



Pre-Construction Notification (PCN) Form

For Nationwide Permits and Regional General Permits
(along with corresponding Water Quality Certifications)

April 13, 2022 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/0/edoc/624704/PCN%20Help%20File%202018-1-30.pdf>

A. Processing Information

Pre-Filing Meeting Date Request was submitted on: *

10/22/2021

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

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

Pender

Is this a NCDMS Project? *

☐ Yes ☒ No

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

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

Is this project a public transportation project? *

☒ Yes ☐ No

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

Is this a NCDOT Project? *

☒ Yes ☐ No

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

B-5156

WBS # *

42331.1.2

(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

Regional General Permit (RGP) Number:

201902350 - Work associated with bridge construction, widening, replacement, and interchanges

RGP Numbers (for multiple RGPs):

List all RGP 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? *

Jason Dilday

1b. Primary Contact Email: *

jdilday1@ncdot.gov

1c. Primary Contact Phone: *

(xxx)xxx-xxxx

(919)707-6111

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: *

NC DOT

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

USA

2e. Telephone Number: *

(xxx)xxx-xxxx

(919)707-6111

2f. Fax Number:

(xxx)xxx-xxxx

2g. Email Address: *

maturchy@ncdot.gov

3. Applicant Information (if different from owner)

3a. Name: *

Jason Dilday

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

USA

3d. Telephone Number: *

(919)707-6111

(xxx)xxx-xxxx

3e. Fax Number:

(xxx)xxx-xxxx

3f. Email Address: *

jdilday1@ncdot.gov

C. Project Information and Prior Project History

1. Project Information

1a. Name of project: *

Bridge 28 over Long Creek on NC 210

1b. Subdivision name:

(if appropriate)

1c. Nearest municipality / town: *

Long Creek

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: *

34.439239

ex: 34.208504

Longitude: *

-78.025815

-77.796371

3. Surface Waters

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

Long Creek

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

C;Sw

[Surface Water Lookup](#)

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

Cape Fear

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

030300070704

River Basin Lookup

4. Project Description and History

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

Land use in the project vicinity consists primarily of forested communities, with agricultural fields and residential development.

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

☐ Yes ☒ No ☐ Unknown

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

2.13

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

(intermittent and perennial)

500

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

The purpose of this project is to replace a structurally deficient bridge.

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

This project involves replacing the 170-foot, 4 span bridge with a 205-foot, 5 span on a new alignment, slightly upstream of the existing bridge. Traffic will be maintained on the existing bridge during construction of the new structure. Standard road building equipment, such as trucks, dozers and cranes will be used.

5. Jurisdictional Determinations

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

☒ Yes ☐ No ☐ Unknown

Comments:

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

☒ Preliminary ☐ Approved ☐ Not Verified ☐ Unknown ☐ N/A

Corps AID Number:

Example: SAW-2017-99999

SAW-2015-00992

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

Name (if known): Eric Black

Agency/Consultant Company: North State Engineering

Other:

5d. List the dates of the Corp jurisdiction determination or State determination if a determination was made by the Corps or DWR.

PJD issued 12/13/2018

6. Future Project Plans

6a. Is this a phased project? *

☐ Yes ☒ No

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

D. Proposed Impacts Inventory

1. Impacts Summary

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

☒ Wetlands ☐ Streams-tributaries ☐ Buffers

☒ Open Waters ☐ Pond Construction

2. Wetland Impacts

If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.

"W." will be used in the table below to represent the word "wetland".

2a. Site # * (?)	2a1 Reason * (?)	2b. Impact type * (?)	2c. Type of W. *	2d. W. name *	2e. Forested *	2f. Type of Jurisdiction * (?)	2g. Impact area *

1	Fill	P	Riverine Swamp Forest	WA, WC	Yes	Both	0.692 (acres)
1	Excavation	P	Riverine Swamp Forest	WD	Yes	Both	0.038 (acres)
1	Mech. Clearing	P	Riverine Swamp Forest	WA, WC, WD	Yes	Both	0.198 (acres)

2g. Total Temporary Wetland Impact

0.000

2g. Total Permanent Wetland Impact

0.928

2g. Total Wetland Impact

0.928

2i. Comments:

An additional 0.246 ac of handclearing will occur in wetlands WA and WC.
0.98 ac of handclearing will occur to wetlands WB and WD due to overhead utility relocation.

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Site # [*] (?)	4a1. Impact Reason	4b. Impact type [*] (?)	4c. Name of waterbody (?)	4d. Activity type [*]	4e. Waterbody type [*]	4f. Impact area [*]
1	Bent removal	T	Long Creek	Dewatering	Tributary	0.01 (acres)

4g. Total temporary open water Impacts:

0.01

4g. Total permanent open water impacts:

0.00

4g. Total open water impacts:

0.01

4h. Comments:

E. Impact Justification and Mitigation



1. Avoidance and Minimization

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

The bridge will remain open to traffic as the new structure is constructed. 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: *

2:1 slopes were used to minimize impacts to existing wetlands where practicable. Stormwater is collected to outfall either outside of existing wetlands or where mechanized clearing will occur.

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)

4f. Non-riparian wetland mitigation requested:

(acres)

4h. Comments

4e. Riparian wetland mitigation requested:

(acres)

4g. Coastal (tidal) wetland mitigation requested:

(acres)

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:

This project occurs outside of an NC Riparian Buffer area.

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

Comments: *

Type I Categorical Exclusions do not require submittal to the State Clearing House.

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 minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.

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-Raleigh IPaC review of project area which lists; Northern long-eared bat, West Indian manatee, piping plover, red know, red-cockaded woodpecker, American alligator, green sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, Cooley's meadowrue, rough-leaved loosestrife and seabeach amaranth. Northern long-eared bat is covered under the PBO for the species. The American alligator does not require surveys due to its listing of Threatened Due to Similarity of Appearance. Habitat for Cooley's meadowrue and rough-leaved loosestrife exists in the study area. Surveys, most recently updated in July 2022 found no specimens. Surveys for Cooley's meadowrue and rough-leaved loosestrife will be updated prior to project construction. All other species received biological conclusions of No Effect, due to no habitat being present.

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? *

NOAA EFH mapper

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? *

NEPA documentation

8. Flood Zone Designation (Corps Requirement)

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

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

☒ Yes ☐ No

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

NCDOT Hydraulics Unit coordination with FEMA

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

FEMA maps

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](#)

B-5156 Pender February 2023.pdf

9.4MB

[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: *

Michael Turchy

Signature *

Michael Turchy

Date

2/23/2023

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
MARC RECKTENWALD
Director



February 21, 2023

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:

B-5156, Replace Bridge 28 over Long Creek on NC 210, Pender County

The purpose of this letter is to notify you that the North Carolina Department of Environmental Quality – Division of Mitigation Services (NCDEQ-DMS) will provide the mitigation for the subject project. Based on the information received from you on February 21, 2023, the impacts are located in CU 03030007 of the Cape Fear River basin in the Southern Outer Coastal Plain (SOCP) Eco-Region, and are as follows:

Cape Fear 03030007	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	0	0.930	0	0	0	0

The impacts and associated mitigation needs were not projected by the NCDOT in the 2022 impact data. NCDEQ – DMS commits to implementing sufficient compensatory mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of 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 Ms. Beth Harmon at 919-707-8420.

Sincerely,

for James B. Stanfill
DMS Deputy Director

cc: Mr. Monte Matthews, USACE – Raleigh
Ms. Amy Chapman, NCDWR
Mr. Brad Chilton, NCDOT – EAU
File: B-5156



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



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

February 20, 2023

North Carolina Department of Environmental Quality
N.C. Division of Coastal Management
400 Commerce Ave.
Morehead City, NC 28557

ATTN: Mr. Stephen Lane
NCDOT Coordinator

Subject: **Application for CAMA Major Development Permit** for the Proposed Replacement of Bridge No. 28 over Long Creek on NC210 in Pender County, North Carolina; TIP No. B-5156; Debit \$475 from WBS No. 42331.1.2

Dear Sirs,

The North Carolina Department of Transportation (NCDOT) proposes to replace the existing 170-foot, four-span bridge No. 28 with a 205-foot, four-span bridge on a new alignment, slightly upstream of the current structure. Traffic will be maintained on the existing bridge during construction. There are no impacts to coastal wetlands with this project. Permanent impacts to riparian wetlands managed by the USACE total 0.93 acre. Temporary impacts to Long Creek will occur due to the use of a work bridge for construction of the new bridge and removal of the existing structure. The work bridge is designed to match the low chord of the existing bridge. Aerial utilities will be relocated with minor impact to jurisdictional wetlands, due to hand clearing. Existing water lines will remain in place.

Please see enclosed copies of the Division of Coastal Management Major Permit Forms 1 and 5, permit drawings, stormwater management plan, utility drawings, and roadway plans for the above referenced project. A Categorical Exclusion (CE) was completed in July 2019 and distributed shortly after. Additional copies are available at the NCDOT website: <http://207.4.62.65/PDEA/EnvironmentalDocs/>

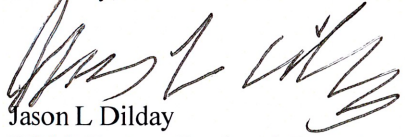
This project calls for a letting date of September 19, 2023, and a review date of August 1, 2023. The project schedule may be advanced if funding becomes available.

Regulatory Approvals

CAMA Major Development Permit: NCDOT requests that the proposed work be authorized under a Coastal Area Management Act Major Permit. Adjacent riparian landowner certified mail return receipts will be provided once they are received. Authorization to debit the \$475 Permit Application Fee from WBS Element 42331.1.2 is hereby given.

A copy of this permit application will be posted on the NCDOT Website at <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>, under *Quick Links > Permit Applications*. Should you have any questions regarding this information, please contact Jason Dilday at (919) 707-6111 or jldilday1@ncdot.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason L. Dilday", written over the printed name.

Jason L Dilday
ECAP Eastern Regional Team Lead

cc: NCDOT Permit Application Standard Distribution List



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



(Version 2.08; Released April 2018)

WBS Element: 42331.1.2 TIP No.: B-5156 County(ies): Pender Page 1 of 1

WBS Element:	42331.1.2	TIP Number:	B-5156	Project Type:	Bridge Replacement	Date:	6/14/2022
NCDOT Contact:	Mason Herndon	Contractor / Designer:	Kimley-Horn				
Address:	Highway Division 3	Address:	421 Fayetteville Street				
	5501 Barbados Blvd.		Suite #600				
	Castle Hayne, NC, 28429		Raleigh, NC, 27601				
	Phone: (910) 341-2036		Phone: (919) 653-6623				
Email:	tmherndon@ncdot.gov	Email:	vance.blanton@kimley-horn.com				
City/Town:	Long Creek	County(ies):	Pender				
River Basin(s):	Cape Fear	CAMA County?	Yes				
Wetlands within Project Limits?	Yes						

Project Description			
Project Length (lin. miles or feet):	0.392 miles	Surrounding Land Use:	Rural/Coastal
Proposed Project		Existing Site	
Project Built-Up Area (ac.):	1.6 ac.	1.4 ac.	
Typical Cross Section Description:	2 @ 12' wide lanes w/ 8' paved shoulders and 2:1 side slopes Number of Spans: 4 Span Arrangement: 2@45'-0", 1@65'-0", 1@50'-0" 24" Cored Slab on SR 1120, 45" Girder deck w/ 4'-0" caps and spill though abutments, 90 sew; Bridge Length: 205 FT	Number of Spans: 4 Span Arrangement: 42'-8", 42'-5", 42'-9", 41'-9" ; Concrete Girder Deck w/ Vertical Abutment Bridge Length: 170 FT	
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 3600 Year: 2040	Existing:	3000 Year: 2020
General Project Narrative: (Description of Minimization of Water Quality Impacts)	<p>The bridge replacement on NC 210 conveys Long Creek from North to South and ultimately drains into the Northeast Cape Fear River. The existing bridge, overall length OAL = 170' and width 32' will be replaced with a bridge having an OAL = 205' and width = 32'. The new bridge is longer than the existing bridge to accommodate the spatial difference between the previous bridge location to the new location. The proposed bridge and roadway improvements minimized the existing overtopping condition and maintain a minimal transition between existing and new roadway.</p> <p>The runoff from the bridge is caught by the low side of the bridge in the shoulder berm gutter and traffic bearing 2GI's on all four sides of the bridge. The 15" pipe systems with elbows are designed to outfall (with rip rap outlet protection) either outside of the existing wetlands or where mechanized clearing has occurred.</p> <p>Long Creek is a FEMA stream that is shown on Flood Insurance Rate Map (FIRM) panel 370344-2295-J, dated 02/16/2007. A hydraulic analysis on Long Creek was performed to assess the potential flood level increases associated with this project. Based on this analysis, the proposed bridge replacement project was not shown to cause an increase, but instead cause a maximum decrease in base flood elevation of 0.3'. This project qualifies for an MOA Type 2a.</p> <p>Additionally, rock platting has been used on slopes of 2:1 to prevent increased impacts to the existing wetlands.</p>		

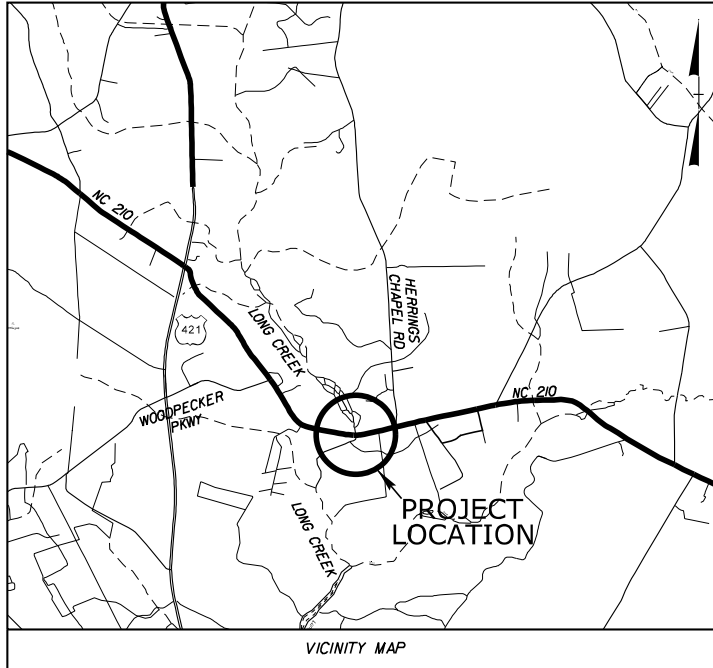
Waterbody Information			
Surface Water Body (1):	Long Creek	NCDWR Stream Index No.:	18-74-55
NCDWR Surface Water Classification for Water Body	Primary Classification:	Class C	
	Supplemental Classification:	Swamp Waters (SW)	
Other Stream Classification:	Anadromous Fish		
Impairments:	None		
Aquatic T&E Species?	No	Comments:	
NRTR Stream ID:		Buffer Rules in Effect:	N/A
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No
Deck Drains Discharge Over Water Body?	No	(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)			

09/08/99

\$DATE\$

TIP PROJECT: B-5156

CONTRACT:

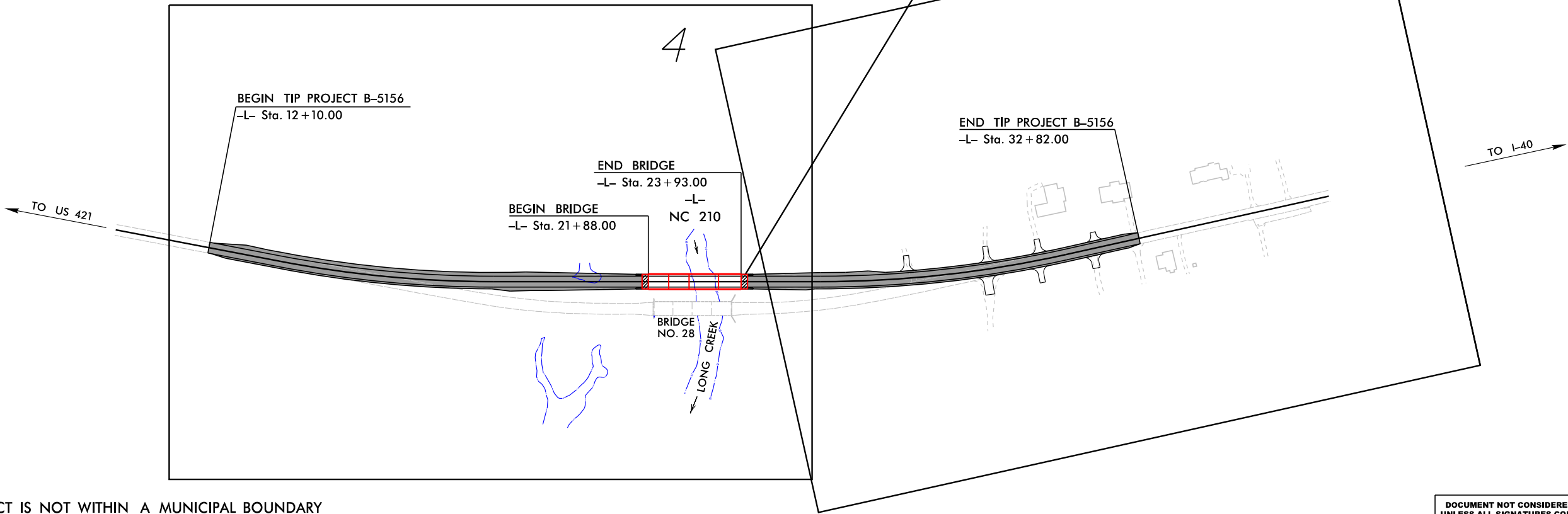


RW PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PENDER COUNTY

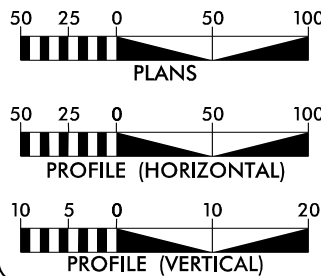
LOCATION: BRIDGE 28 OVER LONG CREEK ON NC 210
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

WETLAND AND SURFACE WATER
IMPACTS PERMIT
FEBRUARY 28, 2022



THIS PROJECT IS NOT WITHIN A MUNICIPAL BOUNDARY
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY MODIFIED METHOD III

GRAPHIC SCALES



DESIGN DATA

AADT 2020 = 3,000
AADT 2040 = 3,600
K = 10%
D = 55%
T = 12%*
V = 60 MPH
* (TTST 4% + DUAL 8%)
FUNCTIONAL RURAL MAJOR
CLASSIFICATION: COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5156 = 0.353 MILES
LENGTH STRUCTURES TIP PROJECT B-5156 = 0.039 MILES
LENGTH ROADWAY TIP PROJECT B-5156 = 0.392 MILES

PLANS PREPARED FOR
THE NCDOT BY:

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
AUGUST 28, 2019

LETTING DATE:
SEPTEMBER 21, 2021

Kimley»Horn

JEFFREY W. MOORE, P.E.
PROJECT ENGINEER
SETH DENNEY, P.E.
PROJECT DESIGN ENGINEER
DAVID STUTTS, P.E.
STRUCTURES MANAGEMENT UNIT
PROJECT ENGINEER-
PEE/PROGRAM MANAGEMENT

