

## Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	<u>B-5508</u>
WBS Element	<u>17BP.1.R.94</u>
Federal Project No.	<u>BRZ-1311 (16)</u>

### A. PROJECT DESCRIPTION:

The proposed project involves replacement of Bridge No. 21 on SR 1311 (North Lake Road) over Waupopin Canal in Hyde County (see Vicinity Map). The bridge is east of Lake Mattamuskeet and two miles northwest of the community of Englehard.

Bridge No. 21 will be replaced on the existing alignment. The replacement structure will be a new bridge approximately 95 feet long with a minimum clear roadway width of 26 feet. The bridge will include two 11-foot lanes and approximately four-foot offsets. The proposed four-foot offsets and 42-inch bridge rails will accommodate bicycles. Because the canal is a contributing element of the Lake Mattamuskeet/New Holland Drainage System Historic District, 42-inch Oregon rail will be provided on the proposed bridge.

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. Project construction will extend approximately 245 feet from the western end and 235 feet from the eastern end of the proposed bridge. The approach roadway will consist of two 11-foot lanes with four-foot shoulders (seven-foot with guardrail). The existing right-of-way is 60 feet and the proposed right-of-way for this project is 100 feet.

There are several residential driveways and unpaved agricultural access points in the vicinity of the bridge. Any temporary road closure would have a high impact on school transportation and emergency response time. Buses would have to travel about 30 miles out of the way to pick up students. Therefore, traffic will be maintained using an on-site detour during the construction period. A one-lane bridge will be constructed on the east side of the bridge to serve as an on-site detour. It will be signalized to allow safe two-way operation.

The cost estimate for the project included in the draft 2017-2027 STIP is \$1,400,000. Of this total, \$125,000 is estimated for right-of-way acquisition and \$1,275,000 is estimated for construction.

The current cost estimate for the project is as follows:

Construction	\$1,250,000
Right of Way acquisition	\$41,912
Utilities	\$85,539
Total Cost	\$1,377,451

### B. DESCRIPTION OF NEED AND PURPOSE: The purpose of the proposed project is to replace a deficient bridge.

Bridge No. 21 was built in 1958 and has a sufficiency rating of 68.56 out of a possible 100 for a new structure. Bridge No. 21 is 86 feet long with an approximately 23-foot clear roadway width.

The superstructure and substructure of Bridge No. 21 have fifty-nine-year-old timber elements. 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 permanently deteriorated. Timber components of Bridge No. 21 are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance. There is no posted weight limit on the bridge. With average daily traffic of 780 vehicles per day and aging structure (59 years), Bridge No. 21 is approaching the end of its useful life. Replacement of the bridge will result in safer traffic operations and a more durable structure at this location.

**C. CATEGORICAL EXCLUSION ACTION CLASSIFICATION:**

TYPE I A

**D. PROPOSED IMPROVEMENTS:**

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:**

**Design Issues:**

**Estimated Traffic:**

ADT Year 2015: 780 vpd  
ADT Year 2040: 1560 vpd  
Design Speed: – 60 MPH  
No Design Exceptions Required

**Crash Rates:** Summary of Crashes in Vicinity of the Bridge (2005-2014)

<u>Total Crashes</u>	<u>Type of Crashes</u>
1	Injury
3	Property Damage Only

**Pedestrian and Bicycle Accommodations:** SR 1311 is part of a regional bicycle route designated in the Albemarle Regional Bicycle Plan, as well as the Hyde County Comprehensive Transportation Plan. The proposed four-foot offsets and 42-inch bridge rails will accommodate bicycles.

**Public Involvement:** A landowner notification letter was sent to all property owners affected directly by this project, and property owners were invited to comment. No comments have been received to date. A newsletter discussing the proposed project will be sent to property owners six months in advance of right of way acquisition.

**Alternatives Discussion:**

**No Build** - The no build alternative would result in eventually closing the road which is unacceptable given the fact that SR 1311 serves a wide range of transportation users including emergency services and school bus traffic.

**Rehabilitation** – Bridge No. 21 has a timber floor on timber joists. It was constructed in 1958 and the timber joists within the bridge are reaching the end of their useful life. Rehabilitation would require replacing the timber components which would constitute effectively replacing the bridge.

**Detour** - Bridge No. 21 will be replaced on the existing alignment. Traffic will be detoured on-site during construction using a temporary one-lane bridge. The detour will be signalized at each end to allow safe two-way operation. A suitable off-site detour is not available for the project, the closest detour route would result in an additional 30 miles of travel. It was considered but eliminated due to the potential for high impacts to emergency response times and school bus transportation during construction.

**Staged Construction** – Staged construction was not considered because of the availability of an on-site detour.

**New Alignment** – Given that the alignment for SR 1311 is acceptable, a new alignment was not considered as an alternative.

