

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-4681</u>
W.B.S. No.	<u>38465.1.2</u>
Federal Project No.	<u>BRZ-1531(5)</u>

A. Project Description:

The purpose of this project is to replace Wilson County Bridge No. 119 on SR 1531 (Eagle Cross Road) over Little Contentnea Creek. Bridge No. 119 is 35 feet long. The replacement structure will be a bridge approximately 55 feet long providing a minimum 30 feet clear deck width. The bridge will include two 11-foot lanes and 4-foot 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 280 feet from the south end of the new bridge and 210 feet from the north end of the new bridge. The approaches will be widened to include a 22-foot pavement width providing two 11-foot lanes. Five-foot grass shoulders will be provided on each side (8-foot shoulders where guardrail is included). The roadway will be designed utilizing Sub-Regional Tier guidelines with a 60 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. 119 has a sufficiency rating of 39.95 out of a possible 100 for a new structure.

The bridge is considered structurally deficient due to a substructure condition appraisal of 3 out of 9 according to Federal Highway Administration (FHWA) standards.

The superstructure and substructure have timber elements that are sixty years old. Timber components have a typical life expectancy between 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few elements are damaged or prematurely deteriorated. However, past a certain degree of deterioration, most timber elements become impractical to maintain and upon eligibility are programmed for replacement. The timber components are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities; therefore, the bridge is considered to have reached the end of its useful life.

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 2012 prices, are as follows:

Structure	\$ 174,000
Roadway Approaches	166,000
Structure Removal	21,000
Misc. & Mob.	105,000
Eng. & Contingencies	84,000
Total Construction Cost	\$ 550,000
Right-of-way Costs	23,000
Utility Costs	-0-
Total Project Cost	\$ 573,000

Estimated Traffic:

Current	-	135 vpd
Year 2035	-	300 vpd
TTST	-	4%
Dual	-	4%

Accidents: Traffic Engineering has evaluated a recent three year period and found no accidents occurring in the vicinity of the project.

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

Pedestrian and Bicycle Accommodations: Neither permanent nor temporary bicycle or pedestrian accommodations are required for this project.

Bridge Demolition: Bridge No. 119 is constructed of timber and concrete and should be possible to remove with no resulting debris in the water based on standard demolition practices.

Alternatives Discussion:

No Build – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 1531.

Rehabilitation – The bridge was constructed in 1954 and the timber materials within the bridge are reaching the end of their useful life. Rehabilitation would require replacing the timber substructure components which would constitute effectively replacing the bridge.

Offsite Detour – Bridge No. 119 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 NC 222, SR 1532, and SR 1307 (in Greene County). The majority

of traffic on the road is through traffic. The detour for the average road user would result in 4 minutes additional travel time (4 miles additional travel). Up to a nine-month duration of construction is expected on this project.

Based on the Guidelines, the criteria above indicate that on the basis of delay alone, the detour is acceptable. NCDOT Division 4 has indicated the condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement and concur with the use of the detour.

Onsite Detour – An onsite detour was not evaluated due to the presence of an acceptable offsite detour.

Staged Construction – Staged construction was not considered because of the availability of an acceptable offsite detour.

New Alignment – Given that the alignment for SR 1531 is acceptable, a new alignment was not considered as an alternative.

Other Agency Comments:

The **N.C. Wildlife Resource Commission** and **U.S. Fish & Wildlife Service** in standardized letters provided a request that they prefer any replacement structure to be a spanning structure.

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

The **N.C. Division of Water Quality** and **the 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.

E. Threshold Criteria

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

<u>ECOLOGICAL</u>	<u>YES</u>	<u>NO</u>
(1) Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	<u>X</u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<input type="checkbox"/>	<u>X</u>
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<u>X</u>
(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?	<u>X</u>	<input type="checkbox"/>
(5) Will the project require the use of U. S. Forest Service lands?	<input type="checkbox"/>	<u>X</u>
(6) Will the quality of adjacent water resources be adversely impacted by proposed construction activities?	<input type="checkbox"/>	<u>X</u>
(7) Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)?	<input type="checkbox"/>	<u>X</u>
(8) Will the project require fill in waters of the United States in any of the designated mountain trout counties?	<input type="checkbox"/>	<u>X</u>
(9) Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?	<input type="checkbox"/>	<u>X</u>
 <u>PERMITS AND COORDINATION</u>		
(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"/>	<u>X</u>
(11) Does the project involve Coastal Barrier Resources Act resources?	<input type="checkbox"/>	<u>X</u>
(12) Will a U. S. Coast Guard permit be required?	<input type="checkbox"/>	<u>X</u>
(13) Could the project result in the modification of any existing regulatory floodway?	<input type="checkbox"/>	<u>X *</u>