HYDRAULICS ENGINEER

SIGNATURE: P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

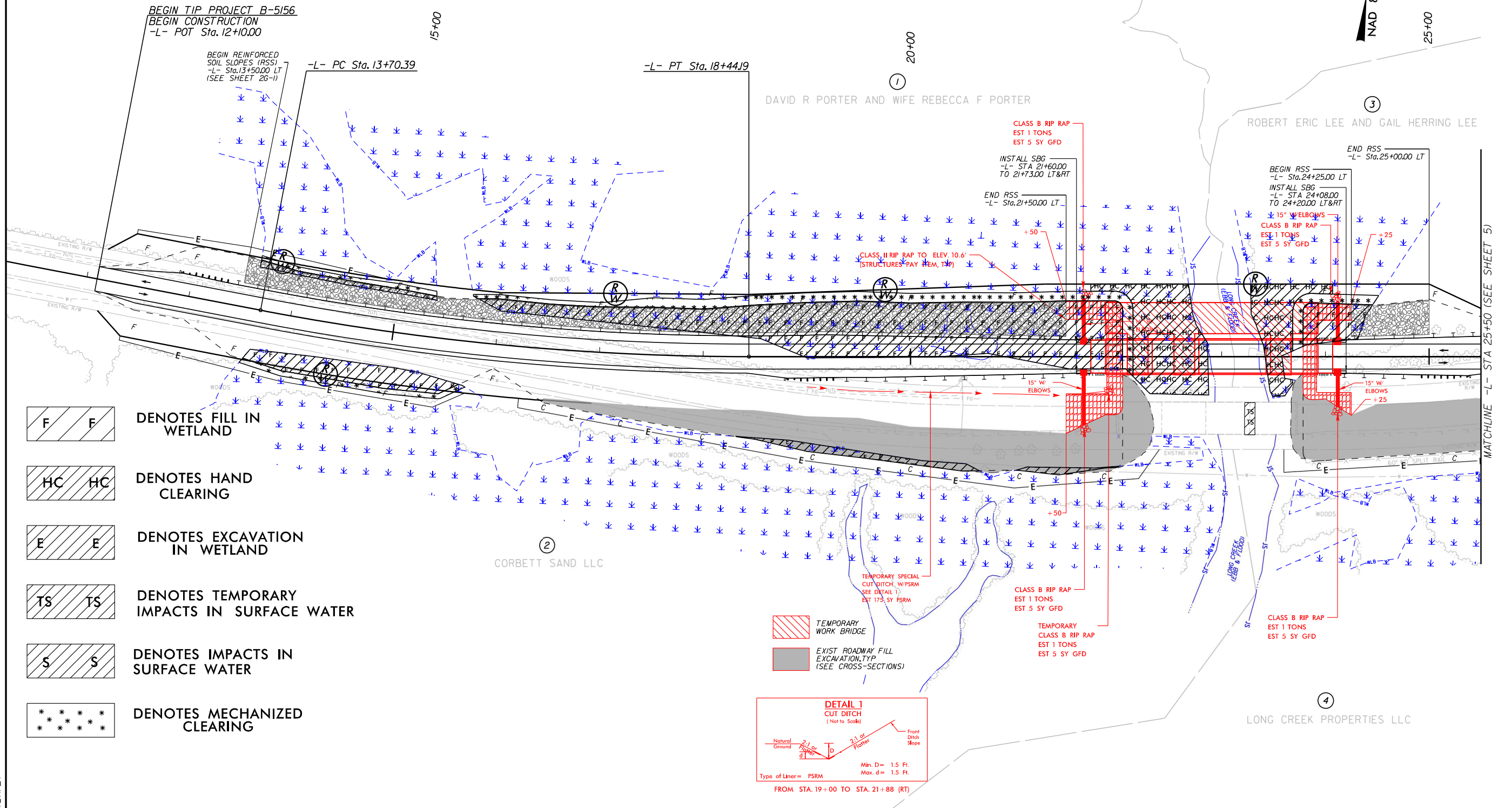


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5156	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
42331.1.2		P.E.	
42331.2.1		RIGHT OF WAY	
42331.2.1		UTILITIES	

PERMIT DRAWING
SHEET 1 OF 8



\$DATE\$



PROJECT REFERENCE NO.	SHEET NO.
B-5/56	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>	
	<p>PERMIT DRAWING SHEET 2 OF 8</p>

5/14/99

\$DATE\$

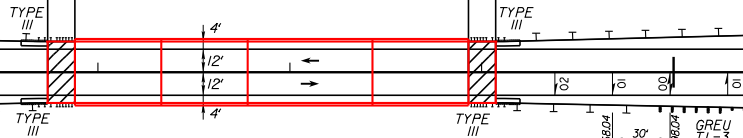
NAD 83/NA 2011

BEGIN APPROACH SLAB
-L- Sta. 21+73.83

END BRIDGE
-L- Sta. 24+25.00

BEGIN BRIDGE
-L- Sta. 21+88.00

END APPROACH SLAB
-L- Sta. 24+07.17



DETAIL SHOWING BRIDGE /PAVEMENT RELATIONSHIP

BEGIN TIP PROJECT B-5156

BEGIN CONSTRUCTION
-L- POT Sta. 12+10.00

BEGIN REINFORCED
SOIL SLOPES (RSS)
-L- Sta. 13+50.00 LT
(SEE SHEET 26-1)

-L- PC Sta. 13+70.39

-L- PT Sta. 18+44.19

SITE 1

DAVID R PORTER AND WIFE REBECCA F PORTER

ROBERT ERIC LEE AND GAIL HERRING LEE

END RSS
-L- Sta. 25+00.00 LT

BEGIN RSS
-L- Sta. 24+25.00 LT

INSTALL SFG
-L- STA 24+08.00
TO 24+20.00 LT&RT

END RSS
-L- Sta. 21+50.00 LT

CLASS B RIP RAP
EST 1 TONS
EST 5 SY GFD

INSTALL SFG
-L- STA 21+60.00
TO 21+73.00 LT&RT

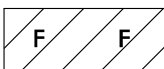
CLASS B RIP RAP TO ELEV. 10.6'
(STRUCTURES PAY ITEM 11.1)

CLASS B RIP RAP
EST 1 TONS
EST 5 SY GFD

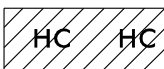
15" W/ ELBOWS
+25

15" W/ ELBOWS
+50

15" W/ ELBOWS
+25



DENOTES FILL IN
WETLAND



DENOTES HAND
CLEARING



DENOTES EXCAVATION
IN WETLAND



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



DENOTES IMPACTS IN
SURFACE WATER



DENOTES MECHANIZED
CLEARING

CORBETT SAND LLC

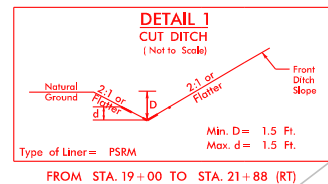
LONG CREEK PROPERTIES LLC



TEMPORARY
WORK BRIDGE



EXIST. ROADWAY FILL
EXCAVATION, TYP
(SEE CROSS-SECTIONS)



MATCHLINE -L- STA 25+50 (SEE SHEET 5)

5/14/99

Kimley»Horn

P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.

B-5156

SHEET NO.

6

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 4 OF 8

BRIDGE HYDRAULIC DATA
BRIDGE 700028

DESIGN DISCHARGE = 6030 CFS
DESIGN FREQUENCY = 50 YR
DESIGN HW ELEVATION = 9.6 FT
BASE DISCHARGE = 7590 CFS
BASE FREQUENCY = 100 YR
BASE HW ELEVATION = 10.9 FT
OVERTOPPING DISCHARGE = 12000 CFS
OVERTOPPING FREQUENCY = 500+ YR
OVERTOPPING ELEVATION = 12.8
DATE OF SURVEY = 02/06/19
W.S.ELEVATION AT DATE OF SURVEY = 2.0 FT

BM*1
ELEV = 8.21'
-L- STATION 24+37.93
153.89' RIGHT
N 252204 E 2293845
TIE SPIKE SET IN 24" PINE

BEGIN BRIDGE
-L- STA 21+88.00
ELEV = 18.20'

END BRIDGE
-L- STA 23+93.00
ELEV = 17.59'

PI = 17+60.00
EL = 14.22'
VC = 180'
K = 257

PI = 22+83.00
EL = 19.45'
VC = 380'
K = 152

BEGIN TEMPORARY
SPECIAL DITCH GRADE RT
-L- STA 19+00
ELEV = 12.73'

END TEMPORARY
SPECIAL DITCH GRADE RT
-L- STA 21+88
ELEV = 11.86'

100-YR W.S.E.L. = 10.9'
DESIGN 150-YR W.S.E.L. = 9.6'
W.S.E.L. (02-06-19) = 2.0'

TEMPORARY WORK BRIDGE TO
MATCH EXISTING LOW CHORD

SEE SHEET NO.4 FOR -L- PLAN

-L- (NC 210)

BM2 ELEVATION = 23.72'
-L- STA 37+12.00
N 53°07'23.5" DIST 217.96'
TIE SPIKE SET IN 24" OAK

END GRADE
-L- STA 32+82.00
ELEV = 17.30'
MILL NOTCH TO KEY-IN
TIE TO EXIST PAVEMENT

PI = 27+55.00
EL = 12.37'
VC = 360'
K = 140

PI = 30+43.00
EL = 15.47'
VC = 180'
K = 579

BEGIN SPECIAL
DITCH GRADE LT
-L- STA 26+75
ELEV = 9.33'

END SPECIAL
DITCH GRADE LT
-L- STA 27+50
ELEV = 9.70'

BEGIN SPECIAL
DITCH GRADE RT
-L- STA 29+05
ELEV = 9.07'

END SPECIAL
DITCH GRADE RT
-L- STA 32+38
ELEV = 13.03'

-L- (NC 210)

SEE SHEET NO.5 FOR -L- PLAN

\$DATE\$

8/23/99

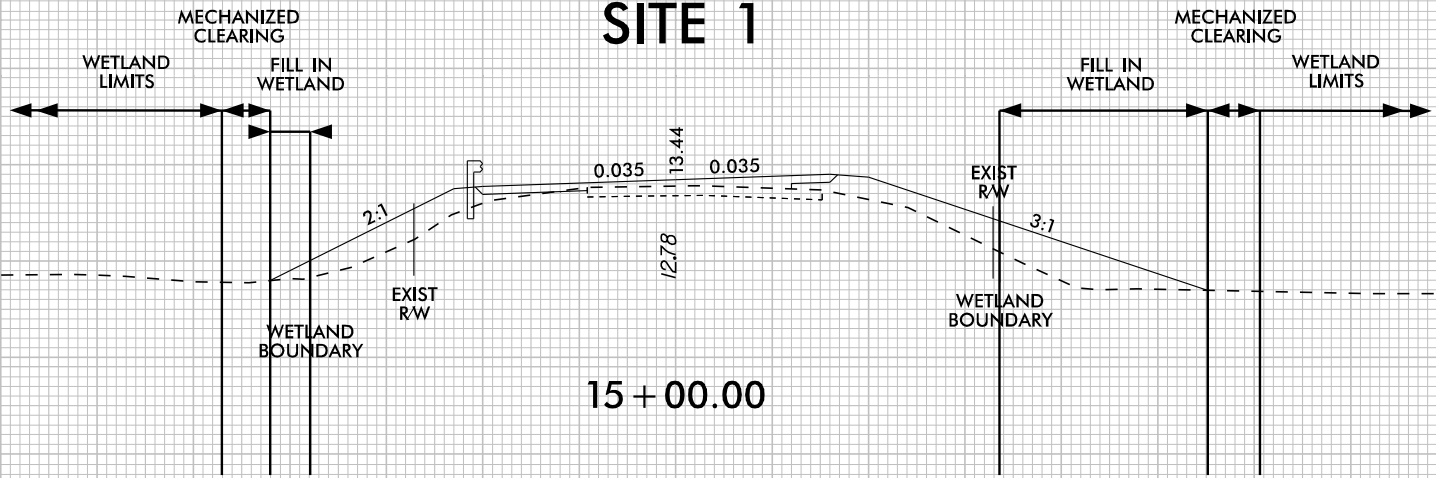
\$DATE\$

SITE 1

0 5 10	PROJ. REFERENCE NO. B-5/56	SHEET NO. X-2
PERMIT DRAWING SHEET 5 OF 8		

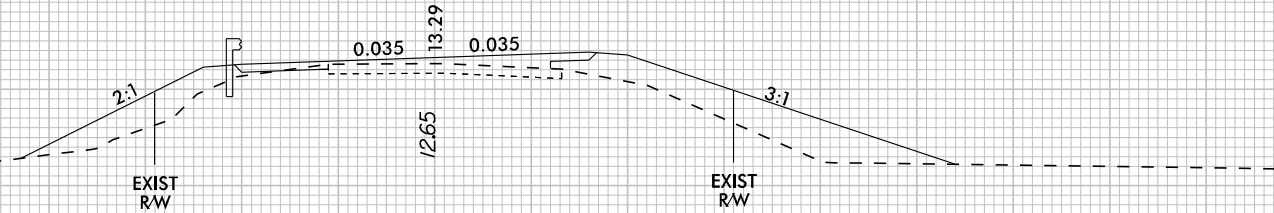
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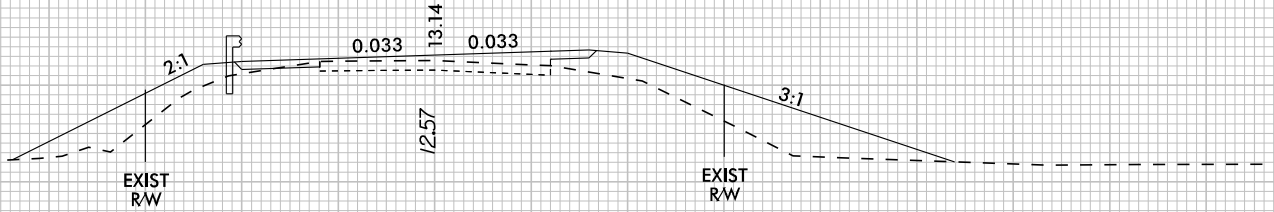
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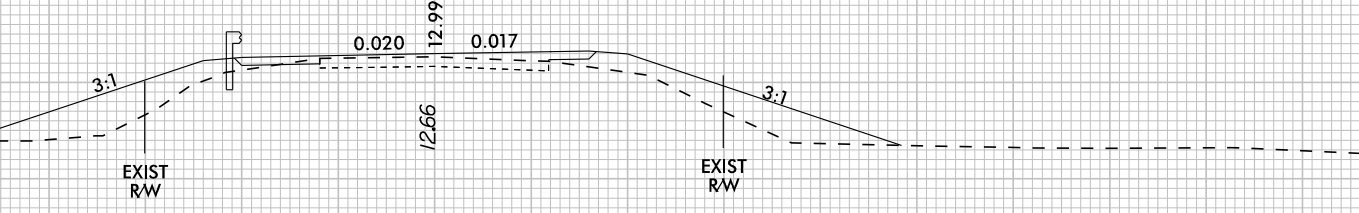
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—/—

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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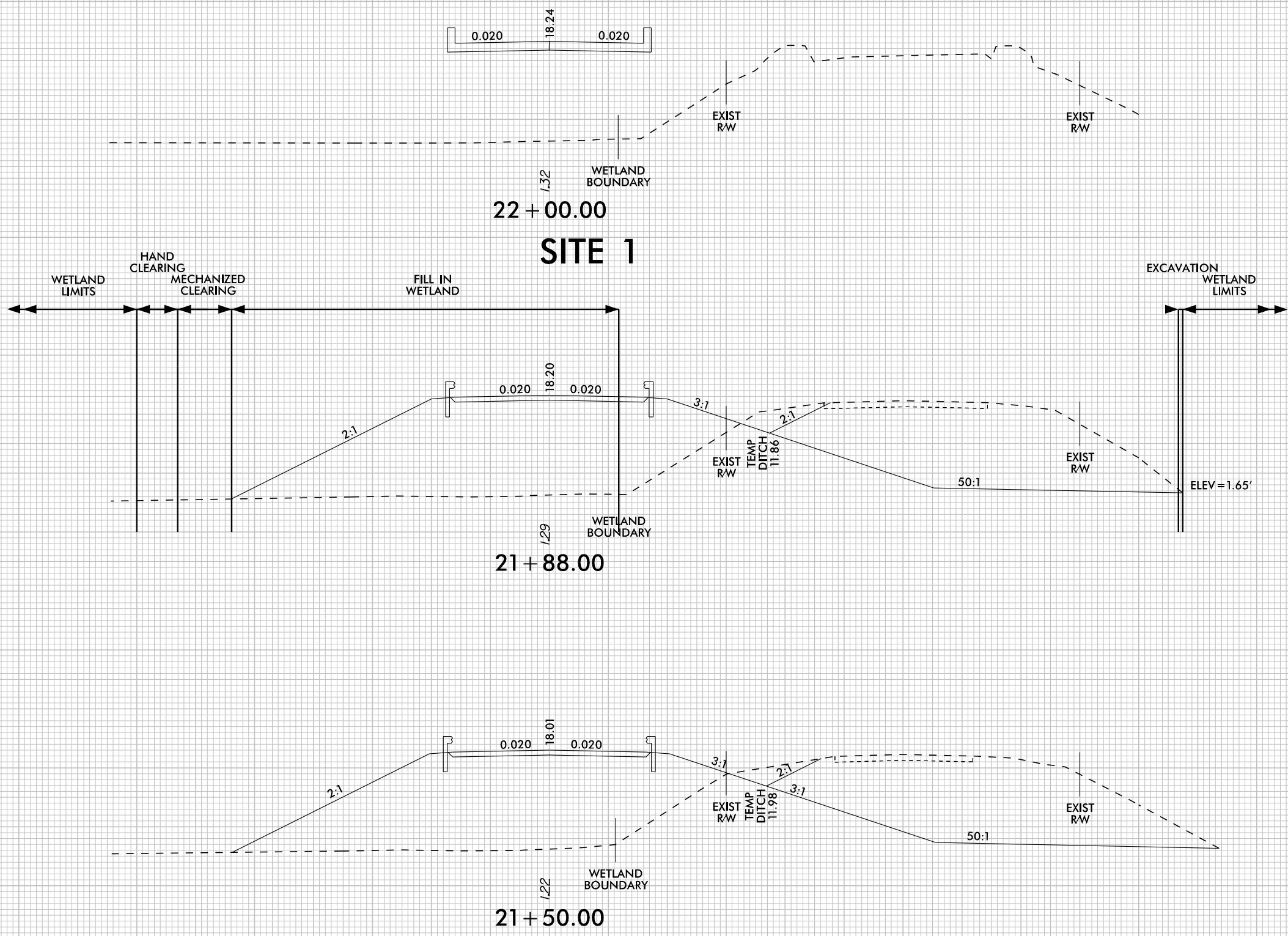
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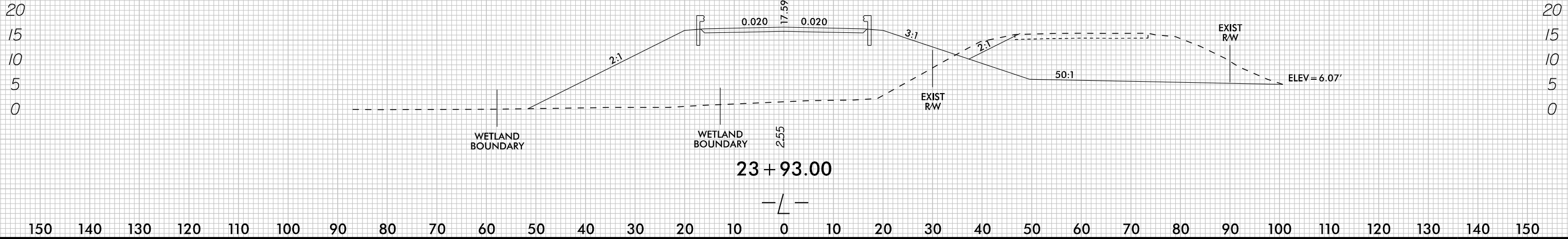
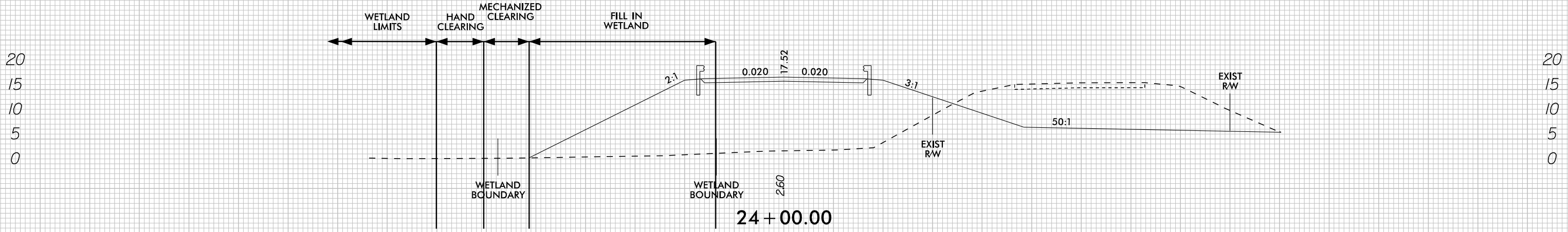
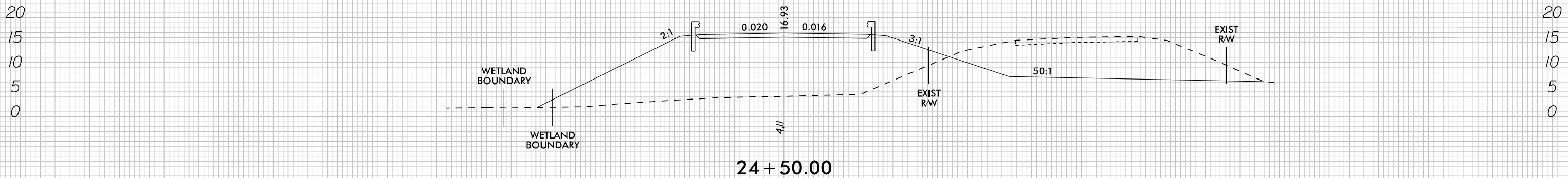
20
15
10
5
0