**F. PROJECT IMPACT CRITERIA CHECKLISTS:**

<u>Type I &amp; II - Ground Disturbing Actions</u>				
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>				
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.				
<u>Other Considerations</u>			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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9	Is the project located in anadromous fish spawning waters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and/or landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## **G. ADDITIONAL DOCUMENTATION REQUIRED FOR UNFAVORABLE RESPONSES IN PART F**

### **Response to Question 8 – Endangered Species Act (ESA):**

The US Fish and Wildlife Service has developed a programmatic biological opinion, in conjunction with the Federal Highway Administration, the US Army Corps of Engineers and NCDOT, for the northern long-eared bat (*Myotis septentrionalis*) in eastern North Carolina. The programmatic biological opinion covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for northern long-eared bat for the NCDOT program is “May Affect, Likely to Adversely Affect”. The programmatic biological opinion provides incidental take coverage for northern long-eared bat 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 Hyde County.

### **Response to Question 9 – Anadromous Fish:**

Waupopin Canal, located within the project study area, is designated as anadromous fish waters by the NC Wildlife Resources Commission (NCWRC) and listed as a primary nursery area. NCWRC has requested an in-water work moratorium from February 15 to June 30. Additionally, the NC Division of Marine Fisheries has requested an in-water work moratorium from April 1 to September 30 unless turbidity curtains are used around in-water work.

### **Response to Question 10 – High Quality Water / 303(d) Impaired Water Bodies:**

There are no designated Outstanding Resource Waters (ORW) or water supply watersheds (WS-I or WS-II) within one mile downstream of the project study area. However, Waupopin Canal is listed as a High Quality Water (HQW) approximately 300 feet downstream of the project study area. At the actual bridge site, the water quality classification is “SC”.

Waupopin Canal is subject to the provisions of the Tar-Pamlico River Buffer Rules administered by NC Division of Water Resources.

### **Response to Question 14 – Historic Effects**

Two potential historic resources were identified in the Area of Potential Effects. These historic properties were evaluated for National Register eligibility. In a letter dated August 20, 2015, the North Carolina Historic Preservation Office (HPO) concurred with the NCDOT recommendation that the East Main Canal (Waupopin Canal) is a contributing element to the Lake Mattamuskeet/New Holland Drainage System Historic District, which is eligible for National Register Listing. The historic boundary of the district in the project area is limited to one-foot beyond the edge of the canal. On May 24, 2017 a determination of the bridge replacement having no adverse effect on the East Main Canal was agreed upon by NCDOT, HPO and the Federal Highway Administration with the condition of a 42-inch Oregon Rail being used for the bridge design.

### **Response to Question 17 – CAMA Areas of Environmental Concern (AECs):**

Waupopin Canal, located within the study area, is an Area of Environmental Concern that falls under the jurisdiction of the Coastal Area Management Act. A Coastal Area Management Act (CAMA) Major Permit will likely be required.

### **Response to Question 30 – Farmland Protection Policy Act (FPPA):**

Farmland soils eligible for protection under FPPA are present within the project study area. If a new location alternative is considered that is outside of the project study area, then NCDOT must reassess the impacts of farmlands.

## **H. PROJECT COMMITMENTS**

**Hyde County**  
**Bridges No. 21 over Waupopin Canal on SR 1311**  
**WBS No. 17BP.1.R.94**  
**Federal Aid Project No. BRZ-1311 (16)**  
**STIP Project B-5508**

### **Division One Construction**

Stream crossing guidelines for anadromous fish passage will be followed during construction of this project.

Due to the presence of anadromous fish, a moratorium on in-water work will be observed from February 15 to June 30 during construction of this project. Additionally, the NC Division of Marine Fisheries has requested an in-water work moratorium from April 1 to September 30 unless turbidity curtains are used around in water work.

### **Structure Management Unit/Division One Construction**

Four-foot offsets and 42-inch bridge rails will be built on either side of the bridge to accommodate bicycles.

Due to the East Main Canal being a contributing element to the National Register-eligible Lake Mattamuskeet/New Holland Drainage System Historic District, a 42-inch Oregon rail will be used for the proposed bridge.

### **Hydraulics Unit**

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).

