

North Carolina Department of Transportation

NEPA/SEPA Consultation Form

STIP Project No.	B-5652
WBS Element	45607.1.1
Federal Aid Project No.	N/A

A. Project Description, Location, and Purpose:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 33 on northbound lanes (NBL) of US 17 over Wolf Swamp in Onslow County (Figures 1 and 2, attached). The proposed replacement structure will be a single-span bridge approximately 100 feet long using prestressed concrete girders and providing 37-feet of clear deck width. The proposed improvements to the approach roadway will extend approximately 735 feet from the southwest end of the new bridge and 758 feet from the northeast end of the new bridge. The approaches will include a 32-foot pavement width providing two 12-foot lanes. Four-foot paved shoulders will be provided on each side with up to 11-foot shoulders where the guardrail is included. The roadway is classified as principal urban arterial. It will be designed using the Statewide Tier Classification, with a design speed of 60 miles per hour and a posted speed of 55 miles per hour.

Due to traffic volumes, no local routes are suitable as an off-site detour. A temporary on-site detour will be constructed immediately to the east and downstream of the existing bridge. The two-lane detour for the northbound lanes will consist of a temporary bridge and approximately 730 feet of approach roadway in each direction. The on-site detour will be designed to a 45 mile per hour design speed.

Acquisition of Right-of-way will be complete prior to construction let is scheduled for December 2022.

The existing 2-lane bridge was built in 1923 and is 96 feet long with a reinforced concrete deck atop concrete piers, beams, and abutments. The bridge deck is narrow consisting of two travel lanes with no functional clear zone. The 3-span bridge is considered functionally obsolete due to a deck geometry rating of 2 out of 9 according to Federal Highway Administration Standards. Maintenance has been recently performed to improve safety and extend the life of the bridge; however, the maintenance is considered temporary. Based on the on-going need for maintenance and its functional obsolescence, the 96-year-old bridge is considered at the end of its useful life and in need of replacement.

The purpose of this project is to replace a functionally obsolete and aged structure with a new bridge that complies with current AASHTO Greenbook guidelines.

B. Consultation Phase: (Check one)
☐

Right-of-Way

- ☒ Construction
- ☐ Other: Identify the trigger – (e.g., design change, change in impacts)

C. NEPA/SEPA Class of Action Initially Approved as: (Check one)

☒ FHWA Class II (CE) 10/17/2019

Additional Notes: **Type I A**

D. Changes in Proposed Action & Environmental Consequences:

The study area for the proposed replacement of Bridge No. 33 on NBL of US 17 over Wolf Swamp was revised to include two small bump outs to capture utility easements that fell just outside the original study area. As a result of the new study area, NCDOT Environmental Analysis Unit prepared a *Water Resources and Protected Species Review for Construction Consultation* Memo and a *Natural Resources Assessment for Additional Utility Areas and Protected Species Updates* addendum to the NRTR. Since completion of the NRTR and CE document, the Eastern black rail has been added to the list of federally protected species in Onslow County. Surveys determined that habitat for this species does not exist within the study therefore the biological conclusion of **No Effect** remains valid for all species within the project study area. In addition, waters of the US and wetland impacts remain unchanged since the CE document was completed. NCDOT Historic Architecture and Landscapes revised the 'no survey required form' to note the new study area boundary was received. NCDOT Archaeology reviewed the revised study area and concurred no additional archaeological work is needed and the 'no survey required form' is still valid.

E. Conclusion:

The signed Categorical Exclusion (10/17/19) has been reevaluated (as required by either 23 CFR 771 or by NC General Statute Chapter 113A Article 1). It has been determined that the current proposed action is essentially the same as the original proposed action. Proposed changes, if any, are noted in Section C. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the above referenced document(s) unless noted otherwise herein. Therefore, the original Administration Action remains valid.

