

MINIMUM CRITERIA DETERMINATION CHECKLIST

**TIP Project No.**            B-5355  
**W.B.S. Project No.**       46069.1.1

**Project Location:** Bridge No. 106 on SR 1902 (Dibrell Road) over Wolf Island Creek in Rockingham County.

**Project Description:** The proposed project involves replacing Bridge No. 106 on SR 1902 (Dibrell Road) over Wolf Island Creek in Rockingham County. The proposed project is included in the 2016-2025 North Carolina State Transportation Improvement Program (STIP). Right of way acquisition and construction are scheduled for state fiscal years 2018 and 2019, respectively, in the draft 2017-2027 STIP.

The replacement structure will be a three span bridge approximately 190 feet long providing a minimum 27-foot 10-inch clear deck width. The bridge will include two ten-foot lanes and three-foot 11-inch offsets on each side. 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 180 feet from the west end of the new bridge and 130 feet from the east end of the new bridge. The approaches will be widened to provide two ten-foot lanes and three-foot grass shoulders on both sides (seven-foot shoulders where guardrail is included). The roadway will be designed as a Rural Major Access using the 2001 American Association of State Highway and Transportation Officials (AASHTO) "Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT<=400) with a 60 mile per hour design speed.

Traffic will be detoured offsite during construction (see Figure 1).

The total cost for the project included in the draft 2017-2027 STIP is \$1,161,000. Of this total, \$11,000 is for right of way acquisition and \$1,150,000 is for construction. Current updated cost estimates for the project are as follows:

Right of Way Acquisition -	\$ 11,000
Utilities -	\$ 0
Construction -	<u>\$ 1,150,000</u>
Total	\$ 1,161,000

**Purpose and Need:** The purpose of the proposed project is to replace a deficient bridge. NCDOT Bridge Management Unit records indicate Bridge No. 106 currently has a sufficiency rating of 32.69 out of a possible 100 for a new structure.

The bridge is considered structurally deficient due to superstructure and substructure ratings of 4 out of a possible 9 and functionally obsolete due to a structural evaluation of 3 out of a possible 9, according to Federal Highway Administration standards.

Existing Bridge No. 106 was built in 1962. The bridge is 180 feet long with an approximately 24-foot clear roadway width.

**Anticipated Permit or Consultation Requirements:**

A Nationwide Permit (NWP) 3 (maintenance) and NC Water Quality Certification No. 3883 will likely be required for impacts to “Waters of the United States” resulting from this project. Other permits that may apply include a NWP No. 6 (survey activities) and NWP No. 33 (Temporary Construction, Access, and Dewatering) and NC Certification 3893 (temporary construction activities). Pre-construction notification will be provided to the US Army Corps of Engineers and NC Division of Water Resources. The US Army Corps of Engineers holds the final discretion as to what permit will be required to authorize project construction.

**Special Project Information:**

**Environmental Commitments:**

The list of project commitments (green sheets) are located at the end of the checklist.

**Pedestrian and Bicycle Accommodations:**

Bridge No. 106 is not located on a designated bicycle route nor is there an indication of substantial bicycle or pedestrian usage. The NCDOT Division of Bicycle and Pedestrian Transportation does not recommend special considerations for bicyclists or pedestrians at this time.

**Bridge Demolition:** Bridge No. 106 is constructed of precast prestressed concrete (PPC) channels with end bents consisting of PPC caps and timber piles. It should be possible to remove the existing bridge with no resulting debris in the water.

**Alternatives Considered:**

**No Build** – The no build alternative would result in eventually closing the road, which is unacceptable given the volume of traffic served by SR 1902 (Dibrell Road).

**Rehabilitation** – The bridge was constructed in 1962 and is reaching the end of its useful life. Rehabilitation would only provide a temporary solution to the structural deficiency of the bridge.

**Onsite Detour** – An onsite detour was not evaluated due to the presence of an acceptable offsite detour.

**Staged Construction** – Staged construction was not considered because of the availability of an acceptable offsite detour.

**Offsite Detour (Recommended)** - Bridge No. 106 will be replaced on its existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. 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 offsite detour. The offsite detour for this project would include (from the south) SR 2708 (Service Road), which becomes SR 1371 (Rockwell Drive) in Caswell County, to Chandler Mill Road, which is SR 1343 in Caswell County and SR 1900 in Rockingham County, to NC 700. The majority of traffic on SR 1902 is through traffic. The detour for the average road user would result in four minutes of additional travel time (two miles of additional travel). Up to a 12-month duration of construction is expected on this project.