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



8/23/99

\$DATE\$



WETLAND AND SURFACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	13+59.39 to 24+51.61	205' BRIDGE / Temp Work Bridge	0.692		0.038	0.198	0.246		0.007		31	
TOTALS*:			0.692		0.038	0.198	0.246		0.007	0	31	0

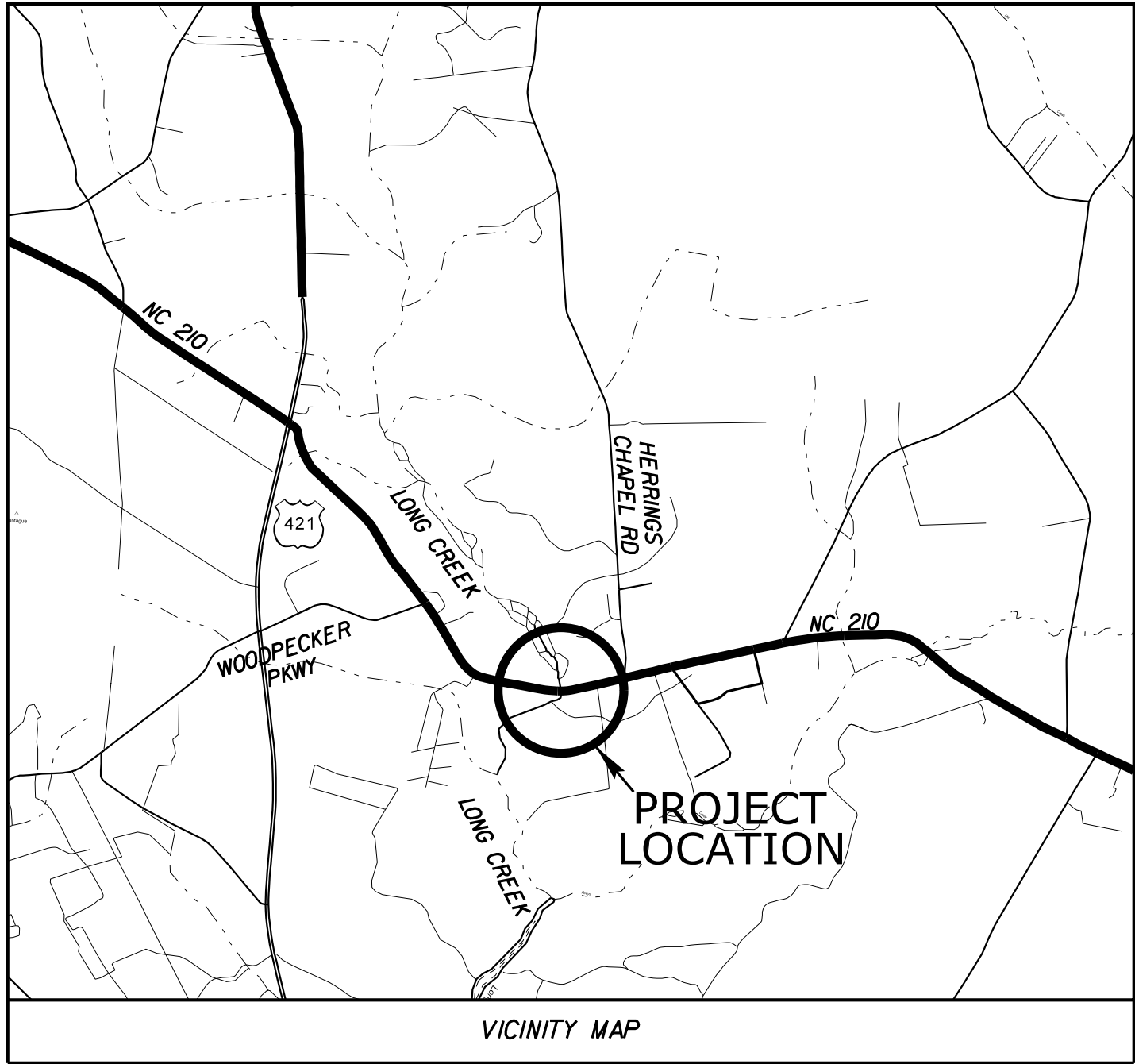
*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
02/28/2022
Pender County
B-5156
42331.1.2

09/08/99

TIP PROJECT: B-5156

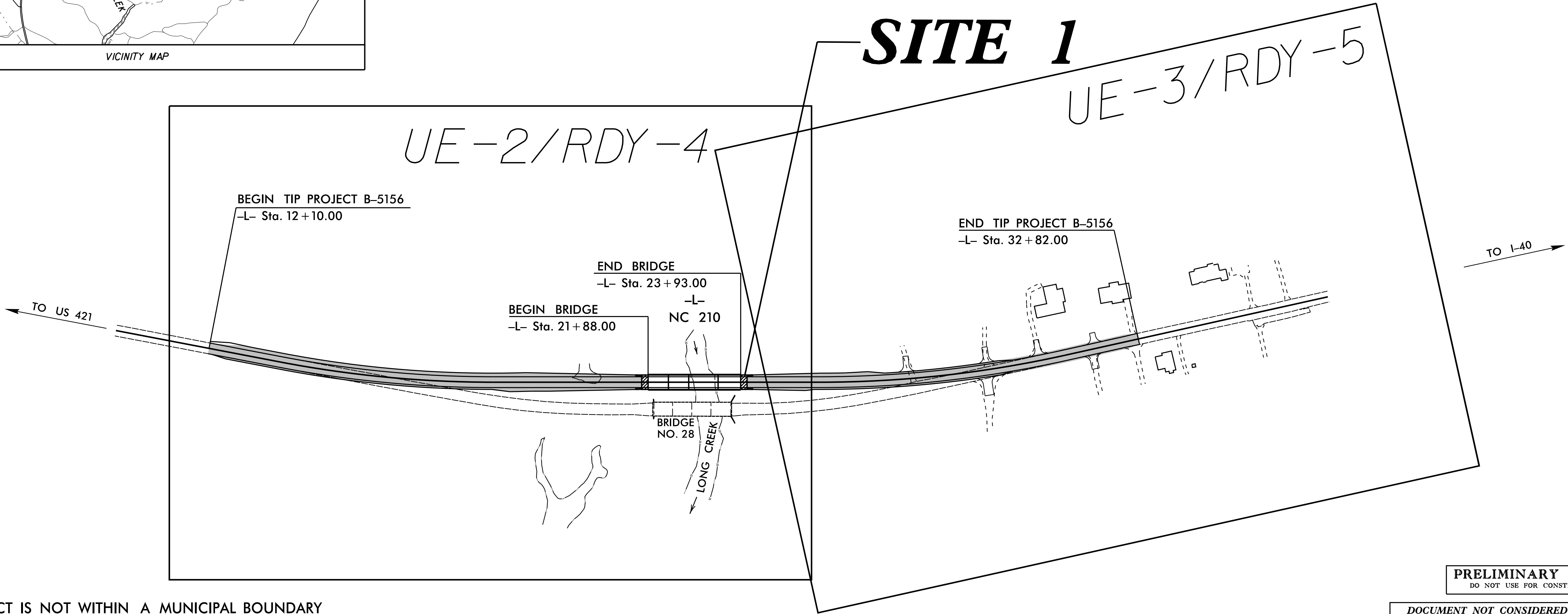


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
B-5156	UE-1

UTILITIES ENVIRONMENTAL PERMIT PLANS
PENDER COUNTY

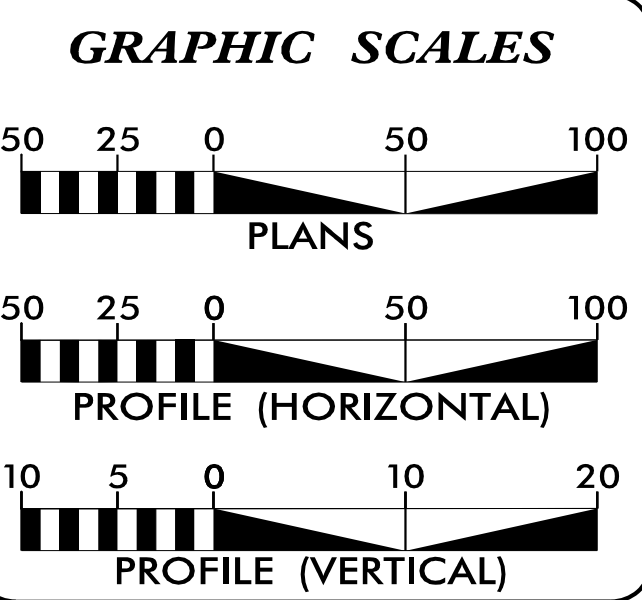
LOCATION: BRIDGE 28 OVER LONG CREEK ON NC 210
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES
UTILITIES: RELOCATION OF AT&T FIBER. ALL OTHER UTILITIES TO REMAIN.



THIS PROJECT IS NOT WITHIN A MUNICIPAL BOUNDARY
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY MODIFIED METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

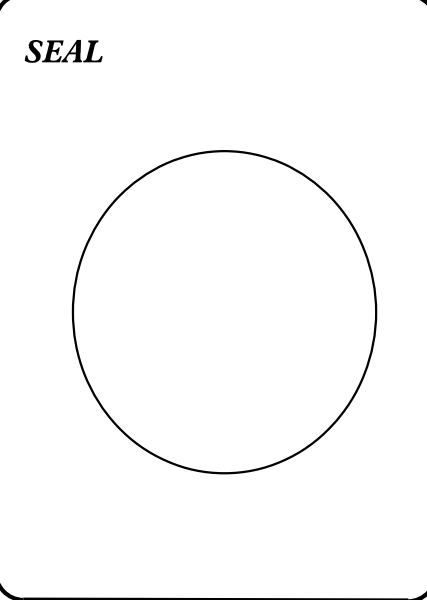
DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED



SHEET NO.:	DESCRIPTION:
UE-1	TITLE SHEET
UE-2 /UE-3	UTILITY ENVIRONMENTAL PLANSHEETS
UE-4	PROFILE SHEETS

UTILITY OWNERS ON PROJECT
(A) WATERSANITARY SEWER: PENDER COUNTY
(B) ELECTRIC: DUKE ENERGY
(C) FIBER: AT&T
(D) TELEPHONE: AT&T
(E) CABLE: CHARTER

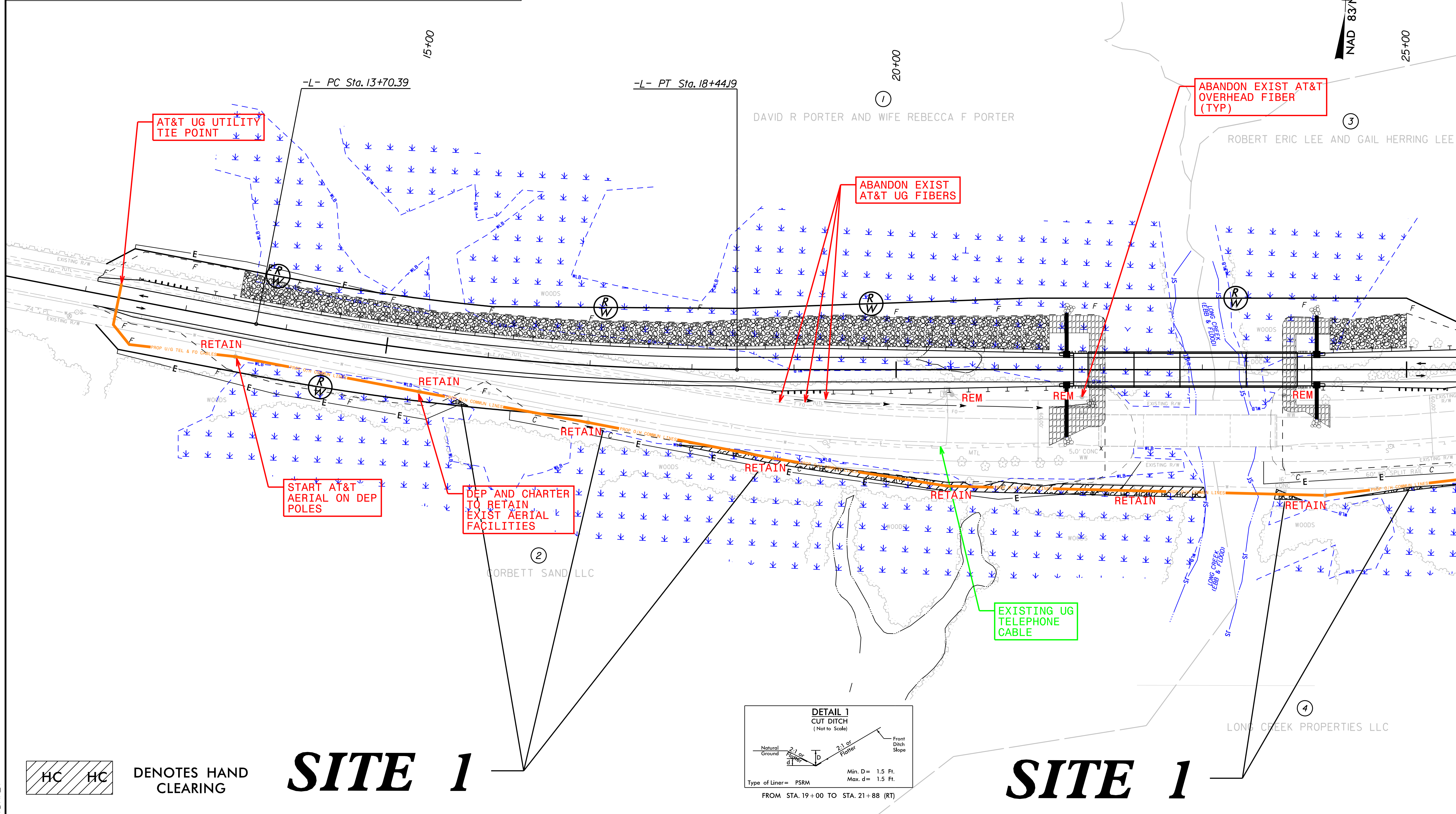
PREPARED IN THE OFFICE OF
Kimley »Horn
PROJECT DESIGN ENGINEER
STRUCTURES ENGINEER
HYDRAULIC ENGINEER



DIVISION OF HIGHWAYS UTILITIES UNIT	
1555 MAIL SERVICES CENTER	
RALEIGH, NC 27699-1555	
PHONE (919) 707-6690	
FAX (919) 250-4151	
NABIL HAMDAN	UTILITIES REGIONAL ENGINEER
LARRY JAMES JR	UTILITIES ENGINEER
TANGA SAMPSON	UTILITIES AREA COORDINATOR
LARRY JAMES JR	SENIOR UTILITIES COORDINATOR

\$DATE\$

NAD 83/NA 2011



P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
B-5/56	UE -2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>	

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

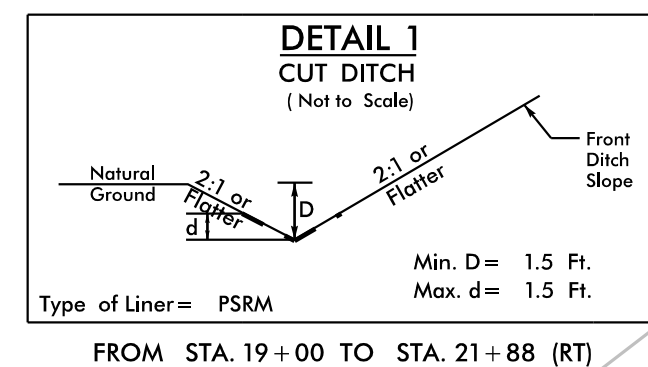
DAVID R PORTER AND WIFE REBECCA F PORTER

ROBERT ERIC LEE AND GAIL HERRING LEE

ABANDON	EXIST
AT&T UG	FIBERS

ABANDON EXIST AT&T
OVERHEAD FIBER
(TYP)

