STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

August 12, 2025

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28805

NC Division of Water Resources
Transportation Permitting Branch
2090 U.S. 70 Highway
Swannanoa, NC 28778-8211

ATTN: Ms. Lori Beckwith, NCDOT Coordinator

ATTN: Ms. Amy Annino, NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 3 & 401 Written Water Quality Certification under the Expedited Processing Provisions for Hurricane Helene Response** for the Replacement of Bridges 135, 136 and 287 on NC 197 South in Yancey County, Division 13, WBS DF18313.1100997

Dear Madams:

The North Carolina Department of Transportation (NCDOT) proposes the following projects as the result of damage caused by Hurricane Helene in late September 2024:

Replacement of Bridge 287 on SR 1184 (Riverview Road) over Cane River.
Replacement of Bridge 135 on SR 1112 (Toodies Creek Road) over Cane River,
Replacement of Bridge 136 on SR 1102 (Cattail Creek Road) over North Fork of Cattail Creek,

All three bridges were destroyed by the storm.

Lead Federal Agency:
FEMA is the lead federal agency for this project.

The following pages break down the impacts for each bridge.

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

<u>Replacement of Bridge 287 on SR 1184 (Riverview Road -Y11-) over Cane River.</u>
35.8592, -82.3034

Proposed Replacement:
A new three-span, 180-foot-long bridge will replace the destroyed three-span, 162-foot-long bridge.

Temporary/ emergency structure:
A temporary emergency bridge is currently in-use for this facility. It will continue to function as the on-site detour during the construction of the new Bridge.

Avoidance and Minimization:
- The new structure is approximately 18 feet longer, providing a larger hydraulic opening.
- Bents will be located at the waters edge and not in the center of the river.
-The proposed bridge will have no direct discharge into the river.
- Stormwater runoff from the bridge will flow to rip rap pads directly outside of the shoulders, where flow will be diffused. All proposed stormwater runoff is discharged as far away from the stream and at the lowest velocities practicable.
-A rip rap free bench will be incorporated to allow for connectivity for small wildlife along the river corridor.

Impacts to Streams:

Impact Site	Impact Category	Permanent Fill	Bank Stabilization	Temporary Impacts	Permit Proposed/ Impact Description
Site 1 **Cane River**	**Maintenance Exemption**	--	--	--	--
	Non-Notifying	--	--	--	--
	Notification Required (Not After the fact)	--	178 lf	--	**NWP 3:** There will be 178 lf of bank stabilization required for the project.
		--	--	73 lf 0.02 ac	**NWP 3:** A temporary workpad will be required to build the interior bent. No more than 50% of the river will be blocked at one time.
	Notification Required (After the fact)	--	--	37 lf 0.03 ac	**NWP 3:** Impacts for the existing emergency temporary bridge.
	Totals:	--	**178 lf**	**110 lf** **0.05 ac**	**HUC:** 060101080301

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.

Replacement of Bridge 135 on SR 1112 (Toodies Creek Road -Y6-) over Cane River, 35.8738, -82.3198

Proposed Replacement:
A new three-span, 180-foot-long bridge will replace the destroyed three-span, 162-foot-long bridge.

Temporary/ emergency structure:
A temporary emergency bridge is currently in-use for this facility. It will continue to function as the on-site detour during the construction of the new bridge.

Avoidance and Minimization:
- The new structure is approximately 18 feet longer, providing a larger hydraulic opening.
- Bents will be located at the waters edge and not in the center of the river.
- The proposed bridge will have no direct discharge into the river.
- Stormwater runoff from the bridge will flow to rip rap pads directly outside of the shoulders, where flow will be diffused. All proposed stormwater runoff is discharged as far away from the stream and at the lowest velocities practicable.
- A rip rap free bench will be incorporated on the west bank, to allow for connectivity for small wildlife along the river corridor.
- Bank stabilization is planned to prevent erosion of the stream banks.

Impacts to Streams:

Impact Site	Impact Category	Permanent Fill	Bank Stabilization	Temporary Impacts	Permit Proposed/ Impact Description
Site 2 **Cane River**	**Maintenance Exemption**	--	--	--	--
	Non-Notifying	--	--	--	--
	Notification Required (Not After the fact)	--	354 lf	--	**NWP 3:** There will be 228 lf of bank stabilization required for the project.
		--	--	38 lf 0.03 ac	**NWP 3:** A temporary workpad will be required to build the interior bent. No more than 50% of the river will be blocked at one time.
	Notification Required (After the fact)	--	--	154 lf 0.05 ac	**NWP 3:** *No impacts were required to install the existing emergency temporary bridge.*
	Totals:	--	**354 lf**	**192 lf** **0.08 ac**	**HUC:** 06010108080**<u>3</u>**

Replacement of Bridge 136 on SR 1102 (Cattail Creek Rd-Y14-) over North Fork Cattail Creek
35.8261, -82.2815 HUC: 060101080301

Proposed Replacement:
A new single span, 70-foot-long bridge will replace the destroyed two-span, 50.3 foot long bridge.

Temporary/ emergency structure:
A temporary emergency bridge is currently in use for this facility but is in the location of the permanent replacement. Therefore, a new temporary detour bridge will be established to handle traffic during construction.

Avoidance and Minimization:
- The new structure is approximately 19 feet longer, providing a larger hydraulic opening.
- The new structure will have no interior bents.
- The proposed bridge will have no direct discharge into the creek.
- Stormwater runoff from the bridge will flow to rip rap pads directly outside of the shoulders, where flow will be diffused. All proposed stormwater runoff is discharged as far away from the stream and at the lowest velocities practicable.

-Bank stabilization is planned to prevent erosion of the stream banks.

Impacts to Streams:

Impact Site	Impact Category	Permanent Fill	Bank Stabilization	Temporary Impacts	Permit Proposed/ Impact Description
Site 3 **Cattail Creek**	**Maintenance Exemption**	--	--	--	--
	Non-Notifying	--	--	--	--
	Notification Required (Not After the fact)	-- --	113 lf	--	**NWP 3:** There will be 103 lf of bank stabilization required for the project.
	Notification Required (After the fact)	--	--	--	*No impacts were required to install the existing emergency temporary bridge*
	Totals:	--	**113 lf**	--	**HUC:** 060101080301

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 Northern long eared bat Tricolored bat	No	n/a	Bridge 135: No Effect Bridge 136 & 287: Likely to Adversely Affect	See attached formal consultation
Small whorled pogonia	Yes	5/20/2025	No Effect	n/a
Virginia spiraea	Yes	5/20/2025	No Effect	n/a
Rock gnome lichen	No	n/a	No Effect	n/a
Bog turtle[2]	n/a	n/a	n/a	n/a
Monarch butterfly[3]	n/a	n/a	n/a	n/a
Eastern Hellbender[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 listings of monarch butterfly and eastern hellbender 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

Information Attached

106 Topic	Findings
Historic Architecture	See included Effects Determination for this project.
Archaeology	No Archaeology Surveys Required (see enclosed form)
Tribal Coordination	Tribal Coordination Letters were sent to the following Tribes on March 25, 2025: Eastern Band of Cherokee Indians, United Keetoowah Band of Cherokee Indians in Oklahoma Muscogee (Creek) Nation Cherokee Nation Catawba Indian Nation Responses were received from the Cherokee Nation on April 24, 2024 and is included with this permit application.

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

Pre-Construction Notification (PCN) Form

For Nationwide Permits and Regional General Permits

(along with corresponding Water Quality Certifications)

December 4, 2023 Ver 4.3

*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.*

Also, if at any point you wish to print a copy of the E-PCN, all you need to do is right-click on the document and you can print a copy of the form.

Below is a link to the online help file.

https://edocs.deq.nc.gov/WaterResources/DocView.aspx?dbid=0&id=2196924

A. Processing Information

If this is a courtesy copy, please fill in this with the submission date.

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

◉ Yes ○ No

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

○ ARPA ○ S.L. 2023-134 (earmark) ◉ No

County (or Counties) where the project is located: *

Yancey

Is this a NCDMS Project *

○ Yes ◉ No

Click Yes, only if NCDMS is the applicant or co-applicant.

DO NOT CHECK YES, UNLESS YOU ARE DMS OR CO-APPLICANT.

Is this project a public transportation project? *

◉ Yes ○ No

This is any publicly funded by municipal,state or federal funds road, rail, airport transportation project.

Is this a NCDOT Project? *

◉ Yes ○ No

(NCDOT only) T.I.P. or state project number:

WBS # *

18313.1100997

(for NCDOT use only)

1a. Type(s) of approval sought from the Corps: *

☑ Section 404 Permit (wetlands, streams and waters, Clean Water Act)

☐ Section 10 Permit (navigable waters, tidal waters, Rivers and Harbors Act)

Has this PCN previously been submitted? *

○ Yes

◉ No

1b. What type(s) of permit(s) do you wish to seek authorization? *

☑ Nationwide Permit (NWP)

☐ Regional General Permit (RGP)

☐ Standard (IP)

1c. Has the NWP or GP number been verified by the Corps? *

○ Yes ◉ No

Nationwide Permit (NWP) Number: 03 - Maintenance

NWP Numbers (for multiple NWPS):

List all NW numbers you are applying for not on the drop down list.

1d. Type(s) of approval sought from the DWR: *

check all that apply

- [ ] 401 Water Quality Certification - Regular
- [ ] 401 Water Quality Certification - Express
- [ ] Non-404 Jurisdictional General Permit
- [ ] Riparian Buffer Authorization
- [x] Individual 401 Water Quality Certification

1e. Is this notification solely for the record because written approval is not required?

*

For the record only for DWR 401 Certification: ○ Yes ◉ No

For the record only for Corps Permit: ○ Yes ◉ No

1f. Is this an after-the-fact permit application? *

○ Yes ◉ No

1g. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts?

If so, attach the acceptance letter from mitigation bank or in-lieu fee program.

○ Yes ◉ No

Acceptance Letter Attachment

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

FILE TYPE MUST BE PDF

1h. Is the project located in any of NC's twenty coastal counties? *

○ Yes ◉ No

1j. Is the project located in a designated trout watershed? *

◉ Yes ○ No

You must submit a copy to the appropriate Wildlife Resources Commission Office.

Link to trout information: http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout.aspx

B. Applicant Information

1a. Who is the Primary Contact? *

Michael Turchy

1b. Primary Contact Email: *

maturchy@ncdot.gov

1c. Primary Contact Phone: *

(xxx)xxx-xxxx

(919)707-6157

1d. Who is applying for the permit? *

- [ ] Owner
- [x] Applicant (other than owner)

(Check all that apply)

1e. Is there an Agent/Consultant for this project? *

○ Yes ◉ No

2. Owner Information

2a. Name(s) on recorded deed: *

NCDOT

2b. Deed book and page no.:

2c. Contact Person:

(for Corporations)

Michael Turchy

2d. Address *

Street Address

1598 Mail Service Center

Address Line 2

City

Raleigh

State / Province / Region

NC

Postal / Zip Code

27699

Country

US

2e. Telephone Number: *

(xxx)xxx-xxxx

(919)707-6157

2f. Fax Number:

(xxx)xxx-xxxx

2g. Email Address: *

maturchy@ncdot.gov

3. Applicant Information (if different from owner)

3a. Name: *

Michael Turchy

3b. Business Name:

(if applicable)

3c. Address *

Street Address

1598 Mail Service Center

Address Line 2

City

Raleigh

State / Province / Region

NC

Postal / Zip Code

27699

Country

US

3d. Telephone Number: *

(919)707-6157

(xxx)xxx-xxxx

3e. Fax Number:

(xxx)xxx-xxxx

3f. Email Address: *

maturchy@ncdot.gov

C. Project Information and Prior Project History

1. Project Information

1a. Name of project: *

Helene NC 197 Priority Bridges - Yancey 135, 136, 287

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town: *

Concord/Murchinson/Cattail

2. Project Identification

2a. Property Identification Number:

(tax PIN or parcel ID)

2b. Property size:

(in acres)

2c. Project Address

Street Address

Address Line 2

City

State / Province / Region

Postal / Zip Code

Country

2d. Site coordinates in decimal degrees

Please collect site coordinates in decimal degrees. Use between 4-6 digits (unless you are using a survey-grade GPS device) after the decimal place as appropriate, based on how the location was determined. (For example, most mobile phones with GPS provide locational precision in decimal degrees to map coordinates to 5 or 6 digits after the decimal place.)

Latitude: *

35.8738

ex: 34.208504

Longitude: *

-82.3198

-77.796371

3. Surface Waters

3a. Name of the nearest body of water to proposed project: *

Cane River

3b. Water Resources Classification of nearest receiving water: *

WS-II; Tr; HWQ

Surface Water Lookup

3c. What river basin(s) is your project located in? *

French Broad

3d. Please provide the 12-digit HUC in which the project is located. *

Bridges 287 & 136 = 060101080301 Bridge 135 = 060101080303

River Basin Lookup

4. Project Description and History

4a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: *

Transportation facility damaged by Hurricane Helene. Area is rural - residential.

4b. Have Corps permits or DWR certifications been obtained for this project (including all prior phases) in the past? *

○ Yes ◉ No ○ Unknown

4f. List the total estimated acreage of all existing wetlands on the property:

0

4g. List the total estimated linear feet of all existing streams on the property:

(intermittent and perennial)

1,000

4h. Explain the purpose of the proposed project: *

Re-establish the transportation infrastructure damaged by Hurricane Helene.

4i. Describe the overall project in detail, including indirect impacts and the type of equipment to be used: *

See enclosed cover letter.

5. Jurisdictional Determinations

5a. Have the wetlands or streams been delineated on the property or proposed impact areas? *

◉ Yes ○ No ○ Unknown

Comments:

5b. If the Corps made a jurisdictional determination, what type of determination was made? *

○ Preliminary ○ Approved ◉ Not Verified ○ Unknown ○ N/A

Corps AID Number:

Example: SAW-2017-99999

5c. If 5a is yes, who delineated the jurisdictional areas?

Name (if known):

Agency/Consultant Company:

Other:

6. Future Project Plans

6a. Is this a phased project? *

○ Yes ◉ No

Are any other NWP(s), regional general permit(s), or individual permits(s) used, or intended to be used, to authorize any part of the proposed project or related activity? This includes other separate and distant crossing for linear projects that require Department of the Army authorization but don't require pre-construction notification.

D. Proposed Impacts Inventory

1. Impacts Summary

1a. Where are the impacts associated with your project? (check all that apply):

☐ Wetlands ☑ Streams-tributaries ☐ Buffers
☐ Open Waters ☐ Pond Construction

3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

"S." will be used in the table below to represent the word "stream".

	3a. Reason for impact * (?)	3b.Impact type *	3c. Type of impact *	3d. S. name *	3e. Stream Type * (?)	3f. Type of Jurisdiction *	3g. S. width *	3h. Impact length *

S1	Bridge 287 - Perm Bridge, Bank Stab.	Permanent	Bank Stabilization	Cane River	Perennial	Both	80 Average (feet)	178 (linear feet)
S2	Bridge 287 - Perm Bridge Workpad	Temporary	Workpad/Causeway	Cane River	Perennial	Both	80 Average (feet)	73 (linear feet)
S3	Bridge 287 - Emergency Bridge	Temporary	Fill	Cane River	Perennial	Both	80 Average (feet)	37 (linear feet)
S4	Bridge 135 - Perm Bridge, Bank Stab.	Permanent	Bank Stabilization	Cane River	Perennial	Both	80 Average (feet)	354 (linear feet)
S5	Bridge 135 - Perm Bridge Workpad	Temporary	Workpad/Causeway	Cane River	Perennial	Both	80 Average (feet)	38 (linear feet)
S6	Bridge 135 - Emergency Bridge	Temporary	Fill	Cane River	Perennial	Both	80 Average (feet)	154 (linear feet)
S7	Bridge 136 - Perm Bridge, Bank Stab.	Permanent	Bank Stabilization	Cattail Creek	Perennial	Both	20 Average (feet)	113 (linear feet)

** All Perennial or Intermittent streams must be verified by DWR or delegated local government.

3i. Total jurisdictional ditch impact in square feet:

0

3i. Total permanent stream impacts:

645

3i. Total temporary stream impacts:

302

3i. Total stream and ditch impacts:

947

3j. Comments:

E. Impact Justification and Mitigation

1. Avoidance and Minimization

1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing the project: *

See enclosed cover letter.

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques: *

See enclosed cover letter.

2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State

2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?

○ Yes ◉ No

2b. If this project DOES NOT require Compensatory Mitigation, explain why:

NC Stream Temperature Classification Maps can be found under the Mitigation Concepts tab on the Wilmington District's RIBITS website.

F. Stormwater Management and Diffuse Flow Plan (required by DWR)

*** Recent changes to the stormwater rules have required updates to this section .***

1. Diffuse Flow Plan

1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?

○ Yes ◉ No

For a list of options to meet the diffuse flow requirements, click here.

If no, explain why:

2. Stormwater Management Plan

2a. Is this a NCDOT project subject to compliance with NCDOT's Individual NPDES permit NCS000250? *

◉ Yes ○ No

Comments:

G. Supplementary Information

1. Environmental Documentation

1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? *

(●) Yes ( ) No

1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)? *

(●) Yes ( ) No

1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) *

(●) Yes ( ) No

2. Violations (DWR Requirement)

2a. 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)? *

( ) Yes (●) No

3. Cumulative Impacts (DWR Requirement)

3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? *

( ) Yes (●) No

3b. If you answered "no," provide a short narrative description.

4. Sewage Disposal (DWR Requirement)

4a. Is sewage disposal required by DWR for this project? *

( ) Yes ( ) No (●) N/A

5. Endangered Species and Designated Critical Habitat (Corps Requirement)

5a. Will this project occur in or near an area with federally protected species or habitat? *

(●) Yes ( ) No

5b. Have you checked with the USFWS concerning Endangered Species Act impacts? *

(●) Yes ( ) No

5c. If yes, indicate the USFWS Field Office you have contacted.

Asheville

5d. Is another Federal agency involved? *

(●) Yes ( ) No ( ) Unknown

What Federal Agency is involved?

FEMA

5e. Is this a DOT project located within Division's 1-8? *

( ) Yes (●) No

5f. Will you cut any trees in order to conduct the work in waters of the U.S.? *

(●) Yes ( ) No

5g. Does this project involve bridge maintenance or removal? *

(●) Yes ( ) No

5g(1). If yes, have you inspected the bridge for signs of bat use such as staining, guano, bats, etc.? Representative photos of signs of bat use can be found in the NLEB SLOPES, Appendix F, pages 3-7.

( ) Yes (●) No

Link to the NLEB SLOPES document: http://saw-reg.usace.army.mil/NLEB/1-30-17-signed_NLEB-SLOPES&apps.pdf

If you answered "Yes" to 5g(1), did you discover any signs of bat use? *

( ) Yes ( ) No (●) Unknown

***** If yes, please show the location of the bridge on the permit drawings/project plans.**

5h. Does this project involve the construction/installation of a wind turbine(s)? *

( ) Yes (●) No

5i. Does this project involve (1) blasting, and/or (2) other percussive activities that will be conducted by machines, such as jackhammers, mechanized pile drivers, etc.? *

(●) Yes ( ) No

5j. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? *

See enclosed USFWS Concurrence.

6. Essential Fish Habitat (Corps Requirement)

6a. Will this project occur in or near an area designated as an Essential Fish Habitat? *

( ) Yes (●) No

6b. What data sources did you use to determine whether your site would impact an Essential Fish Habitat? *

EFH Mapping

7. Historic or Prehistoric Cultural Resources (Corps Requirement)

Link to the State Historic Preservation Office Historic Properties Map (does not include archaeological data: http://gis.ncdcr.gov/hpoweb/

7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)? *

( ) Yes (●) No

7b. What data sources did you use to determine whether your site would impact historic or archeological resources? *

See enclosed Section 106 documentation.

8. Flood Zone Designation (Corps Requirement)

Link to the FEMA Floodplain Maps: https://msc.fema.gov/portal/search

8a. Will this project occur in a FEMA-designated 100-year floodplain? *

(●) Yes ( ) No

8b. If yes, explain how project meets FEMA requirements:

8c. What source(s) did you use to make the floodplain determination? *

FEMA Mapping

Miscellaneous

Comments

Permit application package can also be found at the following link:
https://xfer.services.ncdot.gov/pdea/EnvironmentalPermits/Helene%20NC%20197%20South%20Yancey/NC%20197%20South%202025-08-12%20Priority%20Bridges%20Application.pdf

Please use the space below to attach all required documentation or any additional information you feel is helpful for application review. Documents should be combined into one file when possible, with a Cover Letter, Table of Contents, and a Cover Sheet for each Section preferred.

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

NC 197 South 2025-08-12 Priority Bridges Application.pdf 27.66MB

File must be PDF or KMZ

Signature

*

[x] By checking the box and signing below, I certify that:

- The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief'; and
- 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 have given true, accurate, and complete information on this form;
- I agree that submission of this PCN 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 PCN form.

Full Name: *

Michael Turchy

Signature *

Date

8/11/2025

Permit Drawings

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.02; Released April 23, 2024)

General Project Information

WBS Element:	18313.1100997	**TIP Number:**		**Project Type:**	Bridge Replacement	**Date:**	8/1/2025
NCDOT Contact:	McCray Coates, PE			**Contractor / Designer:**	Jason Gorrie, PE		
Address:	402 Executive Park Asheville, NC 28801			**Address:**	1001 Morehead Square Drive Suite 610 Charlotte, NC 28203		
Phone:	828-206-4511			**Phone:**	704-342-8463		
Email:	hmcoates@qftinc.com			**Email:**	jason.gorrie@wsp.com		
City/Town:	Burnsville			**County(ies):**	Yancey		
River Basin(s):	French Broad			**CAMA County?**	No		
Wetlands within Project Limits?	No						

Project Description

Project Length (lin. miles or feet):	0.78 mi.	**Surrounding Land Use:**	Rural				
	Proposed Project			**Existing Site**			
Project Built-Upon Area (ac.)	2.1	ac.		1.9	ac.		
Typical Cross Section Description:	-L2-, 2-11' paved lanes w/ 4' grass shoulder '-Y6A, 2-11' paved lanes w/ 2' grass shoulder, 30' out to out bridge width '-Y11-, 2-11' paved lanes w/ 2' grass shoulder, 30' out to out bridge width '-Y14-, 2-10' paved lanes w/ 4' grass shoulder, 30' out to out bridge width			-L2- , 2-9' paved lanes w/1'-2' shoulders '-Y6-, 2-8' paved lanes w/1'-2' shoulders, 30'-4" out to out bridge width '-Y11-, 2-9' paved lanes w/1'-2' shoulders, 30'-4" out to out bridge width '-Y14-, 2-8' paved lanes w/1'-2' shoulders, 20'-2" out to out bridge width			
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	2080	Year: 2045	Existing:	1400	Year:	2025

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

The North Carolina Department of Transportation (NCDOT) has proposed replacement of three bridges (990135, 990136, and 990287) in the Concord, Murchison, and Cattail Creek communities along NC 197 South and Cattail Creek Road along with repairs to the associated approach roadways. The project is proposed in response to damage caused by Hurricane Helene (09/2024) which destroyed all three bridges.

Bridge 990287 carries Riverview Road (SR 1184) over the Cane River. The existing bridge was a 1@41', 2@40', 1@41' (OAL=162') cored slab with sill through abutments. The proposed bridge is a 2@60', 1@55 (OAL=175') cored slab bridge with spill-through abutments at 1.5:1 slope. The proposed bridge will have no direct discharge into the creek. Stormwater runoff from the bridge will flow to rip rap pads directly outside of the shoulders, where flow will be diffused. Permanent and temporary surface water impacts will be created by riprap bank stabilization under the bridge, drilled pier installation, and removal of temporary fill and the temporary bridge currently in place. Temporary rock workpads will be used to construct the proposed bridge. A rip rap-free bench will exist permitting connectivity for small wildlife along the river corridor. Bank stabilization is planned to prevent erosion of the stream banks.

