North Carolina Department of Transportation

NEPA/SEPA Consultation Form

STIP Project No.	B-5721		
WBS Element	45677.1.1		
Federal Aid Project No.	BRZ-2177(001)		

A. Project Description, Location, and Purpose:

The North Carolina Department of Transportation (NCDOT) is proposing to replace bridge 780124, carrying SR 2177 (Dan Valley Road) over the Mayo River in Rockingham County (Figure 1). A new bridge will be constructed to the north of the existing bridge, and traffic will be maintained on the existing bridge during construction. Following construction of the new bridge, the existing bridge would be removed. The proposed action is listed in NCDOT's State Transportation Improvement Program (STIP) as B-5721.

The purpose of the proposed project is to replace a deficient bridge. Bridge No. 780124 is considered to be structurally deficient due to a superstructure condition appraisal of 4 out of 9, according to Federal Highway Administration (FHWA) standards. Being structurally deficient does not mean that the bridge is unsafe but does mean the bridge is in need of repair or replacement. As a bridge ages, the cost of repairs and continued maintenance eventually necessitate the need for replacement. The current bridge was constructed in 1965 and is reaching the end of its useful life. The bridge has a posted weight limit of 26 tons for single vehicles and 35 tons for tractor trailers.

В.	Consultation Phase	se: (Check one)	
		Right-of-Way	
	\boxtimes	Construction	
		Other: Identify the trigger – (e.	g., design change, change in impacts)
C.	NEPA/SEPA Clas	ss of Action Initially Approved as	s: (Check one)
	⊠ F	FHWA Class II (CE)	04/12/2019
	Additional Notes:	Type 1 (A) CE	

D. Changes in Proposed Action & Environmental Consequences:

The project study area boundary was extended approximately 60 feet east along Dan Valley Road to accommodate a pipe replacement carrying a jurisdictional stream (SA/SB). The existing pipe is 24" and being replaced with a 54" pipe (buried 1-foot). Approximately 27 linear feet of stream impacts are anticipated due to construction access and outlet protection. The revised study area was reviewed for additional impacts to cultural resources

and natural systems (including threatened and endangered species).

At the time of completion of the Categorical Exclusion in April 2019, it had not yet been determined whether formal consultation with the USFWS would be required to address impacts to the Roanoke logperch and Green floater. Formal concurrence for Roanoke logperch was received from USFWS on July 5, 2022. With this, the project must adhere to specific requirements to remain compliant with Section 7 during construction. This information can be found within the Biological Opinion and Final/Permitting Project Commitments Greensheet.

Tribal coordination letters were sent on December 13, 2021 to the Catawba and Monacan Indian Nations requesting any comments on the project. No comments were received from the Catawba or Monacan Indian Nations.

Since completion of the Right-of-Way Consultation in January 2022, updated surveys were completed, and existing property boundaries were adjusted accordingly. No other changes to the project design or impacts resulted.

E. Conclusion:

The above NEPA/SEPA documentation 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 D. 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, Kristy Alford, PE, hereby verifies the involvement of the following staff and the incorporation of their technical input:

Design Engineer:	Gregory Cols, PE	01/2023
Environmental Specialist:	Jared Gray	01/2023
Environmental Specialist:	Michael Turchy	02/2023
FHWA (if applicable):	N/A	N/A
Other:	N/A	N/A

G. Consultation Approval for NCDOT Project B-5721

Prepared By:	— DocuSigned by:
2/21/2023	Celia Miars
Date	Celia Miars, AICP AECOM
Prepared For:	Jacquelyn Bowles, PE NCDOT, Structures Management Unit
Reviewed By: 2/21/2023 Date	John Jamison, Western Regional Team Lead NCDOT – Environmental Policy Unit
⊠ Appro	In adherence with 23 CFR 771 (NEPA) or NC General Statute Chapter 113A Article 1 (SEPA), NCDOT approves this Consultation.
OI Certifi	NCDOT staff cartifies if EHWA signature was proviously required or
2/22/2023 	F245838930BF40E Kristy Alford, PE, 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 February 21, 2023)

Rockingham County
B-5721
Federal Project No. BRZ-2177(001)
WBS No. 45677.1.1
TIP No. B-5721

Updates to the project commitments are shown in italics

NCDOT Division 7 Construction – Northern Long-Eared Bat

The USFWS has developed a programmatic biological opinion (PBO) in conjunction with Federal Highway Administration (FHWA), the USACE and NCDOT for the northern long-eared bat (NLEB) 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, where B-5721 is located. This level of incidental take is authorized from the effective date of final listing through April 30, 2020.

Due to a range update for the NLEB, and a procedure change for the PBO for unlisted counties, there are no longer commitments required for the NLEB, and associated PBO.

After project completion, the contract administrator for construction must submit the actual amount of tree clearing reported in tenths of acres. This information should be submitted to the NCDOT Biological Surveys group.

Reporting of tree clearing is no longer required.

NCDOT EAU – Threatened and Endangered Species

NCDOT is coordinating with the USFWS regarding the proposed project's potential effects on endangered species.

Formal concurrence for Roanoke logperch was received from USFWS dated July 5, 2022.

NCDOT Division 7 Construction – Erosion and Sediment Control

Due to the proximity of the project to the Mayo River, NCDOT will follow *Design Standards in Sensitive Watersheds* guidelines per 15A NCAC 04B .0124 for implementing erosion and sediment control BMPs for this project.

NCDOT Hydraulics Unit – FEMA

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine 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).

A Memorandum of Agreement was received on March 31, 2022.

NCDOT Division 7 Construction – FEMA

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 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.

COMMITMENTS FROM PERMITTING

NCDOT Division 7 Construction, Division Environmental Officer

<u>USACE Special Condition #2</u>: This Department of the Army permit does not authorize you to take an endangered species, in particular the Roanoke logperch (*Percina rex*). In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a Biological Opinion [BO] under ESA Section 7, with "incidental take" provisions with which you must comply). The enclosed U.S. Fish and Wildlife Service BO contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. Your authorization under this permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute noncompliance with your permit. The U.S. Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.

USFWS Biological Opinion Section 2.3. Conservation Measures:

The following will be incorporated into the design and construction of the Action to avoid and minimize effects to the Mayo River.

Regardless of the surface water quality classification, NCDOT will adhere to Design Standards in Sensitive Watersheds described in 15A NCAC 04B.0124.