EXISTING UG
TELEPHONE
CABLE



SITE 1

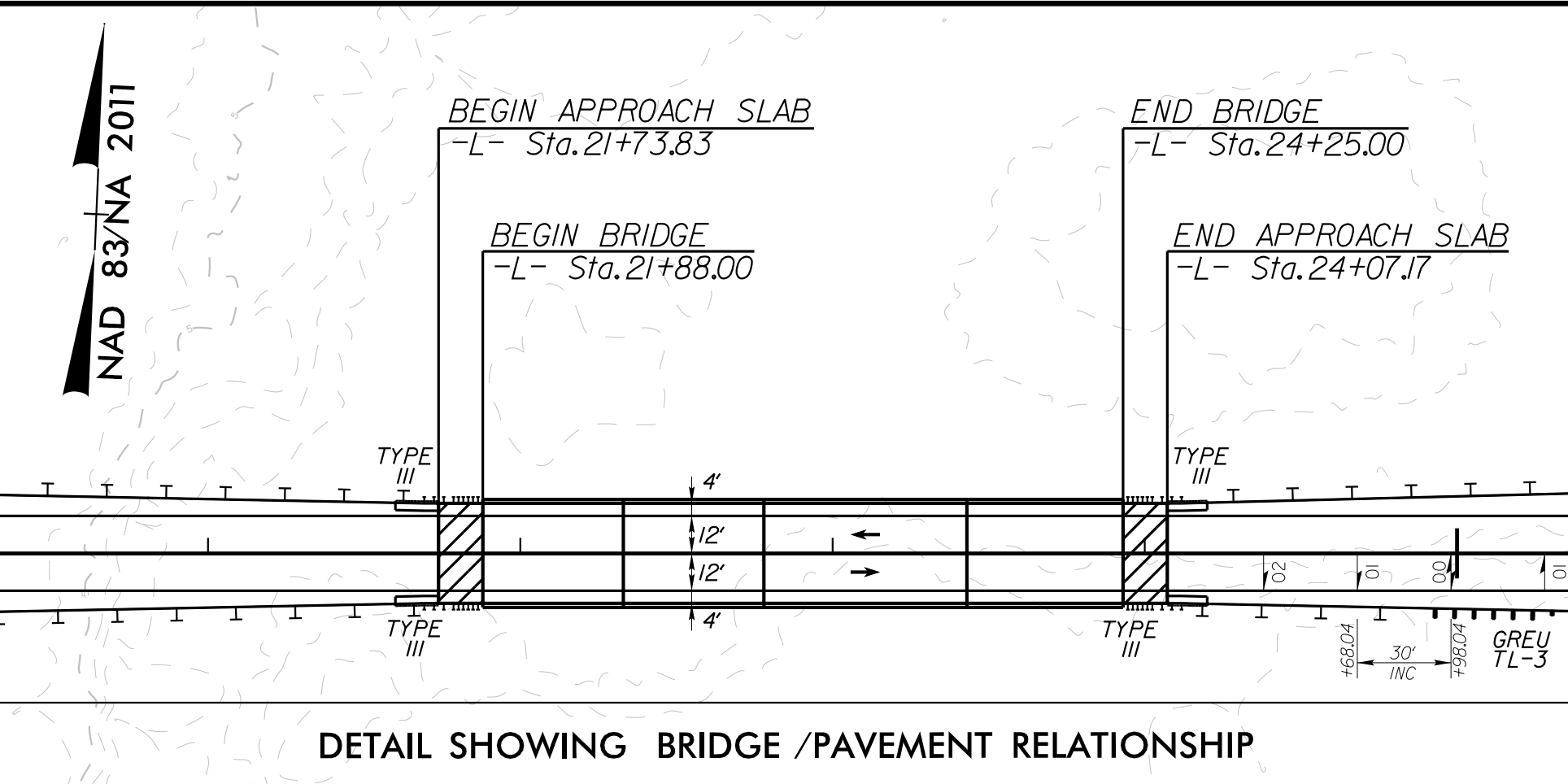
SITE 1

DENOTES HAND
CLEARING

5/14/99

\$DATE\$

NAD 83/NA 2011



DETAIL SHOWING BRIDGE / PAVEMENT RELATIONSHIP

Kimley»Horn

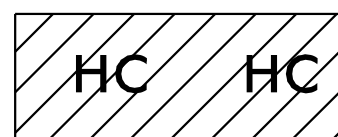
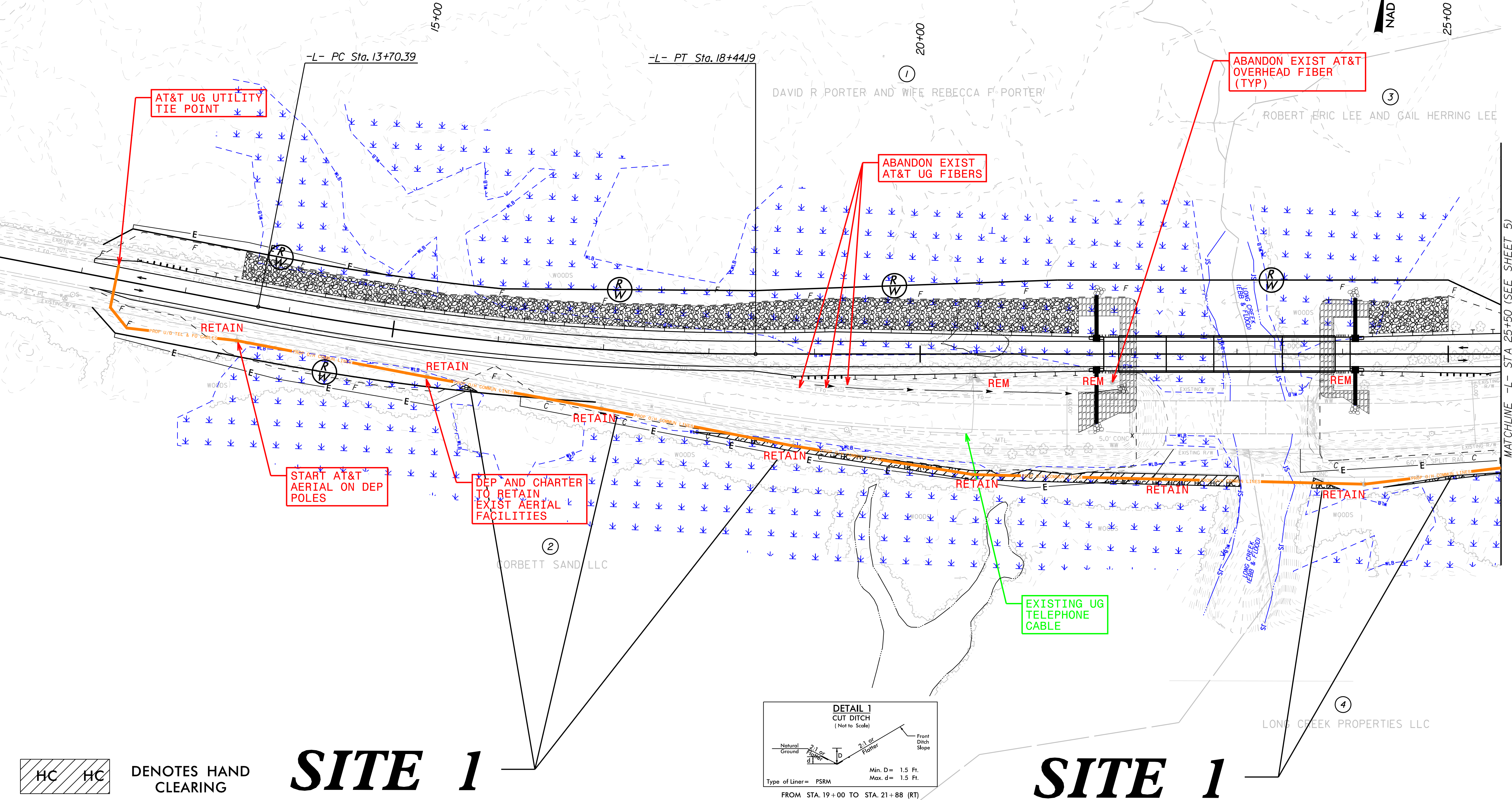
P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.		SHEET NO.
B-5156		UE-2(CON)
R/W SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

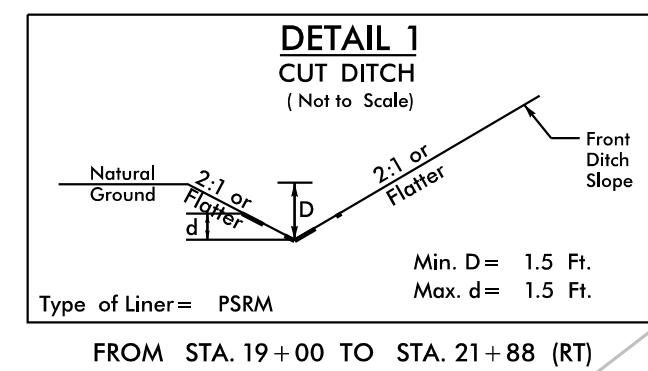
NAD 83/NA 2011

25+00



DENOTES HAND
CLEARING

SITE 1



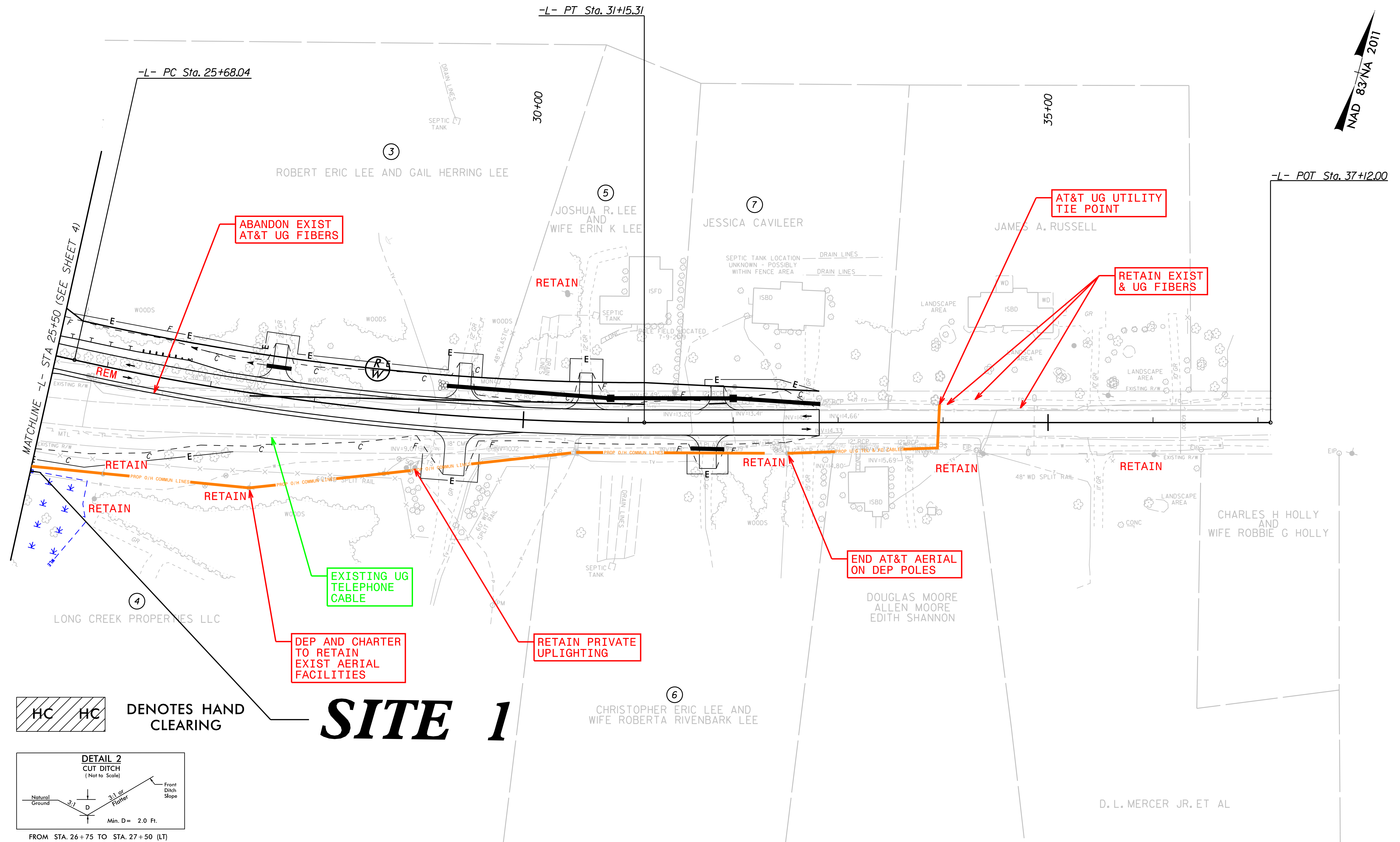
SITE 1

\$DATE\$

TESTES HAND HEARING

P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.		SHEET NO.	
B-5/56		UE-3	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<p align="center">DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>			



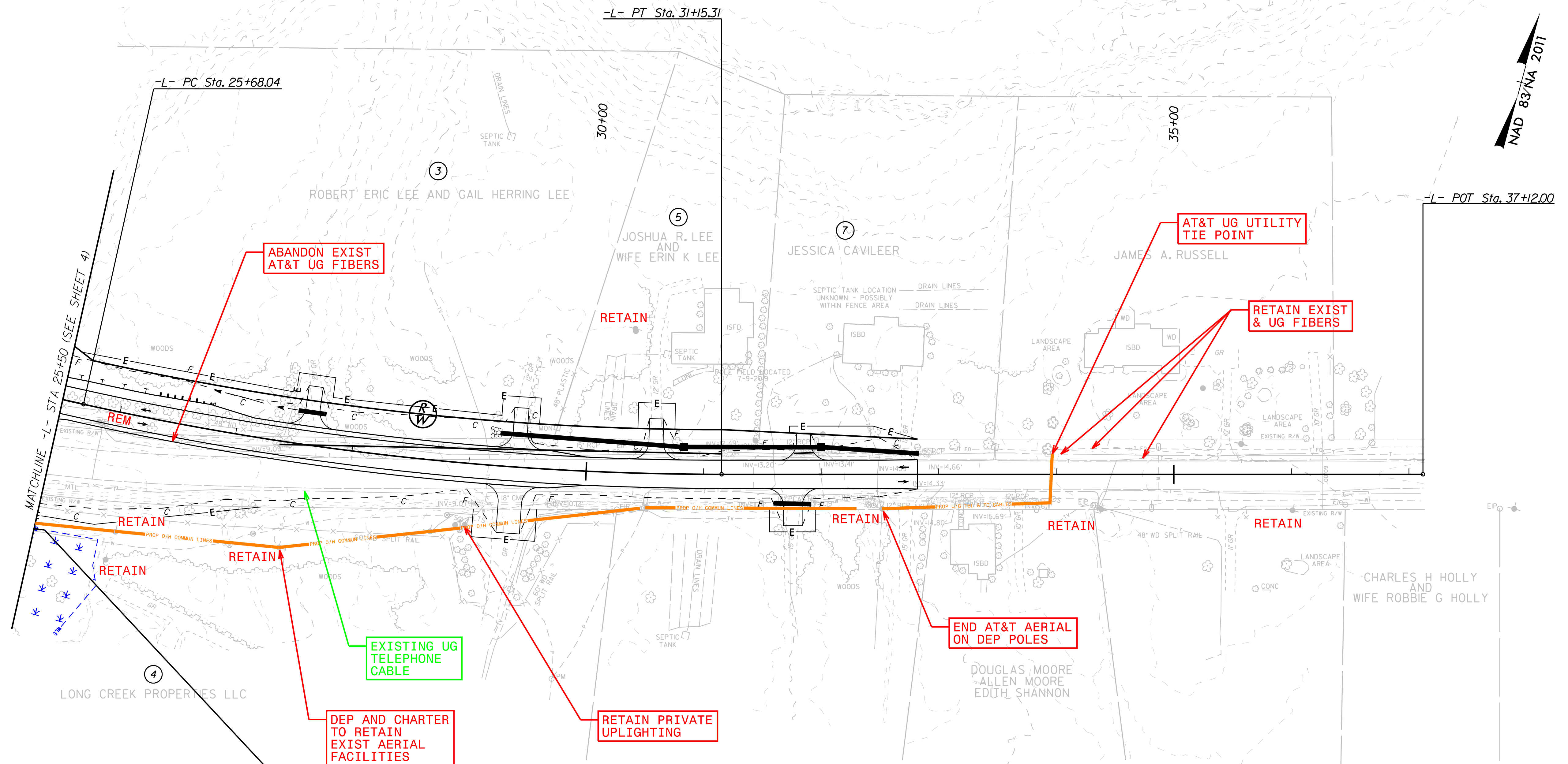
P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.		SHEET NO.	
<i>B-5156</i>		<i>UE-3(CON)</i>	
RW. SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<p align="center">DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>			

NAD 83/NA 2011

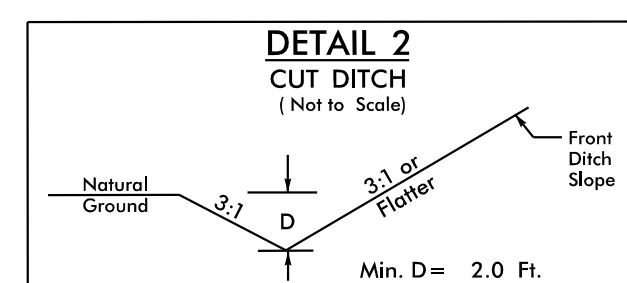
-L-

PI Sta 28+42.77
 $\Delta = 12^\circ 32' 32.8" (LT)$
 $D = 2^\circ 17' 30.6"$
 $L = 547.27'$
 $T = 274.73'$
 $R = 2,500.00'$
 $SE = 0.035$
 $RO = 105'$



DENOTES HAND
CLEARING

SITE 1



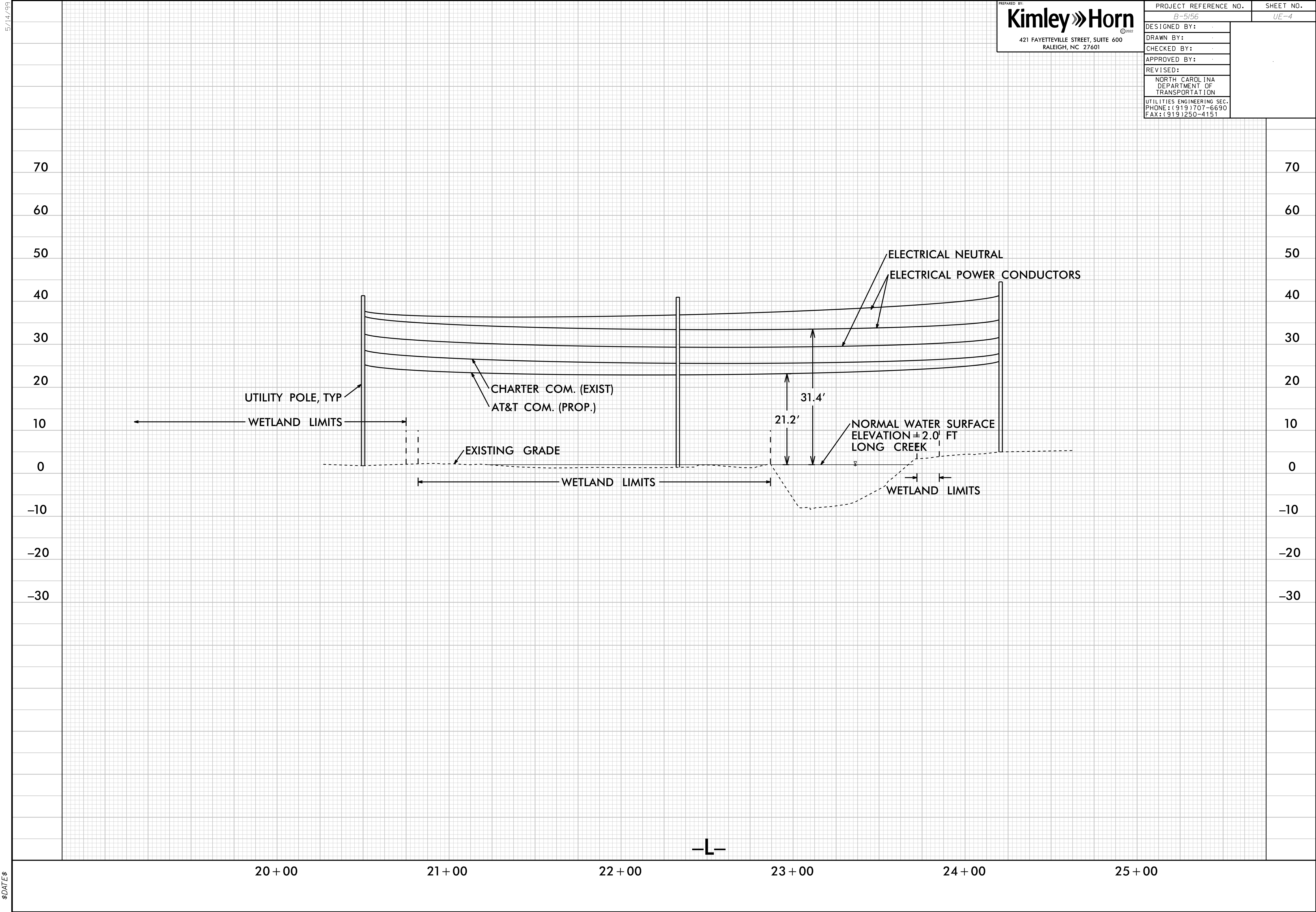
FROM STA. 26+75 TO STA. 27+50 (LT)

D. L. MERCER JR. ET AL.

REVISIONS

5/14/99

\$DATE\$



\$DATE\$

APPLICATION for Major Development Permit

(last revised 12/27/06)



North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information				
Business Name North Carolina Department of Transportation		Project Name (if applicable) B-5156		
Applicant 1: First Name Jaime	MI	Last Name Lancaster		
Applicant 2: First Name N/A	MI	Last Name		
<i>If additional applicants, please attach an additional page(s) with names listed.</i>				
Mailing Address 1598 Mail Service Center		PO Box	City Raleigh	State NC
ZIP 27909-1598	Country USA	Phone No. 919 - 707 - 6065 ext.		FAX No. - -
Street Address (if different from above) 1000 Birch Ridge Drive		City Raleigh	State N C	ZIP 27610 -
Email				

2. Agent/Contractor Information				
Business Name N/A				
Agent/ Contractor 1: First Name	MI	Last Name		
Agent/ Contractor 2: First Name	MI	Last Name		
Mailing Address		PO Box	City	State
ZIP		Phone No. 1 - - ext.		Phone No. 2 - - ext.
FAX No.		Contractor #		
Street Address (if different from above)		City	State	ZIP -
Email				

<Form continues on back>

3. Project Location

County (can be multiple) Pender County	Street Address Bridge 28 Over Long Creek on NC 210	State Rd. # NC 210
Subdivision Name N/A	City N/A	State NC
Zip 28457 -		
Phone No. - - ext.	Lot No.(s) (if many, attach additional page with list) , , , ,	
a. In which NC river basin is the project located? Cape Fear	b. Name of body of water nearest to proposed project Long Creek	
c. Is the water body identified in (b) above, natural or manmade? <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Manmade <input type="checkbox"/> Unknown	d. Name the closest major water body to the proposed project site. Northeast Cape Fear River	
e. Is proposed work within city limits or planning jurisdiction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	f. If applicable, list the planning jurisdiction or city limit the proposed work falls within.	

