

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

|                     |              |
|---------------------|--------------|
| STIP Project No.    | B-4405       |
| W.B.S. No.          | 38355.1. FD2 |
| Federal Project No. | BRZ-1605(5)  |

A. Project Description:

The purpose of this project is to replace Alexander County Bridge No. 130 on SR 1605 (Paul Payne Store Road) over Elk Shoals Creek (see **Figure 1**). Bridge No. 130 is a triple-span, 90 feet, 6 inches long, two-lane bridge with a clear roadway width of 24 feet, 5 inches. The replacement structure will be a 110-foot bridge at approximately the same grade and elevation. The new bridge width will include two 11-foot lanes with 2 feet, 11-inch shoulders and 1 foot, 1-inch vertical barrier rails (see **Figure 2**). 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 proposed approach roadway will extend approximately 190 feet south and 210 feet north from the new bridge. The approaches will include two 11-foot travel lanes with 4-foot shoulders (up to 7 feet with guardrail). The roadway will be designed with Sub-Regional Tier Guidelines with a 55-mile per hour (mph) design speed. Project design plans are shown in **Figure 3**.

Traffic will be detoured off-site during construction using County Line Road (SR 1638), Old Mountain Road (SR 1005), and Drumstand Road (SR 1626) (see **Figure 1**). The off-site detour is approximately seven miles and take roughly nine minutes of additional travel time.

The project is included in the 2016-2025 State Transportation Improvement Program (STIP) and the Draft 2017-2027 STIP as B-4405. Right of way (ROW) acquisition is scheduled for the 2019 fiscal year and construction is scheduled for the 2020 fiscal year. The ROW and construction costs shown in the STIP are \$25,000 and \$850,000, respectively, and total \$875,000.

B. Purpose and Need:

NCDOT Bridge Management Unit records (November 03, 2014) indicate Bridge No. 130 has a sufficiency rating of 18.2 out of a possible 100 for a new structure and is in poor condition.

According to Federal Highway Administration (FHWA) standards, the bridge meets the criteria for “structurally deficient” due to the condition of the deck and superstructure receiving a rating of 4 and 3, respectively, and as “functionally obsolete” due to the structural evaluation rating of 3. The total number of points is 9. “Structurally deficient” means that the bridge is in relatively poor condition,

and has insufficient load-carrying capacity. The insufficient load capacity could be due to the original design or to deterioration. “Functionally obsolete” means that the bridge is safe, but needs to be replaced to meet current and future traffic demands. The rating scale ranges from 0-3 as “critical,” 4 is “poor,” 5-6 is “fair” and “good” is 7-9.

Bridge No. 130 was built in 1967 and is in need of replacement. This is a federally-funded bridge replacement project.

The bridge superstructure has pre-cast, pre-stressed concrete channels. The substructure has end and interior bents with concrete caps on timber piles. The concrete and timber components are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities; therefore, the bridge is approaching the end of its useful life. Based on the November 2014 Bridge Inspection Report, the posted weight limits for the bridge are 19 tons for single vehicles and 26 tons for tractor-trailer semi-trucks. Current field reviews (2016) note that the weight limits have increased to 21 and 29 tons, respectively.

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 most recent estimated costs for the project are as follows:

|   |                   |
|---|-------------------|
| Structure (bridge and bridge approaches)    | \$ 388,050        |
| Roadway Approaches                          | \$ 168,050        |
| Structure Removal                           | \$ 34,590         |
| Misc. & Mob.                                | \$ 139,310        |
| Eng. & Contingencies                        | \$ 120,000        |
| <b>Total Construction Cost (March 2016)</b> | <b>\$ 850,000</b> |
| Right-of-way Costs (March 2016) - Easements | \$ 23,300         |
| Right-of-way Utility Costs                  | \$ 87,036         |
| <b>Total Project Cost</b>                   | <b>\$ 960,336</b> |

**Estimated Traffic:**

Current (2014) - 650 vpd  
 Design Year (2040) - 1,300 vpd  
 TTST - 3%  
 Dual - 3%

**Accidents:** Traffic Safety Systems Management Unit has evaluated a recent ten-year period and found seven accidents occurring in the vicinity of the project. Of these accidents, four were related to striking fixed objects (such as ditches or embankments), two were related to overturning the vehicle, and one was non-collision type accident. One accident was related to drugs/alcohol use. None of the crashes were fatal. A Bridge and Approach Investigation Checklist was performed on March 30, 2015 that determined 55 mph is a comfortable passenger car speed across the existing alignment.

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

**Pedestrian and Bicycle Accommodations:** SR 1605 is not part of a designated bicycle route, nor is it listed in the State Transportation Improvement Program (STIP) as a bicycle project. There are no sidewalks or pedestrian paths located along the project corridor. No recommendations are being made for bicycle and pedestrian facilities on the bridge.

**Bridge Demolition:** Bridge No. 130 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 adjacent residences and volume of traffic served by SR 1605 (Paul Payne Store Road).

