Categorical Exclusion Action Classification Form

STIP Project No.	**B-4738**
WBS Element	**38511.1.FD2**
Federal Project No.	**BRZ-1137(6)**

A. Project Description:

STIP project B-4738 proposes to replace Bridge No. 189 in place with an offsite detour. Bridge No. 189 is located on SR 1137 (Crystal Springs Road) over Buckhead Creek in Cumberland County, just one mile south of Fayetteville's city limits. The Town of Hope Mills is located immediately south of the study area. Crystal Springs Road provides the only access to six large subdivisions with over 1,100 residences located near the project. The land immediately surrounding the bridge is rural in nature with single family residences and vacant, wooded lots. Vehicular traffic was noted as heavy during site visits.

The existing bridge is 36 feet long and 25 feet wide, carrying two lanes of traffic. The replacement structure will be a two span bridge approximately 75 feet long, with two 12-foot lanes and 4-foot 11-inch shoulders. 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 at the same elevation as the existing structure. The total length of the project is approximately 400 feet.

The approach roadway will extend approximately 145 feet from the west end of the new bridge and 170 feet from the east end of the new bridge. The approaches will be widened to include a 32-foot pavement width, providing two 12-foot lanes and a minimum of 4-foot paved shoulder. Paved shoulder width will vary in areas with guardrail. The roadway is classified as a Local Route and will be designed to Subregional Tier Standards with a design speed of 50 mph.

An off-site detour will be used to maintain traffic during construction (see Figure 1).

B. Description of Need and Purpose:

NCDOT Bridge Management Unit records indicate Bridge No. 189 has a sufficiency rating of 6 out of a possible 100 for a new structure.

Bridge No. 189 was built in 1963 and is structurally deficient due to a substructure rated at 3 out of 9. The appraisal of the structural evaluation and deck geometry was rated at 3 and 2, respectively, out of 9, which also classifies Bridge No. 189 as functionally obsolete.

The substructure of Bridge No. 189 is composed of timber elements that are fifty four 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. Bridge No. 189 is currently dependent on steel crutch bents (at all three bents) as all 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.

Bridge No. 189's superstructure is composed of timber and reinforced concrete components. These components are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities. Both the east and west approaches of the bridge are cracked with settlement. Longitudinal cracks are prevalent both to the right and left of the center line. The existing structure is currently posted with a weight limit of 19 tons for single-axle vehicles and 28 tons for truck tractor semi-trailers. Replacement of the bridge will result in safer traffic operations.

C. Categorical Exclusion Action Classification: (Check one)

X	TYPE I
	TYPE II
	TYPE III

D. Proposed Improvements – Include ALL Type I and Type II Action Classifications. For Type III CEs, leave blank.

22. Projects, as defined in 23 U.S.C. 101, which would take place entirely within the existing operational right-of-way.
23. Federal funded projects that receive less than $5,000,000 of Federal funds.
28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in paragraph (e) of this section.

E. Special Project Information:

Schedule: Right of Way (ROW) is scheduled for October 2017 and construction is scheduled for October 2018; however, due to recent damage caused by Hurricane Matthew, the project will be accelerated via the emergency design build process and is likely to be let for construction in the summer or fall of 2017.

Costs: (The 2016 - 2025 STIP shows that the project is anticipated to cost $575,000.) Costs are based on 2016 pricing.

Construction costs	$700,000
ROW costs	$ 0 (within existing ROW)
Utility costs	$ 46,692
Total	$746,692

Alternatives:
No Build – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 1137.

Rehabilitation – Bridge No. 189 was constructed in 1963 and the timber materials within the bridge are reaching the end of their average useful life span of 50 years. Rehabilitation would require replacing the timber components which would constitute effectively replacing the bridge.