- (a) Uncovered areas in High Quality Water (HQW) zones shall be limited to a maximum total area of 20 acres within the boundaries of the tract. Only the land-disturbing activity within a HQW zone shall be governed by this Rule. Larger areas may be uncovered within the boundaries of the tract with the written approval of the Director upon providing engineering justification with a construction sequence that considers phasing, limiting exposure, weekly submitted self- inspection reports, and more conservative design than the 25-year storm. The Director may also stipulate the inclusion of other conditions in the plan as necessary based on specific site conditions.
- (b) Erosion and sedimentation control measures, structures, and devices within HQW zones shall be planned, designed, and constructed to provide protection from the runoff of the 25-year storm that produces the maximum peak rate of runoff as calculated according to procedures in the United States Department of Agriculture, Natural Resources Conservation Service's "National Engineering Field Handbook 630 for Conservation Practices." Other methodologies may be used if based on generally accepted engineering standards that are shown to the Division to be equivalent to or improved over the procedures in Handbook 630. The Division shall determine acceptability of an alternative methodology based upon a showing that the runoff model used was based on observed data in agreement with the predictive model.

- (c) In order to provide for water quality protection in HQW zones, sediment basins that discharge to those areas shall be designed and constructed to meet the following criteria:
- (1) use a surface withdrawal mechanism, except when the basin drainage area is less than 1.0 acre:
- (2) have a minimum of 1800 cubic feet of storage area per acre of disturbed area;
- (3) have a minimum surface area of 325 square feet per cfs of Q25 peak inflow;
- (4) have a minimum dewatering time of 48 hours; and
- (5) incorporate 3 baffles, unless the basin is less than 20 feet in length, in which case 2 baffles shall be sufficient.
- (d) Upon a written request of the applicant, the Director may allow alternative design or control measures in lieu of meeting the conditions required in Subparagraphs (c)(2) through (c)(5) of this Rule if the applicant demonstrates that meeting all of those conditions will result in design or operational hardships and that the alternative measures will provide an equal or more effective level of erosion and sedimentation control on the site. Alternative measures may include quicker application of ground cover, use of sediment flocculants, and use of enhanced ground cover practices.
- (e) Newly constructed open channels in HQW zones shall be designed and constructed with side slopes no steeper than two horizontal to one vertical if a vegetative cover is used for stabilization, unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices, or other forms of ditch liners proven to the Division as being effective in restraining accelerated erosion. The angle for side slopes shall be sufficient to restrain accelerated erosion

Special procedures will also be used for clearing and grubbing, grading operations, seeding and mulching, and staged seeding within the project. NCDOT will designate the affected area as an Environmentally Sensitive Area.

Clearing and Grubbing

In areas identified as Environmentally Sensitive Areas, the Contractor may perform clearing operations, but not grubbing operations until immediately prior to beginning grading operations as described in Article 200-1 of the Standard Specifications. Only clearing operations (not grubbing) shall be allowed in this buffer zone until immediately prior to beginning grading operations. Erosion control devices shall be installed immediately following the clearing operation.

Grading

Once grading operations begin in identified Environmentally Sensitive Areas, work shall progress in a continuous manner until complete. All construction within these areas shall progress in a continuous manner such that each phase is complete, and areas are permanently stabilized prior to beginning of next phase. Failure on the part of the contractor to complete any phase of construction in a continuous manner in Environmentally Sensitive Areas will be just cause for the Engineer to direct the suspension of work in accordance with Article 108-7 of the Standard Specifications.

Seeding and Mulching

Seeding and mulching shall be performed in accordance with Section 1660 of the Standard Specifications and vegetative cover sufficient to restrain erosion shall be installed immediately following grade establishment. Seeding and mulching shall be performed on the areas disturbed by construction immediately following final grade establishment. No appreciable time shall lapse into the contract time without stabilization of slopes, ditches, and other areas within the Environmentally Sensitive Areas.

The work covered by this section shall consist of the establishment of a vegetative cover on cut and fill slopes as grading progresses. Seeding and mulching shall be done in stages on cut and fill slopes that are greater than 20 feet in height measured along the slope, or greater than 2 acres in area. Each stage shall not exceed the limits stated above.

All applicable Best Management Practices (BMPs) from the following documents will be used during project design and construction: Erosion and Sediment Control Design and Construction Manual (NCDOT 2015); Stormwater Best Management Practices Toolbox (NCDOT 2014); and Best Management Practices for Construction and Maintenance Activities (NCDOT 2003).

<u>USFWS Biological Opinion Section 9.4.</u> Monitoring and Reporting Requirements: In order to monitor the impacts of incidental take, the FHWA must report the progress of the Action and its impact on the species to the Service as specified in the ITS (50 CFR §402.14(i)(3)). This section provides the specific instructions for such monitoring and reporting (M&R), including procedures for handling and disposing of any individuals of a species actually killed or injured. These M&R requirements are mandatory.

As necessary and appropriate to fulfill this responsibility, the FHWA must require any permittee, contractor, or grantee to accomplish the M&R through enforceable terms that the FHWA includes in the permit, contract, or grant document. Such enforceable terms must include a requirement to immediately notify the FHWA and the Service if the amount or extent of incidental take specified in this ITS is exceeded during Action implementation.

