STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

November 16, 2026

U. S. Army Corps of Engineers
Water Resources Development Act (WRDA)
Transportation Permitting Branch

NC Division of Water Resources
Transportation Permitting Branch

ATTN: NCDOT Coordinator

NCDOT Coordinator

Subject: Application for: **Section 404 Permit** and **401 Water Quality Certification** as the result of **Hurricane Helene** for the **Replacement of Bridge 573 over Cedar Creek** on **Cedar Creek Road (SR 1312)** in **Rutherford County, Division 13, WBS DF18313.2081026.PR**

Dear NCDOT Coordinators:

The North Carolina Department of Transportation (NCDOT) proposes the following project as the result of damage caused by Hurricane Helene in September 2024: Restoration of Bridge 573 Cedar Creek.

Approvals Requested:

404 Nationwide Permit 3. Notification required due to **Biological Conclusion other than "No Effect."**

401 General Certification 8562 Written authorization not required/ for the record only.

FEMA is the lead federal agency for this project.

Brief Damage Summary and Current Temporary/ Emergency Structure:
The previous double 7' 7" x 7' 9", 60-foot long, corrugated metal pipe arch was critically damaged by the storm.
One pipe was washed away and the other has been temporarily shored.

Proposed Replacement:
A new single barrel 32'7" wide x 7'9" tall, Aluminum Box Culvert with a low flow channel will replace the damaged structure.

A temporary, single span, 60' timber bridge will be constructed to serve SR 1312 during construction.

Avoidance and Minimization:
- A low flow channel will be constructed to maintain natural stream dimensions and profile through the structure.
- The hydraulic capacity will be increased.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

Telephone: (919) 707-6000
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Proposed Activities in Streams:

Impact Site	Permanent Fill	Bank Stabilization	Temporary Impacts	Permit Proposed/ Impact Description
Site 1 Proposed Culvert	--	--	6 lf < 0.01 ac	
	--	21 lf 0.01 ac	--	Bank stabilization is required to re-work, stabilize, and create a floodplain bench at the inlet and outlet of the structure.
Site 2 Temporary Detour Bridge	--	--	68 lf < 0.01 ac	Temporary impacts are required for bank stabilization for the temporary bridge and for dewatering operations for the new structure installation.
Totals:		**21 lf 0.01 ac**	**74 lf 0.01 ac**	

The information above is provided in accordance with the "U.S. Army Corps of Engineers, Wilmington District's Information for Hurricane Helene Recovery and Repair Work Conducted by the North Carolina Department of Transportation in Waters of the U.S." dated February 10, 2025.

Structure After:



Structure After



Endangered Species Act
Protected Species listed from IPaC[1] as of the date of this application:

Common Name	Habitat Present	Survey Dates	Proposed Biological Conclusion	FWS Concurrence Remarks
Gray bat	Yes	n/a	May Affect, Not Likely to Adversely Affect	Attached
Northern long-eared bat	Yes	n/a	May Affect, Not Likely to Adversely Affect	Attached
Tricolored bat	Yes	n/a	May Affect, Not Likely to Adversely Affect	Attached
Indiana bat	Yes	n/a	May Affect, Not Likely to Adversely Affect	Attached
Small whorled pogonia	No	1/12/2026	No Effect	n/a
White irisette	No	1/12/2026	No Effect	n/a
Bog Turtle[2]	n/a	n/a	n/a	n/a
Monarch butterfly (Proposed)[3]	n/a	n/a	n/a	n/a

1 IPaC – Information for Planning and Consultation (US Fish and Wildlife Service)
2 Similarity of Appearance (Threatened); A species that is threatened due to similarity of appearance with another listed species and is listed for its protection.
3 Due to the recent listing of monarch butterfly within the proposed action area, NCDOT does not have complete information at this time. It is anticipated that construction will be complete by the timeframes proposed for full listing, should the species be formally listed.

Historic Resources Summary (documentation included)

106 Topic	Findings	
Historic Architecture	No Adverse Effects	
Archaeology	No Surveys Required	
Tribal Coordination	**Tribe**	**Response**
Tribal Coordination Letters were sent to the following Tribes on July 11, 2025:	Catawba Indian Nation	No response received
	Eastern Band of Cherokee Indians	No response received
	Muscogee (Creek) Nation	No response received
	Cherokee Nation	No response received
	United Keetoowah Band of Cherokee Indians in Oklahoma	No response received

If you have any questions or need additional information, please contact Michael Turchy, at maturchy@ncdot.gov or (919) 707-6157.

Sincerely,

Digitally signed by Michael Turchy

Michael A. Turchy
Environmental Coordination and Permitting Group Leader

ePCN

U.S. Army Corps of Engineers (USACE)

NATIONWIDE PERMIT PRE-CONSTRUCTION NOTIFICATION (PCN)

For use of this form, see 33 CFR 330; the proponent agency is CECW-CO-R.

Form Approved - OMB No. 0710-0003
Expires: 2027-10-31

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Program of the Corps of Engineers (Corps); Final Rule 33 CFR 320-332.

Principal Purpose Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.

Routine Uses This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of the agency coordination process.

Disclosure Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can

The public reporting burden for this collection of information, 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (*see sample drawings and/or instructions*) and be submitted to the district engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
		11/16/2026	

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (*agent is not required*)
First – Michael Middle – Last – Turchy Company – North Carolina Department of Transportation Company Title – E-mail Address – maturchy@ncdot.gov	First – Middle – Last – Company – E-mail Address –
6. APPLICANT'S ADDRESS	**9. AGENT'S ADDRESS**
Address – 1598 Mail Service Center City – Raleigh State – NC ZIP – 27606 Country – US	Address – City – State – ZIP – Country –
7. APPLICANT'S PHONE NOs. with AREA CODE	**10. AGENT'S PHONE NOs. with AREA CODE**
a. Business b. c. Fax +19197076157	a. b. c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, to act in my behalf as my agent in the processing of this nationwide permit pre-construction notification and to furnish, upon request, supplemental information in support of this nationwide permit pre-construction notification.

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (*see instructions*)

Helene Pipe/Culvert 573 / Cedar Creek / Cedar Creek Road (SR 2793) / Rutherford County / Division 13 / WBS DF18313.2081026.PR

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)

14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)

Address: 2847 Cedar Creek Rd

15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)

Latitude: 35.52475 °N Longitude: -82.168389 °W

City: Lake Lure State: NC Zip: 28746

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)

Section – Township – Range –

County – Rutherford County Project Area – 2 Acres State Tax Parcel ID –

17. DIRECTIONS TO THE SITE

18. IDENTIFY THE SPECIFIC NATIONWIDE PERMIT(S) YOU PROPOSE TO USE

NWP 3 Maintenance

19. DESCRIPTION OF PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

Project Description: NCDOT proposes the Replacement of Structure 573 over Cedar Creek on Cedar Creek Road (SR 2793) in Rutherford County, Division 13, WBS DF18313.2081026.PR under the Expedited Processing Provisions for Hurricane Helene Response.

Nature of Activity: State Department of Transportation/ Structure Replacement Project

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)

- A low flow channel will be constructed to ensure natural stream dimensions and profile through the structure.

- The hydraulic capacity will be increased.

21. PURPOSE OF NATIONWIDE PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)

To restore a transportation facility damaged or destroyed by Hurricane Helene.

22. QUANTITY OF WETLANDS, STREAMS, OR OTHER TYPES OF WATERS DIRECTLY AFFECTED BY PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

See Appendix B

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

23. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. (*see instructions*)

24. If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and/or the loss of greater than 3/100-acre of stream bed and requires pre-construction notification, explain how the compensatory mitigation requirement in paragraph (c) and/or paragraph (d) of general condition 23 will be satisfied, or explain why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required for the proposed activity.

25. Is any portion of the nationwide permit activity already complete? ☐ Yes ☑ No

If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. (*see instructions*)

Gray bat,Indiana bat,Monarch butterfly,Northern Long-Eared Bat,White irisette,Tricolored bat,Small whorled pogonia
ADDITIONAL AFFECTED SPECIES:
Bog Turtle: SAT

27. List any historic properties that have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic property or properties. (*see instructions*)

See attached Section 106 documentation.

28. For a proposed NWP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

29. If the proposed NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the Corps district having jurisdiction over that project? ☐ Yes ☑ No

If "yes", please provide the date your request was submitted to the Corps district:

30. If the terms of the NWP(s) you want to use require additional information to be included in the PCN, please include that information in this space or provide it on an additional sheet of paper marked Block 30. (*see instructions*)

31. Pre-construction notification is hereby made for one or more nationwide permit(s) to authorize the work described in this notification. I certify that the information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Michael Turchy	11/16/2026		
SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

The pre-construction notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in Block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Instructions for Preparing a

Department of the Army

Nationwide Permit (NWP) Pre-Construction Notification (PCN)

Blocks 1 through 4. To be completed by the Corps of Engineers.

Block 5. Applicant's Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the preconstruction notification, please attach a sheet of paper with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the PCN. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant's Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by the applicant, if an agent is to be employed.

Block 12. Proposed Nationwide Permit Activity Name or Title. Please provide a name identifying the proposed NWP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 13. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the NWP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Activity Street Address. If the proposed NWP activity is located at a site having a street address (not a box number), please enter it in Block 14.

Block 15. Location of Proposed Activity. Enter the latitude and longitude of where the proposed NWP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area requiring evaluation. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality where the site is located.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the location of the proposed NWP activity, such as lot numbers, tract numbers, or you may choose to locate the proposed NWP activity site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed NWP activity site if known. If there are multiple locations, please indicate directions to each location on a separate sheet of paper and mark as Block 17.

Block 18. Identify the Specific Nationwide Permit(s) You Propose to Use. List the number(s) of the Nationwide Permit(s) you want to use to authorize the proposed activity (e.g., NWP 29).

Block 19. Description of the Proposed Nationwide Permit Activity. Describe the proposed NWP activity, including the direct and indirect adverse environmental effects the activity would cause. The description of the proposed activity should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal. Identify the materials to be used in construction, as well as the methods by which the work is to be done.

Provide sketches when necessary to show that the proposed NWP activity complies with the terms of the applicable NWP(s). Sketches usually clarify the activity and result in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed NWP activity (e.g.,a conceptual plan), but do not need to be detailed engineering plans.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 19.

Block 20. Description of Proposed Mitigation Measures. Describe any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed NWP activity. The description of any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or additional mitigation measures.

Block 21. Purpose of Nationwide Permit Activity. Describe the purpose and need for the proposed NWP activity. What will it be used for and why? Also include a brief description of any related activities associated with the proposed project. Provide the approximate dates you plan to begin and complete all work.

Block 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by the Proposed Nationwide Permit Activity. For discharges of dredged or fill material into waters of the United States, provide the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained by the proposed NWP activity. For structures or work in navigable waters of the United States subject to Section 10 of the Rivers and Harbors Act of 1899, provide the amount of navigable waters filled, dredged, or occupied by one or more structures (e.g., aids to navigation, mooring buoys) by the proposed NWP activity.

For multiple NWPs, or for separate and distant crossings of waters of the United States authorized by NWPs 12 or 14, attach an extra sheet of paper marked Block 21 to provide the quantities of wetlands, streams, or other types of waters filled, flooded, excavated, or drained (or dredged or occupied by structures, if in waters subject to Section 10 of the Rivers and Harbors Act of 1899) for each NWP. For NWPs 12 and 14, include the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained for each separate and distant crossing of waters or wetlands. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Identify Any Other Nationwide Permit(s), Regional General Permit(s), or Individual Permit(s) Used to Authorize Any Part of Proposed Activity or Any Related Activity. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. For linear projects, list other separate and distant crossings of waters and wetlands authorized by NWPs 12 or 14 that do not require PCNs. If more space is needed, attach an extra sheet of paper marked Block 23.

Block 24. Compensatory Mitigation Statement for Losses of Greater Than 1/10-Acre of Wetlands and/or of Greater Than 3/100-Acre of Stream Bed When Pre-Construction Notification is Required. Paragraphs (c) and (d) of NWP general condition 23 require compensatory mitigation at a minimum one-for-one replacement ratio for all wetland losses that exceed 1/10-acre and/or for all losses of stream bed that exceed 3/100-acre, unless the district engineer determines in writing that either some other form of mitigation is more environmentally appropriate or the adverse environmental effects of the proposed NWP activity are no more than minimal without compensatory mitigation, and provides an activity-specific waiver of this requirement. Describe the proposed compensatory mitigation for wetland losses greater than 1/10 acre and/or for losses of stream bed that exceed 3/100-acre, or provide an explanation of why the district engineer should not require wetland and/or stream compensatory mitigation for the proposed NWP activity. If more space is needed, attach an extra sheet of paper marked Block 24.

Block 25. Is Any Portion of the Nationwide Permit Activity Already Complete? Describe any work that has already been completed for the NWP activity.

Block 26. List the Name(s) of Any Species Listed As Endangered or Threatened under the Endangered Species Act that Might be Affected by the Nationwide Permit Activity. If you are not a federal agency, and if any listed species or designated critical habitat might be affected or is in the vicinity of the proposed NWP activity, or if the proposed NWP activity is located in designated critical habitat, list the name(s) of those endangered or threatened species that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 7 of the Endangered Species Act.

Block 27. List Any Historic Properties that Have the Potential to be Affected by the Nationwide Permit Activity. If you are not a Federal agency, and if any historic properties have the potential to be affected by the proposed NWP activity, list the name(s) of those historic properties that have the potential to be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

Block 28. List the Wild and Scenic River or Congressionally Designated Study River if the Nationwide Permit Activity Would Occur in such a River. If the proposed NWP activity will occur in a river in the National Wild and Scenic River System or in a river officially designated by Congress as a "study river" under the Wild and Scenic Rivers Act, provide the name of the river. For a list of Wild and Scenic Rivers and study rivers, please visit http://www.rivers.gov/.

Block 29. Nationwide Permit Activities that also Require Permission from the Corps Under 33 U.S.C. 408. If the proposed NWP activity also requires permission from the Corps under 33 U.S.C. 408 because it will temporarily or permanently alter, occupy, or use a Corps federal authorized civil works project, indicate whether you have submitted a written request for section 408 permission from the Corps district having jurisdiction over that project.

Block 30. Other Information Required For Nationwide Permit Pre Construction Notifications. The terms of some of the Nationwide Permits include additional information requirements for preconstruction notifications:

* NWP 3, Maintenance –information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.
* NWP 31, Maintenance of Existing Flood Control Facilities –a description of the maintenance baseline and the dredged material disposal site.
* NWP 33, Temporary Construction, Access, and Dewatering –a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre project conditions.
* NWP 44, Mining Activities –if reclamation is required by other statutes, then a copy of the final reclamation plan must be submitted with the pre construction notification.
* NWP 45, Repair of Uplands Damaged by Discrete Events –documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration.
* NWP 48, Commercial Shellfish Aquaculture Activities –(1) a map showing the boundaries of the project area, with latitude and longitude coordinates for each corner of the project area; (2) the name(s) of the species that will be cultivated during the period this NWP is in effect; (3) whether canopy predator nets will be used; (4) whether suspended cultivation techniques will be used; and (5) general water depths in the project area (a detailed survey is not required).
* NWP 49, Coal Remining Activities –a document describing how the overall mining plan will result in a net increase in aquatic resource functions must be submitted to the district engineer and receive written authorization prior to commencing the activity.
* NWP 50, Underground Coal Mining Activities –if reclamation is required by other statutes, then a copy of the reclamation plan must be submitted with the pre construction notification.

If more space is needed, attach an extra sheet of paper marked Block 30.

Block 31. Signature of Applicant or Agent. The PCN must be signed by the person proposing to undertake the NWP activity, and if applicable, the authorized party (agent) that prepared the PCN. The signature of the person proposing to undertake the NWP activity shall be an affirmation that the party submitting the PCN possesses the requisite property rights to undertake the NWP activity (including compliance with special conditions, mitigation, etc.).

DELINEATION OF WETLANDS, OTHER SPECIAL AQUATIC SITES, AND OTHER WATERS

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. The 45 day PCN review period will not start until the delineation is submitted or has been completed by the Corps.

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross Section Map. Identify each illustration with a figure or attachment number. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient

drawings should also be included. Please submit one original, or good quality copy, of all drawings on 8½x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

ADDITIONAL INFORMATION AND REQUIREMENTS

For proposed NWP activities that involve discharges into waters of the United States, water quality certification from the State, Tribe, or EPA must be obtained or waived (see NWP general condition 25). Some States, Tribes, or EPA have issued water quality certification for one or more NWPs. Please check the appropriate Corps district web site to see if water quality certification has already been issued for the NWP(s) you wish to use. For proposed NWP activities in coastal states, state Coastal Zone Management Act consistency concurrence must be obtained, or a presumption of concurrence must occur (see NWP general condition 26). Some States have issued Coastal Zone Management Act consistency concurrences for one or more NWPs. Please check the appropriate Corps district web site to see if Coastal Zone Management Act consistency concurrence has already been issued for the NWP(s) you wish to use.

U.S. Army Corps of Engineers (USACE)

PERMIT INFORMATION SHEET

PERMIT FORM TYPE	DATE RECEIVED
ENG 6082	11/16/2026

TYPE OF PERMIT YOU'RE REQUESTING

☐ Standard ☐ Letter Of Permission ☑ General Permit

APPLICABLE STATUTORY AUTHORITY

☑ Section 404 Clean Water Act ☐ Section 10 Rivers and Harbors Act

☐ Section 103 of the Marine Protection, Research, and Sanctuaries Act

DO YOU PROPOSE COMPENSATORY MITIGATIONS?

No

COASTAL DISTRICT

WOULD THE PROJECT OCCUR IN THE TERRITORIAL SEAS OR OCEAN WATERS?

No

DESCRIBE THE ACTIVITY'S RELATIONSHIP TO THE BASELINE FROM WHICH THE TERRITORIAL SEA IS MEASURED

SECTION 408 USACE CIVIL WORKS PROJECTS

WILL THE PROPOSED ACTIVITY REQUIRES PERMISSION FROM THE USACE PURSUANT TO 33 U.S.C. 408 BECAUSE IT WILL ALTER OR TEMPORARILY OR PERMANENTLY OCCUPY OR USE A U.S. ARMY CORPS OF ENGINEERS FEDERALLY AUTHORIZED CIVIL WORKS PROJECT?

☐ Yes ☑ No ☐ I'm not sure

IF YES, HAVE YOU SUBMITTED A WRITTEN REQUEST FOR SECTION 408 PERMISSION FROM THE USACE DISTRICT HAVING JURISDICTION OVER THAT PROJECT?

☐ Yes ☑ No

GENERAL PERMIT INFORMATION

WILL THE PROPOSED ACTIVITY RESULT IN A LOSS TO WETLANDS OR WATERS THAT EXCEEDS NATIONAL OR DISTRICT THRESHOLDS?

No

Appendix C. Impact Inventory:

Water Name	*Impact Name*	*Activity*	*Type of Material Being Discharged*	*Resource Type*	*Permanent Loss (Y/N)*	*Impact Duration*	*Amount Type*	*Proposed Length*	*Proposed Width*	*Proposed Amount*	*Amount Units*
Cedar Creek	Proposed Culvert	Discharge of fill material	riprap/rock	River/Stream	No	Permanent	Fill Area	21	20.742	0.01	Acres
Cedar Creek	Proposed Culvert	Discharge of fill material	riprap/rock	River/Stream	No	Temporary	Fill Area	6	1	0.000138	Acres
Cedar Creek	Detour Bridge	Discharge of fill material	detour bridge	River/Stream	No	Temporary	Fill Area	68	1	0.001561	Acres

Provide any additional information you may have about the proposed quantity of wetlands, streams, or other types of waters directly affected by the proposed activity. This level of detail is helpful to better understand the type of impacts that are proposed for your project.

A new single barrel 327 wide x 79 Aluminum Box Culvert with a low flow channel will replace the damaged structure.

A temporary, single span, 60 timber bridge will be constructed to serve SR 1312 during construction.

Appendix H. Supporting Information:

Document Type	*Document Created Date (YYYY-MM-DD)*	*Document Label*	*Information Source/Citation*	*Uploaded file name*
Historic Properties Cultural Resources Information	2025-07-11	Tribal Coordination Letter	NCDOT	Rutherford 573 2025-07-11 Tribal Coordination Letter Distribution.pdf
Threatened Endangered Species Report	2025-07-21	USFWS Concurrence	USFWS	Rutherford 573 2025-07-21 USFWS Concurrence.pdf
Historic Properties Cultural Resources Information	2025-10-07	No Archaeological Survey Required	NCDOT	Rutherford 573 2025-10-07 Archaeology - No Survey Required.pdf
Historic Properties Cultural Resources Information	2026-10-27	HAL Form	NCDOT	Rutherford 573 2026-10-27 HAL.pdf
Project Plans	2026-10-30	Permit Plans	NCDOT	Rutherford 573 2026-10-30 Permit Drawings.pdf
Other Information	2026-11-05	CE	NCDOT	Rutherford 573 2026-11-05 CE.pdf
Other Information	2026-11-16	Cover Letter/ Project Information	NCDOT	Rutherford 573 2026-11-16 Permit Application Cover Letter.pdf

U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT – PARTNER APPENDIX

For use of this form, see 33 CFR 325. The proponent agency is CECW-COR.

AUTHORITIES: The Department of Army Corps of Engineers (Corps) and partner entities have established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and its partners. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. This supplemental information is provided to the partner entity along with the standard regulatory forms.