**Rehabilitation** – The bridge was constructed in 1967 with timber and concrete components. Continual rehabilitation would require replacing the components, which would constitute effectively replacing the bridge.

**Replace in Place with Offsite Detour (Alternative 1)** – Bridge No. 130 will be replaced on the existing alignment. Traffic will be routed along an off-site detour while the new bridge is being constructed. The Division 12 office has indicated that the condition of all roads, bridges and intersections on the off-site detour are acceptable without improvement and concurs with use of this detour. Replacement at the existing location with the use of the off-site detour minimizes the amount of additional right of way and easements needed to construct the new bridge and to maintain it after construction is complete. It also reduces impacts to the creek and to adjacent lands, as well as reducing project costs. **This alternative is the Preferred Alternative.**

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 off-site detour. The off-site detour for this project would include County Line Road (SR 1638), Old Mountain Road (SR 1005), and Drumstand Road (SR 1626). The off-site detour is approximately seven miles in length and takes roughly nine minutes of additional travel time. A six-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 will provide construction schedules to the Alexander County Emergency Services Director and School Transportation Coordinator to help minimize impacts to their services.

**Replace in Place with On-site Detour (Alternative 2)** – Alternative 2 replaces the bridge on a new alignment approximately 50 feet west of the existing location. Traffic would be maintained on the existing roadway while the new bridge would be constructed. This alternative is not the preferred alternative because the costs would be more than Alternative 1 with a new alignment and new bridge. The old bridge and roadway would

need to be removed as part of the costs as well. This alternative was eliminated from further study.

**Other Agency Comments:**

NCDOT has sought input from the following agencies in December 2014 as part of the project development for B-4405: US Environmental Protection Agency (USEPA), US Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), US Department of Agriculture, Federal Highway Administration (FHWA), NC Division of Water Resources (NCDWR), NC Division of Parks and Recreation, Greater Hickory Metropolitan Planning Organization, Alexander County Emergency Management Services, Alexander County School System, and the Alexander County Planning Department.

Regarding the Farmland Protection Policy Act (FPPA), a screening conducted according to FHWA guidelines indicated the need for further study. Evaluation by the Natural Resources Conservation Service (NRCS) found Alternative 1 fell below minimal criteria. There is no new ROW acquisition for this project; therefore, impacts are not anticipated.

**Alexander County Engineering Department** responded in an email, dated December 29, 2014, that the Stoney Point Fire Department has a sub-station on Paul Payne Store Road near the intersection of Drumstand Road. This station serves the southern part of their fire district, which includes residential development along Lake Lookout. When the bridge over Elk Shoals Creek is under construction, fire service will be routed to use the off-site detour. The main station in Stony Point may have a quicker response time to the area southeast of the bridge, rather than the sub-station. The Engineering Department noted that other emergency services may be impacted during construction; however, input was not provided from the Emergency Medical Services Department. Also, Energy United Water has a water line crossing Elk Shoals Creek at this location.

**Response:** The following responses are noted:

- NCDOT will provide construction schedules to the Alexander County Emergency Services Director to help minimize impacts to their services.
- Contact with the Stoney Point Fire Department was initiated by phone on November 16, 2016 and January 3, 2017; however, no calls were returned. In addition, in March 2017, a hard copy of the project newsletter was mailed to the fire department and an e-mail with the newsletter and a request for comments were sent to the Alexander County Emergency Services representatives. No comments have been provided.
- NCDOT will coordinate utility relocations during the right of way acquisition process.

**Alexander County Planning Department** responded in a letter on September 8, 2009 that this project is located in a protected Class IV Watershed. State regulations pertaining to sedimentation and erosion control must be adhered to in an effort to minimize impacts to the public water supply. Also, the County requested that this project and Bridge No. 129 Replacement Project (B-5110) on Drumstand Road (SR 1626) over Big Branch Creek be constructed on different fiscal years so that the detour routes do not overlap.

**Response:** The following responses are noted:

- NCDOT will adhere to their Best Management Practices for Protection of Surface Waters (March 1997) throughout the design and construction of the project.
- Construction for B-5110 was completed in December 2014.

The Community Impact Assessment (April 2015) documents coordination with **Alexander County Schools Transportation Coordinator** on January 8, 2015. Three school busses cross the bridge twice a day. There were no concerns voiced about the potential detour route, although they rated the impact as moderate if the road were closed for up to one year.

**Response:** NCDOT will provide construction schedules to the Alexander County School Transportation Coordinator to help minimize impacts to their services.

### **Public Involvement:**

On December 10, 2014, property owner notification letters were mailed out to residents in the direct study area to inform them of possible natural systems surveys on their property. No comments or concerns from the public were received in response to this notification letter.

In March 2017, project newsletters were mailed to residents along the project and the detour route to inform them about the proposed project, the Preferred Alternative, the off-site detour route, and the schedule for right of way acquisition and construction. A copy of the newsletter is included in the **Appendix**. Three people contacted the project team to provide comments following distribution of the newsletters. Their feedback is summarized below and focused on the result of a 2016 storm event that caused an emergency closure of the bridge. The bridge is still closed, but improvements are underway, and the Division 12 office anticipates the bridge will reopen in Spring/Summer 2017.