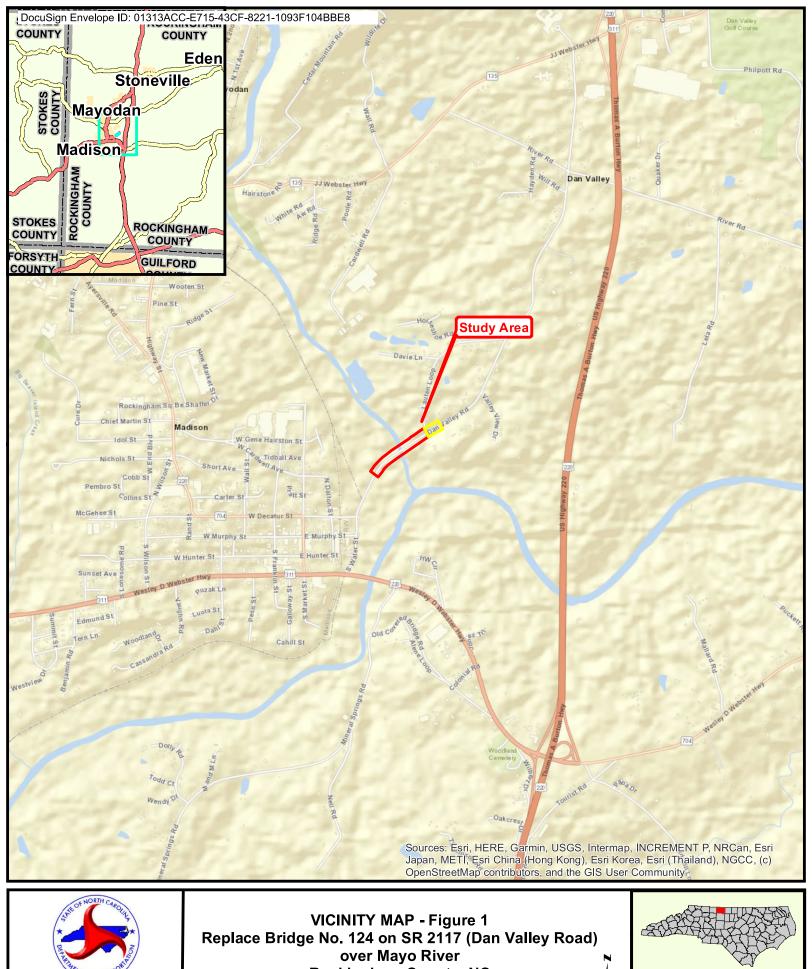
Project design calls for the elimination of the two bents currently within the Mayo River channel. The proposed new bridge will completely span the river.

M&R1. Disposition of Dead RLP

If dead fish suspected of being RLP are observed during the construction and demolition activities of the Action, such fish should collected (if can be safely done) and preserved for identification. Since RLP generally do not exceed 165 mm (6.6 inches), no dead fish larger than this need to be collected. Collected fish should ideally be preserved in 95% non-denatured ethyl alcohol/ethanol. If no ethyl alcohol is initially available, the fish may be temporarily stored on ice (not frozen) until ethyl alcohol is available. The fish should initially be submitted to the NCDOT Biological Surveys Group (Jared Gray, phone 919-707-6120) as soon as possible for identification. If determined to be RLP, the Service's Raleigh Field Office must be notified.

M&R2. Erosion Control Measures Failure

In the event of any visible sediment loss within the Action Area, a review of turbidity levels will be made upstream and downstream 400 meters (0.25 mile) to determine if sedimentation effects are occurring beyond 400 meters downstream. If visual observation of turbidity levels downstream appear to be elevated beyond upstream observations, the project inspector will contact the Division Environmental Officer. If determined that project-related sedimentation is occurring beyond 400 meters, the Service's Raleigh Field Office must be contacted immediately to discuss potential remediation.





Replace Bridge No. 124 on SR 2117 (Dan Valley Road)
over Mayo River
Rockingham County, NC
TIP Project B-5721
Miles



September 2021 NAD83 NC StatePlane This map is for reference only.

Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	B-5721
WBS Element	45677.1.1
Federal Project No.	BRZ-2177(001)

A. Project Description:

The North Carolina Department of Transportation (NCDOT) is proposing to replace bridge 780124, carrying SR 2177 (Dan Valley Road) over the Mayo River in Rockingham County (Figure 1). A new bridge will be constructed to the north of the existing bridge, and traffic will be maintained on the existing bridge during construction. Following construction of the new bridge, the existing bridge would be removed. The proposed action is listed in the State Transportation Improvement Program (STIP) as B-5721.

Bridge number 780124 is located in Rockingham County, just outside of the Madison town limits. The land within the immediate vicinity of the project study area is largely undeveloped. However, the Town of Madison, the Town of Mayodan, and Mayo River State Park are located adjacent to the project study area. One business is located south of the project along Dan Valley Road, and a number of single family homes are located to the east of the existing bridge.

The existing bridge includes two 10-foot travel lanes without shoulders. The bridge is approximately 235 feet long with seven spans. It is at a 15 degree skew to the river. The proposed replacement bridge would be constructed as a curved bridge, 257 feet in length, and approximately 20-30 feet north of the existing bridge. Project construction will extend approximately 900 feet to the southwest and 750 feet to the northeast from the replacement bridge along Dan Valley Road.

B. <u>Description of Need and Purpose:</u>

The purpose of the proposed project is to replace a deficient bridge. Bridge No. 124 is considered structurally deficient with a sufficiency rating of 13.54 out of 100. Being structurally deficient does not mean that the bridge is unsafe, but does mean the bridge is in need of repair or replacement. As a bridge ages, the cost of repairs and continued maintenance eventually necessitate the need for replacement. The current bridge was constructed in 1965 and is reaching the end of its useful life. The bridge also has a posted weight limit of 26 tons for single vehicles and 35 tons for tractor trailers.

C. Categorical Exclusion Action Classification:

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:

Dan Valley Road is a two-lane undivided roadway that provides connectivity between the Town of

Madison and areas to the northeast, which include commercial and industrial development and McMichael High School. The posted speed limit is 45 mph.

Costs

 Construction Cost
 \$3,550,000

 Right of Way Cost
 \$227,000

 Utility Cost
 \$268,602

 Total Cost
 \$4,045,602

Traffic

Current (2016): 3,700 vpd Future (2040): 6,000 vpd

Alternatives Discussion

No Build

There would be no changes to the existing bridge, which would not address the need to replace the deficient bridge.

Build Alternative 1 (Selected)

Alternative 1 would replace the bridge with a curved bridge approximately 20-30 feet north of the existing bridge. The replacement bridge would be 257 feet long. The bridge would have two 12-foot lanes, a 3-foot shoulder on the north side, and a 6-foot shoulder on the south side. Project construction would extend approximately 900 feet to the southwest and 750 feet to the northeast from the replacement bridge along Dan Valley Road. Traffic would be maintained on the existing bridge structure during construction.

Alternative 1 was selected as the preferred alternative because it includes a more desirable roadway alignment. This alternative has lower impacts to properties and lower costs than other alternatives evaluated. Alternative 1 is shown on Figure 2.

Build Alternative 2

Alternative 2 would replace the bridge with a parallel bridge approximately 10 feet north of the existing bridge. The replacement bridge would be 253 feet long. The bridge would have two 12-foot lanes and 3-foot shoulders. Project construction would extend approximately 1050 feet to the southwest and 650 feet to the northeast from the replacement bridge along Dan Valley Road. Traffic would be maintained on the existing bridge structure during construction.