Bridge 990135 carries Toodies Creek Road (SR 1112) over the Cane River. The existing bridge was a 1@41', 2@40', 1@41' (OAL=162') cored slab with spill-through abutments. The proposed bridge is a 2@70', 1@40' (OAL=180') cored slab bridge with spill-through abutments at 1.5:1 slope. The proposed bridge will have no direct discharge into the creek. Stormwater runoff from the bridge will flow to rip rap pads directly outside of the shoulders, where flow will be diffused. Permanent and temporary surface water impacts will be created by riprap bank stabilization under the bridge and along the adjacent roadway embankments, drilled pier installation, and removal of temporary fill and the temporary bridge currently in place. Temporary rock workpads will be used to construct the proposed bridge. A rip rap-free bench will exist permitting connectivity for small wildlife along the river corridor. Bank stabilization is planned to prevent erosion of the stream banks.

Bridge 990136 carries Cattail Creek Road (SR1102) over the North Fork of Cattail Creek. The existing bridge was a 1@14.9', 1@35.4' (OAL=50.3') steel I-beam with timber decking and vertical abutments. The proposed bridge is a 1@70' cored slab with vertical abutments and bank stabilization along the existing banks. The proposed bridge will have no direct discharge into the creek. Stormwater runoff from the bridge will flow to rip rap pads directly outside of the shoulders, where flow will be diffused. Note that a portion of the existing abutments will be removed using top down construction to provide a minimum of 4' of clearance underneath the new bridge. Pending structures and geotechnical evaluation, the lower portion of the existing abutments will be retained. An on-site detour upstream of the existing bridge will be used ot maintain access during construction. Bank stabilization is planned to prevent erosion of the stream banks.

Erosion and Sediment Control devices such as silt fence, special sediment control fence, rock checks, and impervious dikes are anticipated to be used to minimize sediment leaving the project site and aid in water management during construction. Rip rap pads will be utilized at pipe outlets to dissipate energy and reduce velocities.

Based on the upstream basin attributes and preliminary highway design characteristics, NCDOT SELDM simulation results suggest that highway runoff will not substantially impact downstream water quality conditions.

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.02; Released April 23, 2024)

WBS Element:	18313.1100997	TIP/Proj No.:		County(ies):	Yancey	Page	2	of	2

General Project Information

Waterbody Information

Surface Water Body (1):	Cane River		**NCDWR Stream Index No.:**	7-3-(0.5)	
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply II (WS-II)		
		Supplemental Classification:	Trout Waters (Tr)	(HQW)	
Other Stream Classification:					
Impairments:	None				
Aquatic T&E Species?	No	Comments:			
NRTR Stream ID:	N/A			**Buffer Rules in Effect:**	N/A
Project Includes Bridge Spanning Water Body?	Yes	**Deck Drains Discharge Over Buffer?**	No	**Dissipator Pads Provided in Buffer?**	
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)					

Surface Water Body (2):	North Fork Cattail Creek		**NCDWR Stream Index No.:**	7-3-9-2	
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply II (WS-II)		
		Supplemental Classification:	Trout Waters (Tr)	(HQW)	
Other Stream Classification:					
Impairments:	None				
Aquatic T&E Species?	No	Comments:			
NRTR Stream ID:	N/A			**Buffer Rules in Effect:**	N/A
Project Includes Bridge Spanning Water Body?	Yes	**Deck Drains Discharge Over Buffer?**	No	**Dissipator Pads Provided in Buffer?**	N/A
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)					

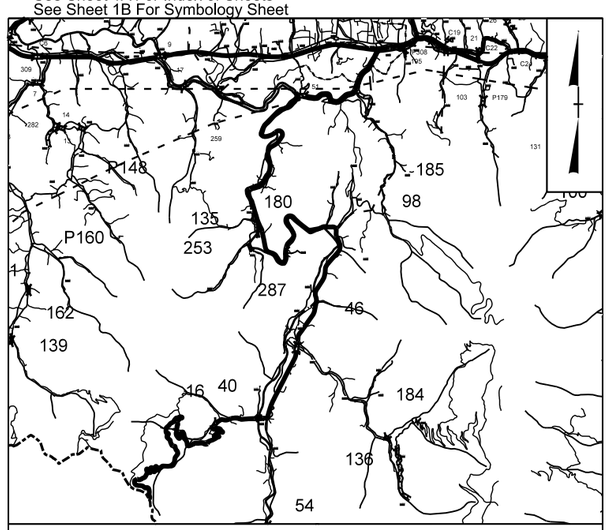
Surface Water Body (3):			**NCDWR Stream Index No.:**		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**			
		Supplemental Classification:			
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:				**Buffer Rules in Effect:**	
Project Includes Bridge Spanning Water Body?		**Deck Drains Discharge Over Buffer?**		**Dissipator Pads Provided in Buffer?**	
Deck Drains Discharge Over Water Body?		(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)					

01/16/24

TIP PROJECT: NC 197 PDB

CONTRACT:

See Sheet 1A For Index of Sheets
See Sheet 1B For Symbology Sheet



VICINITY MAP (NTS)

25% PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PERMIT DRAWING
SHEET 1 OF 12

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	NC 197 PDB	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
18313.1100997.1.3		CONSTRUCTION

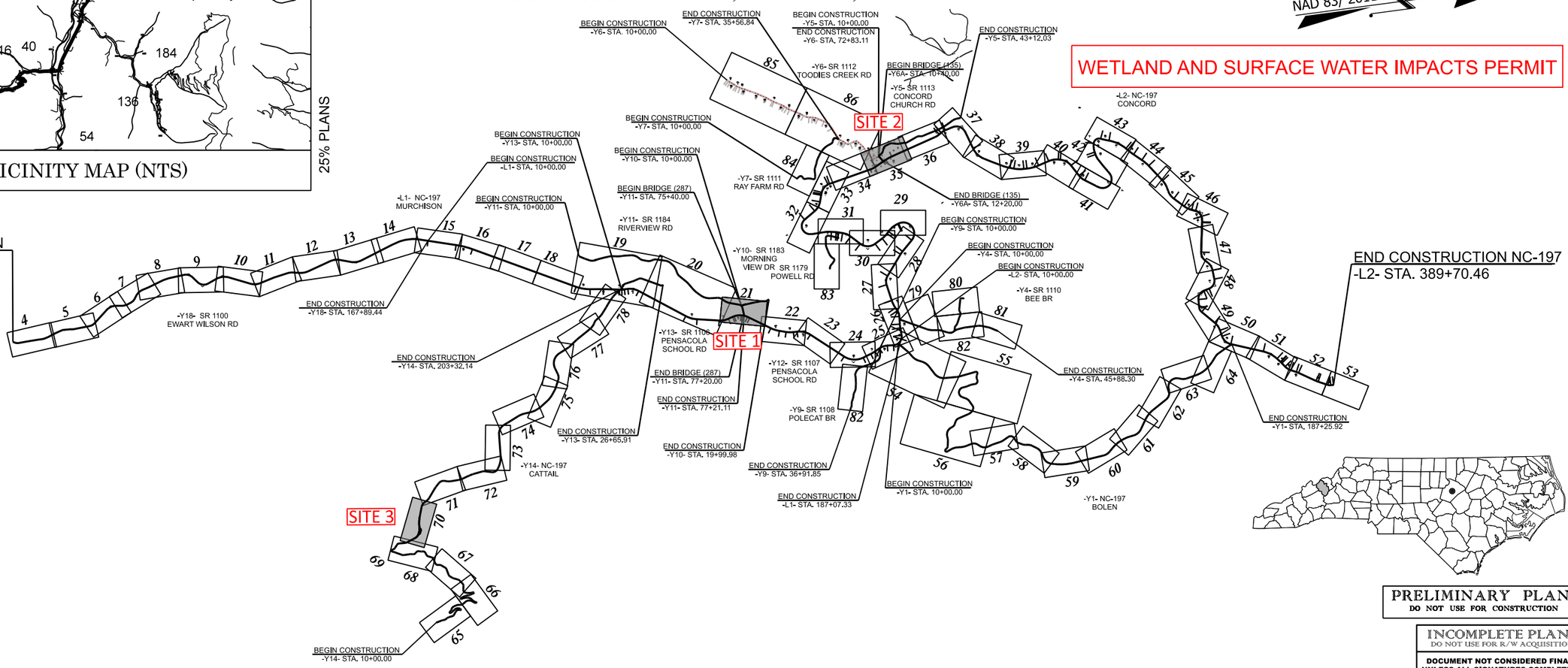
YANCEY COUNTY

LOCATION: *YANCEY COUNTY ALONG NC 197 FROM SOUTH OF US 19 TO SOUTH OF MURCHINSON, NC*

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

NAD 83/ 2011

WETLAND AND SURFACE WATER IMPACTS PERMIT



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

VERIFY SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT (2025) = 1400
ADT (2045) = 2080

V = 50 MPH

FUNC CLASS =
MAJOR COLLECTOR

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT = 24.167 MILES
LENGTH OF STR TIP PROJECT = 0.00 MILES
TOTAL LENGTH OF TIP PROJECT = 24.167 MILES

PLANS PREPARED FOR NCDOT BY:
wsp
434 FAYETTEVILLE ST. #1500
RALEIGH, N.C. 27601
NC ENG F-0165

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
2025

LETTING DATE:
2025

DIVISION OF HIGHWAYS
DIVISION 13
253 WEBSTER RD.
SYLVA, NC 28779

JASON GORRIE, PE
PROJECT ENGINEER

RONYELL THIGPEN, PE
DESIGN ENGINEER

NATHANIEL MONEYHAM, PE
NCDOT CONTACT:
DIVISION 13 BRIDGE CONSTRUCTION ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

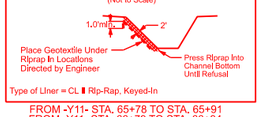
11/14/23

PERMIT DRAWING SHEET 2 OF 12

50' 0' 100'

GRAPHIC SCALE

DETAIL 2
BANK STABILIZATION
(Not to Scale)



Type of Liner = CL I Rip-Rap, Keyed-In

FROM -Y11- STA. 65+78 TO STA. 65+91
FROM -Y11- STA. 66+79 TO STA. 66+94

DETAIL 3
SPECIAL "V" DITCH
(Not to Scale)

Type of Liner = CL I Rip-Rap, Keyed-In

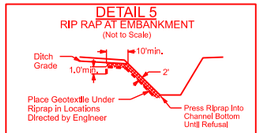
FROM -Y10- STA. 10+27 TO STA. 12+40 LT

DETAIL 1
SPECIAL BASE DITCH
(Not to Scale)

Type of Liner = CL B Rip-Rap, Keyed-In

FROM -Y11- STA. 58+86 TO STA. 63+93 LT

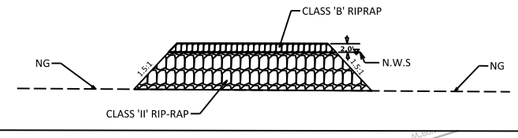
DETAIL 5
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner = CL I Rip-Rap, Keyed-In

FROM -L1- STA. 123+13 TO STA. 123+19 LT

TEMPORARY WORKPAD DETAIL
(Not to Scale)



BEGIN CONSTRUCTION
-Y11- STA. 58+85.70

END CONSTRUCTION
-Y10- STA. 12+39.26

BEGIN BRIDGE
-Y11- STA. 75+40 +/-

END BRIDGE
-Y11- STA. 67+20 +/-

SITE 1

REMOVE

48" CSP 12ga W/ 2 ELBOWS

CL. "I" RIP RAP
17 TONS
38 SY GF

CLASS II RIP RAP TO SHOULDER
EST 235 TONS
EST 249 SY GF

EMBANKMENT WILL LIKELY REQUIRE ARMORING, TYPE AND EXTENTS WILL DETERMINED DURING FINAL DESIGN

EXISTING RIP RAP BANK STABILIZATION IN THIS AREA MAY REQUIRE REPLACEMENT

EXTENTS OF TEMPORARY WORKPAD. SEE DETAIL

EXCAVATE TO 2799'
EST. 1242 CY

BANK STABILIZATION WITH CLASS II RIP RAP
EST 262 TONS
EST 277 SY GF
SEE DETAIL 2

CLASS II RIP RAP TO SHOULDER
EST 110 TONS
EST 116 SY GF

EXCAVATE TO 2806'
EST. 424 CY

CANE RIVER

BEGIN CONSTRUCTION
-L2- STA. 123+00.00

END CONSTRUCTION
-L2- STA. 129+00.00

REMOVE

CLASS II RIP RAP AT EMBANKMENT
11 TON
12 SY
SEE DETAIL 5

GRADE TO DRAIN

CL. "B" RIP RAP
3 TON, 11 SY

DETAIL 4
SPECIAL BASE DITCH
(Not to Scale)

Type of Liner = CL B Rip-Rap, Keyed-In

FROM -L1- STA. 125+20 TO STA. 127+33 RT

PRE HELENE WATERS EDGE

POST HELENE WATERS EDGE

SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

PAVEMENT REMOVAL

** DESIGN EXCEPTION REQUIRED

FOR -L2- PROFILE, SEE SHEET 87

FOR -Y10- -Y11- PROFILE, SEE SHEET 88

NC 197 PDB
2RD1 | 21
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

wsp

434 FAYETTEVILLE ST. #1500
RALEIGH, N.C. 27601
NC ENG P-0165

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/2011

$$$-USER_NAME-$$$ - $$$-DATE-$$$

11/14/23

PERMIT DRAWING SHEET 3 OF 12

50' 0' 100'

GRAPHIC SCALE

DETAIL 2
BANK STABILIZATION
(Not to Scale)

Type of Liner = CL I Rip-Rap, Keyed-In

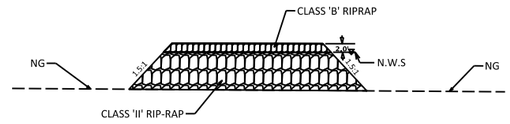
FROM -Y11- STA. 65+78 TO STA. 65+91
FROM -Y11- STA. 66+79 TO STA. 66+94

DETAIL 3
SPECIAL "V" DITCH
(Not to Scale)

Type of Liner = CL I Rip-Rap, Keyed-In
Min. D = 1 Ft.
d = 1 Ft.

FROM -Y10- STA. 10+27 TO STA. 12+40 LT

TEMPORARY WORKPAD DETAIL
(Not to Scale)



DETAIL 1
SPECIAL BASE DITCH
(Not to Scale)

Type of Liner = CL B Rip-Rap, Keyed-In
Min. D = 2 Ft.
d = 1.5 Ft.
B = 4 Ft.

FROM -Y11- STA. 58+86 TO STA. 63+93 LT

DETAIL 5
RIP RAP AT EMBANKMENT
(Not to Scale)

Type of Liner = CL I Rip-Rap, Keyed-In

FROM -L1- STA. 123+13 TO STA. 123+19 LT

BEGIN CONSTRUCTION
-Y11- STA. 58+85.70

END CONSTRUCTION
-Y10- STA. 12+39.26

BEGIN CONSTRUCTION
-L2- STA. 123+00.00

END CONSTRUCTION
-L2- STA. 129+00.00

SITE 1

BEGIN BRIDGE
-Y11- STA. 75+40 +/-

END BRIDGE
-Y11- STA. 67+20 +/-

REMOVE

48" CSP 12ga W/ 2 ELBOWS

CL. 1" RIP RAP
17 TONS
38 SY GF

CLASS II RIP RAP TO SHOULDER
EST 235 TONS
EST 249 SY GF

EMBANKMENT WILL LIKELY REQUIRE ARMORING, TYPE AND EXTENTS WILL DETERMINED DURING FINAL DESIGN

EXISTING RIP RAP BANK STABILIZATION IN THIS AREA MAY REQUIRE REPLACEMENT

EXTENTS OF TEMPORARY WORKPAD. SEE DETAIL

EXCAVATE TO 2799'
EST. 1242 CY

BANK STABILIZATION WITH CLASS II RIP RAP
EST 262 TONS
EST 277 SY GF
SEE DETAIL 2

CANE RIVER

CLASS II RIP RAP TO SHOULDER
EST 110 TONS
EST 116 SY GF

EXCAVATE TO 2806'
EST. 424 CY

REMOVE

CLASS II RIP RAP AT EMBANKMENT
11 TON
12 SY
SEE DETAIL 5

GRADE TO DRAIN

CL. "B" RIP RAP
3 TON, 11 SY

DETAIL 4
SPECIAL BASE DITCH
(Not to Scale)

Type of Liner = CL B Rip-Rap, Keyed-In
Min. D = 2 Ft.
d = 2 Ft.
B = 2 Ft.

FROM -L1- STA. 125+20 TO STA. 127+33 RT

PRE HELENE WATERS EDGE

POST HELENE WATERS EDGE

SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

PAVEMENT REMOVAL

** DESIGN EXCEPTION REQUIRED

FOR -L2- PROFILE, SEE SHEET 87

FOR -Y10- -Y11- PROFILE, SEE SHEET 88

NC 197 PDB
2RD1 | 21
ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

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STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

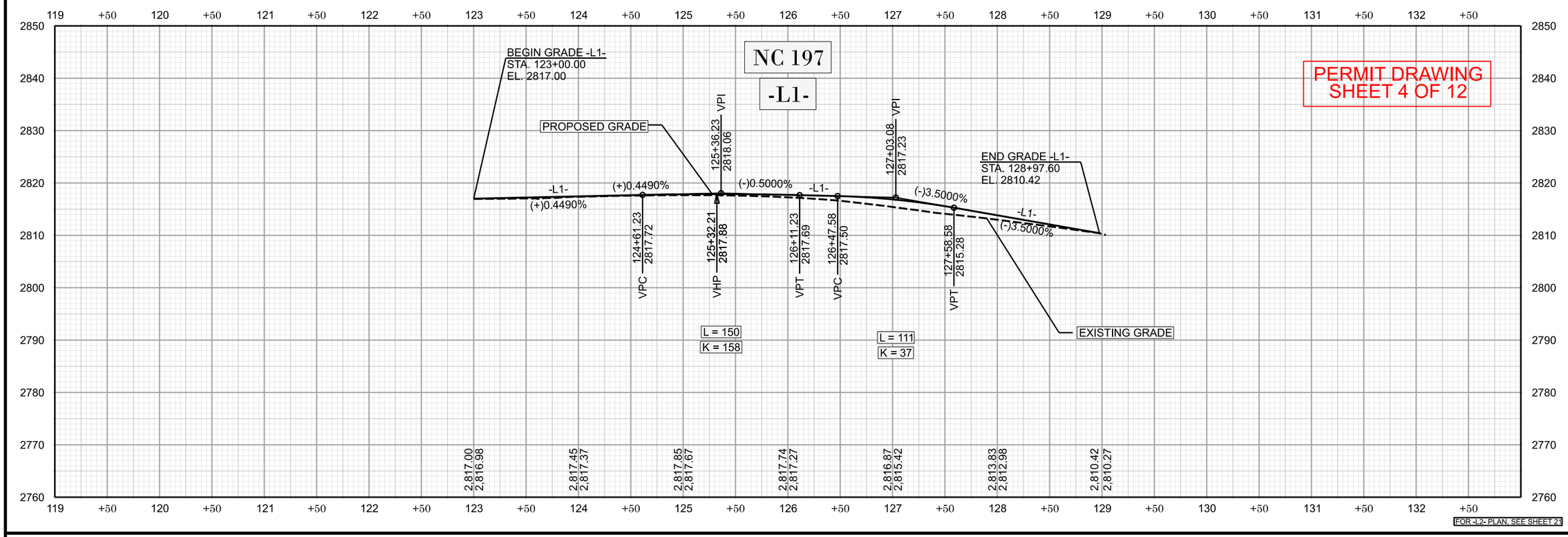
434 FAYETTEVILLE ST. #1500
RALEIGH, N.C. 27601
NC ENG P-0163

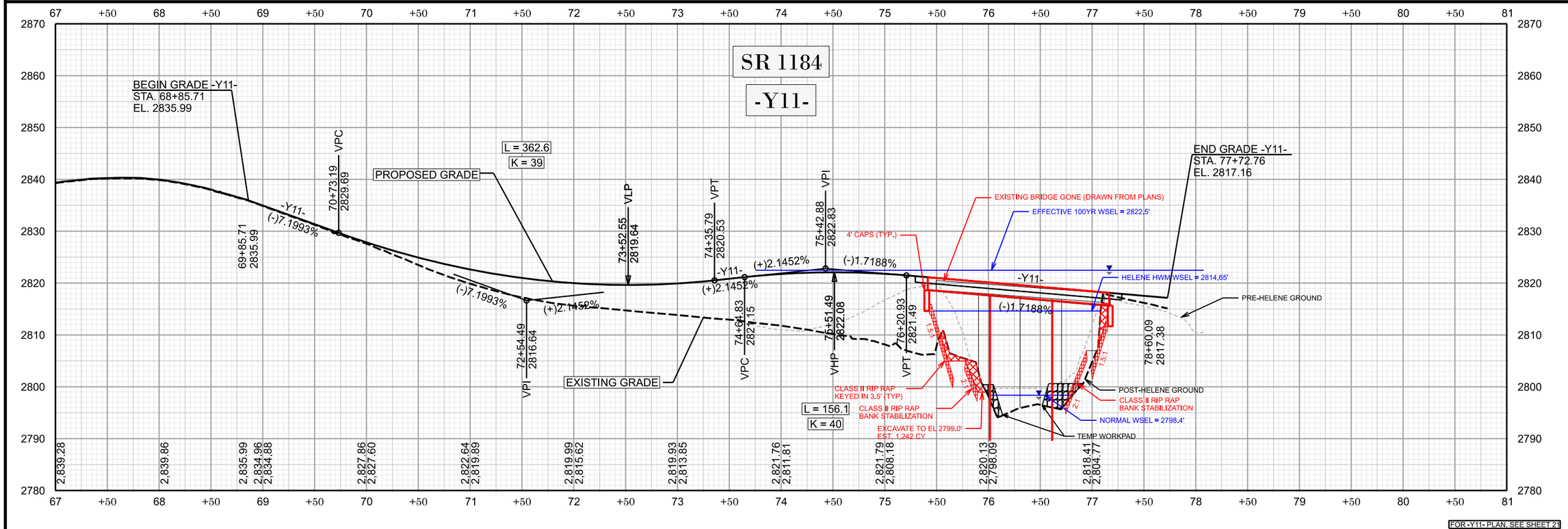
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/2011

