



## 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? \*

Yes  No

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

Bertie

Is this a NCDMS Project? \*

Yes  No

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

**DON'T 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:

BR-0153

WBS # \*

67153.1.1

(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

**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
- Non-404 Jurisdictional General Permit
- Individual 401 Water Quality Certification
- 401 Water Quality Certification - Express
- Riparian Buffer Authorization

**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

**1i. Is the project located within a NC DCM Area of Environmental Concern (AEC)? \***

Yes  No  Unknown

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

Yes  No

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? \***

Shane Tapper or NCDOT

**1c. Primary Contact Phone: \***

(xxx)xxx-xxxx

(919)707-6062

**1b. Primary Contact Email: \***

kstapper@ncdot.gov

**1d. Who is applying for the permit? \***

- Owner  
(Check all that apply)
- Applicant (other than owner)

**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)

**2d. Address \***

Street Address

1598 Mail Service Center

Address Line 2

City

Raleigh

Postal / Zip Code

27699-1598

State / Province / Region

NC

Country

US

**2e. Telephone Number: \***

(xxx)xxx-xxxx

(919)707-6062

**2f. Fax Number:**

(xxx)xxx-xxxx

**2g. Email Address: \***

kstapper@ncdot.gov

**3. Applicant Information (if different from owner)**

**3a. Name: \***

Shane Tapper

**3b. Business Name:**

(if applicable)

**3c. Address \***

Street Address

1598 Mail Service Center

Address Line 2

City

Raleigh

Postal / Zip Code

27699-1598

State / Province / Region

NC

Country

US

**3d. Telephone Number: \***

(919)707-6062

(xxx)xxx-xxxx

**3e. Fax Number:**

(xxx)xxx-xxxx

**3f. Email Address: \***

kstapper@ncdot.gov

**C. Project Information and Prior Project History**



**1. Project Information**



**1a. Name of project: \***

Bridge 24 over Cashie River on NC 11 [BR-0153-Central]

**1b. Subdivision name:**

(if appropriate)

**1c. Nearest municipality / town: \***

Lewiston Woodville

**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

Postal / Zip Code

State / Province / Region

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: \***

36.14330

ex: 34.208504

**Longitude: \***

-77.16510

-77.796371

**3. Surface Waters**

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

Cashie River

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

C, Sw

[Surface Water Lookup](#)





1	fill	P	Headwater Forest	WA/WB	Yes	Both	0.115 (acres)
1	excavation	P	Headwater Forest	WA/WB	Yes	Both	0.061 (acres)
1	mech clearing	P	Headwater Forest	WA/WB	Yes	Both	0.053 (acres)
1-detour	temp fill	T	Riverine Swamp Forest	WA	Yes	Both	0.028 (acres)
1-detour	excavation	P	Riverine Swamp Forest	WA	Yes	Both	0.003 (acres)
1-detour	mech clearing	P	Riverine Swamp Forest	WA	Yes	Both	0.149 (acres)

**2g. Total Temporary Wetland Impact**

0.028

**2g. Total Permanent Wetland Impact**

0.381

**2g. Total Wetland Impact**

0.409

**2i. Comments:**

Site 1 -L-bank stabilization = <0.01 ac (7sq/ft)

**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* Average (feet)	3h. Impact length* (linear feet)
S1	S2 Bank Stabilization	Permanent	Bank Stabilization	Cashie River	Perennial	Both	80 Average (feet)	129 (linear feet)
S2	S2 Drainage	Permanent	Other	Cashie River	Perennial	Both	80 Average (feet)	16 (linear feet)
S3	S2 Drainage	Temporary	Other	Cashie River	Perennial	Both	80 Average (feet)	24 (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:**

145

**3i. Total temporary stream impacts:**

24

**3i. Total stream and ditch impacts:**

169

**3j. Comments:**

No mitigation is proposed for the stream impacts due to this not being a "loss of the waters of the US".

**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: \***

The bridge will be replaced on the existing alignment. The new bridge will have less bents in the water than the existing structure. See stormwater management plan for additional minimization measures.

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

Roadside ditches on all four quadrants discharge to the Cashie River. An abandoned roadway embankment is evident just east of the existing alignment. The detour bridge and embankment is to be constructed on the abandoned embankment to minimize impacts to the wetlands. The on-site detour will be removed and the majority of the area used converted back to its prior condition.

**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

2c. If yes, mitigation is required by (check all that apply):

DWR  Corps

2d. If yes, which mitigation option(s) will be used for this project?

Mitigation bank  Payment to in-lieu fee program  Permittee Responsible Mitigation

## 4. Complete if Making a Payment to In-lieu Fee Program

4a. Approval letter from in-lieu fee program is attached.

Yes  No

4b. Stream mitigation requested:

(linear feet)

4c. If using stream mitigation, what is the stream temperature:

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

4d. Buffer mitigation requested (DWR only):

(square feet)

4e. Riparian wetland mitigation requested:

(acres)

.38

4f. Non-riparian wetland mitigation requested:

(acres)

4g. Coastal (tidal) wetland mitigation requested:

(acres)

4h. Comments

## 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:

The Roanoke River Basin does not have protected riparian buffers.

### 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.

Due to the minimal transportation impact resulting from this bridge replacement, this project will not stimulate growth but may influence nearby land use.

## 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.

Raleigh

5d. Is another Federal agency involved? \*

Yes  No  Unknown

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

Yes  No

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

N.C. Natural Heritage Program database; USFWS-IPaC query; biological surveys for protected species identified for the project area, which include red-cockaded woodpecker, Northern long-eared bat, and red knot. Habitat for red-cockaded woodpecker and red knot does not exist in the study area and the biological conclusion is No Effect. The NLEB is covered under a PBO for NCDOT divisions 1-8. The tricolored bat is currently listed as proposed endangered by FWS. In the event the species receives its official listing during project construction, it is anticipated to be covered under the NLEB programmatic agreement as well.

## 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? \*

The NOAA – NMFS identifies no Essential Fish Habitat (EFH) within the PSA.

## 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/hpweb/>)

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? \*

Included Archaeology Form/Letter and Historic Properties and Landscape Form/Letter.

## 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:

NCDOT Hydraulics Unit coordination with FEMA

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

FEMA Floodmaps.

## Miscellaneous



Comments

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](#)

BR-0153\_Attachments.pdf

14.08MB

File must be PDF or KMZ

## Signature



\*

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:** \*

Jason L Dilday

**Signature** \*



*Jason L Dilday*

**Date**

1/14/2025



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

January 14, 2024

U.S. Army Corps of Engineers  
Washington Regulatory Field Office  
ATTN: Kyle Barnes  
2407 West Fifth Street  
Washington, North Carolina 27889

**SUBJECT: Preliminary Jurisdictional Determination (PJD) Package** for the following Natural Resources Technical Report: NCDOT Project No. BR-0153: Proposed Replacement of Bridge No. 24 on NC 11 over the Cashie River, Bertie County, North Carolina.

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 24 on NC 11 over the Cashie River in Bertie County, North Carolina (Appendix A; Figure 1). Below and attached are a brief description of the project, figures depicting all features, and appropriate forms.

Three Oaks Engineering, Inc. (Three Oaks) staff members Byron Levan and Mark Guerard conducted the site investigation within the Project Study Area (PSA) on December 14, 2022. Six potential jurisdictional features (two streams and four wetlands) were identified within the PSA (Tables 1-2; Appendix A, Figures 2-4). No potential open waters or non-stream surface waters (e.g., tributaries) were identified within the PSA. This project is located in the Roanoke River Basin (United States Geological Survey [USGS] Hydrologic Unit Code [HUC] 03010107).

A North Carolina Division of Water Resources (NCDWR) Stream Identification form was completed for Stream SA. United States Army Corps of Engineers (USACE) Wetland Determination forms (wetland and upland) were completed that represent all wetlands within the PSA. Neither North Carolina Stream Assessment Method (NCSAM) nor Wetland Assessment Method (NCWAM) forms were completed for streams or wetlands since all features possessed characteristics indicative of medium to higher quality resources (Appendix B). A USACE Preliminary Data Entry form, USACE Jurisdictional Determination Request form, USACE PJD form, and a USACE Waters Upload Spreadsheet are also included with this submittal (Appendix C).

Please see the following PJD Package:

**Table 1. Potential jurisdictional streams in the PSA**

Stream Name	Map ID	NCDWR Index Number	Best Usage Classification	Classification	NCSAM Rating <sup>1</sup>	Length (ft.)
Cashie River	Cashie River	24-2-(1)	C; Sw	Perennial	*	177
Unnamed Tributary (UT) to Cashie River	SA	24-2-(1)	C; Sw	Perennial	*	396
					<b>Total</b>	<b>573</b>

<sup>1</sup> NCSAM forms were not completed for streams possessing qualities conducive to them receiving moderate or higher mitigation ratios and/or functional rating values. These features are represented by an asterisk (\*).

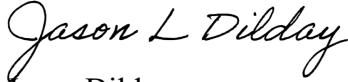
**Table 2. Potential jurisdictional wetlands in the PSA**

Map ID	NCWAM Classification	NCWAM Rating <sup>1</sup>	Hydrologic Classification	Area (ac.)
WA	Riverine Swamp Forest	*	Riparian	13.82
WB	Headwater Forest	*	Riparian	1.38
WC	Headwater Forest	*	Riparian	1.26
WD	Headwater Forest	*	Riparian	1.05
			<b>Total</b>	<b>17.51</b>

<sup>1</sup> NCWAM forms were not completed for wetlands possessing qualities conducive to them receiving moderate or higher mitigation ratios and/or functional rating values. These features are represented by an asterisk (\*).

If you have any questions, require additional information, or would like to schedule a site visit, please contact me by phone at (919) 707-6111 or email at [jldilday1@ncdot.gov](mailto:jldilday1@ncdot.gov). Alternatively, you may also contact James Mason at Three Oaks by phone at (704) 604-8358 or email at [james.mason@threeoaksengineering.com](mailto:james.mason@threeoaksengineering.com). Three Oaks is submitting this request on behalf of NCDOT. We appreciate your assistance on this project.

Sincerely,

A handwritten signature in cursive script that reads "Jason L Dilday".

Jason Dilday

Eastern Regional Team Lead

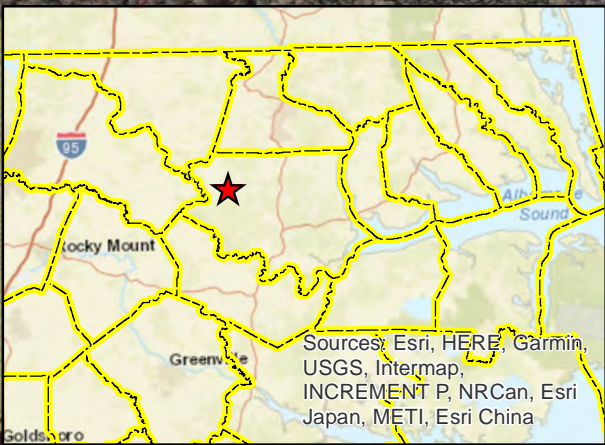
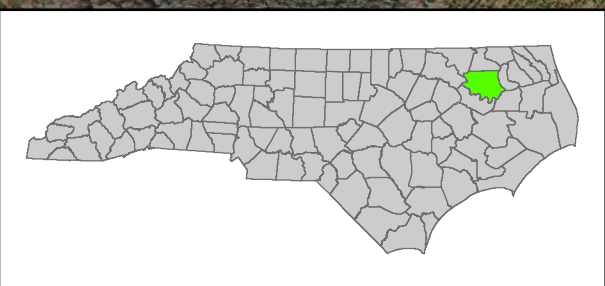
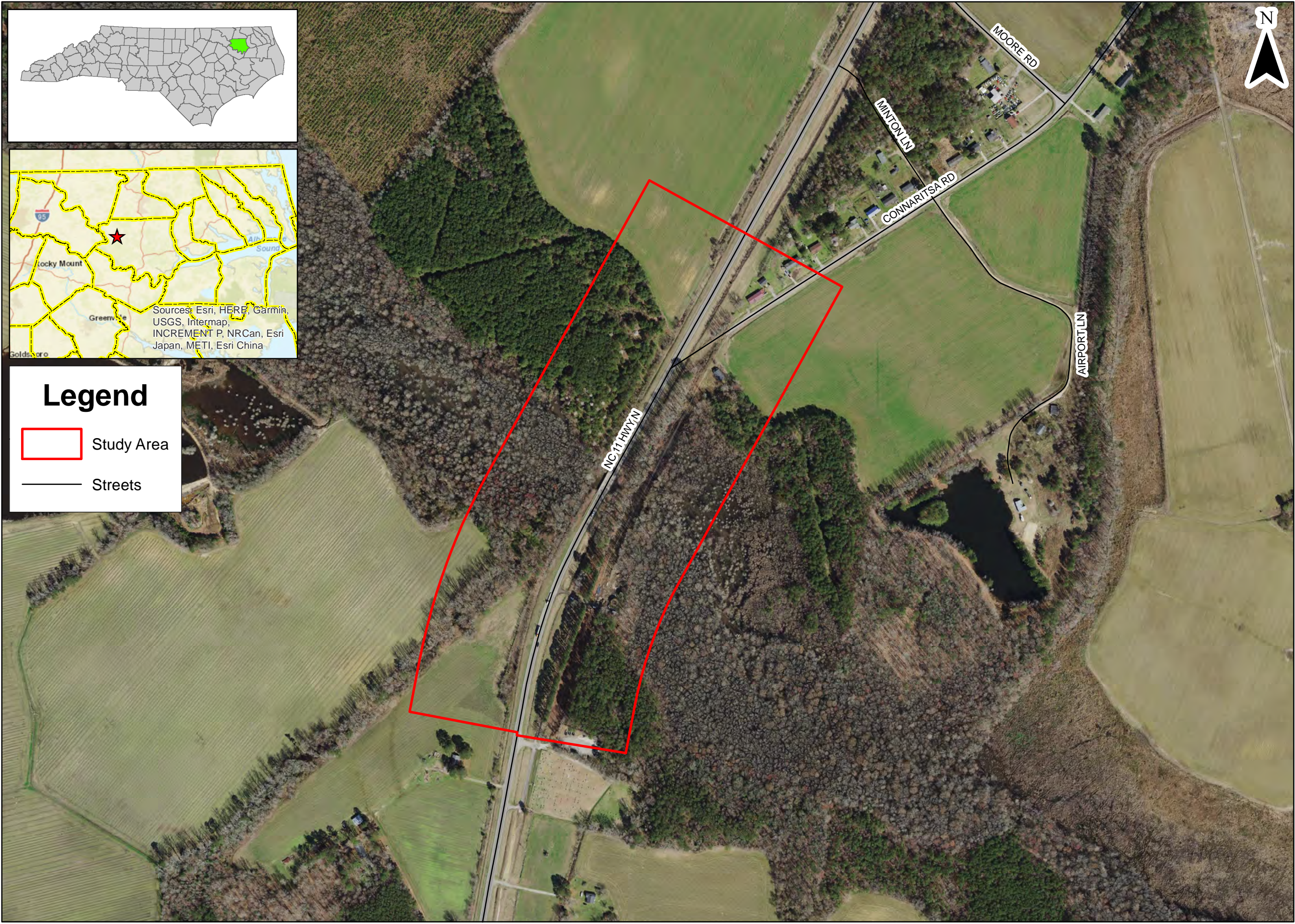
North Carolina Department of Transportation – Environmental Coordination & Permitting

Cc: Garcy Ward, NCDWR  
Lee Cannady, NCDCM

# **Appendix A**

## **Figures**





**Legend**

Study Area

Streets



Prepared For:



Proposed Replacement  
of  
Bridge No. 24  
on NC 11  
over the  
Cashie River

Project  
Vicinity  
Map

Bertie County  
North Carolina

Date:	January 2023
Scale:	0 150 300 Ft 
Job No.:	21-625
Drawn By:	NDH
Checked By:	JSM

Figure  
**1**





Prepared For:



Proposed Replacement  
of  
Bridge No. 24  
on NC 11  
over the  
Cashie River

Jurisdictional  
Features  
Map - Topo

Bertie County  
North Carolina

Date: January 2023

Scale: 0 125 250 Ft

Job No.: 21-625

Drawn By: NDH  
Checked By: JSM

Figure

2

**Study Area**

— Streets

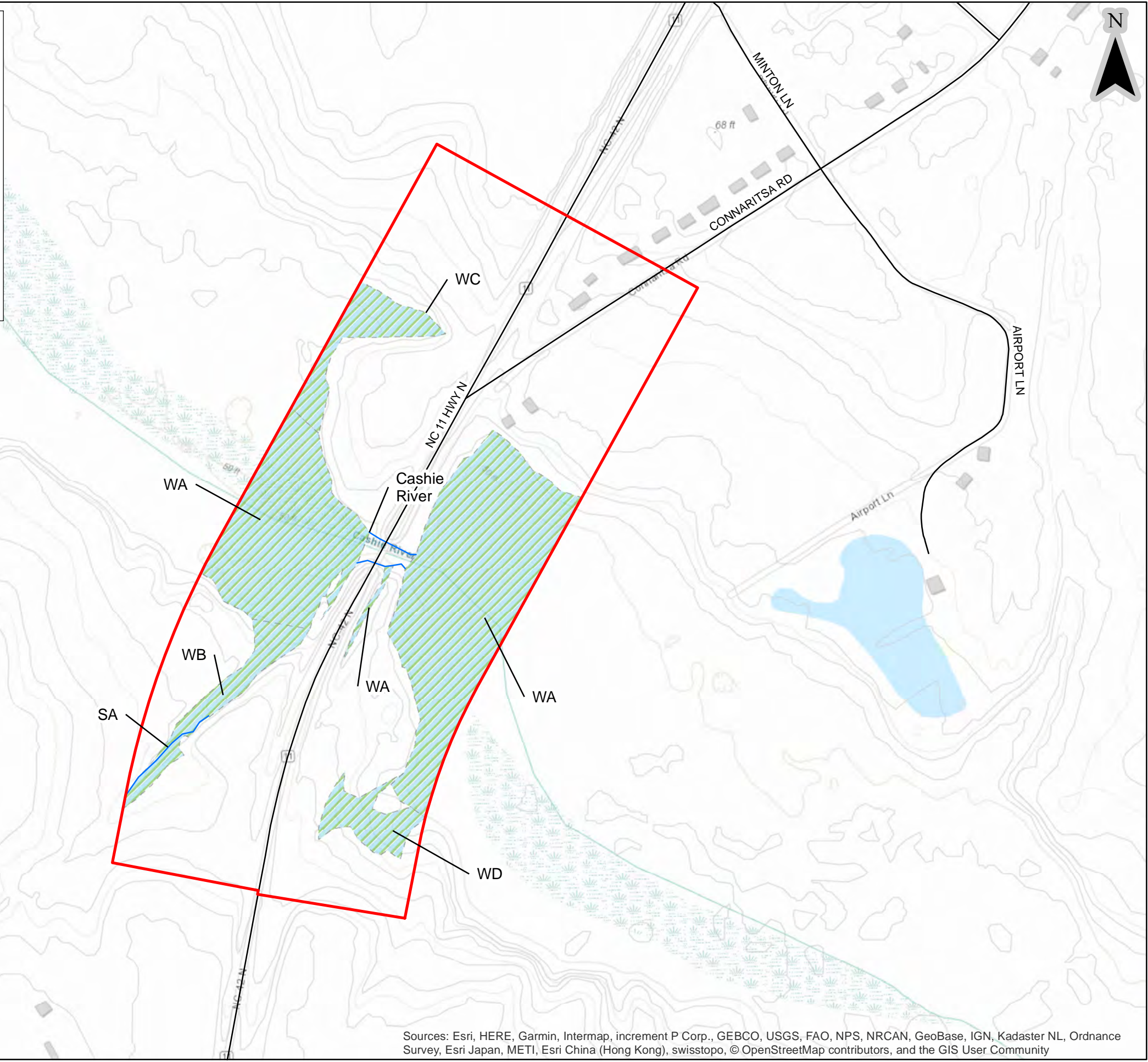
— 2ft Contours

**Potential Non-wetland WOTUS (Streams)**

— Perennial

**Potential Wetland WOTUS**

— Undisturbed



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community





**Study Area**

Streets

2ft Contours

**Potential Non-wetland WOTUS (Streams)**

Perennial

**Potential Wetland WOTUS**

Undisturbed

Stream Point

Wetland Point

Upland Point



Prepared For:



Proposed Replacement  
of  
Bridge No. 24  
on NC 11  
over the  
Cashie River

Jurisdictional  
Features  
Map - Aerial

Bertie County  
North Carolina

Date: January 2023

Scale: 0 125 250 Ft

Job No.: 21-625

Drawn By: NDH  
Checked By: JSM

Figure  
**3**





Prepared For:



Proposed Replacement of Bridge No. 24 on NC 11 over the Cashie River

Jurisdictional Features Map - LiDAR

Bertie County North Carolina

Date:	January 2023
Scale:	0 125 250 Ft
Job No.:	21-625
Drawn By:	NDH
Checked By:	JSM

Figure 4





## **Appendix B**

### **Stream and Wetland Forms**

## NC DWQ Stream Identification Form Version 4.11

Date: 12/14/2022	Project/Site: BR-0153	Latitude: 36.141505
Evaluator: Byron Levan and Mark Guerard	County: Bertie	Longitude: -77.167639
<b>Total Points:</b> Stream is at least intermittent if $\geq 19$ or perennial if $\geq 30^*$ <b>30.25</b>	<b>Stream Determination (circle one)</b> Ephemeral Intermittent <b>Perennial</b>	<b>Other</b> e.g. Quad Name: Kelford; 1:24,000

A. Geomorphology (Subtotal = 14.5 )	Absent	Weak	Moderate	Strong
1 <sup>a</sup> . Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

<sup>a</sup> artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 9 )	Absent	Weak	Moderate	Strong
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 6.75 )	Absent	Weak	Moderate	Strong
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macroinvertebrates (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

\*perennial streams may also be identified using other methods. See p. 35 of manual.

## Notes:

Where channelized, this stream holds water. It loses channelization around the start of WB and provides the hydrology for the wetland. Scores right on the intermittent/perennial line.

Sketch:

Project/Site: NCDOT Project BR-0153 City/County: Bertie Sampling Date: 12/14/2022  
 Applicant/Owner: NCDOT State: NC Sampling Point: WA-Wet  
 Investigator(s): Byron Levan Section, Township, Range: Lewiston Woodville  
 Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 36.143127 Long: -77.164935 Datum: NAD 83  
 Soil Map Unit Name: Bibb and Johnston loams, frequently flooded NWI classification: PFO1F/C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>    </u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
Remarks: NCWAM Type: Riverine Swamp Forest	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) ( <b>LRR U</b> ) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Water Marks (B1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input checked="" type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum Moss (D8) ( <b>LRR T, U</b> )

<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>5</u> Water Table Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>    </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: WA-Wet

<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Taxodium ascendens</u>	40	Yes	OBL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>9</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. <u>Nyssa aquatica</u>	40	Yes	OBL	
3. <u>Acer rubrum</u>	25	Yes	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
105 =Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>53</u>		20% of total cover: <u>21</u>		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Cephalanthus occidentalis</u>	10	Yes	OBL	
2. <u>Lyonia ligustrina</u>	10	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
20 =Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>		
<u>Herb Stratum</u> (Plot size: <u>5 ft radius</u> )				<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody Vine</b> – All woody vines greater than 3.28 ft in height.
1. <u>Saururus cernuus</u>	10	Yes	OBL	
2. <u>Osmunda cinnamomea</u>	10	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
20 =Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>		
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft radius</u> )				
1. <u>Smilax rotundifolia</u>	5	Yes	FAC	
2. <u>Bignonia capreolata</u>	5	Yes	FAC	
3. _____				
4. _____				
5. _____				
10 =Total Cover				
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>		

Remarks: (If observed, list morphological adaptations below.)