Build Alternative 3

Alternative 3 would replace the bridge with a parallel bridge approximately 10 feet north of the existing bridge. The replacement bridge would be 256 feet long. The bridge would have two 12-foot lanes and 3-foot shoulders. Project construction would extend approximately 850 feet to the southwest and 1000 feet to the northeast from the replacement bridge along Dan Valley Road. This alternative would require the relocation of one residence. Traffic would be maintained on the existing bridge structure during construction.

Pedestrian and Bicycle Accommodations

The existing bridge does not include pedestrian or bicycle accommodations, and no additional accommodations are proposed with this project. However, the NCDOT Bicycle and Pedestrian Division recommends that the NCDOT coordinate with local governments regarding opportunities to provide a graded shelf underneath the bridge on the west side to accommodate future greenway construction.

The following plans recommend a greenway along the west side of the Mayo River: *Madison Rivers & Trails Plan* (2018), *Mayo River Recreation Action Plan Phase I* (2016), *Rockingham County Pathways* (2013), and *Rockingham County Comprehensive Transportation Plan* (2010).

Jurisdictional Resources

The only jurisdictional resource within the project study area is the Mayo River. There are no wetlands located within the project study area. Minor impacts from the selected alternative to the Mayo River may occur due to the placement and/or removal of bridge bents. It is anticipated that a US Army Corps of Engineers (USACE) Nationwide Permit 14 would be applicable for stream impacts, if any. The USACE holds the final discretion as to what permit may be required to authorize project construction. A Section 401 General Water Quality Certification will be needed if a Section 404 permit is required.

Protected Species

The following species are listed for Rockingham County: Roanoke logperch (*Percina rex*), James spinymussel (*Pleurobema collina*), and smooth coneflower (*Echinacea laevigata*). The green floater (*Lasmigona subviridis*) is being evaluated by US Fish and Wildlife Service for listing under the Endangered Species Act and is known to occur in Rockingham County. Field surveys for smooth coneflower were conducted in 2016, and no individuals were observed in the study area and there are no known occurrences within 1 mile of the study area. Surveys for the aquatic species were conducted in 2018, and no individuals were identified in the study area. However, a review of NC Natural Heritage Program (NC NHP) records indicated occurrences of all three species within a 5-mile buffer of the study area, including a known occurrence of Roanoke logperch within the project study area. Biological conclusions of "May Affect, Likely to Adversely Affect" have been recommended for the Roanoke logperch, as well as for green floater (if it becomes listed). The USFWS will be contacted once final designs are prepared to request concurrence on these biological conclusions. A biological conclusion of "May Affect, Not Likely to Adversely Affect" has been recommended for James spinymussel.

In addition, the US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (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.

Cultural Resources

NCDOT Cultural Resources staff determined that there are three potential historic sites located within the project area of potential effects, including bridge number 780124 itself, as well as two houses built in 1912 and 1922. An architectural historian conducted a site visit and noted significant alterations to the houses. The bridge does not exemplify any distinctive engineering or aesthetic type and is not eligible for the National Register of Historic Places. Therefore, no historic properties are present in the area of potential effects.

NCDOT Cultural Resources staff determined that there are no previously recorded archaeological sites or cemeteries within the project area of potential effects (APE). The bridge replacement will be constructed just north of the existing facility, and immediately south of an earlier bridge here. Much of the APE has already been modified by the construction associated with the previous two bridges and roads. It is unlikely that significant, intact otherwise unknown archaeological remains would be present and impacted by the bridge replacement project, and NCDOT Cultural Resources staff have determined that no survey for archaeological resources is required. For archaeological review, this federally permitted undertaking should be considered compliant with Section 106.

Resource Agency Input

NCDOT sought input from resource and regulatory agencies via a start of study scoping letter distributed in September 2018. Letters were sent to the following agencies. Agencies that responded with comments are marked with an asterisk (*). Agency comments are included in Attachment A.

- US Army Corps of Engineers (USACE)
- US Fish and Wildlife Service (USFWS)*
- US Department of Transportation (US DOT)
- US Environmental Protection Agency (USEPA)
- NC Division of Parks and Recreation
- NC Wildlife Resources Commission (NCWRC)*
- NC Division of Water Resources (NCDWR)
- NCDOT Bicycle and Pedestrian Division*
- NCDOT Highway Division 7*

Public Involvement

Postcards will be distributed to property owners in the vicinity of the projects to update them on the project status, preferred alternative, and project schedule.

Impact Summary

Impacts summarized below were estimated using functional design slope stake limits plus a 40-foot buffer and/or functional design right of way limits.

Length: 1,890 feet Streams: 0 feet Wetlands: 0 feet 100-year floodplain: 6.8 acres Floodway: 3.8 acres Farmland soils: 1.3 acres Active agriculture (ac) 0 acres 7 Parcels:

Relocations: 0

F. Project Impact Criteria Checklists:

-	- Ground Disturbing Actions		
FHWA AP	PROVAL ACTIVITIES THRESHOLD CRITERIA		
If any of q	uestions 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)?		×
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?		×
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?		⊠
6	Does the project require an Individual Section 4(f) approval?		\boxtimes
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)?		\boxtimes
	uestions 8 through 31 are marked "yes" then additional information will be required for t in Section G.	those	
Other Con	siderations	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)?	×	
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)?		×
11	Does the project impact waters of the United States in any of the designated mountain trout streams?		×
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?		×

Other Co	onsiderations (continued)	Yes	No
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?	×	
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)?		×
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?		×
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?		×
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?		X
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
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?		×
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?		×
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?		×
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?		×

G. Additional Documentation as Required from Section F

Question 1 – Formal Consultation with the USFWS

It has not yet been determined whether formal consultation with the USFWS will be required. The USFWS will be contacted once final designs are prepared, and if necessary consultation will be initiated to address impacts to Roanoke logperch and Green floater.

Question 8 – Protected Species

A Natural Resources Technical Report (NRTR) for this project, including surveys for protected plant species, was completed in 2016, and surveys for protected aquatic species were conducted in 2018. No individuals were identified during surveys for protected species within the project study area, but based on habitat and proximity to known NC Natural Heritage Program (NHP) occurrences, the following biological conclusions were made:

Species	Status	Biological Conclusion
Roanoke logperch	Endangered	May Affect, Likely to Adversely Affect
Green floater	At Risk Species	May Affect, Likely to Adversely Affect
James spinymussel	Endangered	May Affect, Not Likely to Adversely
		Affect
Smooth coneflower	Endangered	No Effect

The USFWS will be contacted once final designs are underway to request concurrence on these biological conclusions.

