



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

August 14, 2024

MEMORANDUM TO: Division Environmental and Construction Units
FROM: *MAT* Michael A. Turchy, ECAP Group Leader
Environmental Analysis Unit
SUBJECT: Environmental Permits for the Replacement of Bridge 67 on US 25/70
over French Broad River in Madison County, Division 13, **TIP: B-5895.**

Please find enclosed the following permits for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Regional General Permit 50	May 25, 2025
NC Division of Water Resources Section 401 Water Quality Certification	General Certification No. 4135 [RGP50]	May 25, 2025

Work is authorized by the above referenced permit provided it is accomplished in strict accordance with the permitted plans.

The Environmental Coordination and Permitting Group or the Division Environmental Office must be consulted if any deviation from the permit(s) or accompanying drawings is required.

The General Conditions and Certifications for Nationwide and Regional Permits can be referenced at:
https://xfer.services.ncdot.gov/pdea/PermIssued/_General_Conditions_and_Certifications/

The Project Commitments "Greensheet" is located on the Preconstruction SharePoint Dashboard at:
[https://connect.ncdot.gov/site/preconstruction.](https://connect.ncdot.gov/site/preconstruction)



DEPARTMENT OF THE ARMY
 U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
 151 Patton Avenue, Room 208
 Asheville, NC 28801-5006

August 12, 2024

Regulatory Division
 SAW-2022-02178, B-5895

North Carolina Department of Transportation
 Attn: Mr. Michael A. Turchy
 Environmental Coordination and Permitting Group Leader
 1598 Mail Service Center
 Raleigh, North Carolina 27699-1598
 Sent Via Email: ekcheely@ncdot.gov

Dear Mr. Turchy,

This letter is in response to the application you submitted to the U.S. Army Corps of Engineers (USACE), Wilmington District, WRDA/Transportation Permitting Branch on March 18, 2024, for a Department of the Army general permit verification. This project, the **replacement of Bridge No. 67 (B-5895)**, has been assigned file number SAW-2022-02178 and is located at 35.8936, -82.8227 on US 25/70 in Madison County, North Carolina. NCDOT proposes to conduct the following activities in waters of the U.S.:

Summary of Proposed Impacts

Impact ID #	NWP / GP #	Open Water (ac)		Wetland (ac)		Stream (lf)	
		Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Site 1 (French Broad River)	<u>RGP 50</u>						12' (bank stabilization)
Site 2 (French Broad River)	<u>RGP 50</u>					0.49 acre / 113' (causeways)	12' (bank stabilization) 50 sq ft / 0.001 acre (drilled piers)
Impact Totals		0	0	0	0	0.49 acre / 113'	24' and 0.001 acre

We have reviewed the proposed activities in waters of the U.S. and have determined that the activities are authorized by Regional General Permit (RGP) 50 pursuant to authorities under Section 404 of the Clean Water Act (33 U.S.C § 1344). The proposed work must be accomplished in strict accordance with the following:

- enclosed general permit conditions
- enclosed general permit special conditions
- special conditions of the verification letter for this project (see below)
- information in the PCN and attachments
- enclosed plans titled, “REPLACE EXISTING BRIDGE NO. 67 OVER FRENCH BROAD RIVER ON US 23 US 70, Surface Water Impacts”

If the extent of the project area and/or nature of the authorized impacts to waters are modified, a request detailing the proposed changes must be submitted to this office for written approval before work is initiated. Any deviation from the terms and conditions of the permit, the special conditions of this letter, the information contained in the PCN, or your submitted plans, may subject the permittee to enforcement action.

This verification is valid until **May 25, 2025**, unless the subject general permit is suspended, revoked, or is modified prior to that date such that the activity no longer complies with the terms and conditions of the general permit.

Project Specific Special Conditions:

1. In accordance with the enclosed letter from the U.S. Fish and Wildlife Service (USFWS) dated July 2, 2024, NCDOT shall adhere to the following ESA/Section 7 commitments/conservation measures:

- a. All tree removal will occur outside of the April 1st to October 15th active season for tree-roosting bats.
- b. Within 14 days of demolition, NCDOT will inspect the existing bridge for bats and signs of bat use. This survey will be conducted on foot from the bridge deck and from areas beneath the bridge (as opposed to via snooper truck). If bats or signs of bats are observed, NCDOT will immediately notify the USFWS and the USACE.
- c. For night work during the March 15th to November 15th active season for gray bat (*Myotis grisescens*), NCDOT will limit all construction-related lighting to whatever is necessary to maintain safety in active work areas closest to the French Broad River. Lighting will only be used in areas where active construction is occurring and will not be projected into adjacent wooded areas or over the water surface of the river.
- d. No permanent lighting will be installed. Two permanent lights currently located at the ends of Bridge 67 will be removed without being replaced.
- e. No blasting will occur.

f. Within one (1) year of completion of the new bridge construction, NCDOT will place bat roost panels on or adjacent to the bridge.

g. NCDOT shall place steady-state red lights that are solar-powered on the causeways to alert river users to its location. Generators will not be used to provide power to the red lights. These lights will be atop a structure, such as a pole, on each causeway, for the duration of the project. The contractor will be responsible for maintaining these lights at all times during construction, replacing them as necessary.

2. NCDOT shall abide by all stipulations identified in the executed (and enclosed) Memorandum of Agreement titled, "MEMORANDUM OF AGREEMENT AMONG THE U.S. ARMY CORPS OF ENGINEERS, THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, AND THE NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICER FOR REPLACEMENT OF BRIDGE NUMBER 67 ON US 25/70 OVER THE FRENCH BROAD RIVER AND PRIVATE DRIVE MADISON COUNTY, NORTH CAROLINA, WBS NO. 48088.1.1, PA NO. 16-01-0097, TIP NO. B-5895".

3. No sooner than 45 days prior to the commencement of work in or over the river, NCDOT shall contact all businesses and organizations that float the river in the project area to provide an overview of the project and the River Safety plan. The Resident Engineer will also inform these businesses and organizations about the preconstruction meeting so that representatives of those businesses and organizations can attend.

