

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-5398</u>
W.B.S. No.	<u>46113.1.1</u>
Federal Project No.	<u>BRZ-1803(1)</u>

**A. PROJECT DESCRIPTION:**

The purpose of this project is to replace Burke County Bridge No. 21 on SR 1803 (Johnson Bridge Road) over Henry Fork River. Bridge No. 21 is 200 feet long. The replacement structure will replace the existing in-place and will be a bridge approximately 190 feet long providing a minimum 27 feet 10 inch (27'10") clear deck width. The bridge will include two 11-foot lanes and 2 feet 11 inch (2'11") offsets. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing structure.

The approach roadway will extend approximately 270 feet from the north end of the new bridge and 300 feet from the south end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Six-foot grass shoulders will be provided on each side (9-foot shoulders where guardrail is included). The roadway is classified as a minor collector route and designed using Sub Regional Tier Design Guidelines with a 50 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure 1).

**B. PURPOSE AND NEED:**

NCDOT Bridge Management Unit records indicate Bridge No. 21 has a sufficiency rating of 7 out of a possible 100 for a new structure.

Bridge No. 21 is a 5-span structure, constructed in 1950, with an overall length of 200 feet. The bridge is considered functionally obsolete due to a structural evaluation of 3 out of 9 and a deck geometry rating of 2 out of 9 according to Federal Highway Administration (FHWA) standards.

The superstructure consists of steel beams carrying a reinforced concrete deck. The substructure is comprised of reinforced concrete spill thru end bents, three reinforced concrete post and beam bents, and one timber pile with reinforced concrete end bent. Components of both concrete superstructure and substructure have experienced an increase in degree of deterioration and stream bed scour has exposed the substructure footings.

The posted weight limit on the bridge is 20 tons for single vehicles and 25 tons for truck-tractor semi-trailers. The bridge has reached the end of its useful life. Replacement of the bridge will result in safer traffic operations.

### C. PROPOSED IMPROVEMENTS:

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
  - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
  - b. Widening roadway and shoulders without adding through lanes
  - c. Modernizing gore treatments
  - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
  - e. Adding shoulder drains
  - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
  - g. Providing driveway pipes
  - h. Performing minor bridge widening (less than one through lane)
  - i. Slide Stabilization
  - j. Structural BMP's for water quality improvement
2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
  - a. Installing ramp metering devices
  - b. Installing lights
  - c. Adding or upgrading guardrail
  - d. Installing safety barriers including Jersey type barriers and pier protection
  - e. Installing or replacing impact attenuators
  - f. Upgrading medians including adding or upgrading median barriers
  - g. Improving intersections including relocation and/or realignment
  - h. Making minor roadway realignment
  - i. Channelizing traffic
  - j. Performing clear zone safety improvements including removing hazards and flattening slopes
  - k. Implementing traffic aid systems, signals, and motorist aid
  - l. Installing bridge safety hardware including bridge rail retrofit
3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
  - a. Rehabilitating, reconstructing, or replacing bridge approach slabs
  - b. Rehabilitating or replacing bridge decks
  - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
  - d. Replacing a bridge (structure and/or fill)
4. Transportation corridor fringe parking facilities.
5. Construction of new truck weigh stations or rest areas.

6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
7. Approvals for changes in access control.
8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
13. Acquisition and construction of wetland, stream and endangered species mitigation sites.
14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

**D. SPECIAL PROJECT INFORMATION:**

The estimated costs, based on 2015 prices, are as follows:

Structure	\$ 630,000
Roadway Approaches	\$ 210,000
Structure Removal	\$ 66,000
Misc. & Mob.	\$ 127,000
Eng. & Contingencies	\$ 167,000
<b>Total Construction Cost</b>	<b>\$ 1,200,000</b>
Right-of-way Costs	\$ 44,000
Right-of-way Utility Costs	\$ 110,000
<b>Total Project Cost</b>	<b>\$ 1,354,000</b>

**Estimated Traffic:**

Current	-	2,740 vpd
Year 2035	-	3,000 vpd
TTST	-	1%
Dual	-	7%

**Accidents:** Traffic Engineering has evaluated a period between June 2010 and June 2015 and found two accidents occurring in the vicinity of the project. None were associated with the geometry of the bridge or its approach roadways.