Although not individually listed for Rockingham County, the USFWS has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) in eastern North Carolina. The programmatic determination for NLEB for the NCDOT program in Divisions 1 through 8 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, where B-5721 is located. This level of incidental take is authorized from the effective date of final listing through April 30, 2020.

Question 16 - Floodplains

The project will require grading and construction within the 100-year floodplain and regulatory floodway associated with the Mayo River.

Question 30 - Farmland Soils

A preliminary screening of farmland conversion impacts in the project area has been completed (NRCS Form AD-1006, Part VI only) and a total score of 37 out of 160 points was calculated for the project site (CIA, 2019). Since the total site assessment score does not exceed the 60-point threshold established by NRCS, farmland conversion impacts may be anticipated, but are not considered notable. Based on functional design slope stake limits plus a 40-foot buffer, it is estimated that the project would impact 1.3 acres of farmland soils.

H. <u>Project Commitments</u>

Rockingham County
Replace Bridge 780124 over Mayo River in Madison
Federal Project No. BRZ-2177(001)
WBS No. 45677.1.1
TIP No. B-5721

NCDOT Division 7 Construction - Northern long-eared Bat

The USFWS has developed a programmatic biological opinion (PBO) in conjunction with Federal Highway Administration (FHWA), the USACE and NCDOT for the northern long-eared bat (NLEB) 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, where B-5721 is located. This level of incidental take is authorized from the effective date of final listing through April 30, 2020.

After project completion, the contract administrator for construction must submit the actual amount of tree clearing reported in tenths of acres. This information should be submitted to the NCDOT Biological Surveys group.

NCDOT EAU – Threatened and Endangered Species

The USFWS will be contacted once final designs are prepared to request concurrence on the biological conclusions for Roanoke logperch, as well as for green floater (if it becomes listed).

NCDOT Division 7 Construction—Erosion and Sediment Control

Due to the proximity of the project to the Mayo River, NCDOT will follow *Design Standards in Sensitive Watersheds* guidelines for implementing erosion and sediment control BMPs for this project.

NCDOT Hydraulics Unit – FEMA

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).

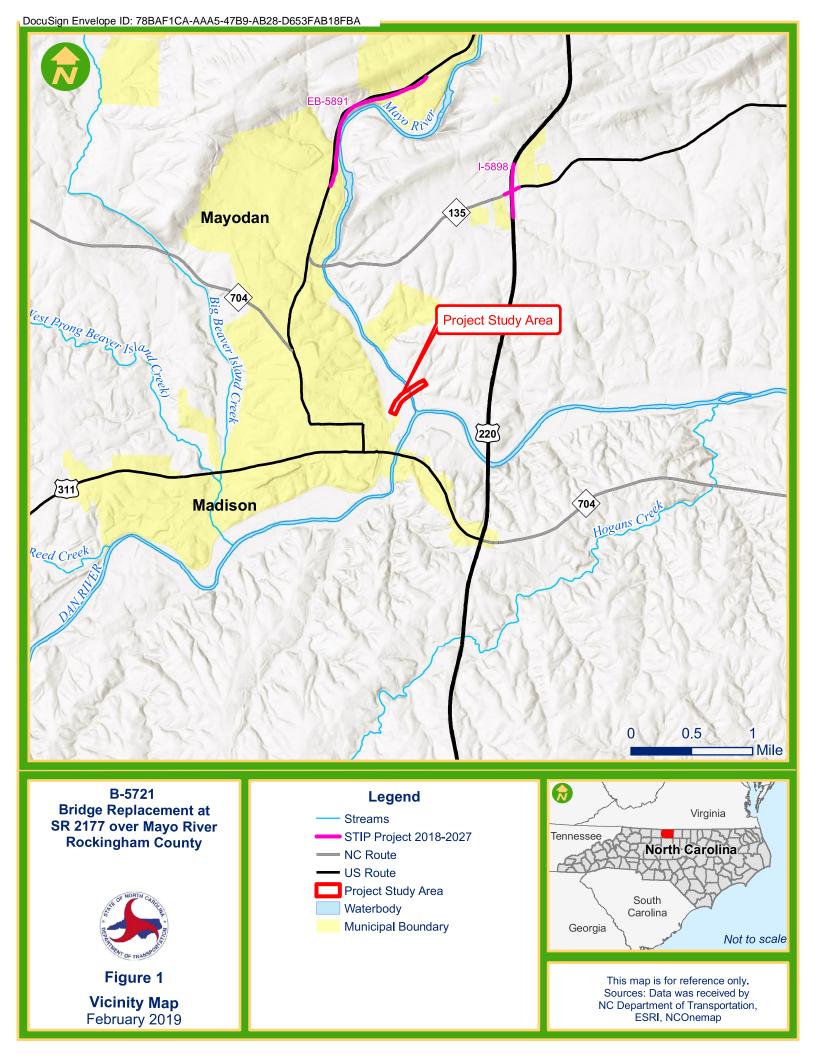
NCDOT Division 7 Construction – FEMA

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.

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

STIP Project No	D. B-5721
WBS Element	45677.1.1
Federal Project	No. BRZ-2177(001)
Prepared By: 4/8/2019 Date	Christina Shumate, AICP AECOM
Prepared For:	North Carolina Department of Transportation, Structures Management Unit
Reviewed By:	
4/8/2019	John Jamison, PWS John Jamison, PWS
Date	North Carolina Department of Transportation, Environmental Policy Unit
⊠ Approv	If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.
Certifie	If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.
4/12/2019	Levin Fischer
Date	North Carolina Department of Transportation, Structures Management Unit
FHWA Approved:	For Projects Certified by NCDOT (above), FHWA signature required.
Date	John F. Sullivan, III, PE, Division Administrator Federal Highway Administration

Figures



PROJECT REFERENCE NO.