F. Coordination

NCDOT personnel have discussed the current project parameters with qualified NCDOT representatives and FHWA (where applicable). The NCDOT Project Manager, Jacquelyn Bowles, PE, hereby verifies the involvement of the following staff and the incorporation of their technical input:

Design Engineer:	Michael Pekarek	11/22/2021
Environmental Specialist:	Deanna Riffey	5/16/2022
FHWA (if applicable):	Name	Date
Other (HA/Archaeology):	Vanessa Patrick/Damon Jones	5/23/2022

G. Consultation Approval for NCDOT Project B-5652**Prepared By:**

10/12/2022 | 7:08 AM

Date

DocuSigned by:



648A624129C943C...

Johnna Burkett, Transportation Planner
WGI**Prepared For:**

NCDOT, Structures Management Unit

Reviewed By:

10/12/2022 | 1:06 PM

Date

DocuSigned by:



DD26E87EDF8647E...

Jacquelyn Bowles, PE
NCDOT Structures Management Unit**Approved**

In adherence with 23 CFR 771 (NEPA) or NC General Statute Chapter 113A Article 1 (SEPA), NCDOT approves this Consultation.

or

**Certified**

NCDOT staff certifies if FHWA signature was previously required or where changes have resulted in FHWA signature being required.

10/12/2022 | 10:08 AM

Date

DocuSigned by:



A4A2999A8BC64F2...

David Stutts, PE, Project Engineer - Structures Management Unit
North Carolina Department of Transportation**FHWA Approved:** FHWA signature required for Type I(B) CE, Type II(B) CE, Type III CE, FONSI or ROD.

Date

N/A

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

H. Project Commitments (as of 8/8/2022)

**Onslow County
Replace Bridge No. 33 on NBL of US 17 over Wolf Swamp
Federal Project No. N/A
WBS No. 45607.1.1
TIP B-5652**

Coordination with Onslow County Schools

Onslow County Schools will be contacted at least one month prior to start of construction by NCDOT Division 3 in order to have time to adequately adjust school bus schedules.

Phone: (910) 455-2211

Status: This commitment is still valid.

Coordination with Onslow County Emergency Services

Onslow County Emergency Services will be contacted by NCDOT Division 3 at least one month prior to start of construction to make the necessary temporary reassignments to primary response units.

Phone: (910)-347-4270

Status: This commitment is still valid.

Coordination with The Pumpkin Center Volunteer Fire Department

Due to its proximity to the proposed bridge replacement, the Pumpkin Center Volunteer Fire Department will be contacted by NCDOT Division 3 at least one month prior to start of construction to make the necessary temporary reassignments to response units.

Phone: (910) 455-9000

Status: This commitment is still valid.

FEMA Floodplains and Floodways (NCDOT Division 3)

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

Status: This commitment is still valid.

Floodplain Mapping Program Coordination (NCDOT Hydraulic Design Unit)

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

Status: Coordination resulted in approval on July 05 2019 for the FEMA NFIP (National Flood Insurance Program) under NCDOT's MOA with the FMP.

16-01-0013

Revised

HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form supercedes that dated 5 February 2016

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

Project No:	B-5652	County:	Onslow
WBS No.:	45607.1.1	Document Type:	Federal CE
Fed. Aid No:		Funding:	X State Federal
Federal Permit(s):	X Yes No	Permit Type(s):	USACE

Project Description: Replace Bridge No. 33 on US 17 Northbound over Wolf Swamp (no off-site detour planned). **New study area boundary received May 2022.**

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 12 January 2016 and 17 May 2022 and yielded no NR, SL, DE, SS, or LD properties in the Area of Potential Effects (APE). Onslow County current GIS mapping, aerial photography, and tax information indicated a mostly wooded APE with domestic and commercial resources dating from the early 1950s to the 1990s (viewed 12 January 2016 and 17 May 2022). Pre-1970 resources are all unexceptional examples of their types and subjects of later alterations. Constructed in 1923, Bridge No. 33 is not eligible for the National Register according to the NCDOT Historic Bridge Inventory as it is not representative of any distinctive engineering or aesthetic type. Google Maps "Street View" confirmed the absence of critical architectural and landscape resources in the APE (viewed 12 January 2016 and 17 May 2022).

