



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

June 19, 2026

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 2 over Long Branch on Cold Creek Road (SR 1101) in Haywood County,
Division 14, WBS DF18314.2044187

Please find enclosed the following permits for this project:

Agency	Permit Type	Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Nationwide Permit 3 Action ID: SAW-2004-30828 Dated June 17, 2026	March 14, 2031
NC Division of Water Resources Section 401 Water Quality Certification	Water Quality Certification No. 8562 Project ID: 20260579 Written authorization not required.	expires with above Permit

Work is authorized by the above-referenced documents and must be accomplished in strict accordance with the permitted plans.

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

404 Permit (USACE)



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
WRDA TRANSPORTATION BRANCH
69 DARLINGTON AVENUE
WILMINGTON NORTH CAROLINA 28403

June 17, 2026

Regulatory Division
SAW-2004-30828

Sent Via email: recrowther@ncdot.gov

North Carolina Department of Transportation
Attn: Mr. Robert Crowther
1598 Mail Service Center
Raleigh, NC 27606

Dear Mr. Crowther:

This letter is in response to the Pre-Construction Notification (PCN) you submitted to the Wilmington District, WRDA/Transportation Branch on May 5, 2026, for a Department of the Army Nationwide permit (NWP) verification. This project has been assigned the file number SAW-2004-30828 and is known as Bridge 2 replacement project. This file number should be referenced in all correspondence concerning this project.

A review of the information provided indicates that the proposed work would include the replacement of a bridge damaged by Hurricane Helene and will result in the temporary impact to 54 lf of stream channel and the permanent impact to 95 lf of stream channel. The Bridge 2 Project is located where Cold Creek Road Crosses Long Branch, just east of the intersection of Cold Creek Road and Kinder Lane in Haywood County, North Carolina.; Latitude 35.422966 and Longitude -82.822941.

We have determined that the proposed work is authorized by NWP 3 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 general permit conditions, any regional conditions, the special conditions listed in this letter, the application materials, and the enclosed plans. If the extent of the project area and/or nature of the authorized impacts to waters are modified, a revised PCN must be submitted to this office for written approval before work is initiated. Any violation of permit conditions or deviation from your submitted plans may subject the permittee to enforcement action.

This verification is valid until March 15, 2031, unless prior to this date the subject NWP(s) is suspended, revoked, or is modified such that the activity no longer complies with the terms and conditions of this NWP. If you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

Project Specific Special Conditions:

1. This Department of the Army permit does not authorize you to take an endangered species, in particular the federally listed or proposed gray bat (*Myotis grisescens*) and tricolored bat (*Perimyotis subflavus*). In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a BO under ESA Section 7, with “incidental take” provisions with which you must comply). The enclosed U.S. Fish and Wildlife Service Biological Opinion (BO) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with “incidental take” that is also specified in the BO. Your authorization under this permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your permit. The U.S. Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.
2. Per the NC Wildlife Resources Commission’s letter, dated May 8, 2026, NCDOT shall adhere the Rainbow Trout, Brown Trout, and Brook Trout moratoriums (October 15 to April 15). Additionally, Design Standards in Sensitive Watersheds shall be implemented with this project.

This NWP verification 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 Crystal Amschler, Project Manager of the WRDA/Transportation Branch at 828-526-6013, by mail at the above address, or by email at crystal.c.amschler@usace.army.mil. Please take a moment to complete our customer satisfaction survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Sincerely,

A handwritten signature in black ink that reads "M. Scott Jones". The signature is written in a cursive style with a large, prominent "M" and "J".

M. Scott Jones, PWS
WRDA / Transportation Branch Chief
USACE - Wilmington District

Enclosures

occur is not known for each location but is assumed to occur during any time of year, including summer months. Clearing and grading will occur to allow for access roads and general construction functionality.

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

2.3 Avoidance and Minimization and Conservation Measures

NCDOT will employ the following agency Standards, Guidelines, and Best Practices to avoid and minimize project mediated activities that could negatively impact listed/proposed species or their habitat.

