Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	B-5642
WBS Element	45597.1.1
Federal Project No.	N/A

A. Project Description:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 65 on NC 87 over Batarora Branch/Hold Creek in Brunswick County. The bridge is located 2.7 miles southeast of Sandy Creek Township and 6 miles west of the Town of Leland (see Figure 1). The replacement structure will be a bridge approximately 70 feet long providing a minimum 42-foot 10-inch clear roadway width. The bridge length is based on preliminary design information and is set by hydraulic requirements. Right of way acquisition and construction are scheduled for state fiscal years 2019 and 2020, respectively.

Project construction will extend approximately 386 feet from the north end of the new bridge and 394 feet from the south end of the new bridge. The approaches will provide two 12-foot lanes and 8-foot shoulders (2-foot paved). NC 87 has a Regional Tier designation and will be designed as a Major Collector with a 60-mile per hour design speed.

B. Description of Need and Purpose:

The purpose of the proposed project is to replace a structurally deficient bridge. Bridge No. 65 was built in 1973. The bridge is 61 feet long with an approximately 29-foot clear roadway width. It is a three-span structure that consists of a precast prestressed concrete channel superstructure with an asphalt wearing surface. It has vertical abutments and interior bent with timber piles and concrete caps.

NCDOT Bridge Management Unit records as of July 3, 2019 indicate Bridge No. 65 has a sufficiency rating of 47.57 out of a possible 100 for a new structure. Bridge No. 65 is considered structurally deficient due to a superstructure and substructure condition of 4 out of a possible 9 points.

Components of the concrete substructure and superstructure have experienced increased degree of deterioration that can no longer be addressed by maintenance activities. NC 87 at Bridge No. 65 has an Average Annual Daily Traffic (AADT) volume of 2,100 vehicles per day (vpd) for the year 2020 and future traffic of 3,100 AADT for the year 2040. The substandard deck width, bridge railing and approach guardrail are becoming increasingly unacceptable and replacement of the bridge will result in safer traffic operations.

C. Categorical Exclusion Action Classification:



TYPE I A

D. <u>Proposed Improvements</u>:

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 23 CFR 771.117(e)(1-6).

E. Special Project Information:

Costs:

The estimated 2019 costs are: Utilities - \$56,000 Construction - \$1,100,000 Total - \$1,156,000

Traffic Volumes:

NC 87 at Bridge No. 65 has an Average Annual Daily Traffic (AADT) volume of 2,100 vehicles per day (vpd) for the year 2020 and future traffic of 3,100 AADT for the design year 2040.

Anticipated Permit or Consultation Requirements:

The US Army Corps of Engineers (USACE) Section 404 Nationwide Permits (NWP) 23 and 33 will likely be applicable. The USACE holds the final discretion as to which permit will be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification (WQC) from the NC Department of Water Resources (NCDWR) will be needed.

Design Exceptions:

There are no anticipated design exceptions for this project.

Bridge Demolition:

Bridge No. 65 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 bridge as its condition continues to deteriorate.

Rehabilitation: Rehabilitation would only provide a temporary solution to the structural deficiency of the bridge. The bridge was constructed in 1973 and is structurally deficient which would constitute effectively replacing the bridge.

On-Site Detour: An on-site detour was deemed unacceptable for the bridge replacement due to impacts to the cypress gum swamp located on both sides of the bridge. An onsite detour would require construction of a temporary road and bridge through the swamp.

Off-Site Detour (Preferred): Bridge No. 65 will be replaced on the existing alignment. An offsite detour was deemed necessary using I-140 to US 74, which is 9.8 miles in length (see Figure 2).

Bicycle and Pedestrian Accommodations:

The NCDOT Division of Bicycle and Pedestrian Transportation commented that they have no recommendations for bicycle or pedestrian facilities on Bridge No. 65.

Other Agency Comments:

The TIMS Coordinator for Brunswick County School System expressed concern with the proposed bridge closure, indicating that the impact to school transportation would be high. Currently, 7 school buses make 28 trips across Bridge No. 65 each school day.