11/14/23





NC 197 PDB
2RD1 | 88

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

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STATE OF NORTH CAROLINA

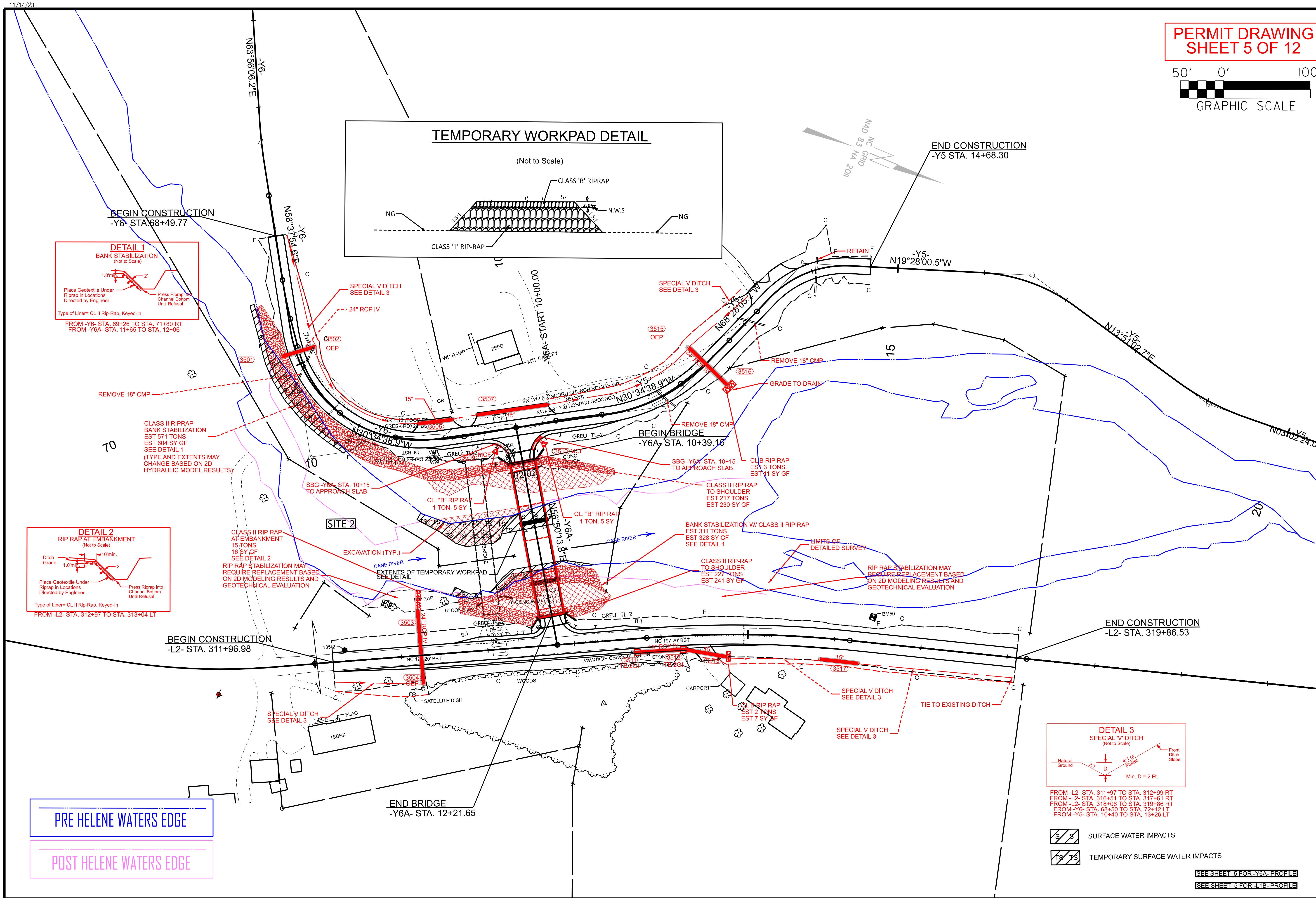
ROADWAY DESIGN UNIT

PREPARED BY

434 FAYETTEVILLE ST. #1500
RALEIGH, N.C. 27601
NC ENG F-0165

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION


11/14/23
PERMIT DRAWING
SHEET 5 OF 12
50' 0' 100'
GRAPHIC SCALE
TEMPORARY WORKPAD DETAIL
(Not to Scale)
CLASS 'B' RIPRAP
NG
N.W.S
CLASS 'II' RIP-RAP
BEGIN CONSTRUCTION
-Y6- STA. 68+49.77
DETAIL 1
BANK STABILIZATION
(Not to Scale)
Place Geotextile Under Riprap in Locations Directed by Engineer
Press Riprap into Channel Bottom Until Refusal
Type of Liner= CL II Rip-Rap, Keyed-In
FROM -Y6- STA. 69+26 TO STA. 71+80 RT
FROM -Y6A- STA. 11+65 TO STA. 12+06
SPECIAL V DITCH
SEE DETAIL 3
24" RCP IV
REMOVE 18" CMP
CLASS II RIPRAP
BANK STABILIZATION
EST 571 TONS
EST 604 SY GF
SEE DETAIL 1
(TYPE AND EXTENTS MAY CHANGE BASED ON 2D HYDRAULIC MODEL RESULTS)
SBG -Y6A- STA. 10+15
TO APPROACH SLAB
CL. "B" RIP RAP
1 TON, 5 SY
SITE 2
DETAIL 2
RIP RAP AT EMBANKMENT
(Not to Scale)
Type of Liner= CL II Rip-Rap, Keyed-In
FROM -L2- STA. 312+97 TO STA. 313+04 LT
CLASS II RIP RAP
AT EMBANKMENT
15 TONS
16 SY GF
SEE DETAIL 2
RIP RAP STABILIZATION MAY REQUIRE REPLACEMENT BASED ON 2D MODELING RESULTS AND GEOTECHNICAL EVALUATION
EXCAVATION (TYP.)
CANE RIVER
EXTENTS OF TEMPORARY WORKPAD
SEE DETAIL
BEGIN CONSTRUCTION
-L2- STA. 311+96.98
END BRIDGE
-Y6A- STA. 12+21.65
SPECIAL V DITCH
SEE DETAIL 3
END CONSTRUCTION
-Y5 STA. 14+68.30
-Y5-
N19°28'00.5"W
RETAIN
REMOVE 18" CMP
GRADE TO DRAIN
BEGIN BRIDGE
-Y6A- STA. 10+39.15
SBG -Y6A- STA. 10+15
TO APPROACH SLAB
CL B RIP RAP
EST 3 TONS
EST 11 SY GF
CLASS II RIP RAP
TO SHOULDER
EST 217 TONS
EST 230 SY GF
CL. "B" RIP RAP
1 TON, 5 SY
BANK STABILIZATION W/ CLASS II RIP RAP
EST 311 TONS
EST 328 SY GF
SEE DETAIL 1
LIMITS OF DETAILED SURVEY
CLASS II RIP-RAP
TO SHOULDER
EST 227 TONS
EST 241 SY GF
RIP RAP STABILIZATION MAY REQUIRE REPLACEMENT BASED ON 2D MODELING RESULTS AND GEOTECHNICAL EVALUATION
END CONSTRUCTION
-L2- STA. 319+86.53
SPECIAL V DITCH
SEE DETAIL 3
TIE TO EXISTING DITCH
CL B RIP RAP
EST 2 TONS
EST 7 SY GF
DETAIL 3
SPECIAL 'V' DITCH
(Not to Scale)
Natural Ground
Front Ditch Slope
Min. D = 2 Ft.
FROM -L2- STA. 311+97 TO STA. 312+99 RT
FROM -L2- STA. 316+51 TO STA. 317+61 RT
FROM -L2- STA. 318+06 TO STA. 319+86 RT
FROM -Y6- STA. 68+50 TO STA. 72+42 LT
FROM -Y5- STA. 10+40 TO STA. 13+26 LT
SURFACE WATER IMPACTS
TEMPORARY SURFACE WATER IMPACTS
SEE SHEET 5 FOR -Y6A- PROFILE
SEE SHEET 5 FOR -L1B- PROFILE
PRE HELENE WATERS EDGE
POST HELENE WATERS EDGE
$$$-USER_NAME-$$$ - $$$-DATE-$$$

NC 197 PDB

35

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

wsp

434 FAYETTEVILLE ST. #1500
RALEIGH, N.C. 27601
NC ENG F-0165

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

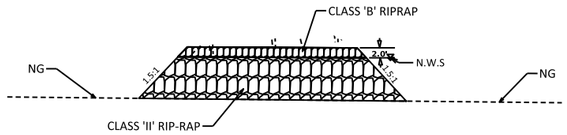
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PERMIT DRAWING
SHEET 6 OF 12

50' 0' 100'
GRAPHIC SCALE

TEMPORARY WORKPAD DETAIL

(Not to Scale)



BEGIN CONSTRUCTION
-Y6- STA. 68+49.77

N63°56'06.2"E -Y6-

N58°37'54.6"E -Y6-

DETAIL 1
BANK STABILIZATION
(Not to Scale)

Type of Liner= CL II Rip-Rap, Keyed-In
FROM -Y6- STA. 69+26 TO STA. 71+80 RT
FROM -Y6A- STA. 11+65 TO STA. 12+06

SPECIAL V DITCH
SEE DETAIL 3

24" RCP IV

3502
OEP

3501

REMOVE 18" CMP

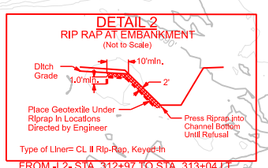
CLASS II RIPRAP
BANK STABILIZATION
EST 571 TONS
EST 604 SY GF
SEE DETAIL 1
(TYPE AND EXTENTS MAY
CHANGE BASED ON 2D
HYDRAULIC MODEL RESULTS)

SBG -Y6A- STA. 10+15
TO APPROACH SLAB

CL. "B" RIP RAP
1 TON, 5 SY

SITE 2

DETAIL 2
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner= CL II Rip-Rap, Keyed-In
FROM -L2- STA. 312+97 TO STA. 313+04 LT

CLASS II RIP RAP
AT EMBANKMENT
15 TONS
16 SY GF
SEE DETAIL 2
RIP RAP STABILIZATION MAY
REQUIRE REPLACEMENT BASED
ON 2D MODELING RESULTS AND
GEOTECHNICAL EVALUATION

EXCAVATION (TYP.)

CANE RIVER

EXTENTS OF TEMPORARY WORKPAD
SEE DETAIL

BEGIN CONSTRUCTION
-L2- STA. 311+96.98

END CONSTRUCTION
-Y5 STA. 14+68.30

SPECIAL V DITCH
SEE DETAIL 3

RETAIN

-Y5- N19°28'00.5"W

3515
OEP

REMOVE 18" CMP

3516

GRADE TO DRAIN

-Y5- N68°28'05.7"W

-Y5- N30°34'38.9"W

-Y5- N13°51'02.7"E

-Y5- N03°02'24.0"W

REMOVE 18" CMP

BEGIN BRIDGE
-Y6A- STA. 10+39.15

SBG -Y6A- STA. 10+15
TO APPROACH SLAB

CL II RIP RAP
EST 3 TONS
EST 11 SY GF

CLASS II RIP RAP
TO SHOULDER
EST 217 TONS
EST 230 SY GF

CL. "B" RIP RAP
1 TON, 5 SY

-Y6A- N56°50'13.8"E

BANK STABILIZATION W/ CLASS II RIP RAP
EST 311 TONS
EST 328 SY GF
SEE DETAIL 1

CLASS II RIP-RAP
TO SHOULDER
EST 227 TONS
EST 241 SY GF

LIMITS OF
DETAILED SURVEY

RIP RAP STABILIZATION MAY
REQUIRE REPLACEMENT BASED
ON 2D MODELING RESULTS AND
GEOTECHNICAL EVALUATION

END CONSTRUCTION
-L2- STA. 319+86.53

3503

3504

SPECIAL V DITCH
SEE DETAIL 3

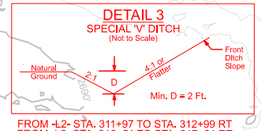
3517

TIE TO EXISTING DITCH

CL II RIP RAP
EST 2 TONS
EST 7 SY GF

SPECIAL V DITCH
SEE DETAIL 3

DETAIL 3
SPECIAL 'V' DITCH
(Not to Scale)



FROM -L2- STA. 311+97 TO STA. 312+99 RT
FROM -L2- STA. 316+51 TO STA. 317+81 RT
FROM -L2- STA. 318+06 TO STA. 319+86 RT
FROM -Y6- STA. 68+50 TO STA. 72+42 LT
FROM -Y5- STA. 10+40 TO STA. 13+26 LT

SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS

SEE SHEET 5 FOR -Y6A- PROFILE
SEE SHEET 5 FOR -L1B- PROFILE

PRE HELENE WATERS EDGE

POST HELENE WATERS EDGE

END BRIDGE
-Y6A- STA. 12+21.65

NC 197 PDB
35

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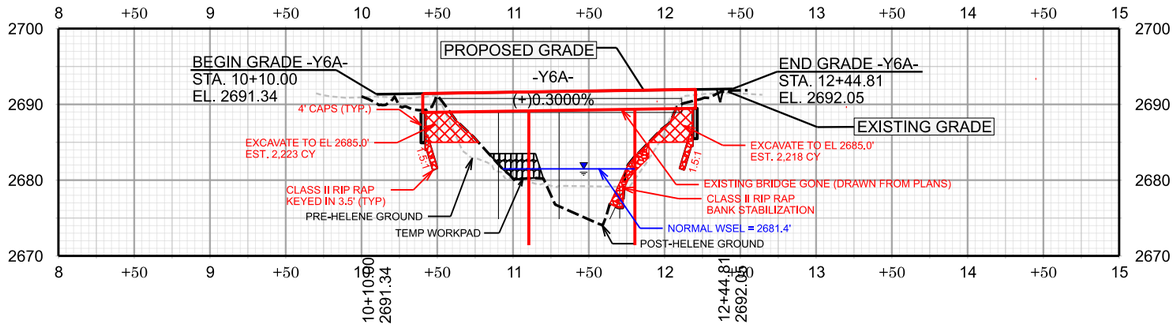
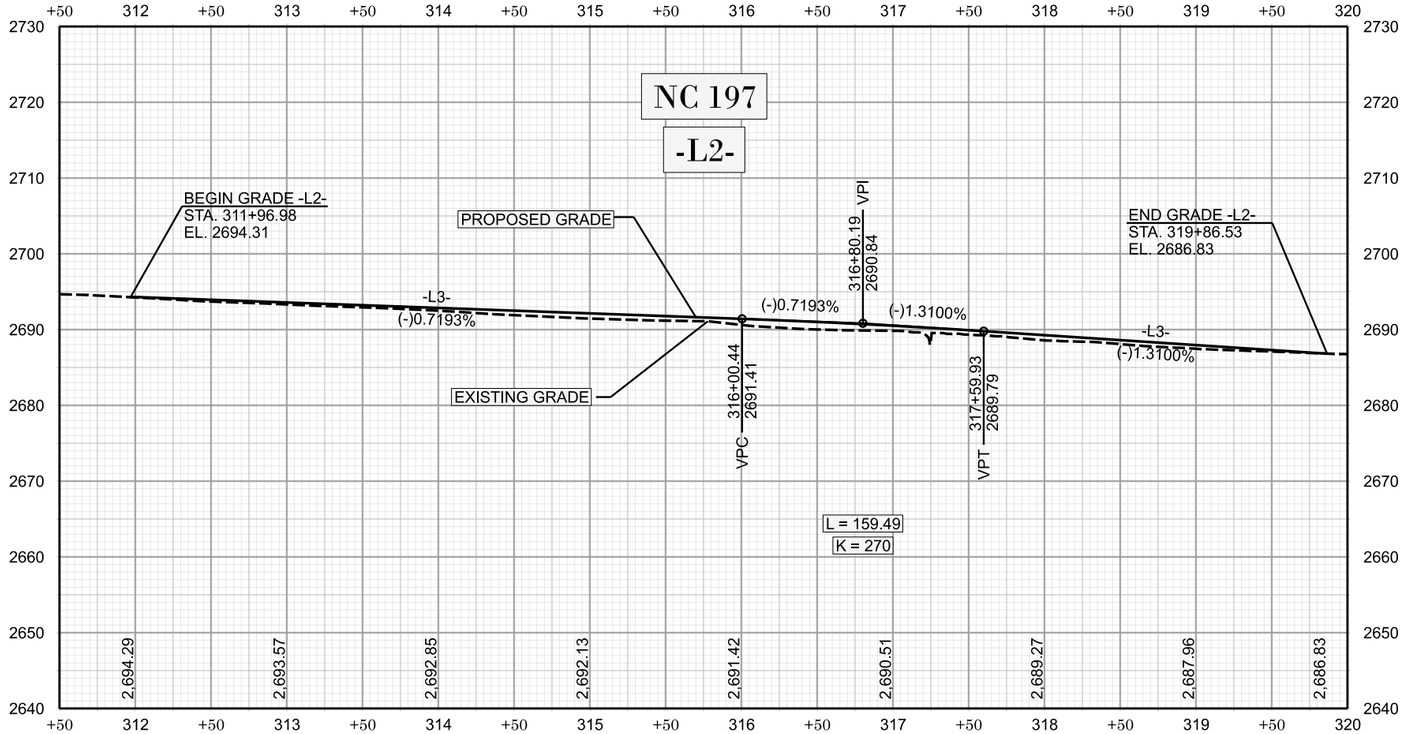
PERMIT DRAWING
SHEET 7 OF 12

-Y6A-



NC 197
-L2-



FOR -L2- PLAN, SEE SHEET 35
FOR -Y6A- PLAN, SEE SHEET 35

NC 197 PDB
2RD1 | 35
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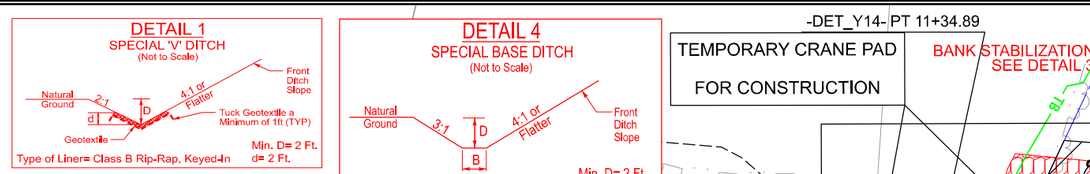

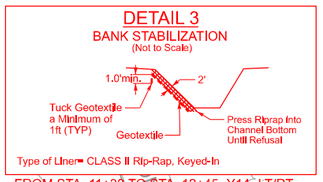

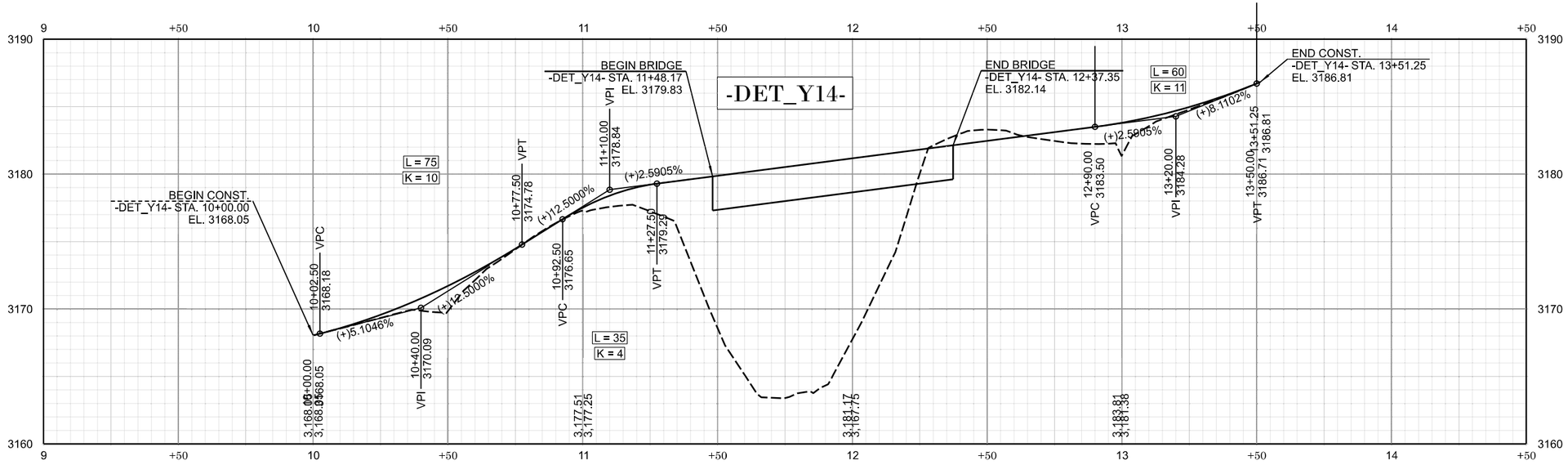

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Y14

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
YANCEY COUNTY

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SHEET 8 OF 12

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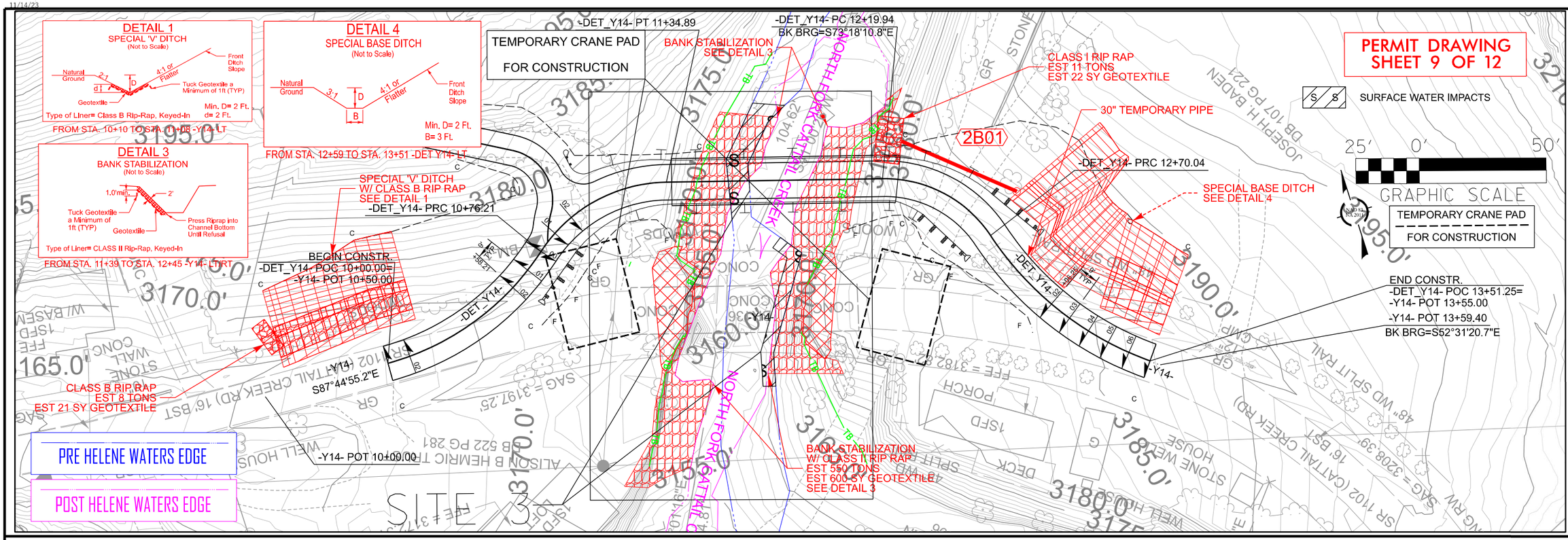