4. Site Description N/A

a. Total length of shoreline on the tract (ft.) 500 ft. (approximately 250 ft. on each shore)	b. Size of entire tract (sq.ft.) approximately 45,000 sq ft.
c. Size of individual lot(s) NA , , , (If many lot sizes, please attach additional page with a list)	d. Approximate elevation of tract above NHW (normal high water) or NWL (normal water level) 10ft <input type="checkbox"/> NHW or <input checked="" type="checkbox"/> NWL
e. Vegetation on tract Maintained/disturbed vegetation, forested wetlands	
f. Man-made features and uses now on tract Roadway, bridge	
g. Identify and describe the existing land uses <u>adjacent</u> to the proposed project site. Minor residential and agricultural businesses	
h. How does local government zone the tract? rural agricultural, residential performance	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
j. Is the proposed activity part of an urban waterfront redevelopment proposal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA If yes, by whom? NCDOT staff	
l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	

<Form continues on next page>

m. (i) Are there wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(ii) Are there coastal wetlands on the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? (Attach documentation, if available)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
n. Describe existing wastewater treatment facilities. N/A	
o. Describe existing drinking water supply source. N/A	
p. Describe existing storm water management or treatment systems. N/A	

5. Activities and Impacts

a. Will the project be for commercial, public, or private use? Public	<input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Public/Government <input type="checkbox"/> Private/Community
b. Give a brief description of purpose, use, and daily operations of the project when complete. Proposed bridge no. 28 on Long Creek will replace the current bridge on NC 210. The proposed bridge and roadway is designed to accommodate safety and future traffic projections.	
c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored. Construction methodology will consist of two phases. Phase 1 is to construct the proposed bridge and roadway realignment adjacent to the existing roadway. Once proposed roadway is reconstructed, Phase 2 will consist of excavating the existing roadway embankment to reestablish the floodplain of Long Creek. Construction equipment expected to be used for this project include bulldozer, skid steer loader, backhoe loader, excavator, asphalt paver, motor grader, drum roller, compactor, and crane.	
d. List all development activities you propose. Proposed Bridge No 28 replacement and roadway realignment.	
e. Are the proposed activities maintenance of an existing project, new work, or both? Both, bridge replacement, roadway realignment and future maintenance.	
f. What is the approximate total disturbed land area resulting from the proposed project?	<input type="checkbox"/> Sq.Ft or <input checked="" type="checkbox"/> Acres Built-Up on Area = 1.6 ac
g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of? B-5156 will be constructed on existing NCDOT ROW and acquired easements.	
h. Describe location and type of existing and proposed discharges to waters of the state. Existing conditions consist of roadway shoulder where runoff sheet flows off roadway and into adjacent wetlands. Proposed conditions will incorporate shoulder berm and gutter at locations down grade from the proposed bridge and will be captured in four individual drainage system that will outfall into existing adjacent wetlands. Energy dissipator pads have been proposed at each outfall to protect against erosive velocities.	
i. Will wastewater or stormwater be discharged into a wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
If yes, will this discharged water be of the same salinity as the receiving water?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
j. Is there any mitigation proposed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
If yes, attach a mitigation proposal.	

<Form continues on back>

6. Additional Information

In addition to this completed application form, (MP-1) the following items below, if applicable, must be submitted in order for the application package to be complete. Items (a) – (f) are always applicable to any major development application. Please consult the application instruction booklet on how to properly prepare the required items below.

- a. A project narrative.
- b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.
- c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.
- d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.
- e. The appropriate application fee. Check or money order made payable to DENR.
- f. A list of the names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail. Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management.
- | | | |
|---------|-------------------|-----------|
| Name | SEE ATTACHED LIST | Phone No. |
| Address | | |
| Name | | Phone No. |
| Address | | |
| Name | | Phone No. |
| Address | | |
- g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.
- N/A
- h. Signed consultant or agent authorization form, if applicable.
- i. Wetland delineation, if necessary.
- j. A signed AEC hazard notice for projects in oceanfront and inlet areas. (Must be signed by property owner)
- k. A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A 1-10), if necessary. If the project involves expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

7. Certification and Permission to Enter on Land

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to the conditions and restrictions contained in the permit.

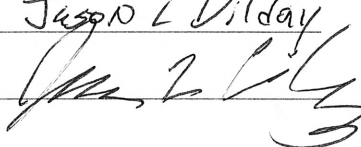
I certify that I am authorized to grant, and do in fact grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

Date 2/20/2023

Print Name JASON L DILDAY

Signature



Please indicate application attachments pertaining to your proposed project.

☐ DCM MP-2 Excavation and Fill Information

☒ DCM MP-5 Bridges and Culverts

☐ DCM MP-3 Upland Development

☐ DCM MP-4 Structures Information

B-5156
Adjacent Riparian Landowners

Porter, David R
23338 NC Hwy 210
Rocky Point, NC 28457

Long Creek Meadows LLC
PO Box 228
Wrightsville Beach, NC

Lee, Gail Herring
22550 NC Hwy 210
Rocky Point, NC 28457

Corbett Brothers LLC
PO Box 210
Wilmington, NC 28480

BRIDGES and CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

1. BRIDGES☐ This section not applicable

- a. Is the proposed bridge:
☐ Commercial ☒ Public/Government ☐ Private/Community
- b. Water body to be crossed by bridge:
Long Creek
- c. Type of bridge (construction material):
2@45'-0"; 1@65'-0"; 1@50'-0"; 45" Girder Deck 2/ 4'-0" caps and spill though abutements
- d. Water depth at the proposed crossing at NLW or NWL:
15 ft
- e. (i) Will proposed bridge replace an existing bridge? ☒ Yes ☐ No
 If yes,
 (ii) Length of existing bridge: 169'-7"
 (iii) Width of existing bridge: 31'-6"
 (iv) Navigation clearance underneath existing bridge: _____
 (v) Will all, or a part of, the existing bridge be removed?
 (Explain)
Proposed bridge will be built beside existing bridge. Once bridge is complete, Traffic will be moved to new bridge and existing bridge will be removed.
- f. (i) Will proposed bridge replace an existing culvert? ☐ Yes ☒ No
 If yes,
 (ii) Length of existing culvert: _____
 (iii) Width of existing culvert: _____
 (iv) Height of the top of the existing culvert above the NHW or NWL: _____
 (v) Will all, or a part of, the existing culvert be removed?
 (Explain)

- g. Length of proposed bridge: 205'-0"
- h. Width of proposed bridge: 32'-0"
- i. Will the proposed bridge affect existing water flow? ☒ Yes ☐ No
 If yes, explain:
Max decrease of 0.3' during 100-yr storm
- j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? ☒ Yes ☐ No
 If yes, explain: Span arrangement increases the horizontal opening
- k. Navigation clearance underneath proposed bridge: N/A
- l. Have you contacted the U.S. Coast Guard concerning their approval? ☐ Yes ☒ No
 If yes, explain:

- m. Will the proposed bridge cross wetlands containing no navigable waters? ☒ Yes ☐ No
 If yes, explain:
Proposed bridge will impact and cross existing wetlands
- n. Height of proposed bridge above wetlands: 12'-6"

2. CULVERTS☒ This section not applicable

- a. Number of culverts proposed: _____
- b. Water body in which the culvert is to be placed:

< Form continues on back>

c. Type of culvert (construction material):

d. (i) Will proposed culvert replace an existing bridge?

☐ Yes ☐ No

If yes,

(ii) Length of existing bridge: _____

(iii) Width of existing bridge: _____

(iv) Navigation clearance underneath existing bridge: _____

(v) Will all, or a part of, the existing bridge be removed?
(Explain)

e. (i) Will proposed culvert replace an existing culvert?

☐ Yes ☐ No

If yes,

(ii) Length of existing culvert(s): _____

(iii) Width of existing culvert(s): _____

(iv) Height of the top of the existing culvert above the NHW or
NWL: _____(v) Will all, or a part of, the existing culvert be removed?
(Explain)

f. Length of proposed culvert: _____

g. Width of proposed culvert: _____

h. Height of the top of the proposed culvert above the NHW or NWL.
_____i. Depth of culvert to be buried below existing bottom contour.
_____j. Will the proposed culvert affect navigation by reducing or
increasing the existing navigable opening? ☐ Yes ☐ NoIf yes, explain:

k. Will the proposed culvert affect existing water flow?

☐ Yes ☐ NoIf yes, explain:

_____**3. EXCAVATION and FILL**☐ This section not applicablea. (i) Will the placement of the proposed bridge or culvert require any
excavation below the NHW or NWL? ☐ Yes ☒ No

If yes,

(ii) Avg. length of area to be excavated: _____

(iii) Avg. width of area to be excavated: _____

(iv) Avg. depth of area to be excavated: _____

(v) Amount of material to be excavated in cubic yards: _____

b. (i) Will the placement of the proposed bridge or culvert require any
excavation within coastal wetlands/marsh (CW), submerged
aquatic vegetation (SAV), shell bottom (SB), or other wetlands
(WL)? If any boxes are checked, provide the number of square
feet affected.☐ CW _____ ☐ SAV _____ ☐ SB _____☒ WL 16553 sqft ☐ None

(ii) Describe the purpose of the excavation in these areas:

B-5156 proposes to excavate the existing roadway fill after the proposed
bridge has been built. It is intended to reestablish the floodplain in the
old roadway footprint.

_____c. (i) Will the placement of the proposed bridge or culvert require any
high-ground excavation? ☒ Yes ☐ No

If yes,

(ii) Avg. length of area to be excavated: 1060 FT (560 STA 16+50 to 22+00, 500 STA 23+93 to 28+50)

(iii) Avg. width of area to be excavated: 38 FT

(iv) Avg. depth of area to be excavated: 8 FT

(v) Amount of material to be excavated in cubic yards: 13,073 CY

Form DCM MP-5 (Bridges and Culverts, Page 3 of 4)

d. If the placement of the bridge or culvert involves any excavation, please complete the following:

(i) Location of the spoil disposal area: TBD by contractor

(ii) Dimensions of the spoil disposal area: _____

(iii) Do you claim title to the disposal area? ☐ Yes ☐ No (If no, attach a letter granting permission from the owner.)

(iv) Will the disposal area be available for future maintenance? ☐ Yes ☐ No

(v) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAVs), other wetlands (WL), or shell bottom (SB)?

☐ CW ☐ SAV ☐ WL ☐ SB ☐ None

If any boxes are checked, give dimensions if different from (ii) above.

(vi) Does the disposal area include any area below the NHW or NWL? ? ☐ Yes ☐ No

If yes, give dimensions if different from (ii) above.

e. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed below NHW or NWL? ☐ Yes ☒ No

If yes,

(ii) Avg. length of area to be filled: _____

(iii) Avg. width of area to be filled: _____

(iv) Purpose of fill:

f. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐ CW _____ ☐ SAV _____ ☐ SB _____

☒ WL 0.692 ac ☐ None

(ii) Describe the purpose of the excavation in these areas:

B-5156 proposes to fill into existing wetlands in order to construct the proposed bridge to the North of the existing bridge. The bridge is proposed to the North of the existing bridge in order to keep traffic operations flowing while construction is taking place.

g. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed on high-ground? ☒ Yes ☐ No

If yes,

984 FT STA 11+50 to 22+00 LT, 522 FT STA 10+50 to

(ii) Avg. length of area to be filled: 16+00 RT, 277 FT STA 23+90 to 27+00 LT

(iii) Avg. width of area to be filled: 27 FT

(iv) Purpose of fill: 19,774 CY

Roadway fill needed to construct relocated bridge and roadway realignment

4. GENERAL

a. Will the proposed project require the relocation of any existing utility lines? ☒ Yes ☐ No

If yes, explain:

Existing 24" Waterline will remain in place. Aerial utilities will be moved resulting in 0.098 ac. of handclearing in a 404 wetland.

If this portion of the proposed project has already received approval from local authorities, please attach a copy of the approval or certification.

b. Will the proposed project require the construction of any temporary detour structures? ☐ Yes ☒ No

If yes, explain:

No detour structures will be constructed for this project. However, a temporary work bridge is required to cross Long Creek.

< Form continues on back >

- c. Will the proposed project require any work channels?

☐ Yes ☒ No

If yes, complete Form DCM-MP-2.

- d. How will excavated or fill material be kept on site and erosion controlled?

Fill material will be placed in accordance to location proposed in plans. Excavated material will be disposed of properly as excavation practices occur. NCDOT Best Management Practices will be employed during all facets of construction and demolition.

- e. What type of construction equipment will be used (for example, dragline, backhoe, or hydraulic dredge)?

Construction equipment expected to be used for this project include bulldozer, skid steer loader, backhoe loader, excavator, asphalt paver, motor grader, drum roller, compactor, and crane.

- f. Will wetlands be crossed in transporting equipment to project site?

☒ Yes ☐ No

If yes, explain steps that will be taken to avoid or minimize environmental impacts.

A temporary work bridge has been proposed to cross the stream on the north side of the existing bridge. Temporary impacts to the wetland have been accounted for and coir matting and plantings will be required in these areas.

- g. Will the placement of the proposed bridge or culvert require any shoreline stabilization?

☐ Yes ☒ No

If yes, complete form MP-2, Section 3 for Shoreline Stabilization only.

2/20/2023
Date

B-5156
Project Name

Jason L Dilday
Applicant Name

Jan 2 Liles
Applicant Signature

Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

TIP Project No.	B-5156
WBS Element	42331.1.2
Federal Project No.	N/A

A. Project Description:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 28 on N.C. 210 over Long Creek in southwestern Pender County (**Figure 1**). The bridge will be replaced on new location to the north of the existing bridge (**Figures 2A and 2B**).

B. Description of Need and Purpose:

The purpose of the proposed project is to replace Bridge No. 28. In 2012, NCDOT Bridge Management Unit records indicated Bridge No. 28 had a sufficiency rating of 8 out of a possible 100 for a new structure, along with a substructure condition of 4 out of a possible 9 points; therefore, the bridge was considered structurally deficient. Maintenance was performed to improve safety and extend the life of the bridge, which increased the sufficiency rating to 52.81 out of a possible 100. Since maintenance to the bridge is considered temporary and because the bridge is 98 years old, the bridge is in need of replacement.

Built in 1921 and reconstructed in 1956, Bridge No. 28 exhibits cracking on the underside of beams, spalling on concrete piers and pile caps, and areas of delamination. Rehabilitation of the bridge is not practical due to its age and deteriorated condition. Components of both the concrete superstructure and substructure have experienced an increasing degree of deterioration that can no longer be addressed by maintenance activities.

C. Categorical Exclusion Action Classification:



TYPE I A

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:

Existing Conditions: N.C. 210 has a 24-foot pavement width with grassed shoulders on each side.

Bridge No. 28 is a four-span structure that consists of reinforced concrete deck girders supported by reinforced concrete caps on steel and timber piles for the interior and end bents. The structure length is 170 feet with a clear roadway width of 28 feet. There is no posted weight limit on the bridge. The bridge deck is situated approximately 25 feet above the creek bed. Power lines run parallel to the bridge on both sides of the road.

Alternatives Discussion:

The No-Build Alternative would result in eventually closing the road which is unacceptable given the traffic served by N.C. 210. Additionally, N.C. 210 in the project area is designated as a Hurricane Evacuation Route. Therefore, the No-Build Alternative was eliminated from further consideration.

An offsite detour route for N.C. 210 would include primary routes; a northern or southern detour option would both be approximately 30 miles. Given the potential impacts to emergency response services and school transportation services, an offsite detour was eliminated from consideration.

Two build alternatives to replace Bridge No. 28 were studied. Alternative 1 would replace the bridge on the existing alignment with a temporary onsite detour to the north. Alternative 2 would permanently relocate the bridge to the north while maintaining traffic on the existing roadway. Alternative 2 was selected as the preferred alternative upon coordination with the NCDOT Division Office. Alternative 2 would minimize clearing and land disturbance in the project area, with the new bridge being permanently relocated to the north, where a detour bridge would have been located under Alternative 1. Additionally, the construction duration may be minimized with Alternative 2, with only one new structure required.

The replacement structure will be a four-span bridge approximately 205 feet long with prestressed concrete girders, 4-foot caps and sloping, riprap abutments (**Figures 2A and 2B**). The proposed bridge will be located on a new alignment just upstream of the existing bridge and at a 90-degree skew to the roadway. The bridge will include two 12-foot travel lanes with 4-foot offsets, providing a minimum 32-foot clear roadway width, as well as concrete barrier rail.

The approach roadway will extend approximately 980 feet from the west end of the new bridge and 890 feet from the east end of the new bridge. The approach roadway will include a 24-foot pavement width providing two 12-foot travel lanes and 8-foot shoulders on each side. Where guardrail is included, 11-foot shoulders would be provided on each side.

Traffic would be maintained on the existing structure, while the new bridge is constructed to the north of the existing alignment. After construction of the new bridge is completed, traffic would be routed onto the new structure while the existing structure is removed. Construction is anticipated to take approximately 12 months.

Estimated Cost:

	Alternative 1	Alternative 2 (Preferred)
Construction Cost	\$ 5,400,000	\$ 4,550,000
Right-of-Way Cost	\$ 51,000	\$ 93,900
Utility Cost	\$ 14,700	\$ 57,400
Total Project Cost	\$ 5,465,700	\$ 4,701,300

Note: Based on 2018 / 2019 prices

Estimated Traffic:

Year 2020 - 3,000 vehicles per day
 Year 2040 - 3,600 vehicles per day
 TTST - 4%
 Dual - 8%

Accidents: There were three reported crashes near Bridge No. 28 during a five-year period. None of these crashes were associated with the alignment or geometry of the bridge or its approach roadway. Two crashes involved an animal and one crash involved a movable object.

Pedestrian, Bicycle, and Greenway Accommodations: The Pender County Comprehensive Transportation Plan (CTP) and the Wilmington Metropolitan Planning Organization (MPO) CTP recommend a multi-use path (bicycle and pedestrian) on this section of N.C. 210. The Pender County Comprehensive Parks and Recreation Master Plan recommends a public water access area at Long Creek.

Hazardous Materials: Based upon coordination with the GeoEnvironmental Group, there are no geoenvironmental concerns on the proposed project.

Design Information:

Design Speed - 60 miles per hour
 Rural Major Collector using Regional Tier Guidelines
 No Design Exceptions Required

Cultural Resources:

Historic Architecture - NCDOT conducted a review of the State Historic Preservation Office (HPO) site files, GIS data, and related studies as well as an assessment of all above-ground resources present in the study area in 2010, 2015, and 2018 in response to project changes. Based on this review, there are no properties listed in or eligible for the National Register of Historic Places in the current Area of Potential Effects (APE), including the existing Bridge No. 28. There are no properties warranting additional investigation; therefore, no architectural survey is required for the project. A copy of the most recent review form (October 1, 2018) is included in **Appendix B**.

Archaeology - A map review and site file search were conducted by NCDOT at the Office of State Archaeology (OSA) on October 18, 2018. No archaeological sites have been identified within the proposed APE, nor are any recorded within one-half mile of the proposed project. Landforms within the current APE are considered very unlikely to exhibit intact, significant archaeological resources; therefore, no archaeological survey is required for this project. A copy of this correspondence is included in **Appendix B**.

Community Impacts: The majority of the project area is rural and in residential or agricultural use, swamp land, or undeveloped. Access to residential and commercial driveways along N.C. 210 may be temporarily limited during construction of the proposed project. Additionally, the proposed project may have temporary operational impacts to the mobility of farm equipment to small farms, as well as Long Creek Farms & Nursery, located within the project study area.

Notably adverse community impacts to low-income populations, including migrant workers, are not anticipated with the preferred Alternative 2, replacement of Bridge No. 28 on new location. The proposed project would affect all populations equivalently; thus, impacts to minority and low-income populations do not appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are anticipated to be equitably distributed throughout the community.

Environmental Considerations: The wetland and stream impacts associated with this bridge replacement project are presented below. Water resources in the study area are part of the Cape Fear River basin (U.S. Geological Survey (USGS) Hydrologic Unit 03030007) (**Figures 3 and 4**). Long Creek carries a best usage classification of C;Sw waters of the State. Long Creek has been designated as warm water streams for the purposes of stream mitigation. Long Creek within the study area has been designated by the USACE as a Navigable Water under Section 10 of the Rivers and Harbors Act. Additional information regarding the wetlands can be found in the Natural Resources Technical Report.