PARTNER INFORMATION

ORGANIZATION:	**PARTNER ID:**	**NAME AND CODE:**
NC Division of Water Resources (DWR)		**Form Name**: NATIONWIDE/GENERAL/INDIVIDUAL PERMIT - DWR 401 Application Form NC Division of Water Resources Application Information **Form Code**: NCDWR 401

In North Carolina, many activities covered by Nationwide and Regional General Permits, as well as Individual Permits, also require a 401 Water Quality Certification from the Division of Water Resources. To streamline the application process for both the U.S. Army Corps of Engineers (USACE) and the North Carolina Division of Environmental Quality (NCDEQ) - Division of Water Resources (DWR), we have collaborated on this joint application form.

This joint application form serves to fulfill reporting requirements for both agencies under Sections 401 and 404 of the Clean Water Act, and Section 10 of the Rivers and Harbor Act of 1899, for specific activities permitted through Nationwide Permits (NWPs), Regional General Permits (RGPs), and Individual Permits. The RRS is now the preferred method for submitting application information for these permits.

For questions, please contact the USACE at (910) 251-4633.

The Wilmington District and the North Carolina Department of Environmental Quality (NCDEQ) have collaborated to develop a Joint Permit Application (JPA) within the Regulatory Request System (RRS) for use with Nationwide Permits (NWP) and Regional General Permits (RGP), as well as, Individual Permits. This system functions similarly to previous versions of the Pre-Construction Notification form (also known as e-PCN). The RRS is an online platform that enables applicants to electronically upload and submit all required information to the reviewing agencies.

The RRS JPA fulfills the application and reporting requirements for both the U.S. Army Corps of Engineers (USACE) and NCDEQ for activities authorized under Sections 401 and 404 of the Clean Water Act, as well as Section 10 of the Rivers and Harbors Act of 1899.

Projects that fall within the North Carolina Division of Coastal Manangement (NCDCM) review area, will need to coordinate their application with NCDCM directly. To learn more, visit the [NCDCM website](https://www.deq.nc.gov/about/divisions/division-coastal-management).

USACE/NCDWR Joint Application Form for Nationwide Permits, Regional General Permits, and Individual Permits (along with corresponding Water Quality Certifications)

PLEASE NOTE: THE SYSTEM IS STILL UNDER DEVELOPMENT, AND DATA CURRENTLY DOES NOT TRANSMIT ELECTRONICALLY TO NCDEQ'S DIVISION OF WATER RESOURCES (DWR). UNTIL FURTHER NOTICE, APPLICANTS MUST SUBMIT COMPLETED RRS JPA DOCUMENTS THROUGH [NCDEQ'S "PROJECT SUBMITTAL INTERIM FORM" WEBSITE](https://edocs.deq.nc.gov/Forms/Supplemental-Information-Form).
[Additional Instructions](https://edocs.deq.nc.gov/WaterResources/Browse.aspx?dbid=0&startid=3890140)

SUPPLEMENTAL INFORMATION COLLECTED

ADDITIONAL CONTACT INFORMATION - Property Owner

- Is the owner the same as the applicant?
  - Yes

- Provide Primary Property Owner information
    - Not Applicable (Question not presented)

- Provide Additional Property Owner information
    - Unanswered

PROCESSING INFORMATION -

- Does the project involve maintenance dredging funded by the Shallow Draft Navigation Channel Dredging and Aquatic Weed Fund OR involve the distribution or transmission of energy or fuel (including natural gas, diesel, petroleum, or electricity)?
    - No

- Is this project connected with (American Rescue Plan Act) ARPA funding or S.L. 2023-134 (earmark)?
    - No

- Please select:
    - Not Applicable (Question not presented)

- Please provide the DWI ARPA Funding Project Number (ie: SRP-W-ARP-1234 or SRP-W-134-1234):
  *The DWI Funding Project number can be located on the "Letter of Intent to Fund" (LOIF) or "Offer and Acceptance Letter". If you do not know your DWI project #, please contact your DWI project manager or fund recipient (e.g., LGU).
    - Not Applicable (Question not presented)

- Is this a NC Division of Mitigation Services (NCDMS) Project? Note - Select Yes only if NCDMS is the applicant/co-applicant.
    - No

- Is this project a public transportation project?
    - Yes

- Is this a NC Department of Transportation (NCDOT) project?
    - Yes

- (NCDOT only) T.I.P. (Transportation Improvement Program) or state project number:
    - Unanswered

- (NCDOT only) WBS #
    - DF18313.2081026.PR

- Application for NC Division of Water Resources (DWR) Certification.
  Type(s) of approval sought from the DWR? (Select all that apply)
    - 401 Water Quality Certification - Courtesy Copy Only

- Is this a modification OR new project with existing ID?
    - No

- Please provide the DWR ID number.
    - Not Applicable (Question not presented)

- Is the project located in any of NC's twenty coastal counties?
    - No

- Is the project located within a NC Division of Coastal Management (DCM) Area of Environmental Concern (AEC)?
    - Not Applicable (Question not presented)

- Is the project located in a designated trout watershed? [Learn more about Trout](https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout.aspx)
    - Yes

- If yes, attach a copy of existing correspondence from the Wildlife Resource Commission Office.
    - Rutherford 573 2025-06-30 WRC Comments.pdf File(s) Uploaded

WATERS DETAILS -

- Name of nearest waterbody? [Surface Water Lookup](https://experience.arcgis.com/experience/7073e9122ab74588b8c48ded34c3df55/)
    - Cedar Creek

- Does the proposed activity impact perennial or intermittent streams?
    - Yes

- Please ensure that the Aquatic Resource Inventory section includes all perennial and intermittent streams and be sure to identify them with appropriate Cowardin codes.
  (Click the Aquatic Resources Inventory in the menu on the left to navigate to that section.)

  Note: Use the Cowardin Code "R2 or R3" for perennial. Use Cowardin Code "R4" for intermittent.
  If no code provided, waters will be assumed to be perennial.

NON-JD IMPACT DETAILS - NOTE: Questions only appear in this section when 'Non-404 Jurisdictional Waters Permit' has been included among the Type(s) of approval sought from the DWR.

- Will the project result in impacts to Non-404 JD waters?
    - Not Applicable (Question not presented)

- Please ensure that the associated Non-404 Jurisdictional Waters have been entered in the Aquatic Resource Inventory section of the Permit Application. Use the Aquatic Resource Type of "DELIN.NOJD-404".
  (Click the "Aquatic Resources Inventory" option in the menu on the left to navigate to that section.)

BUFFER IMPACTS AND MITIGATION SUMMARY - Additional impacts and mitigation not previously covered in this application: Buffers

- Will project occur in an area subject to state riparian buffer regulations?
    - No

- Will project result in any impacts within a protected riparian buffer?
    - Not Applicable (Question not presented)

- Which protected basin(s) is the project located within?

- Not Applicable (Question not presented)

- Other Protected Basin
  - Not Applicable (Question not presented)

- Are the buffer regulations implemented by a delegated local government?
  - Not Applicable (Question not presented)

- Please specify which local government.
  - Not Applicable (Question not presented)

- Impact Details
  - Not Applicable (Question not presented)

- Total Temporary Buffer Impacts
  - Not Applicable (Question not presented)

- Total Permanent Buffer Impacts
  - Not Applicable (Question not presented)

- Total Combined Buffer Impacts
  - Not Applicable (Question not presented)

- Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?
  - Not Applicable (Question not presented)

- If yes, you must fill out this entire section - please contact DWR for more information.
  Identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required in the table below.
  - Not Applicable (Question not presented)

- How is buffer mitigation proposed to be met?
  - Not Applicable (Question not presented)

- If payment to mitigation bank or NCDMS, attach a valid statement of availability or DMS acceptance letter. OR Attach mitigation plan for review.
  - Not Applicable (Question not presented)

STORMWATER MANAGEMENT PLAN -

- Does this project disturb >1 acre of land?
  - Yes

- Is this an NCDOT project subject to compliance with NCDOT's Individual NPDES permit NCS000250?
  - Yes

- Is this project subject to review and approval under a state post-construction stormwater program (DEMLR) or state-approved local government stormwater program?
  - Not Applicable (Question not presented)

- What entity has reviewed/is reviewing the Stormwater Management Plan?

- Not Applicable (Question not presented)

- What is the Stormwater Management Plan status?
  - Not Applicable (Question not presented)

- Does this project meet the requirements for low density projects as defined in 15A NCAC 02H.1003(2)? For details on how Low Density Projects are characterized, click the help icon.
  - Not Applicable (Question not presented)

- For low density projects, submit documentation including built-upon area (BUA) delineation, percent BUA calculations, stormwater drainage plan, and designs for vegetated conveyances.
  - Not Applicable (Question not presented)

- For all High Density projects submit a Stormwater Management Plan that includes stormwater control measures for water quality treatment.
  - Not Applicable (Question not presented)

STORMWATER MANAGEMENT IN BUFFERED BASINS - All stormwater generated from high ground within regulated buffer basins must be in compliance with the stormwater management requirements of the applicable buffer rules.

NOTE: Questions only appear in this section when 'Will project occur in an area subject to state riparian buffer regulations?' is answered Yes.

- Does the project comply with the stormwater management requirements of the applicable buffer rules?
  - Not Applicable (Question not presented)

- Please explain why the project does not comply.
  - Not Applicable (Question not presented)

ENVIRONMENTAL DOCUMENTATION -

- Is an environmental document required under NCEPA (01 NCAC 25 .0100)?
  - No

- Has the document review been finalized by the State Clearing House?
  - Not Applicable (Question not presented)

- Comments
  - Not Applicable (Question not presented)

- Attach a copy of the SEPA final approval document.
  - Not Applicable (Question not presented)

VIOLATIONS -

- Is the site in violation of DWR Water Quality Certification Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), or DWR Surface Water or Wetland Standards or Riparian Buffer Rules (15A NCAC 2B .0200)?
  - No

- Please explain.
    - Not Applicable (Question not presented)

CUMULATIVE IMPACTS -

- Will this project (based on past and reasonably anticipated future impacts) result in additional development?
    - No

- Provide a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWR policy. [Learn more about Cumulative Impact Policy](https://files.nc.gov/ncdeq/Water%20Quality/Surface%20Water%20Protection/401/Policies_Guides_Manuals/CumulativeImpactPolicy.pdf)
    - Not Applicable (Question not presented)

- If not, provide a short narrative description.
    - Repair of structure damaged by Hurricane Helene.

PLEASE NOTE: THE SYSTEM IS STILL UNDER DEVELOPMENT, AND DATA CURRENTLY DOES NOT TRANSMIT ELECTRONICALLY TO NCDEQ'S DIVISION OF WATER RESOURCES (DWR). UNTIL FURTHER NOTICE, APPLICANTS MUST SUBMIT COMPLETED RRS JPA DOCUMENTS THROUGH [NCDEQ'S "PROJECT SUBMITTAL INTERIM FORM" WEBSITE](https://edocs.deq.nc.gov/Forms/Supplemental-Information-Form).
[Additional Instructions](https://edocs.deq.nc.gov/WaterResources/Browse.aspx?dbid=0&startid=3890140)

Project Submittal Interim Form

Updated March 16, 2026

*Please note: fields marked with a red asterisk * below are required. You will not be able to submit the form until all mandatory questions are answered.*

Project Type: *

- (●) For the Record Only (Courtesy Copy)
- ( ) Modification/New Project with Existing ID
- ( ) Other Agency Comments
- ( ) Re-Issuance\Renewal Request
- ( ) New Project
- ( ) More Information Response
- ( ) Pre-Application Submittal
- ( ) Stream or Buffer Appeal

*** If this is a GP reissuance/renewal please reference the date of the plans and PCN that were originally verified.**

New Project - Please check the new project type if you are trying to submit a new project that needs an official approval decision.

Pre-Application Submittal – Please check the pre-application submittal if you just want feedback on your submittal and do not have the expectation that your submittal will be considered a complete application requiring a formal decision.

Modification/New Project With An Existing ID - Please check this box if you are submitting for a new phase of an existing project, a modification to an existing project or for any additional impacts to an existing project for an official approval decision.

More Information Response - Please check this type if you are responding to a request for information from staff and you have and ID# and version for this response.

Other Agency Comments - Please check this if you are submitting comments on an existing project.

Re-issuance\Renewal Request – Please check this if you are submitting for a re-issuance\renewal prior to expiration date for the corresponding 401/404. If submitting after the expiration date or if modification needed use Modification\New Project with Existing ID option.

Submittal Type: *

401 Application - Certificate of Coverage

Is buffer approval also required? *

( ) Yes (●) No

Project Contact Information

Name:

Michael Turchy

Who is submitting the information?

Email Address: *

maturchy@gmail.com

Project Information

Project Name: *

Helene Pipe/Culvert 573 / Cedar Creek / Cedar Creek Road (SR 2793) / Rutherford County / Division 13 / WBS DF18313.2081026.PR

Is this a public transportation project? *

(●) Yes ( ) No

Is this a DOT project? *

(●) Yes ( ) No

TIP#:

WBS#:

DF18313.2081026.PR

(Applies to DOT projects only)

Project Status

If you selected "Re-Issuance/Renewal Request" or "Modification/New Project with Existing ID" for your project type at the top of this form, please enter the current status of your project.

(●) Pre-let ( ) Under Construction

( ) Utility Relocation Underway ( ) In-Field Adjustment

Only choose "In-Field Adjustment" if directed to do so by 401 staff

Is this application for a project associated with emergency response/repairs from Hurricane Helene impacts to your project or property? *

(●) Yes ( ) No

Is the project located within a NC DCM Area of Environmental Concern (AEC)? *

( ) Yes (●) No ( ) Unknown

Does this project involve maintenance dredging funded by the Shallow Draft Navigation Channel Dredging and Aquatic Weed Fund, electric generation projects located at an existing or former electric generating facility, or involve the distribution or transmission of energy or fuel, including natural gas, diesel, petroleum, or electricity? *

( ) Yes (●) No

Is this project connected with ARPA funding or S.L. 2023-134 (earmark)? *

( ) ARPA ( ) S.L. 2023-134 (earmark) (●) No

Is this application being filed jointly with another party involved with this project? *

( ) Yes (●) No

County (ies) *

Rutherford

Please upload all files that need to be submited.

Click the upload button or drag and drop files here to attach document

Rutherford 573 2025-06-30 WRC Comments.pdf	608.81KB
Rutherford 573 2025-07-21 USFWS Concurrence.pdf	571.83KB
Rutherford 573 2026-10-30 Permit Drawings.pdf	1.7MB
Rutherford 573 2026-11-05 CE.pdf	2.95MB
Rutherford 573 2026-11-16 Permit Application Cover Letter.pdf	419.61KB
Rutherford 573 RRS Documents.pdf	538.07KB

Only pdf or kmz files are accepted.

Describe the attachments or add comments:

*

☑ By checking the box and signing box below, I certify that:

- I, the project proponent, hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.
- I, the project proponent, hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.
- I agree that submission of this online form is a “transaction” subject to Chapter 66, Article 40 of the NC General Statutes (the “Uniform Electronic Transactions Act”);
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the “Uniform Electronic Transactions Act”);
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the online form.

Signature: *



Submittal Date:

Permit Drawings

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.03; Released June 1, 2026)

General Project Information

WBS Element:	DF18313.2081026.PR	**TIP Number:**	DF18313.2081026.PR	**Project Type:**	Other	**Date:**	9/1/2026
NCDOT Contact:	Byron Kyle			**Contractor / Designer:**	Patrick Hartnett, PE		
Address:	NCDOT Alternative Delivery 1020 Birch Ridge Drive Raleigh, NC 27610			**Address:**	Summit Design & Engineering Services 1000 Social St, Suite 800 Raleigh, NC 27609		
Phone:	(919) 707-6621			**Phone:**	(919) 322-0115		
Email:	btkyle@ncdot.gov			**Email:**	patrick.hartnett@summitde.com		
City/Town:	Lake Lure			**County(ies):**	Rutherford		
River Basin(s):	Broad			**CAMA County?**	No		
Wetlands within Project Limits?	No						

Project Description

Project Length (lin. miles or feet):	0.09	**Surrounding Land Use:**	Rural, Wooded, Mountainous

	Proposed Project		**Existing Site**	
Project Built-Upon Area (ac.)	0.3	ac.	0.2	ac.
Typical Cross Section Description:	Proposed road will be a 2-lane facility with 10' wide travel lane and 3' grass shoulders.		Existing road is a 2-lane facility with 10' wide travel lanes.	
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 500	Year: 2046	Existing: 500	Year: 2026

General Project Narrative: (Description of Minimization of Water Quality Impacts)

State Project involves the replacement of NCDOT Culvert 800573 conveying Cedar Creek on SR 1312 (Cedar Creek Rd) in Rutherford County. The existing structure for NCDOT Culvert 800573 is 2@11'-7"x7'-9" CMPA. The proposed structure is a single barrel 32'-7"x7'-9" Aluminum Box Culvert w/ low flow channel and Concrete HW. During the detour phase 1@60' timber bridge utilizing timber footings and anchored portable concrete barrier will be constructed with 14' clear roadway width, 18' out to out width will be constructed over Cedar Creek. Class II Rip Rap will be used for bank stabilization at the upstream end of the structure, and for scour protection and bank stabilization at the downstream end of the structure.

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.03; Released June 1, 2026)

WBS Element:	DF18313.2081026.F	**TIP/Proj No.:**	DF18313.2081026.PR	**County(ies):**	Rutherford	**Page**	**2**	**of** **2**

General Project Information

Waterbody Information

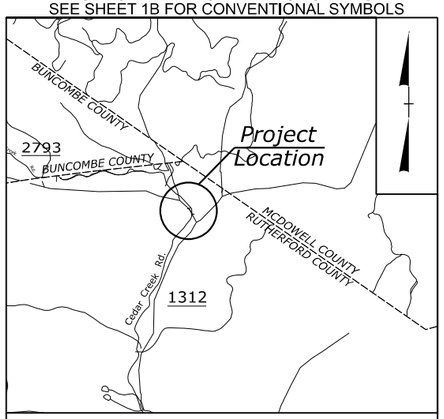
Surface Water Body (1):	Cedar Creek		**NCDWR Stream Index No.:**	9-23-14		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Trout Waters (Tr)			
Other Stream Classification:	None					
Impairments:	None					
Aquatic T&E Species Habitat?	No	Comments:				
NRTR Stream ID:	N/A			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	No	
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

09/08/99

PROJECT: DF18313.2081026.PR

CONTRACT: C205124

SEE SHEET 1A FOR INDEX OF SHEETS
SEE SHEET 1B FOR CONVENTIONAL SYMBOLS



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

RUTHERFORD COUNTY

LOCATION: *REPLACE CULVERT #800573 ON SR 1312 (CEDAR CREEK RD.) OVER CEDAR CREEK*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, & STRUCTURE*

PERMIT DRAWING
SHEET 1 OF 5

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DF18313.2081026.PR	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
DF18313.2081026.PR	NA	PE
DF18313.2081026.PR	NA	ROW
DF18313.2081026.PR	NA	CONST

SUBMITTAL B-006	ROW PLANS	10/02/2026
RESPONSE B-006	ROW PLANS	

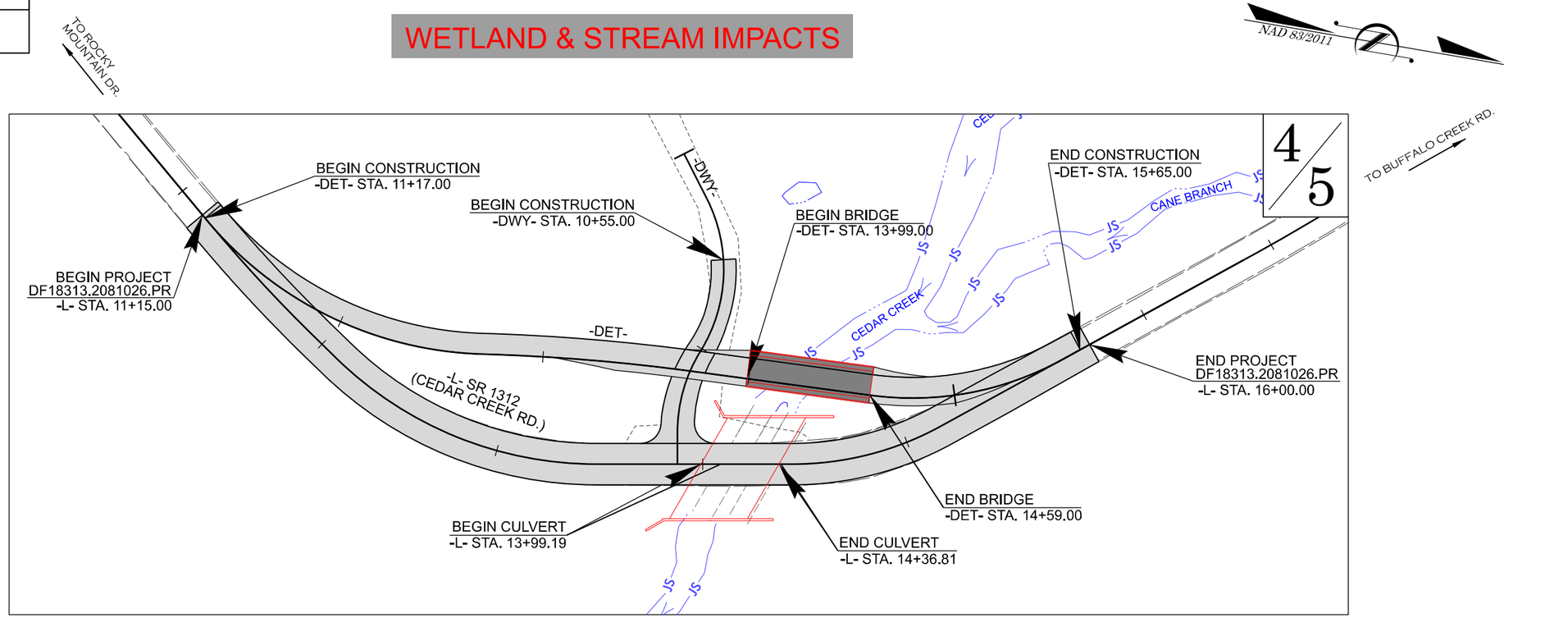
PREPARED IN THE OFFICE OF:

SUMMIT
DESIGN AND ENGINEERING SERVICES
FIRM NO. C-5176

1000 Social St, Suite 800
Raleigh, NC 27609
Voice: (919) 732-3883
Fax: (919) 732-6776
www.summitde.com

WETLAND & STREAM IMPACTS

NAD 83/2011



THIS IS NOT A CONTROLLED ACCESS PROJECT.
THIS PROJECT DOES NOT FALL WITHIN ANY JURISDICTIONAL LIMITS.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

20 10 0 20 40
PLANS

20 10 0 20 40
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2026 = 500
ADT 2046 = 500
V = 40 MPH
FUNC CLASS = LOCAL
RURAL

SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT DF18313.2081051.PR = 0.085 MILES
LENGTH STRUCTURE TIP PROJECT DF18313.2081051.PR = 0.007 MILES
TOTAL LENGTH TIP PROJECT DF18313.2081051.PR = 0.092 MILES

NCDOT CONTACT: BYRON KYLE
NCDOT - ALTERNATIVE DELIVERY UNIT

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: NOVEMBER 3, 2025

LETTING DATE: NOVEMBER 3, 2025

SPENCER MERRITT, PE
PROJECT ENGINEER

JOSHUA JERNIGAN, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

11/14/23

CUR DATA -DWY-	CUR DATA -DWY-
PIc 10+66.46	PIc 11+22.48
Δc = 58°47'20.3" (RT)	Δc = 31°43'29.5" (LT)
D = 76°23'39.7"	D = 76°23'39.7"
Lc = 76.95	Lc = 41.53
Tc = 42.25	Tc = 21.31
R = 75	R = 75

DETAIL 4-1
SPECIAL 'V' DITCH
(Not to Scale)

Detour Ditch Bottom — VAR — D — 4:1 — Front Ditch Slope — Min. D= 0.5 Ft.