- (29) Will the project affect any archaeological remains which are important to history or pre-history? X
- (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)? X
- (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? 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? X

F. Additional Documentation Required for Unfavorable Responses in Part E

* Additional information for Item No. 13: This response is based on the fact that the project is located in a Limited Detail Study area.

PROJECT COMMITMENTS:

**Wilson County
Bridge No. 119 on SR 1531
Over Little Contentnea Creek
Federal Aid Project No. BRZ-1531(4)
W.B.S. No. 38465.1.1
S.T.I.P. No. B-4681**

Division Four Construction, Resident Engineer's Office – Offsite Detour

In order to have time to adequately reroute school busses, Wilson County Schools will be contacted at least one month prior to road closure.

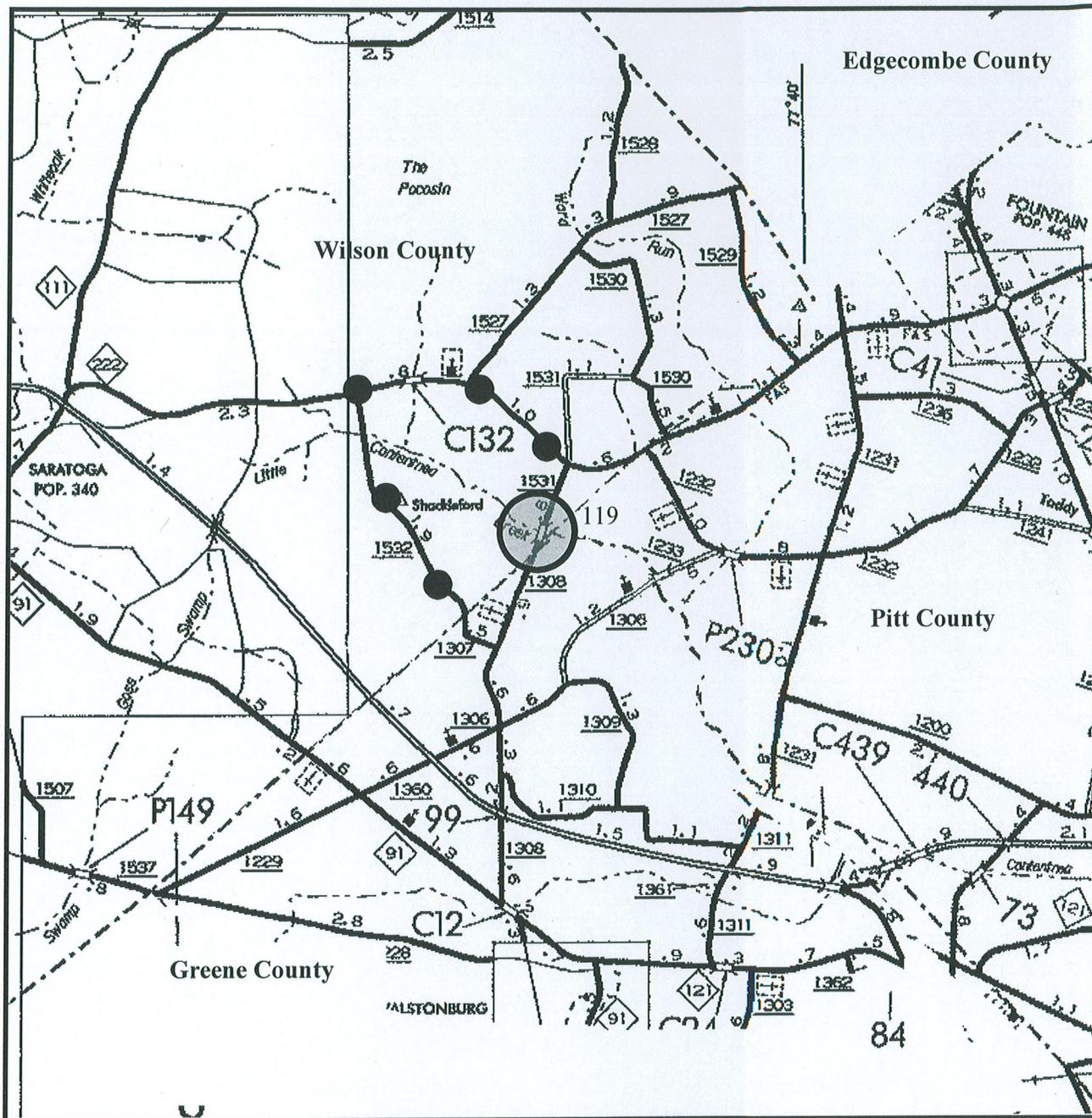
Wilson County Emergency Services will be contacted at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