**I. CATEGORICAL EXCLUSION APPROVAL**

<b>STIP Project No.</b>	<b>B-5508</b>
<b>WBS Element</b>	<b>17BP.1.R.94</b>
<b>Federal Project No.</b>	<b>BRZ-1311 (16)</b>

**Prepared By:**

8/31/2017

Date

DocuSigned by:

*Dewayne Sykes*

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Dewayne L. Sykes, PE, Consultant Project Manager  
KCI Associates of North Carolina

**Prepared For:**

Project Development and Environmental Analysis Unit

North Carolina Department of Transportation

**Reviewed By:**

8/31/2017

Date

DocuSigned by:

*Kim L. Gillespie, PE*

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Kim L. Gillespie, PE, Project Planning Engineer  
North Carolina Department of Transportation



**Approved**

1. If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.



**Certified**

2. If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

9/1/2017 | 6:58 AM EDT

Date

DocuSigned by:

*James McInnis, Jr.*

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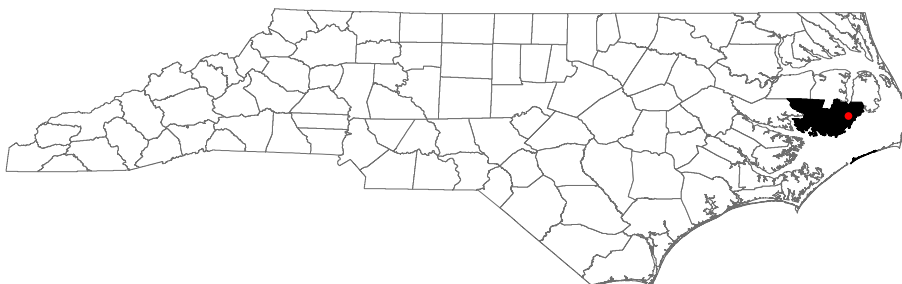
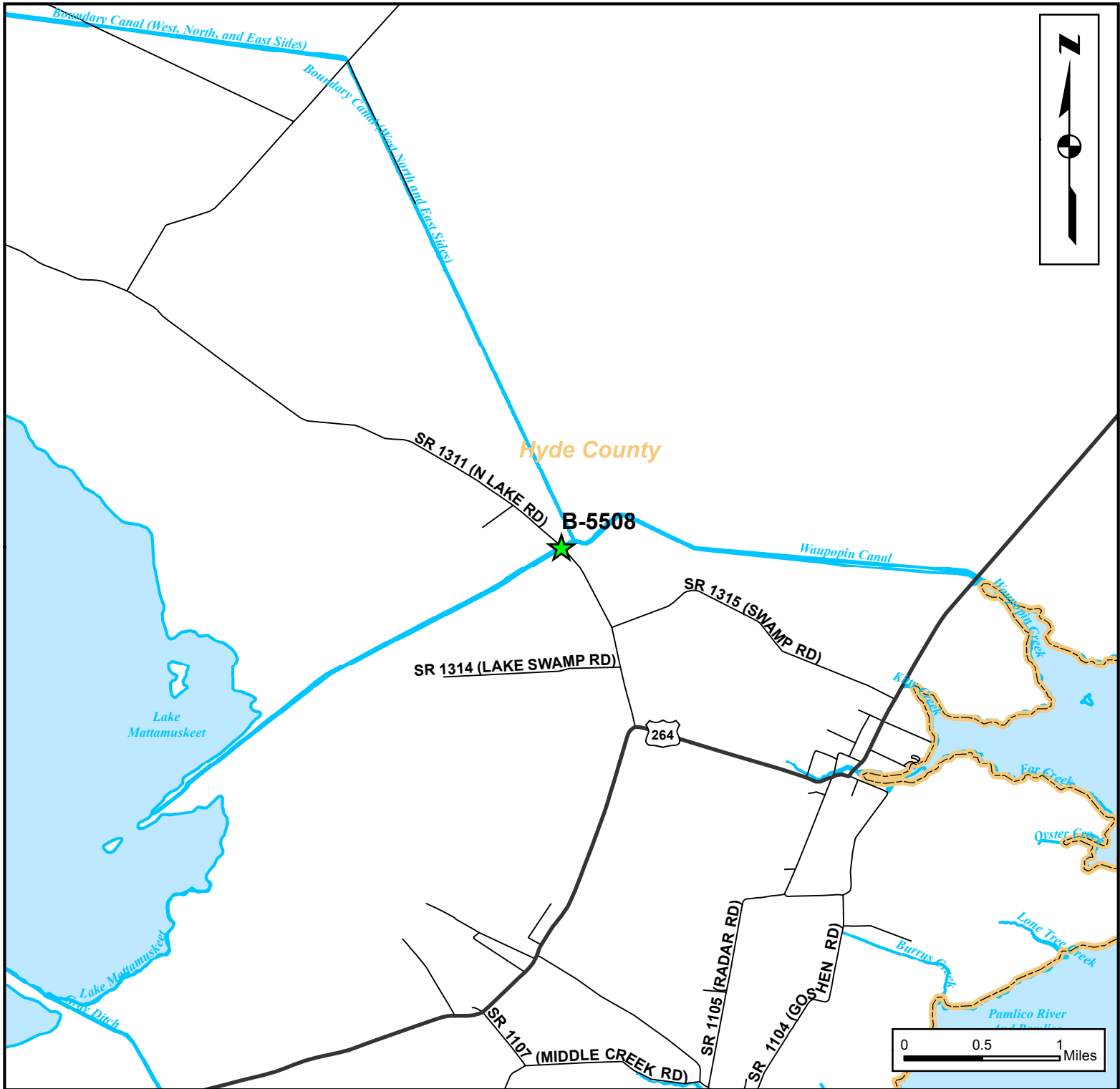
James McInnis, Jr., PE, Project Engineer  
North Carolina Department of Transportation