4. NCDOT shall ensure that the River Safety Plan, which was submitted with the PCN, is fully implemented.

5. No more than 50% of river flow shall be constricted by the causeway(s) at any time.

6. No construction fabric will be used under the causeways.

7. The permittee shall implement all reasonable and practicable measures to ensure that equipment, structures, fill pads, work, and operations associated with this project do not adversely affect upstream and/or downstream reaches. Adverse effects include, but are not limited to, channel instability, flooding, and/or stream bank erosion. The permittee shall routinely monitor for these effects, cease all work when detected, take initial corrective measures to correct actively eroding areas, and notify this office immediately. Permanent corrective measures may require additional authorization by the USACE.

8. The permittee shall ensure that any equipment that is placed on the causeway(s) is removed when either of the following situations are forecasted or anticipated: (1) the water level will rise to a point where the equipment could be flooded (even during work

days), and (2) the water level is expected to rise overnight, or over a non-work period of time, to a point where the equipment could be flooded.

9. Upon completion of work that requires the causeway(s) to be in the river, the permittee shall remove all readily detectible causeway material, to the extent practicable (excluding the material that will be used for bank stabilization that is authorized by this verification letter), while removing as little of the original riverbed as possible.

10. NCDOT has noted that the "...contractor will likely attempt to pull the bents over onto the causeway, and then remove whatever piece of the bent is remaining down to 1' below the river floor if the entire piece doesn't come over at once." If the bents cannot be removed this way, NCDOT will ensure that the bents/piers are cut at or close to the bed of the river so that they are not a hazard to river users, even during periods of low water.

11. NCDOT shall ensure that the Trail User Safety Plan, which was submitted with the PCN, is fully implemented.

12. NCDOT shall require its contractors and/or agents to comply with the terms and conditions of this authorization letter in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this authorization letter, all conditions, and any authorized modifications. A copy of this authorization letter, all conditions, and any authorized modifications, shall be available at the project site during construction and maintenance of this project.

This general permit verification and any associated authorizations does not preclude the necessity to obtain any other Federal, State, or local permits, licenses, and/or certifications, which may be required.

If you have any questions related to this verification or have issues accessing documents referenced in this letter, please contact Lori Beckwith, Regulatory Project Manager of the WRDA/Transportation Permitting Branch at 828-230-0483, by mail at the above address, or by email at loretta.a.beckwith@usace.army.mil.

Sincerely,

Monte Matthews

2024.08.12

13:56:46 -04'00'

Monte Matthews
WRDA Branch Chief
Wilmington District

Compliance Certification Form

File Number: SAW-2022-02178

County: Madison

Permittee: NCDOT, Mr. Michael Turchy

Project Name: NCDOT / B-5895 / Bridge 67 / French Broad River / Madison County / Div 13

Date Verification Issued: August 12, 2024

Project Manager: Lori Beckwith

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

**US ARMY CORPS OF ENGINEERS
Wilmington District
Attn: Lori Beckwith
151 Patton Avenue, Room 208
Asheville, NC 28801-5006
or
loretta.a.beckwith@usace.army.mil**

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the USACE suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work authorized by the above referenced permit, and mitigation (if applicable), has been completed in accordance with the terms and conditions of the said permit and verification letter, including all applicable conditions.

Date Authorized Work Started: _____ **Completed:** _____

Describe any deviations from permit (attach drawing(s) depicting the deviations):

***Note: The description of any deviations on this form does not constitute approval by the Corps.**

Signature of Permittee

Date



NORTH CAROLINA
Environmental Quality

October 25, 2022

DWR # 20221362
Madison County

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

RICHARD E. ROGERS, JR.
Director

Mr. Michael Turchy
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, NC 27699

Subject: APPROVAL OF 401 WATER QUALITY CERTIFICATION WITH ADDITIONAL CONDITIONS
Replace Bridge 67 on US 25/70 (B-5895)
French Broad River [French Broad River Basin, 06010105, B]

Dear Mr. Turchy:

You have our approval for the impacts listed below for the purpose described in your application dated October 1, 2022 and received by the Division of Water Resources (Division) on October 1, 2022. These impacts are covered by the attached Water Quality General Certification Number 4135 and the conditions listed below. This certification is associated with the use of General Permit Number 201902350 once it is issued to you by the U.S. Army Corps of Engineers. Please note that you should get any other federal, state, or local permits before proceeding with your project, including those required by (but not limited to) Sediment and Erosion Control, Non-Discharge, and Water Supply Watershed regulations.

The Division has determined that the proposed project will comply with water quality requirements provided that you adhere to the conditions listed in the enclosed certification and to the additional conditions itemized below.

The following proposed impacts are hereby approved. No other impacts are approved, including incidental impacts. [15A NCAC 02H .0506(b)]

Stream Impacts in the French Broad River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
S1			12		12	
S2			12		12	
S3				113	113	
Total			24	113	137	

Total Stream Impact for Project: 24 linear feet of permanent and 113 linear feet of temporary.



This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)].

If you are unable to comply with any of the conditions of the attached Water Quality General Certification or with the additional conditions itemized below, you must notify the Asheville Regional Office within 24 hours (or the next business day if a weekend or holiday) from the time the permittee becomes aware of the circumstances.

The permittee shall report to the Asheville Regional Office any noncompliance with, and/or any violation of, stream or wetland standards [15A NCAC 02B .0200] including but not limited to sediment impacts to streams or wetlands. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the permittee became aware of the non-compliance circumstances.