FROM STA. 11+15 TO STA. 13+68 -L- LT

PERMIT DRAWING
SHEET 2 OF 5

S S PERMANENT SURFACE WATER IMPACTS

TS TS TEMPORARY SURFACE WATER IMPACTS

DFI8313.2081026.PR

RDY 004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RUTHERFORD COUNTY

ROADWAY DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HYDRAULIC DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PLANS PREPARED BY:

SUMMIT DESIGN AND ENGINEERING SERVICES
NC FIRM LICENSE No: C-5176
1000 Social St., Suite 800
Raleigh, NC 27609
(919) 732-3883
(919) 732-6676 (FAX)

FOR -L- PFL, SEE SHEET 006
FOR -DWY- PFL, SEE SHEET 007

11/14/23

CUR DATA -DWY-	CUR DATA -DWY-
PIc 10+66.46	PIc 11+22.48
Δc = 58°47'20.3" (RT)	Δc = 31°43'29.5" (LT)
D = 76°23'39.7"	D = 76°23'39.7"
Lc = 76.95	Lc = 41.53
Tc = 42.25	Tc = 21.31
R = 75	R = 75

TIE TO EXISTING DITCH

SPECIAL 'V' DITCH SEE DETAIL 4-1

SITE 1

SITE 2

DETAIL 4-1
SPECIAL 'V' DITCH
(Not to Scale)

Detour Ditch Bottom — VAR — D — 4:1 — Front Ditch Slope

Min. D= 0.5 Ft.

FROM STA. 11+15 TO STA. 13+68 -L- LT

PERMIT DRAWING
SHEET 3 OF 5

PERMANENT SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

FOR -L- PFL, SEE SHEET 006

FOR -DWY- PFL, SEE SHEET 007

DF18313.2081026.PR

RDY | 004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RUTHERFORD COUNTY

NAD 83
NA 2011

ROADWAY DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HYDRAULIC DESIGN ENGINEER

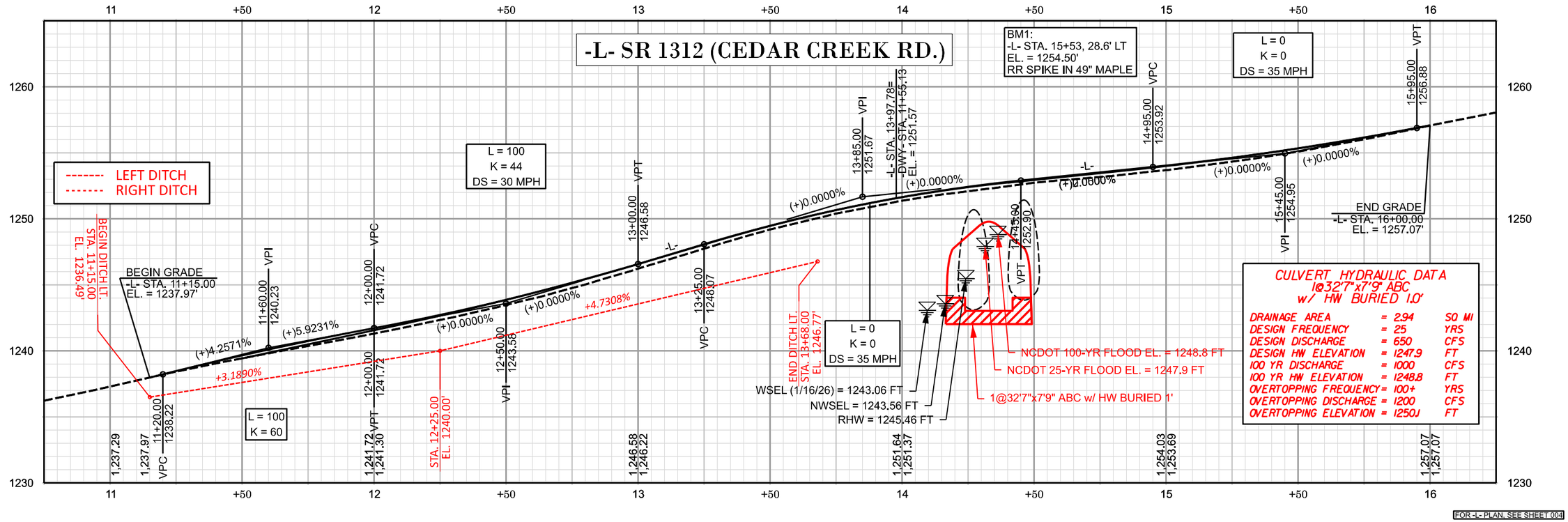
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PLANS PREPARED BY:

SUMMIT DESIGN AND ENGINEERING SERVICES
NC FIRM LICENSE No: C-5176
1000 Social St., Suite 800
Raleigh, NC 27609
(919) 732-3883
(919) 732-6676 (FAX)

11/14/23



FOR -L- PLAN, SEE SHEET 004

DF18313.2081026.PR

RDY | 006

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RUTHERFORD COUNTY

ROADWAY DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HYDRAULIC DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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SCE/devon.hoyle - 10/20/2026

WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 13+86 TO 14+51 LT/RT	Proposed Culvert						0.01	< 0.01	21	6	
2	-DET- 14+07 TO 14+65 LT/RT	Detour Bridge							< 0.01		68	
TOTALS*:								0.01	0.01	21	74	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
9/16/2026
RUTHERFORD
DF18313.2081026.PR

ESA Consultation

Biological and Conference Opinions and Informal Consultations – Batch Format

Replace Multiple Crossing Structures Destroyed by Tropical Storm Helene in Buncombe, McDowell, Mitchell, Rutherford, and Yancey Counties, North Carolina

Service Log #25-249 through 25-263

Prepared by:

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Consultation History

- **December 2, 2024**: Discussion between U.S. Fish and Wildlife Service (Service) and North Carolina Department of Transportation (NCDOT) regarding consultation batching processes and applicable avoidance and minimization and conservations measures for projects related to Tropical Storm (TS) Helene damage.
- **December 3-6, 2024**: Email correspondence between the Service and NCDOT discussing aspects of batching process and need for a virtual discussion.
- **December 11, 2024**: Virtual meeting between NCDOT and the Service to discuss batching process and avoidance and minimization and conservations measures.
- **December 30-31, 2024**: Service asked NCDOT questions about project impact estimates and NCDOT provided responses.
- **January 2, 2025**: Phone discussion between NCDOT and the Service regarding aquatic impact area estimates.
- **January 7, 2025**: NCDOT provided needed information on aquatic impact area estimates.
- **June 20, 2025**: NCDOT submitted batched request for informal and formal consultation to the Service.

Background

On September 27, 2024, TS Helene moved across a large swath of Western North Carolina (WNC). Extreme rainfall and high winds resulted in catastrophic damage across much of the region. Record flooding occurred in several watersheds, destroying thousands of transportation sites as well as homes and entire communities. Widespread landslides and tree fall contributed to the damage. In the wake of this disastrous event, the North Carolina Department of Transportation (NCDOT) is tasked with responding to, repairing, and [to the extent possible] replacing the transportation infrastructure destroyed by TS Helene. The following informal and formal consultations are presented in batched format to streamline and expedite review of numerous similar projects. The format utilized in this consultation is intended for TS Helene-related projects and is tailored to the unique challenges and constraints precipitated by this event. Biological determinations presented below are based on the best available scientific data at the time of this document and incorporate the expertise of WNC's Service and partner resource agency biologists.

Projects

The table below represents the projects reviewed in this batch of TS Helene-related projects. Work will involve the replacement of damaged or wholly destroyed crossing structures, which may include minimal tree clearing, grading, demolition, and in-water construction. Construction of most of the structures will likely begin in 2025. All construction should be completed by late 2026, though the exact schedule depends on many different factors. Additional description of the project-associated activities is provided in Section 2 of this document.

Table 1. Batched Consultation Projects – Crossing Structures

Structure Number	Waterbody	County	Location	Status	Service Log No.

100199	Beetree Creek	Buncombe	35.6359, -82.3996	Partial damage to structure includes gap at approach and end bent 1. Left wooden guardrail damage.	25-249
100236	Reems Creek	Buncombe	35.6944, -82.4992	Partial damage to structure includes damage to west approach.	25-250
100449	Sugar Creek	Buncombe	35.6701, -82.7928	Partial damage to structure includes erosion and undermining up to 3' under roadway at barrel 1 on right side.	25-251
100463	Broad River	Buncombe	35.5639, -82.2712	Partial damage to structure includes failure of north bridge rail.	25-252
580382	Clear Creek	McDowell	35.6904, -82.0846		25-253
600050	Right Fork Cane Creek	Mitchell	36.0170, -82.0856	Partial damage to structures includes headwall failure, southeast approach roadway washed out encroaching on roadway, downstream bank severely washed out, failed guardrail, severe drift accumulation on inlet side.	25-254
800573	Cedar Creek	Rutherford	35.5257, -82.1693	Partial damage to structures includes moderate drift, bank erosion and compromised between sections 2/3.	25-255
990179	George Fork	Yancey	35.9065, -82.2573	Partial damage to structures includes scour at outlet full width below barrel 1, apron broken and settled.	25-256
990188	Jacks Creek	Yancey	35.9938, -82.2893	Partial damage to structure includes massive debris buildup west side of bridge blocking flow, asphalt wearing surface failed, northeast corner scour hole undermining roadway and behind abutment 2 backwall, abutment 2 crutch bent sill at northeast end, undermined.	25-257
100159	Reems Creek	Buncombe	35.7092, -82.461		25-258
100846	Rocky Broad River	Buncombe	35.5692, -82.2954	Partial damage to structures includes roadway collapsed along right side and settling over barrels	25-259
800572	Taylor Creek	Rutherford	35.5102, -82.1720	Bridge collapsed but spans remain in stream	25-260
600087	Big Rock Creek	Mitchell	36.1158, -82.1869	Partial damage to structure includes end bent 1 abutment missing/broken sections with 2 beams completely undermined, erosion at southeast corner, roadway washed out.	25-261

600156	Beans Creek	Mitchell	36.0803, -82.2253		25-262
100149	Walker Branch	Buncombe	35.7550, -82.3858	Partial damage to structure includes undermining of end bent	25-263

Informal Consultation

The NCDOT assessed each project location addressed in this document for the presence of suitable habitat for listed species and for the potential effects of project work on listed species with suitable habitat present. The following table outlines the project locations and associated "No Effect" (NE) determinations. For this batch of projects there was no "May Affect, Not Likely to Adversely Affect" (NLAA) determinations for any species.

Table 2. Species NE Determinations

Structure Number	Waterbody	Service Log No.	NE and NLAA Species
100199	Beetree Creek	25-249	**NE:** Gray bat (*Myotis grisescens*), northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*), Rock gnome lichen (*Gymnoderma lineare*). **Rationale:** For bats, absence of roosting habitat and no tree clearing. For plants, absence of suitable habitat.
100463	Broad River	25-252	**NE:** rock gnome lichen, white irisette (*Sisyrinchium dichotomum*). **Rationale:** Absence of suitable habitat.
580382	Clear Creek	25-253	**NE:** Gray bat (*Myotis grisescens*), small whorled pogonia (*Isotria medeoloides*). **Rationale:** For bats, structure does not meet habitat requirements for listed bats, available trees do not provide roosting habitat. For plants, absence of suitable habitat.
600050	Right Fork Cane Creek	25-254	**NE:** Virginia spiraea (*Spiraea virginiana*), rock gnome lichen. **Rationale:** Absence of suitable habitat.
800573	Cedar Creek	25-255	**NE:** Dwarf-flowered heartleaf (*Hexastylis naniflora*), small whorled pogonia, white Irisette. **Rationale:** Absence of suitable habitat.
990179	George Fork	25-256	**NE:** small whorled pogonia, Virginia spiraea. **Rationale:** Absence of suitable habitat.
990188	Jacks Creek	25-257	**NE:** Gray bat, northern long-eared bat, small whorled pogonia, Virginia spiraea. **Rationale:** For bats, absence of roosting habitat and no tree clearing. For plants, absence of suitable habitat.
100159	Reems Creek	25-258	**NE:** Gray bat, northern long-eared bat, tricolored bat. **Rationale:** Absence of roosting habitat and no tree clearing.

100846	Rocky Broad River	25-259	**NE:** white Irisette, rock gnome lichen. **Rationale:** Absence of suitable habitat.
800572	Taylor Creek	25-260	**NE:** Dwarf-flowered heartleaf, small whorled pogonia, white Irisette. **Rationale:** Absence of suitable habitat.
600087	Big Rock Creek	25-261	**NE:** Virginia spiraea, rock gnome lichen. **Rationale:** Absence of suitable habitat.
600156	Beans Creek	25-262	**NE:** Gray bat, northern long-eared bat, Virginia spiraea. **Rationale:** For bats, absence of roosting habitat and no tree clearing. For plants, absence of suitable habitat.
100149	Walker Branch	25-263	**NE:** rock gnome lichen. **Rationale:** Absence of suitable habitat.

In instances where suitable habitat is absent from the action area, or where project actions would not result in impacts to suitable habitat within the action area, we agree that NE determinations are appropriate.

We believe the requirements under section 7 of the Endangered Species Act are fulfilled for the species addressed above in relation to the designated projects. However, obligations under section 7 of the ESA must be reconsidered if: (1) new information reveals impacts of this proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) this proposed action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the proposed action.

A species proposed for listing under the ESA is one that the Service or the National Marine Fisheries Service has determined, based on the best available scientific and commercial data, may warrant listing as either endangered or threatened. This proposal is a formal step in the process of providing federal protection to species facing potential extinction across all or a significant portion of their range. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective, the protections set forth in the ESA will apply.

On December 13, 2024, eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*) was proposed for listing as endangered under the ESA. Information provided by NCDOT after the originally submitted consultation request for the subject projects indicates that NCDOT has chosen not to conference on eastern hellbender but will consider the species and coordinate with partner resource agencies as project actions move forward.

Biological Opinion and Conference Opinion

1. Introduction

A biological opinion is the document that states the opinion of the Service in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (ESA), as to whether a Federal action is likely to jeopardize the continued existence of species listed as endangered or threatened; or result in the destruction or adverse modification of designated critical habitat. A conference opinion is equivalent to a biological opinion but addresses species that are not yet listed under the ESA and/or proposed critical habitats not yet designated. Therefore, the ESA prohibitions against jeopardy, adverse modification, and taking do not yet apply. The Service may adopt a conference opinion as a biological

opinion if the evaluated species/critical habitat are eventually listed/designated and while the action agency maintains discretion and involvement in the action.

This document transmits the Service's biological and conference opinions (Opinion) and is based on our review of the proposal to replace several crossing structures (Table 1) and the effects on the federally endangered gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), and northern long-eared bat (*Myotis septentrionalis*), and federally proposed endangered tricolored bat (*Perimyotis subflavus*). This Opinion is based on information provided in the assessment submitted to the Service by the NCDOT, field investigations, correspondence between NCDOT and the Service, communications with experts on the affected species, and other sources of information as cited. The Federal Highway Administration is the lead Federal action agency for these projects, with consultation authority delegated to the NCDOT.

2. Proposed Action

As defined in the Service's section 7 regulations (50 CFR 402.02), "*action*" means "*all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas*." The "*action area*" is defined as "*all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action*." The direct and indirect effects of the actions and activities must be considered in conjunction with the effects of other past and present Federal, state, or private activities, as well as the cumulative effects of reasonably certain future state or private activities within the action areas.

2.1 Action Areas

The project action areas are all areas of construction and include any portions of the project waterbodies, as indicated in Table 3, that may be affected by direct or indirect effects. The action areas are comprised of the:

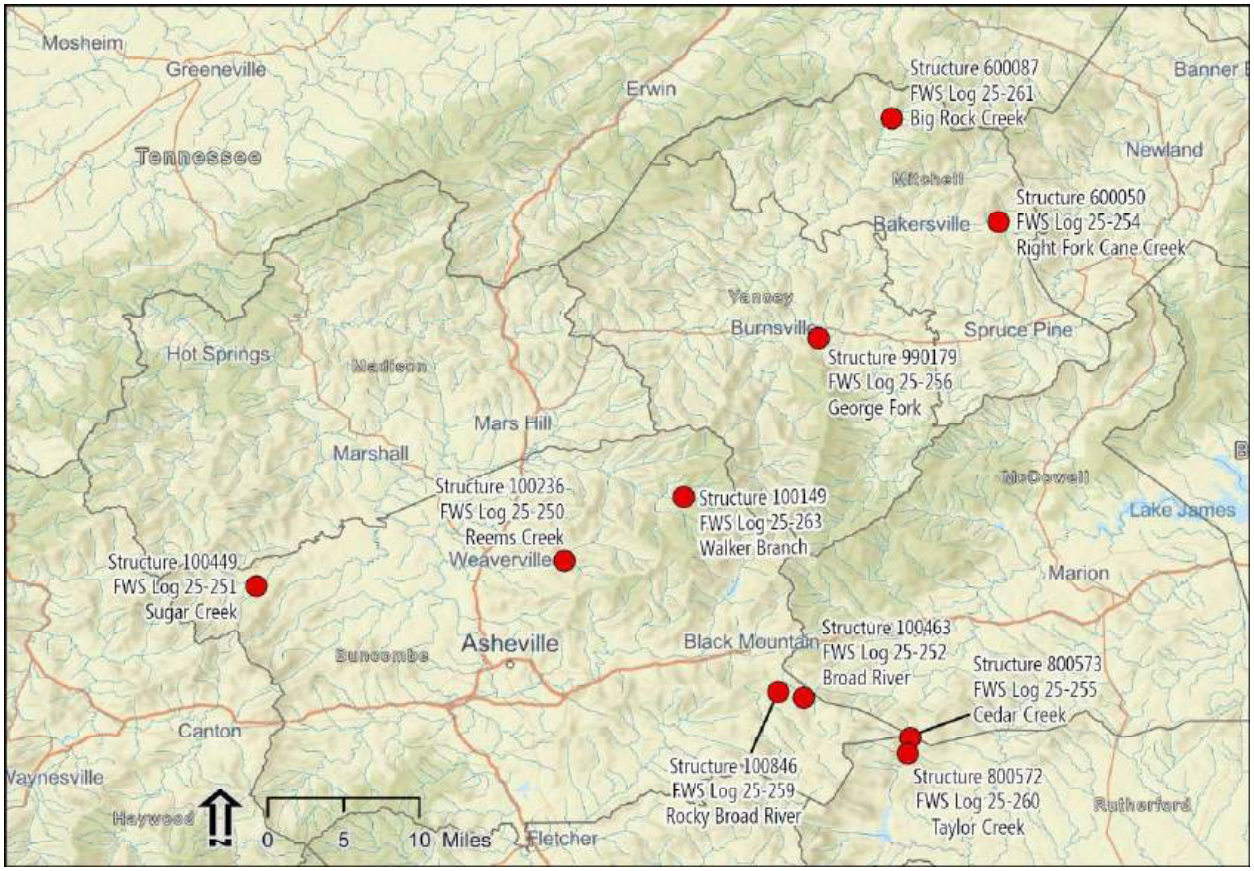
1.) Project construction limits including all project related work such as tree-clearing and grading.
2.) Limits of sedimentation effect, anticipated to extend 100 meters (m) (328 feet (ft)) upstream from each bridge and 400 m (1,314 ft) downstream from each crossing structure in each respective river.

