

MINIMUM CRITERIA DETERMINATION CHECKLIST

TIP Project No. B-5357
W.B.S. Project No. 46071.1.1

Project Location: Bridge No. 78 on SR 2715 (Hampton Road) over Rock Creek in Rockingham County.

Project Description: The proposed project involves replacing Bridge No. 78 on SR 2715 (Hampton Road) over Rock 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 consist of a double barrel ten-foot wide by seven-foot high reinforced concrete box culvert. The roadway over the culvert will include two 11-foot lanes and three-foot shoulders on both sides. The culvert size is based on preliminary design information and is set by hydraulic requirements. The new roadway grade will be approximately five feet higher than the existing grade once the culvert is constructed.

Project construction will extend approximately 1,200 feet from the south end and 1,100 feet from the north end of the new culvert. The approaches will be widened to include two 11-foot lanes, three-foot grass shoulders on each side (seven-foot shoulders where guardrail is included). The roadway will be designed as a Local Road using American Association of State Highway and Transportation Officials (AASHTO) and Sub-Regional Tier Guidelines with a 50 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 \$1,028,000. Of this total, \$28,000 is for right of way acquisition and \$1,000,000 is for construction. Current updated cost estimates for the project are as follows:

Right of Way Acquisition	\$ 28,000
Utilities -	\$ 0
Construction -	<u>\$ 1,000,000</u>
Total	<u>\$ 1,028,000</u>

Purpose and Need: The purpose of the proposed project is to replace a deficient bridge. NCDOT Bridge Management Unit records indicate Bridge No. 78 has a sufficiency rating of 23.7 out of a possible 100 for a new structure. The existing bridge is posted with a weight limit of 17 tons for single vehicles and 22 tons for truck tractor semi-trailers.

Bridge No. 78 was built in 1960 and is 41 feet long with a clear roadway width of 24.6 feet. The bridge is considered structurally deficient due to a substructure rating of 4 out of a possible 9 points according to Federal Highway Administration standards. The bridge also meets the criteria for functionally obsolete due to a structural appraisal of 3 out of 9.

Anticipated Permit or Consultation Requirements:

As proposed impacts to jurisdictional surface waters at this bridge location exceed 300 linear feet (i.e., 369 linear feet of proposed stream impact), a Section 404 Individual Permit (IP) will be required by the U.S. Army Corps of Engineers (USACE).

Special Project Information:

Environmental Commitments: The list of project commitments are located at the end of the checklist.

Pedestrian and Bicycle Accommodations: Bridge No. 78 is not located on a designated bicycle route nor is there an indication of substantial bicycle or pedestrian usage. No special considerations for bicyclists or pedestrians are proposed.

Bridge Demolition: Bridge No. 78 is constructed entirely of timber and steel and should be possible to remove with no resulting debris in the water based on standard demolition practices.

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 2715.

Rehabilitation – The bridge was constructed in 1960 and the timber materials 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.

New Bridge - Replacing Bridge No. 78 with a new bridge was considered, however because a new bridge would result in higher construction and maintenance costs, and would take longer to construct, it was not selected as the recommended alternative.

Replace Bridge with Culvert (Recommended) – Bridge No. 78 will be replaced with a culvert on the existing roadway alignment. The replacement structure will consist of a double barrel ten-foot wide by seven-foot high reinforced concrete box culvert. Due to lower construction and maintenance costs and faster construction time, this alternative was selected as the recommended alternative.

Offsite Detour (Recommended) – Bridge No. 78 will be replaced with a culvert on the existing roadway 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 SR 1945 (Moir Mill Road), SR 2023 (Guerrant Springs Road), SR 1914 (Oregon Hill Road), and NC 700. The majority of traffic on the road is through traffic. The proposed offsite detour for the average road user would result in three 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 Guidelines, the criteria above indicate that on the basis of delay alone, the proposed offsite detour is acceptable. Rockingham County Emergency Services along with Rockingham County Schools Transportation have also indicated that the detour is acceptable. All roads, bridges and intersections on the offsite detour are acceptable without improvement.

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.

New Alignment – Given that the alignment for SR 2715 is acceptable, a new alignment was not considered as an alternative.

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?	<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 NC Natural Heritage Program 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.

In a memorandum dated January 29, 2015 the North Carolina Wildlife Resources Commission stated the potential exists for the federally endangered Roanoke logperch (*Percina rex*) to be found at the project site and that a survey should be conducted for this species. Surveys for the Roanoke logperch were conducted on August 30, 2016. No Roanoke logperch were found. However, as the species is difficult to detect and its range in Rockingham County is understudied and potentially expanding, its presence cannot be completely discounted. As no common or target mussel species were found, impacts to mussel fauna are unlikely to occur in the study area. A biological conclusion of “**May Affect, Not Likely to Adversely Affect**” was determined for 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.

Surveys for the James spiny mussel (*Pleurobema collina*) were also conducted on August 30, 2016. No James spiny mussel were found. It is expected the project will have “**No Effect**” on the James spiny mussel.