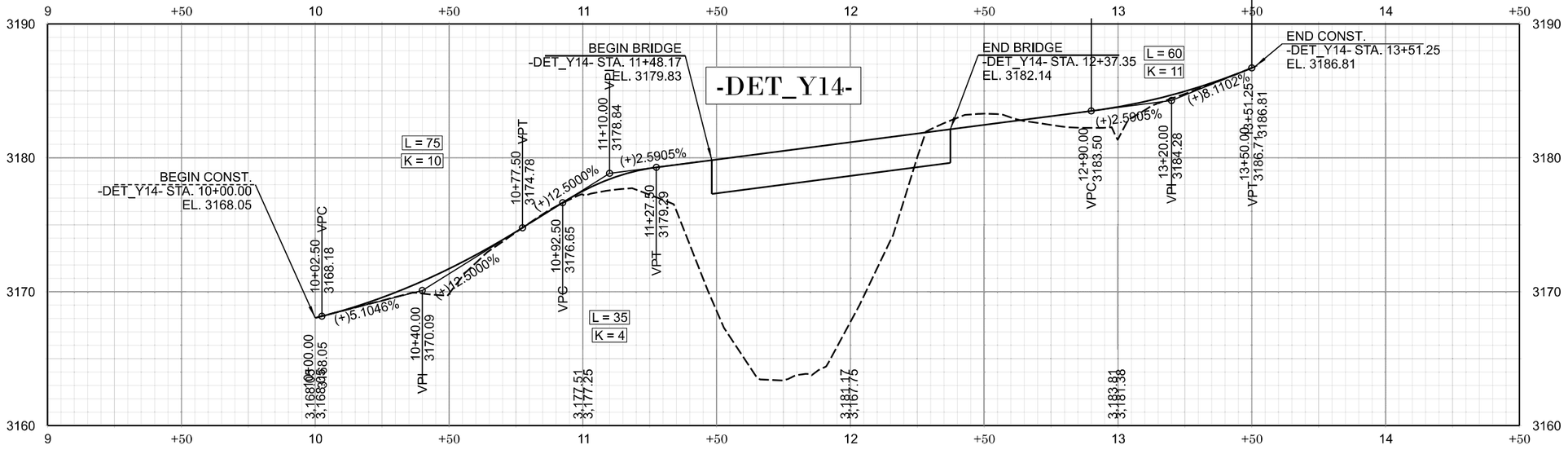

NC197 PDB
Y14
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11/14/23

TEMPORARY CRANE PAD
FOR CONSTRUCTION

BANK STABILIZATION
SEE DETAIL 3

CLASS I RIP RAP
EST 11 TONS
EST 22 SY GEOTEXTILE

-DRWY2- POT 11+02.53

BEGIN CONSTR.
-DRWY2- POT 10+65.00

-DRWY1- PRC 10+42.20

-DRWY1- PT 10+25.00
AH BRG=N07°39'00.3"E

BEGIN CONSTR.
-DRWY1- POT 11+08.32

-DRWY2- PC 10+36.44
BK BRG = N51°52'23.8"E

-DRWY2- PT 10+15.86

SPECIAL 'V' DITCH
W/ CLASS B RIP RAP
SEE DETAIL 1

-DRWY1- PC 10+74.55

-Y14- POC 11+20.00=
-DRWY1- POT 10+00.00
BK BRG = N07°39'00.3"E

-Y14- POC 12+65.00=
-DRWY2- POT 10+00.00
BK BRG = N22°23'22.2"E

SPECIAL BASE DITCH
W/ CLASS B RIP RAP
SEE DETAIL 2

BEGIN CONSTR.
-Y14- POT 10+10.00

-Y14- PC 10+96.44

-DET. Y14-

END CONSTR.
-Y14- POT 13+55.00
BK BRG = S52°31'20.7"E

S73°18'12.1"E
-Y14-

-Y14- POT 10+00.00

S87°44'55.2"E

CLASS B RIP RAP
EST 8 TONS
EST 21 SY GEOTEXTILE

END SBG
+28

-Y14- PT 11+59.47

MCF W/ CLASS B RIP RAP
EST 30 TONS
EST 50 SY GEOTEXTILE
SEE DETAIL SHEET 3A-1

BANK STABILIZATION
W/ CLASS II RIP RAP
EST 550 TONS
EST 600 SY GEOTEXTILE
SEE DETAIL 3

-Y14- PC 12+35.19

-Y14- PT 13+44.00

SITE 3

NORTH FORK CATTAIL CREEK

NORTH FORK CATTAIL CREEK

PERMIT DRAWING
SHEET 10 OF 12

NAD 83
NA 2011

SURFACE WATER IMPACTS

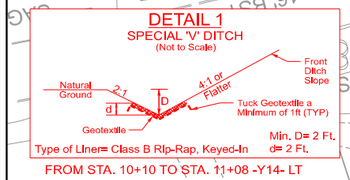
25′ 0′ 50′
GRAPHIC SCALE

TEMPORARY CRANE PAD
FOR CONSTRUCTION

PRE HELENE WATERS EDGE

POST HELENE WATERS EDGE

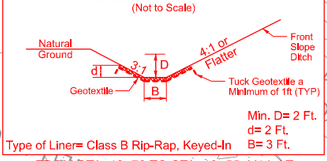
DETAIL 1
SPECIAL 'V' DITCH
(Not to Scale)



Type of Liner= Class B Rip-Rap, Keyed-In

FROM STA. 10+10 TO STA. 11+08 -Y14- LT

DETAIL 2
SPECIAL BASE DITCH
(Not to Scale)

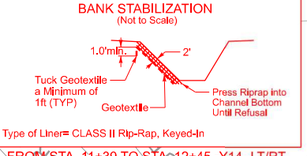


Min. D= 2 Ft.
d= 2 Ft.
B= 3 Ft.

Type of Liner= Class B Rip-Rap, Keyed-In

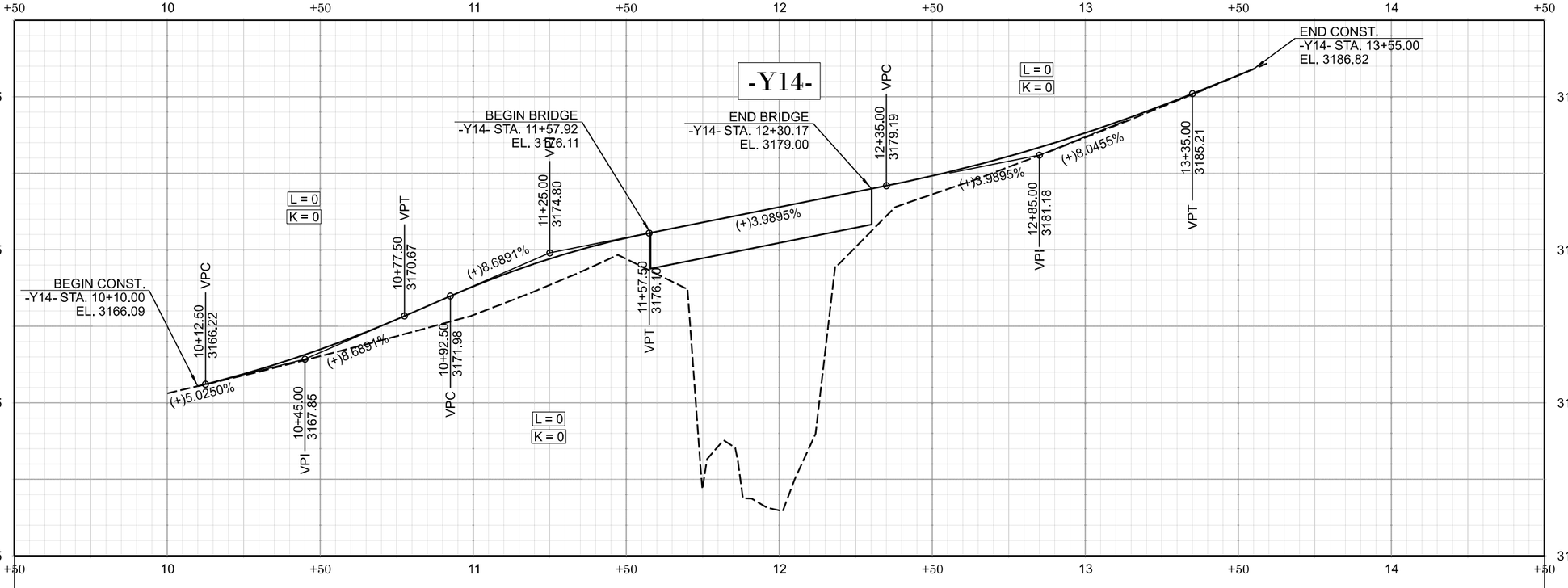
FROM STA. 12+78 TO STA. 13+55 -Y14- LT

DETAIL 3
BANK STABILIZATION
(Not to Scale)



Type of Liner= CLASS II Rip-Rap, Keyed-In

FROM STA. 11+39 TO STA. 12+45 -Y14- LT/RT



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Y14

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
YANCEY COUNTY

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ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

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11/14/23

TEMPORARY CRANE PAD
FOR CONSTRUCTION

BANK STABILIZATION
SEE DETAIL 3

CLASS I RIP RAP
EST 11 TONS
EST 22 SY GEOTEXTILE

-DRWY2- POT 11+02.53

BEGIN CONSTR.
-DRWY2- POT 10+65.00

-DRWY2- PC 10+36.44
BK BRG = N51°52'23.8"E

-DRWY2- PT 10+15.86

-Y14- POC 12+65.00=
-DRWY2- POT 10+00.00
BK BRG = N22°23'22.2"E

SPECIAL BASE DITCH
W/ CLASS B RIP RAP
SEE DETAIL 2

END CONSTR.
-Y14- POT 13+55.00
BK BRG = S52°31'20.7"E

PERMIT DRAWING
SHEET 11 OF 12

NAD 83
NA 2011

S S SURFACE WATER IMPACTS

25' 0' 50'
GRAPHIC SCALE

TEMPORARY CRANE PAD
FOR CONSTRUCTION

PRE HELENE WATERS EDGE

POST HELENE WATERS EDGE

BEGIN CONSTR.
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BEGIN CONSTR.
-Y14- POT 10+10.00

-Y14- PC 10+96.44

-Y14- POT 10+00.00

CLASS B RIP RAP
EST 8 TONS
EST 21 SY GEOTEXTILE

S87°44'55.2"E

PROP GR DRIVE

END SBG
+28

-Y14- PT 11+59.47

MCF W/ CLASS B RIP RAP
EST 30 TONS
EST 50 SY GEOTEXTILE
SEE DETAIL SHEET 3A-1

SITE 13

GTB

BANK STABILIZATION
W/ CLASS II RIP RAP
EST 550 TONS
EST 600 SY GEOTEXTILE
SEE DETAIL 3

-Y14- PC 12+35.19

-Y14- PT 13+44.00

S73°18'12.1"E
-Y14-

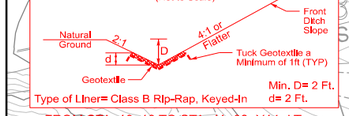
-DET. Y14-

NORTH FORK CATAWBA CREEK

0401

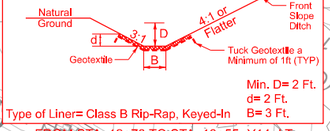
0402

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



Type of Liner= Class B Rip-Rap, Keyed-In
Min. D= 2 Ft.
d= 2 Ft.
FROM STA. 10+10 TO STA. 11+08 -Y14- LT

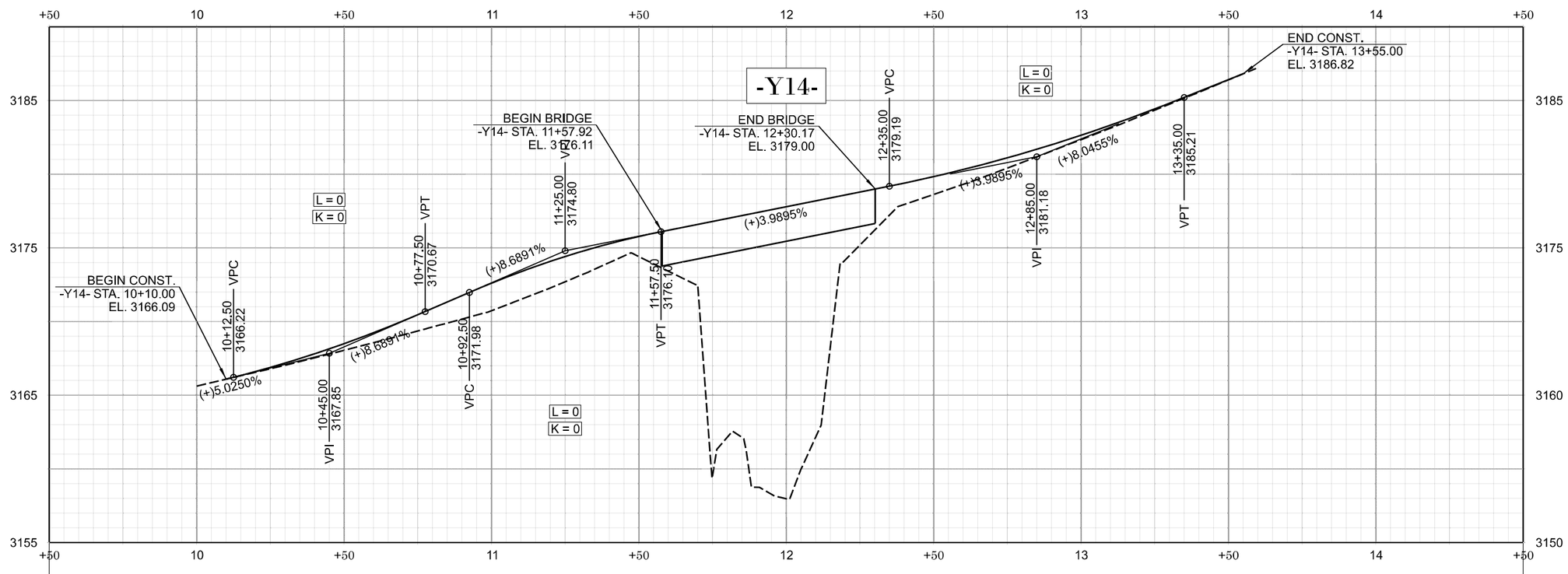
DETAIL 2
SPECIAL BASE DITCH
(Not to Scale)



Type of Liner= Class B Rip-Rap, Keyed-In
Min. D= 2 Ft.
d= 2 Ft.
B= 3 Ft.
FROM STA. 12+78 TO STA. 13+55 -Y14- LT

DETAIL 3
BANK STABILIZATION
(Not to Scale)

Type of Liner= CLASS II Rip-Rap, Keyed-In
FROM STA. 11+39 TO STA. 12+45 -Y14- LT/RT



NC197 PDB
Y14

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YANCEY COUNTY

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VHB/ccrowley - 8/4/2025

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	-Y11- 76+97-77+73	Emergency Temp Bridge Fill Removal							0.03		37	
1	-Y11- 77+14-77+77	Bank Stabilization						0.05		178		
1	-Y11- 77+08-77+56	Temp Workpad							0.02		73	
2	-Y6A- 10+83-10+99	Emergency Temp Bridge Fill Removal							0.05		154	
2	-Y6A- 10+00-11+72	Bank Stabilization						0.09		354		
2	-Y6A- 11+16-11+17	Temp Workpad							0.03		38	
3	-Y14-11+86-12+16	Bank Stabilization						0.02		113		
TOTALS*:								0.15	0.12	645	59**	0

Site 1 = Cane River - Riverview Road - Bridge 287
Site 2 = Cane River - Toodies Creek Road - Bridge 135
Site 3 = North Fork Cattail Creek - Cattail Ck Rd. - Bridge 136

*Rounded totals are sum of actual impacts

NOTES:
Linear impacts are shown such that they do not double count due to impacts on both sides of the stream.
<0.01 acres of Permanent SW Impacts for drilled piers.
**Linear footage of temporary impacts within the limits of bank stablization have not been counted towards total.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
August 1, 2025
Yancey County
18313.1100997
NC-197 S PDB

ESA Consultation

Formal Consultation for Bridges on NC 197: Yancey 135, 136, 287

Biological and Conference Opinions and Informal Consultations – Batch Format

Replace Multiple Crossing Structures on NC 197 Destroyed by Tropical Storm Helene in Yancey County, North Carolina

Service Log #25-174 through 25-176

Prepared by:

U.S. Fish and Wildlife Service
Asheville Ecological Services Office
160 Zillicoa Street
Asheville, North Carolina 28801

GARY PEEPLES

Digitally signed by GARY PEEPLES
Date: 2025.07.21 08:45:55 -04'00'

Gary Peeples
Acting Field Supervisor
Asheville Ecological Services Field Office
Asheville, North Carolina

Table of Contents

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.
- **May 20, 2025**: NCDOT submitted batched request for informal and formal consultation to the Service.
- **June 5, 2025**: Service asked NCDOT questions on bridge information and related effect determinations.
- **June 19, 2025**: NCDOT provided requested information.

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 one group of many 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. These priority bridge constructions are expected to begin in September 2025 and have a target completion date of March 2027, though that is the best-case timeline assuming no major issues arise with scheduling. 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.
990135	Cane River	Yancey	35.873836, -82.319874	Bridge gone	25-174
990136	North Fork Cattail Creek	Yancey	35.826223, -82.281517	Bridge gone	25-175
990287	Cane River	Yancey	35.859237, -82.303536	Bridge damaged, to be replaced	25-176

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) and "May Affect, Not Likely to Adversely Affect" NLAA determinations, with supporting biological rationale.

Table 2. Species NLAA and NE Determinations

Structure Number	Waterbody	Service Log No.	NE and NLAA Species
990135	Cane River	25-174	**NLAA:** Small whorled pogonia (*Isotria medeoloides*), Virginia spiraea (*Spiraea virginiana*). **Rationale**: Suitable habitat present, valid botanical surveys (5/20/2025) negative for both species. **NE:** Gray bat (*Myotis grisescens*), northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*). **Rationale:** Absence of roosting habitat – bridge structure completely gone and no tree clearing to occur.
990136	North Fork Cattail Creek	25-175	**NLAA:** Small whorled pogonia, Virginia spiraea. **Rationale**: Suitable habitat present, valid botanical surveys (5/20/2025) negative for both species **NE:** rock gnome lichen (*Gymnoderma lineare*). **Rationale:** Absence of suitable habitat.
990287	Cane River	25-176	**NLAA**: Small whorled pogonia, Virginia spiraea. **Rationale**: Suitable habitat present, valid botanical surveys (5/20/2025) negative for both species. **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 (ESA) 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.

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.

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 prohibitions against jeopardizing its continued existence and "take" will apply.

Biological Opinion and Conference Opinion

1. Introduction

A biological and conference opinion (Opinion) is the document that states the opinion of the Service inaccordance 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 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*) 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, including portions of waterbodies, as indicated in Table 1, that may be affected by the direct or indirect effects of the action. The action areas are comprised

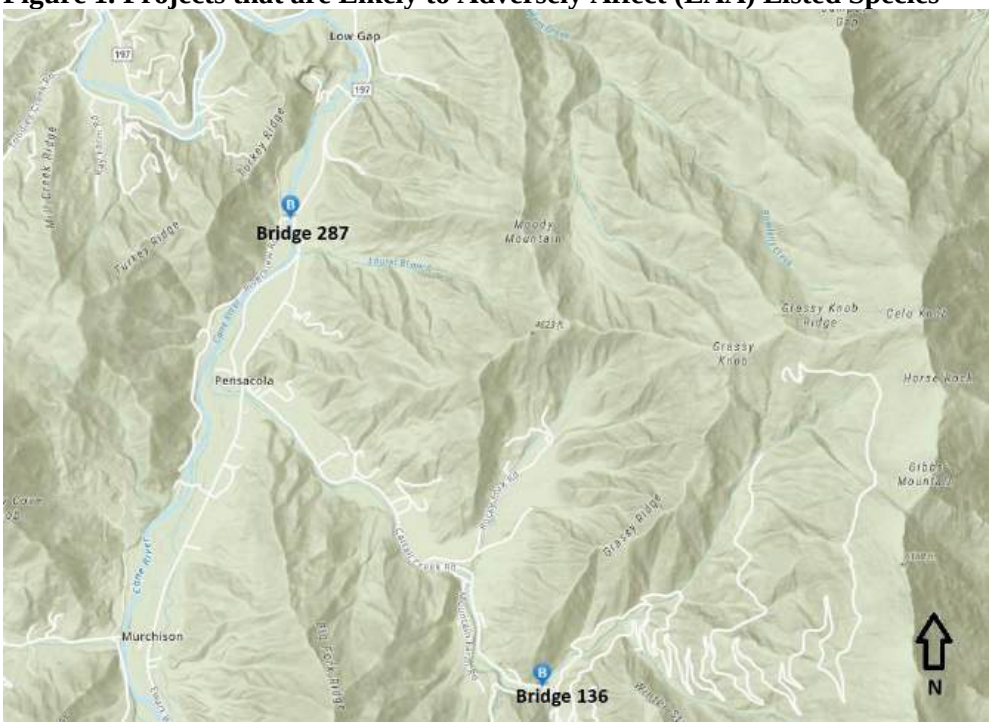
of the:

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
136	North Fork Cattail Creek	Yancey	35.826223, -82.281517	25-175	Bats: LAA Tree clearing during sensitive season
287	Cane River	Yancey	35.859237, -82.303536	25-176	Bats: LAA Tree clearing and structure work during sensitive season

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



2.2 Project Description

The widespread infrastructure failure of numerous DOT 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, the expectation is that the majority of the replacement bridges will be concrete box beam or

cored slab structures and the culvert structures will be the same or similar materials to those previously in place. The general and expected elements of these crossing structure replacement projects are described below. The current estimated timeline for completion of these projects is spring of 2027.

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, 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 may 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 may 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 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.

Aquatics- General AMMs will minimize impacts to listed/proposed aquatic species and **to the maximum extent possible** the following AMMs 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 – To the maximum extent possible, 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 – To the maximum extent possible, 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, the action agency will implement to further recovery of the species under review. The beneficial effects of CMs are considered in determining whether the projects will jeopardize the species under consideration in this document.

Bat CM - Tree Clearing Bat Fund Contribution: For individual bridge projects that are 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 the gray bat (*Myotis grisescens*), 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, while 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 commonly observed in bridges of concrete material 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). While foraging, the gray bat consumes a variety of insects, most of which are aquatic (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 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

3.2.1 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. Along with trees, the species has also been documented roosting in 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). 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 similar to 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).

3.2.2 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).

3.2.3 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.

3.3 Tricolored Bat

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

3.3.1 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 winter, tricolored bats are found in caves and mines, although in the southern US, where caves are sparse, tricolored bats are often found roosting in culverts. 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, in 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 1 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. Additionally in the southern United States, hibernation length is shorter compared to northern portions of the range. Hibernating tricolored bats do not typically form large clusters; most commonly roosting 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 similar to 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.

3.3.2 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 commonly 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).

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).

3.3.3 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 for Listed and Proposed Bats Within the Action Areas

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 and are located in the Environmental Protection Agency Blue Ridge Ecoregion in WNC. 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 multiple projects, more detailed information regarding other human activities at each location is not included for the purposes of this consultation review.

Structures

Yancey County Bridge #136 was completely destroyed and no structure remains. Yancey County Bridge #287 was damaged, with portions of suitable bat roosting features remaining. This structure will be demolished for replacement. For gray bats, primary roost structures can support several hundred to over 1,000 individuals, while most structures with observed roosting gray bats in WNC contain 1 to 10 individuals. The structures supporting those higher numbers of gray bats, whether culvert or bridge, are larger than average. The number of northern long-eared bats observed roosting on bridges in WNC is

between 1 and 2 individuals at any given time. In more detail, Natural Heritage data shows 3 gray bat bridge roost locations in Yancey. There are currently no culvert roosting records for northern long-eared bat in NC. Records of tricolored bat roosting in bridges and culverts in WNC consist mainly of 1-2 individuals per structure. Within the action area of these damaged crossing structures, given size of the structures, the degraded and reduced roosting habitat available, and based on existing WNC data, it is estimated that 1 individual per species could be present within each structure at these crossing 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. Northern long-eared bats and tricolored bats roost in trees during the warmer months. Yancey County Bridges 136 and 287 will involve tree clearing, estimated to be no 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, 1 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 on Gray Bat, Northern Long-eared Bat, and Tricolored Bat

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 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, 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.