Hydraulic Unit – FEMA Coordination

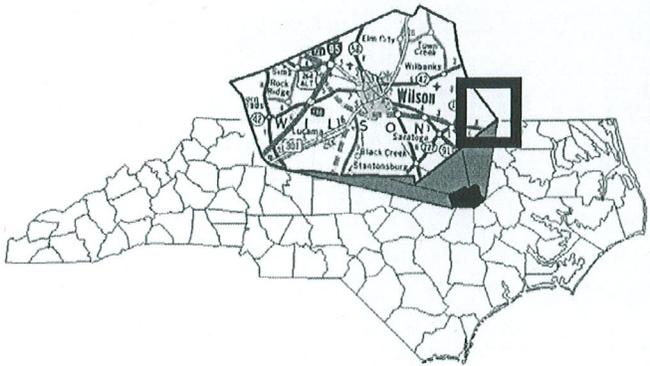
The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Division Construction-FEMA

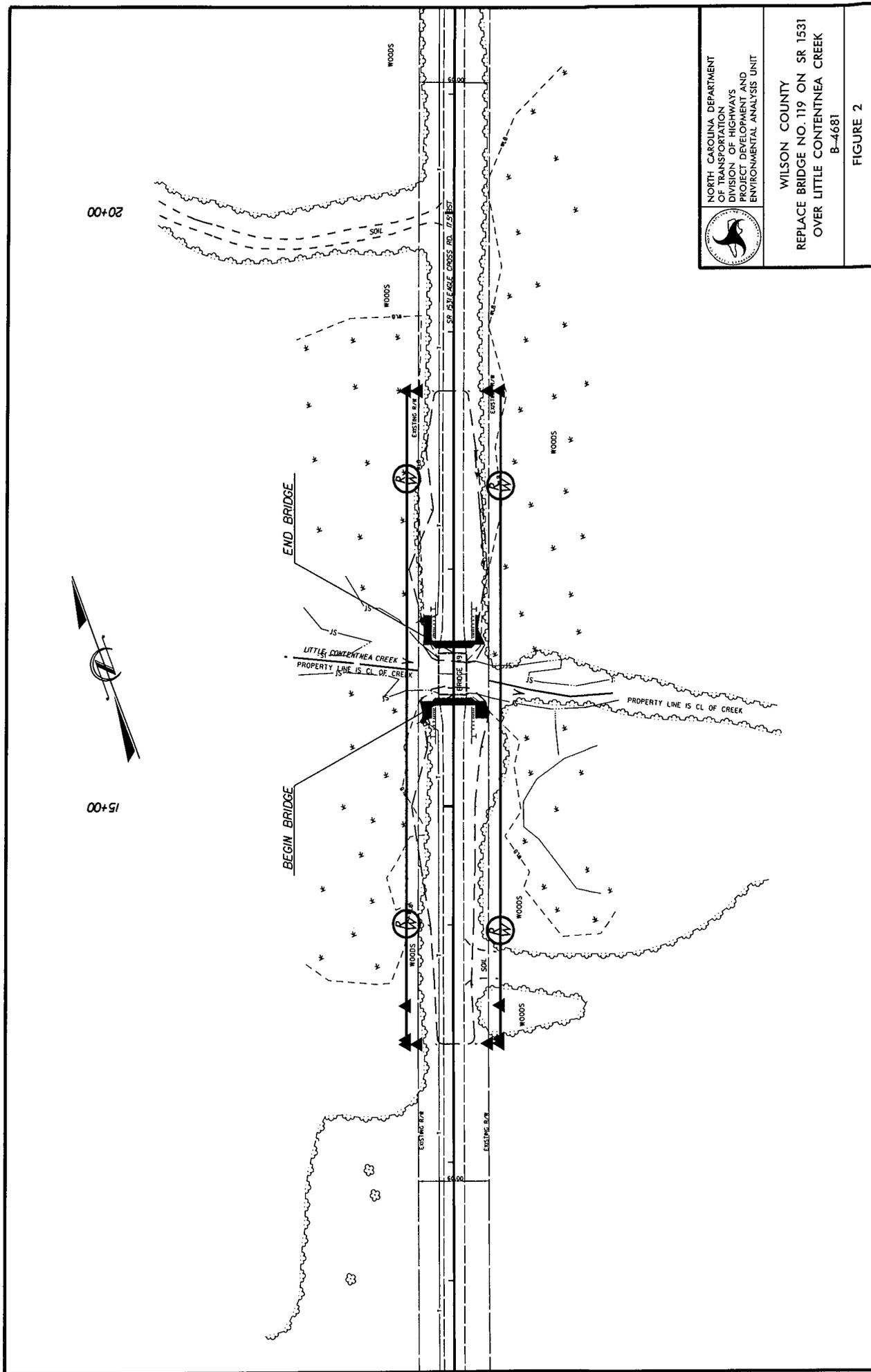
This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.