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.

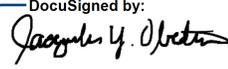
Question 13: Two jurisdictional streams were identified in the project study area (Figure 2). Project construction will result in approximately 369 feet linear feet of stream impacts. The USACE holds the final discretion as to what permit will be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification (WQC) from NCDWR will be needed.

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

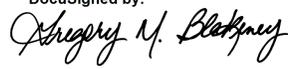
- 19. Project length:
 - 20. Right of Way width:
 - 21. Total Acres of Disturbed Ground Surface:
 - 22. Total Acres of Wetland Impacts:
 - 23. Total Linear Feet of Stream Impacts:
 - 24. Project Purpose:
-

Reviewed by:

7/6/2017
Date

DocuSigned by:

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Consultant Project Manager

7/6/2017
Date

DocuSigned by:

0A7CD76F10174B6...
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. 78 on SR 2715
over Rock Creek
W.B.S. No. 46071.1.1
T.I.P. No. B-5357**

NCDOT Division 7

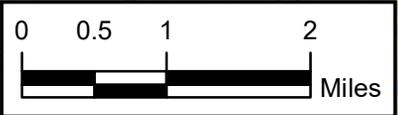
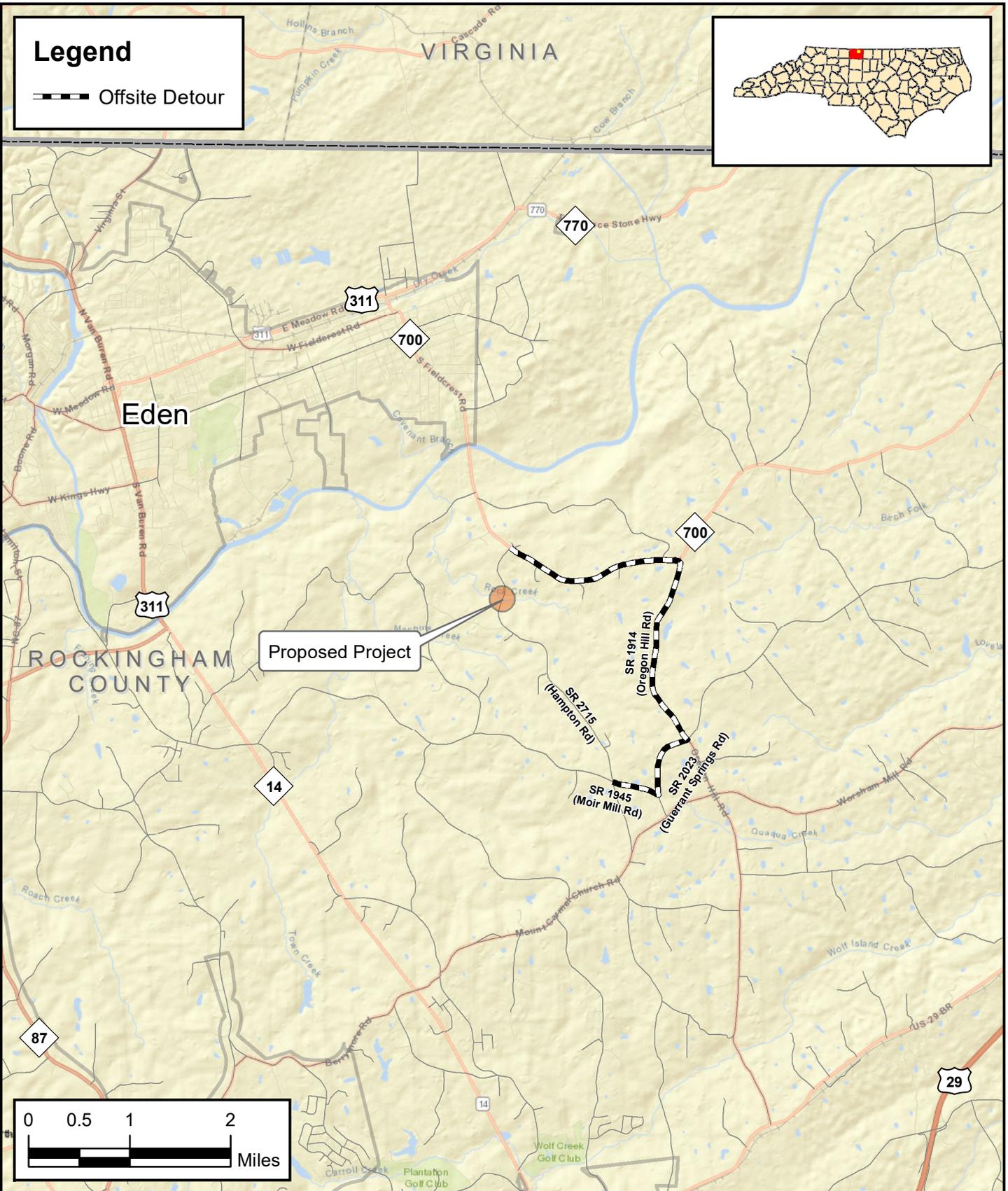
- In order to have time to adequately reroute school buses, Rockingham County Schools will be contacted at least one month prior to road closure.
- In order to have time to adequately reroute emergency response units, Rockingham County Emergency Services will be contacted at least one month prior to road closure.