Condition(s) of Certification:

Project Specific Conditions

1. The NCDOT Division Environmental Officer or Environmental Assistant will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand potential issues at the permitted site. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]
2. Provide advanced notice of construction to Dave McHenry with the North Carolina Wildlife Resources Commission so that he may advise the site contractor about ways to minimize possible impacts to the Eastern Hellbender (NC Special Concern). [15A NCAC 02H .0506(b)(1) and (2)]
3. As a condition of this 401 Water Quality Certification, the bridge demolition and construction must be accomplished in strict compliance with the most recent version of NCDOT's Best Management Practices for Construction and Maintenance Activities. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
4. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS000250, please refer to the most recent version of the *North Carolina Department of Transportation Stormwater Best Management Practices Toolbox* manual for approved measures. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
5. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly. [15A NCAC 02H .0506(b)(3)]

General Conditions

1. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required. [15A NCAC 02H.0506(b)(2)]



2. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
3. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S. or protected riparian buffers. [15A NCAC 02H.0506(b)(2)]
4. The dimension, pattern, and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
5. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
6. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
7. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water. [15A NCAC 02H.0506(b)(3) and (c)(3)]
8. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H.0506(b)(3)]
9. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials. [15A NCAC 02H.0506(b)(3)]
10. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
11. Discharging hydroseed mixtures and washing out hydro seeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
12. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
13. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
14. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
15. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing



activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]

16. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
17. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
18. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
19. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02B.0506(b)(2)]
20. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)]
21. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards [15A NCAC 02H.0506(b)(3) and (c)(3)]:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
22. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. [15A NCAC 02H.0506(b)(3) and (c)(3)]

This approval and its conditions are final and binding unless contested. [G.S. 143-215.5] This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) **within sixty (60) calendar days**. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.



One (1) copy of the Petition must also be served to the North Carolina Department of Environmental Quality:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

This letter completes the review of the Division under section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Kevin Mitchell at 828-296-4650 or kevin.mitchell@ncdenr.gov if you have any questions or concerns.

Sincerely,

DocuSigned by:

Amy Chapman

9C9886312DCD474...

Richard E. Rogers, Jr., Director
Division of Water Resources

ec: Lori Beckwith, US Army Corps of Engineers Asheville Regulatory Field Office (via email)
Dave McHenry, NC Wildlife Resources Commission (via email)
Holland Youngman, US Fish and Wildlife Service (via email)
Jason Dilday, NC Department of Transportation (via email)

File Copy





North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS



(Version 2.08; Released April 2018)

WBS Element: 48088.1.1 TIP No.: B-5895 County(ies): Madison Page 1 of 1

General Project Information

WBS Element:	48088.1.1	TIP Number:	B-5895	Project Type:	Bridge Replacement	Date:	1/7/2022
NCDOT Contact:	David Stutts, PE		Contractor / Designer:	Ronyell Thigpen			
Address:	1000 Birch Ridge Rd. Raleigh, NC 27610		Address:	434 Fayetteville St. Suite 1500 Raleigh, NC 27603			
	Phone: (919)707-6442			Phone: (919)836-4040			
	Email: dstutts@ncdot.gov			Email: ronyell.thigpen@wsp.com			
City/Town:	Hot Springs		County(ies):	Madison			
River Basin(s):	French Broad		CAMA County?	No			
Wetlands within Project Limits?	No						

Project Description

Project Length (lin. miles or feet):	0.322 mi	Surrounding Land Use:	Rural
Project Built-Up Area (ac.)		Existing Site	
3.0 ac.		1.6 ac.	
Typical Cross Section Description:	From -L- Sta. 11+75 to 18+75, 2-12' paved lanes lined with 2'-6" curb and gutter and a 5' concrete sidewalk (LT). The proposed bridge will be 43' wide with a 5' concrete sidewalk (LT).		
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 5600	Year: 2040	Existing: 3800
			Year: 2016

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

State project B-5895 involves the replacement of Madison County Bridge #67 located on Route US25/US70 over the French Broad River. Existing Bridge #67 consists of continuous arched RC deck girders and has 8 spans; 2 at 67'-5.25"; 4 at 65'-0"; and 2 at 65'-10". The proposed bridge is to be 4 spans, all at 140' with a 74" MBT. To facilitate the construction of the proposed bridge, an on-site detour will be provided.

The project includes 0.216 mi of proposed roadway improvements in addition to 0.106 mi of structure improvements for Bridge #67. Along the proposed roadway, -L- Sta.13+85 to 15+90, drainage is conveyed by concrete storm drainage before discharging stormwater to a Standard V Ditch with a 2:1 side slopes. Stormwater discharged into the ditch will lead into an 18" pipe underneath the drive and ultimately to a RipRap pad at the French Broad River embankment. The Class I RipRap pad will cause minimal disturbances to the French Broad River with <0.01 ac of surface water impact and <0.01 ac of temporary surface water impacts. The addition of both the Standard V Ditch and RipRap pad are designed to minimize discharge velocity. Drainage for the proposed bridge is conveyed by a Class II RipRap pad that are located on both ends of the bridge with no intended surface water impacts. Deck drains are provided on the bridge but not over open waters. On the opposite side of the bridge from -L- Sta. 21+55 to 22+28, drainage is conveyed by storm drainage that will outlet to a Standard V Ditch with 2:1 side slopes onto a Class I RipRap pad to minimize discharge velocity prior to entering the French Broad River. Both surface water and temporary surface water impacts are minimized with <0.01 ac of disruption.

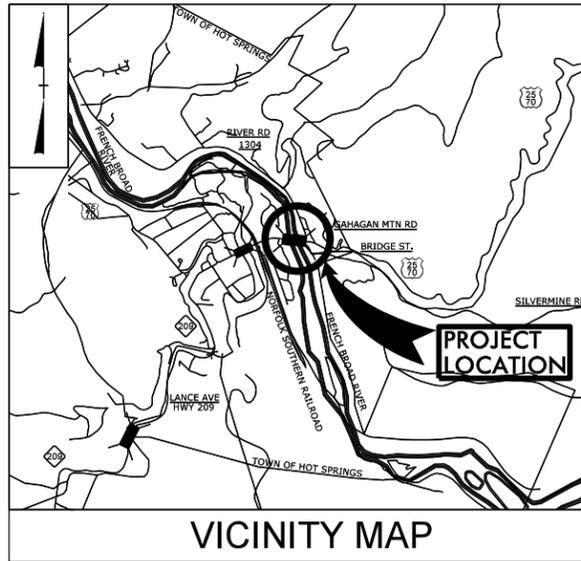
This project creates surface water impacts by the installation of 4' diameter drilled piers. Temporary rock causeways will be utilized in phases to construct the proposed bridge as well as to remove the existing bridge.