Based on the Offsite Detour Guidelines, the criteria above indicate that on the basis of delay alone, the proposed offsite detour is acceptable. Rockingham County Emergency Services has indicated the detour is acceptable. The condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement.

**Public Involvement:**

A landowner notification letter was sent to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

**PART A: MINIMUM CRITERIA**

- |                                                                                                                                                                                            | YES                                 | NO                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Will the proposed project involve land disturbing activity of more than ten acres that will result in substantial, permanent changes in the natural cover or topography of those lands? | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 2. Will the proposed project require the expenditure of more than ten million dollars in public funds?                                                                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Is the proposed project listed as a type and class of activity which would qualify as a Non-Major Action under the Minimum Criteria rules?                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| If “yes”, under which category?                                                                                                                                                            | Category #9                         |                                     |
| (Note: If either Category #8 or #15 is used, complete Part D of this checklist.)                                                                                                           |                                     |                                     |

If “yes” is selected for either Question 1 or 2 and “no” is selected for Question 3, then the project does not qualify as a Non-Major Action. A state environmental impact statement (SEIS) or state environmental assessment (SEA) will be required.

**PART B: MINIMUM CRITERIA EXCEPTIONS**

- |                                                                                                                                                                                                                                                                      | YES                      | NO                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|
| 4. Does the proposed activity have a significant adverse effect on wetlands; surface waters such as rivers, streams, and estuaries; parklands; prime or unique agricultural lands; or areas of recognized scenic, recreational, archaeological, or historical value? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Will the proposed activity endanger the existence of a species on the Department of Interior’s threatened and endangered species list?                                                                                                                            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Would the proposed activity cause significant changes in land use concentrations that would be expected to create adverse air quality impacts?                                                                                                                    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Would the proposed activity cause significant changes in land use concentrations that would be expected to create adverse water quality or groundwater impacts?                                                                                                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. Is the proposed activity expected to have a significant adverse effect on long-term recreational benefits?                                                                                                                                                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9. Is the proposed activity expected to have a significant adverse effect on shellfish, finfish, wildlife, or their natural habitats?                                                                                                                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10. Will the proposed activity have secondary impacts or cumulative impacts that may result in a significant adverse impact to human health or the environment?                                                                                                      | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11. Is the proposed activity of such an unusual nature or does the proposed activity have such widespread implications, that an uncommon concern for its environmental effects has been expressed to the NCDOT?                                                      | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Note: If any of Questions 4 through 11 in part B are answered “YES”, the proposed project does not qualify as a Non-Major Action. A SEIS or SEA will be required.

**PART C: COMPLIANCE WITH STATE AND FEDERAL REGULATIONS**

	YES	NO
<u>Ecological Impacts</u>		
12. Is a federally protected threatened or endangered species, or its habitat, likely to be impacted by the proposed action? (see attached Project Commitments “Greensheets” at the end of this document)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Does the action require the placement of fill in waters of the United States?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Does the project require the placement of a significant amount of fill in high quality or relatively rare wetland ecosystems, such as mountain bogs or pine savannahs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Does the project require stream relocation or channel changes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. Is the proposed action located in an Area of Environmental Concern, as defined in the Coastal Area Management Act?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Cultural Resources</u>		
17. Will the project have an “effect” on a property or site listed on the National Register of Historic Places?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Will the proposed action require acquisition of additional right of way from publicly owned parkland or recreational areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Question 12:** Suitable habitat for the federally endangered Smooth coneflower (*Echinacea laevigata*) is present in the project study area. A review of North Carolina Heritage Program (NCNHP) records, updated June 2017, indicates no known smooth coneflower occurrences within one mile of the study area. On September 8, 2015, biologists conducted a field pedestrian survey for the presence/absence of the Smooth coneflower, and no specimens were observed within the project study area. Therefore, a biological conclusion of “**No Effect**” was determined for the Smooth coneflower.