Table 3. Projects that are Likely to Adversely Affect (LAA) Listed Species

Structure Number	Waterbody	County	Location	Service Log No.	Taxa Determination
100236	Reems Creek	Buncombe	35.6944, -82.4992	25-250	Plants: NE Bats: LAA Aquatics: NE
100449	Sugar Creek	Buncombe	35.6701, -82.7928	25-251	Plants: NE Bats: LAA Aquatics: NE
100463	Broad River	Buncombe	35.5639, -82.2712	25-252	Plants: NE Bats: LAA Aquatics: NE

600050	Right Fork Cane Creek	Mitchell	36.0170, -82.0856	25-254	Plants: NE Bats: LAA Aquatics: NE
800573	Cedar Creek	Rutherford	35.5257, -82.1693	25-255	Plants: NE Bats: LAA Aquatics: NE
990179	George Fork	Yancey	35.9065, -82.2573	25-256	Plants: NE Bats: LAA Aquatics: NE
100846	Rocky Broad River	Buncombe	35.5692, -82.2954	25-259	Plants: NE Bats: LAA Aquatics: NE
800572	Taylor Creek	Rutherford	35.5102, -82.1720	25-260	Plants: NE Bats: LAA Aquatics: NE
600087	Big Rock Creek	Mitchell	36.1158, -82.1869	25-261	Plants: NE Bats: LAA Aquatics: NE
100149	Walker Branch	Buncombe	35.7550, -82.3858	25-263	Plants: NE Bats: LAA Aquatics: NE

Figure 1. Projects that are Likely to Adversely Affect (LAA) Listed Species



2.2 Project Description

The widespread infrastructure failure of numerous NCDOT bridges and roadways due to TS Helene necessitates an expedited design build repair/replacement process and batched consultation response. Consequently, specific details regarding the proposed project designs in Table 1 and associated action area impact details are not yet finalized. However, project activities and estimated impacts, based on the established practices of NCDOT's crossing structure replacement work, are available. At the time of this consultation, it is anticipated that most replacement bridges will be constructed using concrete box beam or cored slab designs. The general and expected elements of these crossing structure replacement projects are described below. The current estimated timeline for completion of these projects is late fall of 2026.

In-water impacts

Considering the range in structure and waterbody sizes analyzed in this review, and basing amounts on past similarly-sized structure and waterbody NCDOT crossing structure projects in WNC, the estimate of combined temporary and permanent in-water impacts for these projects range from 0.01 – 0.35 acres (or 4,356 – 15,246 square feet) per structure. Some structure replacements will fall in the lower portion of that range of in-water impacts while some will fall in the higher range. These impacts may be in the form of work pad causeways, bent removal and/or placement, and placement of stream-bank stabilization materials.

Tree Clearing, Access Roads, and Demolition

The maximum estimate for tree clearing per structure replacement location is 0.10 acre. That amount will likely be less at most locations, given the variability in site conditions and the extreme scour (and resulting loss of riparian vegetation) during TS Helene flooding. The season during which clearing will occur is not known for each location but is assumed to occur during any time of year, including summer months. Clearing and grading will occur to allow for access roads and general construction functionality.

Where damaged structures or portions of damaged structures remain in place, demolition will occur. The details of demolition activities and seasonality of demolition will vary by project, with an assumption that these activities will occur during any time of year, including summer months.

2.3 Avoidance and Minimization and Conservation Measures

NCDOT will employ the following agency standards, guidelines, and best practices to avoid and minimize project-mediated activities that could negatively impact listed/proposed species or their habitat.

2.3.1 Avoidance and minimization measures (AMMs)

General (regardless of species): The following General AMMs will be implemented on all projects to minimize impacts to listed/proposed species and habitat:

- General AMM1 -NCDOT will ensure all operators, employees, and contractors working in areas of suitable habitat for federally listed/proposed species are aware of all NCDOT environmental commitments, including all applicable AMMs and all associated NCDOT guidance documents.

- General AMM2 - Best management practices (BMP) and sediment and erosion control (SEC) measures will be utilized to prevent non-point source pollution, control storm water runoff, and minimize sediment damage to avoid and reduce overall water quality degradation.

- General AMM3 - Areas of disturbance, such as tree clearing, grubbing, and grading, will be limited to the maximum extent possible.

Bats - General AMMs will minimize impacts to listed/proposed bats. **To the maximum extent possible,** the following AMMs will also be incorporated into project work – though implementation of all bat AMMs below cannot be guaranteed at the time of this consultation, given the scale, scope, and timeline constraints addressed previously:

- Bat AMM Noise - Percussive activities will occur only after the tree clearing within the action area has been completed, helping to reduce the exposure of any tree-roosting bats within the action area to high decibel noise.

- Bat AMM Lighting - No new permanent lighting will be added to the action area. Any lighting needed for night work will be directed at the work area and shieled from surrounding waters/landscape, only on when needed, no brighter than necessary, and blue light emissions will be limited.

- Bat AMM Riparian Planting – Disturbed riparian areas will be replanted with native, fast-growing tree and shrub species where feasible, with the understanding that plantings likely cannot be done in utility/drainage/construction easements.

Aquatics- General AMMs will minimize impacts to the aquatic environment. **To the maximum extent possible,** the following AMMs will be incorporated into project work, though implementation of all aquatic AMMs below cannot be guaranteed at the time of this consultation, given the scale, scope, and timeline constraints addressed previously:

- Aquatic AMM Structure – Structure will be built in the same location as the previous structure, with minimal impact [bents] to water resource, built to today's improved highway and hydraulic standards.

- Aquatic AMM Equipment – Heavy machinery will not be utilized within the waterbody. Additionally, staging and storage areas for equipment and materials will be managed in such a way to ensure that potential spills and leaks do not have access to the waterbody.

- Aquatic AMM Temporary and Permanent Fill – Any temporary fill (i.e. causeways) or permanent (i.e. bents/piers) fill in excess of what was previously present will be avoided and minimized to the maximum extent possible.

- Aquatic AMM Abutments - Existing abutments will be completely removed unless removal results in destabilizing of banks or increases the adverse effect to listed/proposed aquatic species.

- Aquatic AMM Deck Drains – Deck drains that empty directly to the waterbody below will not be implemented on new bridge designs. Surface water drainage transport will be designed to incorporate improved treatment prior to drainage entering the waterbody.

- Aquatic AMM Erosion Control Matting – Coir fiber matting will be utilized instead of plastic or other synthetic matting.

2.3.2 Conservation Measures (CMs)

CMs represent actions, pledged in the project description, that the action agency will implement to further the recovery of the species under review. The beneficial effects of CMs are considered in making determinations of whether the projects will jeopardize the species under consideration in this document.

Bat CM - Tree Clearing Bat Fund Contribution: For individual bridge projects likely to adversely affect bat species during tree removal, the NCDOT will contribute a payment* to the N.C. Nongame Terrestrial Species Fund (or other Service-approved fund) in support of the recovery of federally protected bat species.

Bat CM Structure Removal Bat Fund Contribution: For individual bridge projects that are LAA bat species during structure removal, the NCDOT will contribute a payment** to the N.C. Nongame Terrestrial Species Fund (or other Service-approved Fund) in support of the recovery of federally listed bat species.

*Contributions made will be based on a 2:1 ratio multiplier specified for the non-volant pup season (May 15-July 31). This ratio offers the most protective coverage as time of year clearing will occur is unknown. The amount will be determined using the United States Department of Agriculture Farm Real Estate

Value for North Carolina for 2024 ($5,190/acre).
https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0824.pdf
If tree clearing is unknown, an assumed clearing acreage of 0.1 acre will be used based on estimates from previous clearing work at bridges (NCDOT 2015). The formula is calculated as follows:
$5,190 x 0.1 ac = 519 x 2 (critical life stage multiplier) = $1,038 contribution

**Structures with documented bat use are generally larger than the average bridge, with a median size of 0.10 acre (length x width) (KYTC 2019). Therefore 0.10 acre per bridge is used to calculate the amount of suitable bat habitat lost for projects involving structure impacts. However, the displacement affects to bats that must find a new roost while a new structure is being constructed are considered temporary in nature because the new structure will be replaced with a similar structure that will provide adequate roosting habitat again. Therefore, the ratio multiplier was reduced to 1.5:1 vs 2:1 used in the tree clearing contribution explained above. If the structure is demolished after March 15 when bats return to the landscape, a payment will be required, if not, no payment is required. The formula is calculated as follows:
$5,190 x 0.1 ac = 519 x 1.5 (temporary affect multiplier) = $779 contribution/structure

3. Status of the Species

This section summarizes best available data about the biology and current condition of gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and tricolored bat (*Perimyotis subflavus*) throughout their ranges that are relevant to formulating an opinion about the actions. More in-depth species information such as species status assessments can be found at the species-specific pages at the Service's Environmental Conservation Online System (ECOS): ecos.fws.gov/ecp/

3.1 Gray Bat

Scientific Name: *Myotis grisescens*
Status: Endangered
Date of Listing: April 28, 1976
Critical Habitat: None designated

3.1.1 Description and Life History

The gray bat is a medium-sized insectivorous bat with an overall length of about 3.5 inches and a wingspan of 10 to 11 inches. As the name implies, gray bats have gray fur, but the hair often bleaches to reddish-brown by early summer. The gray bat largely occurs in limestone karst areas, meaning a landscape marked by caves, sinkholes, springs and other features, of the southeastern and midwestern United States.

Gray bats use caves year-round for roosting and hibernating. Seasonal occupancy of caves differs between summer roost and winter hibernacula, and gray bats are known to migrate more than 300 miles between the two. While gray bats are predominantly found roosting in caves, they are known to roost in structures including buildings, bridges and culverts. Bats emerge from summer roosts early in the evening and forage along waterbodies adjacent to forested areas. The species has been documented traveling from a few miles to 20 or more miles between their day roosts and nightly foraging areas.

Adult bats mate upon arrival at the wintering caves in September or early October. Hibernation occurs in deep vertical caves in the winter, where colder temperatures are preferable. Gray bats require consistently cold temperatures to maintain hibernation and conserve energy in the winter months. The adult females

will emerge from hibernation in late March or early April. At that time, the females who have mated will begin their pregnancy, dispersing to maternity caves. Males and juveniles emerge shortly after the females and disperse to bachelor caves. Gray bats are documented using bridges and culverts as roosting habitat during the spring, summer, and fall and show strong philopatry to their summer ranges and typically use the same roost sites year after year (Tuttle 1976; Martin 2007). Gray bats are most observed in bridges with concrete and their preferred roosting location is in the vertical expansion joints of a bridge deck above piers (NCDOT 2023a), though they can also roost in clogged deck drains and other sheltered areas on crossing structures. According to approximately 2,000 bridge surveys conducted throughout WNC from 2000 - 2023, gray bats have been recorded roosting in bridges at a usage rate of 3% (NCDOT 2023a), with bridge use observed in the covered area from March – November. Up to 1,000 individuals, including males and females, have been observed day-roosting throughout the summer in expansion joints between box beams at two separate bridges (Weber et al. 2020). Sporadic summer use of other concrete type bridges has also been noted for smaller numbers of day-roosting gray bats (NCDOT, 2023a). Gray bats have also been observed within culverts, most commonly of concrete material.

Gray bats primarily forage over open water bodies, such as rivers, streams, lakes, and reservoirs, and associated riparian areas (Tuttle 1976; LaVal et al. 1977; Weber et al. 2020). On a macroscale, gray bats feed in aquatic-based habitats where specific types of insect prey are abundant (Brack and LaVal 2006). Bats typically travel individually or in small groups that forage in an area for a short period before moving to another area. Studies suggest that gray bats visit multiple foraging areas during the night and travel frequently between these areas.

3.1.2 Status and Distribution

The primary range of gray bats is concentrated in the cave regions of Alabama, Arkansas, Kentucky, Missouri and Tennessee, though its overall range stretches from Virginia to Oklahoma, and Missouri to Alabama. WNC is on the eastern edge of the bat's range. In North Carolina, the gray bat is currently documented from 14 western counties and is possible in an additional 10 counties. Most gray bat occurrences in WNC are centered on the French Broad and Pigeon River watersheds. Gray bats are generally present in North Carolina from March 15 to November 15, when they leave for winter hibernacula. It is believed that many of the gray bats in North Carolina migrate to hibernacula in Tennessee, using the French Broad River as a commuting pathway. The closest active hibernaculum is near Newport, Tennessee (Weber et al. 2020), approximately 20 miles from the border with Haywood and Madison Counties in North Carolina.

Ellison et al. (2003) of the U.S. Geological Survey (USGS) statistically analyzed 1,879 observations of gray bats obtained from 334 roost locations in 14 south-central and southeastern states. They determined that 94.4% of the populations showed stable or increasing populations while 6% revealed a decreasing population. For populations where there was a downward population trend, decreases in population numbers were mostly attributed to continued problems with human disturbance. This increasing population trend has been reflected in the work of Sasse et al. (2007), Martin (2007), and again by Elliott in 2008 in looking at high-priority caves. It is estimated that more than 95% of the species range-wide population hibernate in only 9 caves.

Emergence counts conducted by Indiana State University researchers at known roosts in WNC from 2018-2019 suggested there were at least 2,820 gray bats in the French Broad River basin (Weber et al. 2020). Due to 2024 flooding associated with TS Helene, these numbers may be significantly lower now, though at the time of this document, the impacts from Helene on imperiled species numbers are still unknown. Throughout WNC, there are 58 current element occurrences of the gray bat based on N.C.

Natural Heritage Program, NCWRC, and NCDOT records; most are from built structures (largely bridges). The number of gray bats found at each occurrence range from 1 to about 1,500 bats, with some roosts surveyed in the Weber et al. (2020) study hosting >1,000 gray bats during certain times of the season. The most recent winter population estimate of gray bats in the closest hibernaculum to the action area (Rattling Cave, near Newport TN) was 250,689 bats (TWRA 2019).

3.1.3 Threats

Cave disturbance and alteration, loss of forested habitat, pollution of waterways, and significant natural factors including those caused by climate change (flooding, freezing, and forest destruction) are threats to gray bats. Gray bats have been infected by the invasive fungus *Pseudogymnoascus destructans,* the causative agent of white-nose syndrome (WNS), a fungal disease contributing to the declines of several bat species in the U.S.; however, WNS is not considered a major threat to the species.

3.2 Indiana Bat

Scientific Name: *Myotis sodalis*
Status: Endangered
Date of Listing: March 11, 1967
Critical Habitat: Established in 1976

3.2.1 Description and Life History

The Indiana bat is a temperate, insectivorous, migratory bat that hibernates colonially in caves and mines in the winter. The species is widely distributed in a variety of wooded habitats, ranging from highly fragmented woodlands in agricultural landscapes to extensively forested areas. Roosting areas are preferred in forest stands with uneven-aged trees that can supply the canopy with large, dead trees in more direct sunlight and are near foraging areas and water sources. Some roosts do occur in living trees (primarily shagbark hickory) or damaged trees from several species. During winter, Indiana bats are restricted to suitable underground hibernacula. Most of these sites are caves located in karst areas of the east-central United States; however, Indiana bats also hibernate in other cave-like locations, including abandoned mines.

Maternity colonies form in early May and remain together until August. Females will rear a single pup from May into July. Temperatures and weather will alter the length of the time a pup will stay in the primary roost and females will relocate the pup to another snag to manage temperatures and environmental conditions. In summer, most reproductive females occupy roost sites under the exfoliating bark of dead trees that retain large, thick slabs of peeling bark. Habitats in which maternity roosts occur include riparian zones, bottomland and floodplain habitats, wooded wetlands, and upland communities. Indiana bats typically forage in semi-open to closed (open understory) forested habitats, forest edges, and riparian areas.

Fall swarming and mating takes place between August and November and are at different sites from the actual hibernaculum. Typically, hibernation begins in November and lasts through March. Several variables influence hibernacula selection, but generally Indiana bats prefer caves with stable temperatures that remain below 50°F with humidity greater than 74 percent. Indiana bats emerge from hibernation in March or April and remain near the hibernacula to refuel before migrating to summer ranges. Migration distances vary but have been observed greater than 300 miles. Bats may be concentrated near hibernacula and often roost in trees during fall swarming and spring staging.

Indiana bats primarily feed on flying insects, including some from orders with both an aquatic and terrestrial stage. Numerous foraging habitat studies have found that Indiana bats often forage in closed to semi-open forested habitats and forest edges located in floodplains, riparian areas, lowlands, and uplands; however, old fields and agricultural fields are also used (Service 2007). Drinking water is essential, especially when bats actively forage. Indiana bats obtain water from streams, ponds, and water-filled road ruts in forest uplands. Consistent use of moths, flies, beetles, and caddisflies throughout the year at various colonies suggests that Indiana bats are selective predators to a certain degree, but incorporation of other insects into the diet also indicates that these bats can be opportunistic (Murray and Kurta 2002).

3.2.2 Status and Distribution

Indiana bats can be found primarily in the midwestern and eastern part of the United States, with a range stretching east to west from Vermont to Oklahoma, and north to south from Michigan to Alabama, and comprising approximately 403,883 square miles. WNC falls on the southeast edge of their range. No known active hibernacula are present in WNC, and summer maternity colonies are widely dispersed, with most locations unknown (Service 2019a).

According to the 2024 population status update (Service 2024), range-wide there are approximately 631,786 Indiana bats, using 194 hibernacula across 15 states. The nine most populous hibernacula are home to 91% of Indiana bats, though none are in North Carolina or adjacent states. The Service divides the Indiana bat range into four recovery units, delineating evidence of population discreteness and genetic differentiation, differences in population trends, and broad-level differences in macrohabitats and land use. North Carolina is part of the Appalachia Recovery Unit, which includes all of West Virginia, as well as portions of Pennsylvania, Virginia, and Tennessee. The Appalachian recovery unit represents 0.2% of the overall Indiana bat population.

There are 20 element occurrences of the Indiana bat in WNC based on NCNHP records, five of these are considered historical. There are several records of Indiana bats roosting in concrete-material bridges associated with a water crossing and of concrete material (NCDOT 2023a). According to approximately 2,000 bridge surveys conducted throughout WNC from 2000 - 2023, Indiana bats have been recorded roosting in WNC bridges at a usage rate of 0.2% (NCDOT 2023a) with use documented to occur from March - July. There are currently no records in North Carolina of Indiana bats roosting in culverts (NCDOT 2023b), though they have been found in culverts in other states. White Oak Blowhole cave in Tennessee (Great Smoky Mountains National Park) is located within five miles of the North Carolina border. Therefore, part of the designated spring staging and fall swarming habitat associated with this hibernaculum extends into Swain County, NC.

3.2.3 Threats

Threats to the Indiana bat include modifications to caves, mines, and surrounding areas that change airflow and alter microclimate in the hibernacula. Human disturbance and vandalism pose significant threats during hibernation through direct mortality and by inducing arousal and consequent depletion of fat reserves. Natural catastrophes can also have a significant effect during winter because of the concentration of individuals in a relatively few sites. During summer months, possible threats relate to the loss and degradation of forested habitat. Migration pathways and swarming sites may also be affected by habitat loss and degradation. Although populations have increased in recent years, WNS poses an additional threat that has caused and may continue to cause population declines.

3.3 Northern long-eared Bat

Scientific Name: *Myotis septentrionalis*
Status: Endangered
Date of Listing: April 1, 2015 as Threatened; November 30, 2022 as Endangered
Critical Habitat: None designated

3.3.1 Description and Life History

The northern long-eared bat is a wide-ranging species, found in 37 states and eight provinces in North America. The species typically overwinters in caves and mines and spends the remainder of the year in forested habitats. As its name suggests, the northern long-eared bat is distinguished by its long ears, particularly as compared to other bats in the genus *Myotis*.

Northern long-eared bats are a forest bat species that roosts in a variety of forest types and structures. They are known to roost in trees and have also been documented using roost sites such as buildings, artificial roosts, and bridges. During the active season, northern long-eared bats typically roost singly or in maternity colonies underneath bark or more often in cavities or crevices of both live trees and snags (Service 2023). Males' and non-reproductive females' summer roost sites may also include cooler locations, such as caves and mines (Service 2023). According to approximately 2,000 bridge surveys conducted throughout western North Carolina from 2000 - 2023, northern long-eared bats have been recorded roosting in western North Carolina bridges at a usage rate of 0.2% (NCDOT 2023a) with use documented to occur from May - October. With one exception, all bridge roost records in North Carolina are associated with a water crossing. There are no records of northern long-eared bats roosting in culverts in North Carolina, though they have been documented using culverts in other states. Northern long-eared bats will overwinter in caves or mines and have been documented using railroad tunnels, storm sewers, and bunkers. Length of hibernation varies depending on location. They may hibernate singly or in small groups and can be found hibernating in open areas but typically prefer caves with deep crevices, cracks, and bore holes that protect from drafts. They typically hibernate from September or October to March or April. More than 780 hibernacula have been documented within the northern long-eared bat range.

Prior to hibernation, between mid-August and mid-November, bat activity will increase during the evenings at the entrance of a hibernaculum (fall swarming). Suitable fall swarming habitat is like roosting, foraging, and commuting habitat selected during the summer and is most typically within 4-5 miles of a hibernaculum (Service 2023). Likewise, in the spring they emerge from and stage near hibernacula before moving to maternity areas typically in early April to mid-May; however, they may leave as early as March. Northern long-eared bats also roost in trees near hibernacula during spring staging, and Thalken et al. (2018) found that roost trees were situated within 1.2 miles (2km) of hibernacula during spring staging and the early maternity season. The species migrates relatively short distances between maternity areas and hibernacula.