Waterbody Information

Surface Water Body (1):	French Broad River		NCDWR Stream Index No.:	6-(54.75)	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Class B		
	Supplemental Classification:		Trout Waters (Tr)		
Other Stream Classification:	None				
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	Dissipator Pads Provided in Buffer?	No
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

09/08/99

See Sheet 1A For Index of Sheets (Not Included)
See Sheet 1B For Symbology Sheet



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MADISON COUNTY

LOCATION: REPLACE EXISTING BRIDGE NO. 67
OVER FRENCH BROAD RIVER ON US 25 US 70

TYPE OF WORK: GRADING, DRAINAGE, PAVING, RETAINING WALL,
AND STRUCTURE

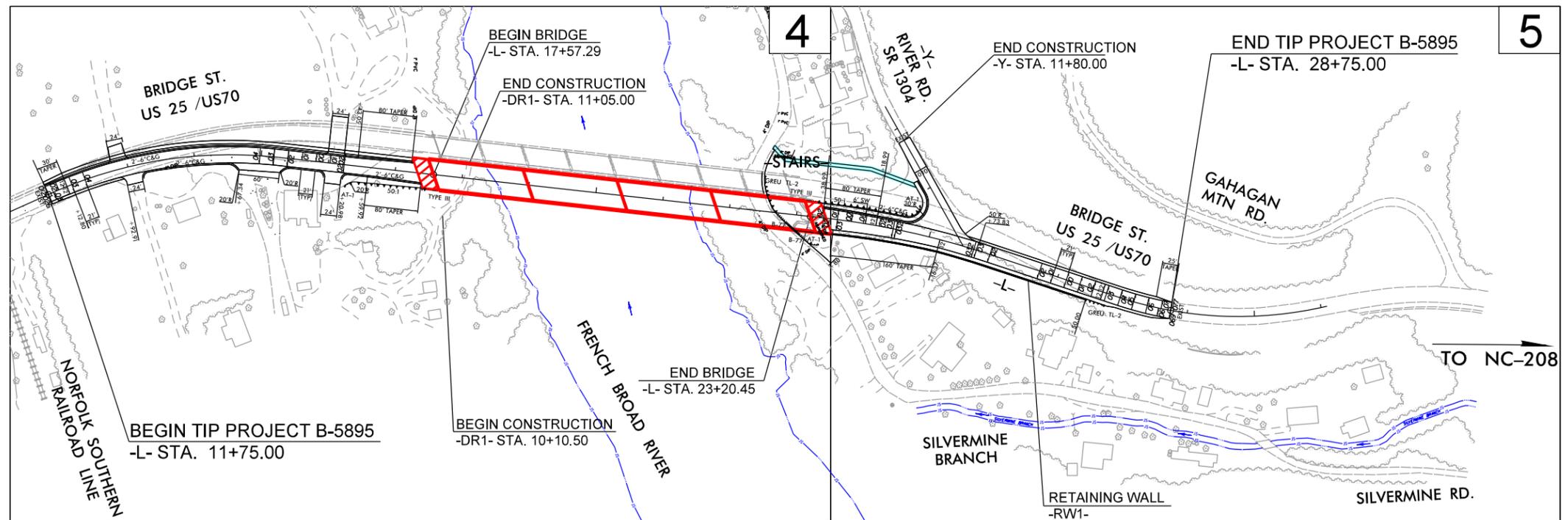
Surface Water Impacts

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5895	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
B-5895	N/A	PE	
B-5895	N/A	R/W & UTILITY	

PERMIT DRAWING
SHEET 1 OF 6



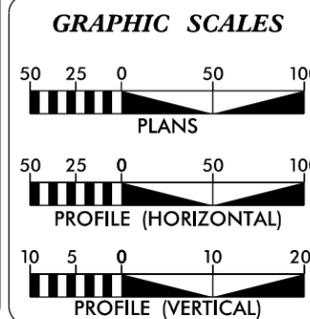
TIP PROJECT: B-5895



THIS PROJECT HAS NO CONTROL OF ACCESS
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF HOT SPRINGS.
CLEARING ON THIS PROJECT SHALL BE PERFORMED
TO THE LIMITS ESTABLISHED BY METHOD ____.

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

CONTRACT:



DESIGN DATA

ADT 2016	=	3800 VPD
ADT 2040	=	5600 VPD
K	=	11 %
D	=	55 %
T	=	7 % *
V	=	40 MPH
* TTST	=	2% DUAL = 5%
FUNC CLASS	=	MINOR ARTERIAL
REGIONAL TIER		

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5895	=	0.215 MI
LENGTH STRUCTURE TIP PROJECT B-5895	=	0.107 MI
TOTAL LENGTH TIP PROJECT B-5895	=	0.322 MI

Prepared In the Office of
wsp
WSP USA
434 FAYETTEVILLE STREET
SUITE 1500
RALEIGH, NC 27601
TEL: 1-919-836-1040
FAX: 1-919-836-4099
LICENSE NO. 15-0165