Public Involvement:

A landowner notification letter was mailed on February 16, 2016, to property owners within the project study area. The letter informed citizens of the initiation of planning studies for the project.

F. Project Impact Criteria Checklists:

Type I & II - Ground Disturbing Actions						
FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA						
If any of	questions 1-7 are marked "yes" then the CE will require FHWA approval.	Yes	No			
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?		\boxtimes			
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?		\boxtimes			
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?		\boxtimes			
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?		\boxtimes			
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?		\boxtimes			
6	Does the project require an Individual Section 4(f) approval?		\boxtimes			
7Does 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)?Image: Comparison of the National Historic Image: Comparison of the National Historic						
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.						

Other Co	onsiderations	Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	\boxtimes	
9	Is the project located in anadromous fish spawning waters?		\boxtimes
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)?		\boxtimes
11	Does the project impact waters of the United States in any of the designated mountain trout streams?		\boxtimes
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?		\boxtimes
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?		\boxtimes
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?		\boxtimes
15	Does the project involve hazardous materials and/or landfills?		\boxtimes
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?	\boxtimes	
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)?		\boxtimes
18	Does the project require a U.S. Coast Guard (USCG) permit?		\boxtimes
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?		\boxtimes
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?		\boxtimes
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?		\boxtimes
22	Does the project involve any changes in access control?		\boxtimes
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?		\boxtimes
24	Will maintenance of traffic cause substantial disruption?		\boxtimes
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?		\boxtimes

Other Considerations (continued)			No
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), 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?		\boxtimes
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?		\boxtimes
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?		\boxtimes
29	Is the project considered a Type I under the NCDOT's Noise Policy?		\boxtimes
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?		\boxtimes
31	Are there other issues that arose during the project development process that affected the project decision?		\boxtimes

G. Additional Documentation as Required from Section F

Response to Question 1:

Northern Long Eared Bat (NLEB) - The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), 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 Affect, Likely to 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 a federal nexus in Divisions 1-8, which includes Brunswick County, where TIP B-5642 is located.

Response to Question 8:

Wood Stork - Suitable habitat for the Wood Stork (*Mycteria americana*) is present the study area in the form of freshwater swamps. No individuals were observed in the study area on March 8, 2016. On May 15, 2019 a query of NCNHP records using the online NC Natural Heritage Data Explorer indicated no wood stork occurrences within 1-mile of the study area. A biological conclusion of "May Affect, – Not Likely to Adversely Affect" has been determined.

Red-cockaded woodpecker (RCW) - Suitable habitat for the red-cockaded woodpecker (*Picoides borealis*) is present in the study area. The Natural Resources Technical Report (NRTR) left the biological opinion for the RCW as unresolved. An RCW survey was conducted in 2016 because foraging habitat was located within the project study area requiring a half-mile survey for nesting habitat. No nesting habitat was located within the half-mile survey area. No RCW cavity trees were found. Based on these findings and no documented occurrences within 1.0 mile, this project will have no effect on the RCW, as reported in the RCW survey report completed in November 2016.

Waccamaw silverside - The USFWS has listed Waccamaw silverside (*Menidia extensa*) for Brunswick County since the NRTR was completed. The project will have No Effect on this fish

because it is outside of the basin where the species occurs according to the USFWS IPaC system.

Response to Question 16:

The project will decrease the base floodplain elevation of Hold Creek.

H. Project Commitments

Brunswick County Bridge No. 65 over Hold Creek on NC 87 WBS No. 45597.1.1. TIP No. B-5642

Hydraulic Unit – FEMA Coordination

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) to determine status of the project with regard to the 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).

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.

NCDOT Division 3 Construction:

Community Coordination

NCDOT will contact Brunswick County Schools at (910) 253-2880 at least one month prior to construction to coordinate construction activities with school transportation schedules.

Brunswick County Emergency Services will be contacted at (910) 253-2569 at least one month prior to construction to make the necessary temporary reassignments to primary response units.