B-572/

ROADWAY DESIGN
ENGINEER

PAVEMENT DESIGN
ENGINEER

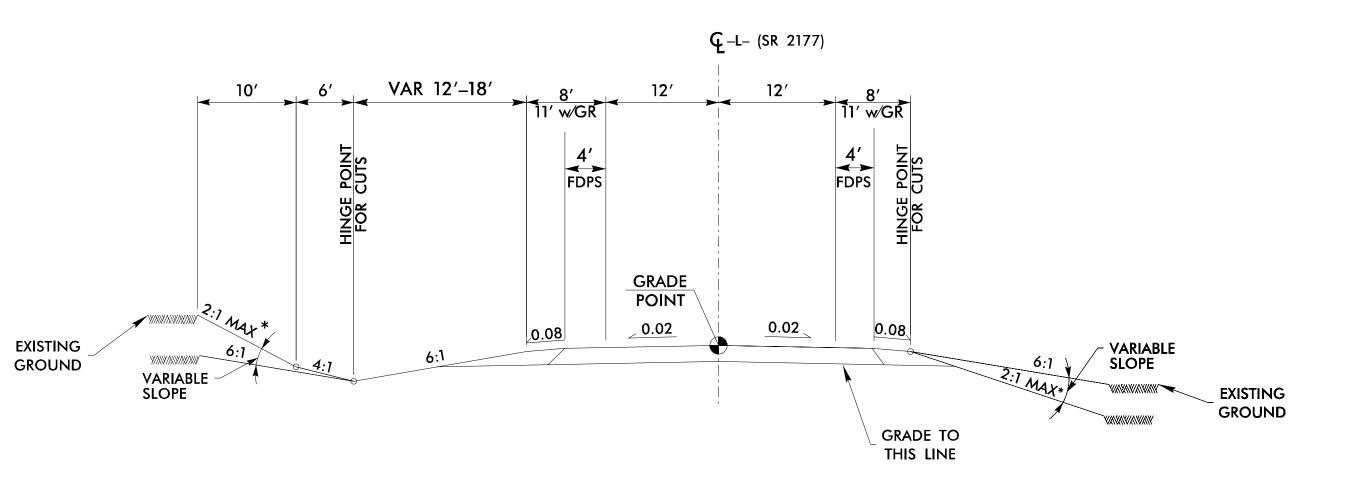
PAVEMENT DESIGN
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

Prepared in the Office of:

NC FIRM LICENSE No: F-0342
701 Corporate Center Drive, Suite 475
Releigh, NC 27607
(919) 854-6250 - (919) 854-6259(FAX)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



TYPICAL SECTION NO. 1

* OR AS SPECIFIED IN GEOTECHNICAL RECOMMENDATIONS

** FOR ALT 1 USE 6' TO WIDEN FOR SSD FOR ALTS 2, 3 USE 3'

USE TYPICAL SECTION NO. 1

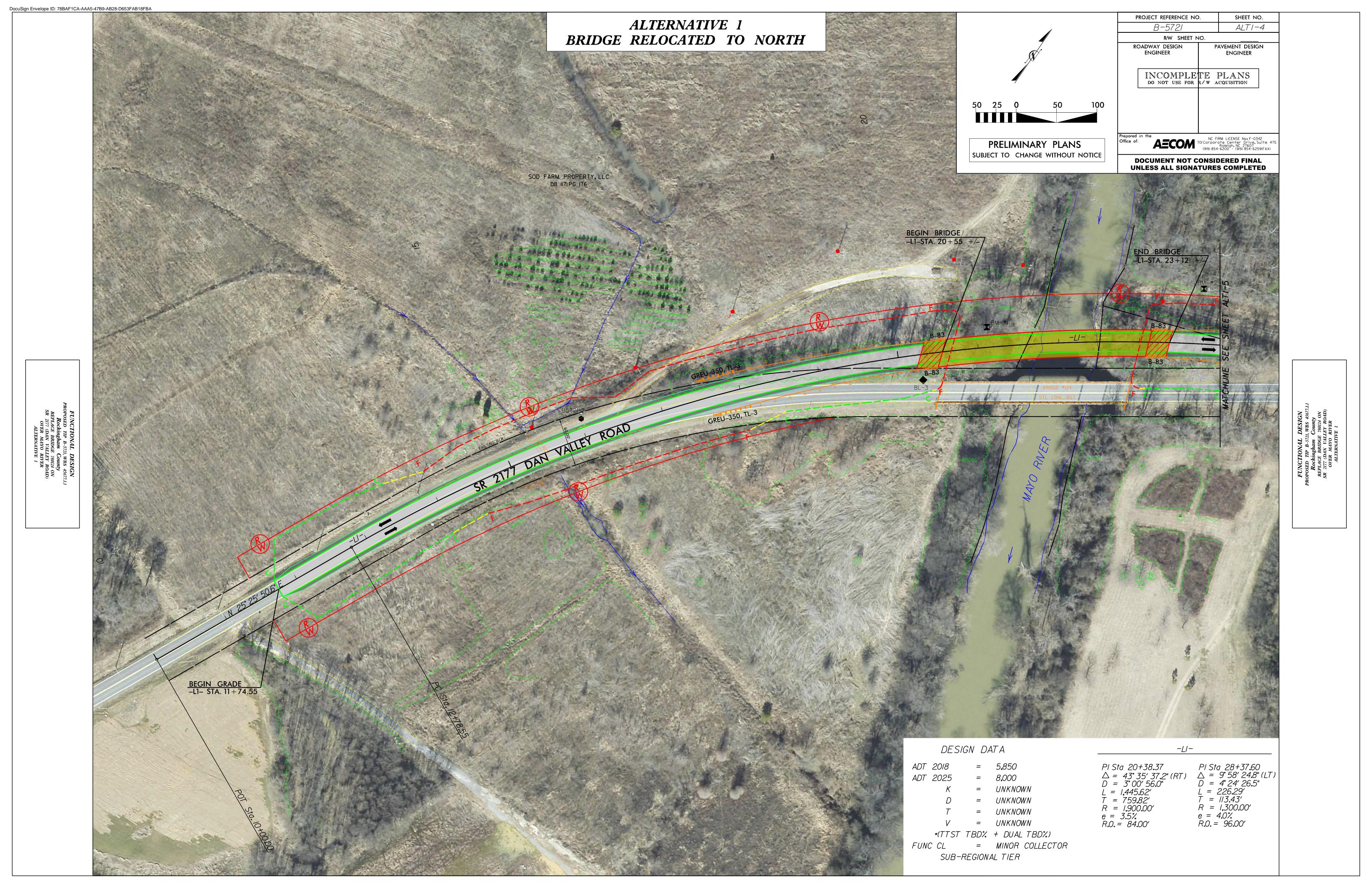
- –L1– STA. 11+74.55 TO 20+55+∕– (BEGIN BRIDGE) –L1– STA. 23+12+∕– (END BRIDGE) TO 30+62.46
- -L2- STA. 10+00 TO 20+68+/- (BEGIN BRIDGE) -L2- STA. 23+21+/- (END BRIDGE) TO 29+59.55
- -L3- STA. 11+80.43 TO 20+14+/- (BEGIN BRIDGE) -L3- STA. 22+70+/- (END BRIDGE) TO 32+77.93