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
January 18, 2022

LETTING DATE:
January 17, 2023

NCDOT CONTACT: DAVID STUTTS, PE
STRUCTURES MANAGEMENT UNIT

RONYELL THIGPEN, PE
PROJECT ENGINEER

HOLLY CHRISTENBURY, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

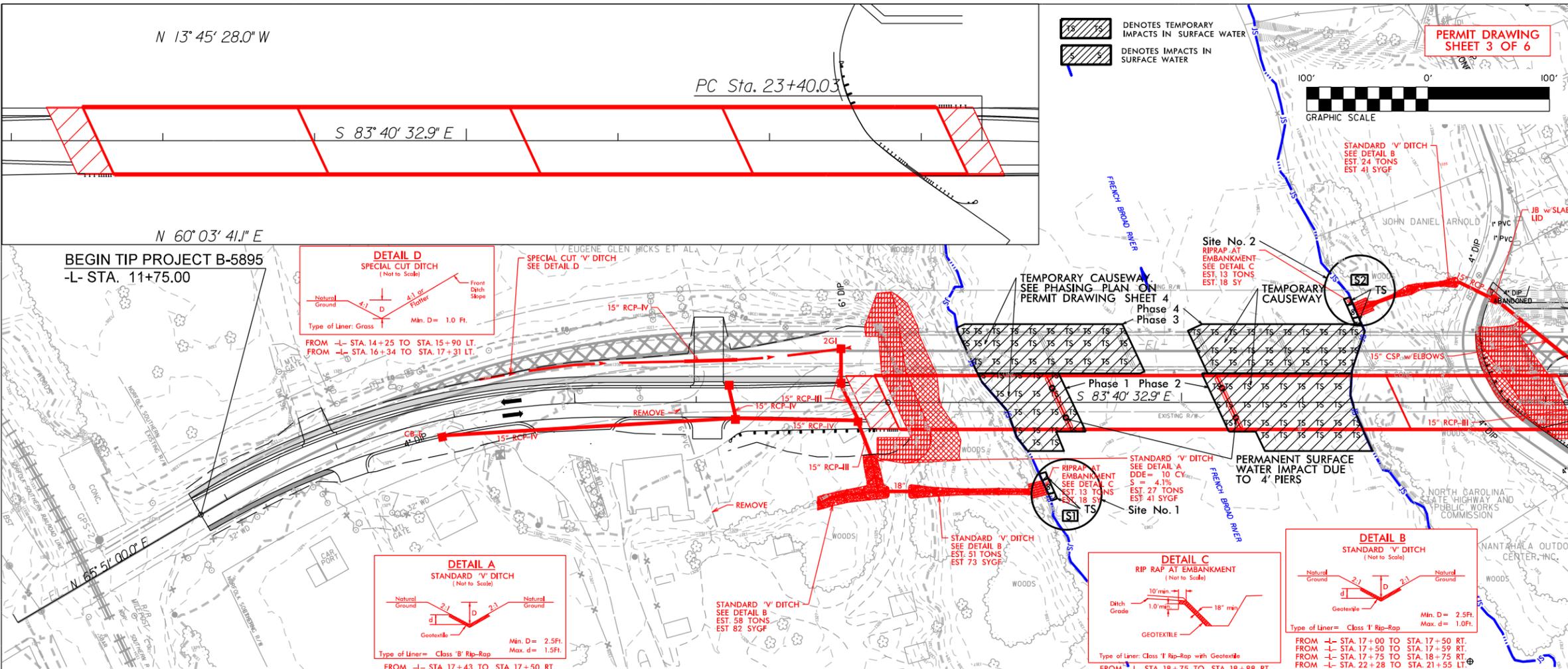
ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DDGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

8/17/99



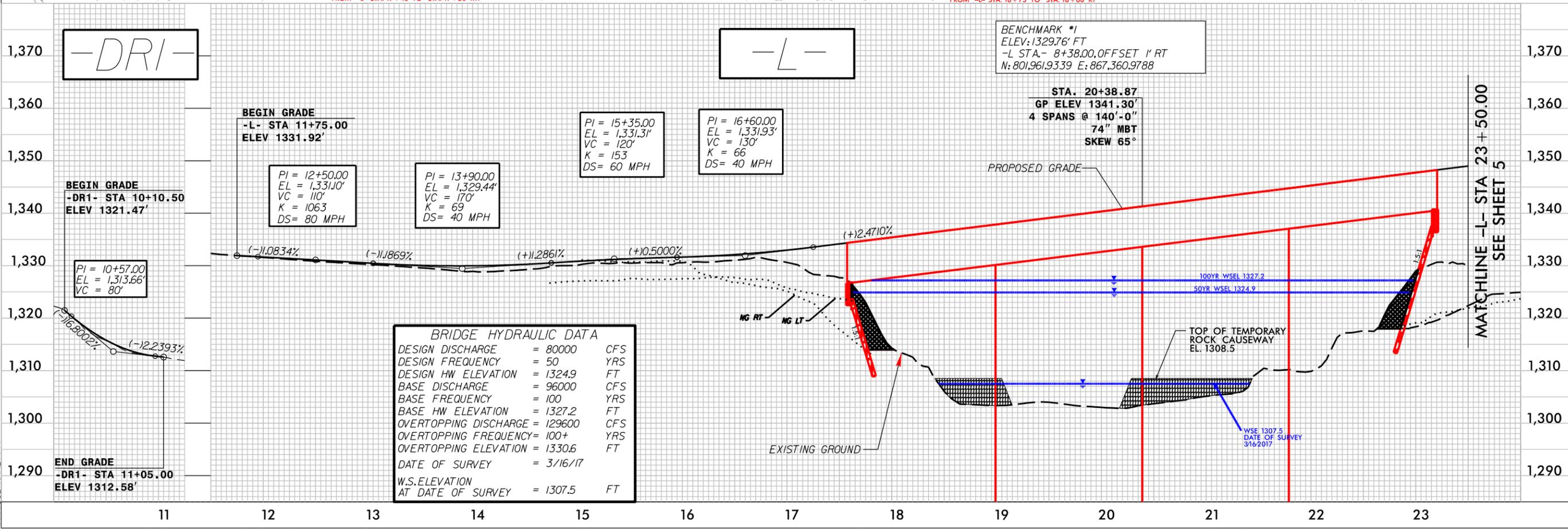
PROJECT REFERENCE NO.	SHEET NO.
B-5895	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PLANS PREPARED BY:	
WSP USA 434 FAYETTEVILLE STREET SUITE 1500 RALEIGH, NC 27601 TEL: 1.919.856.4040 FAX: 1.919.856.4099 LICENSE NO. F-0165	