5.2 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, the majority of 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 and 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 bats roosting in close proximity 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 expected to result in harm to gray bat, northern long-eared bat, and tricolored bat.

Tree Removal

The removal of suitable roost trees, if conducted while northern long-eared bats or tricolored bats are present, could result in causing bats to flush, which would expose them to risk of predation and 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 in close proximity to 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 present would be left behind with mortality as the likely outcome. In summary, these activities, should they occur while bats are present, are expected to result in harm to northern long-eared bat and tricolored bat.

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

If bats were utilizing structures or trees (when considering 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 in close proximity to 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.

5.3 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 for Gray Bat, Northern Long-eared Bat, and Tricolored Bat

After reviewing the current status of gray 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.

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, northern long-eared bat, or tricolored bat. This opinion is based on the following factors: Effects of the actions occur as a result of the replacement of Yancey County crossing structures 136 and 287, and/or the associated tree clearing at these locations. 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, 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 1 northern long-eared bat and 1 tricolored bat per forested area within each action area), and the occurrence range-wide of each species – gray bat in 14 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, 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 Endangered Species ESA and Federal regulations pursuant to section 4(d) of the Endangered Species Act prohibit the take of endangered and threatened species, 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, 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 Yancey County crossing structures 136 and 287 as well as any associated tree clearing. 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 and tricolored bat, take may occur as a result of clearing suitable roost trees during times of year when 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 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 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 7.1.
2. Any more than one structure is demolished/replaced per crossing structure, as listed at the beginning of section 7.1.

**For 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.

7.2 Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measure(s) are necessary and appropriate to minimize take of gray 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.

7.3 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the NCDOT 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 Yancey Bridges 135 and 287. 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.
- **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.

24-11-0013

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 Team.

PROJECT INFORMATION

Project No.:	**No TIP**	*County:*	**Yancey**
WBS No.:	**49082.2.13**	*Document:*	**Federal CE**
Federal Aid No.:	**TBD**	*Funding:*	☐ State ☒ Federal

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

Project Description: In response to the aftermath of Hurricane Helene, NCDOT's Division 13 proposes to repair/restore various sections of NC 197, south of Burnsville, in Yancey County, starting at roughly 0.56 mile south of US 19E and ending at SR 1100 (Ewart Wilson Road). Included in the proposed project will also be various intersecting secondary roads, which will also be repaired/restored to their pre-existing conditions. These secondary roads include the following:

- SR 1109 (Bolens Creek Road)
- SR 1192 (Ray Mine Road)
- SR 1198 (Heavenly Lane)
- SR 1110 (Bee Branch)
- SR 1113 (Concord Church Road)
- SR 1112 (Toodies Creek)
- SR 1111 (Ray Farm Road)
- SR 1179 (Powell Road)
- SR 1108 (Polecat Branch)
- SR 1183 (Hollifield Road/Riverview Road)
- SR 1184 (Riverview Road)
- SR 1107 (Pensacola School Road)
- SR 1106 (Pensacola School Road)
- SR 1102 (Cattail Creek/Winter Star Road)
- SR 1105 (Rocky Fork Road)
- SR 1104 (Walt Road)
- SR 1103 (Deep Gap Road)
- SR 1100 (Ewart Wilson Road)

Also included in this project will be various bridges/structures that are now in need of significant repair or replacement. These structures include the following (SD = structurally deficient; FO = functionally obsolete – as noted in the last statewide bridge inventory):

- Bridge No. 51 on NC 197 over Bowlens Creek (built in 1939, SD)
- Bridge No. 185 on SR 1198 (Heavenly Lane) over Bowlens Creek (built in 1994)
- Bridge No. 98 on SR 1109 (Bolens Creek Road) over Bowlens Creek (built in 1963)
- Bridge No. 135 on SR 1112 (Toodies Creek) over Cane River (built in 1979, SD)
- Bridge No. 253 on SR 1111 (Ray Farm Road) over Tudy Creek (built in 2008)
- Bridge No. 180 on SR 1179 (Powell Road) over Cane River (built in 1978, SD)

- Bridge No. 287 on SR 1183 (Hollifield Road/Riverview Road) over Cane River (built in 1978)
- Bridge No. 46 on NC 197 over Cattail Creek (built in 1951)
- Bridge No. 136 on SR 1102 (Cattail Creek/Winter Star Road) over North Fork Cattail Creek (built in 1962, FO)
- Bridge No. 184 on SR 1102 (Cattail Creek/Winter Star Road) over North Fork Cattail Creek (built in 1960, SD)
- Bridge No. 54 on SR 1100 (Ewart Wilson Road) over Falling Water Branch (built in 2015)

All proposed activities, at this time, are anticipated to occur within the NCDOT's existing ROW for all included roadways and structures (or at least where the existing ROW once was). For the NC 197 corridor, the existing ROW looks to be about 60 feet wide whereas along the various secondary roads, the existing ROW appears to range between 20-60 feet. As submitted, there should be no need for any easements; however, the need for additional ROW was not conveyed, but the hope and intent is to conduct all work within existing ROW and restore to previous use/conditions. Although Preliminary Design Plans are not available at this time, an Area of Potential Effects (APE) was generated in order to facilitate the environmental review, by buffering each individual road to its corresponding ROW width, thus generating an APE covering about 210.14 acres, which will serve as the focus for this review. **Please bear in mind that this acreage essentially equates to the existing ROW along all associated roadways submitted as part of this request.**

SUMMARY OF CULTURAL RESOURCES REVIEW

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

This project was accepted for review on Friday, November 22, 2024. A compilation of data maintained by the Office of State Archaeology (OSA) was received later that same day. Two (2) archaeological surveys have been conducted within the Cane River Valley (OSA Bibs #1184 and #2078), and eighteen (18) archaeological sites have been recorded within one (1) mile of the proposed project. At least twenty-two (22) cemeteries have also been documented in some fashion in close proximity to the APE. Digital copies of HPO's maps (Burnsville and Mt. Mitchell Quadrangles) as well as the HPOWEB GIS Service (http://gis.ncdcr.gov/hpoweb/) were last reviewed on Monday, December 9, 2024. There are numerous known historic architectural resources located along the NC 197 corridor as well as several of the secondary roads, mostly representative of early to mid-20th century community growth within the river valley. Of note are the Mount Helen Estates (YC0220 – a 1930s remote housing development), the Hensley Cabin (YC0251 – a Study-Listed property built around 1936), the approximate site for the Penland House (YC0090 – a circa 1828 log house [located over 200 feet off of Powell Road]), and Bridge No. 184 (YC0245 – a 1960 bridge structure); however, intact and significant archaeological deposits are not anticipated to be found in association with these resources within the footprint of the proposed project. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or precontact settlement within the project limits, and to assess the level of slope as well as modern, agricultural, hydrological, and other erosive-type disturbances within and surrounding the archaeological Area of Potential Effects (APE) (i.e., area of activity).

(This project falls within a North Carolina County in which the following federally recognized tribes have expressed an interest: 1) Catawba Indian Nation, 2) Cherokee Nation, 3) Eastern Band of Cherokee Nation, 4) United Keetoowah Band of Cherokee Indians, and 5) Muscogee (Creek) Nation. *We recommend that you ensure that this documentation is forwarded to these tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.)*

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

This is to be a federally funded project for which a federal permit is anticipated. As part of the project's submittal, permanent/temporary easements will not be necessary, nor should additional ROW be required. Based on the size and shape of the archaeological APE (i.e., area of activity), activities should not take place beyond what is or once was the NCDOT's existing ROW. If there were no Federal nexus for this project, please know that we would be in compliance with NC GS 121-12a, since there are no eligible (i.e., National Register-listed) archaeological resources located within the archaeological APE; **however, unassessed archaeological resources are situated in various locations immediately adjacent to the APE. Such areas will be noted in the attached figures as environmentally sensitive areas (ESAs).**

From an environmental perspective, the archaeological APE consists of the existing ROW corridors for NC 197 (a two-lane facility) and various secondary roads intersecting with NC 197 within the Cane River Valley. Situated in the northern mountains of western North Carolina, the APE falls within the southern Blue Ridge Mountain Physiographic Province and consists of thirty-three (33) soil units within twenty (20) different soil series. Despite the presence of so many soil types, three (3) soil units make up roughly half of the entire APE (in order of prevalence): Dellwood-Reddies complex, 0-3% slopes, occasionally flooded (DeA), Toecane-Tusquitee complex, 15-30% slopes, very bouldery (TwD), and Saunook sandy loam, 8-15% slopes, stony (ScC). Only two (2) other soil units have a statistically significant amount of acreage along the corridor (i.e., greater than 10 acres): Buladean-Chestnut complex, 30-50% slopes, stony (BtE) and Rosman fine sandy loam, 0-3% slopes, occasionally flooded (RoA). Despite the moderately well-drained to well-drained soil characteristics within the Cane River floodplain (DeA, ScC, and RoA), the preservation of stratigraphically intact archaeological materials within the existing ROW of NC 197 (and its various secondary roads) is not anticipated. Such a methodological approach was followed for the Burnsville Water System Project along NC 197 (OSA Bib #2078) – "since most of the project facilities were located within existing highway rights-of-way, most areas of the project were excluded from the survey" (p.3).

South of Burnsville, OSA has reviewed a variety of projects for environmental compliance, including commercial/residential development (ERs 00-10147 and 00-9405), Forest Service property and management of invasive species (ERs 05-2799, 20-2404, and 21-0607), hydrology/stream restoration work (ERs 15-0640 and 21-2279), industrial development (ER 17-0395 and GS 22-1765), municipal/ recreational projects (CHs 78-1257 and 17-1578 and ERs 99-8012, 21-0672, and 23-2433), transportation improvements (ER 84-7364), and utility upgrades (CH 86-0386 and ERs 00-8095, 17-2516, and 18-3555). Large-scale FEMA-based operations (ERs 24-0185, 24-0538, 24-1043, 24-1044, 24-2209, and 24-2246), land acquisitions (GS 24-2601), mining operations (ER 21-0701), and State Park expansions (GS 17-2893) have also been reviewed by OSA. Stating a low probability for intact and significant archaeological resources to be present based on the level of disturbances and poor soil conditions, OSA did not require an archaeological survey for over half of these projects; however, surveys were recommended and conducted for nine (9) of these projects, ranging in size from less than an acre at a bridge crossing of the Cane River (TIP# B-1442) to large-scale surveys for the Mountain Air Country Club and a natural gas pipeline expansion, all of which resulted in the documentation of fourteen (14) archaeological sites.

Many of the sites along the Cane River floodplain and, hence the NC 197 corridor, were recorded in 1981 as part of a Survey and Planning Grant between OSA and the Research Laboratories of Archaeology (RLA). "The Yancey County area was chosen for this preliminary reconnaissance survey due to the fact that few archaeological sites had been formally recorded for the locale (*at the time*), hence little was known concerning the archaeological potential and temporal reflection of prehistoric sites in the vicinity" (Dewert 1982:1). Based on the topography, it was assumed that most prehistoric sites would be located along the river floodplain or associated terraces and with somewhat less frequency along ridge/saddle areas at higher elevations. Two sections of river valley along the Cane River are felt to be high probability areas for archaeological sites, which may exhibit reliable stratigraphic sequences. One of those sections

equates to an area covered by the proposed project's APE – "from the Cane River/Cattail Creek confluence in Pensacola south to the Cane River headwaters below Eskota." **With this in mind, a review of the sites recorded in close proximity to the APE was conducted in order to "flag" specific areas that should be avoided, if possible. If avoidance of these specific locations is not feasible, then these areas may require some form of archaeological investigations (e.g., recon/survey). As stated earlier, these areas will be noted in the attached figures as Environmentally Sensitive Areas (ESAs).** Historic cemetery locations (22) in the project's vicinity were also examined via swipe map aerial imagery showing site conditions before and after Hurricane Helene. It is believed that no flood damage has been sustained at any of the known cemetery locations.

Within the immediate vicinity of the proposed project, NCDOT's Archaeology Group has reviewed at least four (4) transportation-related projects for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO), two of which were various ADA ramp accommodations in the Burnsville area whereas the other two were bridge projects along NC 197 and SR 1100. In fact, Bridge No. 54 on SR 1100 (Ewart Wilson Road) over Falling Water Branch was previously reviewed under PA 12-09-0043 and was not recommended for survey at that time. Farther afield, within a five-mile buffer of the entire APE, twelve (12) additional PA projects have been reviewed internally. No archaeological surveys were recommended for half of these projects (6/12), citing various reasons (e.g., heavily disturbed, eroded, and/or poorly drained/steeply sloped contexts and/or the restrictive/constrained nature of each APE [i.e., contained within existing ROW]). However, an archaeological survey was recommended and conducted for five (5) of the six remaining PA projects, based on the presence of previously recorded archaeological sites/historic resources and/or ideal environmental/topographical settings within each project area. The results from the sixth remaining PA project are still pending. As a result of those investigations though, four (4) archaeological sites were recorded, all of which were recommended not eligible for the NRHP. For more details, please see the files/forms for the following PA projects: 12-09-0029, 12-09-0031, 12-09-0040, 12-10-0038, 13-03-0033 (revised), and 24-03-0027 (survey pending).

Despite some of the information presented above, the nature of the proposed repairs and restoration work, current soil conditions and land use, and the results of previously reviewed/surveyed projects in the surrounding area indicate that there is a low probability for significant prehistoric and/or historic archaeological materials to be present within the archaeological APE (i.e., existing/pre-existing ROW). The proposed repairs and restoration to NC 197 and any of the associated bridges/structures and secondary roads should not impact anything that hasn't already been greatly disturbed by the infrastructure that was once there or the flood waters brought about by Hurricane Helene. Therefore, it is believed that the archaeological APE, as depicted, is unlikely to contain intact and significant archaeological resources. No archaeological survey is required for this project. If design plans change or are made available prior to construction, then additional consultation regarding archaeology may be required. At this time, no further archaeological work is recommended. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," including notification of NCDOT's Archaeology Group. **As stated above, select areas beyond the limits of the APE will be noted in the following figures, as Environmentally Sensitive Areas (ESAs) that should be avoided, if possible.**

SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☒ Previous Survey Info ☐ Photos ☐ Correspondence
Other:

Project Tracking No.

24-11-0013

FINDING BY NCDOT ARCHAEOLOGIST: *NO ARCHAEOLOGY SURVEY REQUIRED*

Paul J Mohler

December 10, 2024

NCDOT ARCHAEOLOGIST II — Date

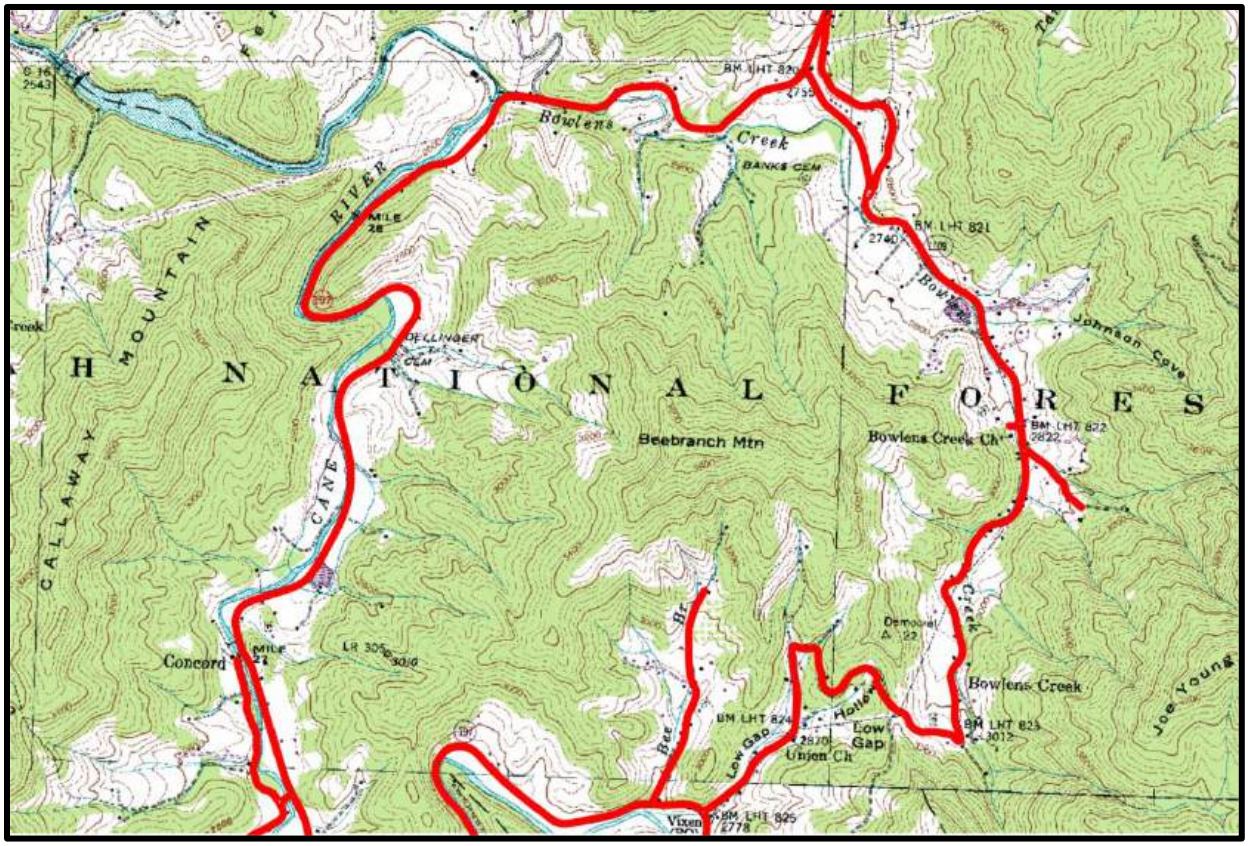


Figure 1: Burnsville, NC (USGS 1939 [PR1990]) [RED = APE Corridor].

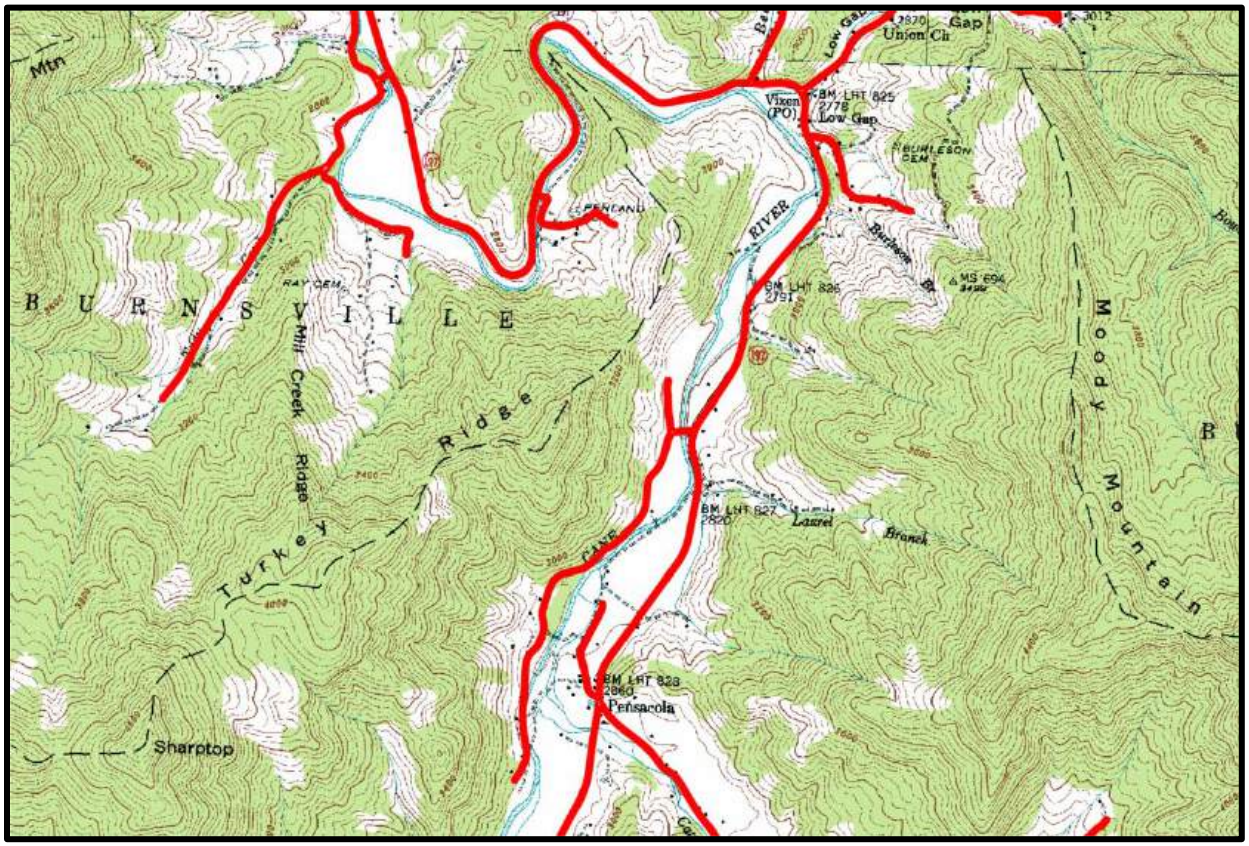


Figure 2: Mt. Mitchell, NC (USGS 1946) [RED = APE Corridor].

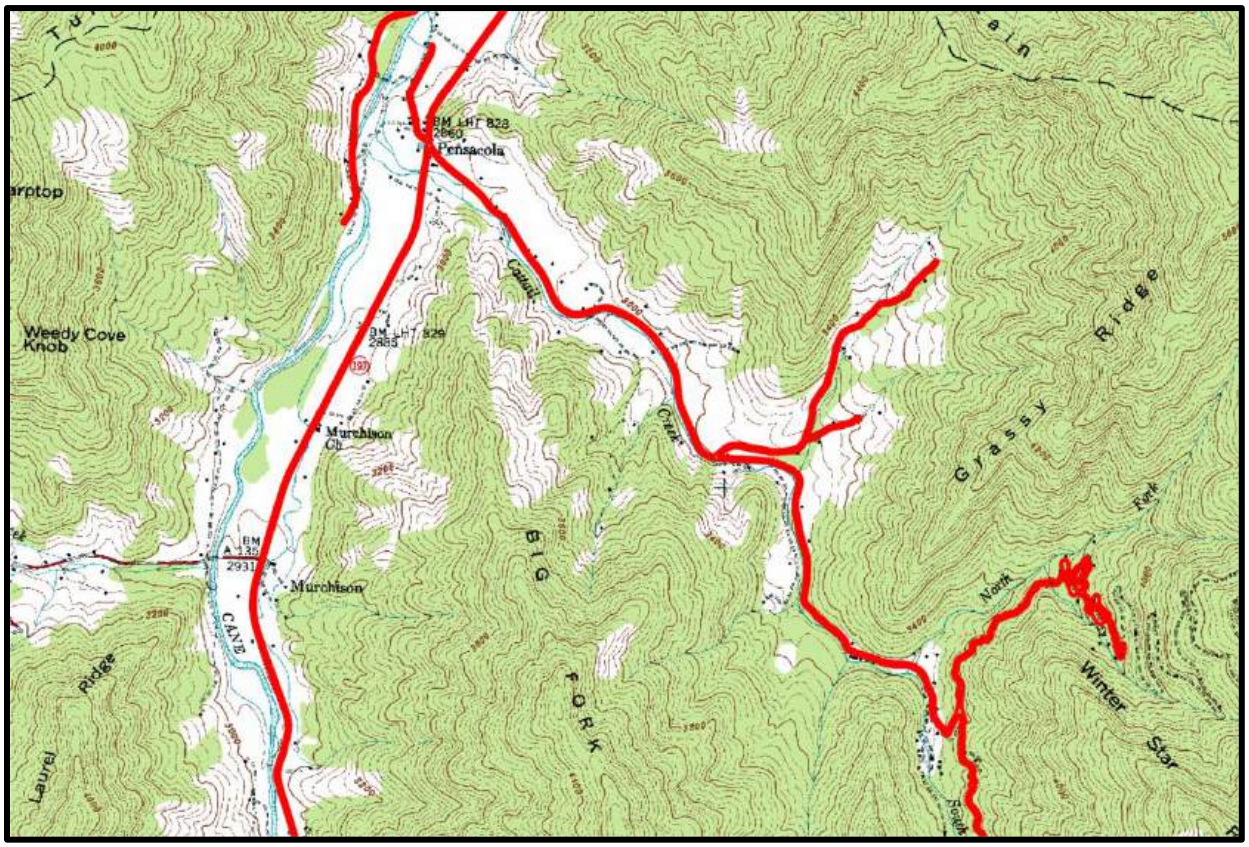


Figure 3: Mt. Mitchell, NC (USGS 1946) [RED = APE Corridor].