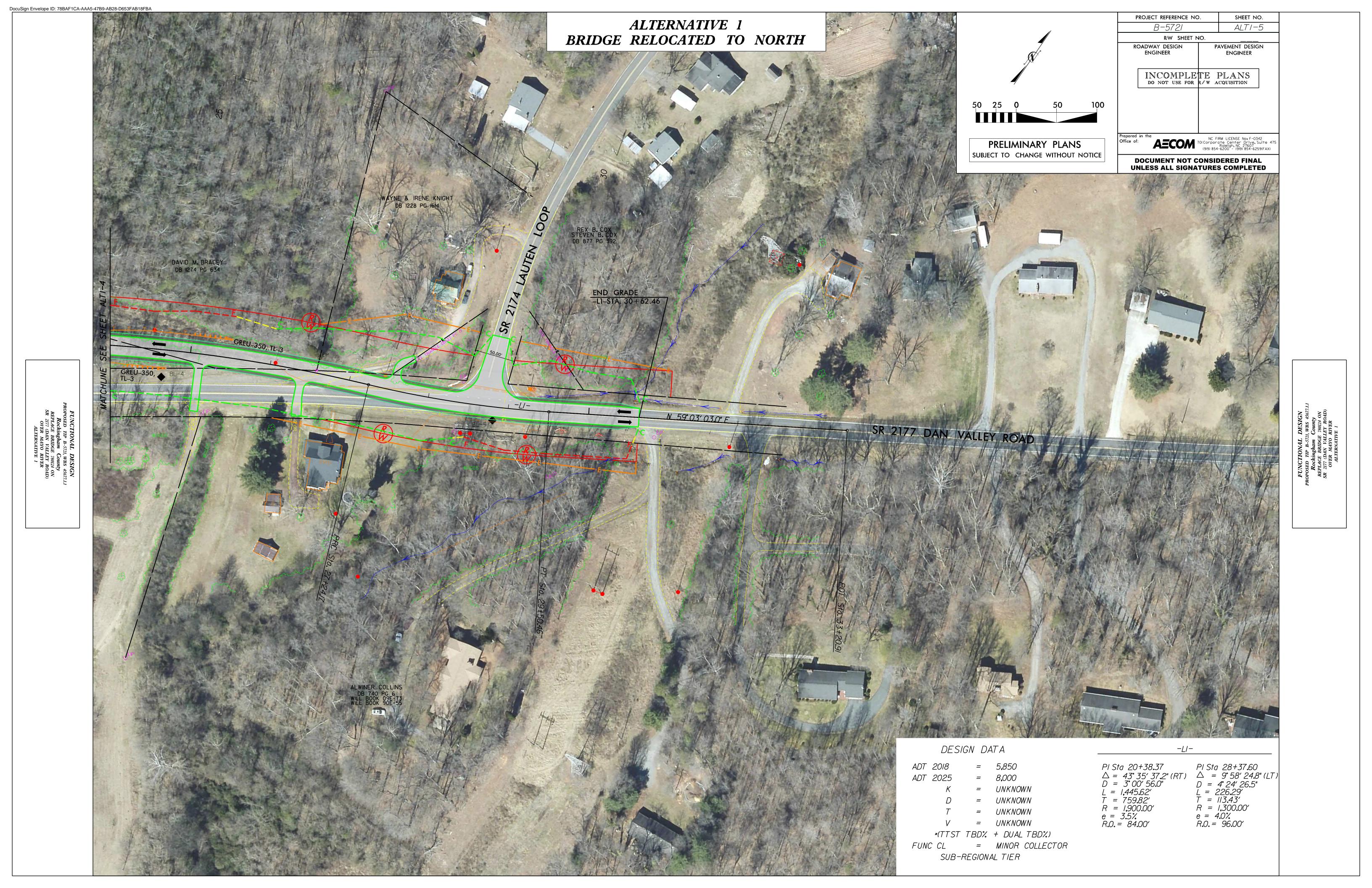
GRADE POINT 0.02 0.02

TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

- -L1- STA. 20+55+/- TO 23+12+/-
- -L2- STA. 20+68+/- TO 23+21+/-
- -L3- STA. 20+14+/- TO 22+70+/-





Attachment A Agency Correspondence

Agency Comments on Start of Study Letter

NCDOT Highway Division 7 (September 19, 2018)

Needs T&E study for the Roanoke logperch. This project may require a Section 7 review.

No bents in the water.

I recommend using the existing bridge as the onsite detour and building the new structure to the north.

Remove any existing footing that are in the water for the safety of canoes and kayaks.

North Carolina Division of Parks and Recreation (September 24, 2018)

Based on the projects as proposed, the NC Division of Parks and Recreation has no objections and therefore no comments.

North Carolina Wildlife Resources Commission (September 25, 2018)

The potential exist for Roanoke logperch (*Percina rex*: state E, federal E) to be found at this site. NCDOT should coordinate with NCWRC and USFWS in conducting a survey to determine the presence or absence of this species. We recommend replacing this bridge with a bridge. Standard recommendations apply.

US Fish and Wildlife Service (September 26, 2018)

Due to the known occurrence of the federally endangered Roanoke Logperch (*Percina rex*) in the vicinity of B-5721, a formal Section 7 consultation may be required for B-5721 for that species. A fish survey should be conducted at the project site. Also, although not previously found in the vicinity of this project, the federally endangered James River Spinymussel (*Parvaspina collina*) is known to occur upstream in the Mayo River. If appropriate habitat occurs within the project vicinity, a mussel survey should also be conducted.

NCDOT Bicycle and Pedestrian Division (October 18, 2018)

NCDOT should coordinate with local governments regarding opportunities to provide a graded shelf underneath the bridge to accommodate future greenway construction.