**Design Exceptions:** There are no anticipated design exceptions for this project.

**Pedestrian and Bicycle Accommodations:** This portion of SR 1803 is not a part of a designated bicycle route nor is it listed in the State Transportation Improvement Program (STIP) as a bicycle project. Additionally, there are no plans for either pedestrian, greenway, or bicycle facilities in the area according to the Burke County Planning Director. Neither permanent nor temporary or pedestrian accommodations are required for this project.

**Bridge Demolition:** Bridge No. 21 is constructed entirely of timber, concrete, and steel and should be possible to remove with no resulting debris in the water based on standard demolition practices. Bridge has concrete deck, steel girders, concrete end bents, wing walls, and four interior bents. Southern interior bent is timber with concrete cap; remaining bents are reinforced concrete post and beam. Two of four interior bents are located in the stream channel.

**Alternatives Discussion:**

**No Build** – The no build alternative would result in eventually closing the bridge which could potentially create a hardship for the communities.

**Rehabilitation** – The bridge was constructed in 1950 and the timber materials within the bridge have reached the end of their useful life. Rehabilitation would require replacing the timber components which would constitute effectively replacing the bridge.

**Offsite Detour** – Bridge No. 21 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would include SR 1803 (Johnson Bridge Road) to SR 1807 (Rodgers Road) to SR 1800/SR 1124 (Hildebran School Road/George Hildebran Road) to SR 1001/SR 1002 (Car Square Road/Henry River Road) to I-40 to SR 1761 (Old 10 Road) and back to SR 1803 (Johnson Bridge Road). The majority of traffic on the road is through traffic. The detour for the average road user would result in 10 minutes additional travel time (7.5 miles additional travel). Up to a 6-month duration of construction is expected on this project.

Burke County Emergency Services and Burke County Schools Transportation have also indicated that the detour can be accommodated. NCDOT Division 13 has indicated the condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement and concurs with the use of the detour.

**Onsite Detour** – An onsite detour was evaluated and eliminated due to the presence of an acceptable offsite detour and the presence of a population of federally-protected dwarf-flowered heartleaf on both sides of the existing alignment.

**Staged Construction** – The existing bridge is not wide enough to phase construction.

**New Alignment** –

presence

**Other Agency Comments:**

The **N.C. Wildlife Resource Commission (NCWRC)** prefers any replacement structure to be a spanning structure. Additionally, to protect the egg and fry stages of spawning smallmouth bass, a popular game fish, they recommend that NCDOT voluntarily make special efforts to prevent sediment from entering the waterway from May 1 to July 15.

**Response:** NCDOT will be replacing the existing bridge with a new bridge.

**Burke County, the N.C. Division of Water Quality, and the U.S. Army Corps of Engineers** had no special concerns for this project.

**Public Involvement:**

A letter was sent by the Location & Surveys Unit to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

In July 2015, a newsletter was sent to residents and businesses along SR 1803 in the vicinity of the project. No comments have been received to date. Based on lack of responses to the newsletter, a Public Meeting was determined unnecessary.

**THRESHOLD CRITERIA:**

The following evaluation of threshold criteria must be completed for Type II actions.

		<u>YES</u>	<u>NO</u>
(1)	Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	X
(2)	Does the project involve habitat where federally-listed endangered or threatened species may occur?	X	
(3)	Will the project affect anadromous fish?	<input type="checkbox"/>	X
(4)	If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	X	<input type="checkbox"/>
(5)	Will the project require the use of U. S. Forest Service lands?	<input type="checkbox"/>	X
(6)	Will the quality of adjacent water resources be adversely impacted by proposed construction activities?	<input type="checkbox"/>	X
(7)	Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)?	<input type="checkbox"/>	X
(8)	Will the project require fill in waters of the United States in any of the designated mountain trout counties?	<input type="checkbox"/>	X
(9)	Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?	<input type="checkbox"/>	X
<b><u>PERMITS AND COORDINATION</u></b>		<b><u>YES</u></b>	<b><u>NO</u></b>
(10)	If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)?	<input type="checkbox"/>	X
(11)	Does the project involve Coastal Barrier Resources Act resources?	<input type="checkbox"/>	X
(12)	Will a U. S. Coast Guard permit be required?	<input type="checkbox"/>	X
(13)	Could the project result in the modification of any existing regulatory floodway?	<input type="checkbox"/>	X
(14)	Will the project require any stream relocations or channel changes?	<input type="checkbox"/>	X