Northern long-eared bats are more likely to forage under the canopy on forested hillsides and ridges (Nagorsen and Brigham 1993) rather than along riparian areas (Brack and Whitaker 2001; LaVal et al. 1977). Because of this, alternative water sources like seasonal woodland pools may be an important source of drinking water for these bats (rather than just streams and ponds; Francl 2008). Mature forests may be an important habitat type for foraging (Service 2015). Northern long-eared bats have a diverse diet including moths, beetles, flies, leafhoppers, caddisflies, and arachnids (Service 2020a), which they catch while in flight or by gleaning insects off vegetation (Ratcliffe and Dawson 2003).

3.3.2 Status and Distribution

The species' range includes all or portions of 37 eastern and mid-western states and the District of Columbia in the U.S. The northern long-eared bat's range also includes eight Canadian provinces. In WNC, the species range includes all or portions of 26 counties in the western portion of the state.

Prior to the emergence of WNS, northern long-eared bat was abundant and widespread throughout much of its range with 737 occupied hibernacula, a maximum count of 38,181 individuals and its range being spread across >1.2 billion acres in 29 states and 3 Canadian provinces. Numbers vary temporally and spatially, but abundance and occurrence on the landscape were stable (Cheng et al. 2022, p. 204; Wiens et al. 2022, p. 233). Currently, declining trends in abundance and occurrence are evident across much of northern long-eared bat's summer range. Range-wide summer occupancy declined by 80% from 2010–2019. Data collected from mobile acoustic transects found a 79% decline in range-wide relative abundance from 2009–2019 and summer mist-net captures declined by 43–77% compared to pre-WNS capture rates.

There are approximately 169 element occurrences for northern long-eared bat in NC, based on N.C. Natural Heritage Program records, 19 of which are considered historical. The number of bats found at each occurrence ranges from one to more than 80. There have been 22 documented hibernacula, all in caves or mines; however, northern long-eared bats have not been observed using hibernacula in North Carolina since 2014 (NCWRC personal communication September 2022). The Service estimates that there has been an occupancy drop of 85% and a 24% loss of winter colony sites across the Southeast Representation Unit (RPU) overall since 2006 when white-nose syndrome was first documented (Service 2022a).

3.3.3 Threats

The primary factor influencing the viability of the northern long-eared bat range-wide population is WNS. Other primary factors that influence the decline in northern long-eared bat numbers include wind energy mortality, effects from climate change, and habitat loss.

3.4 Tricolored Bat

Scientific Name: *Perimyotis subflavus*
Status: Proposed Endangered
Date of Proposed Listing: September 14, 2022
Critical Habitat: None proposed

3.4.1 Description and Life History

The tricolored bat is one of the smallest bats in North America. The once common species is wide-ranging across the eastern and central US and portions of southern Canada, Mexico and Central America. As its name suggests, the tricolored bat is distinguished by its unique tricolored fur that appears dark at the base, lighter in the middle and dark at the tip.

During the spring, summer, and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves. Additionally, tricolored bats have been observed roosting among pine needles, eastern red cedar (*Juniperus virginiana*), within artificial roost structures, beneath porch roofs, bridges, concrete bunkers, and rarely within caves. Female tricolored bats form maternity colonies and switch roost trees regularly. Maternity colonies typically consist of one to several females and pups. They usually have twins in late spring or early summer, which are capable of flight in four weeks.

During the winter, across much of their range tricolored bats hibernate in caves and mines; although, in the southern United States, where caves are sparse, they often hibernate in culverts, as well as sometimes in tree cavities and abandoned water wells. In the southern US, hibernation length is shorter compared to northern portions of the range. Hibernating tricolored bats do not typically form large clusters; most commonly roost singly, but sometimes in pairs, or in small clusters of both sexes away from other bats (Service 2021). Tricolored bat hibernacula following population crashes from WNS generally host <100 individuals (Service 2021), though solitary hibernation can often occur with this species (Whitaker and Hamilton 1998).

Before entering hibernacula for the winter, tricolored bats demonstrate 'swarming' behavior. The peak swarming period for tricolored bats in much of WNC/eastern Tennessee generally starts in mid to late August and extends into November and is a sensitive period for bats. Suitable fall swarming habitat is like roosting, foraging, and commuting habitat selected during the summer. Spring staging is the time period between winter hibernation and spring migration to summer habitat (Service 2023). During this time, bats begin to gradually emerge from hibernation, exit the hibernacula to feed, but re-enter the same or alternative hibernacula to resume daily bouts of torpor (state of mental or physical inactivity). Tricolored bats also roost in trees near hibernacula during spring staging.

Tricolored bats are opportunistic feeders and consume small insects including caddisflies, moths, beetles, wasps, flying ants and flies. The species most commonly forages over waterways and along forest edges

3.4.2 Status and Distribution

Tricolored bats have a very wide range that encompasses most of the eastern US from Canada to Florida and west to New Mexico (39 states). They can be found throughout North Carolina and are one of the most encountered cave-dwelling species seen in winter, albeit at much lower densities than prior to the arrival of WNS in the state.

There are 147 NC element occurrences of the tricolored bat based on N.C. Natural Heritage Program records, seven of which are considered historical. The number of bats found at each occurrence range from 1 to 3,000 bats. There have been 79 tricolored bat hibernacula documented, including caves (50), mines (22), root cellars (4), and culverts (3). According to approximately 2,000 bridge surveys conducted throughout western North Carolina from 2000 - 2023, tricolored bats have been recorded roosting in bridges at a usage rate of 1.3% (NCDOT 2023a). Tricolored bat bridge use has been documented to occur in western North Carolina from April – October (with one outlier record from 2013 citing February use). Approximately 900 culvert surveys have been conducted in western North Carolina from 2010 – 2023 (NCDOT 2023b) with year round data coverage. Tricolored bats have been found using culverts in western North Carolina, again at a relatively low rate (0.8% observed use). Culvert use has been observed in western North Carolina from January – April.

For tricolored bats, the Service split the bat's range into three Representation Units (RPUs), two of which, the Northern and Southern RPUs, include the western and eastern halves of WNC, respectively. The Service estimates that, since 2006, the Northern RPU has experienced a 17% decline in summer occupancy and a 57% decline in the number of winter colonies, while the Southern RPU has experienced a 37% decline in summer occupancy and a 24% decline in the number of winter colonies (Service 2021).

3.4.3 Threats

WNS is the primary driver of the species' decline and is predicted to continue to be the primary influence into the future. Wind energy-related mortality is also considered a consequential driver to the bat's viability. Although habitat loss is considered pervasive across the species' range, severity has likely been low given historical abundance and spatial extent; however, as tricolored bat's spatial extent is projected to decline in the future (i.e., consolidation into fewer winter and summer colonies) negative impacts (e.g., loss of a hibernaculum or maternity colony) may be significant.

4. Environmental Baseline

The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process [50 CFR §402.02].

The project action areas contain the existing crossing structures and the roadway approaches, along with the existing utilities and surrounding riparian areas in which project work will occur. Past impacts include the original construction and placement of the crossing structures within waterbodies to facilitate transportation in the surrounding locations. Because this document addresses several projects, more detailed information regarding other human activities at each location is not included for the purposes of this consultation review.

4.1 Listed and Proposed Bats Within the Action Areas

Structures

Buncombe County structure 449, Mitchell County structure 050, Rutherford County structure 573, and Yancey County structure 188 were all partially damaged from Hurricane Helene, yet suitable structural roosting habitat remains. For gray bats, primary roost structures can support several hundred to over 1,000 individuals, but most structures with observed gray bat roosting in WNC contain only 1 to 10 individuals. The bridges or culverts that support higher numbers of gray bats are typically larger than average. The number of northern long-eared bats, tricolored bats, and Indiana bats observed roosting on bridges in WNC is typically between 1 and 2 individuals at any given time. More specifically, Natural Heritage data in Buncombe County contains two bridge and five culvert roost locations for gray bats, and one bridge roost for tricolored bats. Rutherford County has one gray bat bridge roost, and Yancey County has three gray bat bridge roost locations. Notably, there are no current records of northern long-eared bat or Indiana bat culvert roosts in North Carolina. Given the size of these damaged crossing structures, the degraded and reduced roosting habitat available, and based on existing WNC data, it is estimated that one individual per species could be present within each structure at these four locations.

Trees

Gray bats are not considered "tree-roosting" species. While individuals have been observed utilizing trees in rare occasions, they are generally considered a cave/structure-specific roosting species; therefore, no gray bats are expected to be roosting in trees within the action areas. Indiana, northern long-eared, and tricolored bats roost in trees during the warmer months. Buncombe County projects 149, 236, 449, 463, and 846, Mitchell County projects 050 and 087, Rutherford County projects 572 and 573, and Yancey County project 179 may involve tree clearing, but no project anticipates clearing more than 0.1 acres. Given the minimal amount of riparian vegetation and trees remaining within the action areas, it is unlikely that a high number of bats would be utilizing the small amount of available habitat. Based on that

rationale, one individual per species (of northern long-eared bat or tricolored bat) could be present in trees within the action area per crossing structure location.

5. Effects of the Action

Under section 7(a)(2) of the ESA, "effects of the action" refers to the consequences, both direct and indirect, of an action on the species or critical habitat. The effects of the proposed action are added to the environmental baseline to determine the future baseline, which serves as the basis for the determination in this Opinion. Should the effects of the Federal action result in a situation that would jeopardize the continued existence of the species, we may propose reasonable and prudent alternatives that the Federal agency can take to avoid a violation of section 7(a)(2).

5.1 Gray Bat, Indiana Bat, Northern Long-eared Bat, and Tricolored Bat

5.1.1 Proximity of the Action, Nature of the Effect, and Disturbance Duration for Bats

Based on the description of the action and the species' biology, stressors to gray bat, Indiana Bat, northern long-eared bat, and tricolored bat have been identified and are shared below. The proximity of these actions will be within the entire action area of each project, including the structures, waterways, riparian zone, and any existing forested areas. Duration of disturbance is expected primarily during the construction phase of project work.

5.1.2 Effects Analysis for Bats

Replacement structures: Due to the constraints associated with the TS Helene response, such as the high volume of projects and timeline unknowns, the exact designs of replacement crossing structures are not known at the time of this document. However, according to information provided by NCDOT, most replacement bridge structures are expected to be either cored slab or box beam bridges. Such precast concrete bridges may provide suitable bat roosting habitat depending on factors such as spacing between beams/girders, arrangement above any bents, and other design elements that could result in potential roosting crevices. Generally, concrete is a favorable material for roosting due to its thermal stability.

Direct Impacts – Direct effects are caused by the action and occur at the same time and place (50 CFR 402.02).

Structure Work

The demolition of remaining portions of structures, if conducted while bats are present, could result in causing bats to flush, which would expose them to risk of predation, would cause increased energy expenditure, and create the need for bats to find alternative roost locations. It could also result in physical wounding or death. High-decibel percussive noises associated with demolition or construction may cause nearby roosting bats to flush, exposing them to harm and increased energy expenditure. Additionally, while adults may be able to flush, any non-volant pups present would be left behind with mortality as the likely outcome. In summary, these activities, should they occur while bats are present, are likely to adversely affect gray bat, Indiana bat, northern long-eared bat, and tricolored bat in the form of harm.

Tree Removal

The removal of suitable roost trees, if conducted while Indiana bats, northern long-eared bats, or tricolored bats are present, could result in causing bats to flush, which would expose them to risk of predation, would cause increased energy expenditure, and create the need for bats to find alternative roost locations. It could also result in physical wounding or death. Given the presence of alternative forested habitat near the action areas, bats could likely find trees for roosting. Harm would be expected in the

increased exposure to predation from flushing and from the potential for wounding or killing when trees are felled. Additionally, while adults may be able to flush, any non-volant pups would be left behind and would likely perish. In summary, these activities, should they occur while bats are present, are likely to adversely affect Indiana bat, northern long-eared bat and tricolored bat in the form of harm.

Indirect Impacts – Indirect effects are defined as those caused by the proposed action and are later in time but reasonably certain to occur (50 CFR 402.02).

If bats were utilizing structures or trees (when considering Indiana bats, northern long-eared bat, and tricolored bat) within the action areas as roost sites prior to demolition/clearing/construction and return to those roost sites to find the habitat gone or altered, the bats may then have to expend extra energy in finding alternative roosting areas. While this could occur, it is considered unlikely to result in adverse effects given that replacement structures are expected to offer suitable roosting features, and alternative forested habitat is available near the action areas.

Operational Effects
Because these projects are limited to the replacement of damaged or destroyed crossing structures and their approaches, which will not result in changes to traffic volumes, any operational effects above the existing baseline conditions are not expected to occur; or, if they do occur, are expected to be minimal.

5.2 Cumulative Effects
Cumulative effects are defined as "those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation" (50 CFR 402.02). Future federal actions unrelated to the proposed action are not considered because they require separate consultation pursuant to Section 7 of the ESA.

These structure replacements are not expected to induce land development or substantially change the function of the roadways. Any potential effects are anticipated to be localized and consistent with baseline land use patterns. Many private landowners and local governments are recovering from TS Helene and rebuilding homes/businesses and infrastructure. Therefore, there will likely be increased construction in WNC Counties for an undefined period of time. Some of this work will be conducted during seasons when bats are active on the landscape, potentially increasing exposure to construction-related stressors. However, other effects from these private actions cannot be determined at this time.

6. Conclusion and Jeopardy Determination
After reviewing the current status of gray bat, Indiana bat, northern long-eared bat, and tricolored bat, the environmental baselines for the action areas, the effects analyses and cumulative effects, the Service's biological and conference opinions are shared below.

6.1 Gray Bat, Indiana Bat, Northern Long-eared Bat, and Tricolored Bat
On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat as endangered under the ESA. As a result, NCDOT requested a conference for the tricolored bat as the projects may be on-going after the effective date of any final listing rule, if one is published. It is the Service's biological and conference opinion that the proposed actions are not likely to jeopardize the continued existence of gray bat, Indiana bat, northern long-eared bat, or tricolored bat. Effects from these actions stem from the replacement of the following crossing structures and/or associated tree clearing: Buncombe County structures 149, 236, 449, 463, and 846; Mitchell County structures 050, and 087,

Rutherford County structures 572 and 573, and Yancey County structure 179. These action areas comprise only a small amount of active season habitat within the overall ranges of these species. No changes in the long-term viability of gray bat, Indiana bat, northern long-eared bat, or tricolored bat are expected because, given the low numbers of each species which could be expected to occur at each crossing structure location (that is, an estimate of 1 individual per species per structure and an estimate of one Indiana bat, one northern long-eared bat, and one tricolored bat per forested area within each action area), and the occurrence range-wide of each species – gray bat in 14 states, Indiana bat in 27 states, northern long-eared bat in 37 states, and tricolored bat in 39 states as well as in portions of other North and Central American countries – only a miniscule percentage of those overall populations may be affected. Crossing structure construction activities are likely to negatively affect gray bat, Indiana bat, northern long-eared bat, and tricolored bat within the action areas but the incorporated conservation measures are expected to reduce impacts.

7. Incidental Take Statement

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened animals, respectively, without special exemption. Take "*means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct*" (16 U.S.C §1532). Harm is further defined by the Service as "*an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering*" (50 CFR 17.3). Incidental taking "*means any taking otherwise prohibited, if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity*" (50 CFR 17.3). Harass is defined by the Service as "*an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering*" (50 CFR 17.3). Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered to be prohibited under the Endangered Species Act, provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

7.1 Amount of Take for Gray Bat, Indiana Bat, Northern Long-eared Bat, and Tricolored Bat

The Service anticipates incidental take of gray, Indiana, northern long-eared, and tricolored bats may result from the demolition (if applicable) and construction of crossing structures 149, 236, 449, 463, and 846 (Buncombe County); structures 050, and 087 (Mitchell County); structures 572 and 573 (Rutherford County); and structure 179 (Yancey County). Specifically, take of these species may occur as a result of flushing, wounding, or direct mortality during demolition activities (if applicable); or, for northern long-eared bat Indiana bat, and tricolored bat, take may occur as a result of clearing suitable roost trees during times of year that these bats could be tree-roosting within the action area, which may similarly result in flushing, wounding, or direct mortality during clearing activities.

Incidental take of bats is difficult to measure or detect given that 1) the animals are small, cryptic, and generally difficult to observe, 2) finding dead or injured bats during or following project implementation is unlikely, and 3) some incidental take is in the form of non-lethal harm and not directly observable. Given this, the 1) maximum estimated tree clearing (for northern long-eared bat, Indiana bat, and tricolored bat only) and 2) number of structures replaced, are used as surrogate measures of take for this Opinion. Additionally, as discussed in the Environmental Baseline, no more than one individual of gray

bat or two individuals of northern long-eared bat, Indiana bat, or tricolored bat (given structure and tree roosting) are estimated to be present within the action areas of each crossing structure.

Therefore, the incidental take permitted by the Opinion would be exceeded if:

1. *Tree clearing amount exceeds 0.10 acre at a single structure location for the crossing structures listed at the beginning of section 7.2.
2. Any more than one structure is demolished/replaced per crossing structure, as listed at the beginning of section 7.2.

**For Indiana bat, northern long-eared bat, and tricolored bat only*

Exceedance of take as defined above will represent new information that was not considered in this Opinion and shall result in reinitiation of this consultation. The incidental take of gray bat, northern long-eared bat, and tricolored bat is expected to be in the form of harm, wounding, or death.

7.3 Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measure(s) are necessary and appropriate to minimize take of gray bat, Indiana bat, northern long-eared bat, and tricolored bat. These non-discretionary measures reduce the level of take associated with project activities and include only actions that occur within the action area.

1. NCDOT shall ensure that the contractor(s) understands and follows the measures listed in the "Conservation Measures", "Reasonable and Prudent Measures," and "Terms and Conditions" sections of this Opinion.
2. NCDOT shall minimize the area of disturbance within the action areas to only the area necessary for the safe and successful implementation of the proposed actions.
3. NCDOT shall monitor and document any take numbers and the surrogate measures of take and report those to the Service in a batched format.

7.4 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the Applicant must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting and/or monitoring requirements. When incidental take is anticipated, the terms and conditions must include provisions for monitoring project activities to determine the actual project effects on listed fish or wildlife species (50 CFR §402.14(i)(3)). These terms and conditions are nondiscretionary. If this conference opinion is adopted as a biological opinion following a listing or designation, these terms and conditions will be non-discretionary.

1. NCDOT shall adhere to all measures as listed in the Avoidance and Minimization and Conservation Measures section as summarized in this Opinion.
2. The NCDOT will immediately inform the Service if the amount or extent of incidental take in the incidental take statement is exceeded.
3. When incidental take is anticipated, the Terms and Conditions must include provisions for monitoring project activities to determine the actual project effects on listed fish or wildlife species (50 CFR §402.14(i)(3)). In order to monitor the impact of incidental take, the NDOT must report the action impacts on the species to the Service according to the following:
    a. The NCDOT will submit a report each year not later than September 30 identifying, per individual project (via Service Log # and NCDOT identifiers), the following for the preceding calendar year ending December 31:
        i. Acreage and dates of tree removal (if any), if LAA for bats (excepting gray bat).

ii. Dates of structure removal (if any), if LAA for bats.
iii. List of implemented AMMs and BMPs [as listed in Section 2.3].

8. Conservation Recommendations

Section 7(a)(l) of the Endangered Species ESA directs Federal agencies to use their authorities to further the purposes of the Endangered Species ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- **Eastern Hellbender**: Proximity to eastern hellbender occurrence records was noted for the following crossing structures: Buncombe County structures 25-249, 25-250, 25-251, 25-258, and 25-263, Mitchell County structures 25-254, 25-261, and 25-262, and Yancey County structures 25-256, and 25-257. Ahead of work at these locations, coordinate with the NCWRC and the Service to survey for/relocate any hellbender that may be within the action area and vulnerable to impacts from project work.
- **State Species of Concern**: Proximity to aquatic species with North Carolina designations was noted for Rutherford County crossing structure 572. While these species are not currently afforded legal protection under the ESA, we recommend the most protective sediment and erosion control measures possible be used in waters occupied by these species, and we encourage you to coordinate any relocation efforts of such species with the NCWRC.
- **Refueling and Materials Storage**: Refuel construction equipment outside the 100-year floodplain or at least 200 feet from all water bodies (whichever distance is greater) and protected with secondary containment. Store hazardous materials, fuel, lubricating oils, or other chemicals outside the 100-year floodplain or at least 200 feet from all water bodies (whichever distance is greater).
- **Provide Terrestrial Wildlife Passage**: Where riparian corridors suitable for wildlife movement occur adjacent to a project, a spanning structure that also spans a portion of the floodplain and provides or maintains a riprap-free level path underneath for wildlife passage would provide a safer roadway and facilitate wildlife passage. A 10-foot strip may be ideal, though smaller widths can also be beneficial. Alternatively, a "wildlife path" can be constructed with a top-dressing of finer stone (such as smaller aggregate or on-site alluvial material) to fill riprap voids if full bank plating is required. If a multi-barrel culvert is used, the low flow barrel(s) should accommodate the entire stream width and the other barrel should have sills to the floodplain level and be back-filled to provide dry, riprap-free wildlife passage and well as periodic floodwater passage.

For the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, we request notification of the implementation of any conservation recommendations.

9. Reinitiation Notice

This concludes formal consultation on the action(s) outlined in the consultation request dated December 12, 2024. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of

incidental take is exceeded, any operations causing such take must cease pending reinitiation.