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 equates with the study area received in May 2022 (see attached). The comprehensive architectural survey of the county (1987) and related publication, as well as later studies recorded no resources in the APE (J. Daniel Pezzoni, *The Architectural History of Onslow County, North Carolina*, Richlands, NC: Onslow County Museum, 1998). County GIS and other visuals illustrate the absence of significant architectural and landscape resources in the APE. No National Register-listed properties are located within the APE.

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

SUPPORT DOCUMENTATION

X Map(s) ☐ 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

23 May 2022

Date

16-01-0013

**NO 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-5652** County: **Onslow**
 WBS No: **45607.1.1** Document: **SMC**
 F.A. No: **na** Funding: ☒ State ☐ Federal
 Federal Permit Required? ☒ Yes ☐ No Permit Type: **NWP**

Project Description:

The project calls for the replacement of Bridge No. 33 on the north bound lane of NC 17 (New Bern Highway) over Wolf Swamp in Onslow County. The archaeological Area of Potential Effects (APE) for the project is defined as a 2,000-foot (609.60 m) long corridor running 1,000 feet (304.80 m) northeast and 1,000 feet southwest along NC 17's north bound lane from the center of Bridge No. 33. The corridor is approximately 300 feet (91.44 m) wide extending 150 feet (45.72 m) from either side of the present center of the north bound lane.

SUMMARY OF CULTURAL RESOURCES REVIEW**Brief description of review activities, results of review, and conclusions:**

Bridge No. 33 is located just northeast of Jacksonville in Onslow County, North Carolina. The project area is plotted near the western edge of the Kellum USGS 7.5' topographic quadrangle (Figure 1).

A map review and site file search was conducted at the Office of State Archaeology (OSA) on January 19, 2016. No previously recorded archaeological sites have been identified within the APE, but four sites (31ON180–31ON182 and 31ON206) are reported within a mile of the bridge. According to the North Carolina State Historic Preservation Office online data base (HPOWEB 2016), there are no known historic architectural resources within the APE that may yield intact archaeological deposits.

Topographic maps, USDA soil survey maps, aerial photographs (NC One Map), historic maps (North Carolina maps website), and the Google Street View application were examined for information on environmental and cultural variables that may have contributed to prehistoric or historic settlement within the project limits and to assess the level of ground disturbance.

Bridge 33 and the north bound lane of NC 17 cross Wolf Swamp from the southwest to the northeast. Wolf Swamp is a tributary to Northeast Creek and part of the White Oak drainage basin. The APE is situated along a floodplain that rises up to terraces at either end (Figure 2). Disturbance is heavy. On the north side of the road, the APE's extent covers the south bound lane and the ditch line. To the south, an abandon railroad bed runs parallel with NC 17. Tracks have been removed and the bed has been graded to conform to the surrounding landscape. Ditches are still present as well, one for NC 17 and the other likely for the former railroad.

According to the USDA soil survey report, the floodplain is made up of Muckalee loam (Mk), while the terrace consists of Craven fine sandy loam (CrB; CrC) and Goldsboro fine sandy loam (GoA) (see Figure 2). The Muckalee series is nearly level and poorly drained. It is not unlikely to yield significant archaeological sites due to wetness. The Craven and Goldsboro series, however, are moderately well

16-01-0013

drained with slope less than 8 percent. Although archaeological sites are typically found on this soil, previous ground disturbance makes it unlikely for intact deposits to be present.

OSA's site files show several reviews and surveys in the vicinity, which have resulted in the identification of four sites (31ON180–31ON182 and 31ON206). These prehistoric sites were recorded along Wolf Swamp during the 1970s. It is likely other sites are in the area, but disturbance from NC 17 and the former railroad makes it unlikely for any significant resource to be within the project area.