Off-site Detour (Preferred) - Bridge No. 189 will be replaced on the existing alignment. Traffic will be detoured off-site (see Figure 1) during the construction period. NCDOT *Guidelines for Evaluation of Off-site 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 off-site detour for this project would include SR 1003 (Camden Road), SR 1133

(George Owen Road), and SR 1135 (John Smith Road). The detour for the average road user would result in 5 minutes of additional travel time (2.9 miles additional travel). Up to 6-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. Cumberland County Emergency Services and Cumberland County Schools Transportation department will be notified one month prior to the closure. Closure during the summer months will minimize school bus impacts.

NCDOT Division 6 concurs with the use of the detour.

Traffic:

Base Year (2018)	-	5,520 vpd
Future (2035)	-	6,500 vpd
TT-STs	-	1%
Duals	-	3%

Bicycle and Pedestrian Accommodations:
There are no designated bicycle and pedestrian routes within the study area. Bicycle and pedestrian activity was documented along the project during field reviews and foot paths were noted along SR 1137. The design plans include a 4-foot 11-inch minimum offset between the outside of the travel lane and bridge rail parapet, on the bridge structure.

Resource Agency Involvement:
In a letter from the **North Carolina Department of Environmental Quality, Division of Water Resource** (formerly Department of Environment and Natural Resources-Division of Water Quality), dated May 4, 2009, the agency expressed concern with sedimentation and erosion impacts that could result from the project. They recommended that highly protective sediment and erosion control BMPs be implemented to reduce the risk of nutrient runoff to these waters.

Response: NCDOT's BMP for Protection of Surface Waters (March 1997) will be followed throughout the design and construction of the project.

Public Involvement:
In September 2009, the Cumberland County Planning and Inspections Department commented that moderate impacts are anticipated if the bridge is closed for a year. It was recommended that detour routes be publicized in advance. The growth of the area is attributed to the close proximity of Fayetteville (2 to 3 miles) and good school districts.

NCDOT provided a property owner notification to the landowners of upcoming fieldwork in 2009. No feedback or questions were received from landowners at that time. No other public involvement activities have occurred since the notification letters were sent. It is anticipated that additional public involvement efforts will include the distribution of a newsletter to advertise anticipated construction timeframes and available detour routes. This additional public involvement will be completed prior to beginning construction.

F. Project Impact Criteria Checklists:

Type I & II - Ground Disturbing Actions		Yes	No
FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA (FHWA Signature Required If "Yes" Selected)			X
If the proposed improvement (identified above in Sections C & D) is a: • Type I Action for #s 2, 3, 6, 7, 8, 9, 12, 18, 21, **22**, **23**, 24, 25, 26, 27, **28**, &/or 30; &/or • Type II Action then answer the threshold criteria questions (below) and questions 8 - 31 for ground disturbing actions. In addition, if any of questions 1-7 are marked "yes" then the CE will require FHWA approval.			
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	☐	☒
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	☐	☒
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	☐	☒
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	☐	☒
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	☐	☒
6	Does the project require an Individual Section 4(f) approval?	☐	☒
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	☐	☒
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
Other Considerations		Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" or less for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	☒	☐
9	Does the project impact anadromous fish?	☐	☒
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	☐	☒
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	☐	☒
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	☐	☒
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	☐	☒

Other Considerations (continued)		Yes	No
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains? Are there project commitments identified?	☐	☒
15	Does the project involve hazardous materials and landfills?	☐	☒
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	☒	☐
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	☐	☒
18	Does the project require a U.S. Coast Guard (USCG) permit?	☐	☒
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	☐	☒
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	☐	☒
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	☐	☒
22	Does the project involve any changes in access control?	☐	☒
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	☐	☒
24	Will maintenance of traffic cause substantial disruption?	☐	☒
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	☐	☒
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	☐	☒
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	☐	☒
28	Does the project include a *de minimis* or programmatic Section 4(f)?	☐	☒
29	Is the project considered a Type I under the NCDOT's Noise Policy?	☐	☒
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	☐	☒
31	Are there other issues that arose during the project development process that affected the project decision?	☐	☒

G. Additional Documentation as Required from Section F

8. Northern Long-eared Bat: The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the Northern Long-eared Bat (NLEB) (Myotis septentrionalis) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is "May

Effect, Likely Adversely Affect". The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with federal nexus in Divisions 1-8, which includes Cumberland County, where STIP project B-4738 is located.