2.3.1 Avoidance and minimization measures (AMMs)

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

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

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

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

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

- Aquatic AMM Structure – To the maximum extent possible, structure will be built in the same location as the previous structure, with minimal impact [bents] to water resource, built to today's improved highway and hydraulic standards.
- Aquatic AMM Equipment – To the maximum extent possible, heavy machinery will not be utilized within the waterbody. Additionally, staging and storage areas for equipment and materials will be managed in such a way to ensure that potential spills and leaks do not have access to the waterbody.
- Aquatic AMM Temporary and Permanent Fill – Any temporary fill (i.e. causeways) or permanent (i.e. bents/piers) fill in excess of what was previously present will be avoided and minimized to the maximum extent possible.
- Aquatic AMM Abutments - Existing abutments will be completely removed unless removal results in destabilizing of banks or increases the adverse effect to listed/proposed aquatic species.

- Aquatic AMM Deck Drains – Deck drains that empty directly to the waterbody below will not be implemented on new bridge designs. Surface water drainage transport will be designed to incorporate improved treatment prior to drainage entering the waterbody.
- Aquatic AMM Erosion Control Matting – Coir fiber matting will be utilized instead of plastic or other synthetic matting.

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

- Bat AMM Noise - Percussive activities will occur only after the tree clearing within the action area has been completed, helping to reduce the exposure of any tree-roosting bats within the action area to high decibel noise.
- Bat AMM Lighting - No new lighting will be added to the action area. Any lighting needed for night work will be directed at the work area and shielded from surrounding waters/landscape, only on when needed, no brighter than necessary, and blue light emissions will be limited.
- Bat AMM Riparian Planting – Disturbed riparian areas will be replanted with native, fast-growing tree and shrub species where feasible, with the understanding that plantings likely cannot be done in utility/drainage/construction easements.

2.3.2 Conservation Measures (CMs)

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

Aquatic CM: Aquatics Contribution - For individual bridge projects that are LAA aquatic species, the NCDOT will contribute \$10,000 for each project structure to the N.C. Nongame Aquatic Species Fund.

Aquatic CM: Relocation - For projects that are LAA aquatic species, prior to project construction, the Service Asheville Field Office NCDOT liaison and the NC Wildlife Resources Commission NCDOT liaison will be contacted to discuss the potential for aquatic species relocation, if applicable and practicable.

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

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



⊠ North Carolina Wildlife Resources Commission ⊠

M. Kyle Briggs, Executive Director

May 8, 2026

Crystal Amschler

U.S. Army Corps of Engineers, Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801

Amy Annino

401 and Buffer Transportation Permitting Branch
North Carolina Department of Environmental Quality
2090 U.S. 70 Highway, Swannanoa, NC 28778-8211

SUBJECT: Comments on Application for Replacement of Bridge 2 over Long Branch, Haywood County (**DF18314.2044187**).

The North Carolina Department of Transportation (NCDOT) applied for a 404 Permit and 401 Certification for the subject project. The North Carolina Wildlife Resources Commission's (NCWRC) comments are offered to help conserve the wildlife resources affected by the project and to promote wildlife-based recreation in accordance with applicable provisions of the Clean Water Act of 1977 (33 U.S.C. 466 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

The project will replace a bridge over Long Branch (WS-III Tr) that was destroyed by flooding from Hurricane Helene. The new structure will be a 40-foot bridge with vertical abutments.

Wild Rainbow Trout (*Oncorhynchus mykiss*), Brown Trout (*Salmo trutta*), and Brook Trout (*Salvelinus fontinalis*) have been documented in Long Branch and Cold Creek, which is a short distance downstream of the bridge location. Therefore, as noted in scoping comments for this bridge project, the upcoming moratoria for Rainbow Trout, Brown Trout, and Brook Trout (October 15, 2026 to April 15, 2027, and subsequent moratorium periods), should be adhered to for instream disturbance from the bridge work.