●—●—● Studied detour route



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS BRANCH</p>
	<p>WILSON COUNTY REPLACE BRIDGE 119 ON SR 1531 OVER LITTLE CONTENTNEA CREEK B-4681</p>
<p>Figure 1</p>	



NORTH CAROLINA DEPARTMENT
 OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT DEVELOPMENT AND
 ENVIRONMENTAL ANALYSIS UNIT

WILSON COUNTY
 REPLACE BRIDGE NO. 119 ON SR 1531
 OVER LITTLE CONTENTNEA CREEK
 B-4681

FIGURE 2

NO PREHISTORIC OR HISTORIC PROPERTIES PRESENT/AFFECTED FORM

PROJECT INFORMATION

Project No: B-4681 County: Wilson
 WBS No: 38465.1.1 Document:
 F.A. No: BRZ-1531(4) Funding: State Federal

Federal (USACE) Permit Required? Yes No Permit Type:

Project Description:

Replace Bridge No. 119 on SR 1531 (Eagle Cross Rd.) over Little Contentnea Creek. Design plans were not available until August 2011, so a large "Study Area" was initially used as the Area of Potential Effects (A.P.E.). Bridge will be replaced in-place with an off-site detour. Design plans show an A.P.E. consisting of an 18-meter (60-foot) wide corridor extending along SR 1531 from the bridge north and south for 60 meters (200 ft.).

SUMMARY OF FINDINGS

The North Carolina Department of Transportation (NCDOT) reviewed the subject project and determined:
Archaeology

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- No subsurface archaeological investigations are required for this project.
- Subsurface investigations did not reveal the presence of any archaeological resources.
- Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- All identified Archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- There are no historic properties present or affected by this project. (Attach any notes or documents as needed)

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:

Initial review of the project was conducted on 12/17/2010. Background research identified no previously recorded archaeological sites in the vicinity of the A.P.E. The A.P.E. has not been previously surveyed for archaeological sites, and it is not within any areas that have been previously reviewed by the State Historic Preservation Office (HPO).