**SOCIAL, ECONOMIC, AND CULTURAL RESOURCES**

	<b><u>YES</u></b>	<b><u>NO</u></b>
(15) Will the project induce substantial impacts to planned growth or land use for the area?	<input type="checkbox"/>	<b>X</b>
(16) Will the project require the relocation of any family or business?	<input type="checkbox"/>	<b>X</b>
(17) Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population?	<input type="checkbox"/>	<b>X</b>
(18) If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?	<b>X</b>	<input type="checkbox"/>
(19) Will the project involve any changes in access control?	<input type="checkbox"/>	<b>X</b>
(20) Will the project substantially alter the usefulness and/or land use of adjacent property?	<input type="checkbox"/>	<b>X</b>
(21) Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<b>X</b>
(22) Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)?	<b>X</b>	<input type="checkbox"/>
(23) Is the project anticipated to cause an increase in traffic volumes?	<input type="checkbox"/>	<b>X</b>
(24) Will traffic be maintained during construction using existing roads, staged construction, or on-site detours?	<b>X</b>	<input type="checkbox"/>
(25) If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility?	<b>X</b>	<input type="checkbox"/>
(26) Is there substantial controversy on social, economic, or environmental grounds concerning the project?	<input type="checkbox"/>	<b>X</b>
(27) Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?	<b>X</b>	<input type="checkbox"/>
(28) Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places?	<input type="checkbox"/>	<b>X</b>
(29) Will the project affect any archaeological remains which are important to history or pre-history?	<input type="checkbox"/>	<b>X</b>
(30) Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)?	<input type="checkbox"/>	<b>X</b>

- |      |  |                          |   |
|------|--|--------------------------|---|
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended? | <input type="checkbox"/> | X |
| (32) | Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers?                          | <input type="checkbox"/> | X |

**E. ADDITIONAL DOCUMENTATION REQUIRED FOR UNFAVORABLE RESPONSES IN PART E**

**Response to Question 2:** As of April 2, 2015, the United States Fish and Wildlife Service (USFWS) lists nine federally-protected species for Burke County. The Biological Conclusion for five of these species is No Effect.

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	T	Yes	MANLAA
<i>Clemmys muhlenbergii</i>	Bog turtle	T (S/A)	No	N/A
<i>Myotis septentrionalis</i>	Northern long-eared bat	T*	No	No Effect
<i>Gymnoderma lineare</i>	Rock gnome lichen	E	No	No Effect
<i>Liatris helleri</i>	Heller's blazing star	T	No	No Effect
<i>Hudsonia montana</i>	Mountain golden heather	T	No	No Effect
<i>Isotria medeoloides</i>	Small whorled pogonia	T	Yes	No Effect
<i>Geum radiatum</i>	Spreading avens	E	No	No Effect
<i>Sisyrinchium dichotomum</i>	White irisette	E	No	No Effect

E – Endangered; T – Threatened; T (S/A) – Threatened due to similarity of appearance

MANLAA – May Affect - Not Likely to Adversely Affect

\*Listing effective May 4, 2015

Suitable habitat is present in the study area within the dry oak-hickory forest communities. Surveys were conducted throughout areas of suitable habitat on April 4, 2012. Prior to conducting the field surveys, the status of the flowering status of the dwarf-flowered heartleaf was confirmed with NCNHP. Two populations of dwarf-flowered heartleaf were identified in the northern portion of the study area along each side of Johnson Bridge Road. Confirmation of the presence of the dwarf-flowered heartleaf was conducted by the NCDOT NES-Biological Surveys Group during the week of April 23, 2012. The biological conclusion is “May Affect – Not Likely to Adversely Affect.” Although the dwarf-flowered heartleaf is present within the study area, it is not located in the immediate vicinity of the proposed bridge replacement along Henry Fork River.