A historic map review was conducted as well. Most maps from the colonial period such as those by Henry Mouzon, John Struther and Jonathan Price, and John Collet illustrate a similar picture for the surrounding area with no features present. Later maps from the 19th century provide no new details. More accurate maps are produced in the 20th century. Early 20th century maps such as the 1921 *Soil Map for Onslow County* show the railroad but no road (Figure 3). By the 1930s, highway maps for the county show the current alignment of NC 17 with the crossing at or near the current bridge. As a result of this review, it is unlikely any significant historic features will be encountered.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

The defined archaeological APE for the proposed replacement of Bridge No. 33 over Wolf Swamp in Onslow County is unlikely to impact intact and significant archaeological deposits. This is due previous ground disturbance throughout the APE cause by the construction of NC 17 and placement and removal of the railroad. In addition, no historic structures are identified in the area according to the map review. As long as impacts to the subsurface occur within the defined APE, no further archaeological work is recommended for the proposed replacement of Bridge No. 33. If work should affect subsurface areas beyond the defined APE, further archaeological consultation might be necessary.

SUPPORT DOCUMENTATION

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

☐ Photos ☐ Correspondence
Other: **images of historic maps**

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED



C. Damon Jones
NCDOT ARCHAEOLOGIST

2/2/16

Date

From: [Jones, Damon](#)
To: [Johnna Kashmer](#)
Cc: [Bowles, Jacquelyn K](#); [Martha Register](#)
Subject: RE: [EXTERNAL] B-5652; Archaeology CE Review
Date: Monday, May 9, 2022 4:16:03 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image007.png](#)

Hi Johnna,

I just took a look at them and it is nothing to worry about. The northern easement looks as if it is in disturbance, while the southern is in hydric soils. There should not be any significant archaeological resources present. No additional work is needed.

Your current PA for should still be valid. You can attach this email to the PA form or I could update it if necessary. But I really don't think you need a new form for this. You good to go for archaeology.

Damon Jones
Archaeologist
Environmental Analysis Unit
N.C. Department of Transportation
901 340 7921 mobile/home
919 707 6076 office
919 250 4224 fax
cdjones2@ncdot.gov

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Raleigh, NC 27699-1598



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From: Johnna Kashmer <Johnna.Kashmer@wginc.com>
Sent: Monday, May 9, 2022 3:57 PM
To: Jones, Damon <cdjones2@ncdot.gov>

Cc: Bowles, Jacquelyn K <jkbowles@ncdot.gov>; Martha Register <Martha.Register@wginc.com>

Subject: RE: [EXTERNAL] B-5652; Archaeology CE Review

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Hi Damon,

We had a slight change to the study area for B-5652. Two small bump outs for permanent drainage and utility easements have been added. I've attached the shapefile. Please let us know if this impacts the "no survey required" finding.

Thank you,



Johnna Kashmer

Transportation Planner

5640 Dillard Drive #200
Cary, North Carolina 27518

919.852.0468 | 919.578.4479 (direct)



From: Johnna Kashmer <Johnna.Kashmer@wginc.com>

Sent: Thursday, April 28, 2022 2:05 PM

To: Jones, Damon <cdjones2@ncdot.gov>

Cc: Bowles, Jacquelyn K <jkbowles@ncdot.gov>

Subject: RE: [EXTERNAL] B-5652; Archaeology CE Review

Hi Damon,

Thank you for the quick turnaround!



Johnna Kashmer

Transportation Planner

5640 Dillard Drive #200
Cary, North Carolina 27518

919.852.0468 | 919.578.4479 (direct)





From: Jones, Damon <cdjones2@ncdot.gov>
Sent: Thursday, April 28, 2022 1:09 PM
To: Johnna Kashmer <Johnna.Kashmer@wginc.com>
Cc: Bowles, Jacquelyn K <jkbowles@ncdot.gov>
Subject: [EXTERNAL] B-5652; Archaeology CE Review

Hi Johnna,
Archaeology has no issues or comments for the B-5652 (Replacement of Bridge 33 over Wolf Creek in Onslow County).
Thank you.

Damon Jones
Archaeologist
Environmental Analysis Unit
N.C. Department of Transportation
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919 707 6076 office
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