**SOIL**

Sampling Point: WA-Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/1	100					Loamy/Clayey	
4-10	10YR 6/1	85	10YR 5/6	15	C	PL/M	Loamy/Clayey	Prominent redox concentrations
10-18	10YR 6/1	80	10YR 5/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) **(LRR P, T, U)**
- 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- Muck Presence (A8) **(LRR U)**
- 1 cm Muck (A9) **(LRR P, T)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) **(MLRA 150A)**
- Sandy Mucky Mineral (S1) **(LRR O, S)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) **(LRR P, S, T, U)**
- Polyvalue Below Surface (S8) **(LRR S, T, U)**
- Thin Dark Surface (S9) **(LRR S, T, U)**
- Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- Loamy Mucky Mineral (F1) **(LRR O)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR U)**
- Depleted Ochric (F11) **(MLRA 151)**
- Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Umbric Surface (F13) **(LRR P, T, U)**
- Delta Ochric (F17) **(MLRA 151)**
- Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Coast Prairie Redox (A16) **(outside MLRA 150A)**
- Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(LRR P, T)**
- Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes X    No \_\_\_\_\_

Remarks:

Project/Site: NCDOT Project BR-0153 City/County: Bertie Sampling Date: 12/14/2022  
 Applicant/Owner: NCDOT State: NC Sampling Point: WB-Wet  
 Investigator(s): Byron Levan Section, Township, Range: Lewiston Woodville  
 Landform (hillside, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 36.142003 Long: -77.16697 Datum: NAD 83  
 Soil Map Unit Name: Bibb and Johnston loams, frequently flooded NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>    </u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
Remarks: NCWAM Type: Headwater Forest	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u>    </u> Surface Water (A1) <u>    </u> Aquatic Fauna (B13) <u>X</u> High Water Table (A2) <u>    </u> Marl Deposits (B15) ( <b>LRR U</b> ) <u>X</u> Saturation (A3) <u>    </u> Hydrogen Sulfide Odor (C1) <u>    </u> Water Marks (B1) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) <u>    </u> Sediment Deposits (B2) <u>    </u> Presence of Reduced Iron (C4) <u>    </u> Drift Deposits (B3) <u>    </u> Recent Iron Reduction in Tilled Soils (C6) <u>    </u> Algal Mat or Crust (B4) <u>    </u> Thin Muck Surface (C7) <u>    </u> Iron Deposits (B5) <u>    </u> Other (Explain in Remarks) <u>    </u> Inundation Visible on Aerial Imagery (B7) <u>X</u> Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> <u>    </u> Surface Soil Cracks (B6) <u>    </u> Sparsely Vegetated Concave Surface (B8) <u>X</u> Drainage Patterns (B10) <u>    </u> Moss Trim Lines (B16) <u>    </u> Dry-Season Water Table (C2) <u>X</u> Crayfish Burrows (C8) <u>    </u> Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) <u>    </u> Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) <u>    </u> Sphagnum Moss (D8) ( <b>LRR T, U</b> )
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>0</u> Water Table Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>3</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>    </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: WB-Wet

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft radius</u> )				
1. <u><i>Acer rubrum</i></u>	<u>45</u>	<u>Yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>10</u> (A) Total Number of Dominant Species Across All Strata: <u>11</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>90.9%</u> (A/B)
2. <u><i>Liquidambar styraciflua</i></u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>	
3. <u><i>Taxodium ascendens</i></u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>	
4. <u><i>Pinus taeda</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
5. <u><i>Nyssa aquatica</i></u>	<u>10</u>	<u>No</u>	<u>OBL</u>	
6. _____				
7. _____				
8. _____				
	<u>95</u> =Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>48</u>		20% of total cover: <u>19</u>		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft radius</u> )				
1. <u><i>Callicarpa americana</i></u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u><i>Vaccinium fuscatum</i></u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	
3. <u><i>Sambucus nigra</i></u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
4. <u><i>Acer negundo</i></u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5. _____				
6. _____				
7. _____				
8. _____				
	<u>30</u> =Total Cover			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: <u>15</u>		20% of total cover: <u>6</u>		
<b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> )				
1. <u><i>Woodwardia areolata</i></u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>	<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody Vine</b> – All woody vines greater than 3.28 ft in height.
2. <u><i>Chasmanthium latifolium</i></u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
3. <u><i>Saururus cernuus</i></u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>	
4. <u><i>Osmunda cinnamomea</i></u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u>40</u> =Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>20</u>		20% of total cover: <u>8</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft radius</u> )				
1. <u><i>Smilax rotundifolia</i></u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	
2. <u><i>Bignonia capreolata</i></u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	
3. _____				
4. _____				
5. _____				
	<u>10</u> =Total Cover			
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>		

Remarks: (If observed, list morphological adaptations below.)

**SOIL**

Sampling Point: WB-Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/1	100					Loamy/Clayey	
3-18	10YR 6/1	80	10YR 5/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) (LRR P, T, U)
- 5 cm Mucky Mineral (A7) (LRR P, T, U)
- Muck Presence (A8) (LRR U)
- 1 cm Muck (A9) (LRR P, T)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) (MLRA 150A)
- Sandy Mucky Mineral (S1) (LRR O, S)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR P, S, T, U)
- Polyvalue Below Surface (S8) (LRR S, T, U)
- Thin Dark Surface (S9) (LRR S, T, U)
- Barrier Islands 1 cm Muck (S12) (MLRA 153B, 153D)
- Loamy Mucky Mineral (F1) (LRR O)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR U)
- Depleted Ochric (F11) (MLRA 151)
- Iron-Manganese Masses (F12) (LRR O, P, T)
- Umbric Surface (F13) (LRR P, T, U)
- Delta Ochric (F17) (MLRA 151)
- Reduced Vertic (F18) (MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (MLRA 149A)
- Anomalous Bright Floodplain Soils (F20) (MLRA 149A, 153C, 153D)
- Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR O)
- 2 cm Muck (A10) (LRR S)
- Coast Prairie Redox (A16) (outside MLRA 150A)
- Reduced Vertic (F18) (outside MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (LRR P, T)
- Anomalous Bright Floodplain Soils (F20) (MLRA 153B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154)
- Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

Project/Site: NCDOT Project BR-0153 City/County: Bertie Sampling Date: 12/14/2022  
 Applicant/Owner: NCDOT State: NC Sampling Point: WC-Wet  
 Investigator(s): Byron Levan Section, Township, Range: Lewiston Woodville  
 Landform (hillside, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 36.145344 Long: -77.16533 Datum: NAD 83  
 Soil Map Unit Name: Norfolk sandy loam, 2 to 6 percent slopes NWI classification: PFO1F/C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>    </u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
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Remarks:  
 Most of this wetland has been converted to a pine plantation creating closed canopy conditions higher than natural composition, but the wetland has not been significantly disturbed or changed severely from "normal conditions." NCWAM Type: Headwater Forest

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) <b>(LRR U)</b> <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum Moss (D8) <b>(LRR T, U)</b>
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>0</u> Water Table Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>3</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>    </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: WC-Wet

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft radius</u> )				
1. <u><i>Pinus taeda</i></u>	<u>75</u>	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. <u><i>Liquidambar styraciflua</i></u>	<u>10</u>	No	FAC	
3. <u><i>Acer rubrum</i></u>	<u>10</u>	No	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	<u>95</u> =Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>48</u>		20% of total cover: <u>19</u>		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft radius</u> )				
1. <u><i>Liquidambar styraciflua</i></u>	<u>10</u>	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u><i>Acer rubrum</i></u>	<u>5</u>	Yes	FAC	
3. <u><i>Vaccinium fuscatum</i></u>	<u>5</u>	Yes	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	<u>20</u> =Total Cover			<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody Vine</b> – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>		
<b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> )				
1. <u><i>Saururus cernuus</i></u>	<u>10</u>	Yes	OBL	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. <u><i>Osmunda cinnamomea</i></u>	<u>10</u>	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u>20</u> =Total Cover			
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft radius</u> )				
1. <u><i>Smilax rotundifolia</i></u>	<u>5</u>	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
	<u>5</u> =Total Cover			
50% of total cover: <u>3</u>		20% of total cover: <u>1</u>		

Remarks: (If observed, list morphological adaptations below.)

**SOIL**

Sampling Point: WC-Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 2/2	100					Loamy/Clayey	
4-12	10YR 5/1	95	7.5YR 4/6	5	C	PL/M	Loamy/Clayey	Prominent redox concentrations
12-18	10YR 5/1	75	7.5YR 4/6	25	C	PL/M	Loamy/Clayey	Prominent redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) (LRR P, T, U)
- 5 cm Mucky Mineral (A7) (LRR P, T, U)
- Muck Presence (A8) (LRR U)
- 1 cm Muck (A9) (LRR P, T)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) (MLRA 150A)
- Sandy Mucky Mineral (S1) (LRR O, S)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR P, S, T, U)
- Polyvalue Below Surface (S8) (LRR S, T, U)
- Thin Dark Surface (S9) (LRR S, T, U)
- Barrier Islands 1 cm Muck (S12) (MLRA 153B, 153D)
- Loamy Mucky Mineral (F1) (LRR O)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR U)
- Depleted Ochric (F11) (MLRA 151)
- Iron-Manganese Masses (F12) (LRR O, P, T)
- Umbric Surface (F13) (LRR P, T, U)
- Delta Ochric (F17) (MLRA 151)
- Reduced Vertic (F18) (MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (MLRA 149A)
- Anomalous Bright Floodplain Soils (F20) (MLRA 149A, 153C, 153D)
- Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR O)
- 2 cm Muck (A10) (LRR S)
- Coast Prairie Redox (A16) (outside MLRA 150A)
- Reduced Vertic (F18) (outside MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (LRR P, T)
- Anomalous Bright Floodplain Soils (F20) (MLRA 153B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154)
- Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

Project/Site: NCDOT Project BR-0153 City/County: Bertie Sampling Date: 12/14/2022  
 Applicant/Owner: NCDOT State: NC Sampling Point: WD-Wet  
 Investigator(s): Byron Levan Section, Township, Range: Lewiston Woodville  
 Landform (hillside, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 1%  
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 36.140811 Long: -77.165235 Datum: NAD 83  
 Soil Map Unit Name: Rains sandy loam NWI classification: PFO1F/C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>    </u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
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Remarks:  
 A small portion of WD is in a powerline right of way. NCWAM Type: Headwater Forest

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>    </u> Primary Indicators (minimum of one is required; check all that apply) <u>    </u> Surface Water (A1) <u>    </u> Aquatic Fauna (B13) <u>X</u> High Water Table (A2) <u>    </u> Marl Deposits (B15) <b>(LRR U)</b> <u>X</u> Saturation (A3) <u>    </u> Hydrogen Sulfide Odor (C1) <u>    </u> Water Marks (B1) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) <u>    </u> Sediment Deposits (B2) <u>    </u> Presence of Reduced Iron (C4) <u>    </u> Drift Deposits (B3) <u>    </u> Recent Iron Reduction in Tilled Soils (C6) <u>    </u> Algal Mat or Crust (B4) <u>    </u> Thin Muck Surface (C7) <u>    </u> Iron Deposits (B5) <u>    </u> Other (Explain in Remarks) <u>    </u> Inundation Visible on Aerial Imagery (B7) <u>X</u> Water-Stained Leaves (B9)	<b>Secondary Indicators (minimum of two required)</b> <u>    </u> Surface Soil Cracks (B6) <u>    </u> Sparsely Vegetated Concave Surface (B8) <u>X</u> Drainage Patterns (B10) <u>    </u> Moss Trim Lines (B16) <u>    </u> Dry-Season Water Table (C2) <u>X</u> Crayfish Burrows (C8) <u>    </u> Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) <u>    </u> Shallow Aquitard (D3) <u>    </u> FAC-Neutral Test (D5) <u>    </u> Sphagnum Moss (D8) <b>(LRR T, U)</b>
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>0</u> Water Table Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>3</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>    </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: WD-Wet

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft radius</u> )				
1. <u><i>Pinus taeda</i></u>	<u>65</u>	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>77.8%</u> (A/B)
2. <u><i>Nyssa sylvatica</i></u>	<u>15</u>	No	FAC	
3. <u><i>Liriodendron tulipifera</i></u>	<u>10</u>	No	FACU	
4. <u><i>Acer rubrum</i></u>	<u>10</u>	No	FAC	
5. _____				
6. _____				
7. _____				
8. _____				
	<u>100</u> =Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft radius</u> )				
1. <u><i>Callicarpa americana</i></u>	<u>10</u>	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u><i>Liriodendron tulipifera</i></u>	<u>5</u>	Yes	FACU	
3. <u><i>Vaccinium fuscatum</i></u>	<u>5</u>	Yes	FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	<u>20</u> =Total Cover			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: <u>10</u> 20% of total cover: <u>4</u>				
<b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> )				
1. <u><i>Saururus cernuus</i></u>	<u>10</u>	Yes	OBL	<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody Vine</b> – All woody vines greater than 3.28 ft in height.
2. <u><i>Osmunda cinnamomea</i></u>	<u>10</u>	Yes	FACW	
3. <u><i>Woodwardia areolata</i></u>	<u>10</u>	Yes	OBL	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u>30</u> =Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft radius</u> )				
1. <u><i>Smilax rotundifolia</i></u>	<u>5</u>	Yes	FAC	
2. <u><i>Bignonia capreolata</i></u>	<u>5</u>	Yes	FAC	
3. _____				
4. _____				
5. _____				
	<u>10</u> =Total Cover			
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				

Remarks: (If observed, list morphological adaptations below.)

**SOIL**

Sampling Point: WD-Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/1	100					Loamy/Clayey	
4-18	10YR 5/1	80	10YR 5/8	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) **(LRR P, T, U)**
- 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- Muck Presence (A8) **(LRR U)**
- 1 cm Muck (A9) **(LRR P, T)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) **(MLRA 150A)**
- Sandy Mucky Mineral (S1) **(LRR O, S)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) **(LRR P, S, T, U)**
- Polyvalue Below Surface (S8) **(LRR S, T, U)**
- Thin Dark Surface (S9) **(LRR S, T, U)**
- Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- Loamy Mucky Mineral (F1) **(LRR O)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR U)**
- Depleted Ochric (F11) **(MLRA 151)**
- Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Umbric Surface (F13) **(LRR P, T, U)**
- Delta Ochric (F17) **(MLRA 151)**
- Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Coast Prairie Redox (A16) **(outside MLRA 150A)**
- Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(LRR P, T)**
- Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes X    No \_\_\_\_\_

Remarks:

Project/Site: NCDOT Project BR-0153 City/County: Bertie Sampling Date: 12/14/2022  
 Applicant/Owner: NCDOT State: NC Sampling Point: WA-WD-UPL  
 Investigator(s): Byron Levan Section, Township, Range: Lewiston Woodville  
 Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): convex Slope (%): 3  
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 36.145127 Long: -77.164918 Datum: NAD 83  
 Soil Map Unit Name: Norfolk sandy loam, 2 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes      No X  
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>    </u> No <u>X</u> Wetland Hydrology Present? Yes <u>    </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
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Remarks:  
 Pine composition may be higher than natural due to sylvicultural practices, but isn't removed severely from "normal conditions."

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>    </u> Primary Indicators (minimum of one is required; check all that apply) <u>    </u> Surface Water (A1) <u>    </u> Aquatic Fauna (B13) <u>    </u> High Water Table (A2) <u>    </u> Marl Deposits (B15) <b>(LRR U)</b> <u>    </u> Saturation (A3) <u>    </u> Hydrogen Sulfide Odor (C1) <u>    </u> Water Marks (B1) <u>    </u> Oxidized Rhizospheres on Living Roots (C3) <u>    </u> Sediment Deposits (B2) <u>    </u> Presence of Reduced Iron (C4) <u>    </u> Drift Deposits (B3) <u>    </u> Recent Iron Reduction in Tilled Soils (C6) <u>    </u> Algal Mat or Crust (B4) <u>    </u> Thin Muck Surface (C7) <u>    </u> Iron Deposits (B5) <u>    </u> Other (Explain in Remarks) <u>    </u> Inundation Visible on Aerial Imagery (B7) <u>    </u> Water-Stained Leaves (B9)	<b>Secondary Indicators (minimum of two required)</b> <u>    </u> Surface Soil Cracks (B6) <u>    </u> Sparsely Vegetated Concave Surface (B8) <u>    </u> Drainage Patterns (B10) <u>    </u> Moss Trim Lines (B16) <u>    </u> Dry-Season Water Table (C2) <u>    </u> Crayfish Burrows (C8) <u>    </u> Saturation Visible on Aerial Imagery (C9) <u>    </u> Geomorphic Position (D2) <u>    </u> Shallow Aquitard (D3) <u>    </u> FAC-Neutral Test (D5) <u>    </u> Sphagnum Moss (D8) <b>(LRR T, U)</b>
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>0</u> Water Table Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>&gt;12</u> Saturation Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>&gt;12</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>    </u> No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: WA-WD-UPL

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft radius</u> )				
1. <u><i>Pinus taeda</i></u>	<u>75</u>	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80.0%</u> (A/B)
2. <u><i>Liquidambar styraciflua</i></u>	<u>10</u>	No	FAC	
3. <u><i>Acer rubrum</i></u>	<u>5</u>	No	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	<u>90</u> =Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: <u>45</u>		20% of total cover: <u>18</u>		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft radius</u> )				
1. <u><i>Liquidambar styraciflua</i></u>	<u>10</u>	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u><i>Vaccinium fuscatum</i></u>	<u>5</u>	Yes	FACW	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
	<u>15</u> =Total Cover			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: <u>8</u>		20% of total cover: <u>3</u>		
<b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> )				
1. <u><i>Tipularia discolor</i></u>	<u>5</u>	Yes	FACU	<b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody Vine</b> – All woody vines greater than 3.28 ft in height.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u>5</u> =Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
50% of total cover: <u>3</u>		20% of total cover: <u>1</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft radius</u> )				
1. <u><i>Gelsemium sempervirens</i></u>	<u>10</u>	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
	<u>10</u> =Total Cover			
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>		

Remarks: (If observed, list morphological adaptations below.)

**SOIL**

Sampling Point: WA-WD-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 5/4	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) **(LRR P, T, U)**
- 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- Muck Presence (A8) **(LRR U)**
- 1 cm Muck (A9) **(LRR P, T)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) **(MLRA 150A)**
- Sandy Mucky Mineral (S1) **(LRR O, S)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) **(LRR P, S, T, U)**
- Polyvalue Below Surface (S8) **(LRR S, T, U)**
- Thin Dark Surface (S9) **(LRR S, T, U)**
- Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- Loamy Mucky Mineral (F1) **(LRR O)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR U)**
- Depleted Ochric (F11) **(MLRA 151)**
- Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Umbric Surface (F13) **(LRR P, T, U)**
- Delta Ochric (F17) **(MLRA 151)**
- Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Coast Prairie Redox (A16) **(outside MLRA 150A)**
- Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(LRR P, T)**
- Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present?      Yes \_\_\_\_\_ No X

Remarks:

## **Appendix C**

**Preliminary Data Entry Form**

**JD Request Form**

**PJD Form**

**Waters Upload Sheet**

## Preliminary Data Entry Fields for New Actions

SAW – 2023 -

1. **Project Name:** NCDOT Project No. BR-0153

2. **Work Type:** Private  Institutional  Government  Commercial

3. **Project Description / Purpose:**

Proposed Replacement of Bridge No. 24 on NC 11 over the Cashie River

4. **Property Owner / Applicant:** NCDOT

5. **Agent / Consultant:** Jim Mason - Three Oaks Engineering

6. **Related Action ID Number(s):**

7. **Project Location - Coordinates, Street Address, and/or Location Description:**

36.143364, -77.165024

8. **Project Location - Tax Parcel ID:** Multiple

9. **Project Location – County:** Bertie

10. **Project Location – Nearest Municipality or Town :** Lewiston-Woodville

11. **Project Information – Nearest Waterbody:** Cashie River

12. **Watershed / 8-Digit Hydrologic Unit Code:** 03010107

**Authorization:** Section 10  Section 404  Section 10 & 404

**Regulatory Action Type:**

<input type="checkbox"/> Standard Permit	<input type="checkbox"/> Pre-Application Request
<input type="checkbox"/> Nationwide Permit #	<input type="checkbox"/> Unauthorized Activity
<input type="checkbox"/> Regional General Permit #	<input type="checkbox"/> Compliance
<input checked="" type="checkbox"/> Jurisdictional Determination Request	<input type="checkbox"/> No Permit Required

# Jurisdictional Determination Request

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**US Army Corps  
of Engineers**  
Wilmington District

This form is intended for use by anyone requesting a jurisdictional determination (JD) from the U.S. Army Corps of Engineers, Wilmington District (Corps). Please include all supporting information, as described within each category, with your request. You may submit your request via mail, electronic mail, or facsimile. Requests should be sent to the appropriate project manager of the county in which the property is located. A current list of project managers by assigned counties can be found on-line at:

<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram/Contact/CountyLocator.aspx>, by calling 910-251-4633, or by contacting any of the field offices listed below. Once your request is received you will be contacted by a Corps project manager.

## **ASHEVILLE & CHARLOTTE REGULATORY FIELD OFFICES**

US Army Corps of Engineers  
151 Patton Avenue, Room 208  
Asheville, North Carolina 28801-5006  
General Number: (828) 271-7980  
Fax Number: (828) 281-8120

## **WASHINGTON REGULATORY FIELD OFFICE**

US Army Corps of Engineers  
2407 West Fifth Street  
Washington, North Carolina 27889  
General Number: (910) 251-4610  
Fax Number: (252) 975-1399

## **RALEIGH REGULATORY FIELD OFFICE**

US Army Corps of Engineers  
3331 Heritage Trade Drive, Suite 105  
Wake Forest, North Carolina 27587  
General Number: (919) 554-4884  
Fax Number: (919) 562-0421

## **WILMINGTON REGULATORY FIELD OFFICE**

US Army Corps of Engineers  
69 Darlington Avenue  
Wilmington, North Carolina 28403  
General Number: 910-251-4633  
Fax Number: (910) 251-4025

## **INSTRUCTIONS:**

**All requestors must complete Parts A, B, C, D, E, F and G.**

**NOTE TO CONSULTANTS AND AGENCIES:** If you are requesting a JD on behalf of a paying client or your agency, please note the specific submittal requirements in **Part H**.

**NOTE ON PART D – PROPERTY OWNER AUTHORIZATION:** Please be aware that all JD requests must include the current property owner authorization for the Corps to proceed with the determination, which may include inspection of the property when necessary. This form must be signed by the current property owner(s) or the owner(s) authorized agent to be considered a complete request.

**NOTE ON PART D - NCDOT REQUESTS:** Property owner authorization/notification for JD requests associated with North Carolina Department of Transportation (NCDOT) projects will be conducted according to the current NCDOT/USACE protocols.

**NOTE TO USDA PROGRAM PARTICIPANTS:** A Corps approved or preliminary JD may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should also request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.



## Jurisdictional Determination Request

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**A. PARCEL INFORMATION**

Street Address: Multiple Parcels

City, State: Lewiston-Woodville, NC 27849

County: Bertie

Parcel Index Number(s) (PIN): Multiple PIN No.'s

**B. REQUESTOR INFORMATION**

Name: NCDOT-Jason Dilday, ECAP Eastern Regional Lead

Mailing Address: 1598 Mail Service Center  
Raleigh, NC 27699-1598

Telephone Number: 919-707-6111

Electronic Mail Address: jldilday1@ncdot.gov

Select one:

- I am the current property owner.
  - I am an Authorized Agent or Environmental Consultant<sup>1</sup>
  - Interested Buyer or Under Contract to Purchase
  - Other, please explain. NCDOT Project
- 

**C. PROPERTY OWNER INFORMATION<sup>2</sup>**

Name: Multiple Property Owners

Mailing Address: Multiple Addresses  
Lewiston-Woodville, NC 27849

Telephone Number: Multiple

Electronic Mail Address: Multiple

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<sup>1</sup> Must provide completed Agent Authorization Form/Letter.

<sup>2</sup> Documentation of ownership also needs to be provided with request (copy of Deed, County GIS/Parcel/Tax Record).

## Jurisdictional Determination Request

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### D. PROPERTY ACCESS CERTIFICATION<sup>3,4</sup>

By signing below, I authorize representatives of the Wilmington District, U.S. Army Corps of Engineers (Corps) to enter upon the property herein described for the purpose of conducting on-site investigations, if necessary, and issuing a jurisdictional determination pursuant to Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899. I, the undersigned, am either a duly authorized owner of record of the property identified herein, or acting as the duly authorized agent of the owner of record of the property.

\_\_\_\_\_  
Print Name

Capacity:  Owner  Authorized Agent<sup>5</sup>

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

### E. REASON FOR JD REQUEST: (Check as many as applicable)

- I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
- I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
- I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
- I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
- I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
- A Corps JD is required in order obtain my local/state authorization.
- I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
- I believe that the site may be comprised entirely of dry land.
- Other: \_\_\_\_\_

<sup>3</sup> For NCDOT requests following the current NCDOT/USACE protocols, skip to Part E.

<sup>4</sup> If there are multiple parcels owned by different parties, please provide the following for each additional parcel on a continuation sheet.

<sup>5</sup> Must provide agent authorization form/letter signed by owner(s).

## Jurisdictional Determination Request

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### F. JURISDICTIONAL DETERMINATION (JD) TYPE (Select One)

I am requesting that the Corps provide a preliminary JD for the property identified herein.

A Preliminary Jurisdictional Determination (PJD) provides an indication that there may be “waters of the United States” or “navigable waters of the United States” on a property. PJDs are sufficient as the basis for permit decisions. For the purposes of permitting, all waters and wetlands on the property will be treated as if they are jurisdictional “waters of the United States”. PJDs cannot be appealed (33 C.F.R. 331.2); however, a PJD is “preliminary” in the sense that an approved JD can be requested at any time. PJDs do not expire.

I am requesting that the Corps provide an approved JD for the property identified herein.