Suitable habitat for the federally endangered Roanoke logperch (*Percina rex*) is present within Wolf Island Creek in the project study area. A review of NCNHP records, updated June 2017, indicates no known Roanoke logperch occurrences within one mile of the study area. Surveys for the Roanoke logperch in the project area were conducted on August 18, 2016. While habitat conditions were relatively poor in the reach, and the species was not found during these efforts, Roanoke Logperch has been found approximately 1.9 miles downstream of the project. Additionally, the species is difficult to detect and its range in Rockingham County is understudied and potentially expanding. As such, the presence of the species cannot be completely discounted. Therefore, it is concluded the project “**May Affect, Not Likely to Adversely Affect**” the Roanoke Logperch. NCDOT will continue to coordinate with the USFWS, as part of the required Section 7 consultation process, during the final design and permitting stage of the project.

Habitat for the federally endangered James spiny mussel (*Pleurobema collina*) exists in the project area. A review of the NCNHP records, updated June 2017, indicated no known occurrences within one

mile of the study area. Surveys for the James spiny mussel within 1,312 feet downstream and 1,640 feet upstream of the existing bridge were conducted on August 18, 2016. No James spiny mussels were found. Therefore, it is expected the proposed project will have “**No Effect**” on the James spiny mussel.

Although not listed for Rockingham County, the US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration, the US Army Corps of Engineers 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 Rockingham County. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

**Question 13:** Two jurisdictional streams and three jurisdictional wetlands were identified in the project study area (Figure 2). Project construction will result in approximately 101 feet of stream impacts and less than 0.01 acre of wetland impacts. A Nationwide Permit (NWP) 3 (maintenance) and NC Water Quality Certification No. 3883 will likely be required for impacts to “Waters of the United States” resulting from this project. Other permits that may apply include a NWP No. 6 (survey activities) and NWP No. 33 ((Temporary Construction, Access, and Dewatering) and NC Certification 3893 (temporary construction activities). Pre-construction notification will be provided to the US Army Corps of Engineers and NC Division of Water Resources. The US Army Corps of Engineers holds the final discretion as to what permit will be required to authorize project construction.

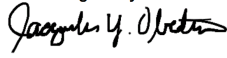
**PART D: (To be completed when either category #8 or #15 of the rules is used.)**

- 19. Project length:
  - 20. Right of Way width:
  - 21. Total Acres of Disturbed Ground Surface:
  - 22. Total Acres of Wetland Impacts:
  - 23. Total Linear Feet of Stream Impacts:
  - 24. Project Purpose:
- 

Reviewed by:

7/6/2017

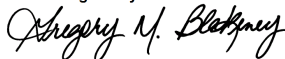
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Consultant Project Manager

7/6/2017


Date

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Project Planning Engineer  
Project Development & Environmental Analysis Unit

7/6/2017

Date

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Project Engineer  
Project Development & Environmental Analysis Unit

**PROJECT COMMITMENTS:**

**Rockingham County  
Bridge No. 106 on SR 1902  
over Wolf Island Creek  
W.B.S. No. 46069.1.1  
T.I.P. No. B-5355**

**NCDOT Division 7**

- In order to have time to adequately reroute school buses, Rockingham County Schools will be contacted at least one month prior to road closure.
- This project involves construction activities on or adjacent to a FEMA-regulated stream(s). Therefore, the Division will submit sealed as-built construction plans to the NCDOT 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 Hydraulic Design Unit**

- The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) 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).