**F. CE APPROVAL**

TIP Project No.	<u>B-5398</u>
W.B.S. No.	<u>46113.1.1</u>
Federal Project No.	<u>BRZ-1803(1)</u>

**Project Description:**

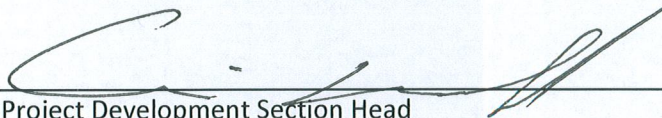
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**Categorical Exclusion Action Classification:**

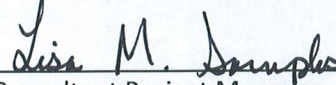
<u>      </u>	TYPE II(A)
<u>  X  </u>	TYPE II(B)

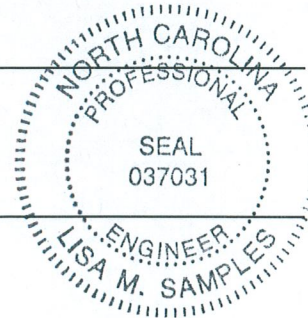
**Approved:**

8/20/15   
Date Project Development Section Head  
Project Development & Environmental Analysis Unit

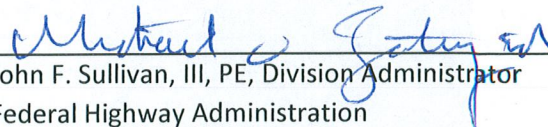
8/20/15   
Date Project Manager  
Project Development & Environmental Analysis Unit

8.19.15   
Date Project Planning Engineer  
Planning Communities, LLC

8/19/2015   
Date Consultant Project Manager  
ms consultants, inc.



**For Type II(B) projects only:**

8-20-15   
Date John F. Sullivan, III, PE, Division Administrator  
Federal Highway Administration

**PROJECT COMMITMENTS:**

**Burke County  
Bridge No. 21 on SR 1803  
Over Henry Fork River  
Federal Aid Project No. BRZ-1803(1)  
W.B.S. No. 46113.1.1  
S.T.I.P. No. B-5398**

**PDEA – Section 7 Consultation**

Two populations of dwarf-flowered heartleaf were identified in the northern portion of the study area along each side of Johnson Bridge Road. The biological conclusion is “May Affect – Not Likely to Adversely Affect.” Concurrence from USFWS for this conclusion will be obtained prior to permitting.

**Division 13 Construction, Resident Engineer’s Office – Offsite Detour**

Burke County Schools will be contacted at least one month prior to road closure.