An Approved Jurisdictional Determination (AJD) is a determination that jurisdictional “waters of the United States” or “navigable waters of the United States” are either present or absent on a site. An approved JD identifies the limits of waters on a site determined to be jurisdictional under the Clean Water Act and/or Rivers and Harbors Act. Approved JDs are sufficient as the basis for permit decisions. AJDs are appealable (33 C.F.R. 331.2). The results of the AJD will be posted on the Corps website. A landowner, permit applicant, or other “affected party” (33 C.F.R. 331.2) who receives an AJD may rely upon the AJD for five years (subject to certain limited exceptions explained in Regulatory Guidance Letter 05-02).

I am unclear as to which JD I would like to request and require additional information to inform my decision.

### G. ALL REQUESTS

Map of Property or Project Area. This Map must clearly depict the boundaries of the review area.

Size of Property or Review Area 57.7 acres.

The property boundary (or review area boundary) is clearly physically marked on the site.

# Jurisdictional Determination Request

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## H. REQUESTS FROM CONSULTANTS

Project Coordinates (Decimal Degrees): Latitude: 36.143364  
Longitude: -77.165024

A legible delineation map depicting the aquatic resources and the property/review area. Delineation maps must be no larger than 11x17 and should contain the following: (Corps signature of submitted survey plats will occur after the submitted delineation map has been reviewed and approved).<sup>6</sup>

- North Arrow
- Graphical Scale
- Boundary of Review Area
- Date
- Location of data points for each Wetland Determination Data Form or tributary assessment reach.

### For Approved Jurisdictional Determinations:

- Jurisdictional wetland features should be labeled as Wetland Waters of the US, 404 wetlands, etc. Please include the acreage of these features.
- Jurisdictional non-wetland features (i.e. tidal/navigable waters, tributaries, impoundments) should be labeled as Non-Wetland Waters of the US, stream, tributary, open water, relatively permanent water, pond, etc. Please include the acreage or linear length of each of these features as appropriate.
- Isolated waters, waters that lack a significant nexus to navigable waters, or non-jurisdictional upland features should be identified as Non-Jurisdictional. Please include a justification in the label regarding why the feature is non-jurisdictional (i.e. “Isolated”, “No Significant Nexus”, or “Upland Feature”). Please include the acreage or linear length of these features as appropriate.

### For Preliminary Jurisdictional Determinations:

- Wetland and non-wetland features should not be identified as Jurisdictional, 404, Waters of the United States, or anything that implies jurisdiction. These features can be identified as Potential Waters of the United States, Potential Non-wetland Waters of the United States, wetland, stream, open water, etc. Please include the acreage and linear length of these features as appropriate.

Completed Wetland Determination Data Forms for appropriate region  
(at least one wetland and one upland form needs to be completed for each wetland type)

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<sup>6</sup> Please refer to the guidance document titled “Survey Standards for Jurisdictional Determinations” to ensure that the supplied map meets the necessary mapping standards. <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Jurisdiction/>

## Jurisdictional Determination Request

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- Completed appropriate Jurisdictional Determination form
  - **PJDs**, please complete a Preliminary Jurisdictional Determination Form<sup>7</sup> and include the Aquatic Resource Table
  - **AJDs**, please complete an Approved Jurisdictional Determination Form<sup>8</sup>
- Vicinity Map
- Aerial Photograph
- USGS Topographic Map
- Soil Survey Map
- Other Maps, as appropriate (e.g. National Wetland Inventory Map, Proposed Site Plan, previous delineation maps, LIDAR maps, FEMA floodplain maps)
- Landscape Photos (if taken)
- NCSAM and/or NCWAM Assessment Forms and Rating Sheets
- NC Division of Water Resources Stream Identification Forms
- Other Assessment Forms

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<sup>7</sup> [www.saw.usace.army.mil/Portals/59/docs/regulatory/regdocs/JD/RGL\\_08-02\\_App\\_A\\_Prelim\\_JD\\_Form\\_fillable.pdf](http://www.saw.usace.army.mil/Portals/59/docs/regulatory/regdocs/JD/RGL_08-02_App_A_Prelim_JD_Form_fillable.pdf)

<sup>8</sup> Please see <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Jurisdiction/>

**Principal Purpose:** The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

**Routine Uses:** This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USAGE website.

**Disclosure:** Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

**Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PJD:**

**B. NAME AND ADDRESS OF PERSON REQUESTING PJD:** Jason Dilday, 1598 Mail Service Center, Raleigh, NC 27699-1598

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:**

**(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)**

State: **NC** County/parish/borough: **Bertie** City: **Lewiston-Woodville**

Center coordinates of site (lat/long in degree decimal format):

Lat.: **36.143364** Long.: **-77.165024**

Universal Transverse Mercator: **18**

Name of nearest waterbody: **Cashie River**

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date:

Field Determination. Date(s):

**TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.**

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
		<b>See</b>	<b>Attached</b>	<b>List</b>	

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "*may be*" waters of the U.S. and/or that there "*may be*" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA. Data reviewed for PJD (check all that apply)**

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:  
Map: Vicinity Map, Topo Map, Aerial Map, LiDAR Map.
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report. Rationale: \_\_\_\_\_.
- Data sheets prepared by the Corps: \_\_\_\_\_.
- Corps navigable waters' study: \_\_\_\_\_.
- U.S. Geological Survey Hydrologic Atlas: \_\_\_\_\_.
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000 1973 Kelford, NC.
- Natural Resources Conservation Service Soil Survey. Citation: 1990 Bertie County Soil Survey.
- National wetlands inventory map(s). Cite name: \_\_\_\_\_.
- State/local wetland inventory map(s): \_\_\_\_\_.
- FEMA/FIRM maps: \_\_\_\_\_.
- 100-year Floodplain Elevation is: \_\_\_\_\_.(National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): NCOneMap Orthoimagery.  
or  Other (Name & Date): \_\_\_\_\_.
- Previous determination(s). File no. and date of response letter: \_\_\_\_\_.
- Other information (please specify): \_\_\_\_\_.

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

\_\_\_\_\_  
Signature and date of  
Regulatory staff member  
completing PJD

\_\_\_\_\_  
Signature and date of  
person requesting PJD  
(REQUIRED, unless obtaining  
the signature is impracticable)<sup>1</sup>

<sup>1</sup> Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
Cashie River	NORTH CAROLINA	R2UB	RIVERINE	Linear	177	FOOT	DELINEATE	36.143363	-77.165008	Cashie River
SA	NORTH CAROLINA	R5UB	RIVERINE	Linear	396	FOOT	DELINEATE	36.14150459	-77.16763937	Cashie River
WA	NORTH CAROLINA	PFO	RIVERINE	Area	13.82	ACRE	DELINEATE	36.14312742	-77.16493542	Cashie River
WB	NORTH CAROLINA	PFO	RIVERINE	Area	1.38	ACRE	DELINEATE	36.14524433	-77.16532978	Cashie River
WC	NORTH CAROLINA	PFO	RIVERINE	Area	1.26	ACRE	DELINEATE	36.14200293	-77.16697022	Cashie River
WD	NORTH CAROLINA	PFO	RIVERINE	Area	1.05	ACRE	DELINEATE	36.14083494	-77.16533253	Cashie River

JOSH STEIN  
Governor  
D. REID WILSON  
Secretary  
MARC RECKTENWALD  
Director



January 9, 2025

Mr. Jamie Lancaster, P.E.  
Environmental Analysis Unit  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598

Dear Mr. Lancaster:

Subject: Mitigation Acceptance Letter: TIP BR-0153, Replace Bridge Number 070024 over Cashie River on NC 11, Bertie County

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the mitigation for the subject project. Based on the information supplied by you on January 8, 2025, the impacts are located in CU 03010107 of the Roanoke River basin as follows:

Stream and Wetlands	Service Area	Stream			Wetlands		
		Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh
Impacts	Roanoke 03010107	0	0	0	0.380	0	0

\*Some of the impacts may be proposed to be mitigated at various ratios. See permit application for details. DMS will provide the amount of stream and wetland mitigation included in the environmental permits.

The impacts and associated mitigation needs were not projected by the NCDOT in the 2024 impact data. NCDEQ – DMS will commit to implement sufficient compensatory mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies in accordance with the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from NCDEQ – DMS.

If you have any questions or need additional information, please contact Beth Harmon at 919-707-8420.

Sincerely,

A handwritten signature in cursive script that reads "Elizabeth Harmon".

Elizabeth A. Harmon  
DMS NCDOT ILF Coordinator

cc: Mr. Scott Jones, USACE  
Ms. Kristi Carpenter, NCDWR  
Mr. Brad Chilton, NCDOT – EAU  
File: BR-0153



North Carolina Department of Environmental Quality | Division of Mitigation Services  
217 West Jones Street | 1652 Mail Service Center | Raleigh, North Carolina 27699-1652  
919.707.8976



North Carolina Department of Transportation

Highway Stormwater Program  
STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS



(Version 3.02; Released April 23, 2024)

WBS Element: 67153.1      TIP/Proj No: BR-0153      County(ies): Bertie      Page 1 of 2

General Project Information

WBS Element:	67153.1	TIP Number:	BR-0153	Project Type:	Bridge Replacement	Date:	10/14/2024
NCDOT Contact:	Jordan Woodard, PE			Contractor / Designer:	Benesch/Joy Saddler, PE		
	Address:	1000 Birch Ridge Drive Raleigh, NC 27610			Address:	8000 Regency Parkway Suite 175 Cary, NC 27518	
	Phone:	919-707-6208			Phone:	984-275-2490	
	Email:	jawoodard4@ncdot.gov			Email:	jsaddler@benesch.com	
City/Town:	Lewiston Woodville			County(ies):	Bertie		
River Basin(s):	Roanoke			CAMA County?	Yes		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	0.45 miles	Surrounding Land Use:	Mostly forested with a few agricultural areas				
	Proposed Project			Existing Site			
Project Built-Up Area (ac.)	1.5	ac.	1.3	ac.			
Typical Cross Section Description:	The proposed project is to be a two laned normal crown road with 12' lanes and 8' paved shoulders. The proposed bridge is to have a 43' out to out with a 40' minimum clear roadway.			This section of NC 11 is currently a two laned normal crown road with 12' lanes and 4' paved shoulders. The existing bridge has an out to out width of 47' and a clear roadway of 44'.			

Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	6900	Year:	2045	Existing:	Year:
--	----------------	------	-------	------	-----------	-------

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

BR-0153 Proposes to replace bridge 070024 along NC 11 over the Cashie River between NC 308 and Moore Rd (SR-1203). Roadside ditches on all four quadrants discharge to the Cashie River. The area is forested with pockets of agricultural areas. The Cashie River is a swamp at this crossing and is included in a FEMA Detailed study. A temporary detour structure is designed to be in place downstream of the bridge during construction. Bridge 070024 is a 3@30' Reinforced Concrete deck bridge with 1' piers. The proposed bridge is a 2@65' 36" Florida I-Beams. Wetlands surround the existing and detour alignments on the north and south sections. An abandon roadway embankment is evident just east of the existing alignment. The detour bridge and embankment is to be constructed on this abandoned embankment to minimize impacts to the wetlands. The current project proposes excavating a bench to the abandoned embankment at elevation 51.0' for the permanent conditions.



North Carolina Department of Transportation  
 Highway Stormwater Program  
**STORMWATER MANAGEMENT PLAN**  
 FOR NCDOT PROJECTS



(Version 3.02; Released April 23, 2024)

**WBS Element:** 67153.1      **TIP/Proj No.:** BR-0153      **County(ies):** Bertie      **Page** 2 **of** 2

**General Project Information**

**Waterbody Information**

<b>Surface Water Body (1):</b>	Cashie River		<b>NCDWR Stream Index No.:</b>	24-2-(1)	
<b>NCDWR Surface Water Classification for Water Body</b>	<b>Primary Classification:</b>		Class C		
	<b>Supplemental Classification:</b>		Swamp Waters (Sw)		
<b>Other Stream Classification:</b>	None				
<b>Impairments:</b>	None				
<b>Aquatic T&amp;E Species?</b>	No	<b>Comments:</b>			
<b>NRTR Stream ID:</b>	Cashie River		<b>Buffer Rules in Effect:</b>	N/A	
<b>Project Includes Bridge Spanning Water Body?</b>	Yes	<b>Deck Drains Discharge Over Buffer?</b>	No	<b>Dissipator Pads Provided in Buffer?</b>	No
<b>Deck Drains Discharge Over Water Body?</b>	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)					
<b>Surface Water Body (2):</b>			<b>NCDWR Stream Index No.:</b>		
<b>NCDWR Surface Water Classification for Water Body</b>	<b>Primary Classification:</b>				
	<b>Supplemental Classification:</b>				
<b>Other Stream Classification:</b>					
<b>Impairments:</b>					
<b>Aquatic T&amp;E Species?</b>		<b>Comments:</b>			
<b>NRTR Stream ID:</b>			<b>Buffer Rules in Effect:</b>		
<b>Project Includes Bridge Spanning Water Body?</b>		<b>Deck Drains Discharge Over Buffer?</b>		<b>Dissipator Pads Provided in Buffer?</b>	
<b>Deck Drains Discharge Over Water Body?</b>		(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)					
<b>Surface Water Body (3):</b>			<b>NCDWR Stream Index No.:</b>		
<b>NCDWR Surface Water Classification for Water Body</b>	<b>Primary Classification:</b>				
	<b>Supplemental Classification:</b>				
<b>Other Stream Classification:</b>					
<b>Impairments:</b>					
<b>Aquatic T&amp;E Species?</b>		<b>Comments:</b>			
<b>NRTR Stream ID:</b>			<b>Buffer Rules in Effect:</b>		
<b>Project Includes Bridge Spanning Water Body?</b>		<b>Deck Drains Discharge Over Buffer?</b>		<b>Dissipator Pads Provided in Buffer?</b>	
<b>Deck Drains Discharge Over Water Body?</b>		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

09/28/09

See Sheet 1A For Index of Sheets

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**BERTIE COUNTY**

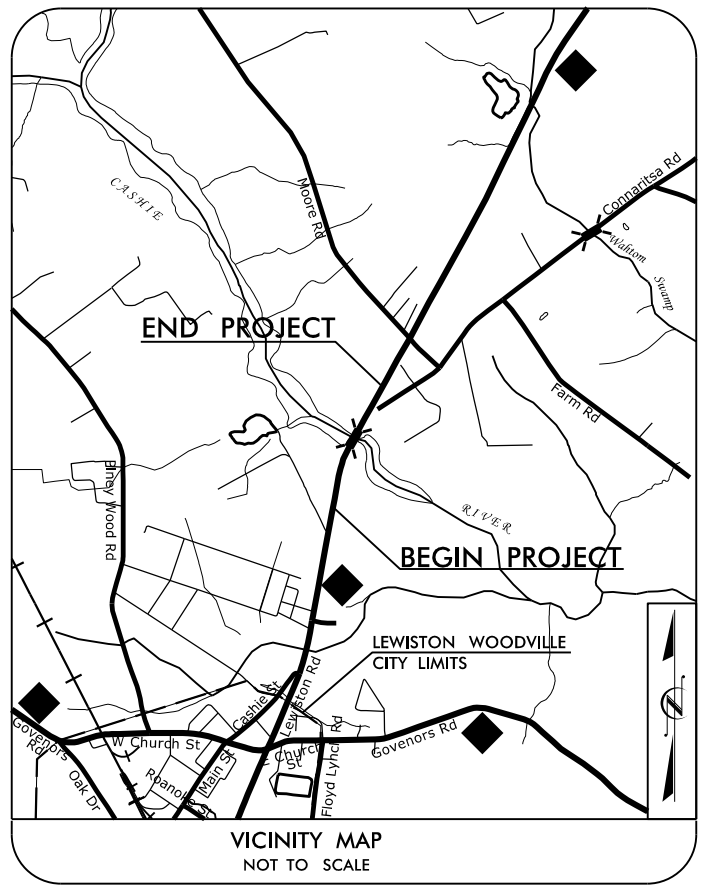
LOCATION: BRIDGE 24 ON NC 11 OVER CASHIE RIVER  
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

**WETLAND AND SURFACE WATER IMPACTS PERMIT**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0153	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
67153.1.1		PE	
67153.2.1		ROW/UTILITIES	
67153.3.1		CONSTRUCTION	

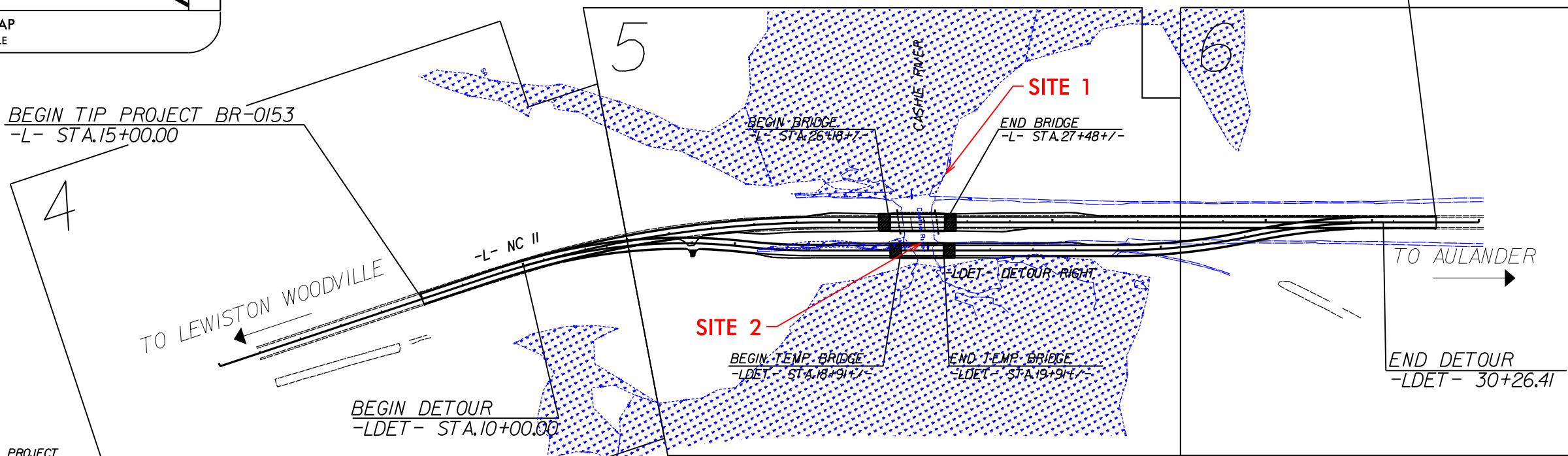
PERMIT DRAWING  
SHEET 1 OF 16

TIP PROJECT: BR-0153



BEGIN TIP PROJECT BR-0153  
-L- STA.15+00.00

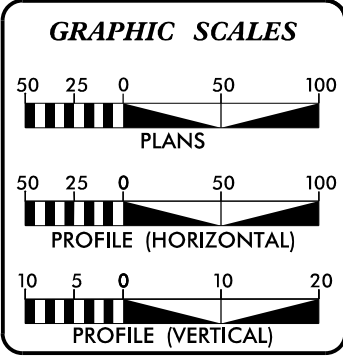
END TIP PROJECT BR-0153  
-L- STA.39+00.00



THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.  
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



DESIGN DATA

ADT 2025 =	6,350
ADT 2045 =	6,900
K =	8 %
D =	55 %
T =	16 % *
V =	60 MPH
* TTST =	12 DUAL=4
FUNC CLASS =	MINOR ARTERIAL
STATEWIDE TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT BR-0153	=	0.430 MI
LENGTH STRUCTURE TIP PROJECT BR-0153	=	0.025 MI
TOTAL LENGTH TIP PROJECT BR-0153	=	0.455 MI

Prepared In the Office of:

**benesch**  
NC FIRM LICENSE No: F-1320  
8000 REGENCY PARKWAY, STE 175  
CARY, NC 27518  
(984) 275-2490

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
OCTOBER 2024

LETTING DATE:  
APRIL 2025

LAURA C. FISHER, PE  
PROJECT ENGINEER

ERIC D. SPALDING, PE  
PROJECT DESIGN ENGINEER

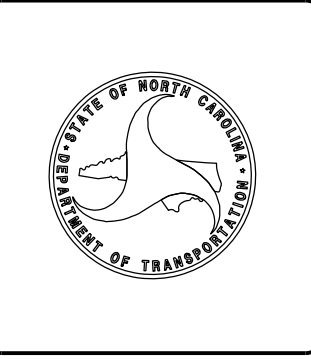
DAVID S. STUTTS, PE  
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.


ROADWAY DESIGN ENGINEER

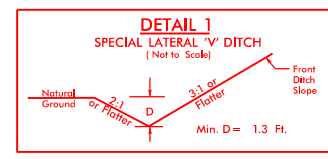
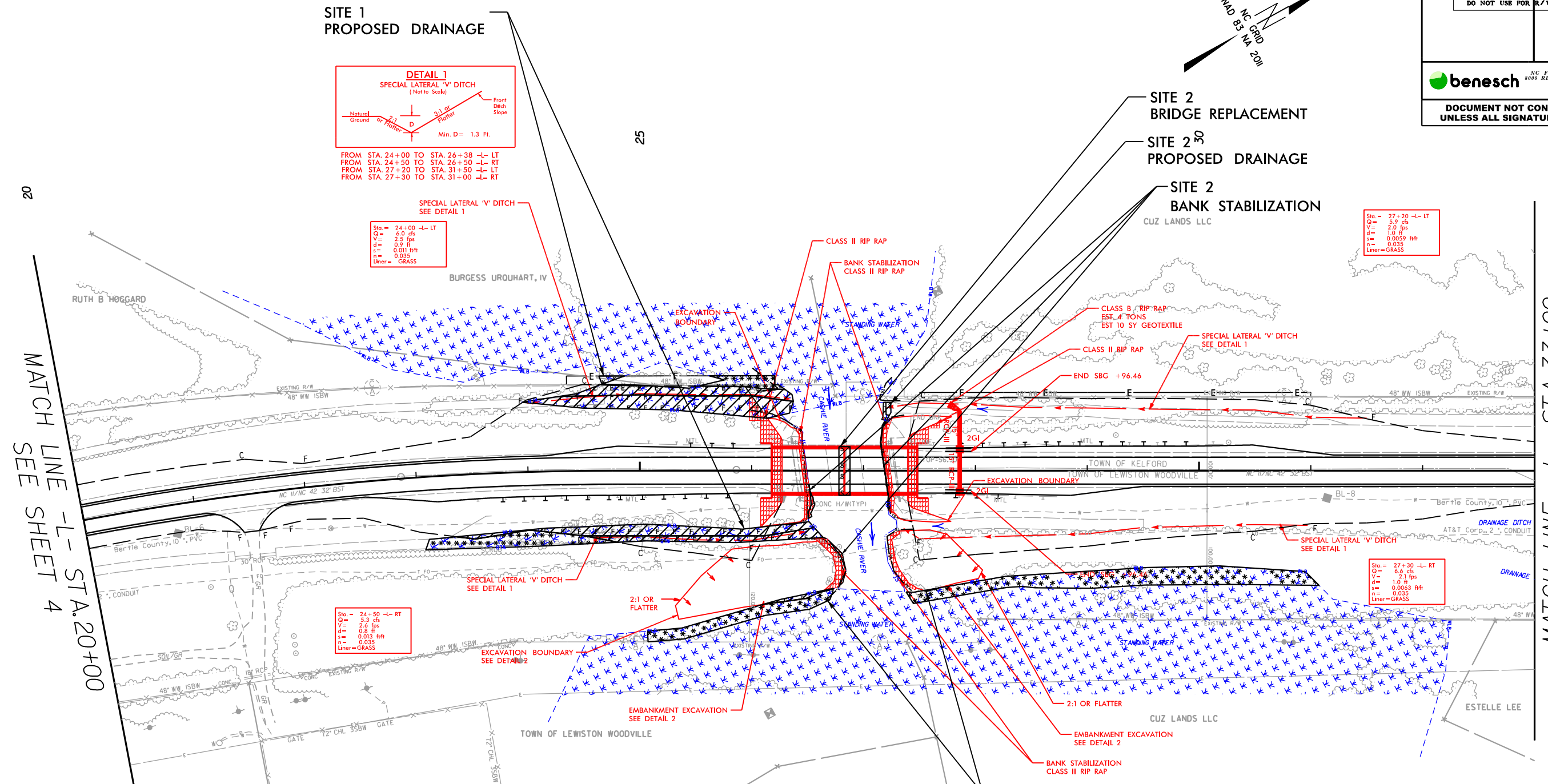
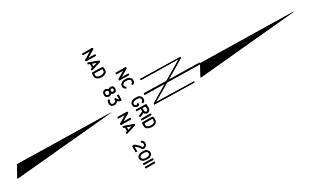
SIGNATURE: \_\_\_\_\_ P.E.