16. 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).

H. Project Commitments

Division 6 Construction- FEMA Coordination
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.

Hydraulics – FEMA Co-ordination
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 6 Construction, Resident Engineer's Office – Offsite Detour
Cumberland County Emergency Services will be contacted at 910-323-1500 and Cumberland County Schools Transportation department will be contacted at 910-678-2581 at least one month prior to the closure of Bridge No. 189. Closure during the summer months will minimize school bus impacts.

I. Categorical Exclusion Approval

STIP Project No.	B-4738
WBS Element	38511.1.FD2
Federal Project No.	BRZ-1137(6)

Prepared By:

4/6/17
Date

Matthew Potter, PE, Project Manager – Transportation Planning
AECOM

4/6/17

Prepared For: NCDOT Project Development
North Carolina Department of Transportation

Reviewed By:

4/6/17
Date

Robert Deaton, Project Development Engineer
Project Development
North Carolina Department of Transportation

☒ **Approved**

- If Type I (Non-Ground Disturbing) Categorical Exclusion with an answer of "no" to question 3.
- If Type I or Type II (Ground Disturbing) Categorical Exclusions with an answer of "no" to all of the threshold questions (1 through 7) of Section F.

☐ **Certified**

- If Type I (Non-Ground Disturbing) Categorical Exclusion with an answer of "yes" to question 3.
- If Type I or Type II (Ground Disturbing) Categorical Exclusions with an answer of "yes" to any of the threshold questions (1 through 7) of Section F.
- If classified as Type III Categorical Exclusion.