Jurisdictional Characteristics and Estimated Impacts

	Classification	Impact
Stream (Long Creek)	Perennial	135 linear feet
Wetland	Riparian	1.09 acres

The amount of impacts to water resources and wetlands within the study area, described above, represents the maximum extent of potential fill in Waters of the United States.

Anticipated Permit or Consultation Requirements:

Clean Water Act Permits

A Nationwide Permit (NWP) 23 will likely be applicable to this project. NWP 33 may also apply for temporary construction activities such as stream dewatering, work bridges, or temporary causeways that are often used during bridge construction or rehabilitation. The U.S. Army Corps of Engineers (USACE) holds the final discretion as to what permit will be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification (WQC) from the N.C. Division of Water Resources (NCDWR) will be needed.

Coastal Area Management Act Areas of Environmental Concern

The N.C. Division of Coastal Management (NCDCM) identified the following Areas of Environmental Concern (AECs) that will likely be impacted: Coastal Shorelines and Public Trust Area. Therefore, a Coastal Area Management Act (CAMA) permit from the NCDCM will be required prior to the commencement of construction for all impacts to designated AECs within the study area.

Agency Comments and Local Coordination: NCDOT has sought input from the following agencies as a part of the project development: U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Federal Highway Administration, N.C. Division of Coastal Management, N.C. Division of Parks and Recreation, N.C. Division of Water Resources, N.C. Wildlife Resources Commission, Wilmington Metropolitan Planning Organization, Cape Fear Rural Planning Organization, Pender County, Pender County Schools, and Pender County EMS. Agency comments are included in **Appendix B**.

The North Carolina Division of Parks and Recreation (DPR) requested that a small parking area and canoe launch be considered as part of this bridge replacement. During subsequent coordination with DPR, the small parking area and canoe launch were dropped from consideration.

The Cape Fear Rural Planning Organization (RPO) noted that Bridge No. 28 is located within a floodway and the upstream area is prone to flooding and strongly encourages that the bridge be elevated to minimize upstream flooding and ensure its availability as an evacuation route during a flood event. The RPO also commented that as a designated hurricane evacuation route, any detours or closures of N.C. 210 in the project area should be coordinated to occur outside of hurricane season, if possible.

According to Pender County Schools, eight school buses pass over the bridge four times per day. Pender County Emergency Medical Services (EMS) noted that Bridge No. 28 is in a high call volume area.

Public Involvement: A newsletter was sent to all property owners living along N.C. 210 near Bridge No. 28. No comments were received. Therefore, a Public Meeting was determined unnecessary.

F. Project Impact Criteria Checklists:

<u>Type I & II - Ground Disturbing Actions</u>			
<u>FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA</u>			
If any of questions 1-7 are marked "yes" then the CE will require FHWA approval.		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<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 (BGPA)?	<input type="checkbox"/>	<input checked="" 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 of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.			
<u>Other Considerations</u>		Yes	No
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?	<input type="checkbox"/>	<input checked="" 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"/>
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Other Considerations (continued)</u>		Yes	No
15	Does the project involve hazardous materials and/or landfills?	<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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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?	<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 or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<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), 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's 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 checked="" type="checkbox"/>	<input 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

Response to Question 1: The U.S. Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the U.S. Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is **May Affect, Likely to Adversely**

Affect. The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Pender County, where TIP B-5156 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

Response to Question 16: Pender County is a participant in the National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). Based on the most current information available from the N.C. Floodplain Mapping Program (FMP), Long Creek is located within a detailed study area. This project involves construction activities on or adjacent to FEMA-regulated streams.

Response to Question 17: Two CAMA Areas of Environmental Concern were identified in the study area. The proposed project will likely impact Coastal Shoreline and Public Trust Water. A CAMA permit from the NCDCM will be required for all impacts to designated AECs within the study area.

Response to Question 30: The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the potential impact to prime farmland of all land acquisition and construction projects. There are soils classified as prime, unique, or having state or local importance in the vicinity of the project. Therefore, the project may involve direct conversion of farmland acreage within these classifications. A preliminary screening of farmland conversion impacts in the project area was completed (NRCS Form AD-1006, Part VI only) and resulted in a score of 55 points out of 160. Since the total site assessment score does not exceed the 60-point threshold established by NRCS, notable project impacts to eligible soils are not anticipated.

H. Project Commitments

Pender County
Bridge No. 28 over Long Creek on N.C. 210
Federal Project No: N/A
WBS No: 42331.1.2
TIP Project No: B-5156

Hydraulics Unit - FEMA Coordination

The Hydraulics Unit will coordinate with the N.C. Floodplain Mapping Program (FMP) to determine the status of the project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Hydraulics Unit / Division 3 Construction - FEMA - As-Built Construction Plans

This project involves construction on or adjacent to a FEMA-regulated stream. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the project was built as shown on the construction plans.

Environmental Analysis Unit / Hydraulics Unit - CAMA Permit

Two Coastal Area Management Act (CAMA) Areas of Environmental Concern (AECs) were identified in the study area. Long Creek is a designated Public Trust Water and Coastal Shoreline. A CAMA permit from the N.C. Division of Coastal Management (NCDCM) will be required for all impacts to designated AECs within the study area.

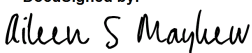
TIP Project No.	<u>B-5156</u>
WBS Element	<u>42331.1.2</u>
Federal Project No.	<u>N/A</u>

B-5156: Replace Bridge No. 28 over Long Creek on N.C. 210 in Pender County

Prepared By:

7/24/2019

Date

DocuSigned by:

 B8BA757910214D2...

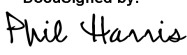
Aileen S. Mayhew, P.E.
 Mott MacDonald

Prepared For: North Carolina Department of Transportation

Reviewed By:

7/24/2019

Date

DocuSigned by:

 8C1643F6874A457...

Philip Harris, III, P.E., Environmental Analysis Unit
 North Carolina Department of Transportation



Approved

If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.

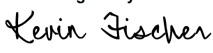


Certified

If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.

7/29/2019

Date

DocuSigned by:

 ED19A18D98EC496...

Kevin Fischer, P.E., Structures Management Unit
 North Carolina Department of Transportation

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

N/A

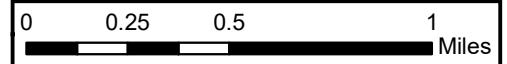
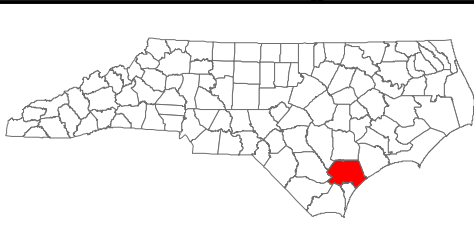
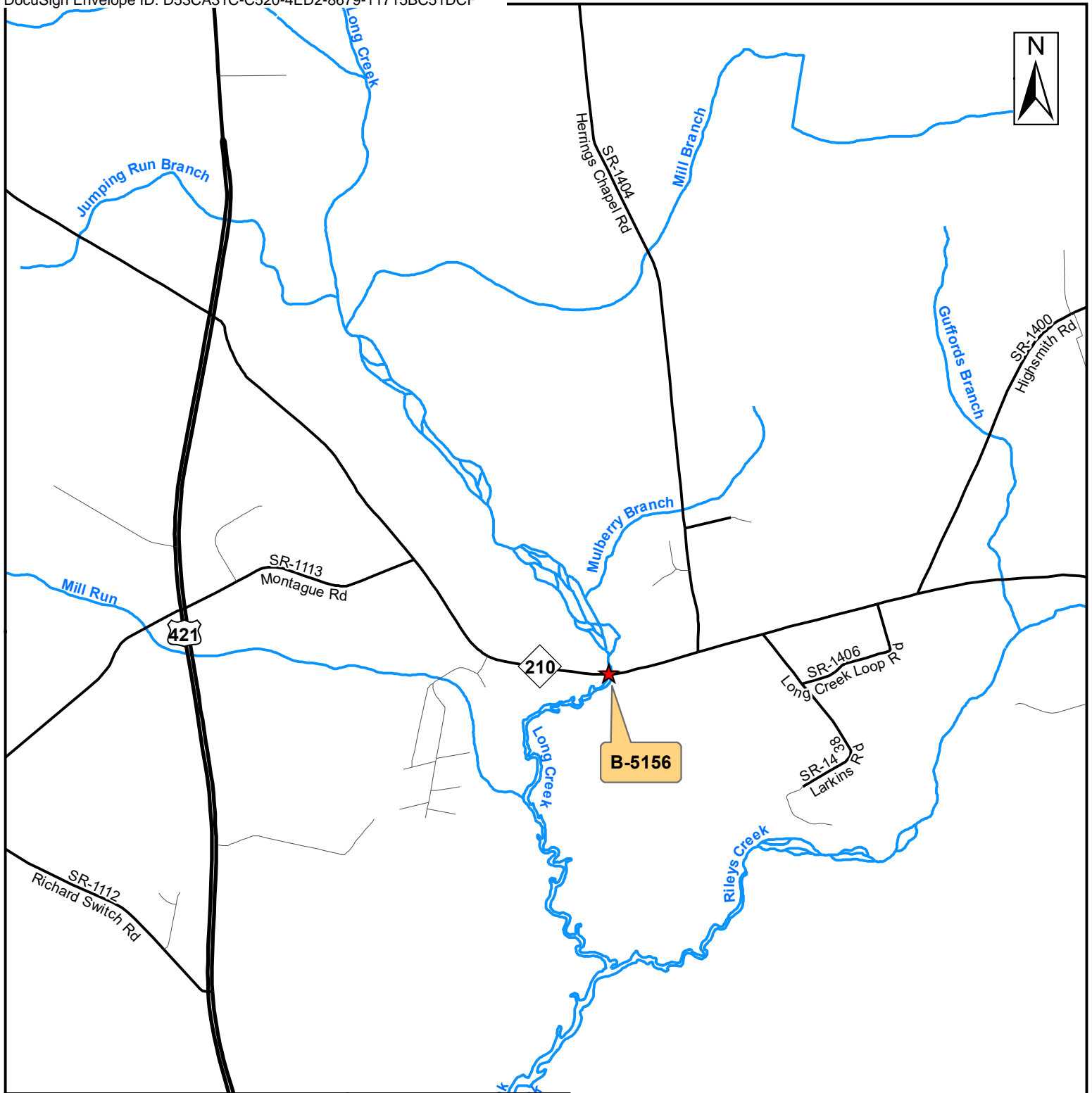
Date

N/A

John F. Sullivan, III, P.E., Division Administrator
 Federal Highway Administration

APPENDIX A

Figures



North Carolina Department of Transportation
Structures Management Unit

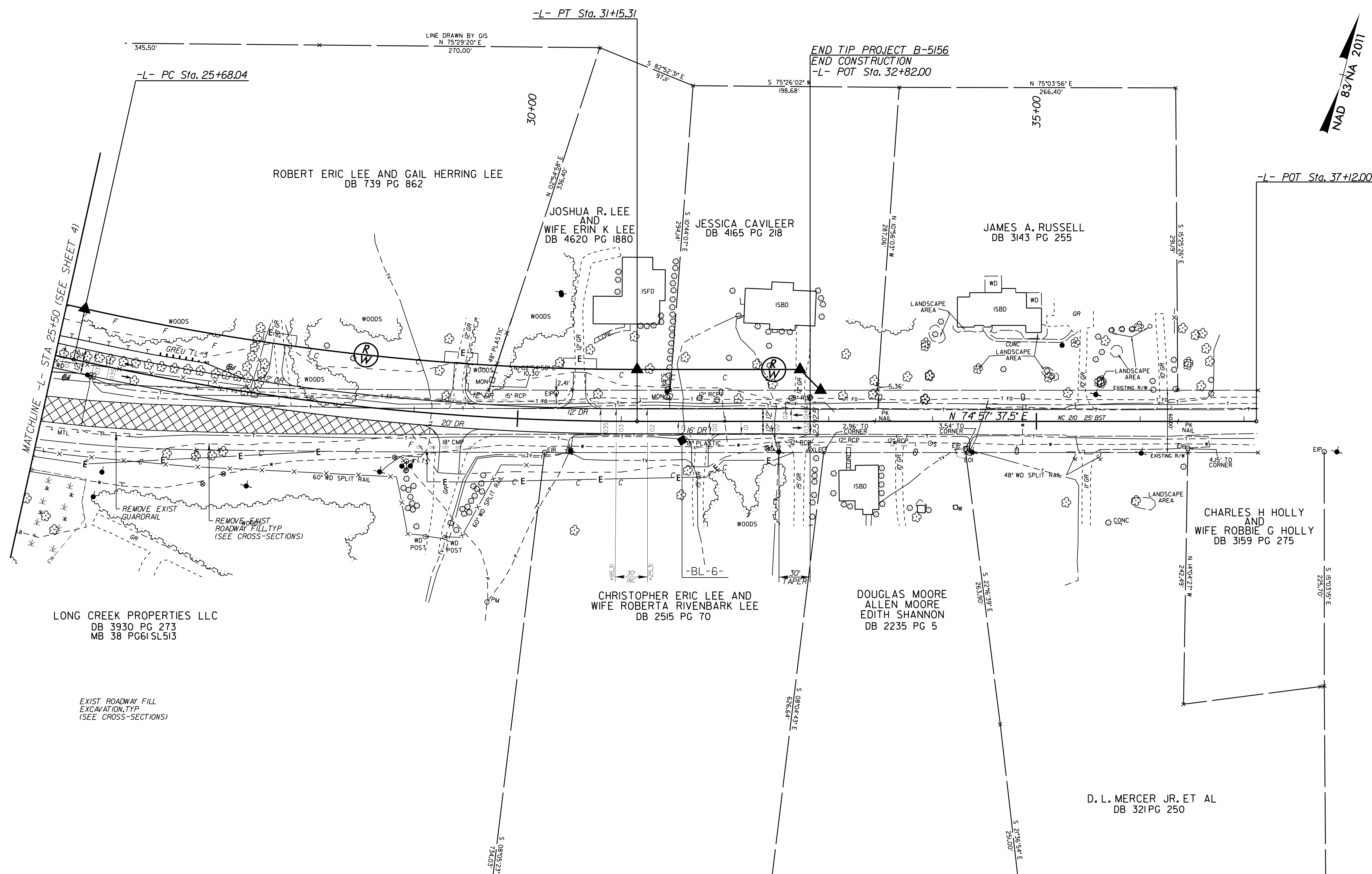
B-5156
Replace Bridge No. 28
on N.C. 210 over Long Creek
Pender County

Vicinity Map

Figure 1



PROJECT REFERENCE NO.		SHEET NO.
B-5156		
R/W SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



-L-
PI Sta 28+42.77
 $\Delta = 12^\circ 32' 32.8''$ (LT)
D = 2' 17" 30.6"
L = 547.27'
T = 274.73'
R = 2,500.00'
SE = 0.035
RO = 105'