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



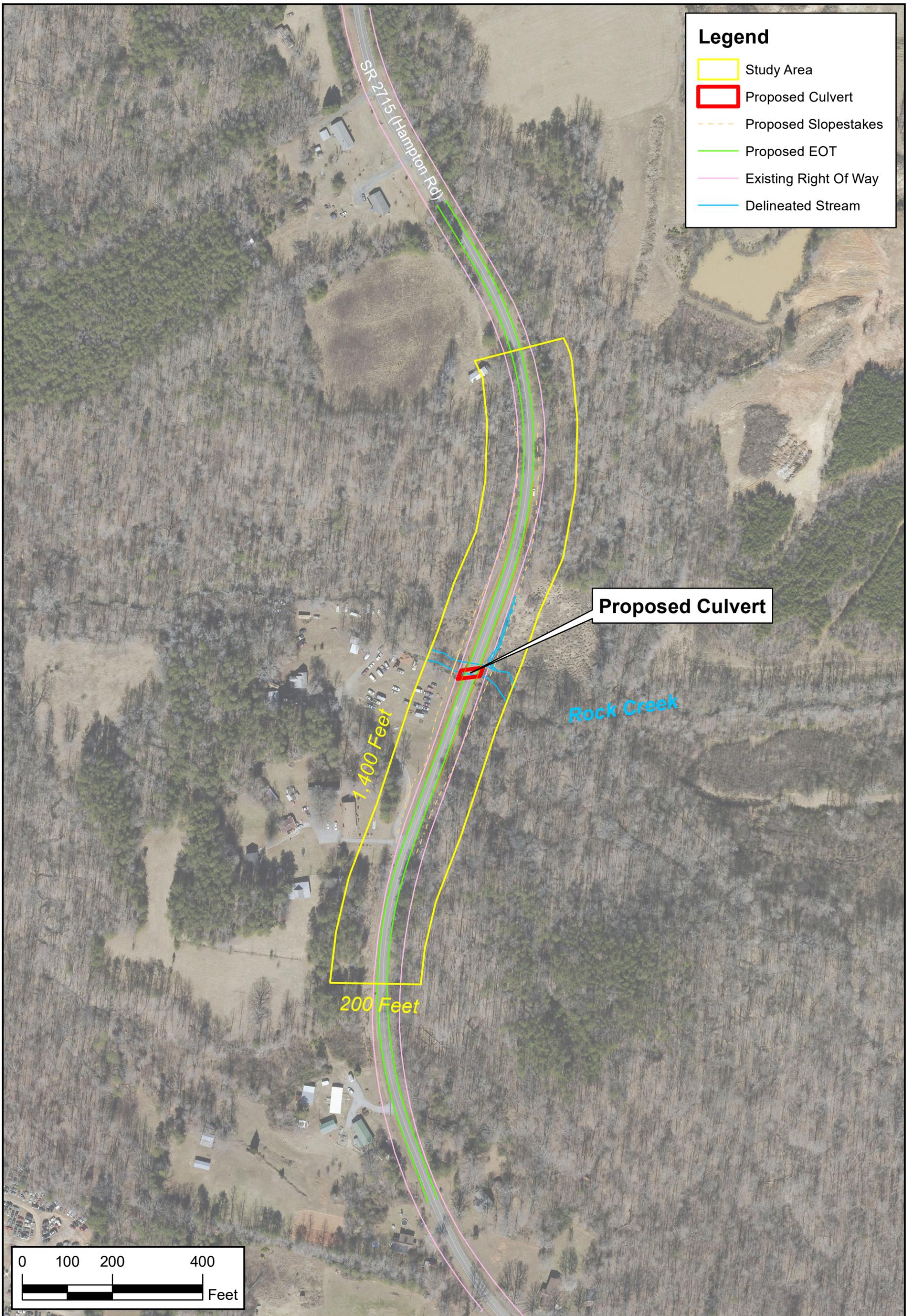
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT

VICINITY MAP
BRIDGE NO. 78 ON
SR 2715 (HAMPTON RD)
OVER ROCK CREEK
ROCKINGHAM COUNTY
TIP PROJECT B-5357



County:	ROCKINGHAM	
Div:	7	TIP# B-5357
WBS:	46071.1.1	
Date:	MAY 2017	

Figure
1



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

PROJECT MAP
BRIDGE NO. 78 ON
SR 2715 (HAMPTON RD)
OVER ROCK CREEK
ROCKINGHAM COUNTY
TIP PROJECT B-5357



County:	ROCKINGHAM
Div:	7
TIP#	B-5357
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Figure
2