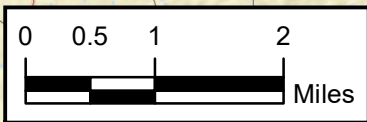
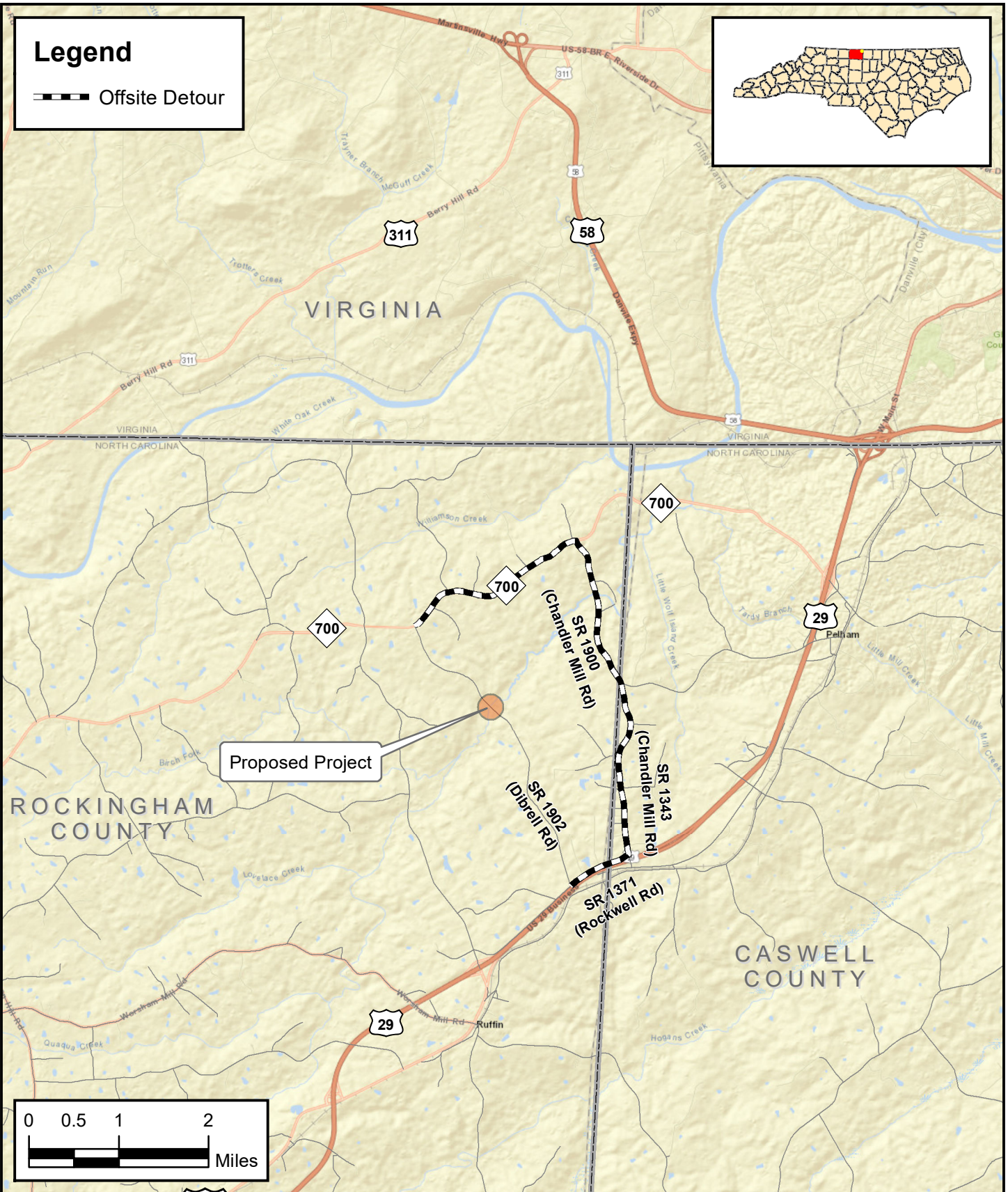
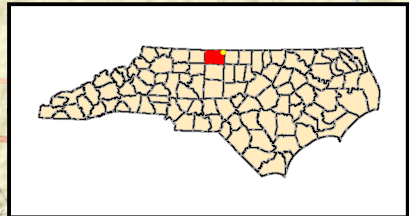
**NCDOT Environmental Analysis Unit (EAU)**

- NCDOT EAU will continue to coordinate with the USFWS regarding potential project effects on the Roanoke logperch as part of the required Section 7 Consultation process, during the final design and permitting stage of the project.