END TIP PROJECT B-5156
END CONSTRUCTION
-L- POT Sta. 32+82.00

-L- POT Sta. 37+12.00

BM2 ELEVATION= 23.72'
L STA 37+12.00
N 53°07'23.5" DIST 217.96'
TIE SPIKE SET IN 24" OAK

LONG CREEK PROPERTIES LLC
DB 3930 PG 273
MB 38 PG61SL513

CHRISTOPHER ERIC LEE AND
WIFE ROBERTA RIVENBARK LEE
DB 2515 PG 70

DOUGLAS MOORE
ALLEN MOORE
EDITH SHANNON
DB 2235 PG 5

CHARLES H HOLLY
AND
WIFE ROBBIE G HOLLY
DB 3159 PG 275

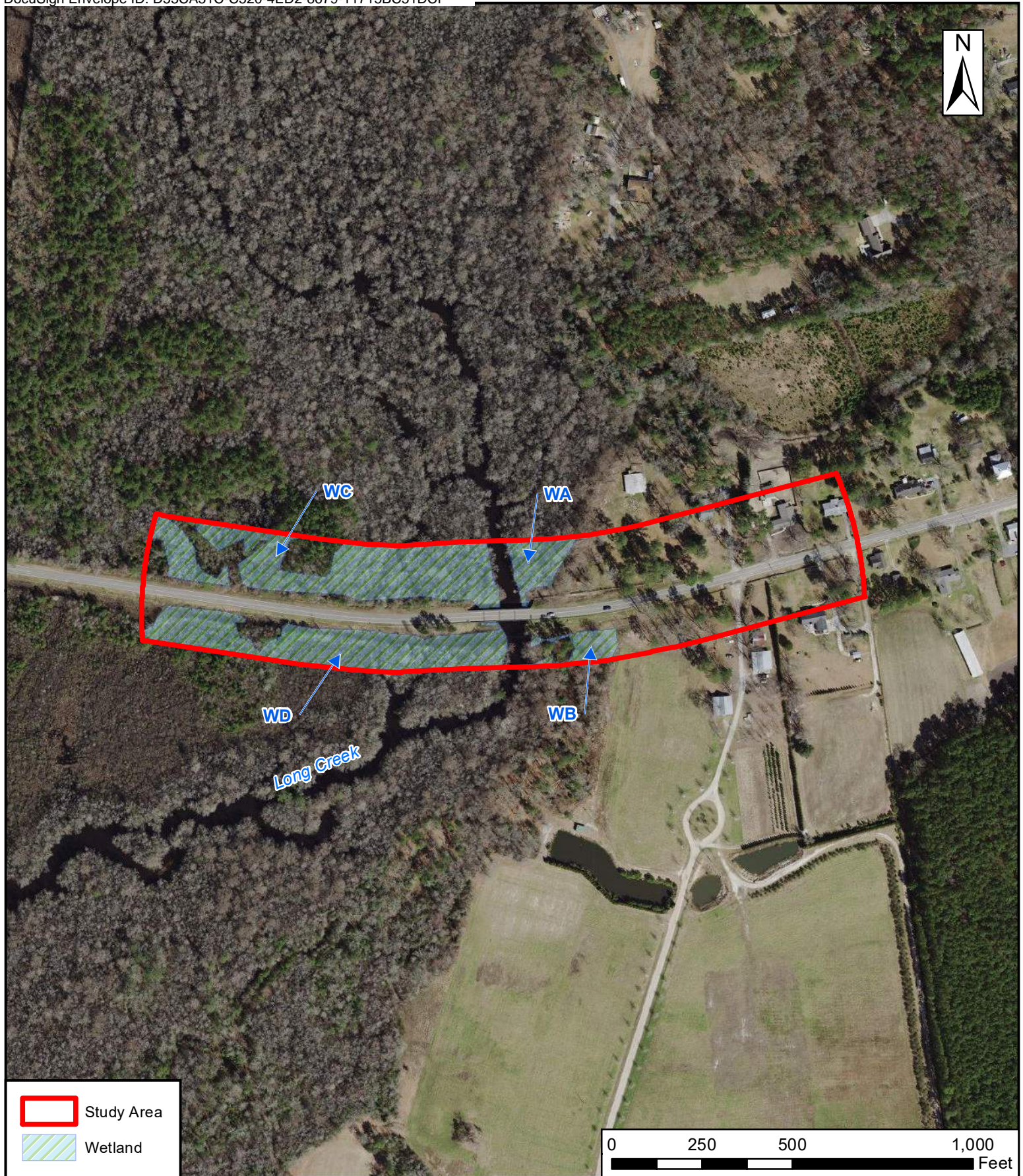
D. L. MERCER JR, ET AL
DB 321PG 250

ALTERNATIVE 2
FIGURE 2B

REVISIONS

5/14/99

4/22/2019

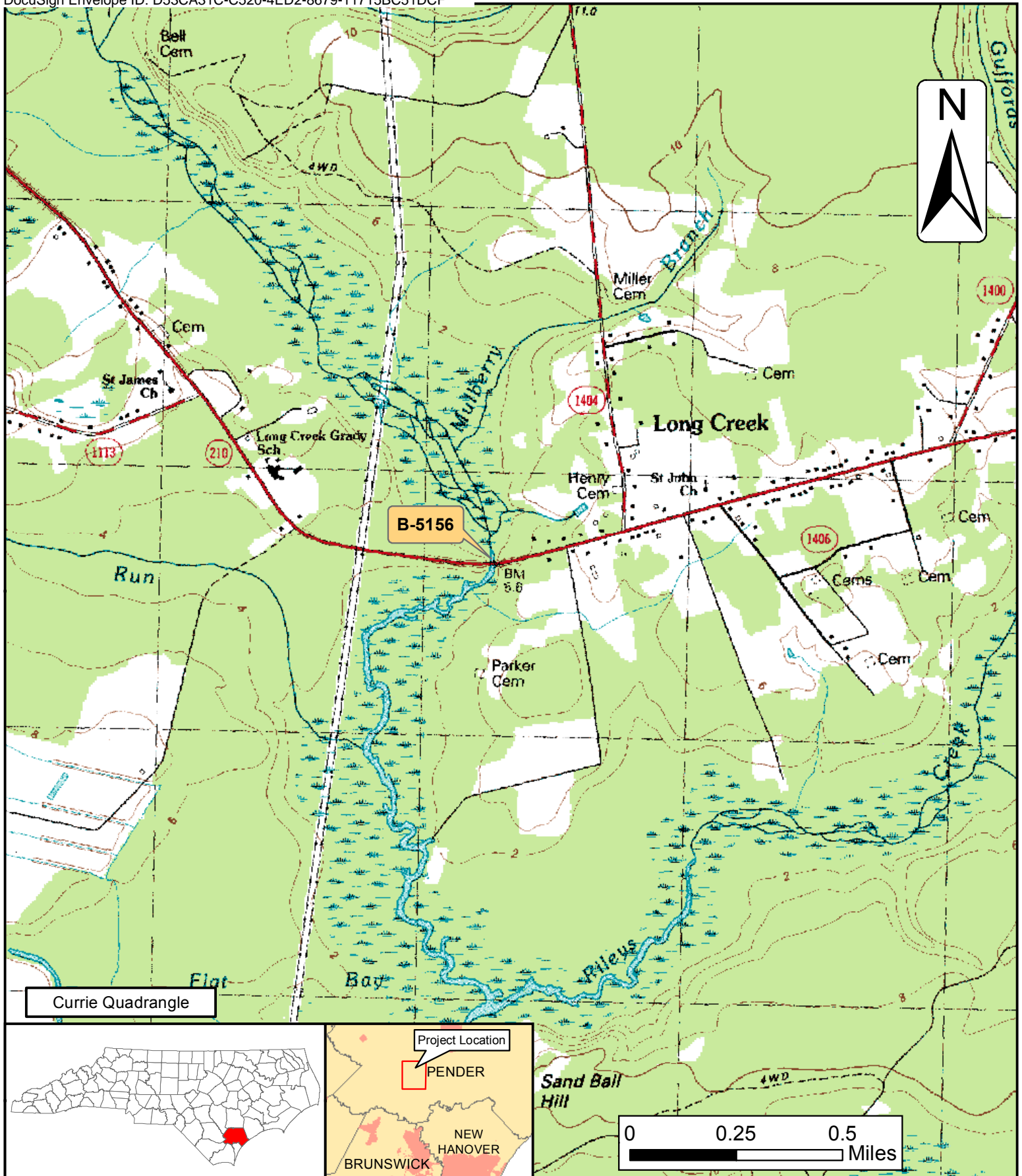


North Carolina Department of Transportation
Structures Management Unit

B-5156
Replace Bridge No. 28
on N.C. 210 over Long Creek
Pender County

Jurisdictional Features

Figure 3



North Carolina Department of Transportation
Structures Management Unit

B-5156
Replace Bridge No. 28
on N.C. 210 over Long Creek
Pender County

Quad Map

Figure 4

APPENDIX B

Supporting Documents

15-01-0005



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form supercedes that dated 25 September 2018

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	B-5156	County:	Pender
WBS No.:	42331.1.2	Document Type:	
Fed. Aid No:	BRSTP-0210(21)	Funding:	State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
Project Description: Replace Bridge No. 28 on NC 210 over Long Creek (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 3 February 2015 and yielded no NR, SL, DE, LD, or SS properties in the Area of Potential Effects (APE). The Penny Henry House (PD0213 – SL) is located near, but outside (east) of the study area. Pender County current GIS mapping, aerial photography, and tax information indicated a mostly wooded APE with cleared residential development at the eastern end (viewed 3 February 2015). Several resources dating from the middle decades (1930s-1960s) of the twentieth century, standing approximately 750 feet and more east of the existing bridge, are unexceptional examples of their types. Bridge No. 28, built in 1921, is not eligible for the National Register as it is neither aesthetically nor technologically significant according to the NCDOT Historic Bridge Inventory. Google Maps "Street View" confirmed the absence of critical architectural and landscape resources in the APE. Selection of a preferred alternative (bridge on new location north of existing) necessitated the current review (25 September 2018). This form reflects the application of federal funding. The original APE contains the proposed construction activities and possible impacts, as well as no resources of concern, and thus the "no survey required" finding remains valid.

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:

The APE extends 1200 feet to either end of the existing bridge (W-E) and 200 to either side of the NC 210 centerline (N-S) to encompass proposed construction activities. Comprehensive architectural survey of Pender County (1996-1997) and subsequent studies recorded no properties in the APE. Review of the essentially identical project in 2010 included an on-site investigation and concluded that no properties of concern appeared in the APE. County GIS and other visuals illustrate the locations and characteristics of architectural and landscape resources in the APE. No National Register-listed properties are located within the APE.

Should any aspect of the project design change, including the addition of an off-site detour, please notify NCDOT Historic Architecture as additional review may be necessary. Page 1 of 2

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

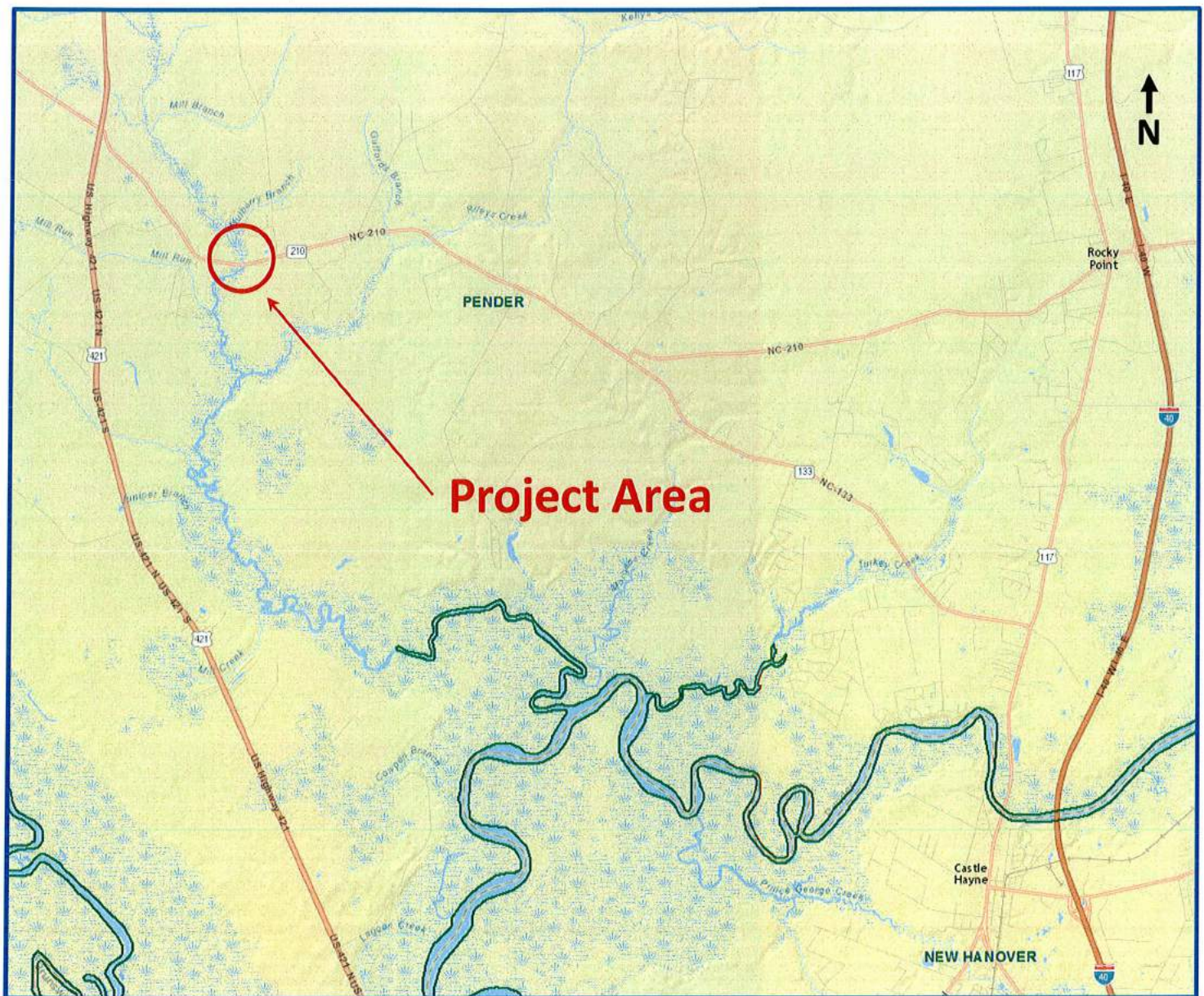
Vanessa E. Patrick

1 October 2018

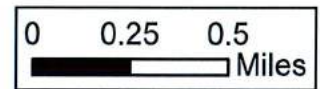
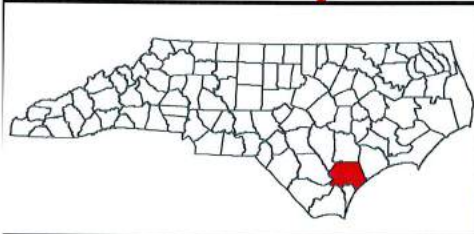
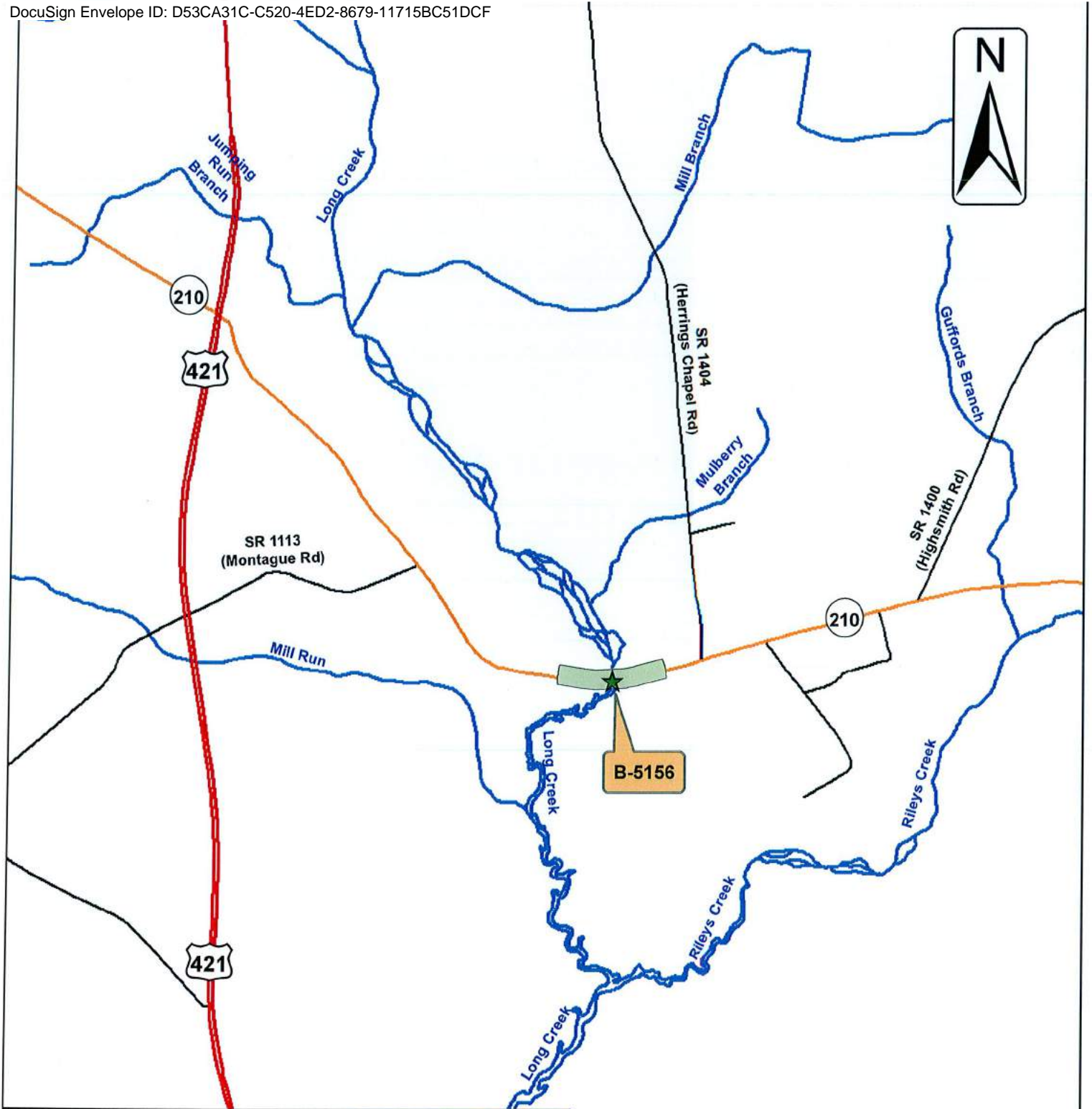
NCDOT Architectural Historian

Date

B-5156, Pender County
WBS No. 42331.1.2
Tracking No. 15-01-0005



B-5156 Bridge No. 28 on NC 210 over Long Creek Pender County
WBS No. 42331.1.2 Base map: HPOweb, nts



North Carolina Department of Transportation
Project Development & Environmental Analysis Unit

B-5156
Replace Bridge No. 28
on NC 210 over Long Creek
Pender County

Tracking No. 15-01-0005

Vicinity Map

Figure 1

15-01-0005



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

Project No:	B-5156	County:	Pender
WBS No.:	42331.1.2	Document Type:	
Fed. Aid No:		Funding:	X State Federal
Federal Permit(s):	X Yes No	Permit Type(s):	Stated "unknown at this time" in review request

Project Description: Replace Bridge No. 28 on NC 210 over Long Creek (detour stated as "unknown at this time" in review request; study area adjusted for possible on-site detour).

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 3 February 2015 and yielded no NR, SL, DE, LD, or SS properties in the Area of Potential Effects (APE). The Penny Henry House (PD0213 – SL) is located near, but outside (east) of study area. Pender County current GIS mapping, aerial photography, and tax information indicated a mostly wooded APE with cleared residential development at the eastern end (viewed 3 February 2015). Several resources dating from the middle decades (1930s-1960s) of the twentieth century, standing approximately 750 feet and more east of the existing bridge, are unexceptional examples of their types. According to the NCDOT Historic Bridge Survey, Bridge No. 28, built in 1921, is not eligible for the National Register as it is not representative of any distinctive engineering or aesthetic type. Google Maps "Street View" confirmed the absence of critical architectural and landscape resources in the APE.

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 extends 1200 feet to either end of the existing bridge (W-E) and 200 feet to either side of the NC 210 centerline (N-S) to encompass proposed construction activities. Comprehensive architectural survey of Pender County (1996-1997) and subsequent studies recorded no notable properties in the APE. Review of the essentially identical project in 2010 included an on-site investigation and concluded that no properties of concern appeared in the APE (see attached). County GIS and other visuals illustrate the locations and characteristics of architectural and landscape resources in the APE. No National Register-listed properties are located within the APE.

Should the design of the project change, including the addition of an off-site detour, please notify NCDOT Historic Architecture as additional review may be necessary.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- **NO SURVEY REQUIRED**

Vanessa C. Patrick
NCDOT Architectural Historian

4 February 2015
Date

Project Tracking No. (Internal Use)

10-01-0008

NO PREHISTORIC OR HISTORIC PROPERTIES PRESENT FORM**PROJECT INFORMATION**

Project No: B-5156 County: Pender
WBS No: 42331.1.1 Document: CE
F.A. No: BRSTP-0210 (21) Funding: ☐ State ☒ Federal

Federal (USACE) Permit Required? ☐ Yes ☐ No Permit Type:

Project Description:

Replace Bridge No. 28 over Long Creek on NC 210

SUMMARY OF FINDINGS

The North Carolina Department of Transportation (NCDOT) reviewed the subject project and determined:

Historic Architecture/Landscapes

- ☒ There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- ☒ There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- ☐ There are no properties within the project's area of potential effects.
- ☒ There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- ☒ All properties greater than 50 years of age located in the APE have been considered and all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

Archaeology

- ☐ There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- ☐ No subsurface archaeological investigations are required for this project.
- ☐ Subsurface investigations did not reveal the presence of any archaeological resources.
- ☐ Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- ☐ All identified Archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

10-01-0008

SUMMARY OF CULTURAL RESOURCES REVIEW*Brief description of review activities, results of review, and conclusions:*

Pender County Bridge No. 28 is a 1956 example of a tee beam bridge and was determined not eligible for National Register listing in the NCDOT 1995 Historic Bridge Survey.

Review of HPO quad maps, historic designations roster, and indexes was undertaken on 8 January 2010. Based on this review, there were no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects. The CRS also accessed Google Maps Streetview online that same day. Based on this information, there appeared to be properties within the APE that were built prior to 1960. Since the county architectural survey is over 10 years old, a historic architecture site visit was recommended.

During the site visit the CRS observed several ranch houses dating from the 1950s that do not meet any of the criteria for National Register listing.

Signed:


Catherine J. Jola
Cultural Resources Specialist, NCDOT

25 JANUARY 2010
Date

Representative, HPO

Date

HPO/OSA Comments:

15-01-0005



NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



PROJECT INFORMATION

Project No: **B-5156** County: **Pender**
 WBS No: **42331.1.2** Document: **Federal CE**
 F.A. No: **BRSTP-0210(21)** Funding: ☐ State ☒ Federal

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

Project Description: The North Carolina Department of Transportation (NCDOT) intends to replace Bridge No. 28 on NC 210 over Long Creek. An area of potential effects (APE) was established based on the design files for the preferred alternative for the replacement of the bridge. The current APE is estimated at roughly 1,830 feet (more than 557.74 meters) in length and ranges in width between 60 and 190 feet (roughly 18.3 to 58 meters). This revised APE replaces the January 2015 APE based on the proposed study area. That study area was 2000 feet (609.6 meters) long within a 350-foot (nearly 106.68-meter) right-of-way (ROW) and encompassed an area of nearly 16.07 acres (slightly more than 6.5 hectares). The revised APE encompasses an area of 4.9 acres (nearly 2 hectares).

SUMMARY OF CULTURAL RESOURCES REVIEW

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

This bridge replacement was originally submitted for archaeological review on December 17, 2009 (as PA No. 10-01-0008); and was reviewed on February 2, 2010. At that time, further archaeological investigations were recommended and a request for information regarding “permits, on-site/off-site detours, preliminary plans etc.” was made. In responses to questions regarding the development of the project on June 20, 2014, an email was received on June 27 that the project was not funded. The project was resubmitted for review on January 6, 2015 under the current PA number. A second review of the site maps and files archived at the North Carolina Office of State Archaeology (OSA) was conducted on January 8, 2015. As before, no previously identified archaeological sites are recorded within the proposed APE; but, it was noted that there had been no archaeological surveys near the proposed project either. A reconnaissance survey to determine the necessity and scope of more intensive archaeological investigation was recommended. The maps and files were rechecked on October 30, 2018. As before, no archaeological sites have been identified within the proposed APE, nor are any recorded within .5-mile of the proposed project.

An examination of the data presented on the North Carolina State Historic Preservation Office HPOWEB GIS Service (<http://gis.ncdcr.gov/hpoweb/>) reveals two recorded historic property locations within .5-mile of the proposed project: the study-listed Penny-Henry House (PD0213) and the former location of the study-listed Long Creek-Grady School (PD0214). Three known cemeteries fall within this same radius: the Parker Cemetery to the south of the bridge, the Henry Cemetery near the Penny-Henry House, and the St. John Missionary Baptist Church Cemetery to the east. No recorded historic properties or known cemeteries are located within the currently proposed APE.