- One citizen noted via e-mail that the off-site detour route adds 14 miles to his drive daily. He asked if the existing (improved) bridge could be used during construction of the proposed (new) bridge so that another off-site

detour would not be needed. He believes that the use of an off-site detour is “causing a lot of problems also to the emergency services and the school systems as far as response time and fuel cost.”

- Another citizen who replied lives near the off-site detour route and owns additional properties along the off-site detour route. He called about the duration of the current bridge closure due to the ongoing repairs/restoration and expressed concern for the future bridge closure, noting that the off-site detour adds about 20 minutes of commute time (10 miles each way) to his day. He was also concerned about the additional gasoline cost associated with use of the off-site detour route and believes that his neighbors and emergency services would also be concerned about the additional travel time to use the off-site detour.
- A third citizen, who lives south of the off-site detour route, called for more information about the ongoing improvements at the bridge.

A Public Meeting was not requested by the public, and is not proposed at this time. While concern for the off-site detour was noted by residents, as indicated above, page 5 explains the benefits of the off-site detour. Specifically, it requires less right of way acquisition and easements, reduces impacts to adjacent lands, reduces impacts to the creek and lowers project costs as compared to constructing an on-site detour.

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"/>            | <input checked="" type="checkbox"/> |
| (2) Does the project involve habitat where federally listed endangered or threatened species may occur? (See additional documentation in Section F.)   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (3) Will the project affect anadromous fish?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (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? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (5) Will the project require the use of U. S. Forest Service lands?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| (6) Will the quality of adjacent water resources be adversely impacted by proposed construction activities?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |



- |     |  |                          |              |
|-----|--|--------------------------|--------------|
| (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> |

PERMITS AND COORDINATION

YES                      NO

- |      |  |                                     |                   |
|------|--|-------------------------------------|-------------------|
| (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?<br><b>(See additional documentation in Section F.)</b>                 | <input checked="" type="checkbox"/> | <u>          </u> |
| (14) | Will the project require any stream relocations or channel changes?  | <input type="checkbox"/>            | <u>  X  </u>      |

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES                      NO

- |      |   |                          |                          |
|------|---|--------------------------|--------------------------|
| (15) | Will the project induce substantial impacts to planned growth or land use for the area?   | <input type="checkbox"/> | <u>  X  </u>             |
| (16) | Will the project require the relocation of any family or business?  | <input type="checkbox"/> | <u>  X  </u>             |
| (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"/> | <u>  X  </u>             |
| (18) | If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?                        | <u>  X  </u>             | <input type="checkbox"/> |
| (19) | Will the project involve any changes in access control?   | <input type="checkbox"/> | <u>  X  </u>             |
| (20) | Will the project substantially alter the usefulness and/or land use of adjacent property?   | <input type="checkbox"/> | <u>  X  </u>             |

- |      |   |                          |                          |
|------|---|--------------------------|--------------------------|
| (21) | Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?  | <input type="checkbox"/> | <u>  X  </u>             |
| (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)?  | <u>  X  </u>             | <input type="checkbox"/> |
| (23) | Is the project anticipated to cause an increase in traffic volumes?   | <input type="checkbox"/> | <u>  X  </u>             |
| (24) | Will traffic be maintained during construction using existing roads, staged construction, or on-site detours?   | <u>  X  </u>             | <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? | <u>  X  </u>             | <input type="checkbox"/> |
| (26) | Is there substantial controversy on social, economic, or environmental grounds concerning the project?  | <input type="checkbox"/> | <u>  X  </u>             |
| (27) | Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?   | <u>  X  </u>             | <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"/> | <u>  X  </u>             |
| (29) | Will the project affect any archaeological remains which are important to history or pre-history?   | <input type="checkbox"/> | <u>  X  </u>             |
| (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"/> | <u>  X  </u>             |
| (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"/> | <u>  X  </u>             |
| (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"/> | <u>  X  </u>             |

F. Additional Documentation Required for Unfavorable Responses in Part E

**Response to Question 2: NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50**

C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

**Response to Question 13:** Alexander County is a participant in the National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). The effective FEMA floodplain mapping indicates that this crossing of Elk Shoals Creek is located within a flood hazard zone designated as Zone AE, for which 100-year base flood elevations have been established in a Limited Detailed Flood Study. The Hydraulic Unit will coordinate with FEMA to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of Map Revision (LOMR) are required for this project. The Division 12 Office will submit sealed as-built construction plans to the Hydraulic Unit upon project completion certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

G. CE Approval

|                     |                     |
|---------------------|---------------------|
| STIP Project No.    | <u>B-4405</u>       |
| W.B.S. No.          | <u>38355.1. FD2</u> |
| Federal Project No. | <u>BRZ-1605(5)</u>  |

A. Project Description:

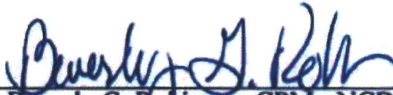
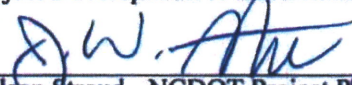

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The proposed approach roadway will extend approximately 190 feet south and 210 feet north from the new bridge. The approaches will include two 11-foot travel lanes with 4-foot shoulders (up to 7 feet with guardrail).