I. <u>Categorical Exclusion Approval</u>

STIP Project No.	B-5642				
WBS Element	45597.1.1				
Federal Project No. N/A					
Prepared By:	- DecuSigned by:				
8/20/2019	Michael Stafford				
Date	The stafford, Transportation Planner, CDM Smith				
Prepared For:	North Carolina Department of Transportation				
Reviewed By:					
8/20/2019	-DocuSigned by:				
Date	Kevin Fischer, PE, Structures Management Unit North Carolina Department of Transportation				
Approved	If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.				
Certified	If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.				
\subset	DocuSigned by:				
8/20/2019 P	hillip Harris				
Date	Philip S. Harris III, PE, CPM- Environmental Analysis Unit Head North Carolina Department of Transportation				
FHWA Approved: For I requ	Projects Certified by NCDOT (above), FHWA signature ired.				
Date F	Not Applicable John F. Sullivan, III, PE, Division Administrator Federal Highway Administration				











15-12-0030

HISTORIC ARCHICTECTURE 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	INFORM	ATION

Project No:	B-5642	County:	Brunswick
WBS No.:	45597.1.1	Document Type:	SMC
Fed. Aid No:	N/A	Funding:	State Federal
Federal Permit(s):	Yes No	Permit Type(s):	NWP
Project Descript Replace Bridge	<i>tion</i> : No. 65 on NC 87 over Hol	d Creek.	

SUMMARY OF HISTORIC ARCHICTECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:

Review of HPO quad maps, HPO GIS information, historic designations roster, and indexes was undertaken on January 4, 2016. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects, which is 900' from each end of the bridge and 175' from the centerline each way. South of the bridge are two properties over fifty years of age based on Brunswick County GIS/Tax Information. 2629 NE Maco Road is located southwest of the bridge and was built 1963. The one-story brick and frame house clad in vinyl is unremarkable and not eligible for National Register listing. 6602 NE Pellom-Wright lane, located southeast of the bridge, was built 1947. The one-story frame house is unremarkable and not eligible for National Register listing. All other properties, including Bridge No. 65, are under fifty years of age. There are no National Register listed or eligible properties and no survey is required. If design plans change, additional review will be required.

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:

HPO quad maps and GIS information recording NR, SL, LD, DE, and SS properties for the Brunswick County survey and Google Maps are considered valid for the purposes of determining the likelihood of historic resources being present. There are no National Register listed or eligible properties within the APE and no survey is required.

SUPPORT DOCUMENTATION

<u>À</u>	
∐⁄Map(s)	

Previous Survey Info.

Photos

Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

5/2016

NCDOT Architectural Historian Date Historic Architecture and Landscapes NO SURVEY REQUIRED form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement.

15-12-0030

ARCHAEOLOGICAL SURVEY REQUIRED FORM This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

PROJECT INFORMATION

Project No:	B-5642		County	<i>:</i> :	Bruns	swick		
WBS No:	45597.1.1		Docum	ient:	MCD	С		
F.A. No:			Fundin	ıg:	🛛 St	ate		Federal
Federal Permit Requ	ired?	Xes Yes	🗌 No	Permit T	vpe:	NWP3/1	14	

Project Description: Replace Bridge No. 65 over Hold Creek on NC87 in Brunswick County, North Carolina. The archaeological Area of Potential Effects (APE) is centrered on the bridge structure and measures 1800ft in length (900ft from each bridge end-point) and 400ft in width (200ft from each side of the NC87 center-line).

SUMMARY OF ARCHAEOLOGICAL RESOURCES REVIEW: SURVEY REQUIRED

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

First, permitting and funding information was reviewed for determining the level of archaeological input required by state and federal laws. Section 106 of the National Historic Preservation Act will apply because a United States Army Corp of Engineers (USACE) permit acquisition will be necessary. Next, construction design and other data was examined (when applicable) to define the character and extent of potential impacts to the ground surfaces embracing the bridge replacement work.

Upon outline of the APE, a map review and site file search was conducted at the Office of State Archaeology (OSA) on Thursday, January 7, 2015. No previously documented archaeological sites are located within the APE. Examination of National Register of Historic Places (NRHP), State Study Listed (SL), Locally Designated (LD), Determined Eligible (DE), and Surveyed Site (SS) properties employing resources available on the NCSHPO website revealed an absence of any historic structures in the APE or adjacent. In addition, historic maps of Brunswick County and the project area were appraised for evidence of former structure locations, land use patterns, or other confirmation of historic occupation at this locale. Archaeological/historical reference materials were inspected as well.