Attachment B
Cultural Resources
No Survey Required
Forms

16-01-0115



HISTORIC ARCHICTECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED 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 INFORMATION

		1	ROJECT HATOK	MAILOI	•	
Projec	et No:	B-5721	County	v:	Rockingham	
WBS	No.:	45677.1.1	Docun	nent	CE	
			Type:			
Fed. A	lid No:	BRZ-2177 (001	Fundi	ng:	☐ State ≥	☐ Federal
Feder	al	⊠ Yes □ N	Permit	•	NWP	
Permi	t(s):		Type(s) :		
Projec	t Descriptio	<u>n</u> :				
			7 5 5 5 5 5 5			
Replac	ce Bridge No	o. 124 on SR 217	(N. Water St) over	Mayo R	ver.	
	SUMMARY	Y OF HISTORIC	CARCHICTECTU	IRE ANI) LANDSCAI	PES REVIEW
\boxtimes	There are n	no National Regist	er-listed or Study Li	sted prop	erties within tl	he project's area of
_	potential ef	ffects.				
\boxtimes						
_	Consideration G within the project's area of potential effects.					
	There are no properties within the project's area of potential effects.					
\bowtie	There are properties over fifty years old within the area of potential effects, but they do not					
	meet the criteria for listing on the National Register.				1	
There are no historic properties present or affected by this project. (Attach any not		acn any notes or				
	documents as needed.) Date of field visit: April 8, 2016					
			Dai	re or fiel	i visir Anrii X	ZUID

Description of review activities, results, and conclusions:

On February 11, 2016 a search of NC HPOWEB GIS Service map and the Rockingham County Tax GIS data reveal that an identified historic site, Bridge No. 124 (RK1122) in the Area of Potential Effects for this project, as well as two houses built in 1912 and 1922. An Architectural Historian conducted a site visit to determine if further study is required. Both of the houses have evidence of significant alterations; windows and doors replaces, and new exterior siding. The bridge itself, Rockingham County Bridge No. 124, was built in 1965 was identified as a Surveyed Site. The structure does not exemplify any distinctive engineering or aesthetic type and is not eligible for the National Register of Historic Places. Therefore, no historic properties are present in the Area of Potential Effects of this project.

	SUPPORT DOCUMENTATION					
☐Map(s)	Previous Survey Info.	⊠Photos	Correspondence	Design Plans		
	FINDING BY NCDO	T ARCHITEC	TURAL HISTORIAN	J		
Historic Arc	hitecture and Landscapes – No					
Shell	on plap		April 11	12016		
NCDOT Arc	hitectural Historian		Date			

16-01-0115



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-5721	County:	Rockingham
WBS No:	45677.1.1	Document:	Ce
F.A. No:	BRZ-2177(001)	Funding:	State Federal
Federal Permit Requ	ired? Xes	☐ No Permit T	ype: usace

Project Description: NCDOT proposes to replace Bridge No. 124 on SR 2177 (Dan Valley Road) over the Mayo River in Rockingham County. A new bridge is proposed north of the existing Br. No. 124 with traffic being maintained on the current bridge. The proposed length of the new project is about 1890 feet. Preliminary design plans were available at the time of the review and establishes a width of about 150 feet skewed to the north though some new work will be required on the south side near each endpoint. For purposes of this review, the archaeological Area of Potential Effects (APE) is 1890 feet in length with a width of 150 feet which will include all new ROW, cut and fill lines, and also any necessary easements. This is a federally funded undertaking that will also require USACE permitting, therefore Section 106 of the National Historic Preservation Act applies for archaeological review.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

The bridge to be replaced is in a rural setting. USGS mapping (Mayodan) and aerial photography was studied (see Figures 1 and 2). Google streetview tool was available at this location and used, though Bing lacked the data here. The existing bridge crosses the Mayo River, here a notable flow of water. The Dan River is present about 1000 feet to the south were the two rivers meet. To the north about 100 feet of the current bridge is an older bridge crossing with abutments still present. These can be seen clearly in the virtual driveby and the abandoned approaching road is quite visible in aerial photography. The surroundings are open grassy fields or woods.

According to USGS mapping and GIS resources (data layer created by NCDOT archaeologist Paul J. Mohler), no cemetery is present at the APE or immediately nearby. Historic maps were examined which show that the new bridge was built in the 1960s. The Rockingham County Highway Map from 1938 (MC.084.1938n) shows a crossing at or very near the APE, but no structures or other notations were depicted near the bridge crossing.

The Office of State Archaeology was visited to review archaeological mapping and to reference any known archaeological surveys and sites. This helps establish an archaeological context for comparison. An archaeological survey was conducted of the Mayo River here, focusing on the west bank. While no sites were documented within the APE, site 31Rk3 is mapped north of the project area about three hundred feet north of the old bridge and roadbed, outside of the APE. The site is unassesed but is unlikely to be encountered during the proposed construction. Another documented site is the above ground remains of the "Mayo River Sluice," 31Rk59, recorded during the Dan River Navigation System and is listed on the National Register of Historic Places. This resource is located about 1700 feet south and, outside of the APE, will not be affected by the project. Another more recent NCDOT survey (PA 16-01-0087) found no archaeological sites on a bridge replacement over the Dan River further west a few miles on the other side of Madison.

Project Tracking No.:

16-01-0115

A large portion of the APE has been modified by the construction of the existing SR 2177 and Bridge No. 124, and prior to that impacts from the older roadway now since abandoned. The older roadbed is encountered at the southern limits, but also at the north banks of the river for three hundred feet or so.

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 bridge replacement will be constructed on just north of the existing facility, and immediately south of an earlier bridge here. Much of the APE has already been modified by the construction associated with the previous two bridges and roads, a generally disturbed context which is not favorable for preservation of intact, significant archaeological sites. Previous archaeological reviews and surveys documented no archaeological sites or cemeteries within the APE and nearby resources are not likely to be encountered.

The context doesn't indicate a high probability for archaeological sites within the APE. It is unlikely that significant, intact otherwise unknown archaeological remains would be present and impacted by the bridge replacement project. For archaeological review, this federally permitted undertaking should be considered compliant with Section 106.

SUPPORT DOCUMENTATION			
See attached: Map(s) Previous Survey Info Photocopy of County Survey Notes FINDING BY NCDOT ARCHAEOLOGIST	Photos Other:	Correspondence	
NO ARCHAEOLOGY SURVEY REQUIRED			
Bwal Out		2/13/2019	
NCDOT ARCHAEOLOGIST		Date	