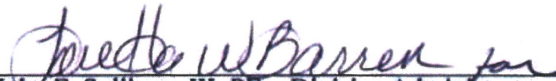
Categorical Exclusion Action Classification:

       TYPE II(A)  
  x   TYPE II(B)

Approved:

|         |  |
|---------|--|
| 4/25/17 |   |
| Date    | Beverly G. Robinson, CPM - NCDOT Project Development<br>Western Region Group Supervisor<br>Project Development & Environmental Analysis Unit |
| 4-25-17 |   |
| Date    | Wilson Stroud - NCDOT Project Planning Engineer<br>Project Development & Environmental Analysis Unit   |
| 4-25-17 |   |
| Date    | Kristina Miller, PE - Consultant Project Manager<br>Rummel, Klepper and Kahl, LLP. (RK&K)  |

For Type II(B) projects only:

|        |  |
|--------|--|
| 5/1/17 |  |
| Date   | John F. Sullivan, III, PE - Division Administrator<br>Federal Highway Administration |

## **PROJECT COMMITMENTS**

T.I.P. Project No. B-4405  
Replacement of Bridge No. 130 on SR 1605 (Paul Payne Store Road)  
Over Elk Shoals Creek  
Alexander County  
Federal Aid Project No. BRZ 1605(5)  
WBS Element 38355.1.FD2

### Hydraulic Unit – FEMA Coordination

The Hydraulic Unit will coordinate with the NC Floodplain Mapping Program (FMP) to determine the status of the project with regard to the applicability of the NCDOT's Memorandum of Agreement with FMP to this project of whether approval of a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of Map Revision (LOMR) will be required.

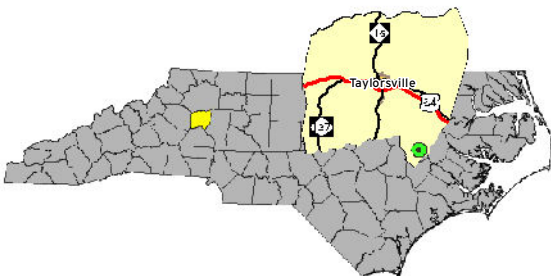
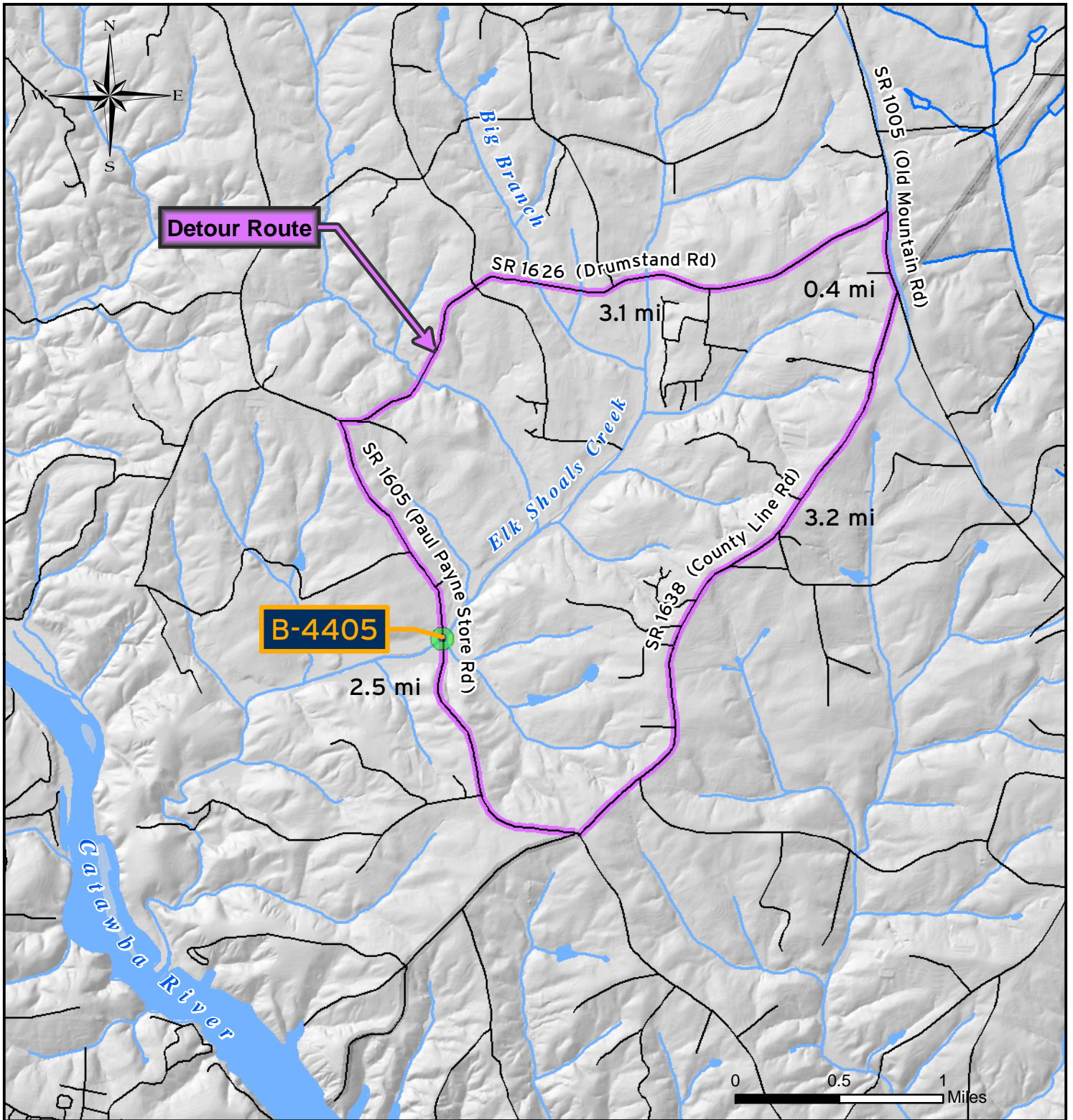
### Division 12 Construction – FEMA Coordination