# Legend

 Offsite Detour



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

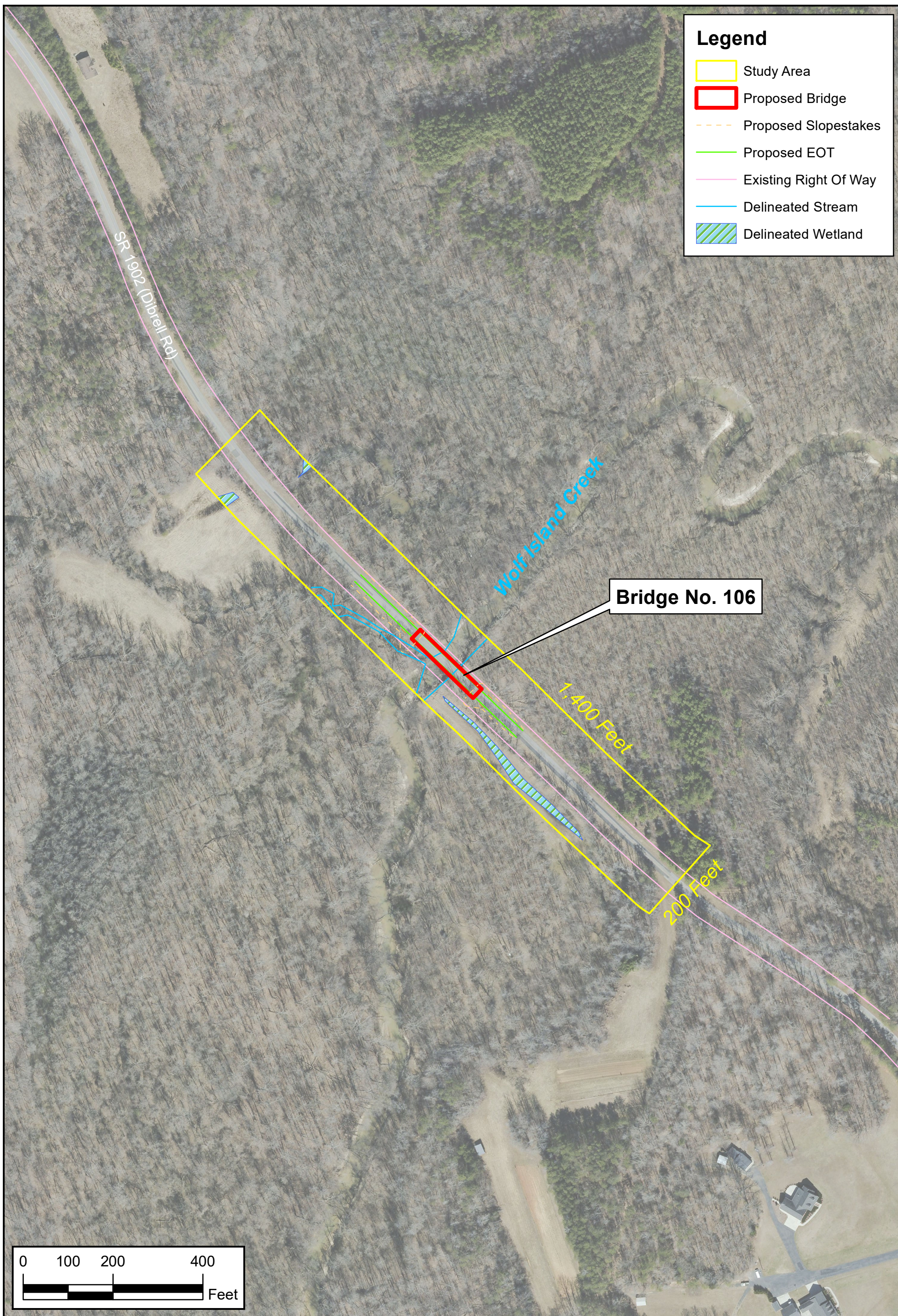
**VICINITY MAP**  
**BRIDGE NO. 106 ON**  
**SR 1902 (DIBRELL RD)**  
**OVER WOLF ISLAND CREEK**  
ROCKINGHAM COUNTY  
TIP PROJECT B-5355



County:	ROCKINGHAM	
Div:	7	TIP# B-5355
WBS:	46069.1.1	
Date:	MAY 2017	

**Figure**  
**1**

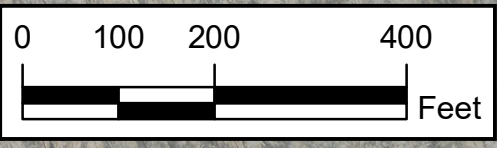




**Legend**

- Study Area
- Proposed Bridge
- Proposed Slopestakes
- Proposed EOT
- Existing Right Of Way
- Delineated Stream
- Delineated Wetland

**Bridge No. 106**



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

**PROJECT MAP  
 BRIDGE NO. 106 ON  
 SR 1902 (DIBRELL RD)  
 OVER WOLF ISLAND CREEK**  
 ROCKINGHAM COUNTY  
 TIP PROJECT B-5355



County:	ROCKINGHAM
Div:	7
TIP#:	B-5355
WBS:	46069.1.1
Date:	MAY 2017

**Figure  
 2**