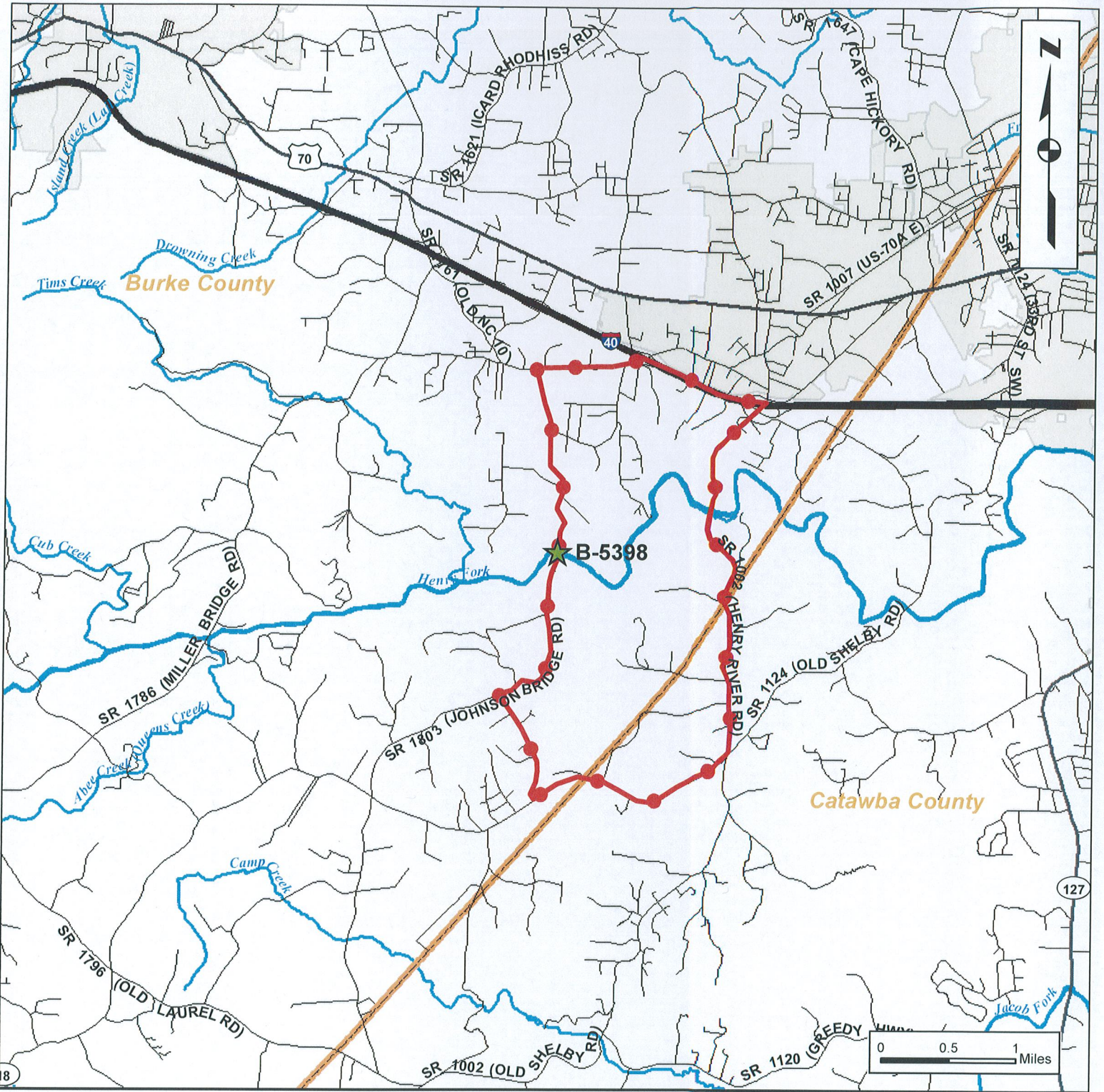
Burke County Emergency Services will be contacted at least one month prior to road closure.

**Hydraulic Unit – FEMA Coordination**

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT’S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