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

### Division 12 Construction, Resident Engineer's Office – Off-site Detour

NCDOT will provide construction schedules to the Alexander County Emergency Services Director and School Transportation Coordinator to help minimize potential impacts to their services.

## FIGURES



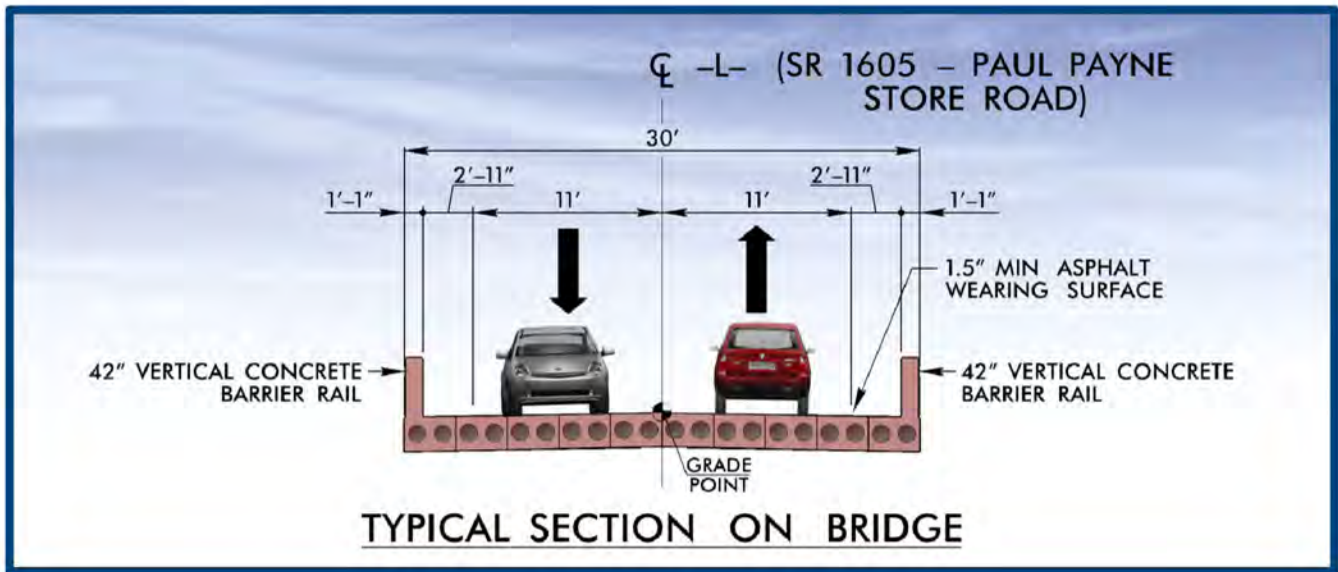
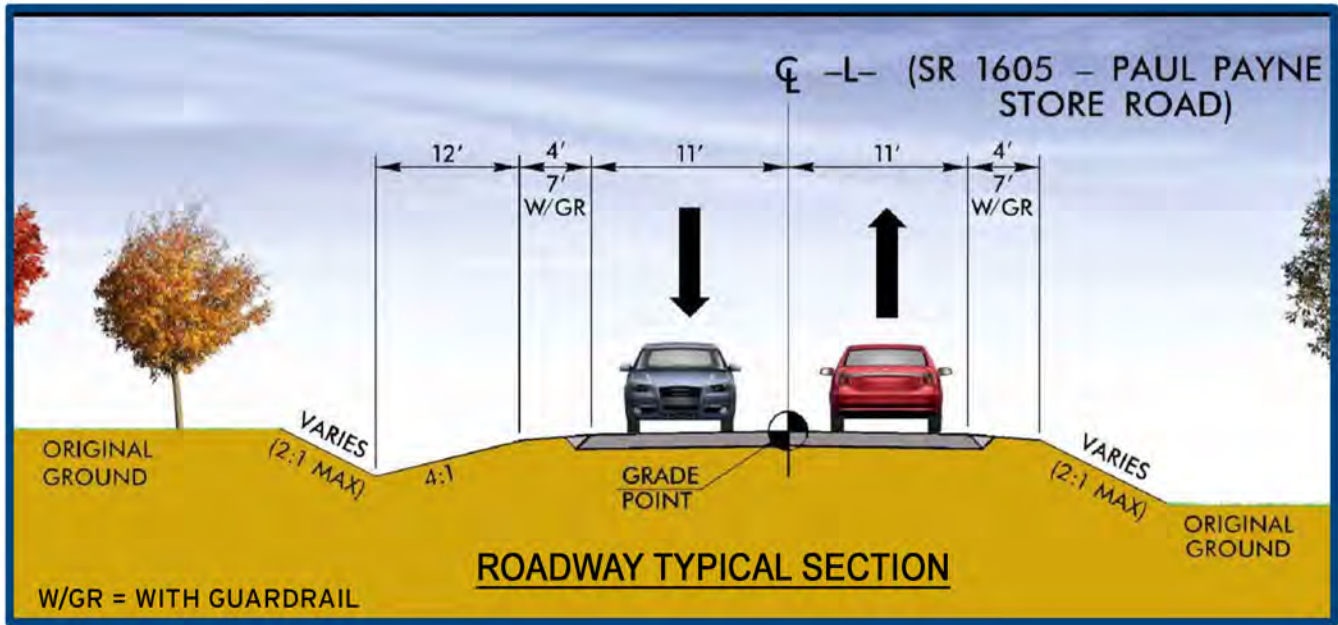
NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT &  
ENVIRONMENTAL ANALYSIS UNIT