An examination of soils in Pender County presented on the National Resources Conservation Service Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>) indicates that the

15-01-0005

following soil types fall within the delineated APE: Goldsboro fine sandy loam, 0 to 2 percent slopes (GoA); Kalmia loamy fine sand, 0 to 2 percent slopes (KaA); and Muckalee loam, frequently flooded (Mk).

No further archaeological investigations are required for the project within the area established as the current APE. Should the project change to include a larger footprint than covered by the current APE, further consultation will be necessary. In the unlikely event that archaeological remains are encountered during the bridge replacement project, work should cease in that area and the NCDOT Archaeology Group should be notified immediately.

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

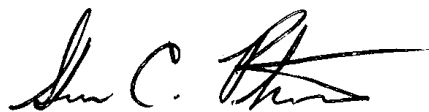
As noted above, no previous archaeological resources have been identified in the vicinity of the proposed project, but, from a regional perspective, elevated and well-drained landforms along tributaries on the southern Coastal Plain tend to have a higher probability of archaeological resources. This reasoning factored heavily in previous screenings of the proposed project. The currently proposed bridge replacement footprint is drastically smaller than the original study area and largely limited to existing right-of-way (ROW). Where the project footprint expands beyond existing ROW (as depicted in the preliminary designs), the project is either dominated by hydric/wetland soils or appears to have been modified by the existing transportation facility or adjacently placed utilities. The very small portion of the current APE that sits on better drained and elevated landforms appears to be very unlikely to possess archaeological remains that would be considered to be significant.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

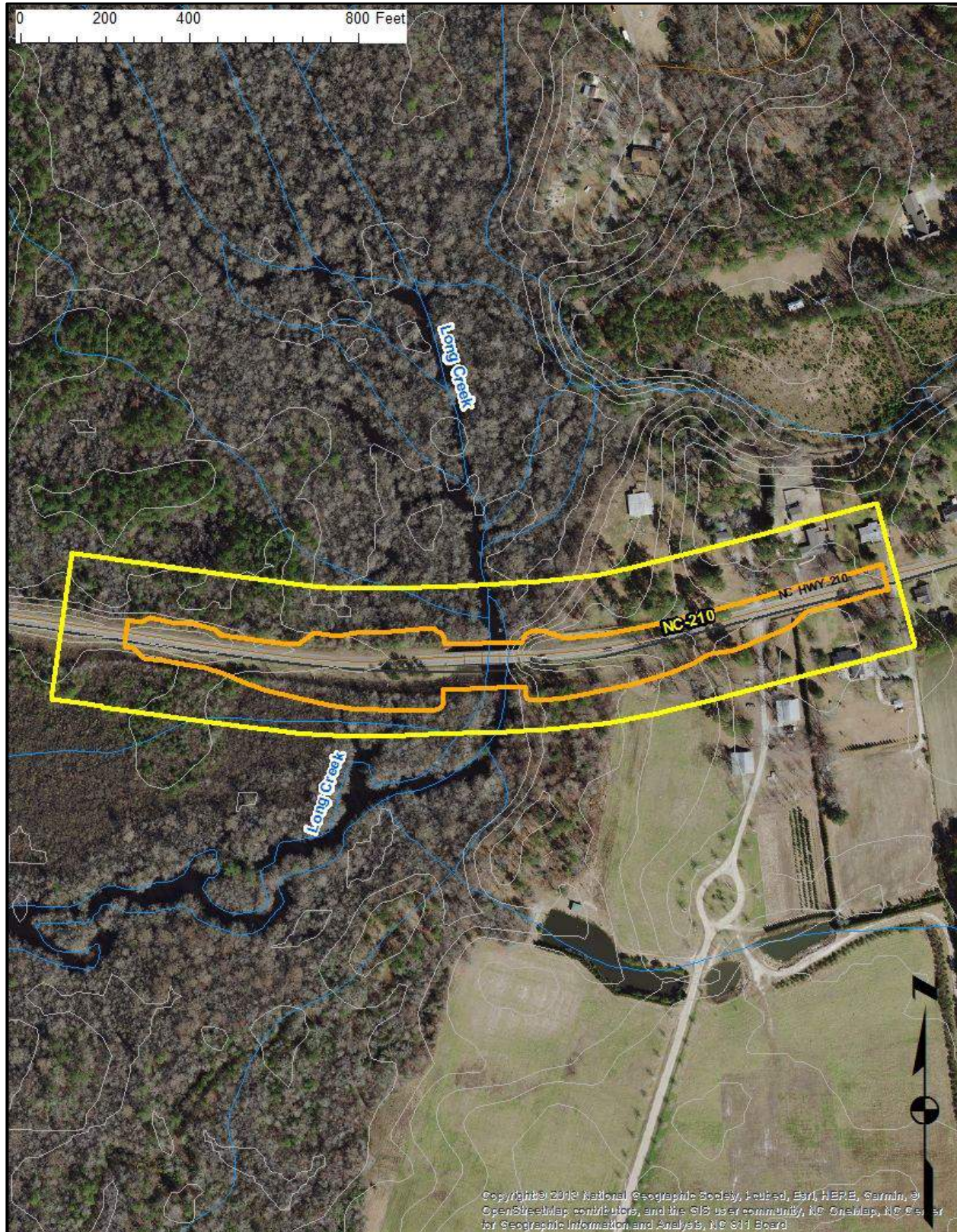


NCDOT ARCHAEOLOGIST

October 31, 2018

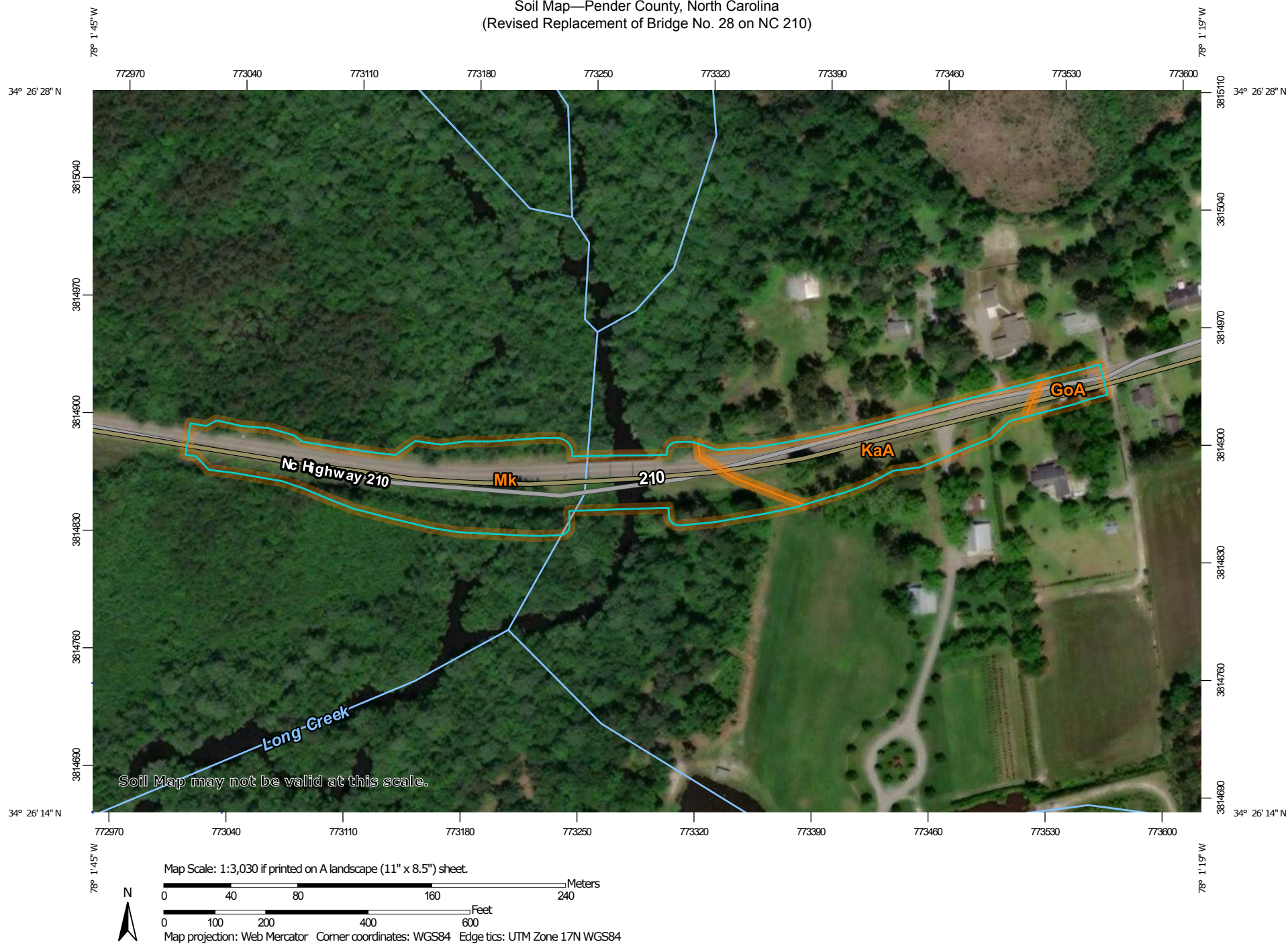
Date

15-01-0005



Aerial photograph with 2-contours of the location for the APE (orange lines) for the proposed replacement of Bridge No. 28 on NC 210; the previous study area/APE is depicted as yellow lines.


Soil Map—Pender County, North Carolina
(Revised Replacement of Bridge No. 28 on NC 210)



Soil Map—Pender County, North Carolina
(Revised Replacement of Bridge No. 28 on NC 210)


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pender County, North Carolina

Survey Area Data: Version 20, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Aug 24, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GoA	Goldsboro fine sandy loam, 0 to 2 percent slopes	0.2	4.1%
KaA	Kalmia loamy fine sand, 0 to 2 percent slopes	1.4	28.5%
Mk	Muckalee loam, frequently flooded	3.3	67.4%
Totals for Area of Interest		4.9	100.0%



⊠ North Carolina Wildlife Resources Commission ⊠

Gordon Myers, Executive Director

MEMORANDUM

TO: Chris Rivenbark
NCDOT, PDEA Natural Environment Unit

FROM: Travis Wilson, Highway Project Coordinator
Habitat Conservation Program

DATE: September 1, 2009

SUBJECT: NCDOT Bridge Replacements

Biologists with the N. C. Wildlife Resources Commission (NCWRC) have reviewed the information provided and have the following preliminary comments on the subject project. Our comments are provided in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Our standard recommendations for bridge replacement projects of this scope are as follows:

1. We generally prefer spanning structures. Spanning structures usually do not require work within the stream and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges allows for human and wildlife passage beneath the structure, does not block fish passage, and does not block navigation by canoeists and boaters.
2. Bridge deck drains should not discharge directly into the stream.
3. Live concrete should not be allowed to contact the water in or entering into the stream.
4. If possible, bridge supports (bents) should not be placed in the stream.
5. If temporary access roads or detours are constructed, they should be removed back to original ground elevations immediately upon the completion of the project. Disturbed areas should be seeded or mulched to stabilize the soil and native tree species should be planted with a spacing of not more than 10'x10'. If possible, when using temporary

structures the area should be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact, allows the area to revegetate naturally and minimizes disturbed soil.

6. A clear bank (riprap free) area of at least 10 feet should remain on each side of the stream underneath the bridge.
7. In trout waters, the N.C. Wildlife Resources Commission reviews all U.S. Army Corps of Engineers nationwide and general '404' permits. We have the option of requesting additional measures to protect trout and trout habitat and we can recommend that the project require an individual '404' permit.
8. In streams that contain threatened or endangered species, NCDOT biologist Mr. Logan Williams should be notified. Special measures to protect these sensitive species may be required. NCDOT should also contact the U.S. Fish and Wildlife Service for information on requirements of the Endangered Species Act as it relates to the project.
9. In streams that are used by anadromous fish, the NCDOT official policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage (May 12, 1997)" should be followed.
10. Sedimentation and erosion control measures sufficient to protect aquatic resources must be implemented prior to any ground disturbing activities. Structures should be maintained regularly, especially following rainfall events.
11. Temporary or permanent herbaceous vegetation should be planted on all bare soil within 15 days of ground disturbing activities to provide long-term erosion control.
12. All work in or adjacent to stream waters should be conducted in a dry work area. Sandbags, rock berms, cofferdams, or other diversion structures should be used where possible to prevent excavation in flowing water.
13. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams.
14. Only clean, sediment-free rock should be used as temporary fill (causeways), and should be removed without excessive disturbance of the natural stream bottom when construction is completed.
15. During subsurface investigations, equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

If corrugated metal pipe arches, reinforced concrete pipes, or concrete box culverts are used:

1. The culvert must be designed to allow for aquatic life and fish passage. Generally, the culvert or pipe invert should be buried at least 1 foot below the natural streambed (measured from the natural thalweg depth). If multiple barrels are required, barrels other than the base flow barrel(s) should be placed on or near stream bankfull or floodplain bench elevation (similar to Lyonsfield design). These should be

reconnected to floodplain benches as appropriate. This may be accomplished by utilizing sills on the upstream and downstream ends to restrict or divert flow to the base flow barrel(s). Silled barrels should be filled with sediment so as not to cause noxious or mosquito breeding conditions. Sufficient water depth should be provided in the base flow barrel(s) during low flows to accommodate fish movement. If culverts are longer than 40-50 linear feet, alternating or notched baffles should be installed in a manner that mimics existing stream pattern. This should enhance aquatic life passage: 1) by depositing sediments in the barrel, 2) by maintaining channel depth and flow regimes, and 3) by providing resting places for fish and other aquatic organisms. In essence, base flow barrel(s) should provide a continuum of water depth and channel width without substantial modifications of velocity.

2. If multiple pipes or cells are used, at least one pipe or box should be designed to remain dry during normal flows to allow for wildlife passage.
3. Culverts or pipes should be situated along the existing channel alignment whenever possible to avoid channel realignment. Widening the stream channel must be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
4. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be professionally designed, sized, and installed.

In most cases, we prefer the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure should be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed down to the natural ground elevation. The area should be stabilized with grass and planted with native tree species. If the area reclaimed was previously wetlands, NCDOT should restore the area to wetlands. If successful, the site may be utilized as mitigation for the subject project or other projects in the watershed.

Project specific comments:

B-4916: Bertie County, replace bridge No. 57 on US 13 over Quioccosian Swamp. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4577: Martin County, replace bridge No. 71 on SR 1159 over Flat Swamp. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4488: Craven County, replace bridge No. 176 on SR 1763 over Slocum Creek. This portion of Slocum Creek is designated as an inland Primary Nursery Area. NCDOT should follow all stream crossing guidelines for anadromous fish passage, including an in-water work moratorium from February 15 to September 30. Furthermore there is a public access facility within the project study area, DOT should coordinate closely with NCWRC during the design and

construction of this project to avoid and minimize impacts to this facility. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4926: Lenoir County, replace bridge No. 20 on NC 55 over Neuse River. This portion of the Neuse River is designated as an inland Primary Nursery Area. NCDOT should follow all stream crossing guidelines for anadromous fish passage, including an in-water work moratorium from February 15 to September 30.

B-4603: Pitt County, replace bridge No. 29 on SR 1715 over Fork Swamp. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4788: Pitt County, replace bridge No. 171 on SR 1418 over Johnson Mill Run. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4781: Onslow County, replace bridge No. 226 on SR 1557 over Branch of New River. This area is characterized by higher salinity water primarily supporting species under the jurisdiction of the NC Division of Marine Fisheries; therefore NCDOT should coordinate with NCDMF to address impacts to aquatic species. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4920: Northampton County, replace bridge No. 15 on SR 1505 over Wildcat Swamp. Anadromous species are found in this portion of Wildcat Swamp. NCDOT should follow all stream crossing guidelines for anadromous fish passage, including an in-water work moratorium from February 15 to June 15. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4440: Brunswick County, replace bridge No. 163 on SR 1349 over Mulberry Swamp. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4480: Columbus County, replace bridge Nos. 275 and 278 on SR 1824 over Livingston Creek. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4481: Columbus County, replace bridge Nos. 279 and 288 on SR 1831 over Livingston Creek. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4950: Cumberland County, replace bridge Nos. 171 and 172 on SR 1851 over South River. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-5156: Pender County, replace bridge No. 28 on NC 210 over Long Creek. We recommend replacing this bridge with a bridge. Standard recommendations apply.

B-4636: Sampson County, replace bridge No. 56 on NC 24 over Six Runs Creek. We recommend replacing this bridge with a bridge. Standard recommendations apply.

If you need further assistance or information on NCWRC concerns regarding bridge replacements, please contact me at (919) 528-9886. Thank you for the opportunity to review and comment on this project.



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

TO: Aileen S. Mayhew
Hatch Mott MacDonald

FROM: Steve Sollod, DCM Transportation Project Coordinator ⁵⁰⁵

CC: Ted Devens, NCDOT

DATE: March 16, 2015

SUBJECT: Scoping Comments
Bridge Replacement Project
B-5156, Bridge No. 28 on NC 210 over Long Creek, Pender County

The North Carolina Division of Coastal Management (DCM) has reviewed your scoping request and performed site reconnaissance to evaluate the proposed projects. We appreciate the opportunity to provide information relevant to the potential permitting of the proposed project by our agency.

Based on the information provided and site reconnaissance by DCM's Transportation Field Representative for NCDOT's Divisions 2 and 3, it appears that the following Areas of Environmental Concern (AECs) will be impacted: Coastal Shorelines and Public Trust Area. Therefore, a CAMA permit will be required prior to the commencement of construction. The scope of each project will determine whether a CAMA General Permit or Major Development Permit is necessary to authorize the work. NCDOT is encouraged to coordinate with DCM during the project development process to determine the appropriate permitting requirements for the projects. DCM recommends that the AEC impacts and the CAMA permitting requirements be addressed in the Categorical Exclusion (CE) document.

If you have any questions or concerns, please contact Mr. Stephen Lane, at Stephen.lane@ncdenr.gov or 252-808-2808. Thank you for your consideration of the North Carolina Coastal Management Program.

Division of Coastal Management
400 Commerce Ave., Morehead City, NC 28557
Phone: 252-808-2808 \ FAX: 252-247-3330 Internet: www.nccoastalmanagement.net



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

April 24, 2015

Aileen S. Mayhew, PE
Transportation Planning Engineer
Hatch Mott MacDonald
7621 Purfoy Rd, Suite 115
Fuquay-Varina, NC 27526

Subject: Scoping/Start of Study – Proposed Replacement of Bridge No. 28 on NC 210 (B-5156)

Dear Ms. Mayhew,

The North Carolina Division of Parks and Recreation (DPR) has reviewed the project area using available Geographic Information System (GIS) data of the proposed replacement of Bridge No. 28 on NC 210 over Long Creek in Pender County, NC. DPR understands that NCDOT is seeking comments from stakeholders in preparation for project development per your e-mail sent February 5, 2015.

DPR's State Trails Program is responsible for coordinating the planning, development and management of this states paddle trails. Based on our review, DPR respectfully requests that NCDOT consider including a small parking area and canoe launch as part of this bridge replacement. This would allow for pedestrian and paddle access to Long Creek.

Ms. Jan Trask with DPR's State Trails Program can be reached at (919) 707-9325 if there are additional questions or concerns. DPR appreciates the opportunity to comment on this proposed project.

Sincerely,

Justin Williamson
Environmental Review Coordinator
Division of Parks and Recreation
NC Department of Environment and Natural Resources
(919) 707-9329 / Justin.williamson@ncparks.gov



Division of Parks and Recreation
NC Department of Natural and Cultural Resources

Governor Roy Cooper

Secretary Susi H. Hamilton

July 7, 2018

Aileen S. Mayhew, PE
Project Manager
Mott MacDonald
7621 Purfoy Road, Suite 115
Fuquay Varina, NC 27526

Dear Ms. Mayhew:

I am responding to your request for review regarding NCDOT STIP B-5156, Bridge No. 28 over Long Creek in Pender County, NC. Based on the projects as proposed, the North Carolina Division of Parks and Recreation (DPR) has no objections and therefore no comments.

Please let me know if you need additional information.

Sincerely,

Justin Williamson
Environmental Review Coordinator
North Carolina Division of Parks and Recreation
(919) 707-9329 / justin.williamson@ncparks.gov