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Archaeology

Project Tracking No.:

25-06-0015

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:	**Pipe 0573 Helene flood**	*County:*	**Rutherford**
WBS No:	**DF18313.2081026**	*Document:*	**CE**
F.A. No:		*Funding:*	☐ State ☒ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **USACE, FEMA**

Project Description:

NCDOT proposes to replace a pipe (0573) on SR 1312, Cedar Creek Road, serving Cedar Creek in northern Rutherford County (See Figure 1). Hurricane Helene flooding damaged the pipe location and the surrounding approach; repair or replacement is required. The new pipe would maintain the same general placement and alignment as the current structure, though there may be refinements in positioning. Erosion control, grading, or drainage may be required. Funding sources for this emergency replacement has not been confirmed, however, USACE permitting is expected. Section 106 of the National Historic Preservation Act applies for this federal undertaking.

For the Archaeological Area of Potential Effects (APE), this investigation considers all areas of potential earth disturbing activities associated with the pipe replacement, including the immediate surroundings for staging, regrading, and paving. Accommodations for an on-site detour are factored into the studied project area. With pipe 0573 near its center, the generous APE follows SR 1312 for about 800 feet (0.16 miles). The maximum APE width is 280 feet (0.05 miles), which allows for any grading, cut or fill, or required ROW, or easements for this Helene-related restoration.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

This review examined the coverage and results of previous archaeological investigations, and recorded sites, within, adjacent or in the immediate vicinity of the APE. One archaeological site is documented within two miles of the project area. Site 31Rf106, documented in OSA GIS data as Murpy's Mill Site, is a Native American site detailed in Bibliography # 3623. It is listed as unassessed for eligibility for the National Register of Historic Places, identified as one of 83 sites documented for the *Historic Archaeological Survey of Rutherford County* report. Located 1.2 miles to the southeast, this site will not be affected. Two other environmental reviews for archaeology are documented within two miles of the project. A review for a potential cell tower installation occurred ten years ago about 1.3 miles to the southeast (CT 15-2482) that did not result in a recommendation for archaeological survey. A similar project for a cell tower about 1.99 miles to the southeast did require a survey though no archaeological sites were recorded (CT 16-0159, Bibliography 7507). No other studies, surveys, or sites were identified using OSA's GIS data. The closest cemetery which has been mapped on the joint NCDOT and OSA cemetery database is about 3.00 miles away. No known sites or cemeteries are close to the APE, and none will be affected.

Terrain and soil types provide insight and offer predictions by comparison for archaeological sites. Cedar Creek is relatively small at this elevation, a drainage that collects and runs through the Tate-Greenlee complex soil type (TbD). This terrain is characterized by the steep hillsides, 15-30 percent slopes, and "very stony" soil. There is no other soil types identified other than the steep and rocky Tate-Greenlee complex. LiDAR based elevation mapping created for the project allowed a very detailed examination of interlacing erosional channels, scour, and redeposit areas. The cumulative movement of earth from the power of water over centuries is

extensive. Near the pipe on the east side of the road, the ground appears more level, possibly terraced to the northeast which creates a driveway or farm road, and a small, functional yard defined by a laid stone wall for the nearby house. The house is recorded in Rutherford County's GIS system as having been constructed in 1911.

A brief examination of historic maps found the one-hundred-year-old Rutherford County Soil Map sheet (MC-086.1924u) useful. The road was present at that time, with another spur road splitting towards the northeast a short distance north of pipe 0573, presumably the current driveway onto that parcel. Historic aerial photography reveal that the road and pipe location has shifted towards the west. Available aerials dating from 1955 through 1998 show a gentler curve whereas the 2002 aerial photography shows a slightly more angular realignment to the present roadway. The immediate surroundings of the pipe have been scoured, repaired, and replaced. Virtual streetview images confirm the eroding, changing nature of the creek banks.

For the proposed replacement of a pipe culvert over a small creek in stony, mountainous terrain, no archaeological survey is warranted. The terrain and soil types describe rocky, hilly topography. Scouring and redepositing of soils is evident. The construction and following realignment of the road here, combined with erosion events, has created a poor, disturbed archaeological context at and nearby the pipe to be replaced. There are no known archaeological sites or cemeteries inside, adjacent, or in the nearby vicinity of the APE. No archaeological survey is recommended for the small APE which has low probability for intact, significant archaeological sites.

This project falls within a North Carolina County in which the following federally recognized Tribes have expressed an interest: the Catawba Indian Nation, the Cherokee Nation, the Eastern Band of Cherokee Indians, the United Keetoowah Band of Cherokee Indians, and the Muscogee (Creek) Nation. We recommend that this documentation is forwarded to tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

10/7/2025

NCDOT ARCHAEOLOGIST Date

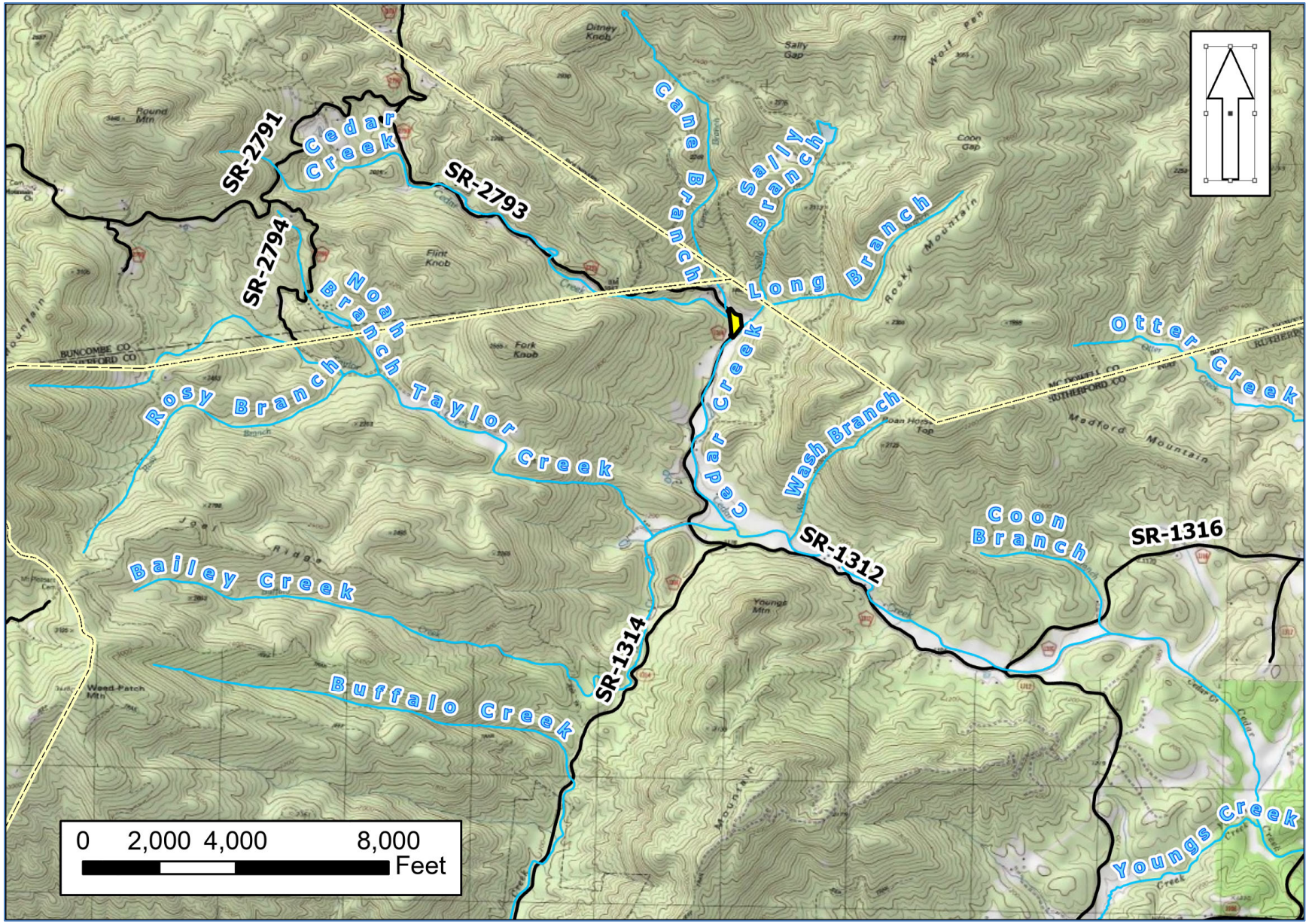


Figure 1. USGS mapping of the mountainous topography along Cedar Creek at pipe 0573 on SR 1312 in Rutherford County. Close to the county border with Buncombe and McDowell, the approximate APE is shaded yellow with a black outline.

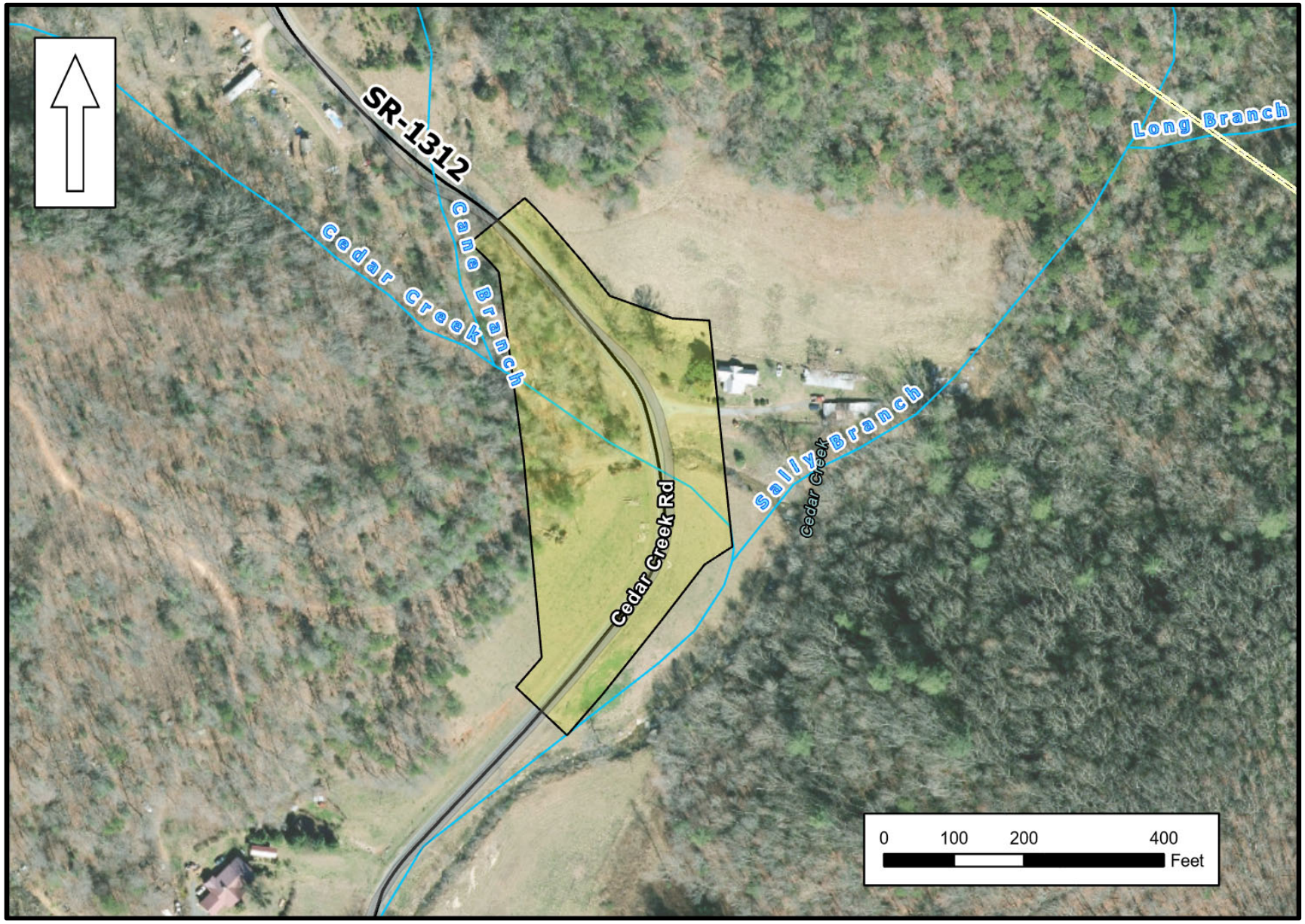


Figure 2. Aerial photography showing the setting for pipe 0573 serving Cedar Creek on SR 1312, Cedar Cree Road. The terrain is mostly sloped, though some terracing is evident associated with the nearby residence. The approximate APE is shaded yellow with a black outline.

Historic Architecture & Landscapes



HISTORIC ARCHITECTURE AND LANDSCAPES ASSESSMENT OF EFFECTS 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

Project No:		***County***:	Rutherford
WBS No.:	DF18313.2081026.PR	***Document Type***:	Federal CE
Fed. Aid No:		***Funding***:	☐ State ☐ Federal
Federal Permit(s):	☒ Yes ☐ No	***Permit Type(s)***:	
Project Description: Replace Pipe Number 573 on SR 1312 (Cedar Creek Road) over Cedar Creek.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:

Review of HPO quad maps, HPO GIS information, historic designations roster, and indexes was undertaken on June 25, 2025. Based on this review, there were undocumented properties over fifty years of age within the Area of Potential Effects, which follows the boundary of the Study Area. An Historic Architecture Survey was required, and the resource was intensively evaluated in an historic structures survey report completed November 2025. The report determined that the Davis House (FR0706) is eligible for National Register listing, and the State Historic Preservation Office concurred with this finding on December 17, 2025. An assessment of effects will be required.

ASSESSMENT OF EFFECTS

Property Name:	Davis House	***Status***:	Determined Eligible
Survey Site No.:	RF0706	***PIN***:	

Effects

☐ No Effect ☒ No Adverse Effect ☐ Adverse Effect

Explanation of Effects Determination:

There is no adverse effect to the resource with the following environmental commitments and remains no adverse effect with the following environmental commitments as of the October 2026 plans.

List of Environmental Commitments:

1. Plan sheets shall include do not disturb to denote the rock wall bordering the creek.
2. Orange temporary construction fencing is to placed in front of rock wall that borders the creek to protect it from construction activities.

FHWA Intends to use the State Historic Preservation Office's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f):

Davis House (RF0706)

SUPPORT DOCUMENTATION

☐Map(s) ☐Previous Survey Info. ☐Photos ☐Correspondence ☒Design Plans

FINDING BY NCDOT AND STATE HISTORIC PRESERVATION OFFICE

Historic Architecture and Landscapes – ASSESSMENT OF EFFECTS

DocuSigned by:
Katherine Husband
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10/27/2026

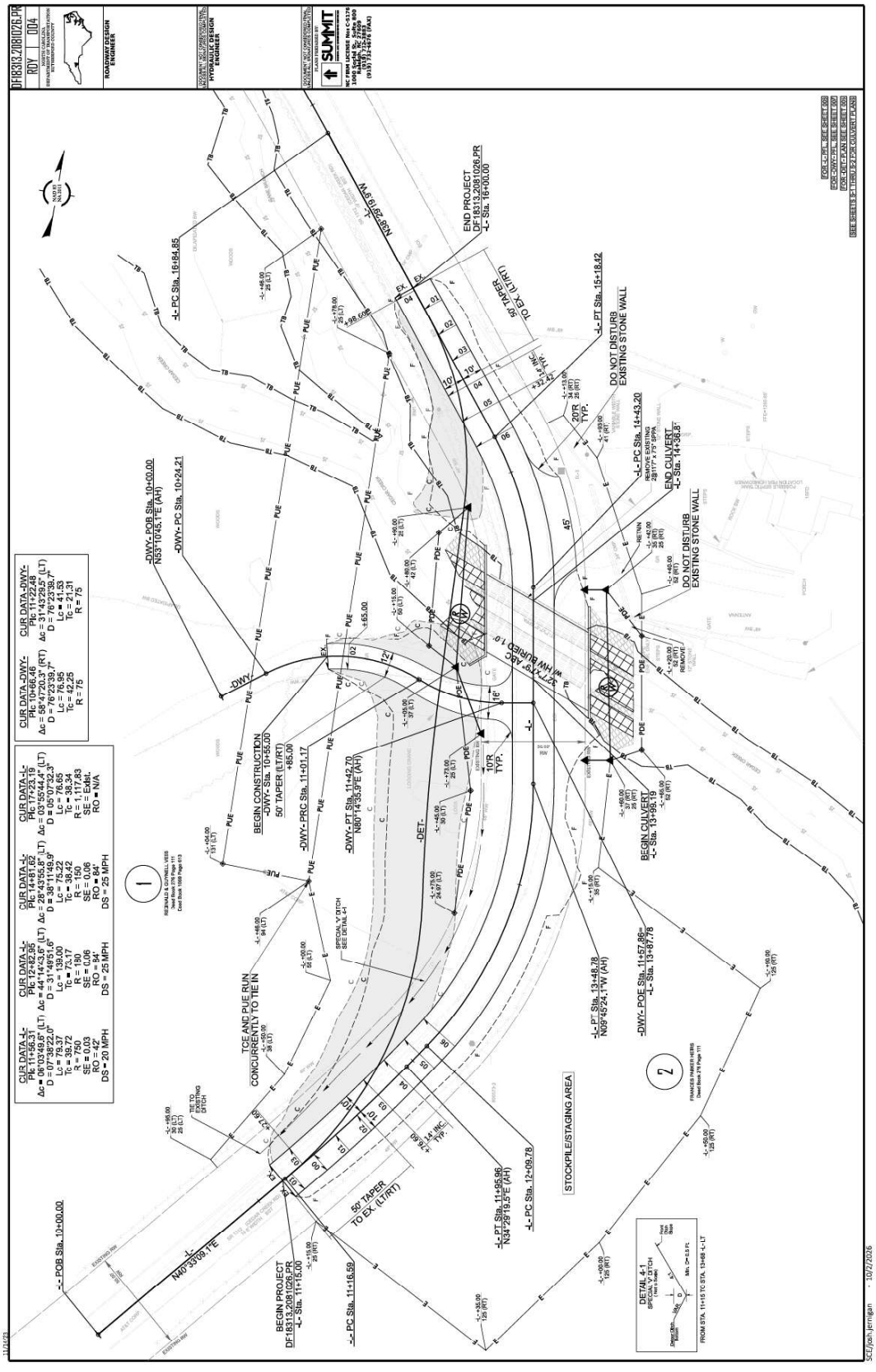
NCDOT Architectural Historian Date

Signed by:
Renee Gledhill-Earley
C26A1556A275464...
10/27/2026

State Historic Preservation Office Representative Date

Signed by:
Seth Wilcher
9967A500F8714F0...
10/27/2026

Federal Agency Representative Date



October 2026 Plans.

Tribal Coordination

From: Farrell, Christine E
Sent: Friday, July 11, 2025 9:59 AM
To: Turchy, Michael A
Subject: Fw: NCDOT Tropical Storm Helene - Bridge Replacements
Attachments: Tribal Coord Letter- Helene EDB_07092025.pdf

From: Farrell, Christine E <cefarrell@ncdot.gov>
Sent: Thursday, July 10, 2025 7:34:00 PM
To: elizabeth-toombs@cherokee.org <elizabeth-toombs@cherokee.org>; russtown@ebci-nsn.gov <russtown@ebci-nsn.gov>; lisa.ebci.thpo@gmail.com <lisa.ebci.thpo@gmail.com>; section106@muscogeenation.com <section106@muscogeenation.com>; rcain@ukb-nsn.gov <rcain@ukb-nsn.gov>; ukbthpo@ukb-nsn.gov <ukbthpo@ukb-nsn.gov>
Cc: Cox, Marissa R <mrcox2@ncdot.gov>; Wilkerson, Matt T <mtwilkerson@ncdot.gov>
Subject: NCDOT Tropical Storm Helene - Bridge Replacements

Dear Tribal Nations,
NCDOT is working to repair and replace bridges damaged by Tropical Storm Helene in Western North Carolina. A list of 25 bridges currently proposed for repair or replacement are attached for your review.

Sincerely,

Christine Farrell
Environmental Policy Unit
North Carolina Department of Transportation
(919) 707 - 6107
cefarrell@ncdot.gov

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

Mr. Russell Townsend
Preservation Specialist
Eastern Band of Cherokee Indians (EBCI) THPO
2877 Governor's Island Road
Bryson City, NC 28713

Dr. Wenonah Haire
Catawba Indian Nation Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, SC 29730

Elizabeth Toombs
Tribal Historic Preservation Officer
PO BOX 948
Tahlequah, OK 74465

Roger Cain
United Keetoowah Band of Cherokee Indians
Section 106 Coordinator
PO Box 746
Tahlequah, OK 74465

Muscogee (Creek) Nation
Section 106 Coordinator
PO BOX 580
Okmulgee OK 74447

July 8, 2025

Dear Tribal Nations,

The North Carolina Department of Transportation is starting the project development, environmental, and engineering studies to replace 25 bridges across Western North Carolina that were damaged and/or destroyed during Tropical Storm Helene. The Federal Highway Administration (FHWA) is the lead federal agency for compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) and a Permit is anticipated under the Section 404 Process with the USACE. A list of the projects with location information is attached.

We would appreciate any information you might have that would be helpful in evaluating potential environmental impacts of the project including recommendation of alternates to be studied. Your comments may be used in the preparation of a NEPA/ State Environmental Policy Act (SEPA) Environmental Document.

In accordance with Section 106 of the NHPA, we also request that you inform us of any historic properties of traditional religious or cultural importance that you are aware of that may be affected by the proposed project. Be assured that, in accordance with confidentiality and disclosure stipulations in Section 304 of the NHPA, we will maintain strict confidentiality about certain types of information regarding historic properties.