**Division 13 Construction-FEMA**

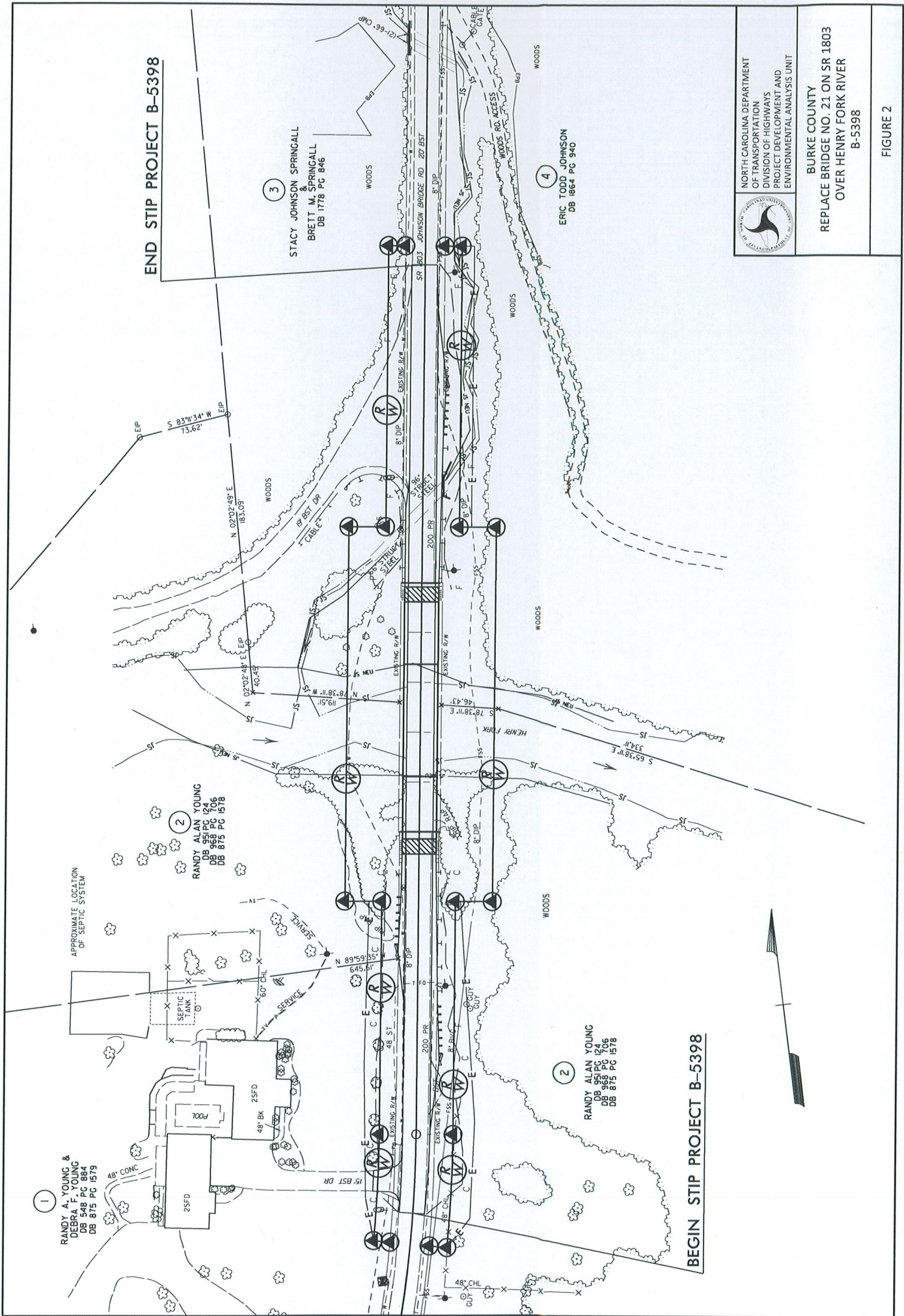
The Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.



Detour Route



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT &amp; ENVIRONMENTAL ANALYSIS UNIT</p>
<p><b>BURKE COUNTY</b> <b>REPLACE BRIDGE NO. 21</b> <b>ON SR 1803 OVER HENRY FORK RIVER</b> <b>STIP PROJECT B-5398</b></p>	
<p>FIGURE 1 - VICINITY MAP</p>	



END STIP PROJECT B-5398

BEGIN STIP PROJECT B-5398


1  
 RANDY A. YOUNG &  
 DEBRA F. YOUNG  
 DB 548 PC 884  
 DB 875 PC 1579

2  
 RANDY ALAN YOUNG  
 DB 585 PC 124  
 DB 875 PC 1578

3  
 STACY JOHNSON SPRINGALL  
 BRETT M. SPRINGALL  
 DB 1778 PC 846

2  
 RANDY ALAN YOUNG  
 DB 585 PC 124  
 DB 875 PC 1578

4  
 ERIC TODD JOHNSON  
 DB 1864 PC 940

	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT
	BURKE COUNTY REPLACE BRIDGE NO. 21 ON SR 1803 OVER HENRY FORK RIVER B-5398
FIGURE 2	