12/11/2024  
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USER:dowery



PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>5</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
 <small>NC FIRM LICENSE No: F-1320 8000 REGENCY PARKWAY, STE 175 CARY, NC 27518 (919) 275-2490</small>	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



FROM STA. 24+00 TO STA. 26+38 -L- LT  
FROM STA. 24+50 TO STA. 26+50 -L- RT  
FROM STA. 27+20 TO STA. 31+50 -L- LT  
FROM STA. 27+30 TO STA. 31+00 -L- RT

SPECIAL LATERAL 'V' DITCH  
SEE DETAIL 1  
Sta = 24+00 -L- LT  
Q = 6.0 cfs  
V = 2.5 fps  
d = 0.9 ft  
s = 0.011 ft/ft  
n = 0.035  
Liner = GRASS

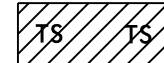


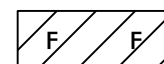

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Q = 5.9 cfs  
V = 2.0 fps  
d = 1.0 ft  
s = 0.0059 ft/ft  
n = 0.035  
Liner = GRASS

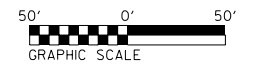
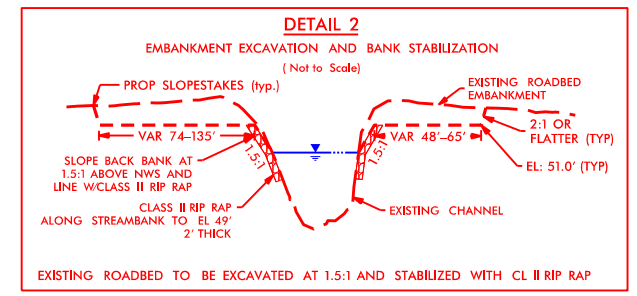
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V = 2.6 fps  
d = 0.8 ft  
s = 0.013 ft/ft  
n = 0.035  
Liner = GRASS

Sta = 27+30 -L- RT  
Q = 6.0 cfs  
V = 2.1 fps  
d = 1.0 ft  
s = 0.0063 ft/ft  
n = 0.035  
Liner = GRASS


MATCH LINE -L- STA. 20+00  
SEE SHEET 4

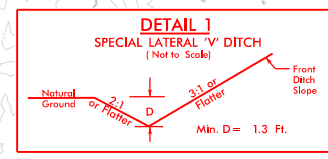
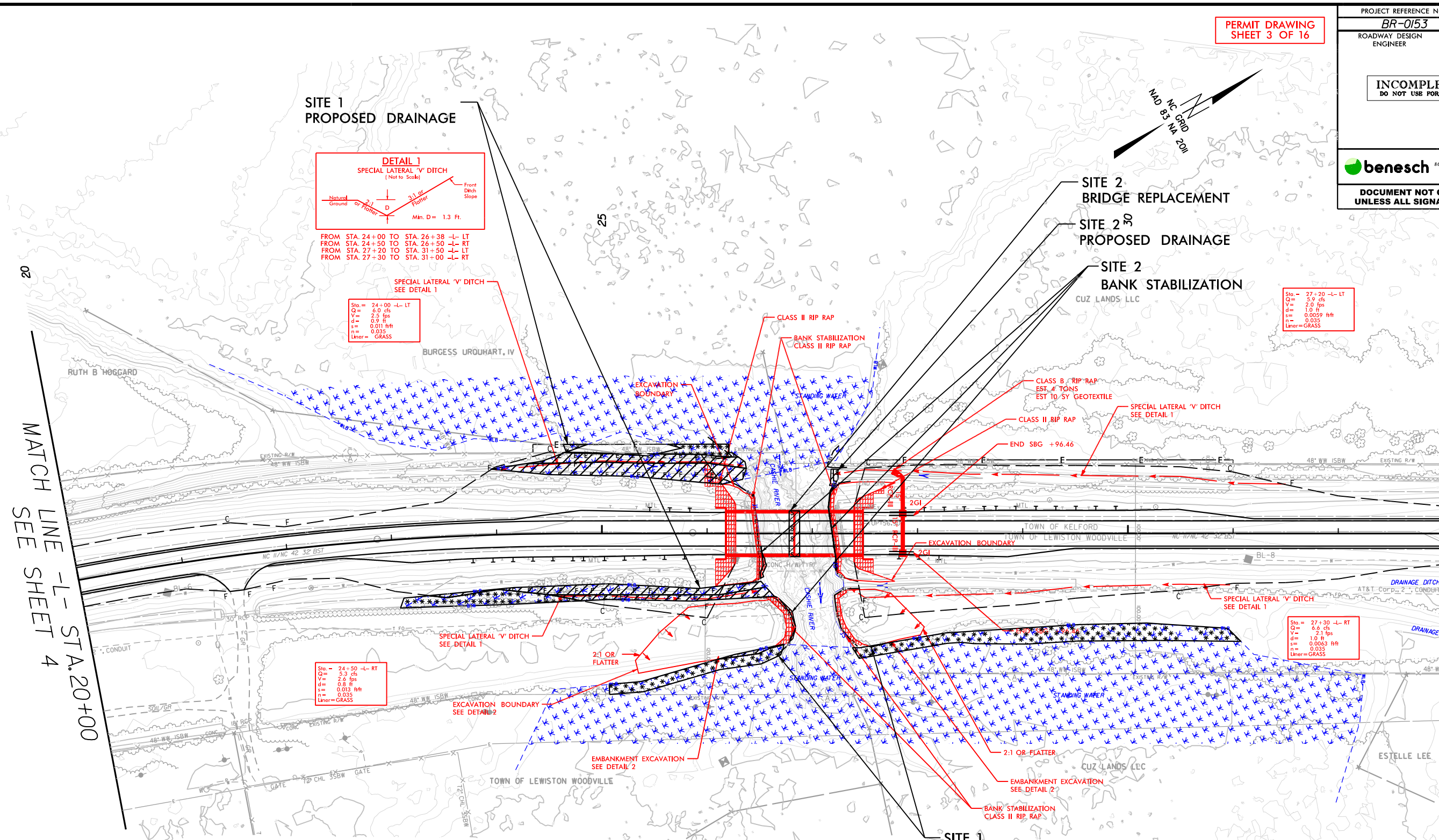
MATCH LINE -L- STA. 33+00  
SEE SHEET 6

-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES MECHANIZED CLEARING



5/14/2024 12:11:56 PM 153\_Hyd\_perm\_PSH5.dgn

PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>5</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
 <small>NC FIRM LICENSE No: F-1320 8000 REGENCY PARKWAY, STE 175 CARY, NC 27518 (919) 275-2400</small>	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



FROM STA. 24+00 TO STA. 26+38 -L- LT  
FROM STA. 24+50 TO STA. 26+50 -L- LT  
FROM STA. 27+20 TO STA. 31+50 -L- LT  
FROM STA. 27+30 TO STA. 31+00 -L- RT

SPECIAL LATERAL 'V' DITCH  
SEE DETAIL 1

Sta = 24+00 -L- LT  
Q = 6.0 cfs  
V = 2.5 fps  
d = 0.5 ft  
s = 0.011 ft/ft  
n = 0.035  
Liner = GRASS

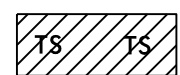


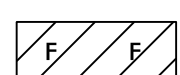

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V = 2.0 fps  
d = 1.0 ft  
s = 0.0059 ft/ft  
n = 0.035  
Liner = GRASS

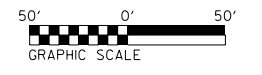
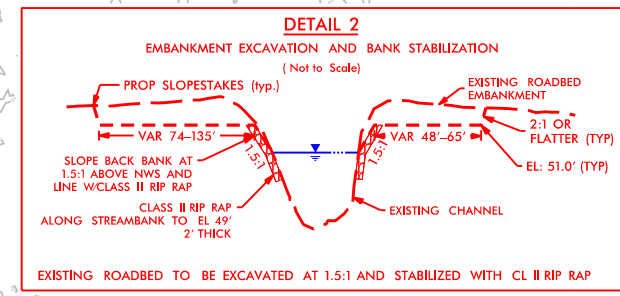
Sta = 27+30 -L- RT  
Q = 6.2 cfs  
V = 2.1 fps  
d = 1.0 ft  
s = 0.0063 ft/ft  
n = 0.035  
Liner = GRASS

Sta = 24+50 -L- RT  
Q = 3.3 cfs  
V = 2.6 fps  
d = 0.8 ft  
s = 0.013 ft/ft  
n = 0.035  
Liner = GRASS

MATCH LINE -L- STA. 20+00  
SEE SHEET 4

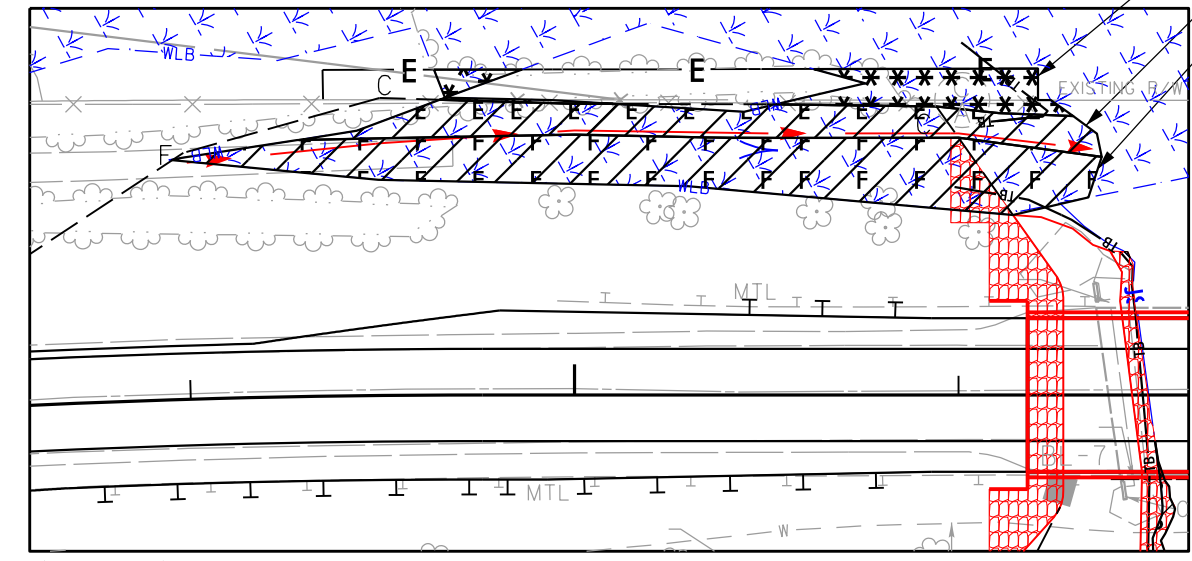
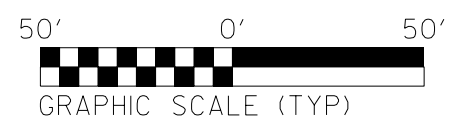
MATCH LINE -L- STA. 33+00  
SEE SHEET 6

-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES MECHANIZED CLEARING

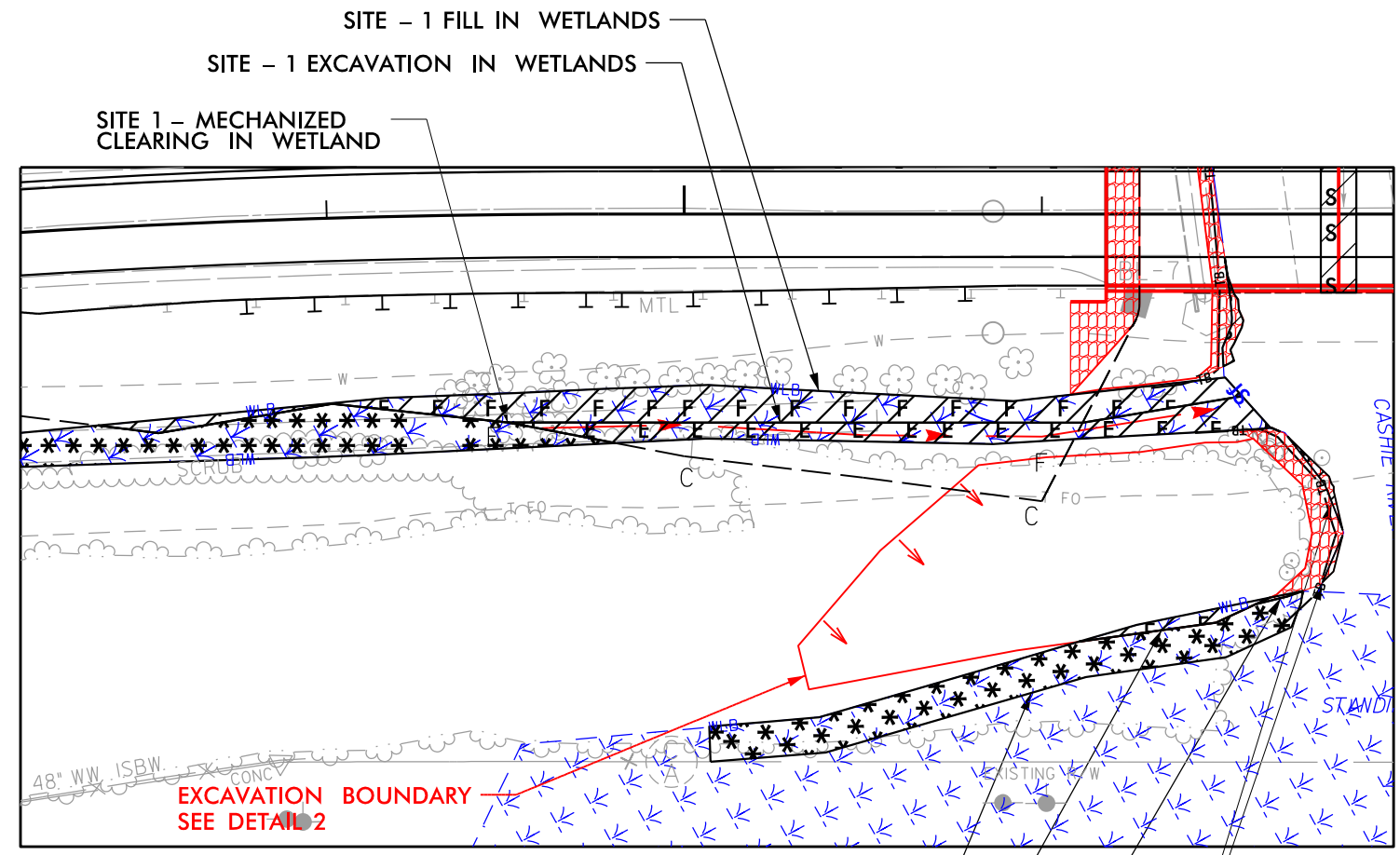




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INSET A

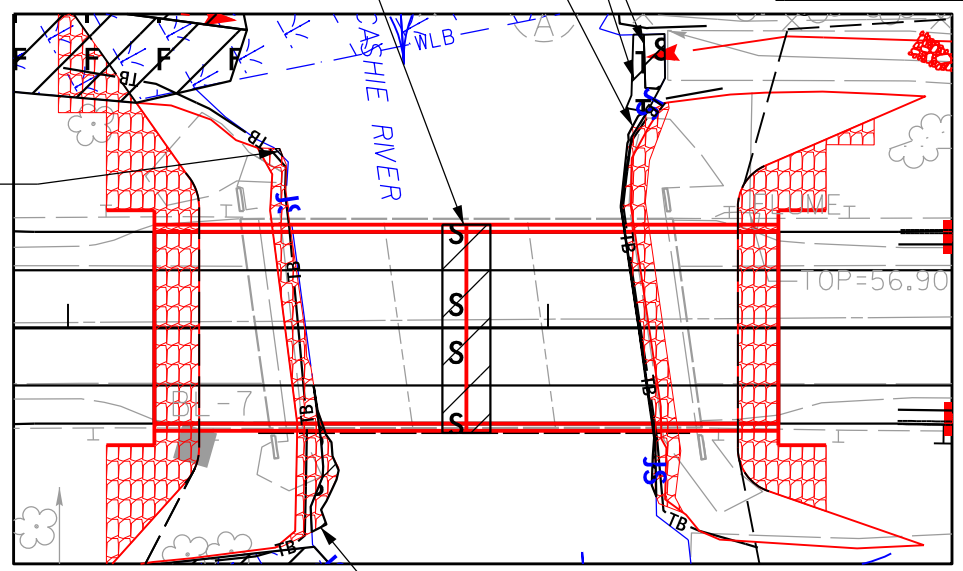


INSET B

- SITE 1 - MECHANIZED CLEARING IN WETLAND
- SITE 1 - EXCAVATION IN WETLANDS
- SITE 1 - FILL IN WETLANDS DUE TO STREAMBANK STABILIZATION
- SITE 2 - SURFACE WATER IMPACT DUE TO STREAMBANK STABILIZATION

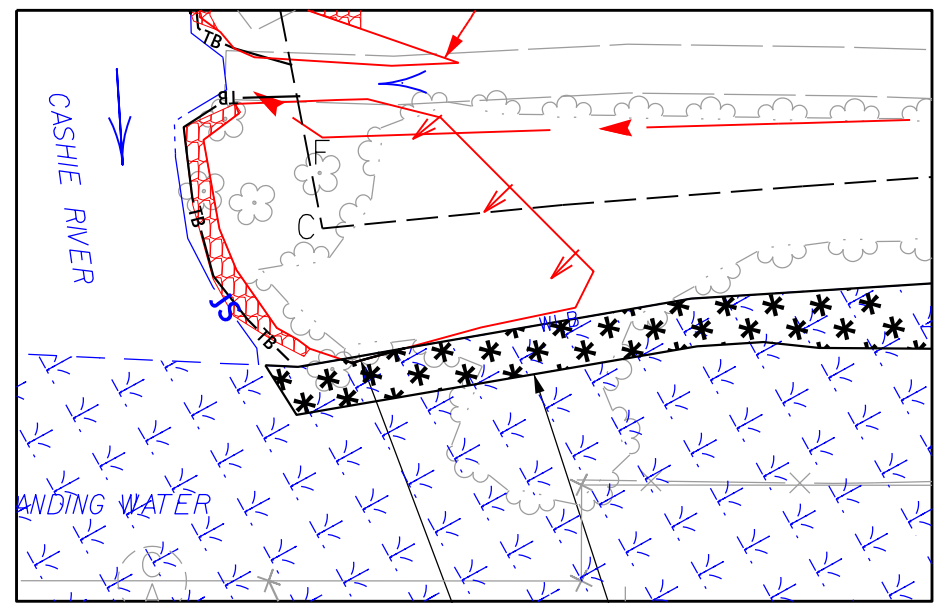
- SITE - 1 MECHANIZED CLEARING IN WETLANDS
- SITE - 1 EXCAVATION IN WETLANDS
- SITE - 1 FILL IN WETLANDS

SITE 2 - IMPACTS IN SURFACE WATER DUE TO BANK STABILIZATION



INSET C

SITE 2 - IMPACTS IN SURFACE WATER DUE TO BANK STABILIZATION



INSET D

- SITE 1 - MECHANIZED CLEARING IN WETLANDS
- SITE 1 - EXCAVATION IN WETLANDS

PERMIT DRAWING  
SHEET 4 OF 16

PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>5</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<small>NC FIRM LICENSE No: F-1320 8000 REGENCY PARKWAY, STE 175 CARY, NC 27513 (919) 275-2490</small>	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	




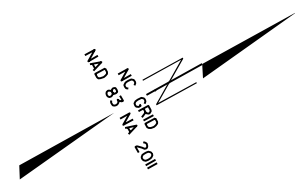


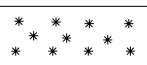

5/14/2024

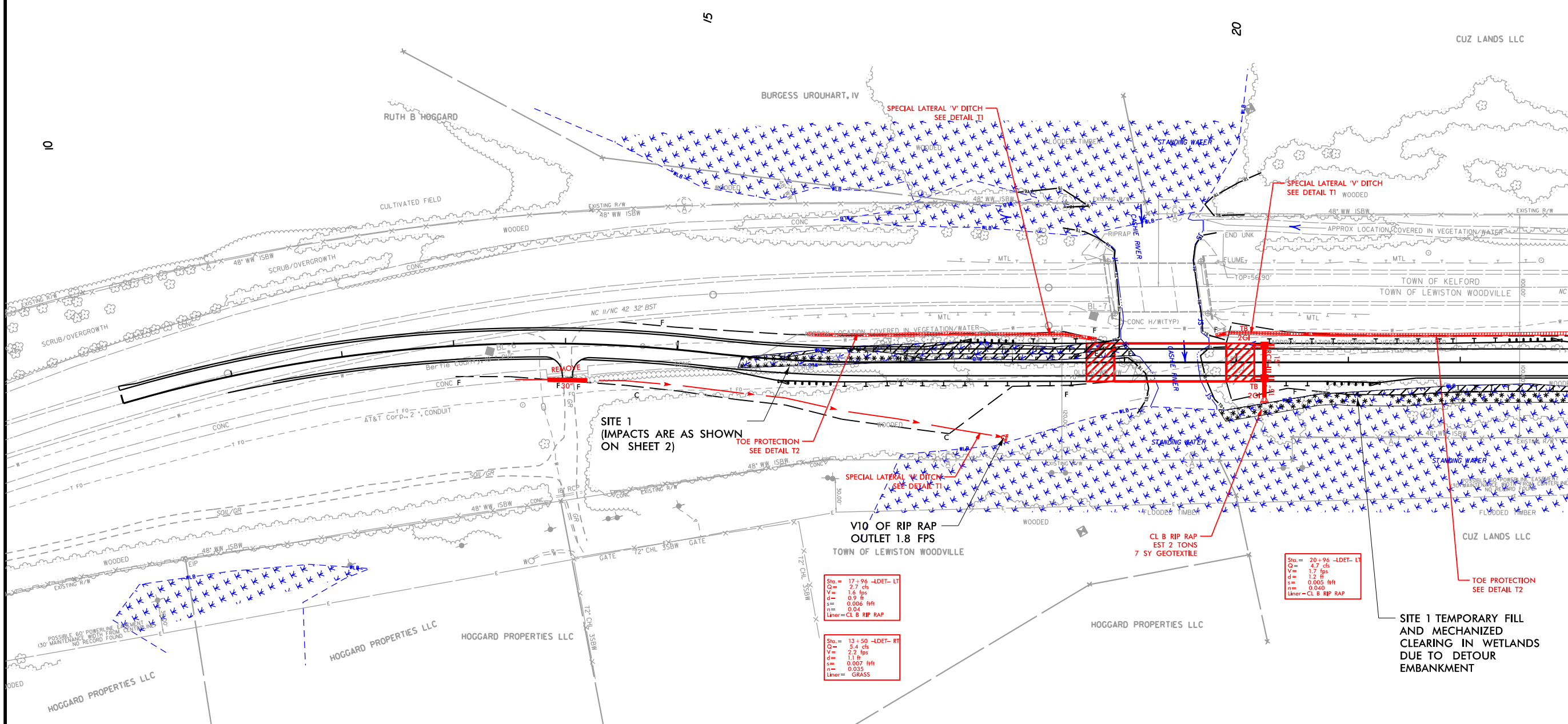
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PERMIT DRAWING  
SHEET 5 OF 16

PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>2B-1</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
 <small>NC FIRM LICENSE No: F-1320 8000 REGENCY PARKWAY, STE 175 CARY, NC 27518 (919) 275-2490</small>	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



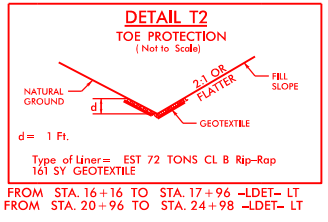
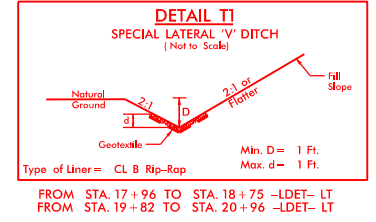
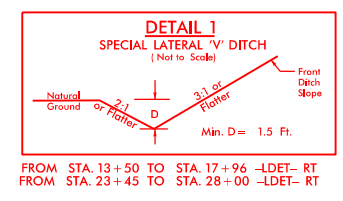
 DENOTES MECHANIZED CLEARING  
 DENOTES TEMPORARY FILL IN WETLAND




MATCH LINE -LDET- STA. 23+00  
SEE SHEET 8

Sta. = 17+96 -LDET- LT  
 Q = 5.4 cfs  
 V = 1.6 fps  
 d = 0.9 ft  
 s = 0.006 f/ft  
 n = 0.04  
 Liner = CL B RIP RAP

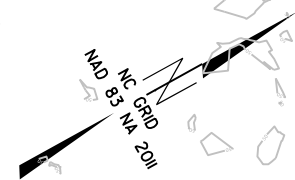
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 V = 1.7 fps  
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 Liner = CL B RIP RAP