Please respond by August 8th so that your comments can be used in the scoping of this project. If you have any questions concerning this project, or would like any additional information, please contact me at cefarrell@ncdot.gov or (919) 707-6107.

Thank you,

Christine Farrell
NEPA Program Consultant

cc: Matt Wilkerson, NCDOT Archaeology Group Leader

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH, NC 27699-1598

Telephone: (919) 707-6000
Fax: (919) 250-4224
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

Helene Express Design Build Bridge Replacements

Western North Carolina - July 2025

Structure #	Structure Type	County	Latitude	Longitude	WBS #	Street Name
100115	Bridge	Buncombe	35.5321	-82.2585	DF18313.2011188	Sand Branch Road
100308	Bridge	Buncombe	35.6349	-82.4711	DF18313.2011271	Bull Creek Road
100380	Bridge	Buncombe	35.6079	-82.4195	DF18313.2011278	Davidson Road
580058	Culvert	McDowell	35.6701	-82.1147	DF18313.1059106	US 70
990157	Bridge	Yancey	35.9509	-82.4056	DF18313.2100309.PR	Elk Shoals Creek Road
990192	Bridge	Yancey	35.9747	-82.2702	DF18313.2100413.PR	Upper Pig Pen Road
990193	Bridge	Yancey	35.9755	-82.2706	DF18313.2100412.PR	Upper Pig Pen Road
990233	Bridge	Yancey	35.9829	-82.2701	DF18313.2100411.PR	Upper Pig Pen Road
100149	Bridge	Buncombe	35.755	-82.3858	DF18313.2011361.PR	Coleman Boundary Rd.
100199	Bridge	Buncombe	35.636	-82.3996	DF18313.2011267.PR	Summer Haven Rd.
100236	Bridge	Buncombe	35.6944	-82.4993	18313.1011132.PR	Ox Creek Rd.
100449	Pipe	Buncombe	35.6702	-82.7929	DF18313.2011391.PR	Sugar Creek Rd.
100463	Bridge	Buncombe	35.5639	-82.2712	DF18313.2011269.PR	Crooked Creek Rd.
580382	Non-NBIS pipe	McDowell	35.6905	-82.0847	DF18313.2059107.PR	Laurel Lane
600050	Bridge	Mitchell	36.017	-82.0856	DF18313.2061198.PR	Stagger Weed Rd.
800573	pipe-culvert	Rutherford	35.5257	-82.1693	DF18313.2081026.PR	Cedar Creek Rd.
990179	pipe	Yancey	35.9066	-82.2615	DF18313.2100590.PR	Lower Georges Fork Rd.
990188	Bridge	Yancey	35.994	-82.2894	18313.1100052.PR	Smith Johnson Rd.
100159	Bridge	Buncombe	35.7092	-82.461	DF18313.2011262.PR	Blackberry Inn Rd.
100846	Bridge	Buncombe	35.5693	-82.2955	DF18313.2011105.PR	Chestnut Hill Rd.
800572	Bridge	Rutherford	35.5102	-82.172	DF18313.2081051.PR	Cedar Creek Road
600087	Bridge	Mitchell	36.1158	-82.1869	DF18313.2061363.PR	Hughes Gap Rd.
600156	Bridge	Mitchell	36.0803	-82.2253	DF18313.2061559.PR	Beans Creek Rd.
100424	Bridge	Buncombe	35.5447	-82.3117	DF18313.2011444.PR	Flat Creek Road
580090	Bridge	McDowell	35.6546	-82.2456	DF18313.2059015.PR	Mill Creek Road

NEPA Document

Type I or II Categorical Exclusion Action Classification Form

STIP Project No.	Pipe-Culvert 573, Rutherford County, Division 13
WBS Element	DF18313.2081026.PR
Federal Project No.	Federal Aid Number

A. Project Description:

The North Carolina Department of Transportation (NCDOT) intends to replace Pipe-Culvert 800573 over Cane Branch on Cedar Creek Road in Rutherford County, North Carolina (Division 13). See attached vicinity map.

B. Description of Need and Purpose:

The Purpose of the project is to replace a structure damaged by floodwaters associated with Tropical Storm Helene which made landfall in Florida on September 26, 2024. The repair/replacement work is needed to restore essential traffic in Western North Carolina.

C. Categorical Exclusion Action Classification:

Type I(B) - Ground Disturbing Action

D. Proposed Improvements:

9. The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred in by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 U.S.C. 5121):
a) Emergency repairs under 23 U.S.C. 125; and
b) The repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility (such as a ferry dock or bus transfer station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action:
i) Occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction); and
ii) Is commenced within a 2-year period beginning on the date of the declaration.

E. Special Project Information:

NCDOT conducted a desktop GIS analysis for potential natural and human environment features between November 2024 and May 2025. The study area was defined as a 200-foot buffer around the bridge location. NCDOT is utilizing an Emergency Express Design-Build contracting process to expedite this process. If additional ROW is required, or if the final design results in potential impacts outside of the study area, NCDOT will re-evaluate and document any additional effects.

NCDOT is providing comprehensive public outreach to our western NC communities in lieu of site-specific outreach. As site-specific information becomes available, NCDOT will use its various outreach platforms to inform the public.

In October 2025 a Direct and Indirect Screening Tool (2025 DIST Report) was used to assess potential impacts to the local community, farm lands, and pedestrian accomodations. No Voluntary Agricultural Districts or farm lands were found.

NCDOT conducted a review of the potential cultural resources present within the study area boundary in June 2025. A review of potential archeological resources determined "no survey required" (2025 No Survey Form) in October 2025. Potential historic structures were found during preliminary review, and field visits were conducted in July 2025. The Davis House (NCHPO RF0706) was determined eligible for listing on the National Register of Historic Places. An effects meeting was held on June 18, 2026 and the State Historic Preservation Office (SHPO) concurred with a determination of *No Adverse Effect* with the following environmental commitments (July 2026 Assessement of Effects Form).

- Plan sheets shall include "do not disturb" to denote the rock wall bordering the creek.
- Orange temporary construction fencing is to be placed in front of rock wall that borders the creek to protect it from construction activities

A second effects meeting was held on October 15, 2026 to discuss project updates, including an increase in culvert size and the need for a staging area within the boundaries of the historic property (2026 Plan Set). SHPO determined that the previous *No Adverse Effect* determination remianed valid, with no additional commitments (October 2026 Assessment of Effects Form).

FHWA intends to use the State Historic Preservation Office's concurrence as a basis for a "de minimis" finding, pursuant to Section 4(f).

Coordination letters/emails were sent to the Eastern Band of Cherokee, Catawba Indian Nation, United Keetoowah Band of Cherokee Indians, and the Muscogee (Creek) Nation, on July 10, 2025 (2025 Tribal Consultation) with request for comment by August 8, 2025. No response has been received as of the date of this document. Additionally, a coordination letter/email was sent to the Lumbee Tribe of North Carolina on September 2, 2026 (Lumbee Tribe Coordination). No response was received.

The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool was initially reviewed between May and July 2025. USFWS lists the following species below as federally protected with potential to be found within the project study area as of this date:

Species Name	Scientific Name	ESA Status	Habitat Present	Biological Conclusion
Gray bat	*Myotis grisescens*	Endangered	No	MALAA
Northern Long-eared bat	*Myotis septentrionalis*	Endangered	No	MALAA
Tricolored bat	*Perimyotis subflavus*	Proposed Endangered	No	MALAA
Indiana bat	*Myotis sodalis*	Endangered	No	MALAA
Small whorled pogonia	*Isotria medeoloides*	Threatened	No	No Effect
White irisette	*Sisyrinchium dichotomum*	Endangered	Unknown	No Effect
Dwarf-flowered Heartleaf	*Hexastylis naniflora*	Threatened	No	No Effect
Monarch Butterfly	*Danaus plexippus*	Long Term Action	Undetermined	Not Required

Monarch Butterfly - The USFWS proposed to list the monarch butterfly as a threatened species under the Endangered Species Act (ESA) in December 2024. However, as of December 2025 the final decision has been delayed, and the status has been moved to "long-term action," meaning no final ruling is expected for at least another year. No regulatory protections will take effect until the listing is finalized. Until that time, proposed species do not receive formal ESA protections, though federal action agencies are still required to ensure that their actions do not jeopardize the continued existence of the species. Action agencies may initiate consultation with the USFWS to obtain a conference opinion. If and when the listing is finalized, and at the agency's request, the Service may adopt the conference opinion as a biological opinion—provided no relevant new information has emerged and no substantial changes to the proposed action have occurred. The project will not jeopardize the listing of this species. If habitat disturbance occurs after the final listing of this species, a biological conclusion will be require.

F. Project Impact Criteria Checklists:

F2. Ground Disturbing Actions – Type I (Appendix A) & Type II (Appendix B)

For proposed improvement(s) that fit Type I Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix A) including 2, 3, 6, 7, 9, 12, 18, 21, 22, 23, 24, 25, 26, 27, 28, &/or 30; &/or Type II Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix B), answer the project impact threshold questions (below) and questions 8–31.

- If any question 1-7 is checked "Yes" then NCDOT certification for FHWA approval is required.
- If any question 1-30 is checked "Yes" then additional information will be required for those questions in Section G.

Source documents should be cited for each question as appropriate. If no source is needed or available, denote as "n/a". Please note that some "no" answers should have a corresponding email/memo/report cited for that NCDOT discipline. Project reports or memos/emails should be linked to their location on the project's Precon site; other publications (e.g. the STIP) can be linked directly. Example: (Source: NCDOT HE-0001 NRTR [HE-0001_NRTR.pdf, 2022])

PROJECT IMPACT THRESHOLDS (FHWA signature required if any of the questions 1-7 are marked "Yes.")		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) in which a "likely to adversely affect determination" has been made? (Source: NCDOT "Batched Format Consultation" with FWS, 2025)	☒	☐
2	Does the project result in effects subject to the conditions of the Bald and Golden Eagle Protection Act (BGEPA)? (Source: NCDOT BSG Review, 2025)	☐	☒
3	Does the project generate substantial controversy or public opposition, regarding human and/or natural environment concerns, following appropriate public involvement? (Source: DIST, 2025)	☐	☒
[redacted]	[redacted]	☐	☐
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition? (Source: Design Recommendation Plan set, 2026)	☐	☒
6	Does the project require an Individual Section 4(f) approval? (Source: EPU GIS Screening, 2025)	☐	☒
7	Does the project result in adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or result in an adverse effect on a National Historic Landmark (NHL)? (Source: NCDOT Cultural Resources review, 2026; Assessment of Effects, 2026)	☐	☒
Other Considerations		Yes	No
8	Is an Endangered Species Act (ESA) determination unresolved or resolved utilizing a Section 7 programmatic agreement? Include in Section G any utilization of a Section 7 Programmatic Agreement. (Source: NCDOT BSG Review, 2025)	☐	☒
9	Is the project located in anadromous fish spawning waters? (Source: EPU GIS Screening, 2025)	☐	☒
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)? (Source: EPU GIS Screening, 2025)	☐	☒
11	Does the project impact waters of the United States in any of the designated mountain trout streams? (Source: EPU GIS Screening, 2025)	☒	☐
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit? (Source: EPU GIS Screening, 2025)	☐	☒

13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility? (Source: EPU GIS Screening, 2025)	☐	☒
14	Does the project include a Section 106 of the National Historic Preservation Act (NHPA) effects findings other than a No Effect, including archaeological remains? No matter the effect finding, list any commitments (conditions) in Section I made in association with the effect finding detailed in Section G. (Source: NCDOT Cultural Resources review, 2026)	☒	☐
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.? (Source: Design Recommendation Plan set, 2026)	☐	☒
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? (Source: Atlas Screening, 2025)	☐	☒
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)? (Source: EPU GIS Screening, 2025)	☐	☒
18	Does the project require a U.S. Coast Guard (USCG) permit? (Source: EPU GIS Screening, 2025)	☐	☒
19	Does the project involve Coastal Barrier Resources Act (CBRA) resources? (Source: EPU GIS Screening, 2025)	☐	☒
20	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River? (Source: EPU GIS Screening, 2025)	☐	☒
21	Does the project impact federal lands (e.g., U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands? (Source: EPU GIS Screening, 2025)	☐	☒
22	Does the project involve any changes in access control to the interstate (modification or construction of an interchange)? (Source: Design Recommendation Plan set, 2026)	☐	☒
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness? (Source: DIST, 2025)	☐	☒
24	Will maintenance of traffic or detours cause substantial disruption? (Source: Design Recommendation Plan set, 2026)	☐	☒
25	Is the project inconsistent with the NCDOT's federally approved 4-year STIP or NCDOT's BMIP, and where applicable, the Metropolitan Planning Organization's (MPO) Transportation Improvement Program (TIP)? (Source: Emergency Response project, not in STIP)	☒	☐
26	Does the project require the acquisition of lands under the protection of the Land and Water Conservation Fund, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, Dedicated Nature Preserves, 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? (Source: ATLAS Screening, 2025)	☐	☒
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)? (Source: ATLAS Screening, 2025)	☐	☒
28	Does the project "use" Section 4(f) property, and/or result in a *de minimis* determination? (Source: DIST, 2025)	☒	☐
29	Is the project considered a Type I under the NCDOT Noise Policy? (Source: NA-replace-in-kind)	☐	☒
30	Does the project impact VAD-enrolled property, or prime or important farmland soil, as defined by the Farmland Protection Policy Act (FPPA)? (Source: DIST, 2025)	☐	☒

G. Additional documentation as required from Section F; documentation should address the context and intensity (or severity) of the impact. (Required for all questions marked 'Yes.')

1. A "Batched Format Consultation" was completed by NCDOT Biological Surveys Group in July 2025 to address multiple crossing structures damaged by Tropical Storm Helene in Buncombe, Mitchell, McDowell, Rutherford, and Yancey Counties. The USFWS confirmed the biological conclusions for listed species in July 2025 (2025 USFWS Consultation) by issuing either a Biological Opinion, Conference Opinion or Informal Concurrence. NCDOT will follow the Avoidance and Minimization Measures and Conservation Measures included in the green sheet below as well as those listed in the Biological Opinion.

11. Cane Branch is a designated trout water per NCDWR Surfacewater Classification system. Per the WRC Division 13 Helene Damaged Bridge Replacement Comments (2025 NCWRC Consultation), there is no trout moratoria.

14. A *No Adverse Effect* determination with environmental commitments for impacts to the National Register-eligible Davis House was issued on July 14, 2026. A follow-up determination of No Adverse Effects was made on October 27, 2026 following the presentation of updated plans.

25. This project is an emergency relief project due to Tropical Storm Helene impacts. Per 40 CFR § 93.126, it is exempt from the requirement to determine conformity because it does not involve substantial functional, locational or capacity changes (23 CFR 450.218(g)).

28. FHWA intends to use the HPO's concurrence on the *No Adverse Effect* determination as a basis for a "*de minimis*" finding, pursuant to Section 4(f). Environmental commitments apply.

H. Categorical Exclusion Approval:

STIP Project No.	Pipe-Culvert 573, Rutherford County, Division 13
WBS Element	DF18313.2081026.PR
Federal Project No.	Federal Aid Number

Prepared By:

11/05/2026 — Date

Signed by: C5D40DDBAC76416...

Katie Harville, NEPA Program Consultant
Environmental Policy Unit, NCDOT

Prepared For: NCDOT Division 13

Reviewed By:

11/05/2026 — Date

Signed by: 78BFB0F950D342E...

Marissa Cox, Western Regional Team Lead
North Carolina Department of Transportation

☐ **Approved**

- If NO grey boxes are checked in Section F, NCDOT approves the Type I or Type II Categorical Exclusion.

☑ **Certified**

- If ANY grey boxes are checked in Section F, NCDOT certifies the Type I or Type II Categorical Exclusion for FHWA approval.

11/05/2026 — Date

Signed by: CA084B4A6412432...

John Jamison, Environmental Policy Unit Manager
North Carolina Department of Transportation

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

11/05/2026 — Date

DocuSigned by: E932DEEC5B6240F...

for Yolonda K. Jordan, Division Administrator
Federal Highway Administration

Note: Prior to ROW or Construction authorization, a consultation may be required (please see Section VIII of the NCDOT-FHWA CE Programmatic Agreement for more details). Upload final documentation to ATLAS workbench and add commitments to the green sheet and Commitments dashboard.

PROJECT COMMITMENTS

SR1332 Cedar Creek Rd. PIPE_CULVERT 573 (PERM)
County: Rutherford
WBS: DF18313.2081026.PR

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Project Management (PMU/SMU/Division), Division Environmental Staff - AVOIDANCE & MINIMIZATION MEASURES (AMMS) FOR LISTED BAT SPECIES AND HABITAT
The following General AMMs will be used to minimize impacts to listed/proposed species and habitat.

•General AMM1: NCDOT will ensure all operators, employees, and contractors working in areas of suitable habitat for federally listed/proposed species are aware of all NCDOT environmental commitments, including all applicable AMMs and all associated NCDOT guidance documents.

•General AMM2: Best management practices (BMP) and sediment and erosion control (SEC) measures will be utilized to prevent non-point source pollution, control storm water runoff, and minimize sediment damage to avoid and reduce overall water quality degradation.

•General AMM3: Areas of disturbance, such as tree clearing, grubbing, and grading, will be limited to the maximum extent possible.

Project Management (PMU/SMU/Division), Division Environmental Staff - AVOIDANCE & MINIMIZATION MEASURES (AMMs) FOR LISTED BAT SPECIES
The following General AMMs will be used to minimize impacts to listed/proposed bat species.

•Bat AMM Noise: Percussive activities will occur only after the tree clearing within the action area has been completed, helping to reduce the exposure of any tree-roosting bats within the action area to high decibel noise.

•Bat AMM Lighting: No new permanent lighting will be added to the action area. Any lighting needed for night work will be directed at the work area and shielded from surrounding waters/landscape, only on when needed, no brighter than necessary, and blue light emissions will be limited.

•Bat AMM Riparian Planting: Disturbed riparian areas will be replanted with native, fast growing tree and shrub species where feasible, with the understanding that plantings likely cannot be done in utility/drainage/ construction easements.

Project Management (PMU/SMU/Division) - CONSERVATION MEASURES FOR LISTED BAT SPECIES
This project is anticipated to require tree clearing and structure removal which is likely to adversely affect (MALAA) listed bat species. NCDOT will contribute a payment to the N.C. Bat Conservation Fund in support of the recovery of federally listed bat species.

Project Management (PMU/SMU/Division), Division Environmental Staff - SECTION 106 - DAVIS HOUSE - Design & Construction
To avoid adverse impacts to the historic property, the Davis House:

•Plan sheets shall include “do not disturb” to denote the rock wall bordering the creek.

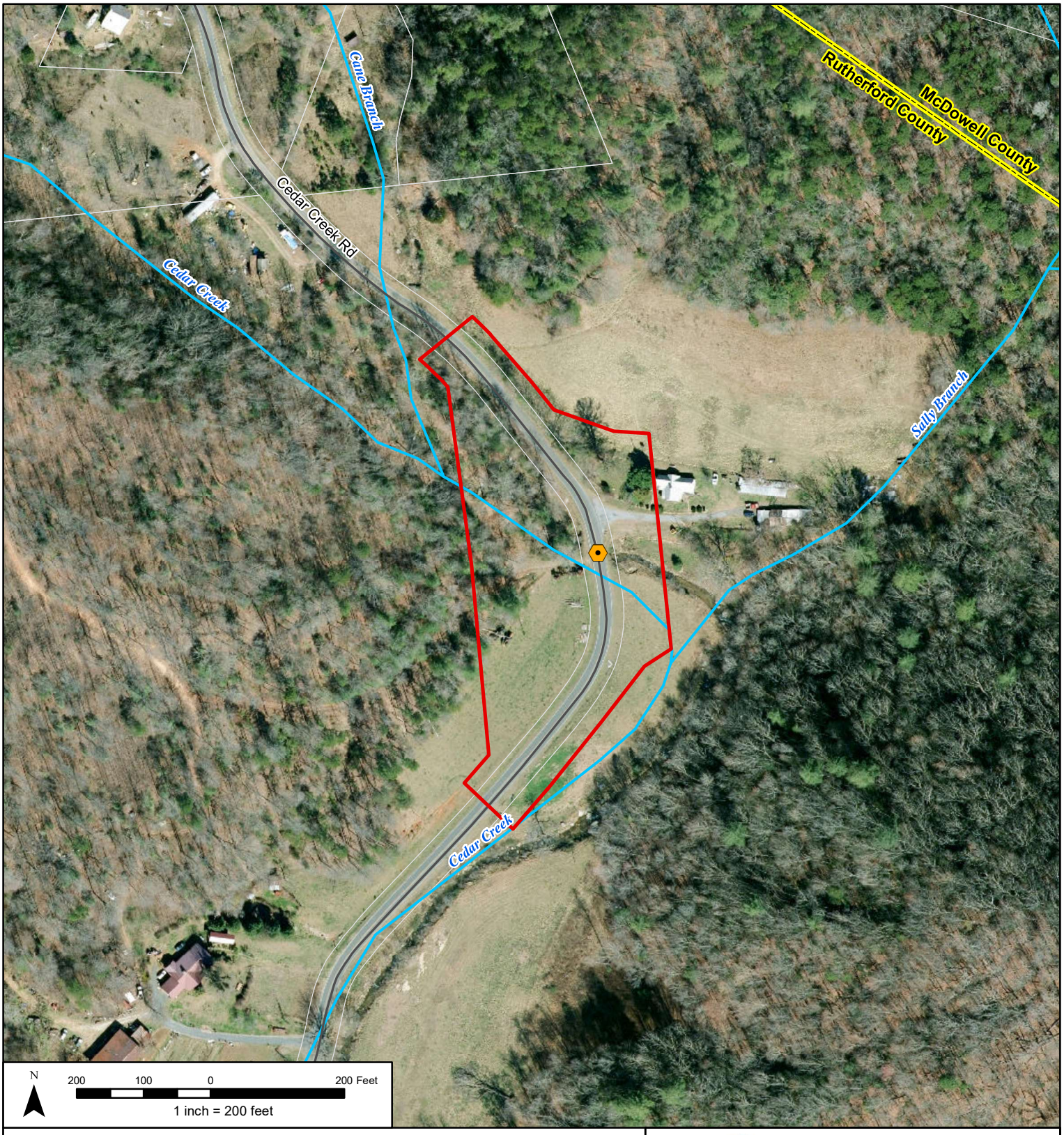
•During construction, orange temporary construction fencing is to be place in front of rock wall that borders the creek to protect it from construction activities.