The NCWRC requests that the following conditions be included in authorizations to help conserve trout and other aquatic resources affected by the project:

1. The Rainbow Trout, Brown Trout, and Brook Trout moratoriums (October 15 to April 15) should be adhered to for instream disturbance.
2. Applicable measures from the current NCDOT Erosion and Sediment Control Design and Construction Manual should be adhered to ([ECM2024 Manual 12-16-25 with Bookmarks.pdf](#)). *Design Standards in Sensitive Waters* should be incorporated into design and construction to help ensure protection of trout spawning and good quality habitats. Where basins are not practical, comparable 25-year performance should be accommodated with other measures (see part (d) of 15A NCAC 04B .0124).
3. In accordance with standard GC conditions, matting used in riparian areas should not contain nylon mesh because it entangles and kills wildlife. Coir matting should be used on disturbed stream banks that are steep or susceptible to high water. Matting should be anchored with wooden stakes according to NCDOT specifications.
4. Sandbags, rock berms, cofferdams, or other diversion structures should be used whenever possible to isolate flowing water from in-channel construction.
5. Additional rip rap on streambanks should only extend to the ordinary high water elevation and matting and vegetation should be used above the ordinary high water elevation.

Thank you for the opportunity to review and provide recommendations on this project. Please contact me at david.mchenry@ncwildlife.gov or (828) 476-1966 if you have any questions about these comments.

Sincerely,



Dave McHenry, NCWRC Western DOT Coordinator

cc: Kevin Mitchell, NCDOT Division 14 Environmental Specialist II
Rob Crowther, PWS, NCDOT ECAP

<p>U.S. Army Corps of Engineers (USACE)</p> <p>CERTIFICATION OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT</p> <p>For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.</p>	<p><i>Form Approved -</i></p> <p><i>OMB No. 0710-0003</i></p> <p><i>Expires 2027-10-31</i></p>
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The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0003, is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PURPOSE: This form is used by recipients of U.S. Army Corps of Engineer Regulatory permits to certify compliance with the permit terms and conditions.

Your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the U.S. Army Corps of Engineers, Wilmington District, Regulatory Office.

The certification can be submitted by email at crystal.c.amschler@usace.army.mil or by mail at the below address:

U.S. Army Corps of Engineers
 Wilmington District Office
 Street Address: 151 Patton Ave Room 208
 City: Asheville State: North Carolina Zip Code: 28801

COMPLETED BY THE CORPS

Corps Action Number:	SAW-2004-30828
Permit Type: <u>General Permit</u>	
General Permit Number and Name <i>(if applicable)</i> :	
Name of Permittee:	NCDOT Division 14
Project Name:	Bridge 2 replacement project
Project Location <i>(physical address)</i> :	located where Cold Creek Road Crosses Long Branch Haywood, North Carolina

PERMITTEE'S CERTIFICATION

Date Work Started: _____

Date Work Completed: _____

Enclose photographs showing the completed project *(if available)*.

I _____ hereby certify that the work authorized by the above referenced permit has been completed in accordance with all of the permit terms and conditions, and that any required compensatory mitigation has been completed in accordance with the permit conditions.

Name	Date	Signature
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401
Certification
(NCDWR)

*Written
Authorization
Not Required*

Permitted Drawings



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS



(Version 3.02; Released April 23, 2024)

WBS Element: C205050 TIP/Proj No: DF18314.2044187 County(ies): Haywood Page 1 of 2

General Project Information

WBS Element:	C205050	TIP Number:	DF18314.2044187	Project Type:	Bridge Replacement	Date:	4/17/2026
NCDOT Contact:	Patrick J. Breedlove		Contractor / Designer:		Harminder Singh		
Address:	253 Webster Road Sylva, NC 28779		Address:	Wetherill Engineering 1223 Jones Franklin Road Raleigh NC, 27606			
Phone:	828-488-0902		Phone:	919-851-8077			
Email:	pjbreedlove@ncdot.gov		Email:	hsingh@wetherilleng.com			
City/Town:	Crabtree		County(ies):	Haywood			
River Basin(s):	French Broad		CAMA County?	No			
Wetlands within Project Limits?	No						