FOR -LDET- PROFILE, SEE SHEET NO. 8

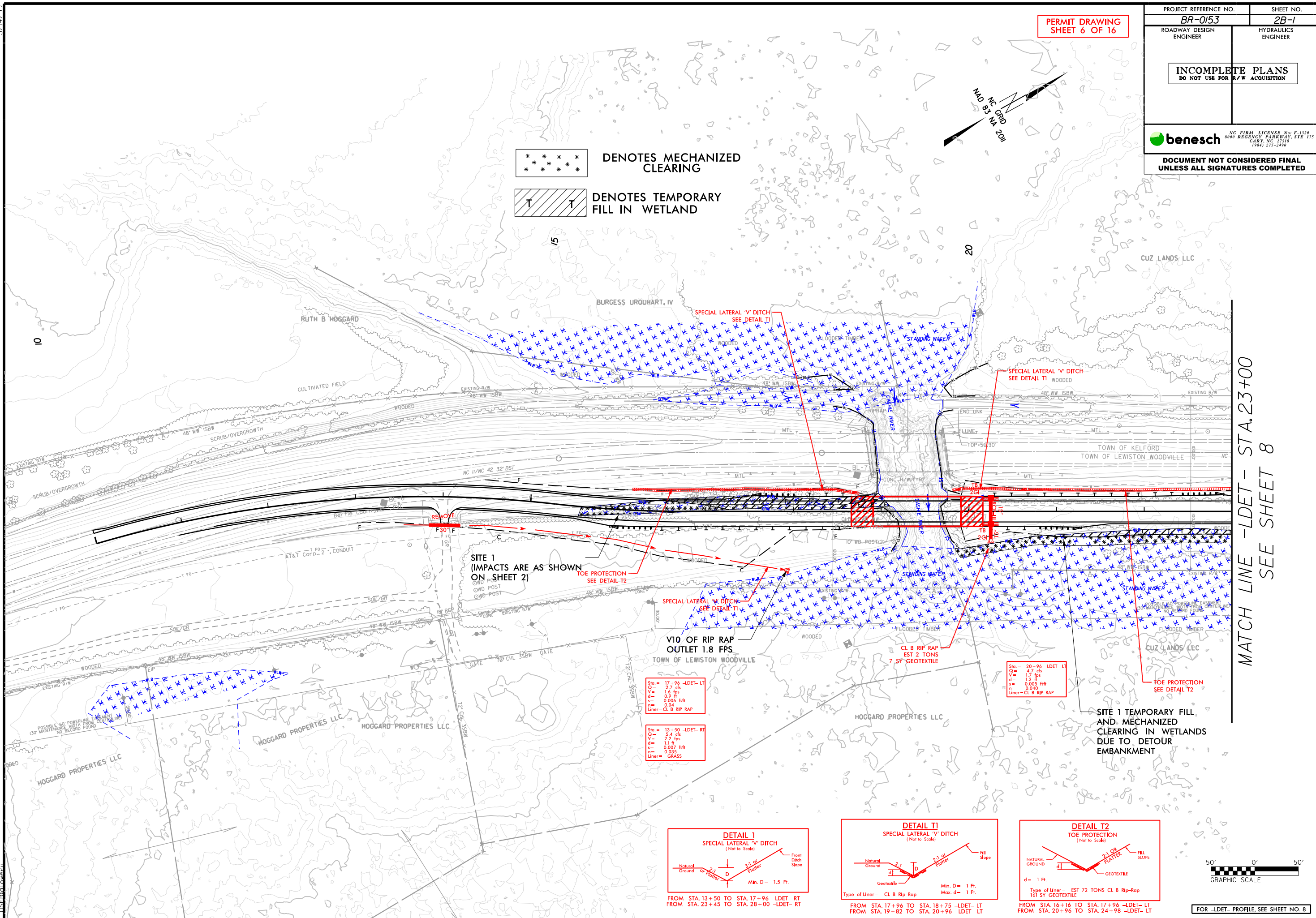
PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>2B-1</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
 <small>NC FIRM LICENSE No. F-1320 8000 REGENCY PARKWAY, STE 175 CARY, NC 27518 (919) 275-2490</small>	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING  
SHEET 6 OF 16



\*\*\*\*\* DENOTES MECHANIZED CLEARING

▨ DENOTES TEMPORARY FILL IN WETLAND



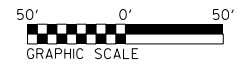
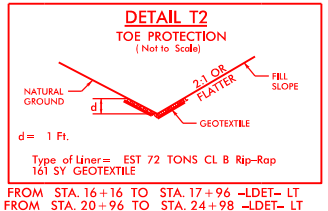
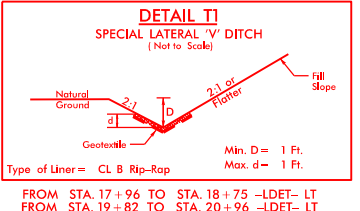
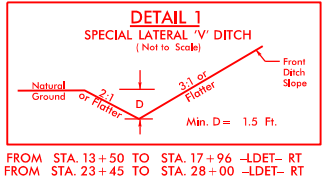
MATCH LINE -LDET- STA. 23+00  
SEE SHEET 8

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V = 1.6 fps  
d = 0.9 ft  
s = 0.006 f/ft  
r = 0.04  
Liner = CL B RIP RAP

Sta. = 13+50 -LDET- RT  
Q = 2.4 cfs  
V = 2.2 fps  
d = 1.1 ft  
s = 0.007 f/ft  
r = 0.035  
Liner = GRASS

Sta. = 20+96 -LDET- LT  
Q = 4.7 cfs  
V = 1.7 fps  
d = 1.2 ft  
s = 0.005 f/ft  
r = 0.040  
Liner = CL B RIP RAP

SITE 1 TEMPORARY FILL AND MECHANIZED CLEARING IN WETLANDS DUE TO DETOUR EMBANKMENT




FOR -LDET- PROFILE, SEE SHEET NO. 8

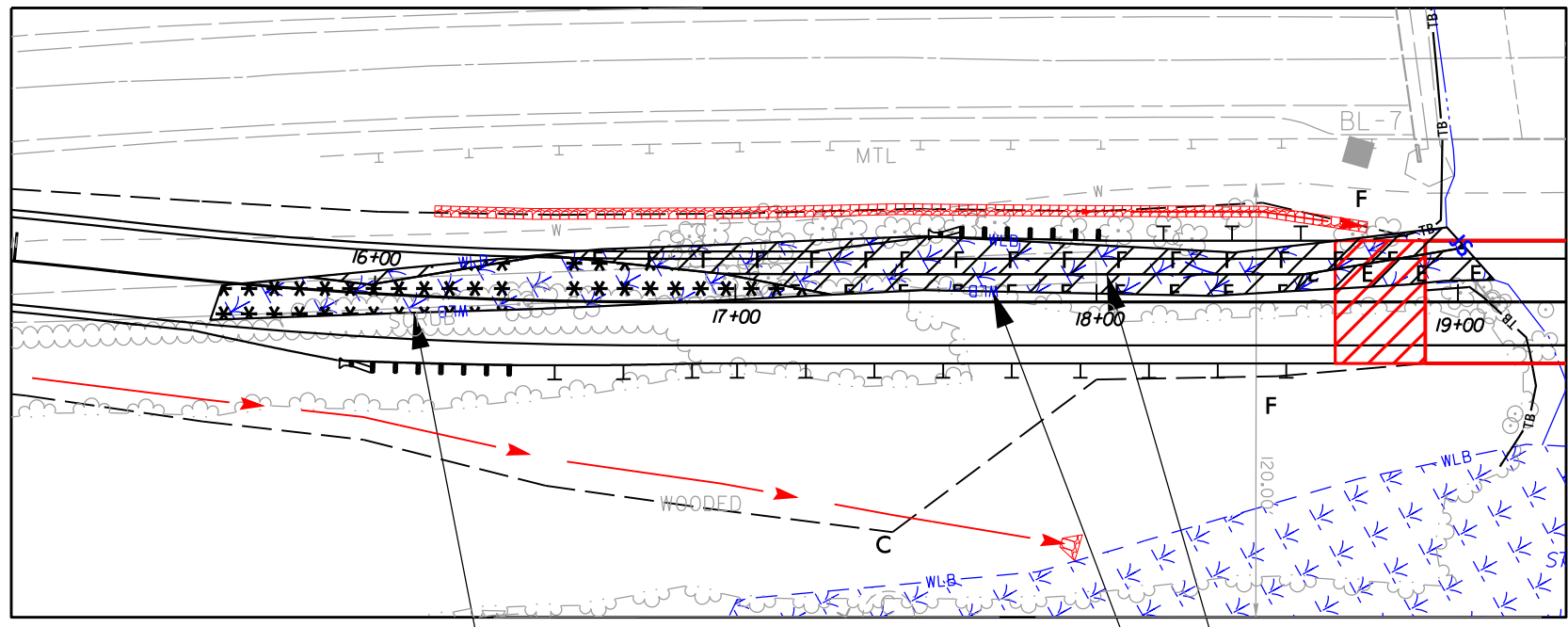
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5/14/99

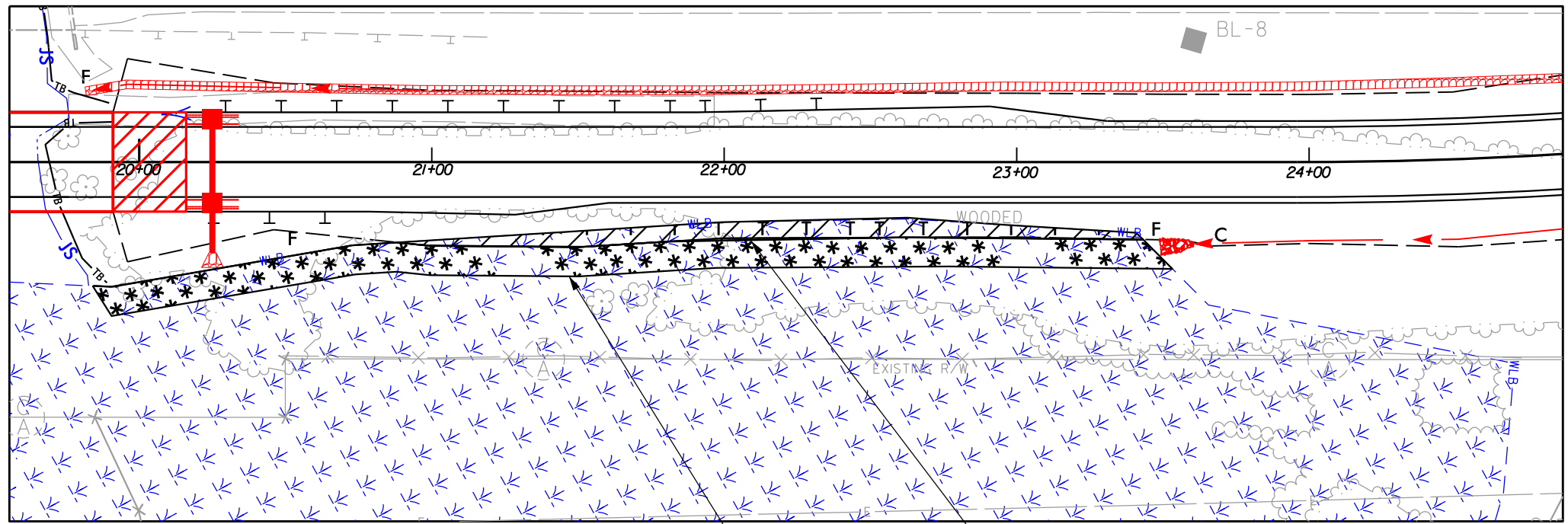
PERMIT DRAWING  
SHEET 7 OF 16

PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>2B-1</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
 <small>NC FIRM LICENSE No: F-1320 8000 REGENCY PARKWAY, STE 175 CARY, NC 27513 (919) 275-2498</small>	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



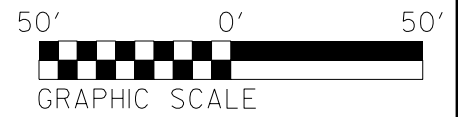
**INSET E**

- SITE - 1 MECHANIZED CLEARING IN WETLANDS
- SITE - 1 EXCAVATION IN WETLANDS
- SITE - 1 FILL IN WETLANDS




**INSET F**

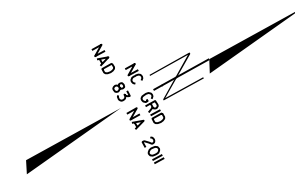
- SITE 1 - TEMPORARY FILL IN WETLANDS
- SITE 1 - MECHANIZED CLEARING IN WETLANDS


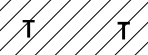


FOR -LDET- PROFILE, SEE SHEET NO. 8

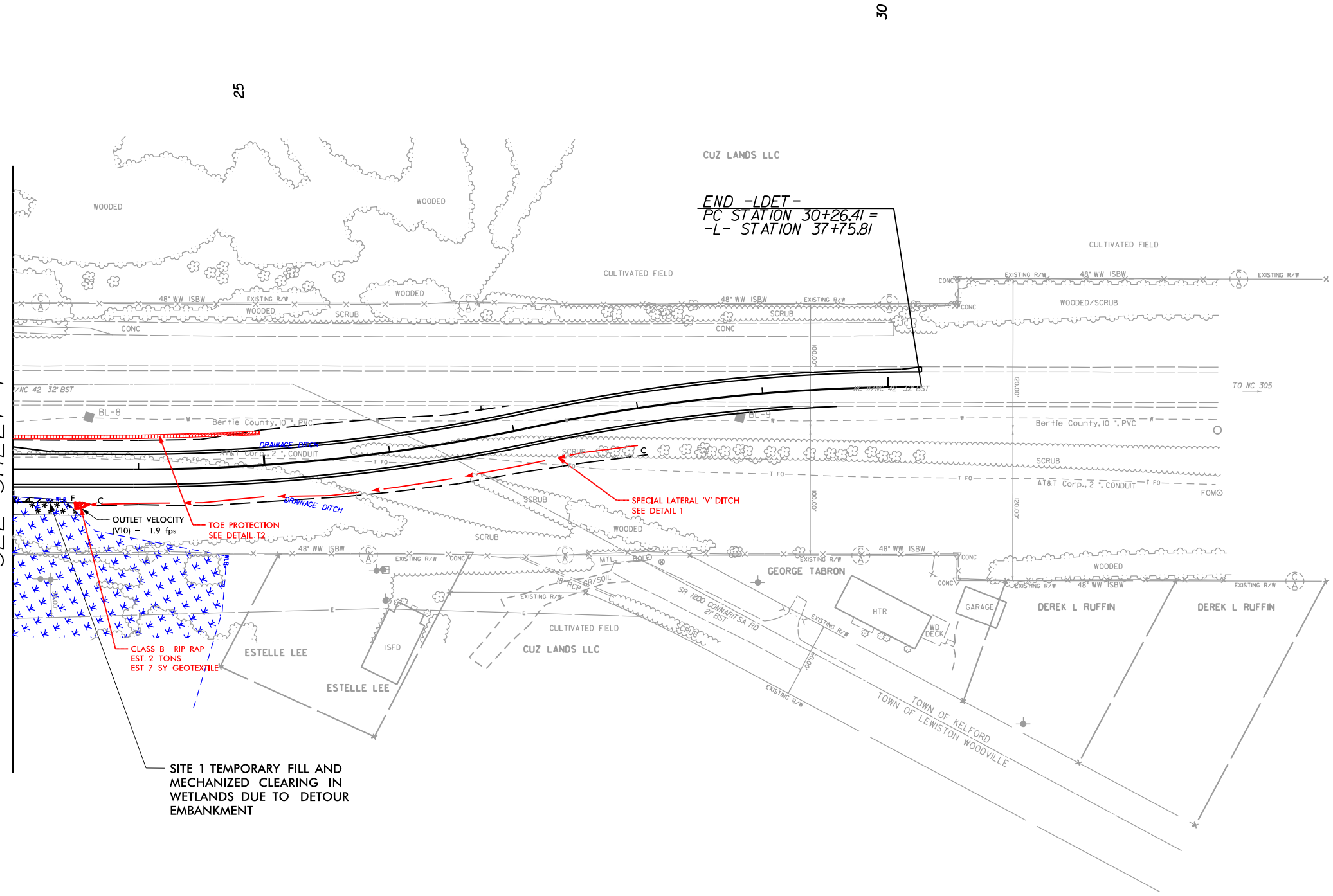
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PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>2B-2</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

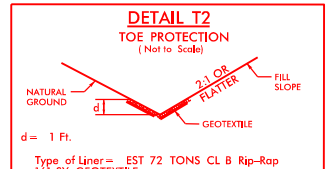
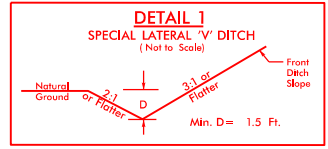


 DENOTES MECHANIZED CLEARING  
 DENOTES TEMPORARY FILL IN WETLAND


MATCH LINE -LDET- STA. 23+00  
SEE SHEET 7

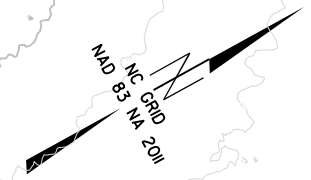



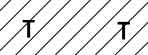
SITE 1 TEMPORARY FILL AND MECHANIZED CLEARING IN WETLANDS DUE TO DETOUR EMBANKMENT



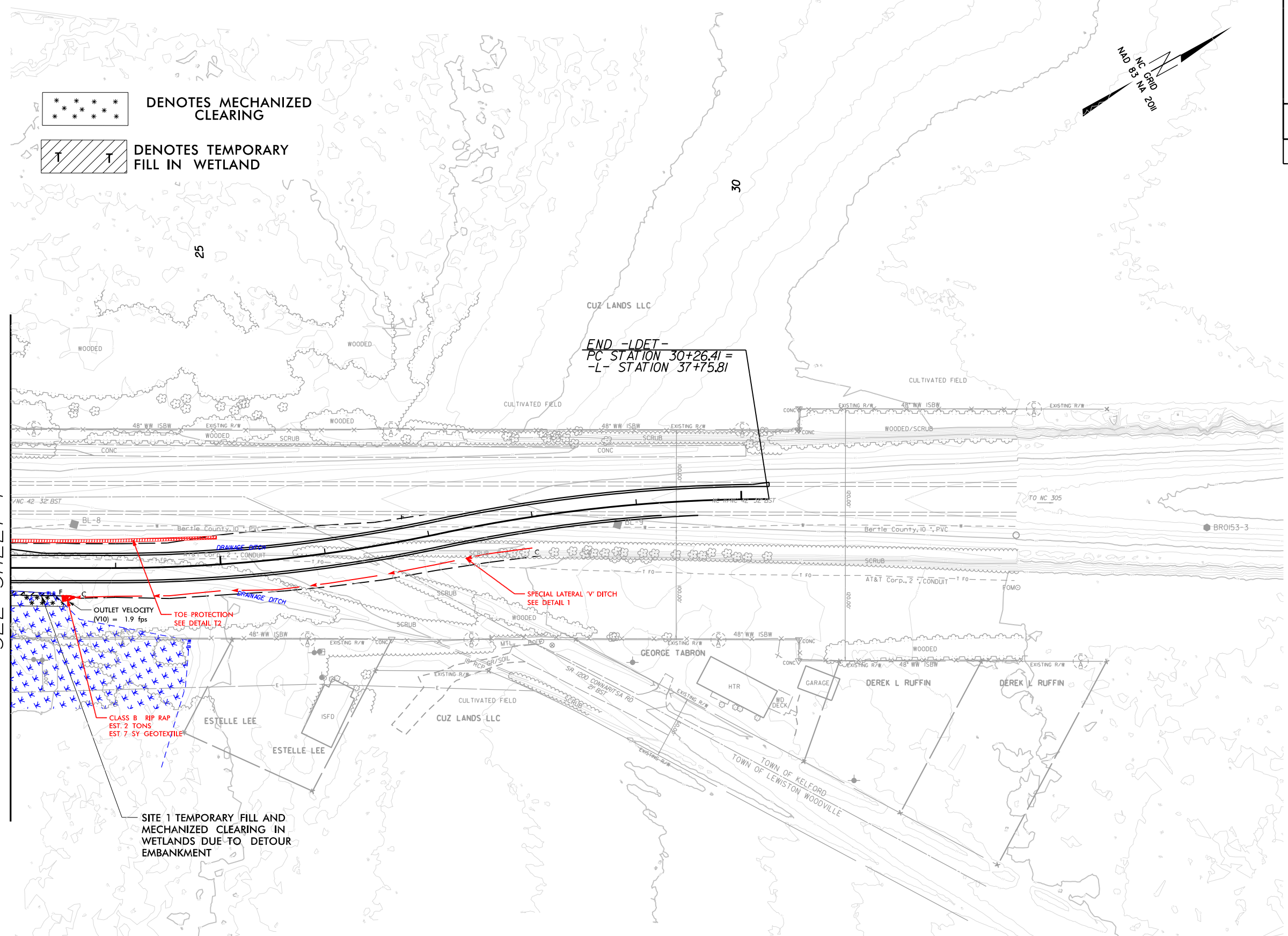
FOR -LDET2- PROFILE, SEE SHEET NO. 8

PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>2B-2</b>
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<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
 <small>NC FIRM LICENSE No: F-1320 8000 REGENCY PARKWAY, STE 175 CARY, NC 27518 (919) 275-2490</small>	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



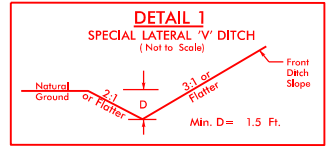
 DENOTES MECHANIZED CLEARING  
 DENOTES TEMPORARY FILL IN WETLAND

MATCH LINE -LDET- STA. 23+00  
SEE SHEET 7

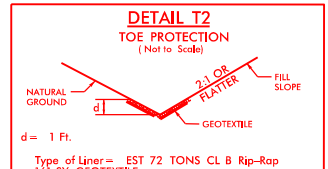


OUTLET VELOCITY (V10) = 1.9 fps  
 TOE PROTECTION SEE DETAIL T2  
 CLASS B RIP RAP EST. 2 TONS EST. 7 SY GEOTEXTILE

SITE 1 TEMPORARY FILL AND MECHANIZED CLEARING IN WETLANDS DUE TO DETOUR EMBANKMENT



FROM STA. 13+50 TO STA. 17+96 -LDET- RT  
FROM STA. 23+60 TO STA. 28+00 -LDET- RT



Type of Liner = EST 72 TONS CL B Rip-Rap  
161 SY GEOTEXTILE  
FROM STA. 16+16 TO STA. 17+96 -LDET- LT  
FROM STA. 20+96 TO STA. 24+98 -LDET- LT



FOR -LDET2- PROFILE, SEE SHEET NO. 8

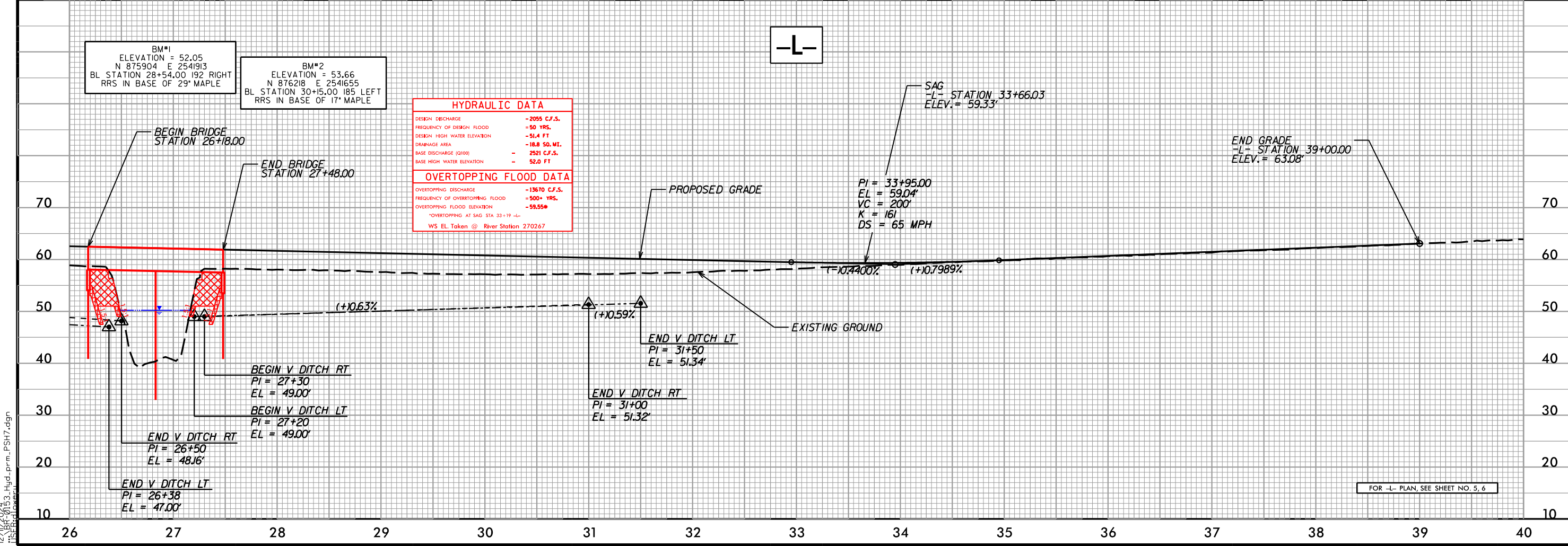
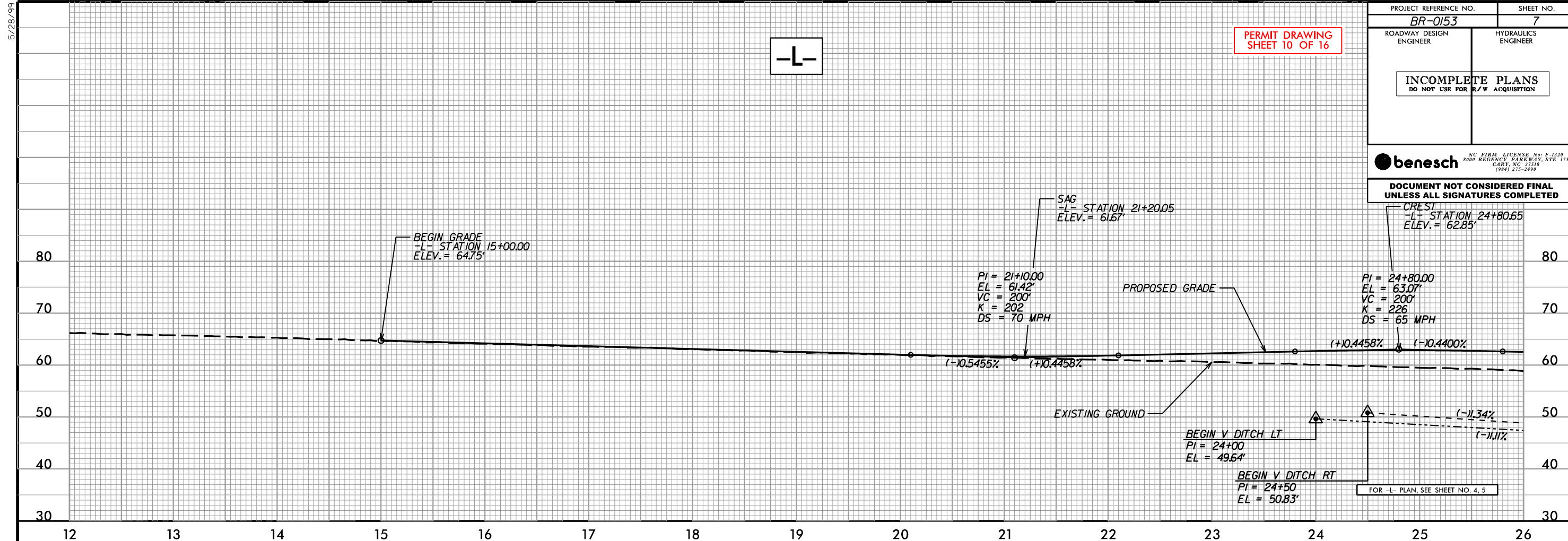