ROBERT RODRIGUEZ
DB 333 PG 6II

RETAINING WALL & CONC. BARRIER

NAD 83/NSRS 2007

MATCHLINE -L- STA 23+50.00
SEE SHEET 5

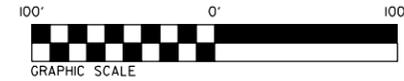


BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 80000 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 1324.9 FT
BASE DISCHARGE	= 96000 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1327.2 FT
OVERTOPPING DISCHARGE	= 129600 CFS
OVERTOPPING FREQUENCY	= 100+ YRS
OVERTOPPING ELEVATION	= 1330.6 FT
DATE OF SURVEY	= 3/16/17
W.S. ELEVATION AT DATE OF SURVEY	= 1307.5 FT

\$\$\$\$SYTIME\$\$\$\$
\$\$\$\$USDRIN\$\$\$\$

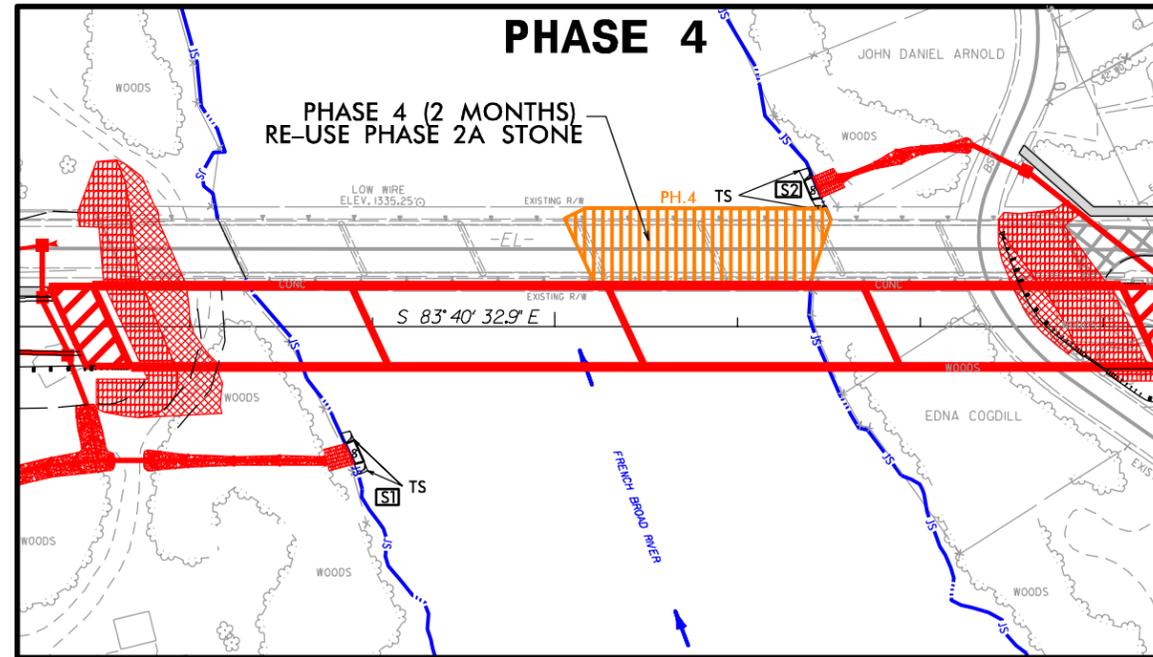
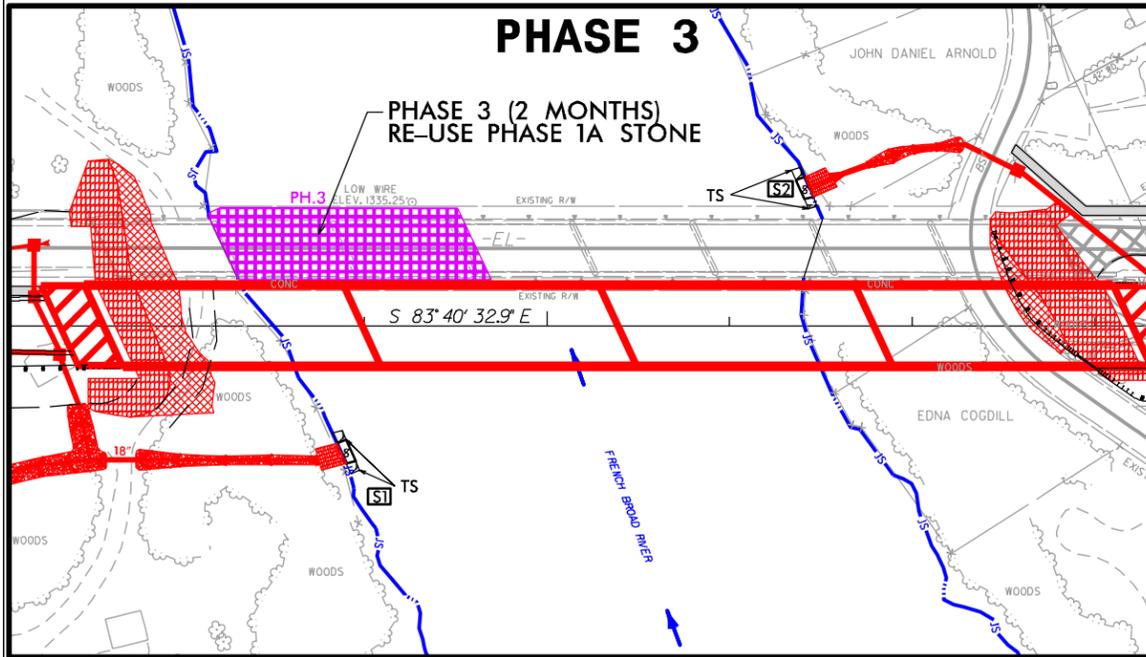
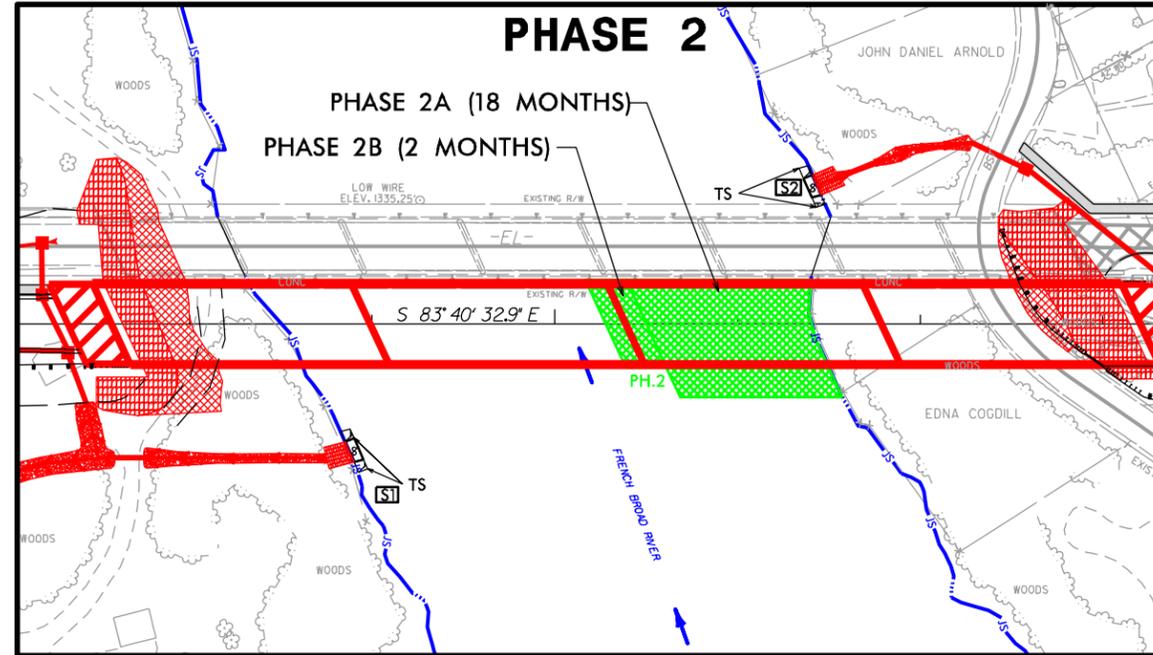
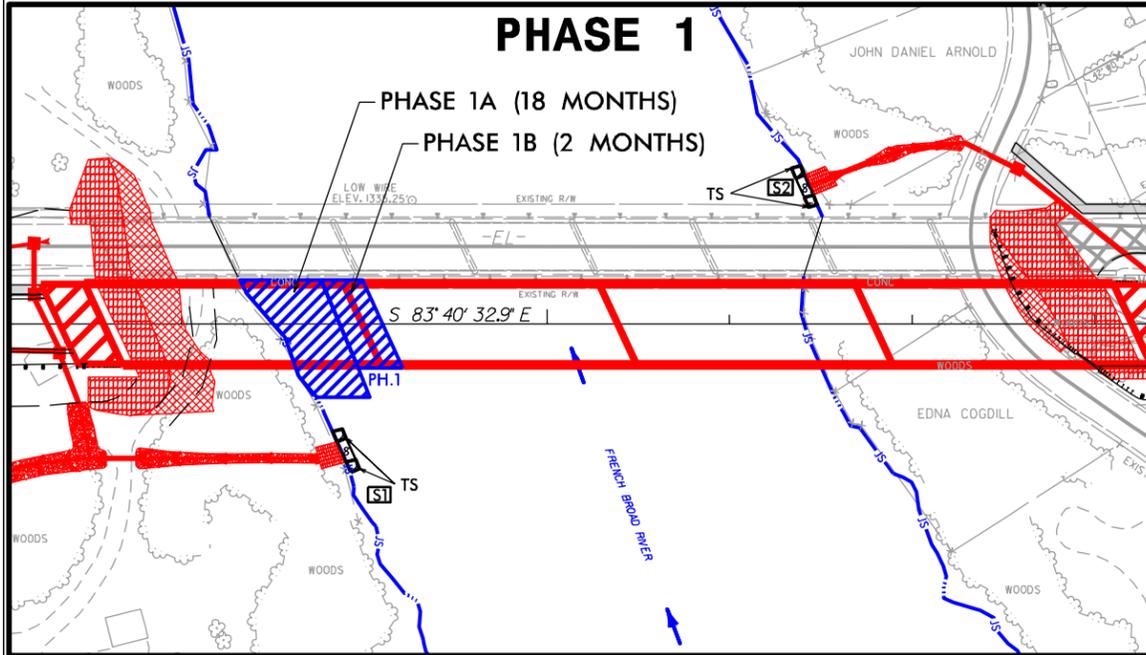
8/17/99