COMMITMENTS FROM PERMITTING

No permitting commitments developed to date.

*****END OF PROJECT COMMITMENTS*****

DF18313.2081026.PR
SR1332 Cedar Creek Rd. PIPE_CULVERT 573 (PERM)
Last Modified Date: 11/05/2026



Legend

- Project Study Area
- Parcel
- County Boundary
- Pipe No. 573
- Road
- Stream



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 13

Replace Pipe No. 573 on
SR 1312 (Cedar Creek Rd)
over Cedar Creek

Project DF18313.2081026.PR

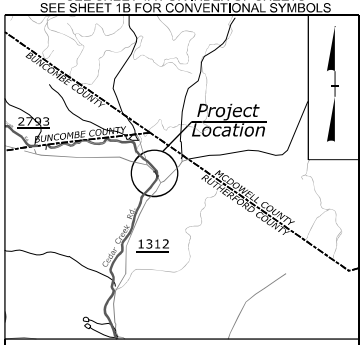
Figure 1 - Project Vicinity

Data Source: NCDOT, NCDEQ, Rutherford County, NC OneMap, Esri, Wetherill Engineering
Figure Date: 04/02/2025

09/08/99

CONTRACT: C205124 PROJECT: DF18313.2081026.PR

SEE SHEET 1A FOR INDEX OF SHEETS
SEE SHEET 1B FOR CONVENTIONAL SYMBOLS



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

RUTHERFORD COUNTY

LOCATION: *REPLACE CULVERT #800573 ON SR 1312 (CEDAR CREEK RD.) OVER CEDAR CREEK*

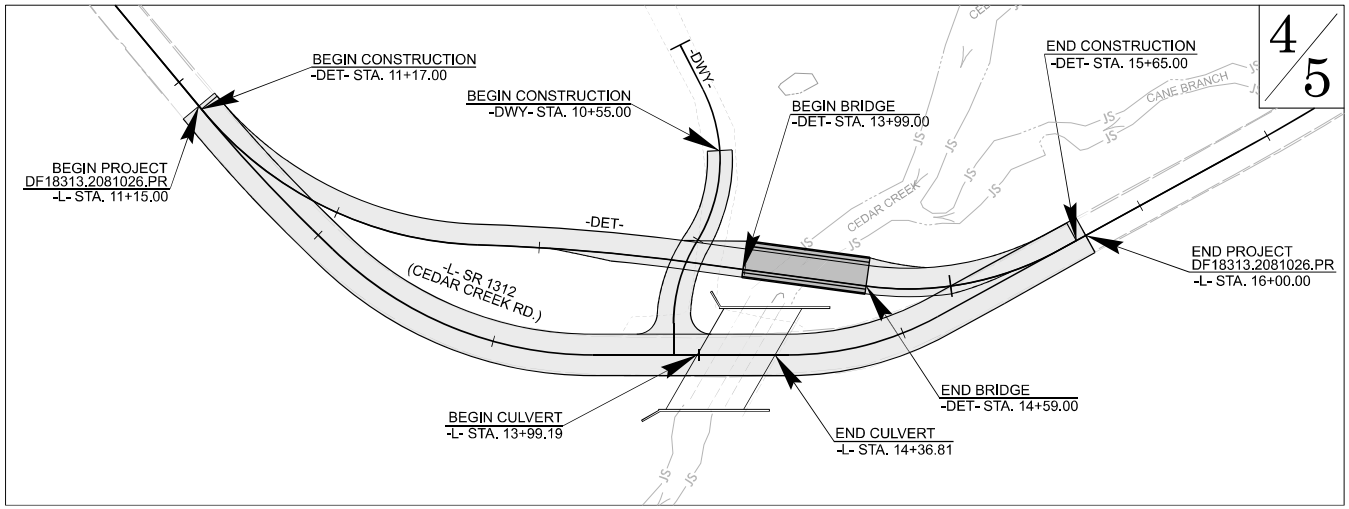
TYPE OF WORK: *GRADING, DRAINAGE, PAVING, & STRUCTURE*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DF18313.2081026.PR	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
DF18313.2081026.PR	NA	PE
DF18313.2081026.PR	NA	ROW
DF18313.2081026.PR	NA	CONST

SUBMITTAL B-006	ROW PLANS	10/02/2026
RESPONSE B-006	ROW PLANS	

PREPARED IN THE OFFICE OF:
SUMMIT DESIGN AND ENGINEERING SERVICES
FIRM NO. C-3176
1000 Sosbal St, Suite 800
Raleigh, NC 27609
Voice: (919) 732-3883
Fax: (919) 732-6776
www.summitdse.com



THIS IS NOT A CONTROLLED ACCESS PROJECT.
THIS PROJECT DOES NOT FALL WITHIN ANY JURISDICTIONAL LIMITS.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 20 10 0 20 40

PROFILE (HORIZONTAL): 20 10 0 20 40

PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2026 = 500
ADT 2046 = 500
V = 40 MPH
FUNC CLASS = LOCAL
RURAL

SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT DF18313.2081051.PR = 0.087 MILES
LENGTH STRUCTURE TIP PROJECT DF18313.2081051.PR = 0.005 MILES
TOTAL LENGTH TIP PROJECT DF18313.2081051.PR = 0.092 MILES

NCDOT CONTACT: BYRON KYLE
NCDOT - ALTERNATIVE DELIVERY UNIT

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: NOVEMBER 3, 2025

LETTING DATE: NOVEMBER 3, 2025

SPENCER MERRITT, PE
PROJECT ENGINEER

JOSHUA JERNIGAN, PE
PROJECT DESIGN ENGINEER

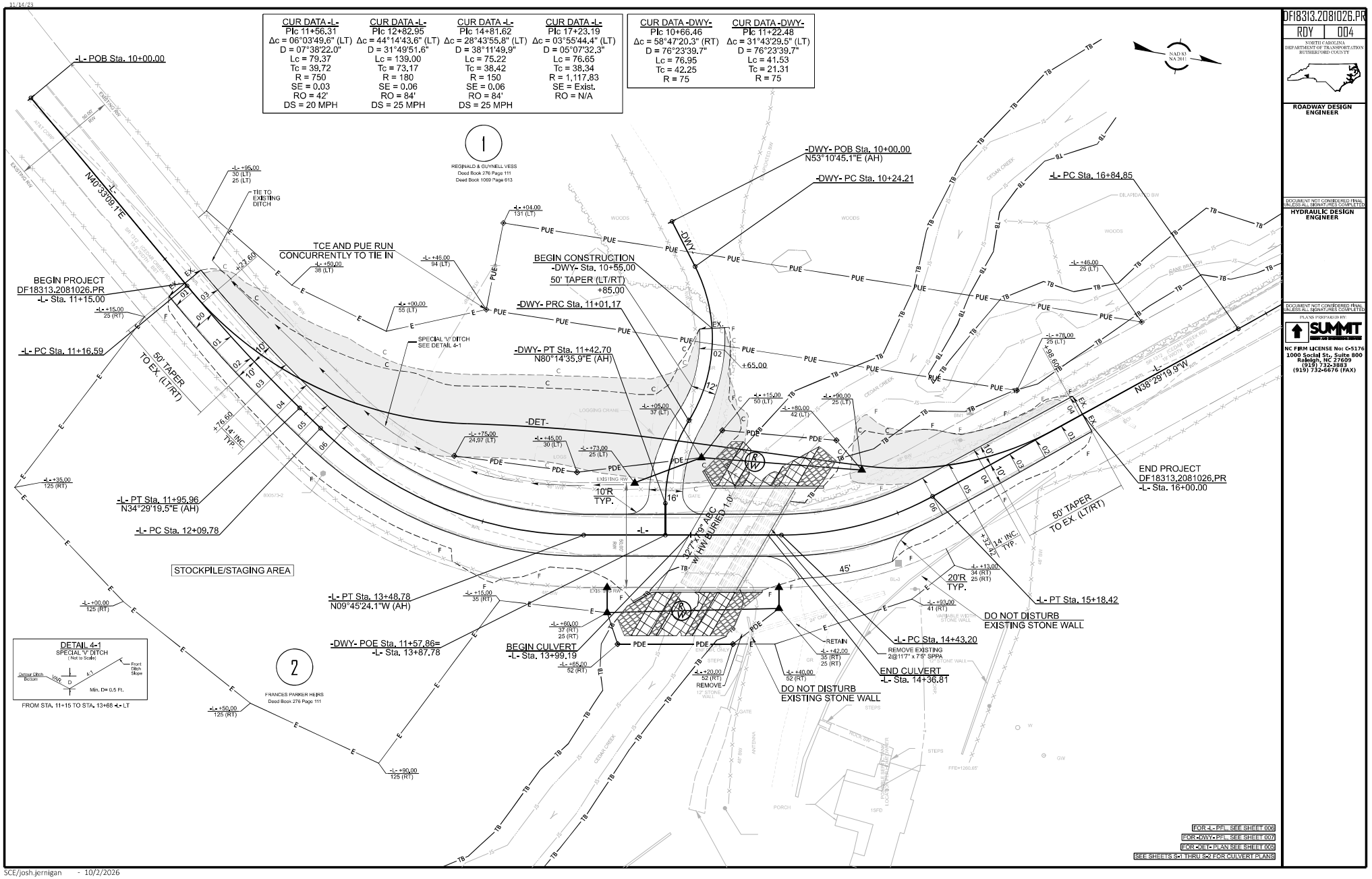
HYDRAULICS ENGINEER

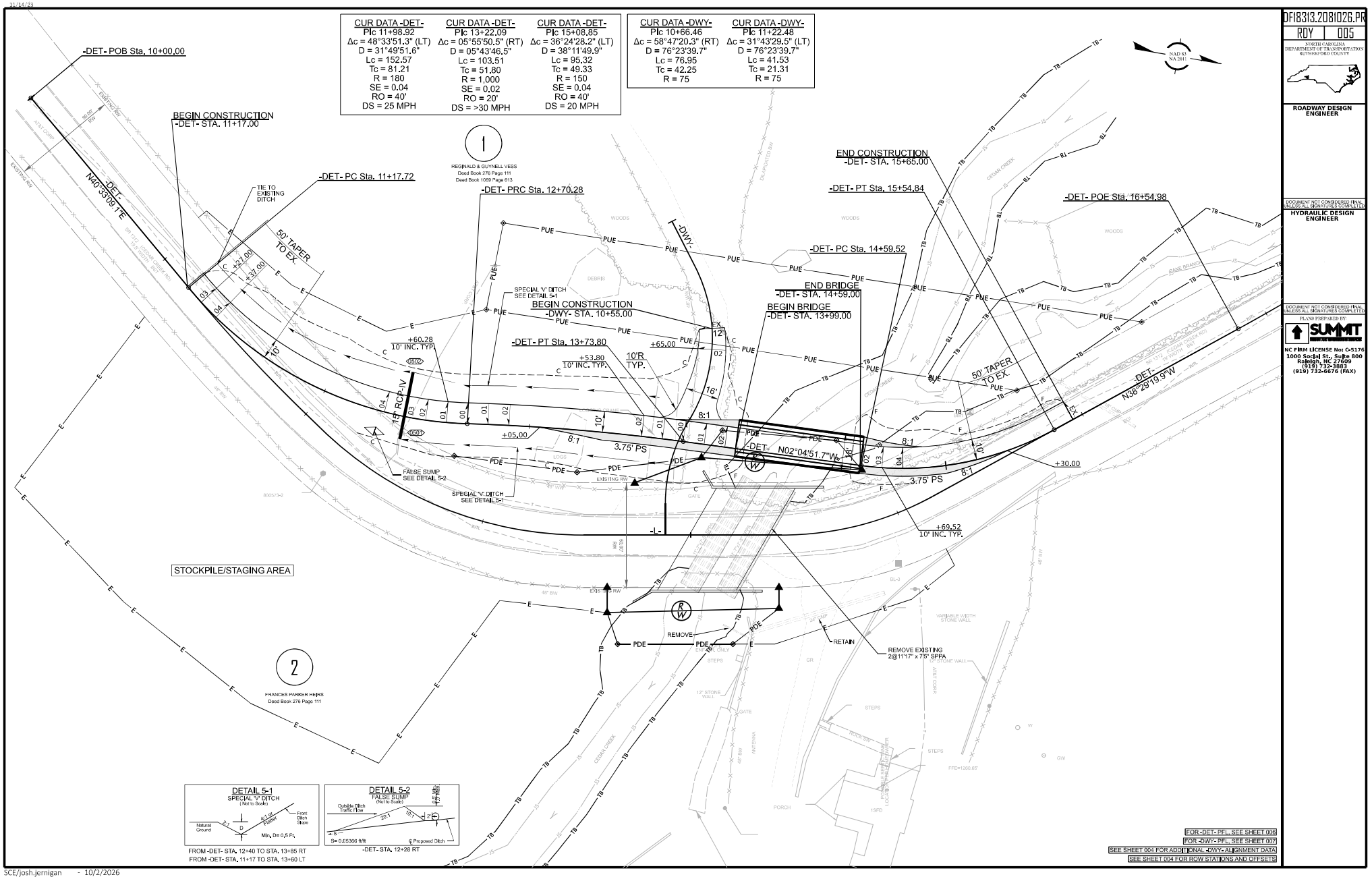
SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION ·


CUR DATA -L-
PIc 11+56.31
Δc = 06°03'49.6" (LT)
D = 07°38'22.0"
Lc = 79.37
Tc = 39.72
R = 750
SE = 0.03
RO = 42'
DS = 20 MPH
CUR DATA -L-
PIc 12+82.95
Δc = 44°14'43.6" (LT)
D = 31°49'51.6"
Lc = 139.00
Tc = 73.17
R = 180
SE = 0.06
RO = 84'
DS = 25 MPH
CUR DATA -L-
PIc 14+81.62
Δc = 28°43'55.8" (LT)
D = 38°11'49.9"
Lc = 75.22
Tc = 38.42
R = 150
SE = 0.06
RO = 84'
DS = 25 MPH
CUR DATA -L-
PIc 17+23.19
Δc = 03°55'44.4" (LT)
D = 05°07'32.3"
Lc = 76.65
Tc = 38.34
R = 1,117.83
SE = Exist.
RO = N/A
CUR DATA -DWY-
PIc 10+66.46
Δc = 58°47'20.3" (RT)
D = 76°23'39.7"
Lc = 76.95
Tc = 42.25
R = 75
CUR DATA -DWY-
PIc 11+22.48
Δc = 31°43'29.5" (LT)
D = 76°23'39.7"
Lc = 41.53
Tc = 21.31
R = 75
-L- POB Sta. 10+00.00
N40°33'09.1"E
BEGIN PROJECT
DF18313.2081026.PR
-L- Sta. 11+15.00
-L- PC Sta. 11+16.59
50' TAPER
TO EX. (LT/RT)
-L- PT Sta. 11+95.96
N34°29'19.5"E (AH)
-L- PC Sta. 12+09.78
STOCKPILE/STAGING AREA
-L- PT Sta. 13+48.78
N09°45'24.1"W (AH)
-DWY- POE Sta. 11+57.86=
-L- Sta. 13+87.78
BEGIN CULVERT
-L- Sta. 13+99.19
TCE AND PUE RUN
CONCURRENTLY TO TIE IN
TIE TO
EXISTING
DITCH
SPECIAL 'V' DITCH
SEE DETAIL 4-1
BEGIN CONSTRUCTION
-DWY- Sta. 10+55.00
50' TAPER (LT/RT)
+85.00
-DWY- PRC Sta. 11+01.17
-DWY- PT Sta. 11+42.70
N80°14'35.9"E (AH)
-DWY- POB Sta. 10+00.00
N53°10'45.1"E (AH)
-DWY- PC Sta. 10+24.21
-DET-
10'R
TYP.
16'
12'
+65.00
-L-
32'7"x19" ARCH
w/ HW BURIED 1.0'
45'
20'R
TYP.
-L- PC Sta. 14+43.20
REMOVE EXISTING
2@11'7" x 7'5" SPPA
END CULVERT
-L- Sta. 14+36.81
DO NOT DISTURB
EXISTING STONE WALL
-L- PT Sta. 15+18.42
DO NOT DISTURB
EXISTING STONE WALL
-L- PC Sta. 16+84.85
-L-
N38°29'19.9"W
END PROJECT
DF18313.2081026.PR
-L- Sta. 16+00.00
50' TAPER
TO EX. (LT/RT)
14' INC.
TYP.
+22.42
+76.60
14' INC.
TYP.
DETAIL 4-1
SPECIAL 'V' DITCH
(Not to Scale)
Min. D= 0.5 Ft.
FROM STA. 11+15 TO STA. 13+68 -L- LT
REGINALD & GUYNELL VESS
Deed Book 276 Page 111
Deed Book 1069 Page 613
FRANCES PARKER HEIRS
Deed Book 276 Page 111
RETAIN
REMOVE
12' STONE WALL
FOR -L- PFL, SEE SHEET 006
FOR -DWY- PFL, SEE SHEET 007
FOR -DET- PLAN SEE SHEET 005
SEE SHEETS S-1 THRU S-2 FOR CULVERT PLANS
DF18313.2081026.PR
RDY 004
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RUTHERFORD COUNTY
ROADWAY DESIGN
ENGINEER
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED
HYDRAULIC DESIGN
ENGINEER
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED
PLANS PREPARED BY:
SUMMIT
NC FIRM LICENSE No: C-5176
1000 Social St., Suite 800
Raleigh, NC 27609
(919) 732-3883
(919) 732-6676 (FAX)


CUR DATA -DET-
PIc 11+98.92
Δc = 48°33'51.3" (LT)
D = 31°49'51.6"
Lc = 152.57
Tc = 81.21
R = 180
SE = 0.04
RO = 40'
DS = 25 MPH
CUR DATA -DET-
PIc 13+22.09
Δc = 05°55'50.5" (RT)
D = 05°43'46.5"
Lc = 103.51
Tc = 51.80
R = 1,000
SE = 0.02
RO = 20'
DS = >30 MPH
CUR DATA -DET-
PIc 15+08.85
Δc = 36°24'28.2" (LT)
D = 38°11'49.9"
Lc = 95.32
Tc = 49.33
R = 150
SE = 0.04
RO = 40'
DS = 20 MPH
CUR DATA -DWY-
PIc 10+66.46
Δc = 58°47'20.3" (RT)
D = 76°23'39.7"
Lc = 76.95
Tc = 42.25
R = 75
CUR DATA -DWY-
PIc 11+22.48
Δc = 31°43'29.5" (LT)
D = 76°23'39.7"
Lc = 41.53
Tc = 21.31
R = 75
-DET- POB Sta. 10+00.00
BEGIN CONSTRUCTION
-DET- STA. 11+17.00
-DET- PC Sta. 11+17.72
-DET- PRC Sta. 12+70.28
-DET- PT Sta. 13+73.80
-DET- PC Sta. 14+59.52
-DET- PT Sta. 15+54.84
-DET- POE Sta. 16+54.98
END CONSTRUCTION
-DET- STA. 15+65.00
BEGIN CONSTRUCTION
-DWY- STA. 10+55.00
END BRIDGE
-DET- STA. 14+59.00
BEGIN BRIDGE
-DET- STA. 13+99.00
-DET- N40°33'08"E
-DET- N02°04'51.7"W
-DET- N38°29'19.9"W
50' TAPER TO EX
TIE TO EXISTING DITCH
SPECIAL 'V' DITCH SEE DETAIL 5-1
FALSE SUMP SEE DETAIL 5-2
15" RCP-IV
10'R TYP.
8:1
3.75' PS
+60.28 10' INC. TYP.
+53.80 10' INC. TYP.
+65.00
+05.00
+30.00
+69.52 10' INC. TYP.
STOCKPILE/STAGING AREA
REMOVE
RETAIN
REMOVE EXISTING 2@11'17" x 7'5" SPPA
1
REGINALD & GUYNELL VESS
Deed Book 276 Page 111
Deed Book 1069 Page 613
2
FRANCES PARKER HEIRS
Deed Book 276 Page 111
DETAIL 5-1
SPECIAL 'V' DITCH
(Not to Scale)
FROM -DET- STA. 12+40 TO STA. 13+85 RT
FROM -DET- STA. 11+17 TO STA. 13+60 LT
DETAIL 5-2
FALSE SUMP
(Not to Scale)
-DET- STA. 12+28 RT
FOR -DET- PFL SEE SHEET 006
FOR -DWY- PFL SEE SHEET 007
SEE SHEET 004 FOR ADDITIONAL -DWY- ALIGNMENT DATA
SEE SHEET 004 FOR ROW STATIONS AND OFFSETS
DF18313.2081026.PR
RDY 005
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RUTHERFORD COUNTY
NAD 83 NA 2011
ROADWAY DESIGN ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
HYDRAULIC DESIGN ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
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