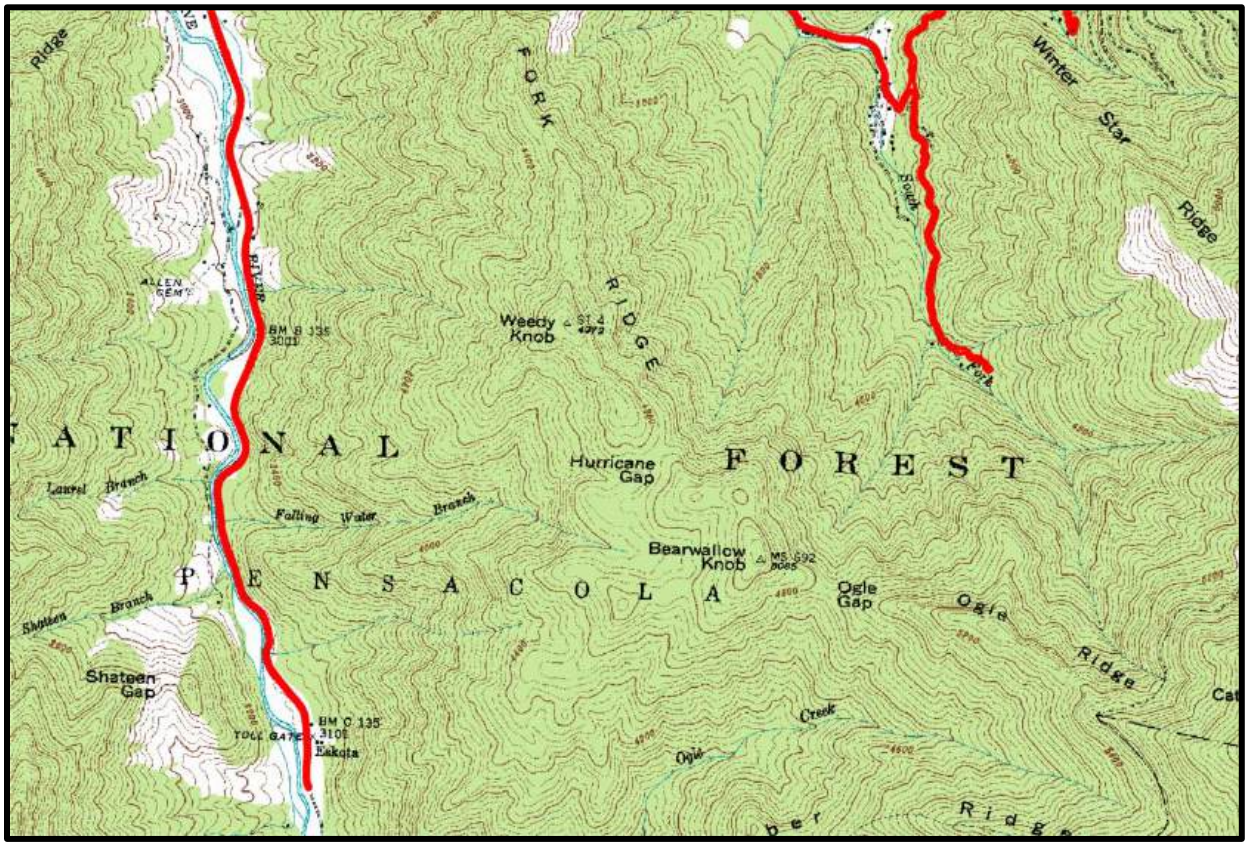
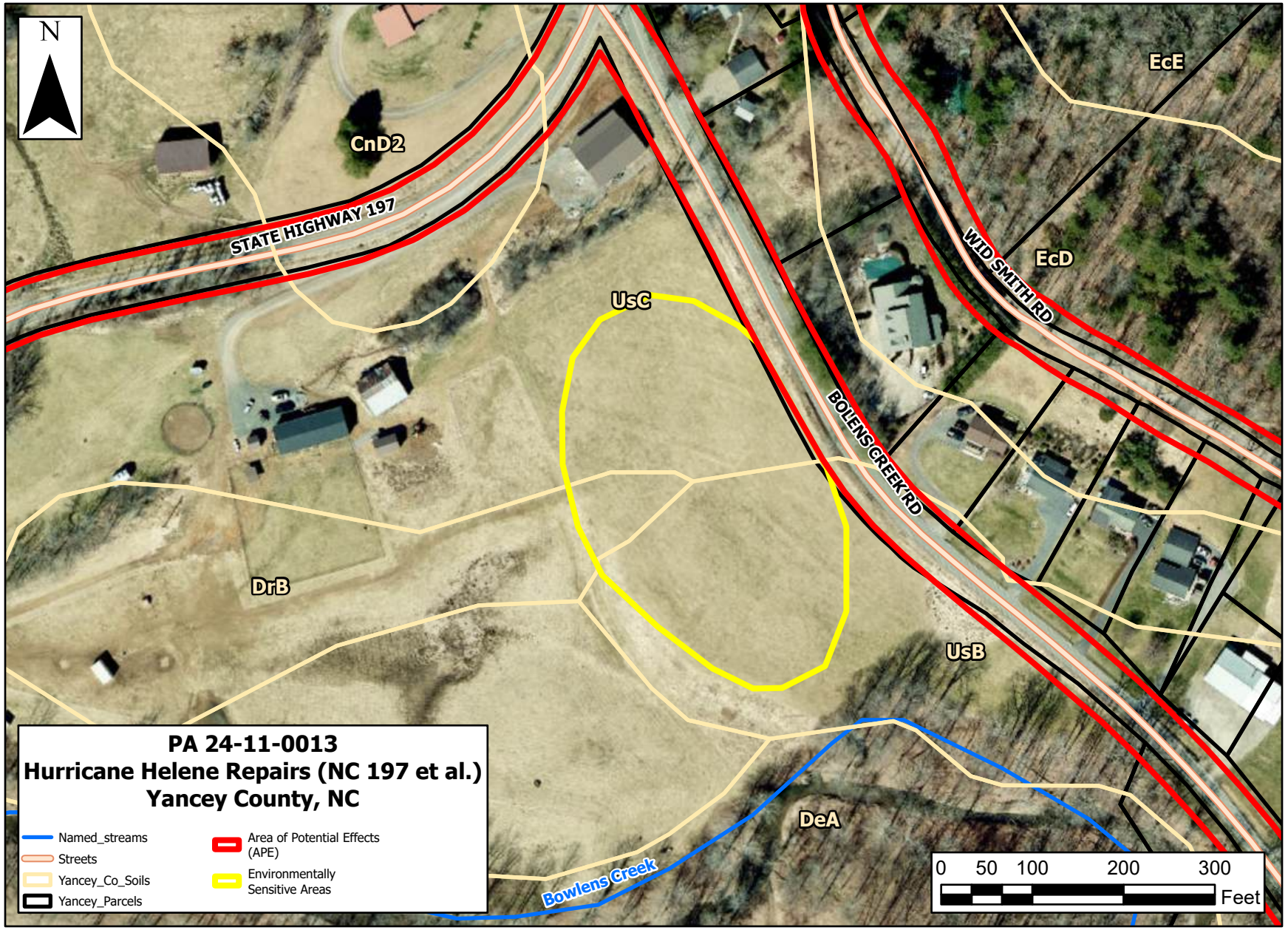


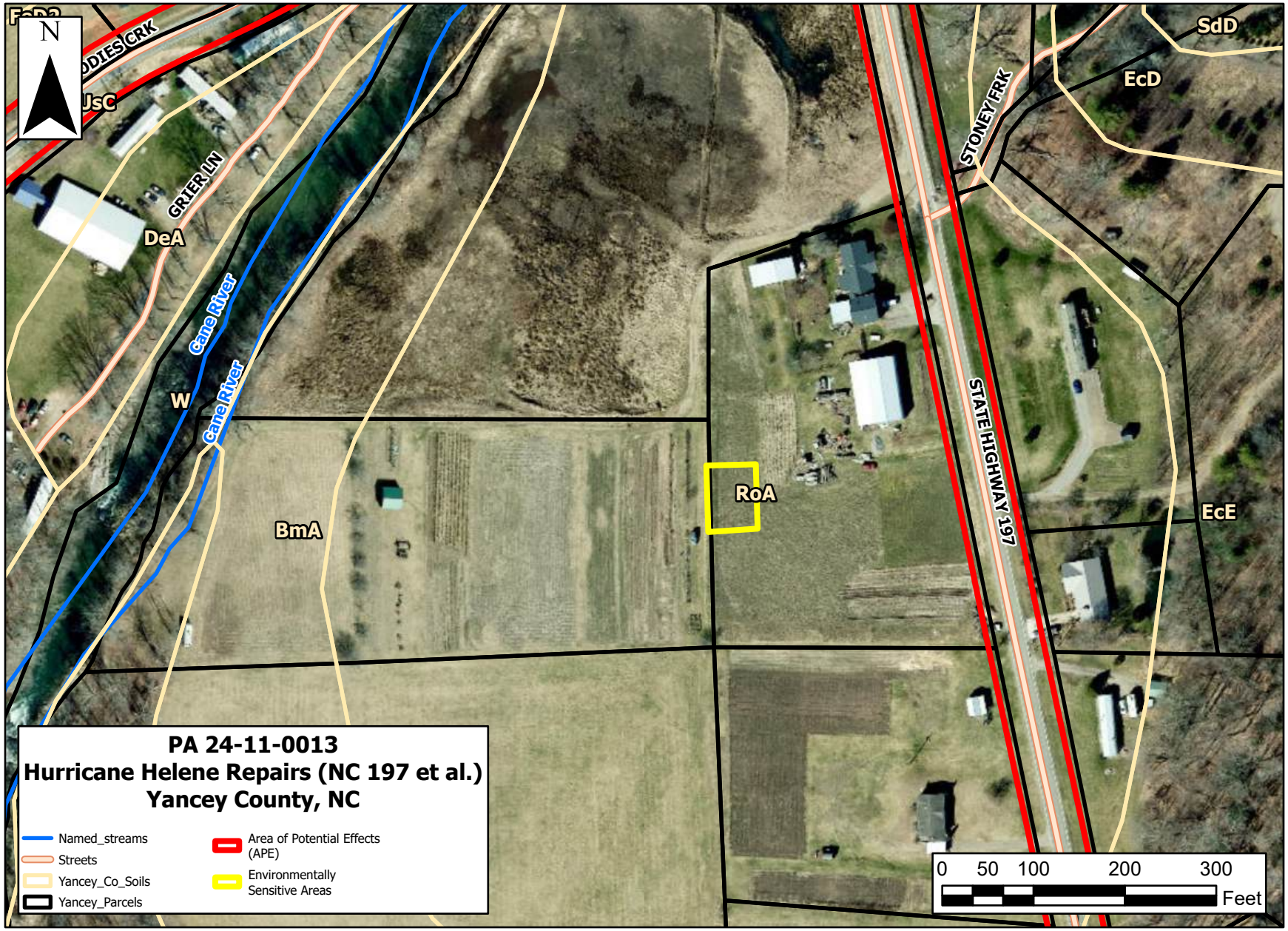
Figure 4: Mt. Mitchell, NC (USGS 1946) [RED = APE Corridor].

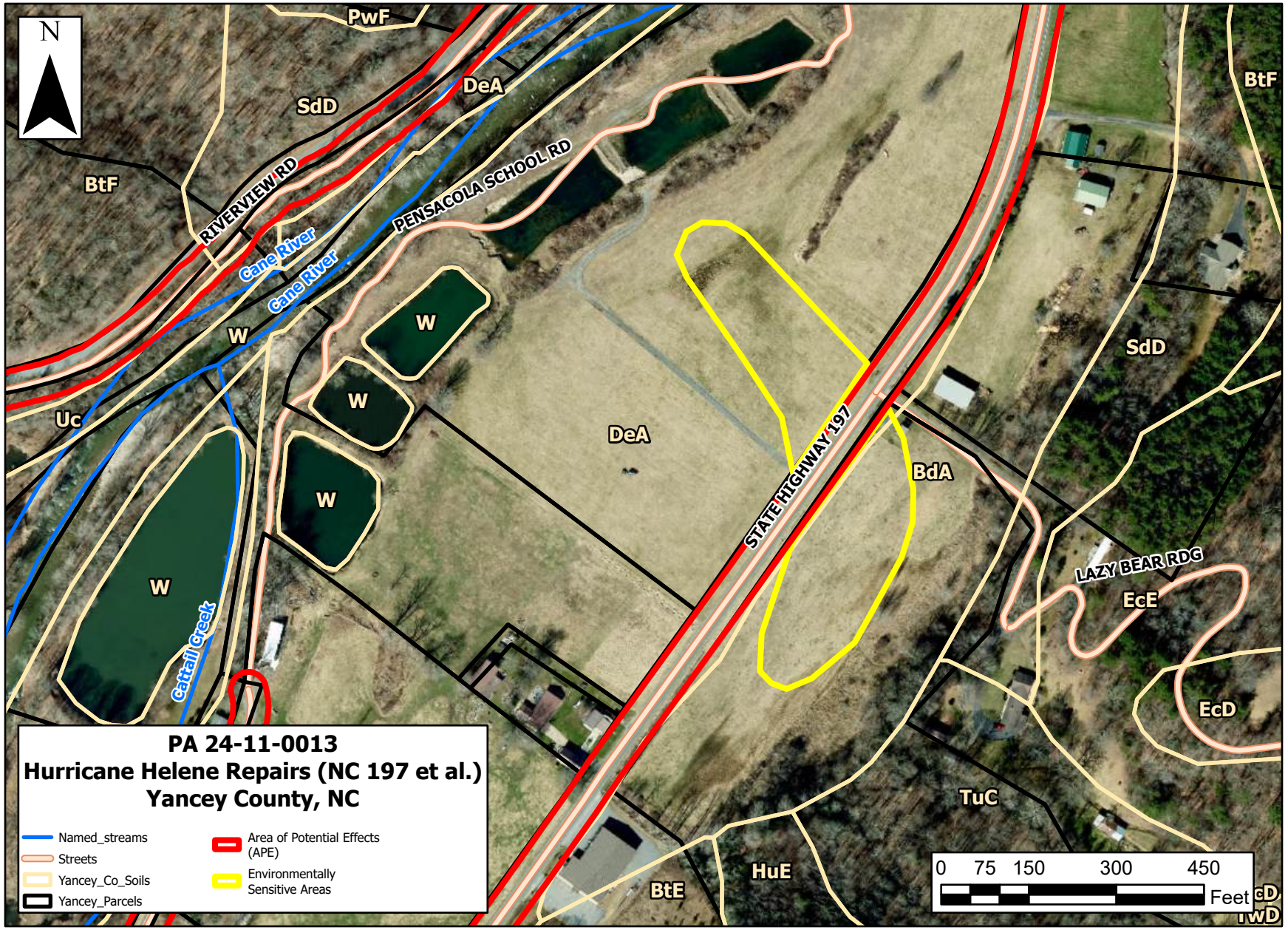
NC 197 - PDB Limits

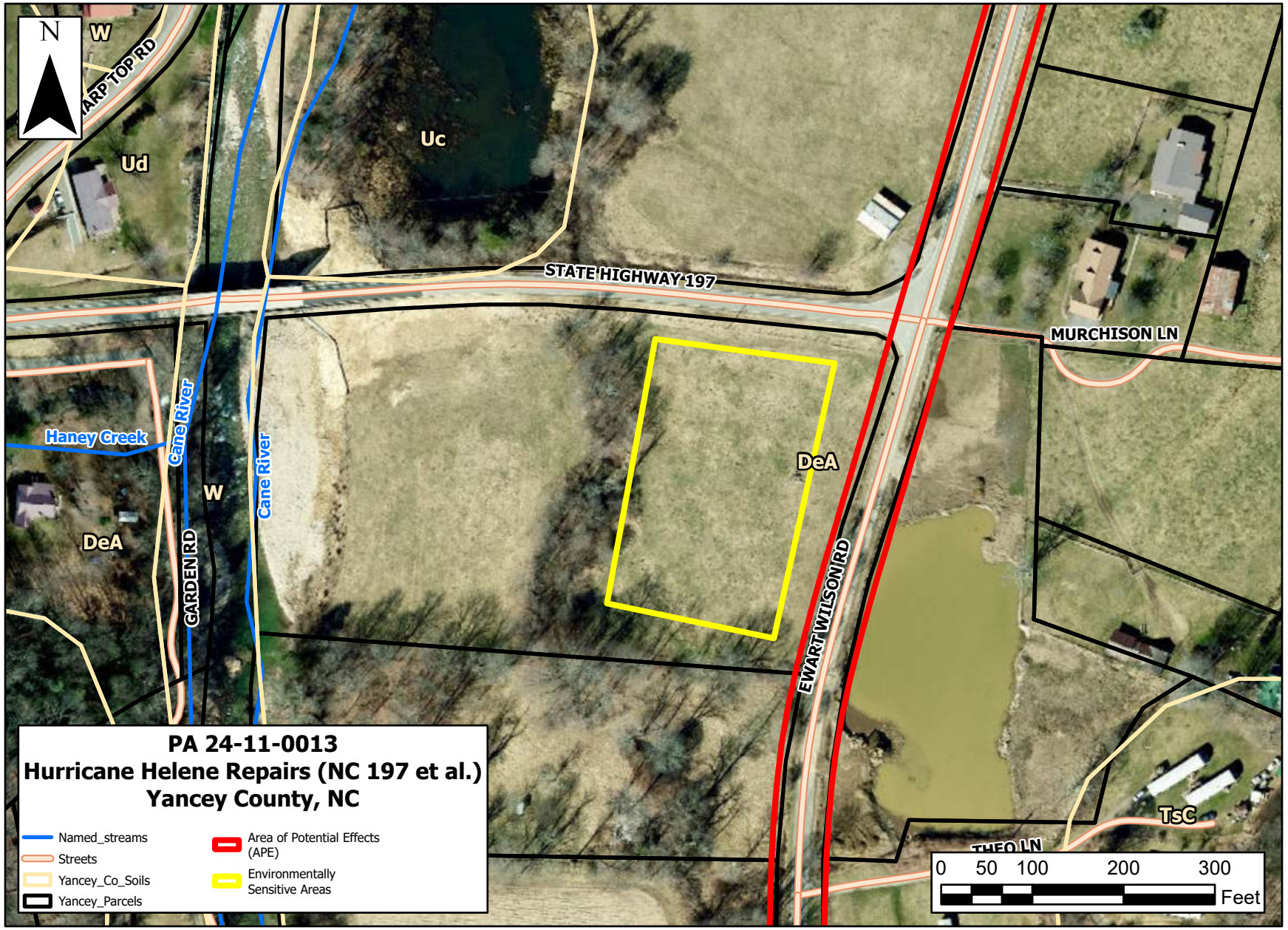
Routes:
NC 197 - From .56 Miles South of 19E to SR1100
SR1109
SR1192
SR1198
SR1110
SR1113
SR1112
SR1111
SR1179
SR1108
SR1183
SR1184
SR1107
SR1106
SR1102
SR1105
SR1104
SR1103
SR1100

Structures:
51
185
98
135
253
180
287
46
136
184
54


N
CnD2
STATE HIGHWAY 197
EcE
EcD
WID SMITH RD
UsC
BOLENS CREEK RD
DrB
UsB
DeA
Bowlens Creek
PA 24-11-0013
Hurricane Helene Repairs (NC 197 et al.)
Yancey County, NC
Named_streams
Streets
Yancey_Co_Soils
Yancey_Parcels
Area of Potential Effects (APE)
Environmentally Sensitive Areas
0 50 100 200 300
Feet


N
JsC
GRIER LN
DeA
Cane River
Cane River
W
BmA
RoA
STONEY FRK
STATE HIGHWAY 197
SdD
EcD
EcE
PA 24-11-0013
Hurricane Helene Repairs (NC 197 et al.)
Yancey County, NC
Named_streams
Streets
Yancey_Co_Soils
Yancey_Parcels
Area of Potential Effects (APE)
Environmentally Sensitive Areas
0 50 100 200 300
Feet


N
PwF
SdD
DeA
BtF
RIVERVIEW RD
PENSACOLA SCHOOL RD
Cane River
Cane River
W
W
W
W
Uc
DeA
STATE HIGHWAY 197
BdA
SdD
BtF
LAZY BEAR RDG
EcE
EcD
TuC
HuE
BtE
W
Cattail Creek
PA 24-11-0013
Hurricane Helene Repairs (NC 197 et al.)
Yancey County, NC
Named_streams
Streets
Yancey_Co_Soils
Yancey_Parcels
Area of Potential Effects (APE)
Environmentally Sensitive Areas
0 75 150 300 450
Feet


N
W
ARP TOP RD
Ud
Uc
STATE HIGHWAY 197
MURCHISON LN
Haney Creek
Cane River
Cane River
W
DeA
GARDEN RD
DeA
EWART WILSON RD
TsC
THEO LN
PA 24-11-0013
Hurricane Helene Repairs (NC 197 et al.)
Yancey County, NC
Named_streams
Streets
Yancey_Co_Soils
Yancey_Parcels
Area of Potential Effects (APE)
Environmentally Sensitive Areas
0 50 100 200 300
Feet

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:	No TIP	***County***:	Yancey
WBS No.:	18313.1100999	***Document Type***:	Federal CE
Fed. Aid No:		***Funding***:	☐ State ☒ Federal
Federal Permit(s):	☒ Yes ☐ No	***Permit Type(s)***:	USACE

Project Description:

In response to the aftermath of Hurricane Helene, NCDOT's Division 13 proposes to repair/restore various sections of NC 197, south of Burnsville, in Yancey County, starting at roughly 0.56 mile south of US 19E and ending at SR 1100 (Ewart Wilson Road).
Included in the proposed project will be numerous intersecting secondary roads and eleven (11) bridges/structures which require significant repair or replacement to be restored to their pre-existing conditions. This effects assessment only applies to the two (2) bridge replacement projects listed below.