PERMIT DRAWING
SHEET 4 OF 6



TEMPORARY ROCK CAUSEWAY PHASING PLAN

PROJECT REFERENCE NO. B-5895	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PLANS PREPARED BY:	
	
<small>WSP USA 131 FAYETTEVILLE STREET SUITE 1500 RALEIGH, NC 27601 TEL: 919.836.4040 FAX: 919.836.4099 LICENSE NO. E-0165</small>	



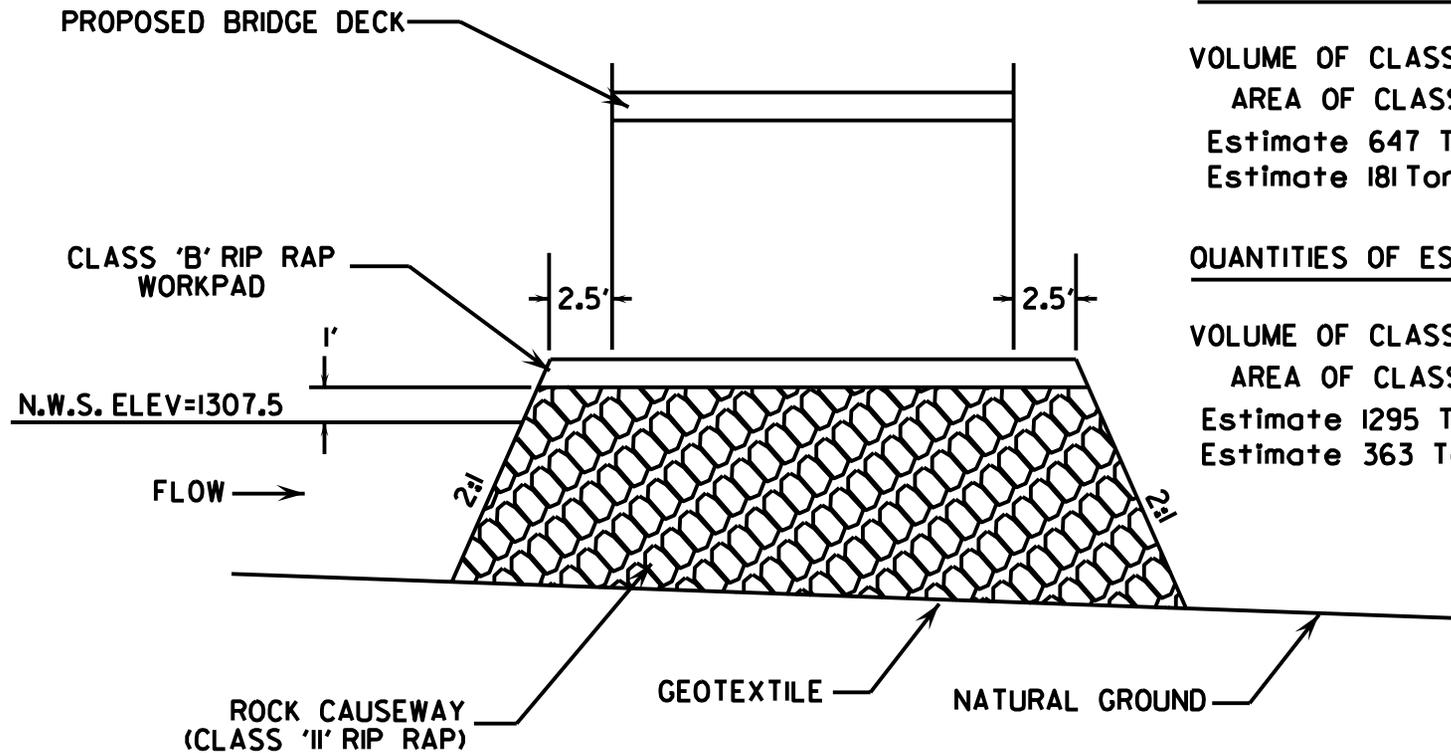
NOTES

1. NO MORE THAN 50% OF THE WIDTH OF THE RIVER SHALL BE BLOCKED AT ONE TIME. (PHASES 1 AND 2 CANNOT BE PERFORMED AT THE SAME TIME)
2. RIPRAP CAN BE RE-USED ON SITE FROM PHASE TO PHASE.
3. CAUSEWAYS SHALL BE REMOVED USING LEAST IMPACTFUL MEASURES POSSIBLE.
4. PHASES 3 AND 4 ARE FOR REMOVAL OF EXISTING BRIDGE BENTS.
5. CONSTRUCTION TIMES SHOWN ARE APPROXIMATE.
6. SITES 1 AND 2, RIPRAP AT EMBANKMENTS, CAN BE CONSTRUCTED AT ANY TIME.

NAD 83/NSRS 2007

CONSTRUCTION INFORMATION
CITY OF RALEIGH
PLANNING DEPARTMENT
800 N. SAVANNAH ST.
RALEIGH, NC 27601
TEL: 919.977.3100
FAX: 919.977.3101

TEMPORARY ROCK CAUSEWAY (NOT TO SCALE)



QUANTITIES OF ESTIMATES - PHASE 1

VOLUME OF CLASS II RIP RAP= 456 yds³
 AREA OF CLASS II RIP RAP= 0.08 ac
 Estimate 647 Tons Class 'II' Rip Rap
 Estimate 181 Tons Class 'B' Rip Rap

QUANTITIES OF ESTIMATES - PHASE 2

VOLUME OF CLASS II RIP RAP= 913 yds³
 AREA OF CLASS II RIP RAP= 0.16 ac
 Estimate 1295 Tons Class 'II' Rip Rap
 Estimate 363 Tons Class 'B' Rip Rap

QUANTITIES OF ESTIMATES - PHASE 3

VOLUME OF CLASS II RIP RAP= 711 yds³
 AREA OF CLASS II RIP RAP= 0.13 ac
 Estimate 1008 Tons Class 'II' Rip Rap
 Estimate 283 Tons Class 'B' Rip Rap

QUANTITIES OF ESTIMATES - PHASE 4

VOLUME OF CLASS II RIP RAP= 654 yds³
 AREA OF CLASS II RIP RAP= 0.12 ac
 Estimate 927 Tons Class 'II' Rip Rap
 Estimate 260 Tons Class 'B' Rip Rap

**N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 MADISON COUNTY**

PROJECT: 48088.1.1 (B-5895)
 BRIDGE NO. 67
 OVER FRENCH BROAD RIVER
 ON US 25

WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			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)
S1	L- Sta. 18+75 to 18+88	Rip Rap at Embankment						< 0.01	< 0.01	12		
S2	L- Sta. 21+42 to 21+55	Rip Rap at Embankment						< 0.01	< 0.01	12		
	L- Sta. 18+50 to 21+40	Temp. Rock Causeways							0.49		113	
TOTALS*:								< 0.01	0.49	24	113	0

*Rounded totals are sum of actual impacts

NOTES:

Linear Impacts are shown such that they do not double count due to impacts on both sides of the stream.
 Permanent Surface Water Impacts due to drilled piers: 50 sq. ft. (0.001 ac) <0.01 acre

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 8/16/2019
 Madison County
 B-5895
 310045
 SHEET 6 OF 6