5/28/19

PROJECT REFERENCE NO. <b>BR-0153</b>	SHEET NO. <b>7</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	

**benesch** NC FIRM LICENSE No. F-1329  
8000 REGENCY PARKWAY, STE 175  
CARY, NC 27518  
(919) 275-2499

**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED



BM#1  
ELEVATION = 52.05  
N 875904 E 2541913  
BL STATION 28+54.00 192 RIGHT  
RRS IN BASE OF 29' MAPLE

BM#2  
ELEVATION = 53.66  
N 876218 E 2541655  
BL STATION 30+15.00 185 LEFT  
RRS IN BASE OF 17' MAPLE

HYDRAULIC DATA	
DESIGN DISCHARGE	= 2055 C.F.S.
FREQUENCY OF DESIGN FLOOD	= 50 YRS.
DESIGN HIGH WATER ELEVATION	= 51.4 FT
DRAINAGE AREA	= 18.8 SQ. MI.
BASE DISCHARGE (Q100)	= 2521 C.F.S.
BASE HIGH WATER ELEVATION	= 52.0 FT
OVERTOPPING FLOOD DATA	
OVERTOPPING DISCHARGE	= 13670 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD	= 500+ YRS.
OVERTOPPING FLOOD ELEVATION	= 59.55'
*OVERTOPPING AT SAG STA 33+19 -L-	
WS EL Taken @ River Station 270267	

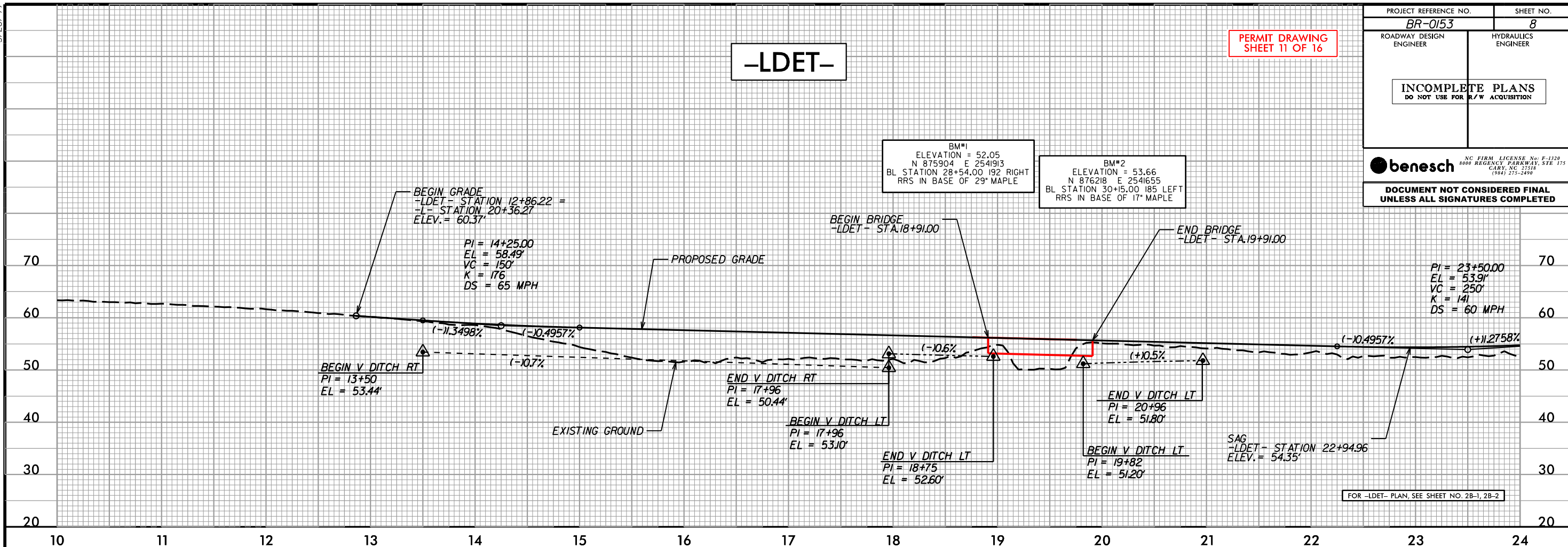
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5/28/19

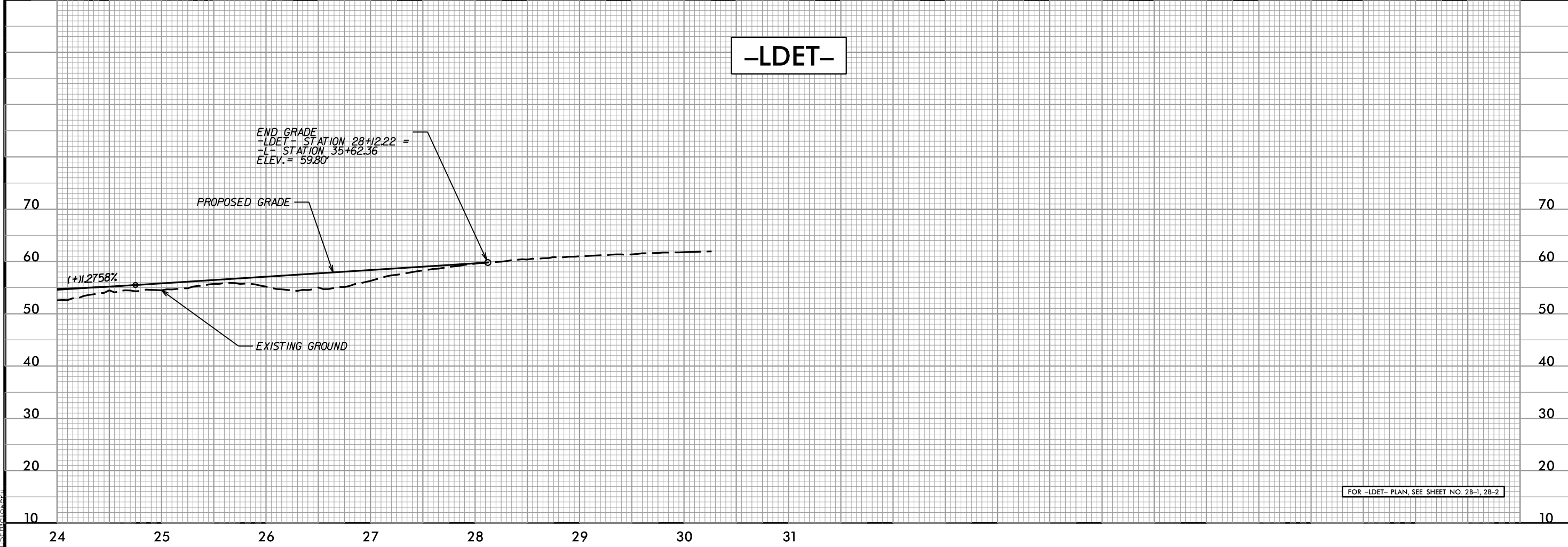
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>benesch</b> <small>NC FIRM LICENSE No. F-1329 8000 REGENCY PARKWAY, STE 175 CARY, NC 27518 (919) 275-2400</small>	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

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PERMIT DRAWING  
SHEET 11 OF 16



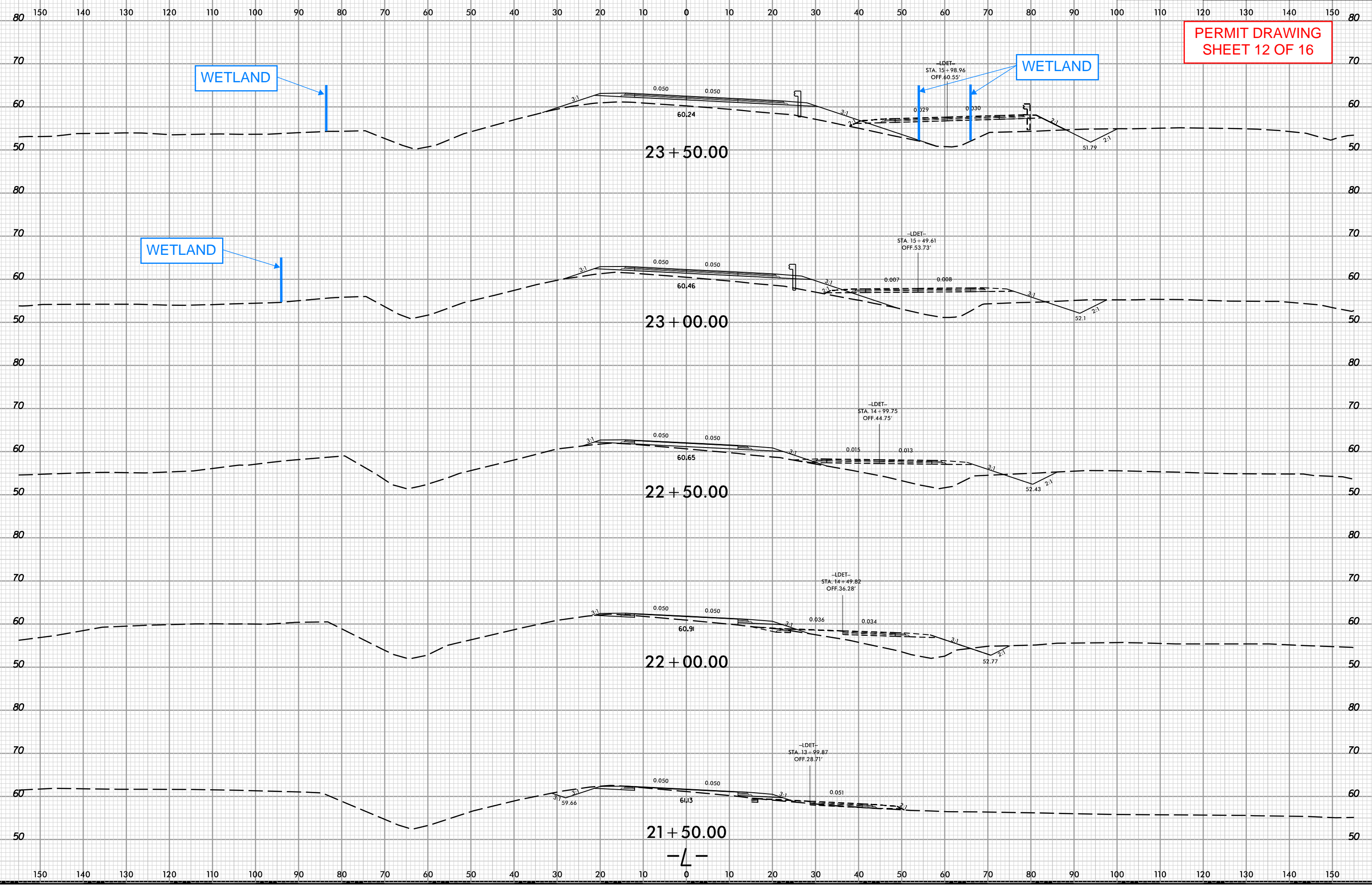
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6/23/16

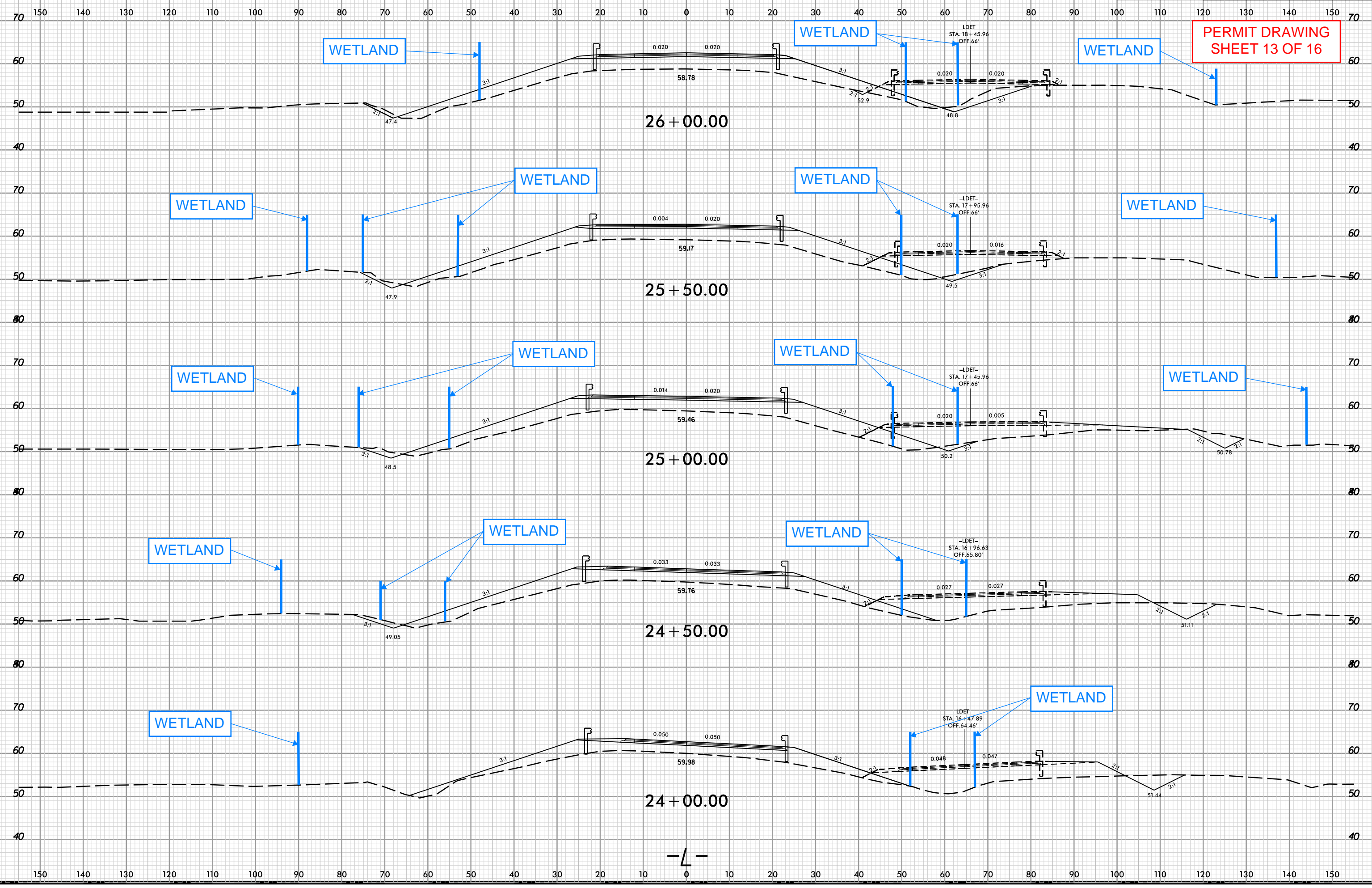
PERMIT DRAWING  
SHEET 12 OF 16



6/23/16  
USER: jsp@tdot.ga.gov  
PROJECT: BR-0153  
SHEET: X-4

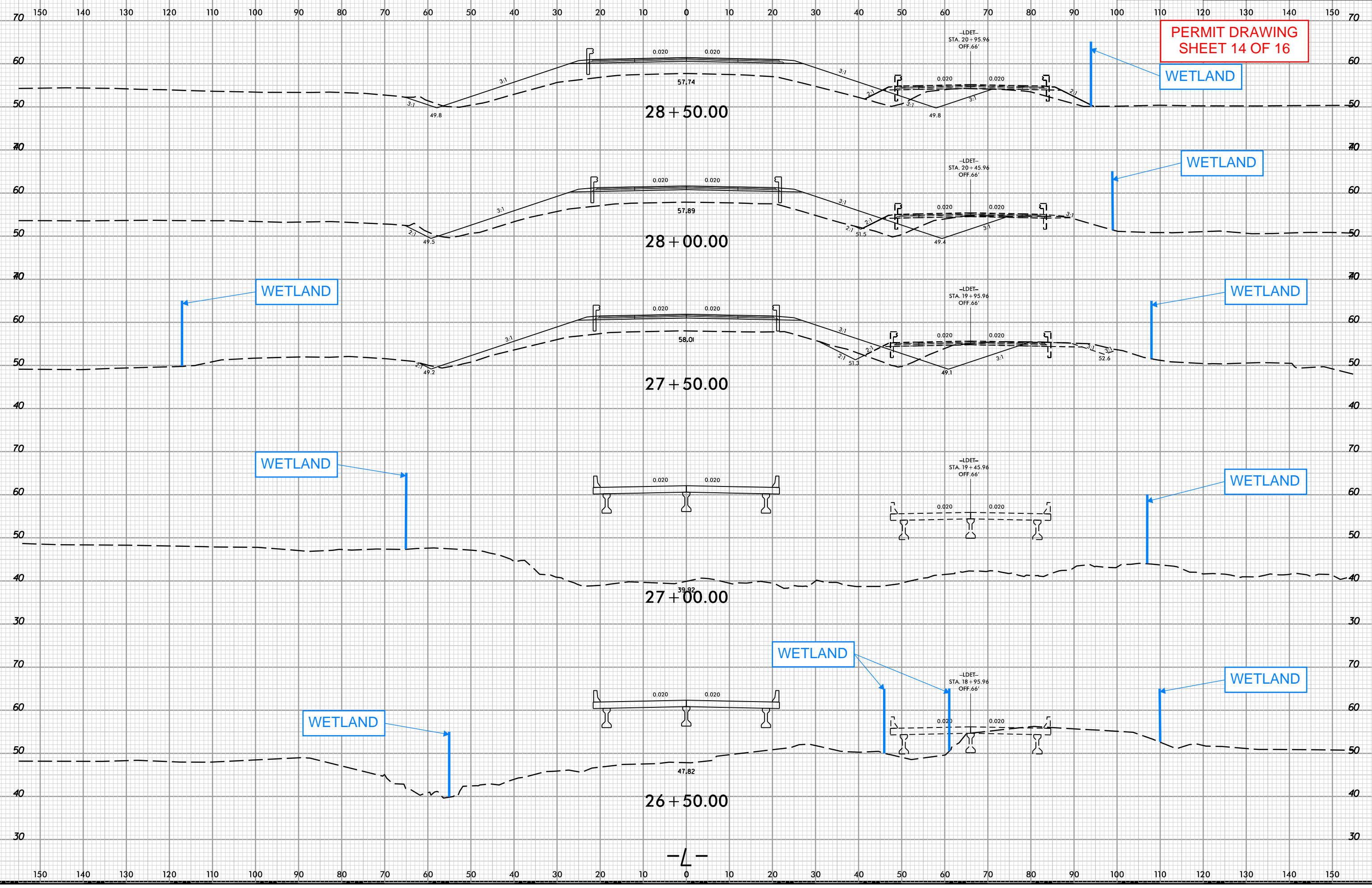


6/23/16



\\BR-0153\Users\jld\160623\160623.dgn

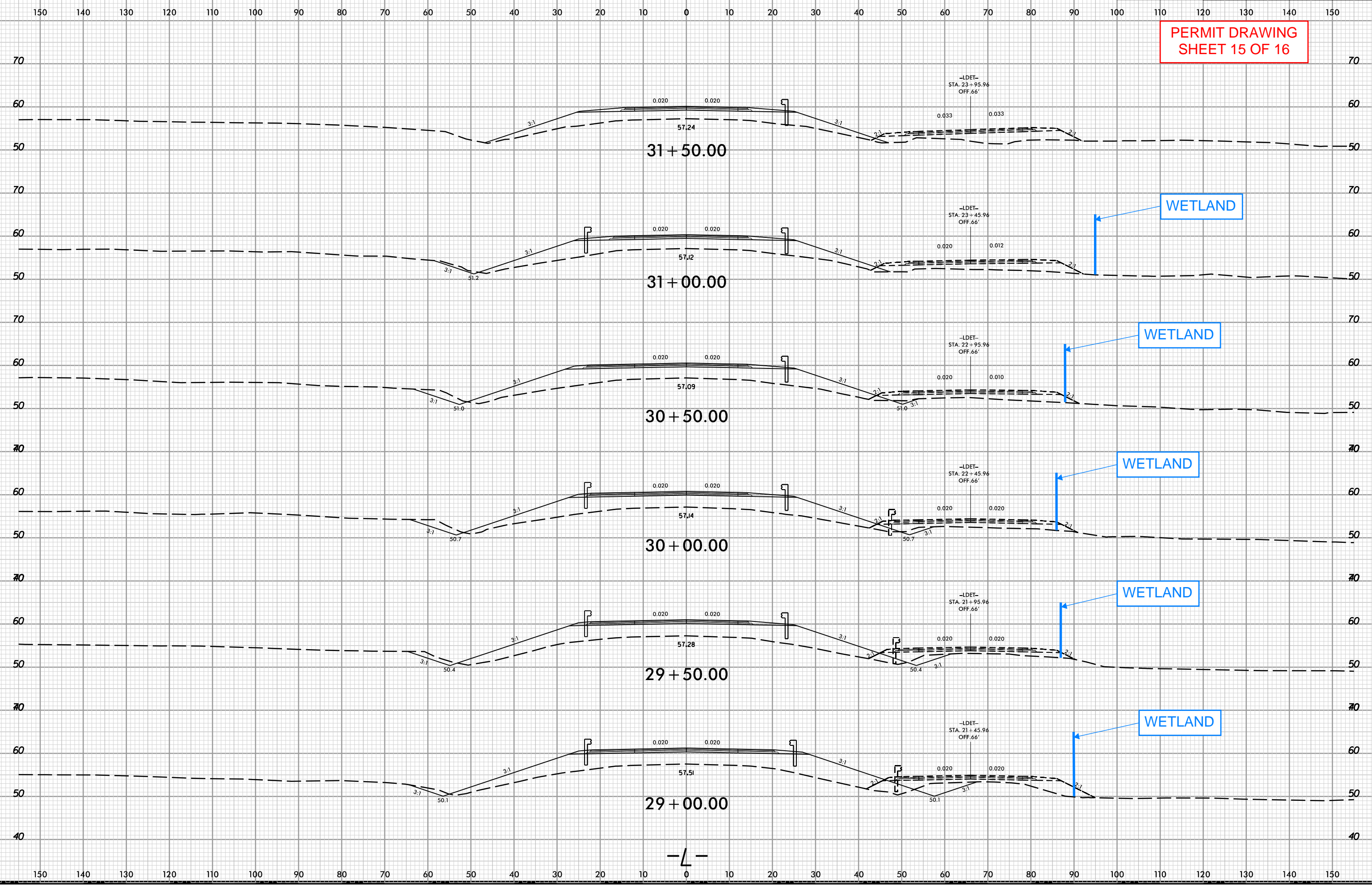
6/23/16



6/23/16  
BR-0153  
User: [unreadable]

6/23/16

PERMIT DRAWING  
SHEET 15 OF 16



6/23/16  
USER:respol  
DATE:6/23/16  
TIME:10:55:58  
PROJECT:BR-0153  
SHEET:15 OF 16



## Type I or II Categorical Exclusion Action Classification Form

STIP Project No.	<b>BR-0153</b>
WBS Element	67153.1.1
Federal Project No.	N/A

**A. Project Description:**

The North Carolina Department of Transportation (NCDOT) Project BR-0153 proposes to replace Bridge No. 24 on NC 11 over the Cashie River in Bertie County, North Carolina (Figures 1 and 2). The project will remove the existing bridge and replace it in-place with a new bridge. Based on a preliminary design, the replacement structure would be approximately 110 feet long, providing a 43-foot clear deck width. The proposed bridge includes two 12-foot travel lanes with 8-foot shoulders. The roadway approaches include two 12-foot travel lanes with 8-foot shoulders (13 feet with guardrail) of which 2-feet will be paved. NC 11 is functionally classified as a minor arterial. A design speed of 60 miles per hour (mph) is being used for design purposes. No additional right of way or easements will be required; the onsite detour structure will be contained entirely within existing right of way. An onsite detour structure will be constructed east of the existing bridge to maintain traffic during construction. An offsite detour is not feasible since the shortest possible detour route is approximately 33 miles.