Further, the APE was referenced on topographic, geologic, flood boundary, lidar and NRCS soil survey maps (Mk, Fo, BaB) for the evaluation of environmental, geomorphological, hydrological, and other correlatives that may have resulted in past occupation in the project corridor. Finally, aerial photographs (NCDOT Spatial Data Viewer & other on-line sources) were examined and the Google Street View map application was utilized (when amenable) for gaining a virtual, first-hand perspective of the overall study area and for assessing disturbances, both natural and human induced, which compromise the integrity of archaeological sites/deposits.

The defined APE corridor is absent of previously recorded sites, NRHP listed structures, and cemeteries. However, environmental determinants including pedeological and hydrological factors, as well as the local archaeological site profile, suggest an elevated potential for the recovery of archaeological remains at this location. Also, the relatively large APE dimensions of the project merit a closer, on-ground assessment. For this reason, an archaeological survey of the APE is recommended prior to construction activities. This work will seek to determine if archaeological features, artifacts, or deposits are contained within the project area. Any newly documented sites will be evaluated for NRHP eligibility.

Project Tracking No.:

15-12-0030

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photocopy of County Survey Notes

Photos Other: Correspondence

FINDING BY NCDOT ARCHAEOLOGIST - SURVEY REQUIRED

Tuil Holversen

NCDOT ARCHAEOLOGIST

1/27/2016 Date

Feb - Mar 2016 Proposed fieldwork completion date

15-12-0030

NO NATIONAL REGISTER OF HISTORIC PLACES ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES PRESENT FORM

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

PROJECT INFORMATION

Project No:	B-5642		County	v:	Brur	iswick	
WBS No:	45597.1.1		Docum	nent:	MCI	DC	
F.A. No:	N/A		Fundir	ıg:	⊠ S	tate	E Federal
Federal Permit Requ	uired?	🛛 Yes	🗌 No	Permit Tj	pe:	NWP3	/14

Project Description: This project calls for the replacement of Bridge No. 65 over Hold Creek on NC87 in Brunswick County, North Carolina. The archaeological Area of Potential Effects (APE) is centered on the bridge structure and measures 1800 ft in length (900 ft from each bridge end point) and 400 ft in width (200 ft from each side of the NC87 centerline)

SUMMARY OF ARCHAEOLOGICAL FINDINGS

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

There are no National Register listed or eligible ARCHAEOLOGICAL SITES present within the project's area of potential effects. (Attach any notes or documents as needed) No subsurface archaeological investigations were required for this project.

Π

 \boxtimes

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.

Project Tracking No .:

15-12-0030

References Cited

North Carolina Department of Transportation (NCDOT)

2016 Lidar image. Electronic Document. http://connect.ncdot.gov/resource/gis/Pages/Cont-Elev_v2.aspx, accessed May 2016.

Townsend, Jan, John H. Sprinkle, Jr., and John Knoerl

1993 Guidelines for Evaluating and Registering Historical Archaeological Sites and Districts. *National Register Bulletin 36*. National Park Service. United States Department of the Interior, Washington, DC.

United States Department of Agriculture (USDA)

2016 Web Soil Survey. Electronic Document. www.websoilsurvey.nrcs.usda.gov, accessed May 2016.

United States Geological Survey (USGS)

1943 Lewis Swamp, NC USGS 7.5 minute topographic quadrangle.

1953 *Florence, NC* USGS 7.5 minute topographic quadrangle.

- 1954 Acme, NC USGS 7.5 minute topographic quadrangle.
- 1984 Acme, NC USGS 7.5 minute topographic quadrangle.
- 1986 *Whiteville, NC* USGS 7.5 minute topographic quadrangle.
- 1990 Lewis Swamp, NC USGS 7.5 minute topographic quadrangle.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Signed:

Groff Eric Hulvaren

NCDOT ARCHAEOLOGIST

5/13/2016

Correspondence

Date

Photos