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

Date

N/A

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

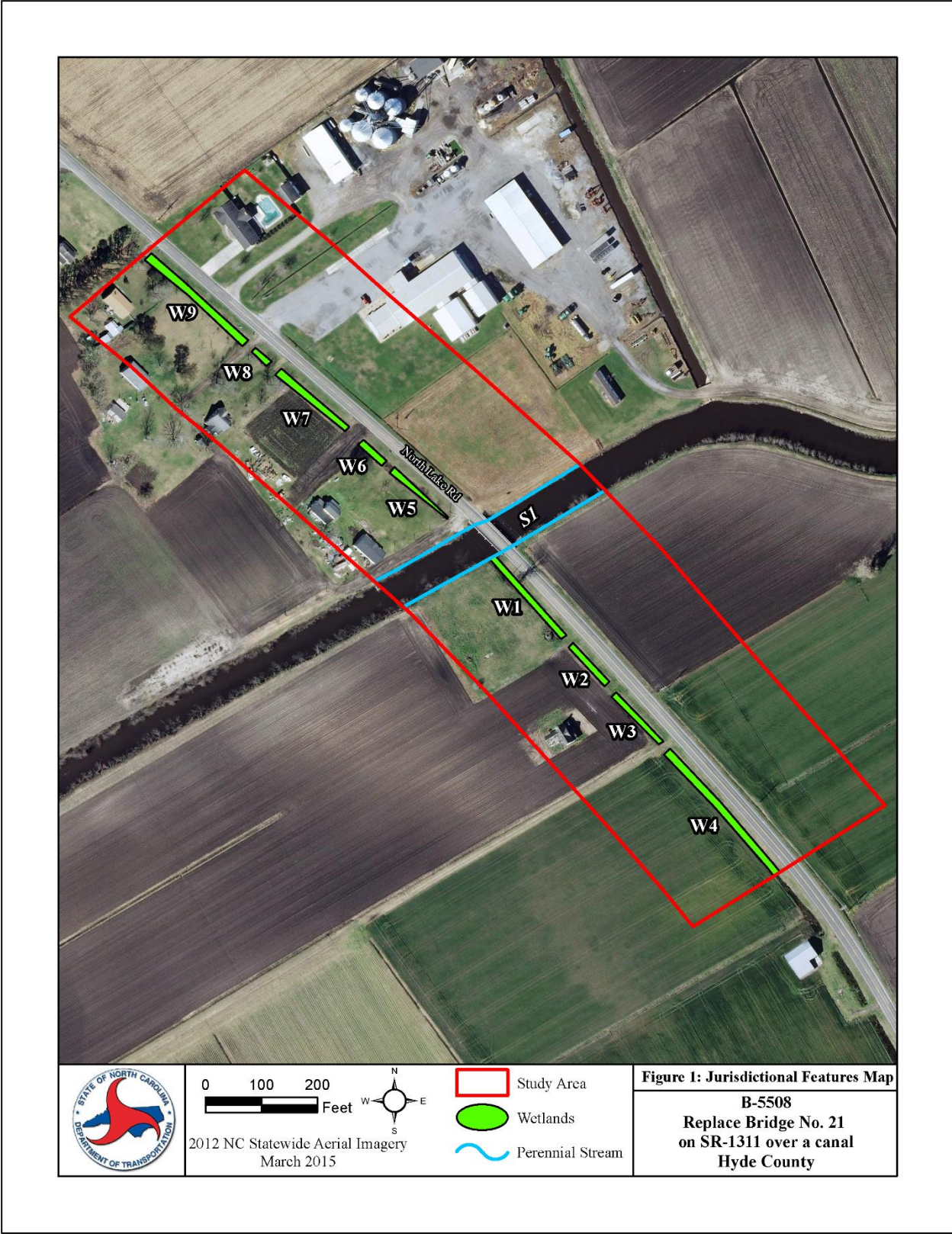


NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT &  
ENVIRONMENTAL ANALYSIS UNIT

**HYDE COUNTY  
REPLACE BRIDGE NO. 21  
ON SR 1311 OVER A CANAL  
TIP PROJECT B-5508**

**VICINITY MAP**





**Figure 2: Jurisdictional Features Map**