The project is currently state-funded, and the US Army Corps of Engineers (USACE) is the lead federal agency. However, NCDOT might pursue federal funding sources for the construction phase of the project; therefore, a federal Categorical Exclusion has been prepared in case federal funding is used.

**B. Description of Need and Purpose:**

The purpose of the proposed project is to replace a structurally deficient bridge. The existing structure was built in 1971. NCDOT Bridge Management Unit records indicate that Bridge No. 24 is considered structurally deficient due to a substructure condition appraisal of 4 out of 9, according to National Bridge Inventory (NBIS) standards.

**C. Categorical Exclusion Action Classification:**

**Type** I(B) - Ground Disturbing Action

**D. Proposed Improvements:**

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

**E. Special Project Information:**

**Average Daily Traffic (ADT)**

Current Year (2025)	6,350 vehicles per day (vpd)
Future Year (2045)	6,900 vpd
Tractor-Trailer Semi-truck (TTST)	12%
Dual Axle Trucks (Dual)	4%

**Costs and Schedule**

	Schedule	Cost (11/2023)
<b>Right of Way</b>	January 2024	\$ 30,000
<b>Construction</b>	January 2025	\$6,000,000
<b>Total</b>		\$6,030,000



**Natural Resources**

Jurisdictional Resources

Water resources within the project study area (PSA) are part of the Roanoke River Basin (United States Geological Survey [USGS] Hydrologic Unit Code [HUC] 03010107). Two (2) streams and four (4) wetlands were identified within the PSA. Impacts to wetlands total approximately 0.47 acres (based on preliminary design slope stakes plus 25 feet). There are no Outstanding Resource Waters (ORW), High Quality Waters (HQW), or Water Supply I or II watersheds within 1.0 mile downstream of the study area. The North Carolina 2022 Final 303(d) list of impaired waters identifies no waters within 1.0 mile downstream of the study as impaired. No potential non-stream surface waters were identified in the study area.

Protected Species

The United States Fish and Wildlife Service (USFWS) lists the following federally protected species as potentially occurring within the PSA, under the Endangered Species Act (ESA) (Table 1). See Section G for more information regarding the Northern Long-eared bat and Tricolored bat.

**Table 1. ESA federally protected species listed within the PSA<sup>1</sup>**

Scientific Name	Common Name	Federal Status <sup>2</sup>	Habitat Present	Biological Conclusion
<i>Acipenser oxyrinchus oxyrinchus</i>	Atlantic sturgeon	E	No	No Effect
<i>Acipenser brevirostrum</i>	Shortnose sturgeon	E	No	No Effect
<i>Perimyotis subflavus</i>	Tricolored bat	PE	Yes	MALAA <sup>3</sup>
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	Yes	MALAA <sup>3</sup>
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	No	No Effect
<i>Calidris canutus rufa</i>	Red knot	T	No	No Effect

<sup>1</sup> USFWS Information for Planning and Consultation (IPaC) and NOAA – NMFS data checked on May 13, 2024

<sup>2</sup> E – Endangered; PE – Proposed Endangered; T – Threatened

<sup>3</sup> MALAA – May Affect, Likely to Adversely Affect

**Bald and Golden Eagle Protection Act**

The Bald and Golden Eagle Protection Act is enforced by the USFWS. Golden eagles do not nest in North Carolina. Habitat for the bald eagle primarily consists of mature forests in proximity to large bodies of open water for foraging. Large dominant trees are utilized for nesting sites, typically within 1.0-mile of open water.

A desktop-GIS assessment of the PSA, as well as the area within a 1.0-mile radius of the project limits, was performed on December 12, 2022, using the most recent color aerials. Water bodies large enough or sufficiently open to be considered potential feeding sources were identified. Since foraging habitat is present within the review area, a survey of the PSA and the area within 660 feet of the project limits was conducted on December 14, 2022.

No eagles were observed during this initial survey effort; however, one large vacant nest was identified. This nest is located within the PSA approximately 370 feet from the bridge, and is situated atop a large bald cypress, overlooking an opening in the riverine swamp forest below. Additionally, two open ponds, which could be used for foraging, are located within a third of a mile of the PSA. Due to the presence of the nest, a follow-up eagle survey was conducted on February 21, 2023. During this visit, a bald eagle was sitting on the nest, confirming that it is an active nest. A review of the NCNHP Spring (May) 2024 dataset revealed no previously known occurrences of this species within 1.0 mile of the PSA. The nest will continue to be monitored and coordination with the USFWS will occur if the nest remains active.

**Permits**

A Nationwide Permit (NWP) may be applicable for the project; however, it is likely that a Regional General Permit (RGP 50) will apply. The US Army Corps of Engineers (USACE) holds the final discretion as to what permit may be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification (WQC) from the North Carolina Division of Water

Resources (NCDWR) will also be needed. Final impact determinations will be made during the permitting phase of the project.

### **Tribal Coordination**

Project notifications and requests for comment were sent to the Catawba Indian Nation, Nansemond Indian Tribe, and the Tuscarora Indian Nation's tribal historic preservation offices in May 2023. The notification letters included the "No Archaeological Survey Required Form". The Catawba Indian Nation provided a response in a letter dated June 19, 2023, and stated that they have no immediate concerns regarding traditional cultural properties, sacred sites, or Native American archaeological sites within the boundaries of the proposed project area. However, the Catawba Indian Nation requested to be notified if Native American artifacts and/or human remains are located during the ground disturbance phase of this project. No comments have been received to date from the Nansemond Indian Tribe or the Tuscarora Indian Nation.

### **Cultural Resources**

An HPOWeb review on June 27, 2022, yielded no National Register listed or eligible, as well as locally designated, properties in the Area of Potential Effect (APE). Additional screening of properties within the APE confirmed the absence of significant buildings and landscapes in the APE and a determination was made that no architectural survey is required for the project as currently defined.

A reduced APE, smaller than the project study area, was generated to facilitate the archaeology review process for the preliminary designs. NCDOT Archaeology reviewed the smaller project study area on May 10, 2023 and provided the determination that it is unlikely that the reduced APE contains intact significant archaeological resources, and no survey is required.

### **Public Involvement**

A project newsletter was sent to 152 residents in early November 2023 to provide project information, a figure of the proposed project, and contact information for questions or comments about the project. No comments were received.

F. Project Impact Criteria Checklists:

<b>F2. Ground Disturbing Actions – Type I (Appendix A) &amp; Type II (Appendix B)</b>				
<p>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 (ground disturbing), 23, 24, 25, 26, 27, 28, &amp;/or 30; &amp;/or Type II Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix B) answer the project impact threshold questions (below) and questions 8 – 31.</p> <ul style="list-style-type: none"> <li>• <i>If any question 1-7 is checked “Yes” then NCDOT certification for FHWA approval is required.</i></li> <li>• <i>If any question 1-31 is checked “Yes” then additional information will be required for those questions in Section G.</i></li> </ul>				
<u>PROJECT IMPACT THRESHOLDS</u> (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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGEPA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any question 8-31 is checked “Yes” then additional information will be required for those questions in Section G.				
<u>Other Considerations</u>			Yes	No
8	Is an Endangered Species Act (ESA) determination unresolved or is the project covered by a Programmatic Agreement under Section 7?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11	Does the project impact Waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



<u>Other Considerations for Type I and II Ground Disturbing Actions (continued)</u>		Yes	No
14	Does the project include a Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a No Effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control or the modification or construction of an interchange on an interstate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP, and where applicable, the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F (ONLY for questions marked 'Yes'):

**Question 2 – Bald and Golden Eagle Protection Act (BGEPA)**

One active nest was located within the PSA approximately 370 feet from the bridge, and is situated atop a large bald cypress, overlooking an opening in the riverine swamp forest below. During a follow-up field visit on February 21, 2023, a bald eagle was sitting on the nest. The nest will continue to be monitored and coordination with the USFWS will be conducted to determine whether a permit is required.

**Question 8 – Programmatic Agreement Under Section 7**

*Northern long-eared bat:*

The US Fish and Wildlife Service has revised the previous programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis* - MYSE) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. Although this programmatic covers Divisions 1-8, NLEBs are currently only known to occur in 30 counties within Divisions 1-8. NCDOT, FHWA, and USACE have agreed to two conservation measures which will avoid/minimize mortality of NLEBs. These conservation measures only apply to the 30 current known/potential counties of the PBO at this time (which includes Bertie County). The programmatic determination for NLEB for the NCDOT program is **May Affect, Likely to Adversely Affect**. The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for ten years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Bertie County, where BR-0153 is located. This level of incidental take is authorized from the effective date of a final listing determination through December 31, 2030.

*Tricolored bat:*

The US Fish and Wildlife Service has issued a programmatic conference opinion (PCO) in conjunction with FHWA, USACE, and NCDOT for the tricolored bat (TCB) (*Perimyotis subflavus*) in eastern North Carolina. The PCO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. NCDOT, FHWA, and USACE have agreed to three conservation measures (listed in the PCO) which will avoid/minimize take to TCBs. These conservation measures apply to all counties in Divisions 1-8. The programmatic determination for TCB for the NCDOT program is **May Affect, Likely to Adversely Affect**. Once the TCB is officially listed, the PCO will become the PBO by formal request from FHWA and USACE. The PBO will ensure compliance with Section 7 of the Endangered Species Act for approximately five years (effective through December 31, 2028) for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Bertie County, where BR-0153 is located.

# PROJECT COMMITMENTS

Replace Brige 24 on NC 11 over Cashie River

T.I.P Number:BR-0153

Bertie

Federal Aid Number:

WBS:

## COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

### **Structures Management - Area of Potential Effect (APE) for Historic Architecture and Archaeology**

*If there are any changes in the design that cause the project footprint to extend beyond the APE shown on the NSR form, then another Historic Architecture and Archaeology review will be required.*

*Fulfilled on 2024-07-12*

### **Division Office - Hoggard Cemetery**

*As noted in the No Archaeological Survey Required (NSR) Form, there should be no staging of materials, equipment, and/or vehicles within and adjacent to the limits of the Hoggard Cemetery located southeast of the project.*

*Fulfilled on 2024-07-15*

## COMMITMENTS FROM PERMITTING

No commitments developed during project permitting.

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

Replace Brige 24 on NC 11 over Cashie River

I. Categorical Exclusion Approval:

STIP Project No.	<b>BR-0153</b>
WBS Element	67153.1.1
Federal Project No.	N/A

**Prepared By:**

8/12/2024

Date

Signed by:

*Joanna Salvucci*

B4EC4020539E448

Joanna Salvucci, Environmental Scientist  
Three Oaks Engineering, Inc.

**Prepared For:**

NCDOT Structures Management Unit

**Reviewed By:**

8/12/2024

Date

DocuSigned by:

*Morgan Weatherford*

B8ED308C6CEB44E...

Morgan Weatherford, Eastern Regional Team Lead  
NCDOT Environmental Policy Unit

**Approved**

- If NO grey boxes are checked in Section F (pages 2 and 3), NCDOT approves the Type I or Type II Categorical Exclusion.

**Certified**

- If ANY grey boxes are checked in Section F (pages 2 and 3), NCDOT certifies the Type I or Type II Categorical Exclusion for FHWA approval.
- If classified as Type III Categorical Exclusion.

8/12/2024

Date

DocuSigned by:

*David Stutts*

A4A2999A8BCC64F2

David Stutts, PE  
North Carolina Department of Transportation

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

8/13/2024

Date

DocuSigned by:

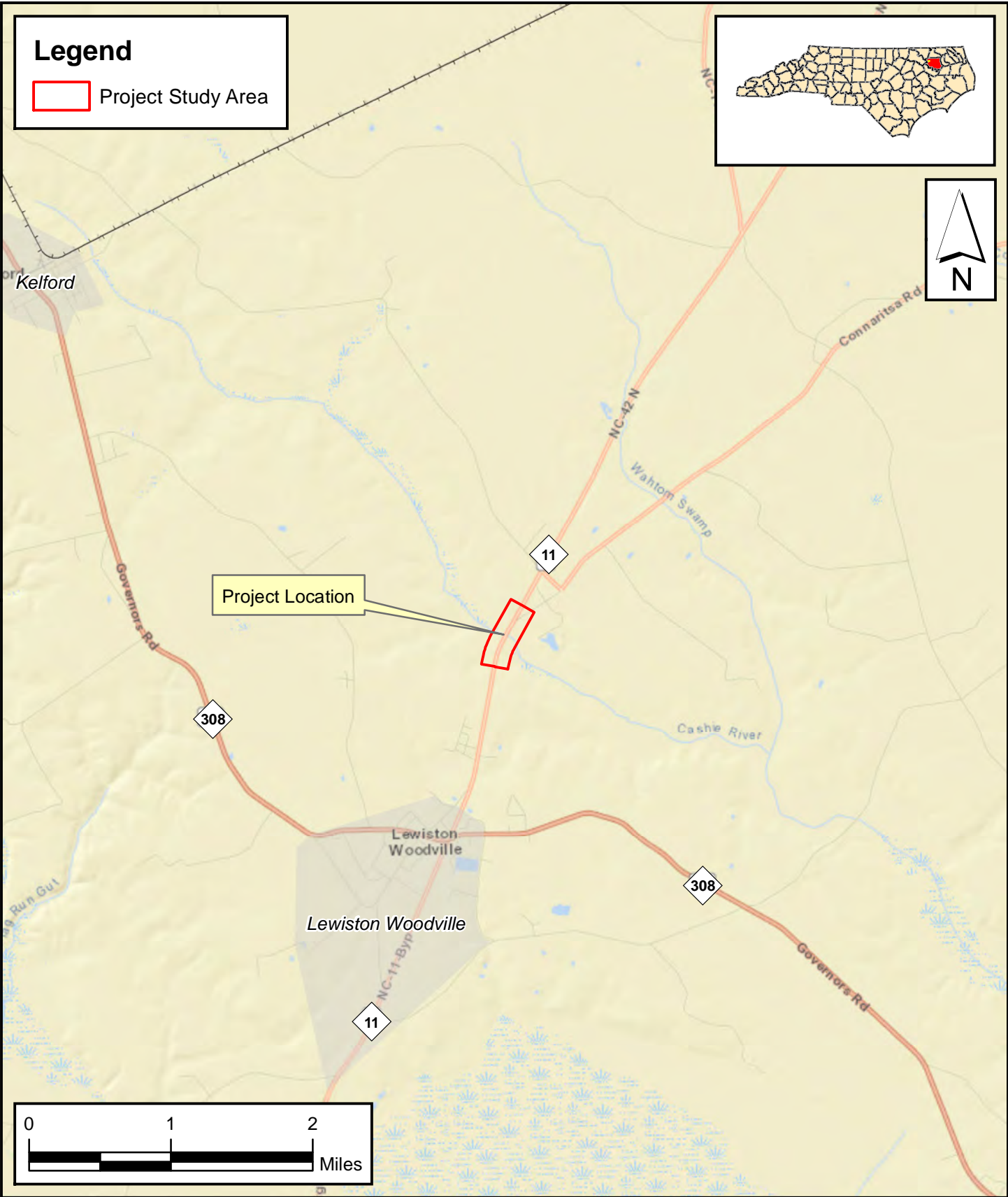
*Bill Marley*

F27AAAAB89D141E...

for Yolonda K. Jordan, Division Administrator  
Federal Highway Administration

*Note: Prior to ROW or Construction authorization, a consultation may be required (please see Section VII of the NCDOT-FHWA CE Programmatic Agreement for more details).*





NORTH CAROLINA  
 DEPARTMENT  
 OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

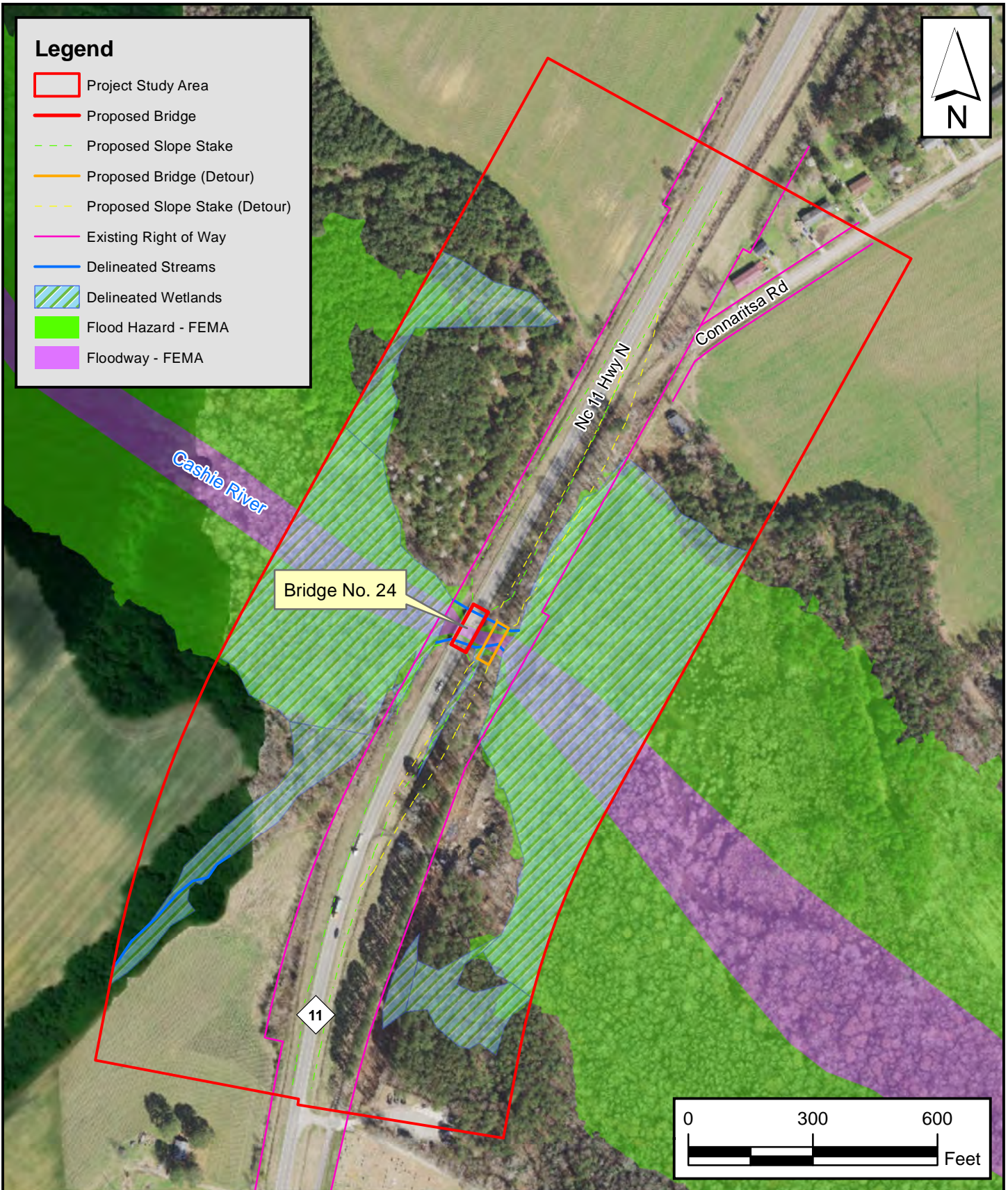
**VICINITY MAP  
 REPLACE BRIDGE NO. 24  
 ON NC 11  
 OVER CASHIE RIVER**

BERTIE COUNTY  
 NORTH CAROLINA

County:	BERTIE
Div: 1	STIP# BR-0153
WBS:	67153.1.1
Date:	OCTOBER 2022

**Figure  
 1**





NORTH CAROLINA  
DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROJECT DESIGN MAP  
REPLACE BRIDGE NO. 24  
ON NC 11  
OVER CASHIE RIVER**

BERTIE COUNTY  
NORTH CAROLINA

County: BERTIE

Div: 1 | STIP# BR-0153

WBS: 67153.1.1

Date: OCTOBER 2023

**Figure  
2**

**22-06-0009**



**HISTORIC ARCHITECTURE AND LANDSCAPES  
NO SURVEY REQUIRED 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**

<b>Project No:</b>	BR-0153	<b>County:</b>	Bertie
<b>WBS No.:</b>	67153.1.1	<b>Document Type:</b>	Federal CE
<b>Fed. Aid No:</b>		<b>Funding:</b>	X State    Federal
<b>Federal Permit(s):</b>	X Yes    No	<b>Permit Type(s):</b>	USACE
<b>Project Description:</b> Replace Bridge Number 24 on NC 11 over Cashie River (no off-site detour specified in review request).			

**SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW**

**DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS:** HPOWeb reviewed on 27 June 2022 and yielded no NR, SL, LD, DE, or SS properties in the Area of Potential Effects (APE). Bertie County current GIS mapping, aerial photography, and tax information indicated an APE of woodland and cultivated fields with several above-ground resources dating from the 1920s to the 2000s (viewed 27 June 2022). Two pre-1970 residential buildings are unexceptional examples of their types. Bridge Number 24, constructed in 1971, is not eligible for the National Register as it is not representative of any distinctive engineering or aesthetic types. Adjacent to the southern end of the APE is the Hoggard Memorial Cemetery (Parcel No. 5847-14-6652) and approximately 235 feet northeast of the northern end of the APE is the Nichols Cemetery (Parcel No. 5847-27-9131); while neither is individually eligible for listing in the National Register, both should be afforded the usual protections during the proposed construction. Google Maps "Street View" confirmed the absence of significant buildings and landscapes in the APE (viewed 27 June 2022).

**No architectural survey is required for the project as currently defined.**

**WHY THE AVAILABLE INFORMATION PROVIDES A RELIABLE BASIS FOR REASONABLY PREDICTING THAT THERE ARE NO UNIDENTIFIED SIGNIFICANT HISTORIC ARCHITECTURAL OR LANDSCAPE RESOURCES IN THE PROJECT AREA:** APE equates with the study area provided in the review request (see attached). The comprehensive county architectural survey (2008-2010) and other studies record no properties in the APE. County GIS and other visuals illustrate the absence of significant architectural and landscape resources in the APE. No National Register-listed properties are located within the APE.

