

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
FIELD SCOPING MEETING WORKSHEET
Design Build Process

TIP No.: **B-5177** WBS No.:
 17BP.11.R.139 Field Scoping Meeting Date: **5/18/2017**

Division: **11** Location: **On-site**

Route (US/NC/SR): County: **Watauga**

Project Description: **Bridge No. 940278 over Middle Fork South Fork New River on SR 1540**

Tier: **SUBREGIONAL** Funding: **State**

Municipality: **Blowing Rock; not city limits (entry way to Tweetsie RR)**

Attendees

	Name	Phone No.	E-mail
Division Bridge Program Manager	Jami Guynn	336-903-9220	jcguyenn@ncdot.gov
Division BPM Assistant	Mark Johnson	336-903-9208	mgjohnson4@ncdot.gov
Division Environmental Officer	Heath Slaughter	336-903-9202	hslaughter@ncdot.gov
Division L&S	Landon Wagoner	336-903-9501	rlwagoner@ncdot.gov
Hydraulics Engineer	Marc Shown	919-707-6751	mshown@ncdot.gov
Hydraulics Engineer	Rusty Lassiter	919-707-6732	rlassiter@ncdot.gov
PPU	Eileen Fuchs	919-707-6613	eafuchs@ncdot.gov
PPU	Pam Williams	919-707-6608	prwilliams@ncdot.gov
NCWRC	Marla Chambers	704-984-1070	Marla.chambers@ncwildlife.org

Existing Features

Feature Bridged: **Bridge No. 940278 over Middle Fork of South Fork Friver on SR 1540**

Ex. Bridge Clear Deck Width: **29.5 (Ft.)**

Roadway width: **28 (Ft.)**

(Bridge / Culvert) Length: **46 (Ft.)**

Deck Width (Out To Out): **30.5 (Ft.)**

Water Depth: **1 (Ft.)**

Height Bed-To-Crown: **12 (Ft.)**

Year Built: **1961**

Posted: **SV 10**

TTST: **13**

Superstructure: **TIMBER FLOOR
ON I-BEAMS**

Abutment: **TIMBER CAPS/TIMBER
POST&CONC.SILLS @VAR.CENTERS**

Pier Type: **N/A**

Temp. Shored: **Yes**

Historic High Water (Elev. To The Existing Structure): **(Ft)**

PRI: DP: **SR: 35.8**

School Bus crossings per day:

Posted Speed Limit Vicinity: **(mph)** statutory

Detour **Off-Site** ☐ **Stage Construction** ☐ **New Alignment** ☒ **to the North** **On-site** ☐
align directly across from SR 1531

If Off-Site, Description Of Detour Route: **N/A**

Approximate Length Of Detour? **Dead end road**

Improvements Needed To Road(s) On Detour? **N/A**

Div. Traffic Eng. Recommend Off-site detour signing? **N/A**

Improvements Needed To Bridges On Detour? **N/A**

Are future plans for upgrading this roadway either at or in the vicinity of this project? **No**

Are Bridges On Detour Currently Programmed? **No**

Are There EMS Or Business Access Issues? **Low impact**

Are There Any Railroad Crossings On Detour? **No**

Should Work Zone Pedestrian Access Be Maintained During Construction? **No**

Overhead Utility Lines In Conflict

Power Transmission Lines In Conflict

Telephone In Conflict

Cable Lines ~~In Conflict~~

Fiber Optic In Conflict

Water In Conflict

Sewer ~~In Conflict~~

Natural Gas ~~In Conflict~~

Other In Conflict- **electric panel-relocate all signs**

Is There Any Future Utility Construction Anticipated In The Project Area: **No**

Is A FEMA Buy-Out Property Being Impacted: **No**

Environmental

Wetlands At Site: **No**

Comments:

Endangered Species In County: **No**

T&E species effect: **No**

Trout **Watershed: yes**

TVA County: **No**

CAMA County: **No**

Primary Nursery Area: **No**

Moratoria: **Yes**

Which species: **Brook and/or brown trout**

Duration: **Oct. 15 to Apr 15**

Permits discussion:

Water Quality Classification: **Tr:+, WSIV**

303d: **No**

Coast Guard Permit? **No**

Drainage Basin: **New River**

Riparian Buffer Rules: **No**

Is The Project Site In Or Near Any Of The Following:

National Forest: **No**

Wildlife Refuge: **No**

State, County, Or Local Park: **No**

Wild And Scenic River: **No**

Airport: **No**

Recreation or Power Generation: **No**

Water Supply Reservoir: **No**

Nutrient Sensitive Waters: **No**

Public Use Boat Ramp: **No**

Cemeteries: **No**

VAD/Farmland Protection: **No**

Game Lands: **No**

Known Or Potential Historic Properties In The Area: **No**

Architecture: Yes, but project is not within historic boundary

Archaeology: NSR - per Caleb 6/3/2010

Is The Bridge Structure Itself, Or Any Part Thereof, Considered Historic: **No**

Impacts to a Church, Community Center, Or Other Public Facility? **Yes, theme park**

Is this a Statewide Bicycle Route or a Local Non-Marked Bicycle Route: **No; per B&P Report (2009) this bridge does not need special considerations for bicycles or pedestrians -**

Comments: **SR 1540 leads to Tweetsie Theme Park; greenway is at-grade;**

Geotechnical

Are There Any Historical and/or Vibration Sensitive Structures Near By? -----

Comments:

Are There Any Known Landfills and/or Geo-environmental Hazard Sites at/or Within Close Proximity To The Project Site? -----

Comments:

Are Any Impacts Anticipated To Natural Springs Or Artesian Wells? -----

Comments:

Possible Foundation Type:

End Bents:

Interior Bents:

Recommends leaving the concrete seal / footing at the bottom of the abutment. put a few feet of rip rap along the stream bank at the toe of slope.

Hydraulics

FEMA Approval? **Yes** (MOA)

Is There Unusual Scour Potential? **No**

Is Protection Needed? **STD base flow**

Are Banks Stable? **Yes**

Is Protection Needed? **STD**

Appreciable Amount Of Large Debris? **No**

Placement Of Bents In The Water Be Allowed: **No** Where:

Structure Type: **Preferred culvert, transmission lines would not have to be relocated.** If Bridge: **transmission line would need to be relocated for construction.** If girder; why?

Length Of Structure:

Min. Number Of Spans:

Span Arrangement:

Waive offset:

EB Cap:

Skewed:

- **3@14x12 RCBC with a 6" top bevel**
- **do not split stream flow**
- **crutch bent added spring of 2017; natural width of stream restored when bridge removal**
- **shall leave the concrete seal / footing at the bottom of the existing abutment on the east end and provide rip rap along the stream bank at the toe of slope.**
 - **several islands in the stream; bank upstream right eroding w/in floodway**

Items To Be Discussed / Resolved At FSM By Attendees

Off-Site ☐

Stage Construction ☐

New Alignment ☒
downstream

On-site ☐

Environmental Document Prepared by DEO: Minimum Criteria Checklist ☒ **Completed**

ADT: **1500 per traffic forecast 9/17/2017**

NHS: **No**

Tier: **SUBREGIONAL**

Func. Class: **Local, Rural**

Bridge Min. Clear Deck Width Recommended by Div.: **N/A**

Roadway lane width: **11'** with **8'** shoulders, including **6'** paved shoulders

Extension of Paved shoulders: **end of construction and blunt end**

Pave to face of guardrail and taper 8:1 to travel lane/paved shoulder? **Yes**

Min. Pavement Surface Course: **2.5"**

Existing Roadway:

Pavement Marking: **paint (new turn lanes)**

Pavement Markers: **none**

Will Railroad Involvement Be Required: **No**

Method of Clearing: **II**

Truck Percentage: **3% dual; 1% TTST Per traffic forecast 7/19/2017**

Reasonable Safe Speed per SIR: **Stop/ 20 mph per Design Speed study**

Liquidated damages: will be imposed after **120** days of closure/construction. Amt: **\$500** per day

CEI by?

NCDOT

R/W by?

DBT

R/W monuments? **Pin & Cap;**

Salvageable materials: **All steel I-beams, diaphragms, bearing plates, etc., and all timber caps and all midspan crutch bent (Care with demolition needs to be taken)**

Contact Person/number: **David Scott, (828) 268-6062**

Deliver to: **Boone Bridge Maintenance Yard, 1989 NC Hwy 194N, Boone, NC 28607**

Removal of previous structure remnant abutments/piers: **None**

Sequencing priority in construction? **940278 1st priority then 040023**

Comments:

- 1. SR 1540 shall have 3 lanes section at intersection. The center turn lane shall be 75 ft full and a 100 ft taper**
- 2. 6' paved shoulders for bikes**
- 3. The greenway shall be relocated to the western most barrel of the proposed culvert. It shall be 10 ft in width paved, provide min. of 8' vertical clearance and realigned to tie to existing greenway. All three (3) barrels shall be cast in-place**
- 4. Design and replace existing 60" CMP pipe**