

Bridge Design Speed Investigation

Bridge #48 on SR 1211 (Cane Creek Road) over Cane Creek
Mitchell County



Document Prepared By:

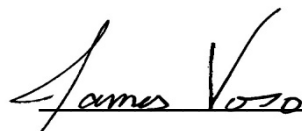
Mattern & Craig, Inc.
Consulting Engineers - Surveyors
12 Broad Street
Asheville, NC 28801
(828) 254-2201
FAX: (828) 254-4562

Commission No: 3241

May 10, 2012



Investigating Engineer


James Voso, PE

Bridge and Approach Investigation Checklist

Project 17BP.13.R.63
Description Replace Bridge #48 on SR 1211 (Cane Creek Road) over Cane Creek
Route SR 1211 (Cane Creek Road)
Division 13
County Mitchell

Existing Speed Limit 45 mph ☒ Posted ☐ Statutory

Reasonable & Comfortable
Passenger Car Speed 40 mph

Speed Data N/A

Ball Bank Speed Study Curve west of Bridge #48 had a ball bank indication of 12 at 30 mph.

Warning Signs at Bridge Bridge End Delineators both ends, Weight Limit (12 tons - single vehicle,
20 tons - truck tractor semitrailer)

Roadside Development Residential area in all quadrants of bridge.

ADT History 280 (2010), 290 (2008), 340 (2006), 410 (2004), 330 (2002), 290 (2001),
290 (1999)

Pedestrian/Bicycle Traffic Medium

Bridge and Approach
Digital Photos (attached)

Approach Lane Width 8'

Approach Shoulder Width: 4'
Shoulder Type Grass

Lane Width (existing bridge) 7.5'

Shoulder width (existing bridge) 2'

Strategic Corridor / Thoroughfare
Designation and Recommended
Cross Section Not a Strategic Corridor/Thoroughfare. Two lane cross section at 40
mph based on 3R guidelines.

Crash History and
Safety Considerations No crashes reported (1/1/2002 - 12/31/2011, 10 years).

Comments None

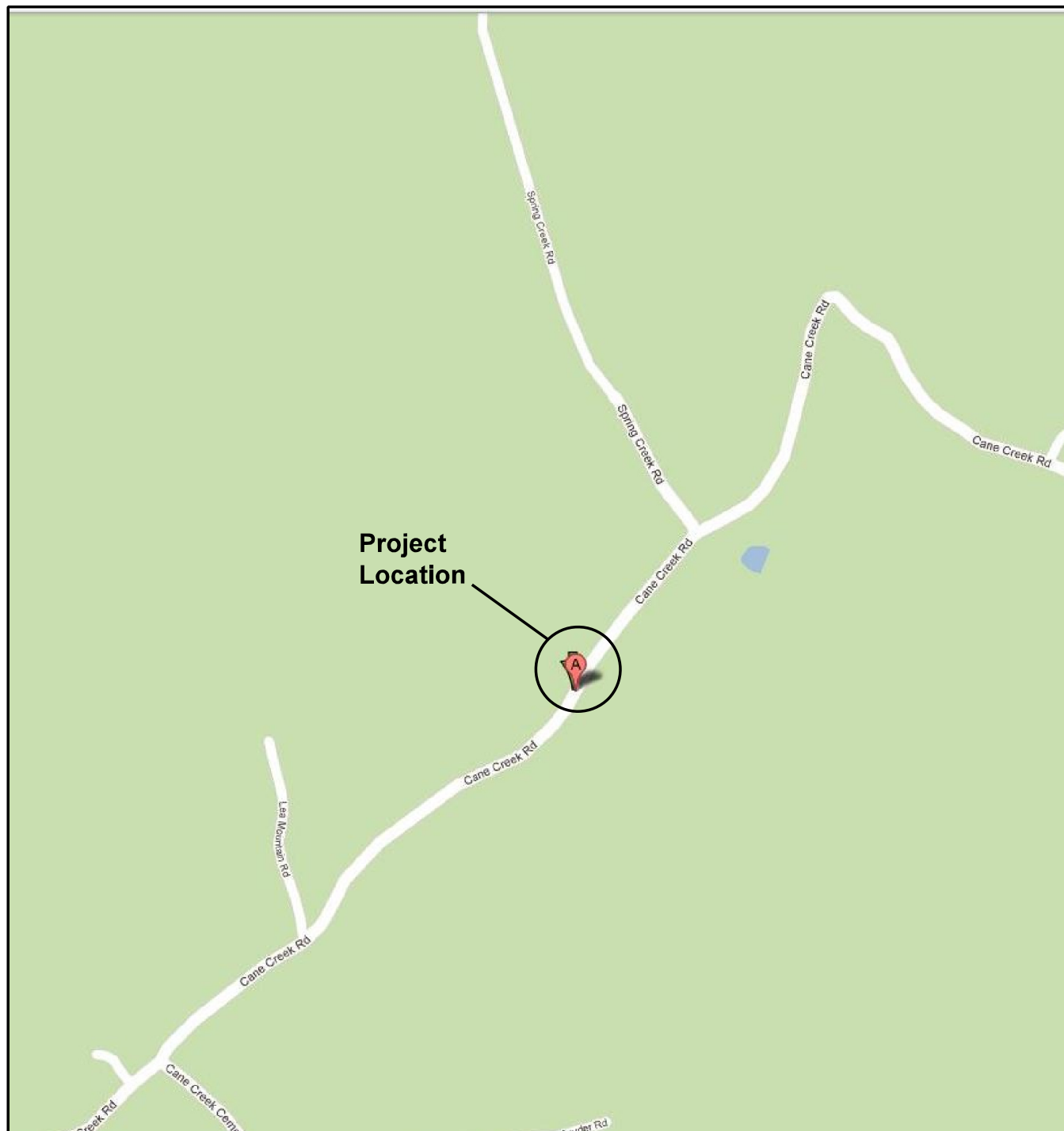
Reasonable Bridge Speed 40 mph

Investigated by: Tom Mulloy Reviewed by: James Voso

Bridge #48

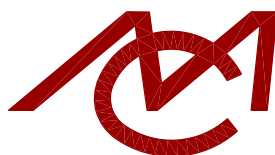
Mitchell County

Division 13



VICINITY MAP

Bridge #48 on SR 1211
(Cane Creek Road)
over Cane Creek



Mattern & Craig

CONSULTING ENGINEERS • SURVEYORS

12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562

Comm. No. 3241

Bridge Approach Speed Crash Analysis Request

Order # 41000018062

500 feet on Both Sides of Bridge Number 48 on Secondary Route 1211 (Cane Creek Road) over Cane Creek in Mitchell 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.

Bridge #48
Mitchell County
Division 13

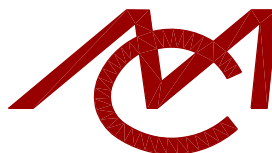


Eastbound Approach



Eastbound Approach at bridge

Bridge #48 on SR 1211
(Cane Creek Road)
over Cane Creek



Mattern & Craig
CONSULTING ENGINEERS • SURVEYORS

12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562

Comm. No. 3241

Bridge #48
Mitchell County
Division 13

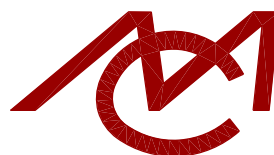


Westbound Approach



Westbound Approach at bridge

Bridge #48 on SR 1211
(Cane Creek Road)
over Cane Creek



Mattern & Craig
CONSULTING ENGINEERS • SURVEYORS

12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562

Comm. No. 3241