BUNCOMBE	10	13	All and Rural		0	04/01/2003	03/31/2013	10.00

Location Text	Requestor
SR 1397 (Surrett Cove Rd) from 500 feet west of Brdige 677 to 500 feet east of the bridge	

Fiche Roads	
Name	Code
SR 1397	40001397
SURRETT COVE	50029709

Strip Road					
Name	Code	Begin MP	End MP	Miles	Kilometers
SR 1397	40001397	0.152	0.346	0.194	0.312