**B-4405**  
**REPLACE BRIDGE NO. 130 ON SR 1605**  
**OVER ELK SHOALS CREEK**  
**ALEXANDER COUNTY**

VICINITY MAP

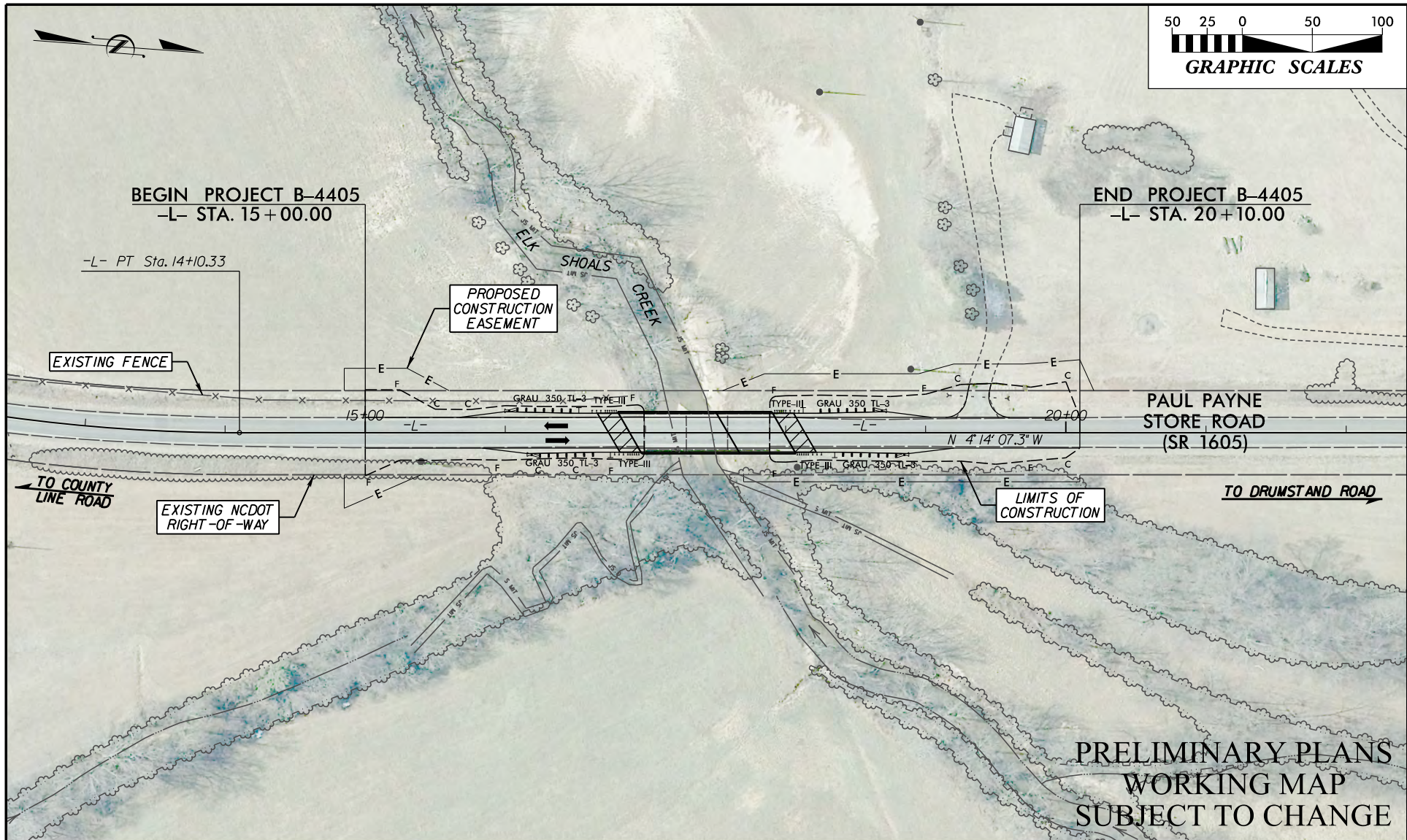
FIGURE 1





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

**B-4405**  
REPLACE BRIDGE NO. 130  
ON SR 1605 (PAUL PAYNE STORE ROAD)  
OVER ELK SHOALS CREEK  
ALEXANDER COUNTY



PRELIMINARY PLANS  
 WORKING MAP  
 SUBJECT TO CHANGE



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

B-4405  
 REPLACE BRIDGE NO. 130 ON SR 1605  
 (PAUL PAYNE STORE ROAD)  
 OVER ELK SHOALS CREEK  
 ALEXANDER COUNTY

PRELIMINARY DESIGN

FIGURE 3

## APPENDIX



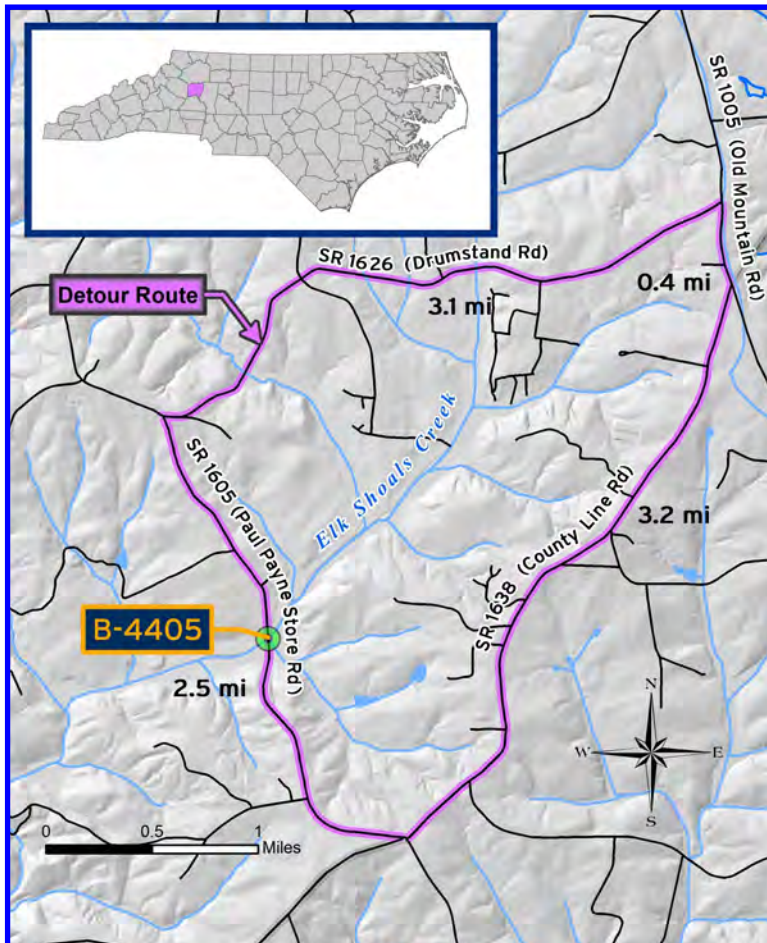
# Bridge No. 130 Replacement Project

State Transportation Improvement Program (STIP) No. B-4405

Bridge No. 130 on Paul Payne Store Rd. (S.R. 1605) over Elk Shoals Creek

## Project Description

The N.C. Department of Transportation is proposing to replace Bridge No. 130 on Paul Payne Store Road (S.R. 1605) over Elk Shoals Creek in Alexander County. Bridge No. 130 was built in 1967 and is reaching the end of its useful life. The purpose of the project is to provide a safer and more durable structure at this location.



Bridge No. 130 over Elk Shoals Creek



Looking south on Paul Payne Store Road at Bridge No. 130

**Construction Update**

The ongoing rehabilitation of Bridge No. 130 is anticipated for completion in the Spring of 2017. The rehabilitation will include repairing a broken girder and resurfacing the asphalt deck. Once complete, the bridge will reopen to traffic. In 2020, the total replacement of Bridge No. 130 is scheduled for construction (as project STIP No. B-4405). Construction of the new bridge will take about six months to complete.