**Should the project limits or design change, please notify  
NCDOT Historic Architecture as additional review may be necessary.**

**SUPPORT DOCUMENTATION**

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

**FINDING BY NCDOT ARCHITECTURAL HISTORIAN**

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

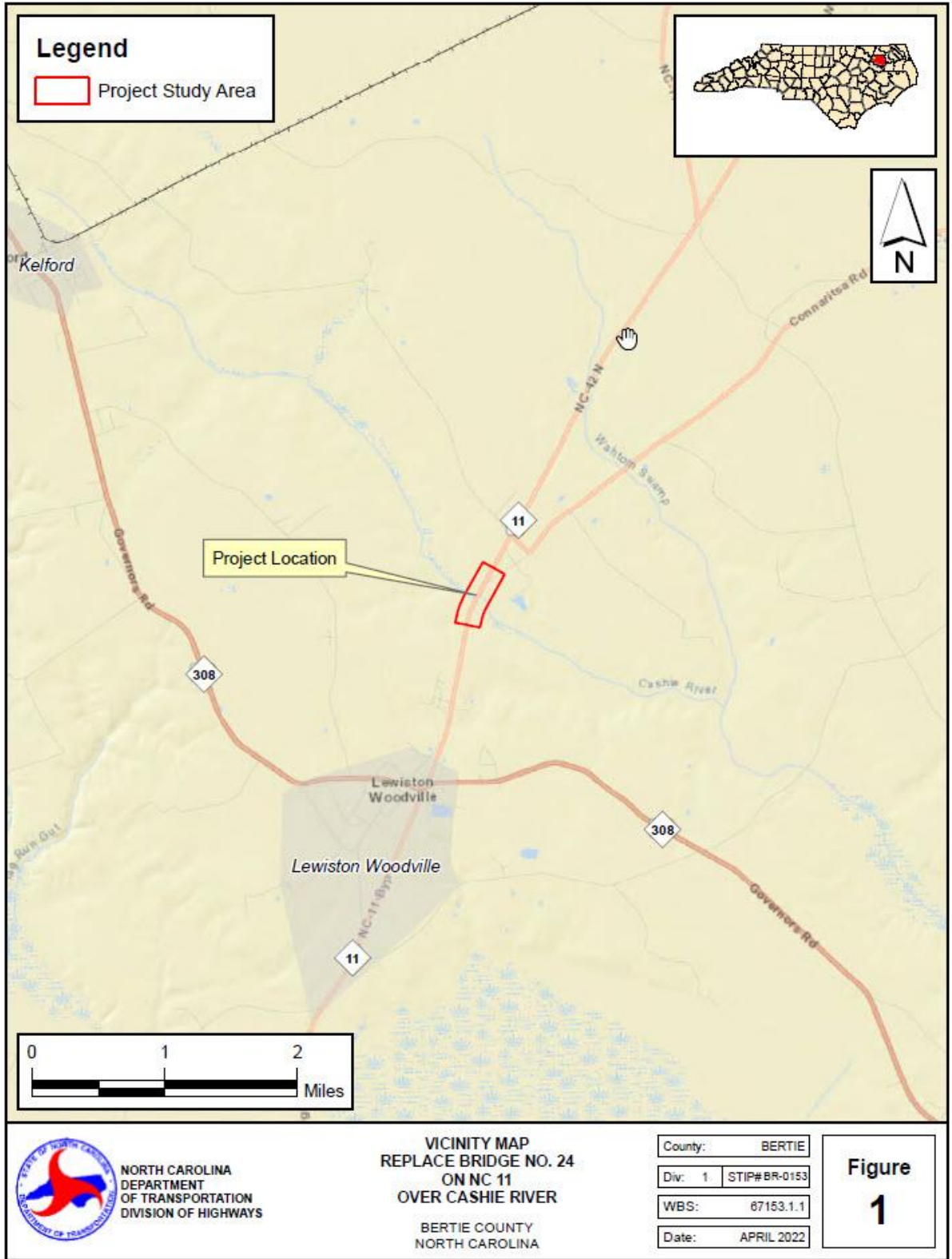
*Vanessa E. Patrick*

NCDOT Architectural Historian

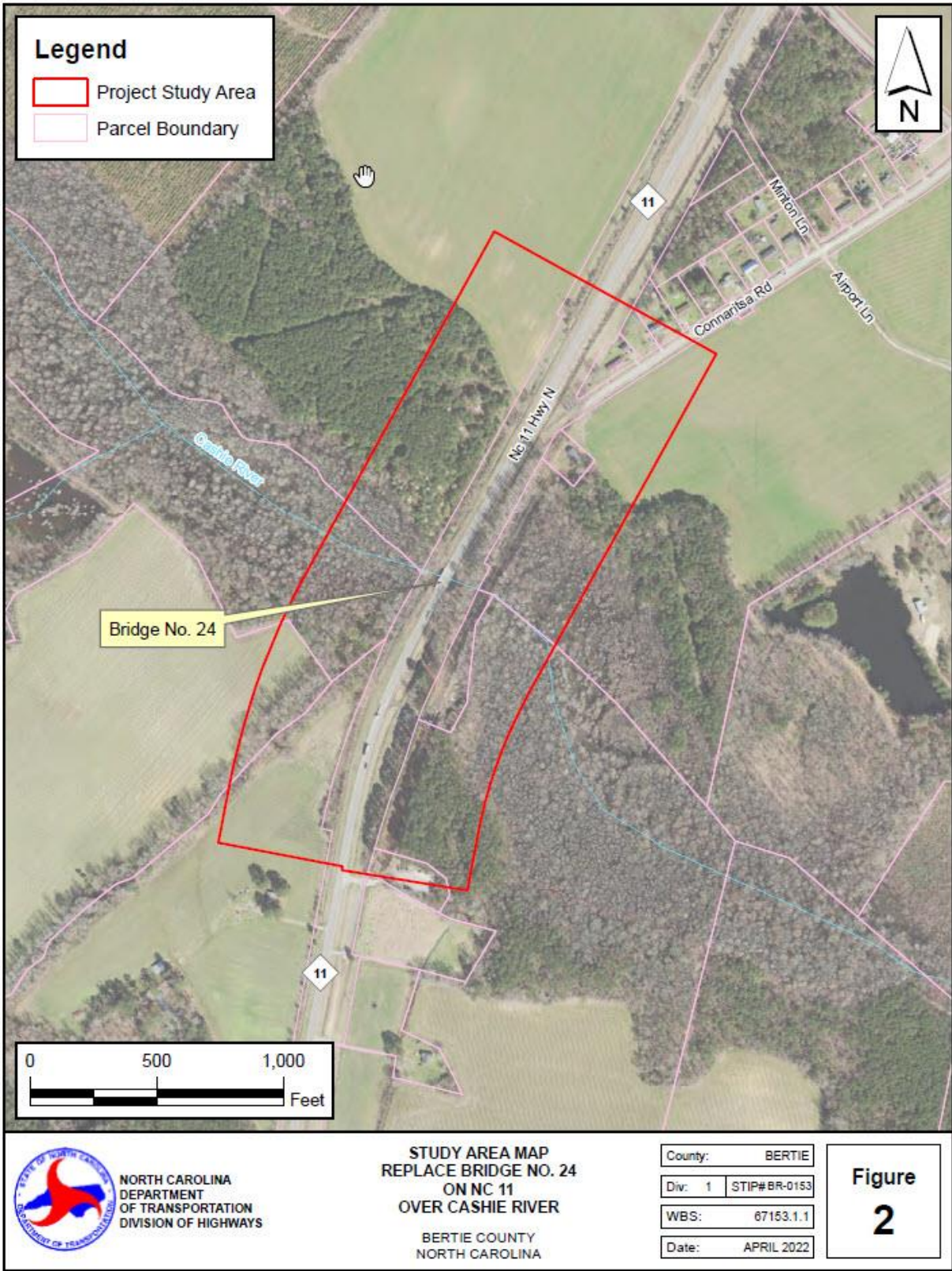
27 June 2022

Date











**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: **BR-0153** County: **Bertie**  
 WBS No: **67153.1.1** Document: **Federal CE**  
 Federal Aid No: **N/A** Funding:  State  Federal  
 Federal Permit Required?  Yes  No Permit Type: **USACE**

**Project Description:** NCDOT’s Central Project Development Group proposes to replace Bridge No. 24 on NC 11 over the Cashie River in Bertie County. Bridge No. 24 was built in 1971 and is considered to be structurally deficient; therefore, it has been selected for replacement. As part of the project’s submittal, it was noted that some form of easement will be required; however, the need for additional ROW was to be determined. Existing ROW ranges from 180 feet to 250 feet. Since Preliminary Design Plans have been developed, an Area of Potential Effects (APE) was generated in order to facilitate the environmental review process at this stage. A Study Area, measuring about 57.5 acres, was previously submitted; however, the APE encompasses about 13.26 acres, inclusive of the existing roadway, the structure to be replaced, any modern development, and the waterway being crossed.

**SUMMARY OF CULTURAL RESOURCES REVIEW**

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

This project was accepted for review on Wednesday, June 29, 2022, but was subsequently placed on hold until preliminary design plans were developed. A review of the databases maintained by the Office of State Archaeology (OSA) was received Tuesday, July 5, 2022. No archaeological surveys have been conducted at this particular bridge location, and no archaeological sites have been recorded within one (1) mile of the proposed project. Digital copies of HPO’s maps (Kelford Quadrangle) as well as the HPOWEB GIS Service (<http://gis.ncdcr.gov/hpoweb/>) were last reviewed on Wednesday, May 10, 2023. There are no known historic architectural resources located within or adjacent to the APE; therefore, intact and significant archaeological deposits that may be associated with such resources are not anticipated 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 APE.

*(This project falls within a North Carolina County in which the following federally recognized tribes have expressed an interest: 1) Catawba Indian Nation, 2) Tuscarora Nation, and 3) Nansemond Indian Tribe. 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 project is listed as being state funded; however, a federal permit is anticipated. As part of the project's submittal, permanent/temporary easements will be necessary for an on-site detour; however, additional ROW should not be necessary. Based on the size and shape of the APE, project activities will take place beyond the existing ROW along NC 11. 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 APE that would require our attention.

From an environmental perspective, the APE consists primarily of the existing NC 11 corridor as it crosses the Cashie River along with an easement beyond the existing ROW along the east side of NC 11. The surrounding property is composed mostly of mixed hardwoods along the flood zone of the Cashie River. The APE is composed of five (5) soil types (in order of %): Rains sandy loam (Ra), Bibb and Johnston loams, frequently flooded (BB), Norfolk sandy loam, 2-6% slopes (NoB), Goldsboro sandy loam, 0-3% slopes (GoA), and Udorthents, loamy (Ud). Although well-drained soils are present (NoB and GoA), a large percentage of the APE consists of poorly drained (BB and Ra) and significantly altered (Ud) soil characteristics that would not be ideal for archaeological resources to be present. Moreover, most areas of well-drained soils within the APE are located within the existing and earlier bridge alignments and have been previously disturbed by road construction, utility easements, and parking facilities. Based on LiDAR imagery, much of the APE consists of what should be considered a marsh environment/flood-hazard zone for the Cashie River, with NC 11 serving as an artificially-raised surface across the river.

Within the vicinity of the proposed project, the Office of State Archaeology (OSA) has reviewed only five (5) projects for environmental compliance including cell towers (CTs 06-2692 and 13-2408), utility improvements (ER 86-0043 and CH 17-0990), and an unknown agricultural/hydro project (ER 86-0023). OSA did not recommend an archaeological survey for any of these projects stating a low probability for intact and significant archaeological sites to be present. In particular, a portion of the area reviewed by OSA for the demolition and replacement of the Lewiston-Woodville WWTP (CH 17-0990) overlaps a large section of the project's APE. Given the level of disturbance caused by the treatment facility, no archaeological surveys were recommended for the property.

Within five (5) miles of the proposed project, NCDOT's Archaeology Team has reviewed at least one (1) transportation-related project for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO). An archaeological survey was not recommended for that project (PA 21-04-0008), citing various reasons (e.g., heavily disturbed, eroded, and/or poorly drained contexts and/or the restrictive/constrained nature of each APE [i.e., contained within existing ROW]). Based on the Archaeology Team's Master GIS Layers for PA Projects, there have been no PA-based archaeological surveys within a 5-mile radius of the proposed project.

From an historic transportation perspective, the current iteration of Bridge No. 24 is listed as being built in September 1971, as part of the NC 11/NC 42 new location project completed in the early to mid-1970s. LiDAR imagery and historic aerials, however, indicate an earlier road alignment and crossing located immediately adjacent to (i.e., east side) the current alignment. In fact, the access road fronting Hoggard Cemetery is the original alignment for the corridor. Historic maps suggest that some form of crossing at this location along the Cashie River was in place as early as the 1910s, possibly dating back to the late 1870s. Although interesting from an historic and evolving landscape perspective, any remnants of previous crossings would not be considered eligible in terms of the NRHP unless there was some overriding significance to the crossing and/or road itself, like the manner in which it was constructed or was representative of a historically significant transportation route, neither of which is anticipated in this instance.

Despite some of the information above (e.g., areas of well-drained soils beyond the limits of the APE but within what was first submitted as the Study Area), there is a low probability for significant prehistoric and/or historic archaeological materials to be present within the APE. Therefore, it is believed that the 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. Although Hoggard Cemetery is located just outside the project's APE and there are no impacts to the cemetery, please know that there should be no staging of materials, equipment, and/or vehicles within and adjacent to the limits of the cemetery. 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 Team.

**SUPPORT DOCUMENTATION**

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

**FINDING BY NCDOT ARCHAEOLOGIST: NO ARCHAEOLOGY SURVEY REQUIRED**

*Paul J Mohler*

May 11, 2023

NCDOT ARCHAEOLOGIST II

Date

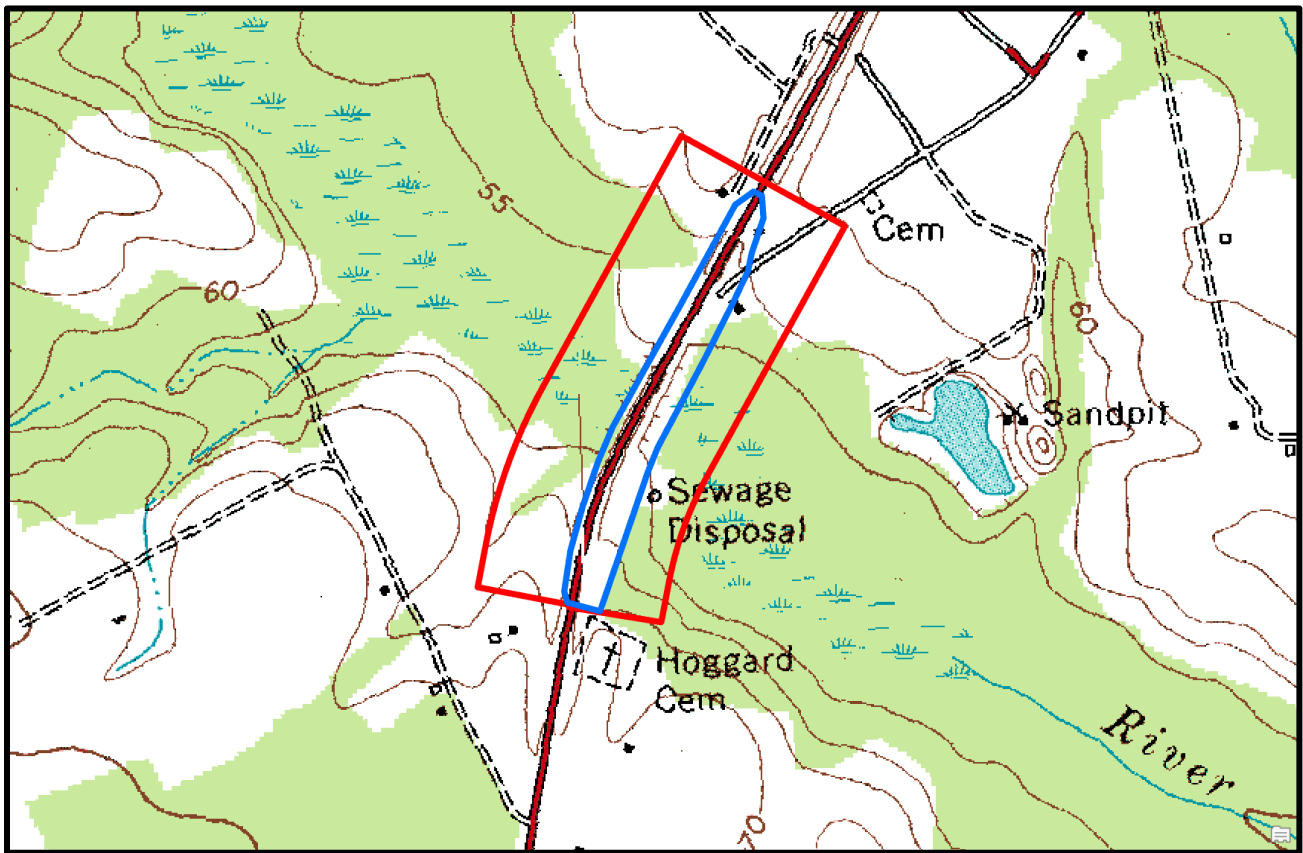


Figure 1: Kelford, NC (USGS 1973) [BLUE = APE; RED = Initial Study Area].





Figure 2: 1972 Aerial of the Project Area, available online: <https://www.historicaerials.com/viewer>, last accessed 11 May 2023.



Figure 3: 1954 Aerial of the Project Area, available online: <https://www.historicaerials.com/viewer>, last accessed 11 May 2023.



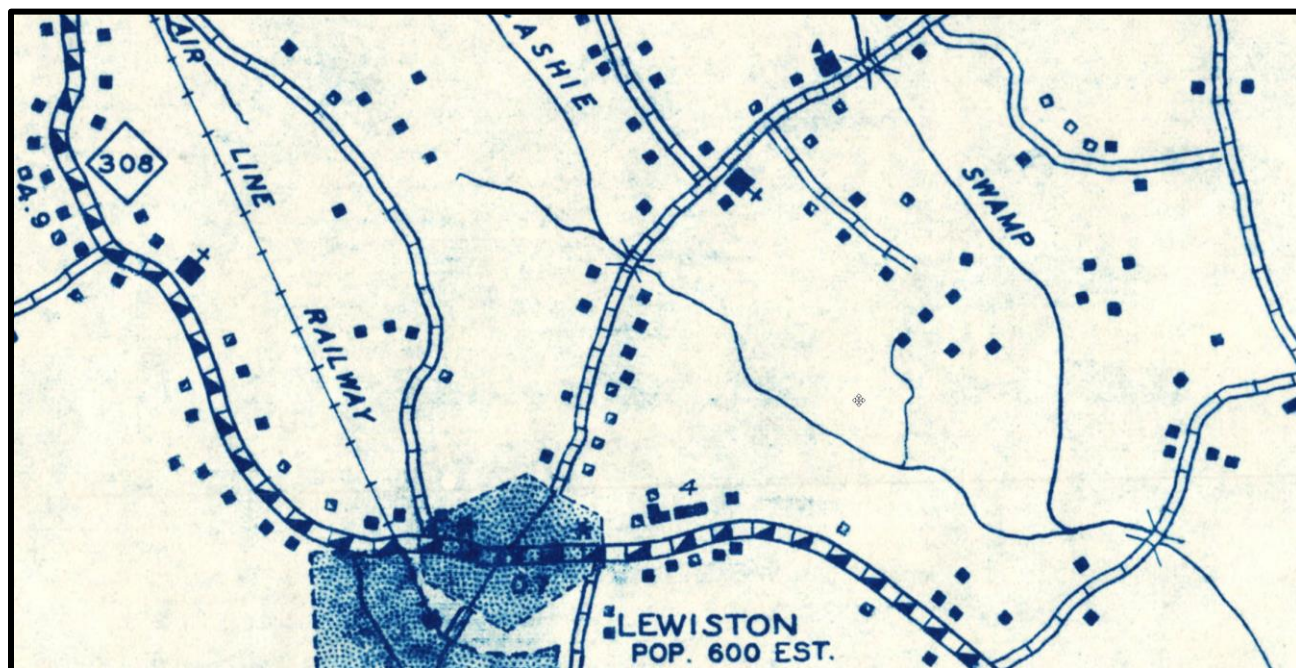


Figure 4: Bertie County, North Carolina (North Carolina State Highway and Public Works Commission 1938, available online: <https://dc.lib.unc.edu/cdm/singleitem/collection/ncmaps/id/428/rec/8>, last accessed 11 May 2023).



Figure 5: Rural Delivery Routes, Bertie County, NC (United States Post Office 1915/1920, available online: <https://dc.lib.unc.edu/cdm/singleitem/collection/ncmaps/id/1722/rec/4>, last accessed 11 May 2023).

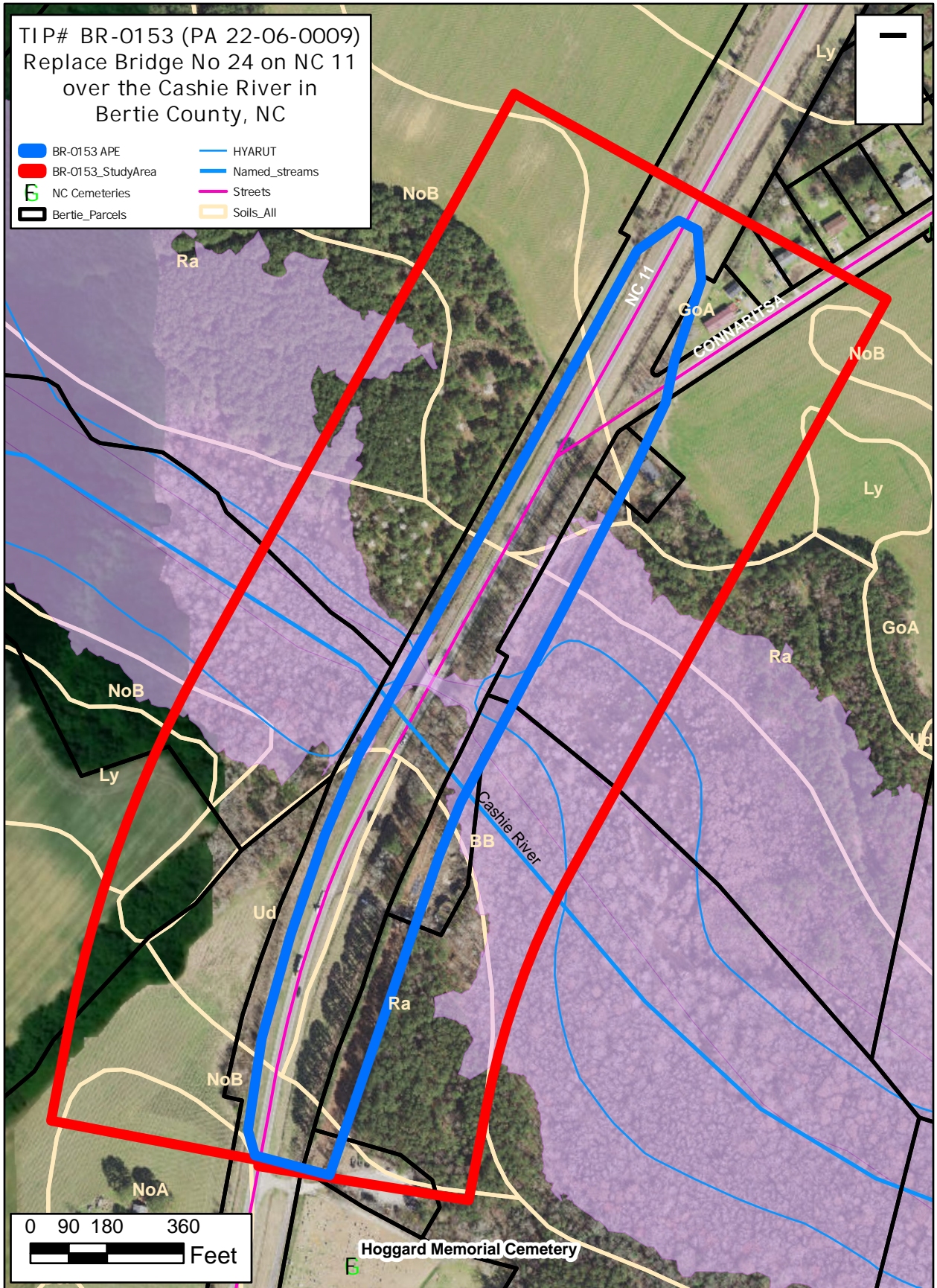


Figure 6: Historic Aerial dated 20 Sep 1937 (Slide ABQ-48-4609 from USDA Photograph Collection, State Archives of North Carolina, available online <https://www.flickr.com/photos/north-carolina-state-archives/47712877471/in/album-72157691133626693/>, last accessed 11 May 2023) [NB – the wide wooded Cashie River drainage].

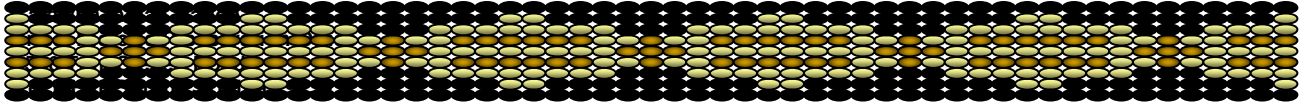


TIP# BR-0153 (PA 22-06-0009)  
Replace Bridge No 24 on NC 11  
over the Cashie River in  
Bertie County, NC

- BR-0153 APE
- BR-0153\_StudyArea
- NC Cemeteries
- Bertie\_Parcels
- HYARUT
- Named\_streams
- Streets
- Soils\_All







Office 803-328-2427  
Fax 803-328-5791

June 19, 2023

Attention: David Stutts  
NC Department of Transportation  
113 Airport Drive, Suite 100  
Edenton, NC 27932

Re. THPO #	TCNS #	Project Description
2023-193-163		Replacement of Bridge No. 24 over Cashie River on NC 11/NC 42 in Bertie Co.

Dear Mr. Stutts,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail [Caitlin.Rogers@catawba.com](mailto:Caitlin.Rogers@catawba.com).

Sincerely,

Wenonah G. Haire  
Tribal Historic Preservation Officer