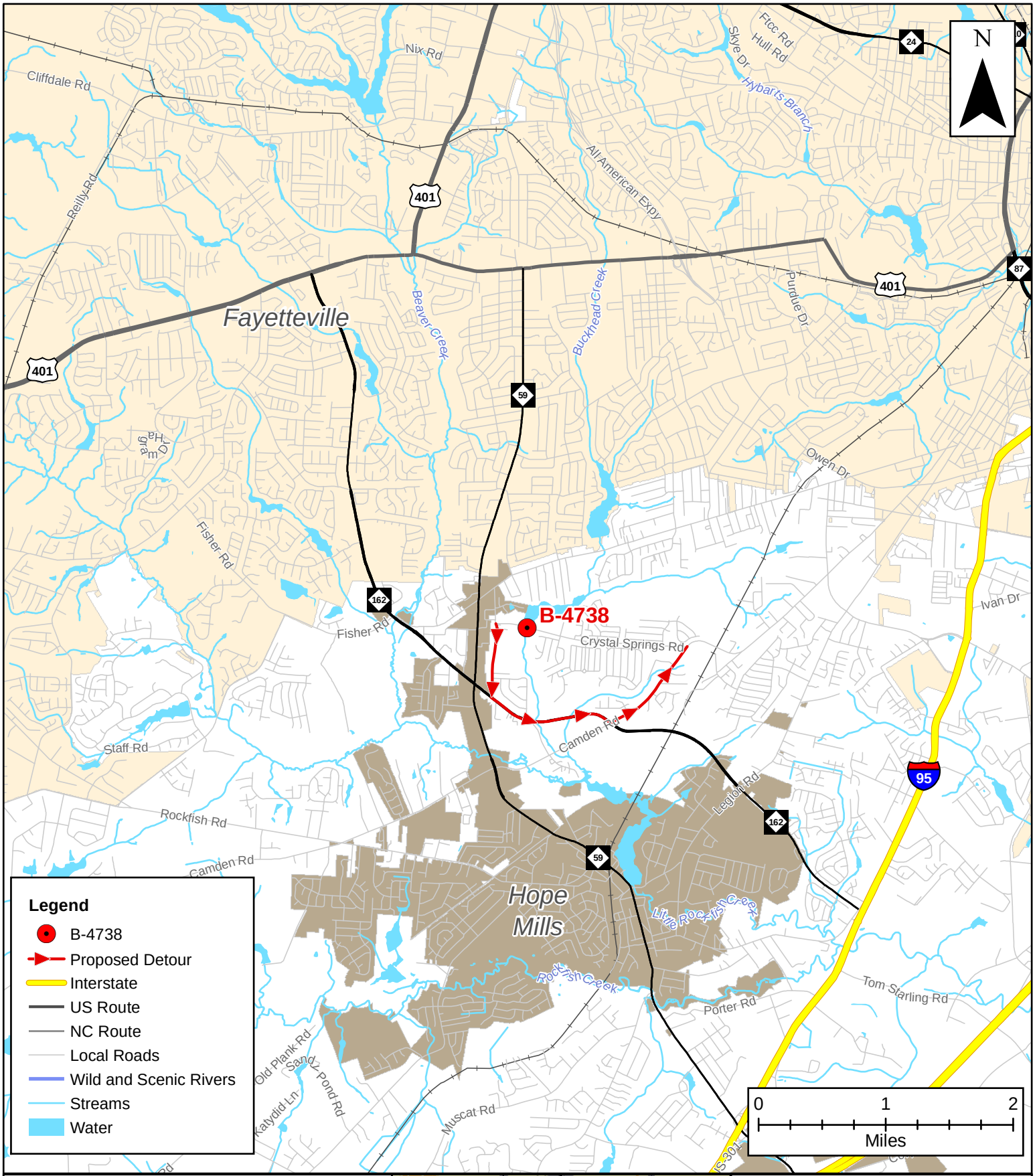
4-6-17
Date

Brian Yamamoto, PE, Project Development Group Supervisor
Project Development
North Carolina Department of Transportation

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

Date

N/A
John F. Sullivan, III, PE, Division Administrator
Federal Highway Administration