The Wilson County soil survey identifies the soil around the bridge as Bibb loam, a nearly level, poorly drained soil on flood plains. The soil in the south end of the southwest and southeast quadrants is Norfolk sandy loam (2-6% slopes), a well drained soil on ridges and side slopes. The topographic map indicated the landforms in the northwest and northeast quadrants consisted of low ground with a low probability for the presence of prehistoric archaeological sites. The landforms in the southwest and southeast quadrants consisted of gentle to moderate slopes with a moderate to high probability for archaeological sites.

The archaeological survey was conducted on 3/7/2011 and 7/11/2011. See attached maps, photographs, and description of the shovel tests.

No shovel tests were excavated in the northeast quadrant. The landform within 120 meters (394 ft.) of the bridge is poorly-drained and has little potential for archaeological sites.

The landform in the southwest quadrant is standing water from the bridge south for approximately 60 meters (200 ft.) and then a moderate slope up to a ridge. The north edge of the ridge is wooded and the

south part is a mowed grass yard (a residence is located approximately 225 meters [738 ft.] south of the bridge). Three shovel tests (ST 9-11) were excavated at a 30-meter (100-ft.) interval parallel to the road beginning approximately 95 meters (312 ft.) south of the bridge and 10 meters (32 ft.) west of the road. Two shovel tests (ST 9-10) each contained a single prehistoric flake (rhyolite). The north and south boundaries were established via two negative shovel tests in each direction. No shovel tests were excavated to the west due to the limited A.P.E. Two prehistoric artifacts recovered from two shovel tests is considered an isolated find (31WL342). Recommended ineligible for the National Register of Historic Places (NRHP) due to low artifact density and no evidence of cultural features.

The landform in the southeast quadrant is poorly-drained from the bridge south for approximately 60 meters (200 ft.), and then a moderate slope up to a ridge currently used as an agricultural field. Three shovel tests (ST 5-7) were excavated at a 30-meter (100-ft.) interval parallel to the road beginning approximately 90 meters (295 ft.) south of the bridge and 15 meters (50 ft.) east of the road. The A.P.E. is used as a tobacco field with good surface visibility. No cultural material was present in the shovel tests or on the surface.

The landform in the northwest quadrant is standing water from the bridge north for approximately 70 meters (230 ft.) and then a raised terrace. A shovel test (ST 1) was excavated approximately 90 meters (295 ft.) north of the bridge and 15 meters (50 ft.) west of the road. It contained one prehistoric ceramic (sand tempered; cord marked), 1 rhyolite uniface, and 3 quartzite flakes (site 31WL341). ST 2 was excavated approximately 30 meters (100 ft.) north of ST 1. It contained one quartzite flake. ST 3-4 were excavated 15 meters (50 ft.) west of ST 1 and ST 2. Neither contained any artifacts. Site 31WL341 is recommended ineligible for the NRHP. It is a scatter of prehistoric artifacts with a low artifact density and no evidence of intact cultural features.

SUPPORT DOCUMENTATION

See attached:

Map(s) Previous Survey Info Photos Correspondence Notes from survey.

Signed:

Caleb Smith
Cultural Resources Specialist, NCDOT

8/11/2011

Date

10-12-0001

NO SURVEY REQUIRED FORM

PROJECT INFORMATION

Project No: B-4681 County: Wilson
 WBS No: 38465.1.1 Document: Environmental
 F.A. No: BRZ-1531 (4) Funding: State Federal

Federal (USACE) Permit Required? Yes No Permit Type:

Project Description: Replacement of Bridge No. 119 over Little Contentnea Creek on SR 1531 (Eagles Cross Road)

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:
 Review of HPO quad maps, historic designations roster, and indexes was undertaken on 8 December 2010. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects (APE). Google Maps and Wilson County current GIS and tax information confirmed that there are no structures within the APE. The one house bordering was constructed in 1979 based on Wilson County current tax information.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:
 Review of HPO quad maps, Google Maps and Wilson County current GIS and tax information indicate that there are no structures within the APE.

SUPPORT DOCUMENTATION

See attached: Maps

FINDING BY NCDOT CULTURAL RESOURCES PROFESSIONAL NO SURVEY REQUIRED

ARCHAEOLOGY HISTORIC ARCHITECTURE (CIRCLE ONE)

Katherine J. Hubbard 12/8/2010
 NCDOT Cultural Resources Specialist Date