Bridge 136 on SR 1102 (Cattail Creek/Winter Star Road) over North Fork Cattail Creek (const. 1962)
Bridge 287 on SR 1183 (Hollifield Road/Riverview Road) over Cane River (const. 1978)

Other effects assessments for the remaining work will be recorded on separate PA forms when the design plans are available.

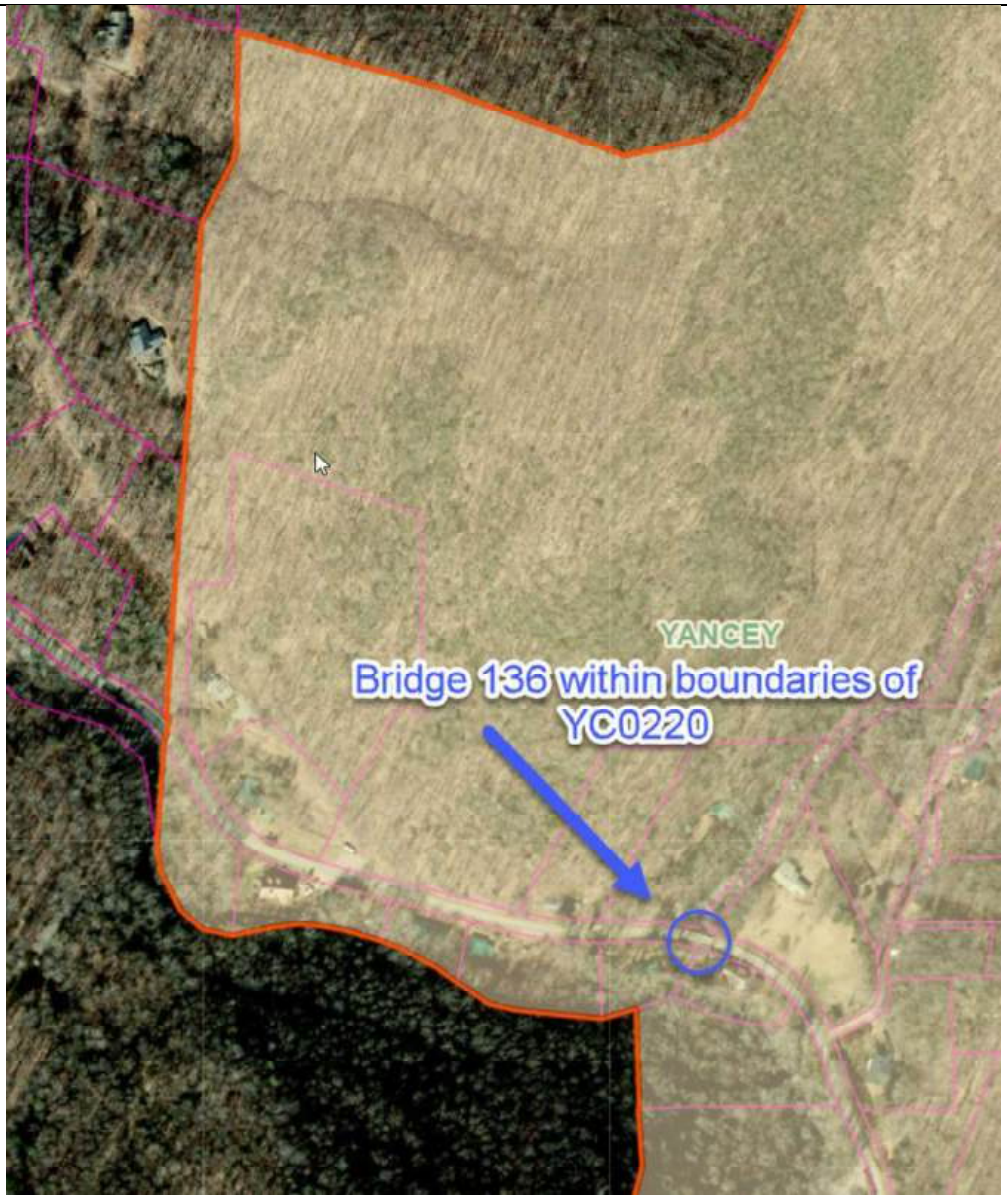
SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusion

A North Carolina Department of Transportation (NCDOT) architectural historian reviewed the known historic properties in proximity to the two bridge replacement projects using HPOWeb, Yancey County GIS, survey site files from the HPO Western Office, and NCDOT's 2023 Historic Bridge Inventory in January 2025. In January 2025, the architectural historian conducted a site visit and confirmed that there were determined eligible and potentially eligible historic properties in the APE for the two bridge projects.

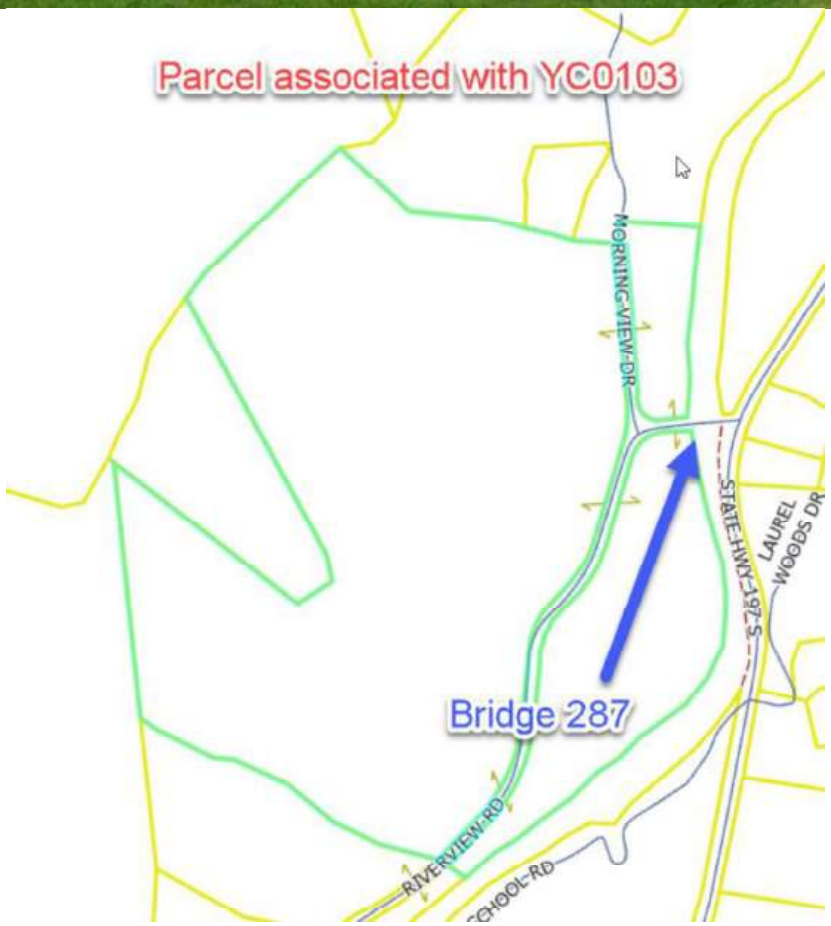
Since the screening, NCDOT and HPO have discussed that the following property is eligible for the NRHP and will be considered in this Effects Assessment.

A NRHP eligibility evaluation was completed by NCDOT for **Mount Helen Estates (YC0220)** in 2014 and the HPO concurred that the district is eligible for listing in the NRHP under Criterion A & C.



In order to expedite overall project delivery of WBS# 18313.1100999 the Federal Highway Administration (FHWA) North Carolina Division, NCDOT, and North Carolina Historic Preservation Office (NC-HPO) have mutually agreed to treat the following three (3) unassessed properties as NRHP-eligible for the sole purpose of advancing the emergency project to assess the potential effects of the project under Section 106 of the National Historic Preservation Act (NHPA). NRHP eligibility evaluations will be undertaken for these properties if a Temporary Disaster Construction Easement (TDCE) will be needed for the project. Treating the following properties as eligible for project WBS# 18313.1100999 does not extend to any future undertaking.

1. YC0103 Pearson Riddle House at 78 Riverview Road, built 1936 on 99.68 acres

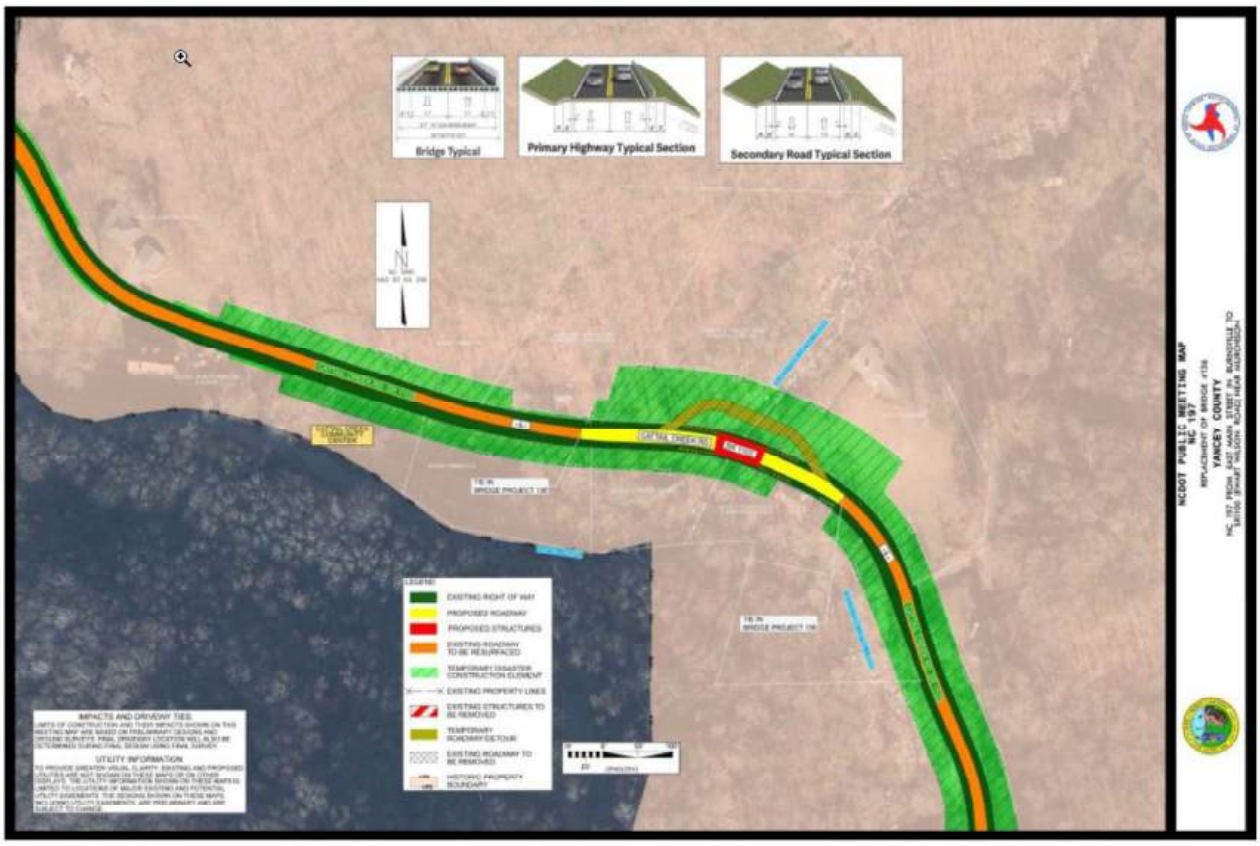


2. House at 8325 Hwy 197, built c.1920 on 3.25 acres

3. Joe Wilson House at 150 Laurel Woods Road, built 1866 on 14.25 acres

ASSESSMENT OF EFFECTS

Cattail Creek Road (SR 1303) bridge replacement over North Fork Cattail Creek



Property Name:	Mount Helen Estates	***Status***:	DE Criteria A & C
Survey Site No.:	YC0220	***PIN***:	multiple

Effects

☐ No Effect ☒ No Adverse Effect ☐ Adverse Effect

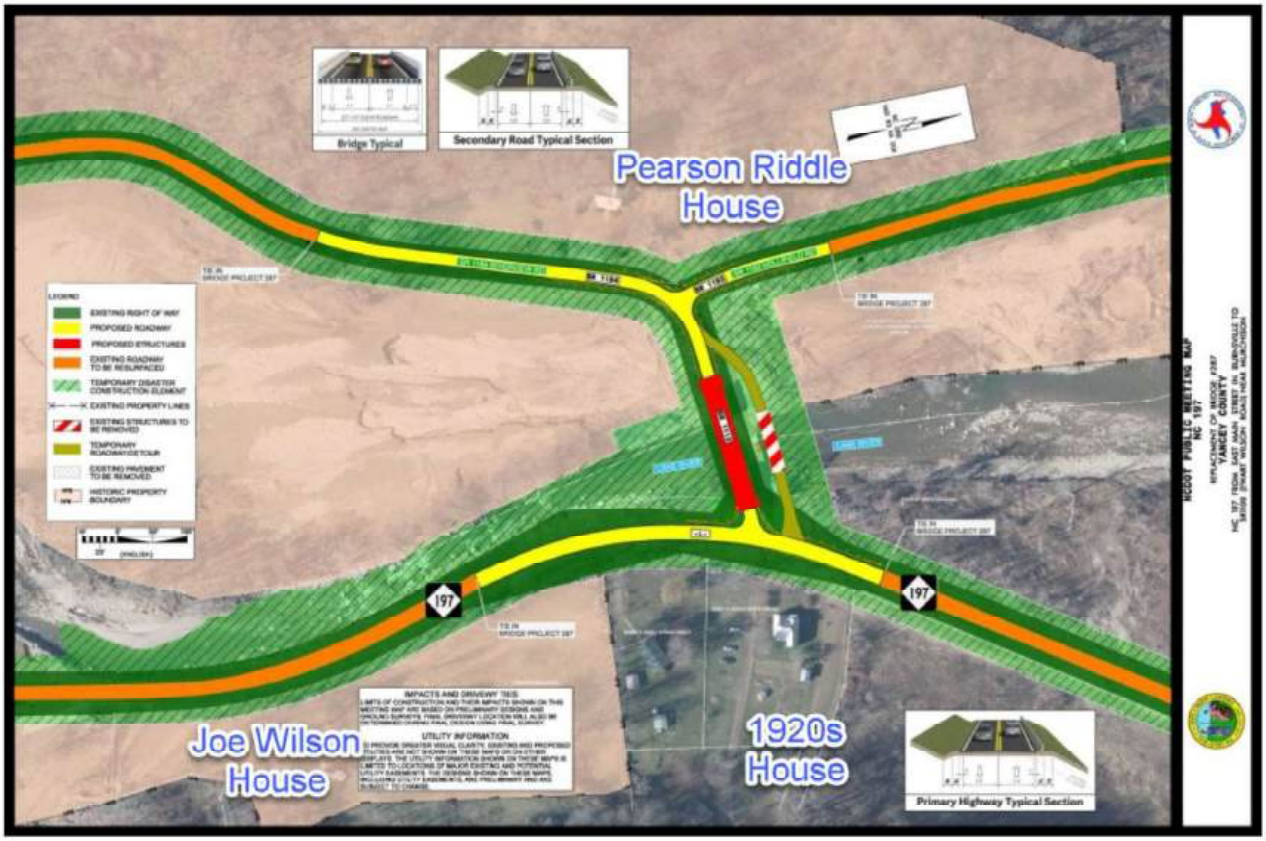
Explanation of Effects Determination: Temporary bridge will be constructed upstream to detour traffic from damaged bridge. Once Bridge 136 is replaced, the temporary bridge and roadway will be removed, and the area will be re-vegetated with species similar to what had been disturbed. Piles for the new bridge will be drilled (not driven) to diminish vibrational impacts to the surrounding structures. Guardrail will be installed on the bridge approaches but will not prevent access to the properties. Existing drainage ditches on the north side of SR 1102 will be re-established after the temporary bridge and roadway is removed. Driveways for the four properties surrounding this bridge may need minor adjustments after construction to correctly align with SR 1102. Temporary easements, permanent drainage easements, and some new ROW may be required.

List of Environmental Commitments:

New bridge rail will be two-bar metal on a concrete parapet. A temporary fence will be erected along the southern side of SR 1102 to protect the house east of the bridge during construction

and prevent staging activities on this property. An NCDOT architectural historian will meet in the field with design staff to mark the proposed detour route and delineate a buffer with temporary fencing during construction to prevent staging activities and excessive tree clearing beyond what is necessary to establish and maintain the temporary on site detour. If impacts to the properties are greater than those shown on the attached plans, NCDOT will re-assess effects with HPO, FHWA, and USACE.

Riverview Road (SR 1112) bridge replacement over Cane River



Property Name:	Pearson Riddle House	***Status***:	unassessed
Survey Site No.:	YC0103	***PIN***:	072800032946000

Effects

☐ No Effect ☐ No Adverse Effect ☐ Adverse Effect

Explanation of Effects Determination: Temporary detour bridge erected after the hurricane and remains in use. New bridge will be constructed on pre-storm alignment. Pastures adjacent to the river and the lawn in front of the house have been overrun with silt and debris. Barn and house on the property are intact and will not be impacted by construction activities and NCDOT will provide for continued access to the pastures/fields adjacent to the Cane River.

List of Environmental Commitments:

NCDOT will evaluate the eligibility of YC0103 using National Register criteria and submit the report to HPO for comments. If impacts to the property are greater than those shown on the attached plans, NCDOT will re-assess effects with HPO, FHWA, and USACE. If the property is

determined not eligible, then no further coordination is required.

Property Name:	1920s House @ 8325 Hwy 197	***Status***:	unassessed
Survey Site No.:	none	***PIN***:	072800032946000

Effects

☐ No Effect ☒ No Adverse Effect ☐ Adverse Effect

Explanation of Effects Determination: Temporary detour bridge erected after the hurricane and remains in use. New bridge will be constructed on pre-storm alignment. NC 197 in front of this house was rebuilt after the hurricane, but construction of the bridge will require additional drainage and roadway work along the western edge of the property. None of this will impact the house or other structures on the property.

List of Environmental Commitments:
NCDOT will evaluate the eligibility of this 1920s house using National Register criteria and submit the report to HPO for comments. If impacts to the property are greater than those shown on the attached plans, NCDOT will re-assess effects with HPO, FHWA, and USACE. If the property is determined not eligible, then no further coordination is required.

Property Name:	Joe Wilson House	***Status***:	unassessed
Survey Site No.:	YC0123	***PIN***:	072800138382000

Effects

☒ No Effect ☐ No Adverse Effect ☐ Adverse Effect

Explanation of Effects Determination: Temporary detour bridge erected after the hurricane and remains in use. New bridge will be constructed on pre-storm alignment. NC 197 in front of this house was rebuilt after the hurricane, but construction of the bridge will require additional drainage and roadway work along the western edge of the property. None of this will impact the house or other structures on the property.

List of Environmental Commitments:
NCDOT will evaluate the eligibility of YC0123 using National Register criteria and submit the report to HPO for comments. If impacts to the property are greater than those shown on the attached plans, NCDOT will re-assess effects with HPO, FHWA, and USACE. If the property is determined not eligible, then no further coordination is required.

SUPPORT DOCUMENTATION

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):

Mount Helen Estates
Pearson Riddle House
1920s House @ 8325 Hwy 197
Joe Wilson House

☒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:
Mary Pope Furr
ED3110443890489...
08/05/2025

NCDOT Architectural Historian Date

Signed by:
Renee Gledhill-Earley
C20A1550A275404...
08/05/2025

State Historic Preservation Office Representative Date

Signed by:
Seth Wilcher
9967A500F8714F0...
08/05/2025

Federal Agency Representative Date

Tribal Coordination

From:	Clough, Karina A
To:	Elizabeth Toombs; russtown@ebci-nsn.gov; syerka@ebci-nsn.gov; Roger Cain; section106@muscogeenation.com
Cc:	Wilkerson, Matt T; Archual, Adam J.; Thomas, John T.; jmsanderson; Allen, Yates
Subject:	Tribal Coordination: NC 197 Project No. 18313.1100997
Date:	Tuesday, March 25, 2025 11:09:36 AM
Attachments:	NCDOT Proj. 997_Cherokee.pdf NCDOT Proj. 997_EBCI.pdf NCDOT Proj. 997_Muscogee.pdf NCDOT Proj. 997_UKBCI.pdf

Dear Sir/Madam,

This email is to request your review and comments on the proposed project to restore the Hurricane Helene-damaged section of NC 197 South along the Cane River in Yancey County. The repair area extends approximately 11 miles on NC 197 South from E. Main Street in Burnsville to Murchison Lane/Ewart Wilson Road in Murchison (Project No. 18313.1100997). The project also includes repairs to approximately 20 miles of portions of 19 connected Secondary Road (S.R.) routes. Eleven bridges will be repaired or replaced by this project. The Federal Highway Administration (FHWA) is the lead federal agency. Attached to this email is a letter requesting information about the project site.

With this email, NCDOT is requesting your consultation on the above project. Please review the attached information and provide comments within 30 days. If you have any questions regarding this request, do not hesitate to contact me.

This request for consultation is being sent to the following:

- Stephen Yerka (Eastern Band of Cherokee Indians (EBCI) Tribal Historic Preservation Office)
- Roger Cain (United Keetoowah Band of Cherokee Indians in Oklahoma (UKB) THPO)
- Muscogee (Creek)Nation
- Elizabeth Toombs (Cherokee Nation THPO)
- Wenonah George Haire (Catawba Indian Nation) – via mail

Sincerely,

Karina Clough
Division PDEA Engineer
Division 13
North Carolina Department of Transportation

828-250-3038 office
kaclough@ncdot.gov

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918-453-5000 • www.cherokee.org

Chuck Hoskin Jr.
Principal Chief
ᏣᎵ ᎭᏍᎩ ᏕᏁᏕ
ᎤᎬᏫᏳᎯ

Bryan Warner
Deputy Principal Chief
ᏕᏃᎯᎵᏙᎯ
ᏔᎵᏁ ᎠᏝᏗᏁ ᎤᎬᏫᏳᎯ

April 24, 2025

Karina Clough
North Carolina Department of Transportation
Division 13 Office
55 Orange Street
Asheville, NC 28801-2340

Re: 18313.1100997, NC 197 South along the Cane River

Dear Karina Clough:

The Cherokee Nation (Nation) is in receipt of your correspondence about **18313.1100997**, and appreciates the opportunity to provide comment upon this project. This communication is intended for government-to-government consultation with a sovereign federally recognized Tribal Nation. Information received in consultation will be deemed confidential unless explicit consent is provided by the Nation.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office (Office) reviewed this project, cross referenced the project's legal description against our information, and found no instances where this project intersects or adjoins such resources. Thus, the Nation does not foresee this project imparting impacts to Cherokee cultural resources at this time.

However, the Nation requests that the North Carolina Department of Transportation (NCDOT) halt all project activities immediately and re-contact our Office for further consultation if items of cultural significance are discovered during the course of this project. Additionally, the Nation requests that the NCDOT conduct appropriate inquiries with other pertinent Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,

Elizabeth Toombs

Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

NEPA Document

Type I or II Categorical Exclusion Action Classification Form

STIP Project No.	**Helene Permanent Repairs to NC 197 South**
WBS Element	18313.1100997
Federal Project No.	N/A

A. Project Description:

The proposed action includes the initial emergency repairs to approximately 11 miles of NC 197 from East Main Street in Burnsville to south of Murchinson, approximately 20 miles of 19 connected secondary road (SR) routes, and eleven bridges in Yancey County. Also included in this action are geotechnical investigations and other engineering investigations needed to continue the emergency reconstruction and finalize the permanent repairs.