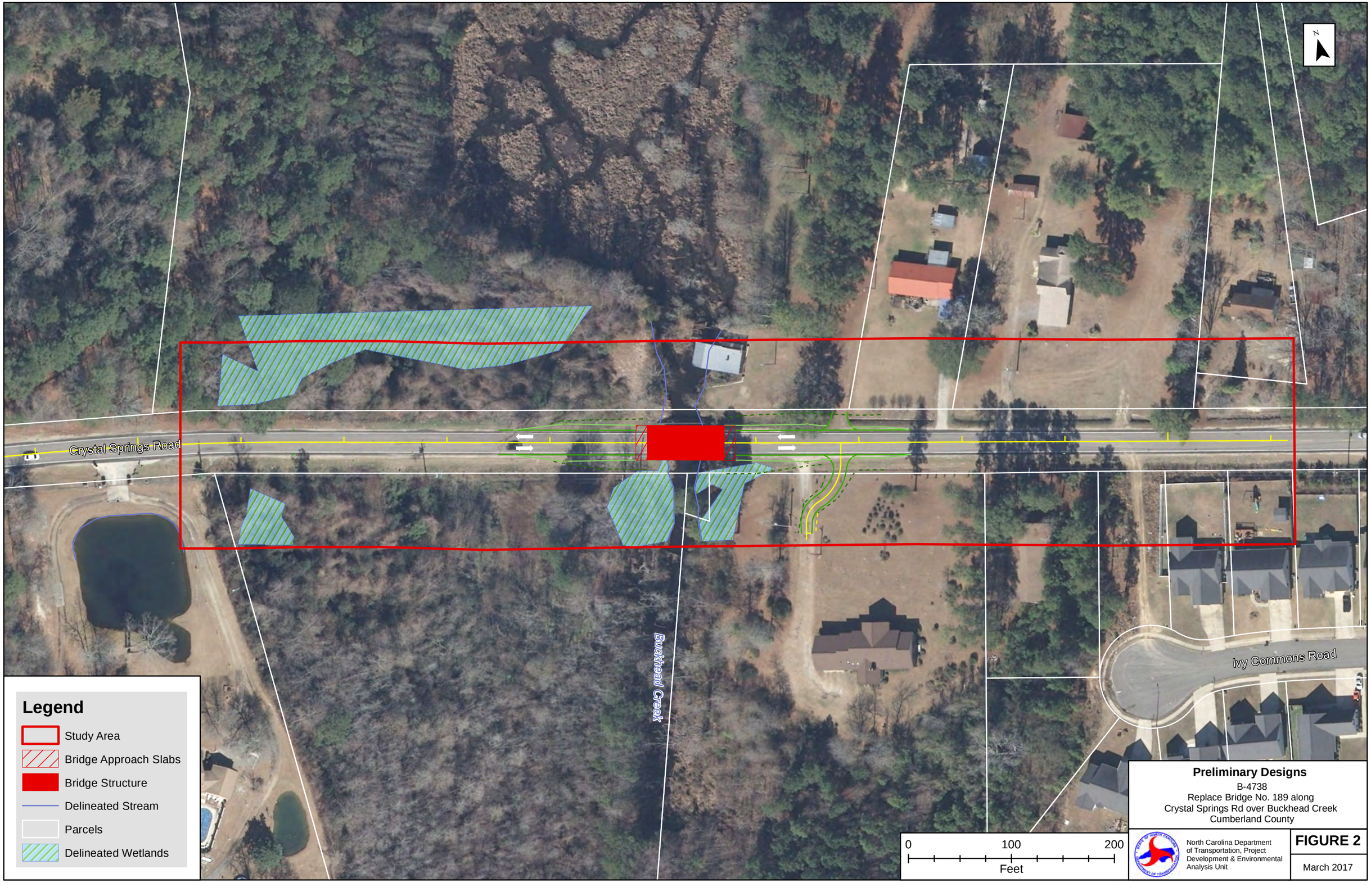


Vicinity Map

B-4738
Replace Bridge No. 89 along
Crystal Springs Road over Buckhead Creek
Cumberland County

North Carolina Department of Transportation, Project Development & Environmental Analysis Unit

FIGURE 1



Preliminary Designs

B-4738
Replace Bridge No. 189 along
Crystal Springs Rd over Buckhead Creek
Cumberland County

North Carolina Department of Transportation, Project Development & Environmental Analysis Unit

FIGURE 2

March 2017

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

April 27, 2009

MEMORANDUM

TO: Matt Wilkerson
Office of Human Environment
NCDOT Division of Highways

FROM: Peter Sandbeck RBZ for Peter Sandbeck

SUBJECT: Archaeological Survey for Replacement of Bridge 189 on SR 1137 over Buckhead Creek, B-4738, Cumberland County, ER 08-2612

Thank you for letter of April 16, 2009, transmitting the above referenced report. We found the report to be extremely informative, well written, and concise. For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur with the report author that no further archaeological investigations are necessary and that no significant archaeological properties will be adversely affected.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above-referenced tracking number.

cc: Scott Halvorsen, NCDOT

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

January 26, 2009

MEMORANDUM

TO: Greg Blakeney
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter Sandbeck Peter B Sandbeck

SUBJECT: Bridge 189 on SR 1137 over Buckhead Creek, B-4738, Cumberland County, ER 08-2612

Thank you for your letter of November 13, 2008, concerning the above project.

Based on the topographic and hydrological situation, we have determined that there is a very high probability that archaeological sites exists in the project area. We therefore recommend that if any earth moving activities are scheduled to take place, that a comprehensive archaeological survey be conducted by an experienced archaeologist to identify and evaluate the significance of any archaeological remains that may be damaged or destroyed by the proposed project. *Please note that our office now requests consultation with the Office of State Archaeology to discuss appropriate field methodology prior to the archaeological field investigation.*

If an archaeological field investigation is conducted, two copies of the resulting archaeological survey report, as well as one copy of the appropriate site forms should be forwarded to us for review and comment as soon as they are available and well in advance of any earth moving activities.

We have determined that the project as proposed will not have an effect on any historic structures.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and considerations. If you have any questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919.807.6579. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Matt Wilkerson, NCDOT
Mary Pope Furr, NCDOT