## Preferred Alternative

After evaluating the environmental impacts, cost estimates, traffic volumes, accident data, local access needs and existing roadways through this area, NCDOT has selected the “replace-in-place” option with an off-site detour as the Preferred Alternative. This alternative will rebuild the bridge at its current location and elevation. Traffic will be maintained on an off-site detour that uses Drumstand Road (S.R. 1626), Old Mountain Road (S.R. 1005) and County Line Road (S.R. 1638). The detour is about seven miles. No homes or businesses will be displaced, but some property acquisition may be required adjacent to the bridge for construction and future maintenance.



**Bridge No. 130 on Paul Payne Store Road (S.R. 1605)  
over Elk Shoals Creek in Alexander County  
(STIP No. B-4405)**

North Carolina Department of Transportation  
Project Development and Environmental Analysis Unit  
Attn: Wilson Stroud  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

**Important Information  
Please Read!**

## Schedule for Bridge No. 130

- March 2017— Completion of Environmental Studies
- Late 2018 — Right-of-Way Acquisition Begins
- Late 2019 / Early 2020 — Construction Begins

## Do you want to share your thoughts on the project?

Please feel free to mail, email or fax your questions or comments to a project team member by **March 31, 2017**.

Aquellas personas que hablan español y no hablan inglés, o tienen limitaciones para leer, hablar o entender inglés, podrían recibir servicios de interpretación si los solicitan llamando al 1-800-481-6494.

**Wilson Stroud**  
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1548 Mail Service Center  
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**09-11-0014**

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

An archaeological survey and evaluation for replacement of Bridge No. 130 on SR 1605 over Elk Shoals Creek in Alexander County was conducted on March 18–20, 2015 by Melissa McKay and John Kesler of TRC Environmental Corporation (TRC). During the course of the survey, one previously unidentified archaeological site, 31AX41, consisting of an isolated find, was located within the project APE. The archaeological resource is recommended not eligible for the NRHP, and no further archaeological investigations are recommended for this project.

**SUPPORT DOCUMENTATION**

See attached:  Map(s)     Previous Survey Info     Photos     Correspondence

Other: **Cultural Review**

Signed

Caleb Smith

**NCDOT ARCHAEOLOGIST**

5/19/2015

**Date**

09-11-0014 Revised



## HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

### PROJECT INFORMATION

|  |             |                        |                                 |
|--|-------------|------------------------|---------------------------------|
| <b>Project No:</b>   | B-4405      | <b>County:</b>         | Alexander                       |
| <b>WBS No.:</b>  | 38355.1.FD1 | <b>Document Type:</b>  |                                 |
| <b>Fed. Aid No:</b>  | BRZ-1605(4) | <b>Funding:</b>        | State    X Federal              |
| <b>Federal Permit(s):</b>  | X Yes    No | <b>Permit Type(s):</b> | Not specified in review request |
| <b>Project Description:</b> Replace Bridge No. 130 on SR 1605 (Paul Payne Store Road) over Elk Shoals Creek (no off-site detour planned). Original review 22 March 2010. |             |                        |                                 |

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

**DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS:** HPOWeb reviewed on 22 December 2014 yielded no NR, SL, DE, SS, or LD properties in the Area of Potential Effects (APE). Alexander County current GIS mapping, aerial photography, and tax information indicated mostly woodland and fields and several late-twentieth-century resources in the APE (viewed 22 December 2014). An unexceptional, circa-1960 house stands approximately 540 feet south of the existing bridge and 160 feet east of the SR 1605 (Paul Payne Store Road) centerline, beyond likely project impact. Constructed in 1967, Bridge No. 130 is neither included in the NCDOT Historic Bridge Survey, nor representative of any distinctive engineering or aesthetic type. Google Maps "Street View" confirmed the absence of critical historic architectural and landscape resources in the APE (viewed 22 December 2014).

**No architectural survey is required for the project as currently defined.**

**WHY THE AVAILABLE INFORMATION PROVIDES A RELIABLE BASIS FOR REASONABLY PREDICTING THAT THERE ARE NO UNIDENTIFIED SIGNIFICANT HISTORIC ARCHITECTURAL OR LANDSCAPE RESOURCES IN THE PROJECT AREA:** APE extends 900 feet to either end of the existing bridge (N-S) and 200 feet to either side of the SR 1605 (Paul Payne Store Road) centerline to encompass proposed construction activities. Reconnaissance survey of the project area in March 2010 confirmed the absence of critical resources. While no comprehensive historic architectural survey of Alexander County exists, county GIS and other visuals illustrate that there are no significant architectural or landscape resources present in the APE. No National Register-listed properties are located within the APE or along the proposed off-site detour route.

**Should any design elements of the project change,  
please notify NCDOT Historic Architecture as additional review may be necessary.**

### SUPPORT DOCUMENTATION

X Map(s)    X Previous Survey Info.     Photos     Correspondence     Design Plans

### FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

*Vanessa E. Patrick*

NCDOT Architectural Historian

*22 December 2014*

Date