In the immediate aftermath of the storm, NCDOT reestablished connectivity within the project area to facilitate access for property owners, emergency vehicles, utility companies, and other necessary services. NCDOT utilized available resources and recovered materials that were quickly accessible, often from within the adjacent waterway, to rebuild roadways on their pre-storm alignments as closely as possible.

Geotechnical investigations will include high ground and in-water borings as necessary to inform roadway embankment and slope repair design and construction. Roadway borings will be collected from the existing roadway and completed before side slope borings are scheduled because sufficient information may be gained from the roadway boring. Toe of slope borings may require access through the water depending on the location. Geotechnical borings may also be required at the eleven bridge bent locations. Access to in-water borings will occur from vehicles traversing from the riverbank and into the river. No dewatering or temporary fill is planned for in-water borings.

B. Description of Need and Purpose:

The need for the proposed action is for emergency repairs to the slopes, pavement, and other infrastructure associated with NC 197 South as well as geotechnical investigations to develop designs for the permanent repairs for the corridor.

C. Categorical Exclusion Action Classification:

Type I(A) - 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.

24. Localized geotechnical and other investigations to provide information for preliminary design and for environmental analyses and permitting purposes, such as drilling test bores for soil sampling; archeological investigations for archeology resources assessment or similar survey; and wetland surveys.

E. Special Project Information:

Natural Environment
Ivy Knob-Coxcomb Mountain, Upper Bowlens Creek Forests, Black Mountains, Toodies Creek Headwaters, Cane River Upper Watershed, and French Broad River (FBR)/Cane River Aquatic Habitat are listed as Natural Areas by the Natural Heritage Program (NHP). The NCNHP Natural Areas are terrestrial and aquatic areas that are of special biodiversity significance and indicate action areas for the conservation of North Carolina biodiversity. Temporary impacts to the FBR/Cane River Aquatic Habitat are anticipated to result from the proposed action because of temporary geotechnical investigation activities within the Cane River. (See NCNHP Letter dated May 7, 2025 in the project file.)

The Cane River, which runs adjacent to the proposed project limits on NC 197, and Cattail Creek, which runs adjacent to Cattail Creek Road (SR 1102) within the proposed project limits, are listed as Class WS-II, Tr (Trout), HQW (High Quality Water), CA (Critical Area) by North Carolina Division of Water Resources (DWR).

The Draft NRTR (June 2025) identifies three Bottomland Hardwood Forest wetlands and three Headwater Forest wetlands along Bolens Creek Road and 197 South.

Threatened & Endangered Species
As of April 29, 2025, there are fourteen listed or proposed species under the Endangered Species Act (ESA) jurisdiction within the project vicinity according to the US Fish and Wildlife Service (USFWS) Information and Planning Consultation (IPaC) database. USFWS IPaC does not identify critical habitat in the project area; however, the Cane River is identified as critical habitat for Appalachian elktoe north of and downstream of the project area. (See project file).

Table 1. Federally Protected Species

Scientific Name	Common Name	Federal Status	Biological Conclusion
Glaucomys sabrinus	Carolina northern flying squirrel	E	Unresolved
Perimyotis subflavus	Tricolored bat	PE	Unresolved
Myotis septentrionalis	Northern long-eared bat	E	Unresolved
Myotis grisescens	Gray bat	E	Unresolved
Glyptemys muhlenbergii	Bog turtle	SAT	Not required
Cryptobranchus alleganiensis	Eastern hellbender	PE	Not required
Alasmidonta raveneliana	Appalachian elktoe	E	Unresolved
Danaus plexippus	Monarch butterfly	PT	Not required
Solidago spithamaea	Blue ridge goldenrod	T	Unresolved
Hedyotis purpurea var. montana	Roan mountain bluet	E	Unresolved
Isotria medeoloides	Small whorled pogonia	T	Unresolved
Geum radiatum	Spreading avens	E	Unresolved
Spiraea virginiana	Virginia spiraea	T	Unresolved
Gymnoderma lineare	Rock gnome lichen	E	Unresolved
PE – Proposed Endangered, T – Threatened, SAT - Threatened based on Similarity of Appearance, PT – Proposed Threatened, E- Endangered			

Eastern Hellbender
The Eastern Hellbender was proposed for federal listing under the Endangered Species Act (ESA) in December 2024. However, no regulatory protections will take effect until the listing is finalized, which is

anticipated in late 2025 or early 2026. Until that time, proposed species do not receive formal Endangered Species Act (ESA) protections. However, federal action agencies are still required to ensure that their actions do not jeopardize the continued existence of the species. Federal action agencies may initiate consultation with the U.S. Fish and Wildlife Service (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 significant new information has emerged and no substantial changes to the proposed action have occurred.

Monarch Butterfly

The Monarch Butterfly was proposed for federal listing under the Endangered Species Act (ESA) in December 2024. However, no regulatory protections will take effect until the listing is finalized, which is anticipated in late 2025 or early 2026. Until that time, proposed species do not receive formal ESA protections. However, federal action agencies are still required to ensure that their actions do not jeopardize the continued existence of the species. Federal action agencies may initiate consultation with the U.S. Fish and Wildlife Service (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 significant new information has emerged and no substantial changes to the proposed action have occurred.

Cultural Resources

NCDOT/FHWA initiated tribal coordination with the Catawba Indian Nation, the Cherokee Nation, the Eastern Band of Cherokee Indians, the Muscogee (Creek) Nation, and the United Keetoowah Band of Cherokee Indians on March 25, 2025. The Cherokee Nation replied on April 24, 2025. (See project file.)

NCDOT/FHWA and the NC Historic Preservation Office are in coordination regarding this project. No effects to historic resources are anticipated as a result of this proposed action.

Public and Stakeholder Involvement

NCDOT hosted a Local Officials' Information Meeting (LOIM) and Public Meeting (PM) for four Hurricane Helene Repair Projects in Yancey and Mitchell Counties, including this project action, on March 31, 2025, at the Burnsville Town Center. Eight local officials and 162 individuals signed in at the two meetings. The LOIM and PM introduced local officials and the public to the repair projects. Detailed designs were not presented and NCDOT indicated designs would be presented at a future public meeting. There was no formal comment period but comments were encouraged. Twenty-six comments were received as of March 31, 2025, via the project website and in-person at the meeting. Comments focused on stormwater runoff, private roads and bridges repairs, and emergency access to property.

NCDOT circulated Start of Study Notification to agency representatives on March 10, 2025. Responses were received from Yancey County, the NC Wildlife Resources Commission (WRC), NC Natural Heritage Program (NCNHP), NC Division of Water Resources (DWR), NC Department of Natural and Cultural Resources (DNCR) Division of Land and Water Stewardship, US Environmental Protection Agency (EPA), and US Fish and Wildlife Service (FWS). Responses are included in the project file.

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.

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: IPaC Review, April 2025)	☒	☐
2	Does the project result in effects subject to the conditions of the Bald and Golden Eagle Protection Act (BGEPA)? (Source: IPaC Review, April 2025)	☐	☒
3	Does the project generate substantial controversy or public opposition, regarding human and/or natural environment concerns, following appropriate public involvement? (Source: Start of Study, March 2025)	☐	☒
4	[redacted]		
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition? (Source: N/A)	☐	☒
6	Does the project require an Individual Section 4(f) approval? (Source: ATLAS Screening, April 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: No Archaeological Survey Required Form, Dec. 2024; Historic Architecture Coordination, April 2025)	☐	☒
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: IPaC Review, April 2025)	☒	☐
9	Is the project located in anadromous fish spawning waters? (Source: NC Marine Fisheries Commission, 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: ATLAS Screening, April 2025; 2022 North Carolina 303(d) List))	☒	☐
11	Does the project impact waters of the United States in any of the designated mountain trout streams? (Source: ATLAS Screening, April 2025; NCWRC Scoping Letter, March 2025)	☒	☐
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit? (Source: N/A)	☐	☒
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility? (Source: ATLAS Screening, April 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: No Archaeological Survey Required Form, Dec. 2024; Historic Architecture Coordination, April 2025)	☐	☒
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.? (Source: Phase I, April 2025)	☐	☒
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: NC FRIS, May 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: ATLAS Screening, April 2025)	☐	☒
18	Does the project require a U.S. Coast Guard (USCG) permit? (Source: ATLAS Screening, April 2025)	☐	☒
19	Does the project involve Coastal Barrier Resources Act (CBRA) resources? (Source: ATLAS Screening, April 2025)	☐	☒
20	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River? (Source: ATLAS Screening, April 2025)	☐	☒
21	Does the project impact federal lands (e.g., U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands? (Source: ATLAS Screening, April 2025)	☐	☒
22	Does the project involve any changes in access control to the interstate (modification or construction of an interchange)? (Source: N/A)	☐	☒
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness? (Source: DIST, Dec. 2024)	☐	☒
24	Will maintenance of traffic or detours cause substantial disruption? (Source: DIST, Dec. 2024)	☐	☒
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: N/A)	☐	☒
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, April 2025)	☐	☒
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)? (Source: ATLAS Screening, April 2025)	☐	☒
28	Does the project "use" Section 4(f) property, and/or result in a *de minimis* determination? (Source: ATLAS Screening, April 2025)	☐	☒
29	Is the project considered a Type I under the NCDOT Noise Policy? (Source: N/A)	☐	☒
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, Dec. 2024)	☐	☒

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.')

Questions 1 & 8: ESA Section 7 Coordination between NCDOT, FHWA and USFWS is ongoing. Repair and reconstruction activities are currently being considered under formal consultation with USFWS.

Question 10: The Cane River is listed HQW from approximately 500 feet south of the Bowlens Creek confluence to its source. This designation is applied to the Cane River tributaries, including Cattail Creek. Portions of the Cane River and Cattail Creek are adjacent to NC 197 South and Cattail Creek Road in the project limits.

Question 11: The NCWRC (March 18, 2025) noted that the Cane River in the project area is a cool-water habitat that was severely degraded and aggraded by floodwater from Hurricane Helene. Habitat in this part of the river is not suitable for trout populations year-round. The trout moratorium should not apply to the repair work.

However, NCWRC identified South Fork Cattail Creek and North Fork Cattail Creek as locations where the October 15 to April 15 Trout Moratorium should be applied to protect the spawning and rearing of brook trout. Geotechnical borings are not proposed in these water resources.

H. Categorical Exclusion Approval:

STIP Project No.	**Helene Permanent Repairs to NC 197 South**
WBS Element	18313.1100997
Federal Project No.	N/A

Prepared By:

7/8/2025
Date

Signed by: John Thomas C88E7B433B17439...
John Thomas
GFT

Prepared For: Highway Division 13

Reviewed By:

7/8/2025
Date

Signed by: Marissa Cox 78BFB0F950D342F...
Marissa Cox, EPU, 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.

7/9/2025
Date

Signed by: CA084B4A6412432...
John Jamison, PWS, EPU HEAD
North Carolina Department of Transportation

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

7/10/2025
Date

DocuSigned by: E932DEEC5B6240F...
for Yolonda K. Jordan, Division Administrator
Federal Highway Administration

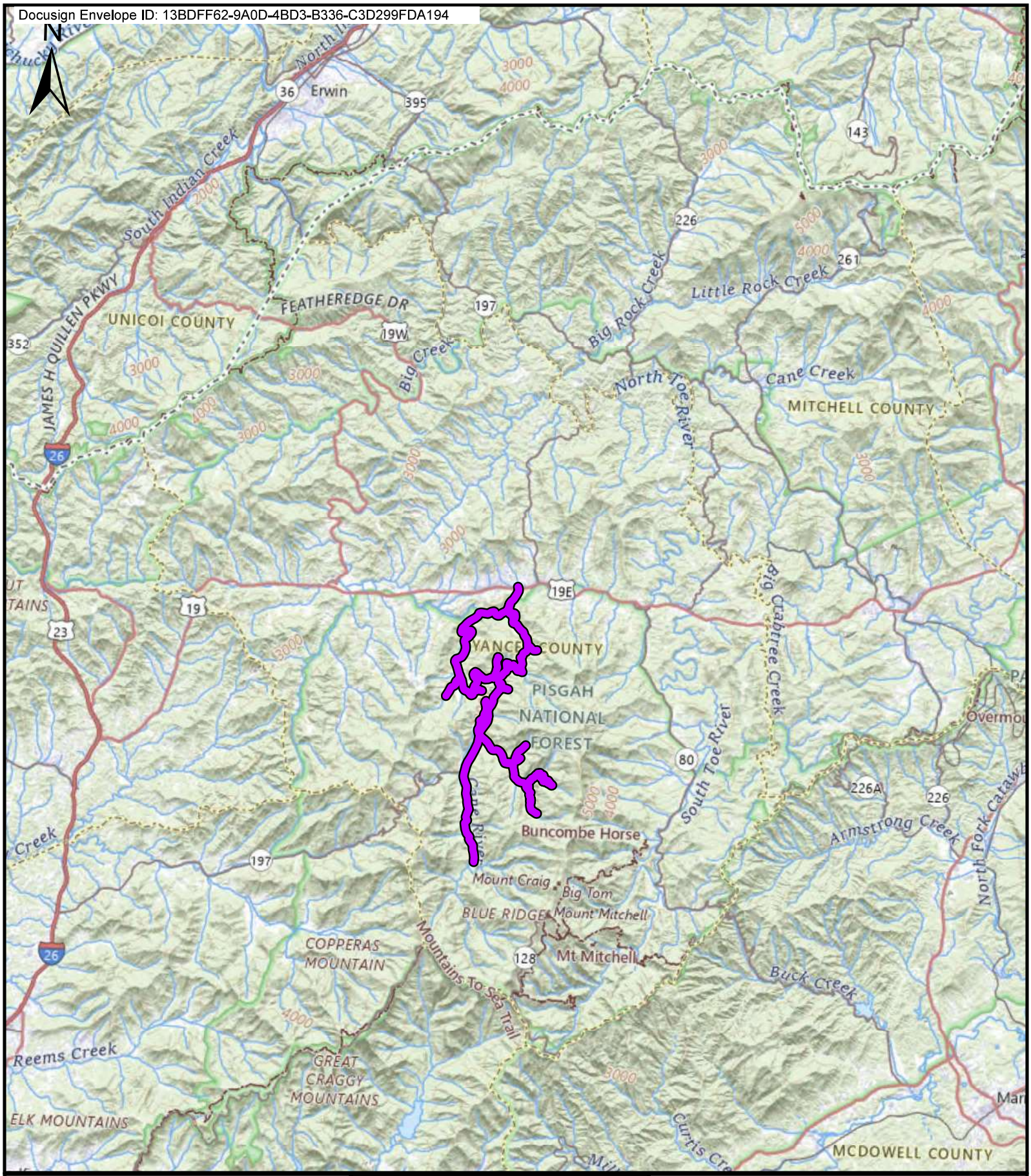
I. Project Commitments (attach as Green Sheet to CE Form):

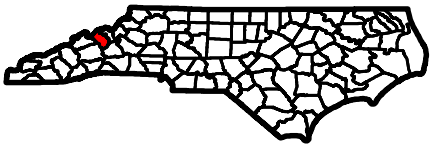
NCDOT PROJECT COMMITMENTS

STIP Project No. **Helene Permanent Repairs to NC 197 South**
Yancey County
Federal Aid Project No. N/A
WBS Element 18313.1100997

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

None





Project Limits

0 10,000 20,000 Feet

0 2.5 5 Miles

Figure 1. Project Vicinity Map
NCDOT Project No. 18313.1100997
Repairs to N.C. 197 South:
E. Main Street (S.R. 1428) to Ewart Wilson Road (S.R. 1100)
Yancey County

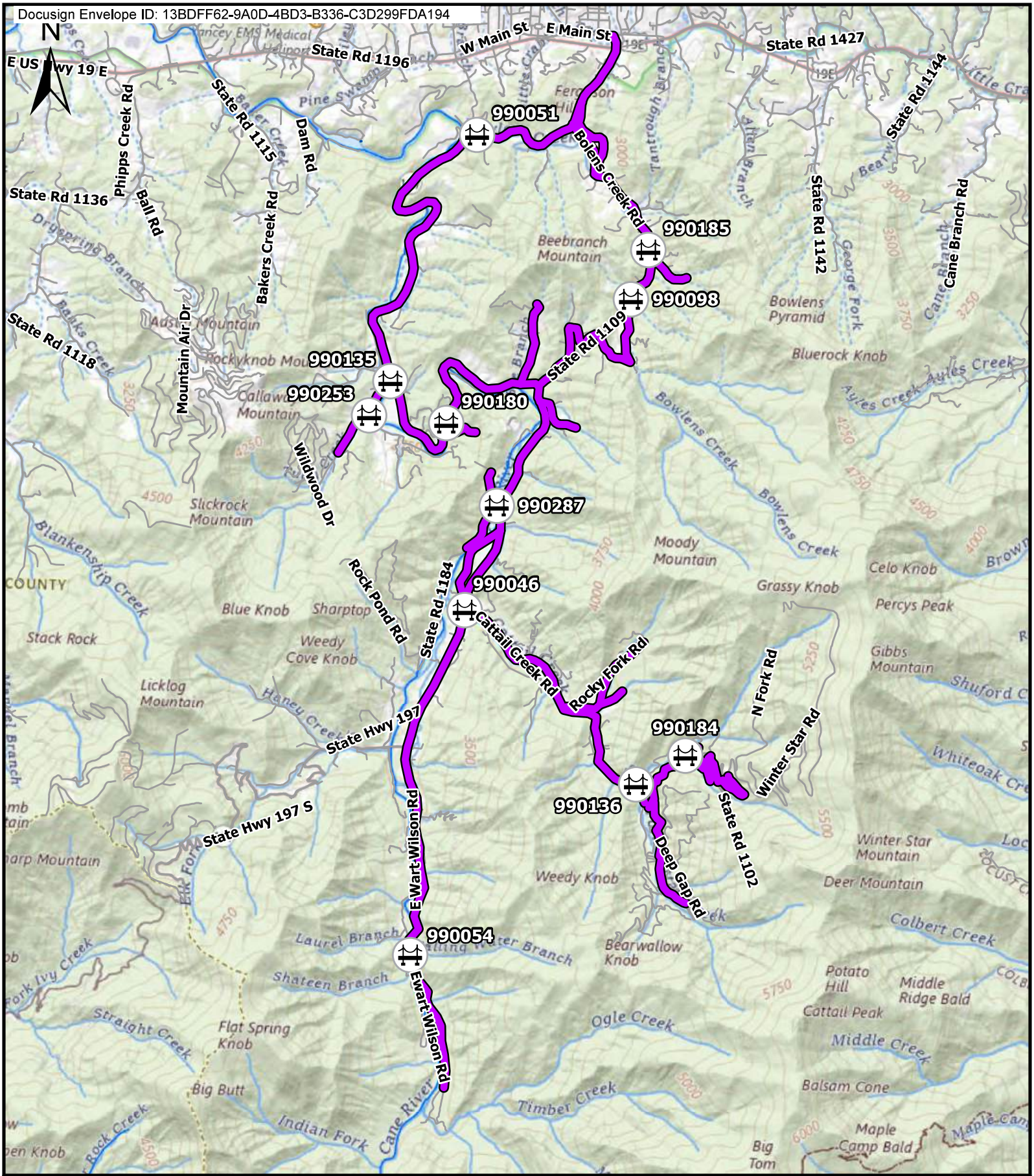


Figure 2. Project Location Map
NCDOT Project No. 18313.1100997
Repairs to N.C. 197 South:
E. Main Street (S.R. 1428) to Ewart Wilson Road (S.R. 1100)
Yancey County

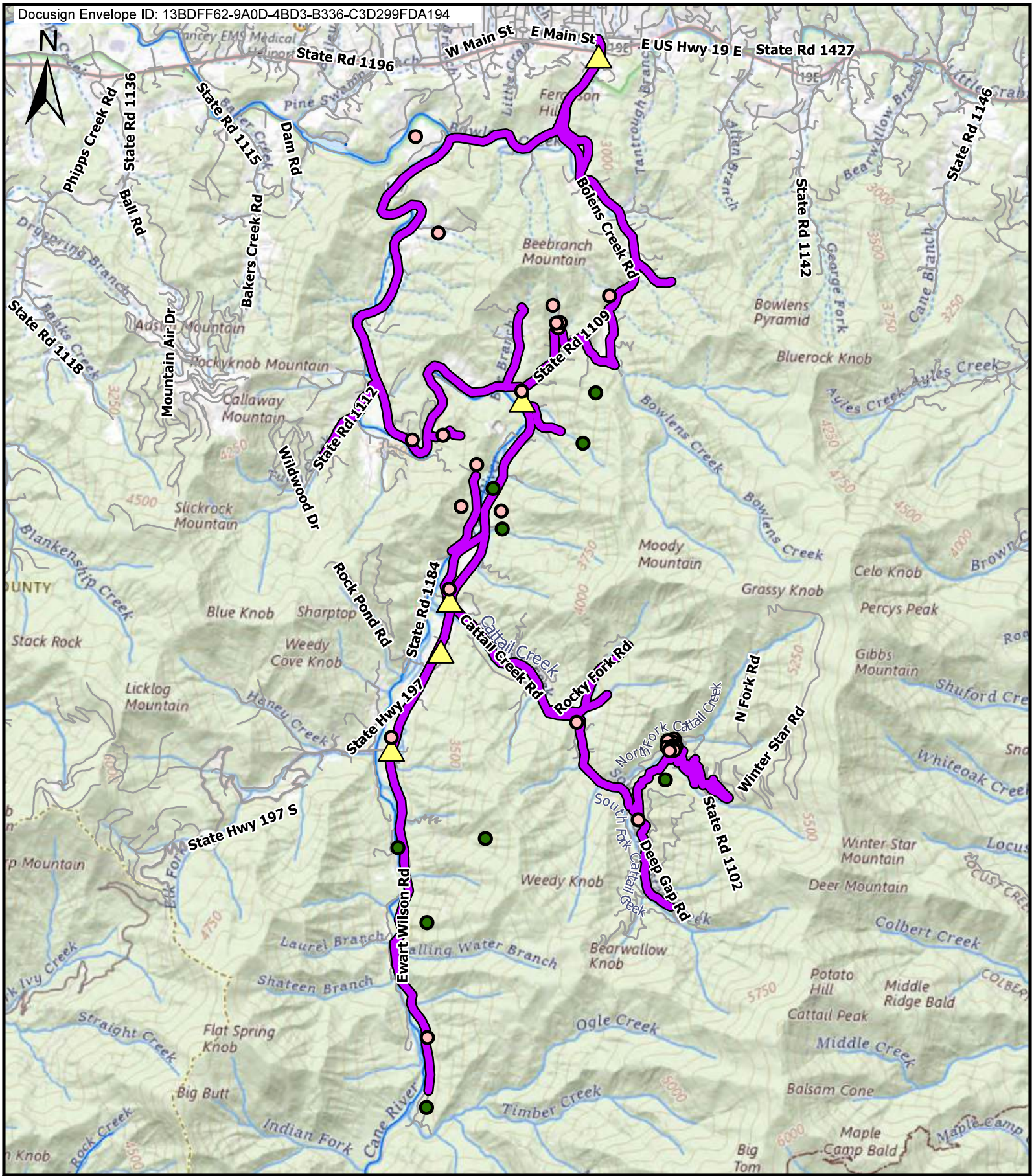


Figure 3. Environmental Features Map
NCDOT Project No. 18313.1100997
Repairs to N.C. 197 South:
E. Main Street (S.R. 1428) to Ewart Wilson Road (S.R. 1100)
Yancey County