Project Description

Project Length (lin. miles or feet):	0.095	Surrounding Land Use:	Rural, Agricultural, Wooded					
Proposed Project			Existing Site					
Project Built-Upon Area (ac.)	0.7	ac.	0.7	ac.				
Typical Cross Section Description:	Two 10-foot travel lanes (one in each direction) with 3-foot paved shoulders or 7-foot paved with guardrail			Two 7-foot travel lanes (one in each direction) with variable 6-10 foot grass shoulders				
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	427	Year:	2045	Existing:	350	Year:	2025

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

The North Carolina Department of Transportation (NCDOT) has proposed to replace Haywood County Bridge #430002 on SR 1101 (Cold Creek RD). The existing structure was a 1@27.8' Timber Deck/ I Beams with vertical concrete abutments and was washed out by Hurricane Helene. Currently, there are two 72" CMPs in place. The proposed structure will be a 1@40' 21" Cored Slab Bridge with Vertical Abutments.



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
 FOR NCDOT PROJECTS



(Version 3.02; Released April 23, 2024)

WBS Element: C205050 TIP/Proj No.: DF18314.2044187 County(ies): Haywood Page 2 of 2

General Project Information

Waterbody Information

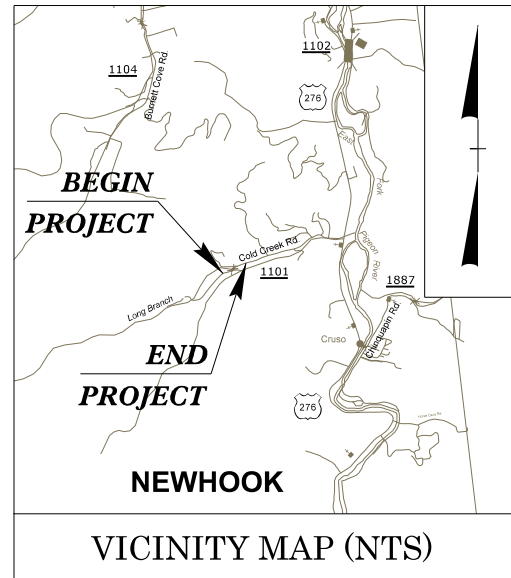
Surface Water Body (1):	Long Branch		NCDWR Stream Index No.:	5-3-13	
NCDWR Surface Water Classification for Water Body	Primary Classification:		Water Supply III (WS-III)		
	Supplemental Classification:		Trout Waters (Tr)		
Other Stream Classification:	None				
Impairments:	None				
Aquatic T&E Species?	No	Comments:			
NRTR Stream ID:	Cold Creek		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?	
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

Surface Water Body (2):			NCDWR Stream Index No.:		
NCDWR Surface Water Classification for Water Body	Primary Classification:				
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:			Buffer Rules in Effect:		
Project Includes Bridge Spanning Water Body?		Deck Drains Discharge Over Buffer?		Dissipator Pads Provided in Buffer?	
Deck Drains Discharge Over Water Body?		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

Surface Water Body (3):			NCDWR Stream Index No.:		
NCDWR Surface Water Classification for Water Body	Primary Classification:				
	Supplemental Classification:				
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:			Buffer Rules in Effect:		
Project Includes Bridge Spanning Water Body?		Deck Drains Discharge Over Buffer?		Dissipator Pads Provided in Buffer?	
Deck Drains Discharge Over Water Body?		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

TIP PROJECT: DF18314.2044187

CONTRACT: C205050



**PERMIT DRAWING
SHEET 1 OF 5**

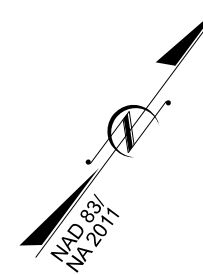
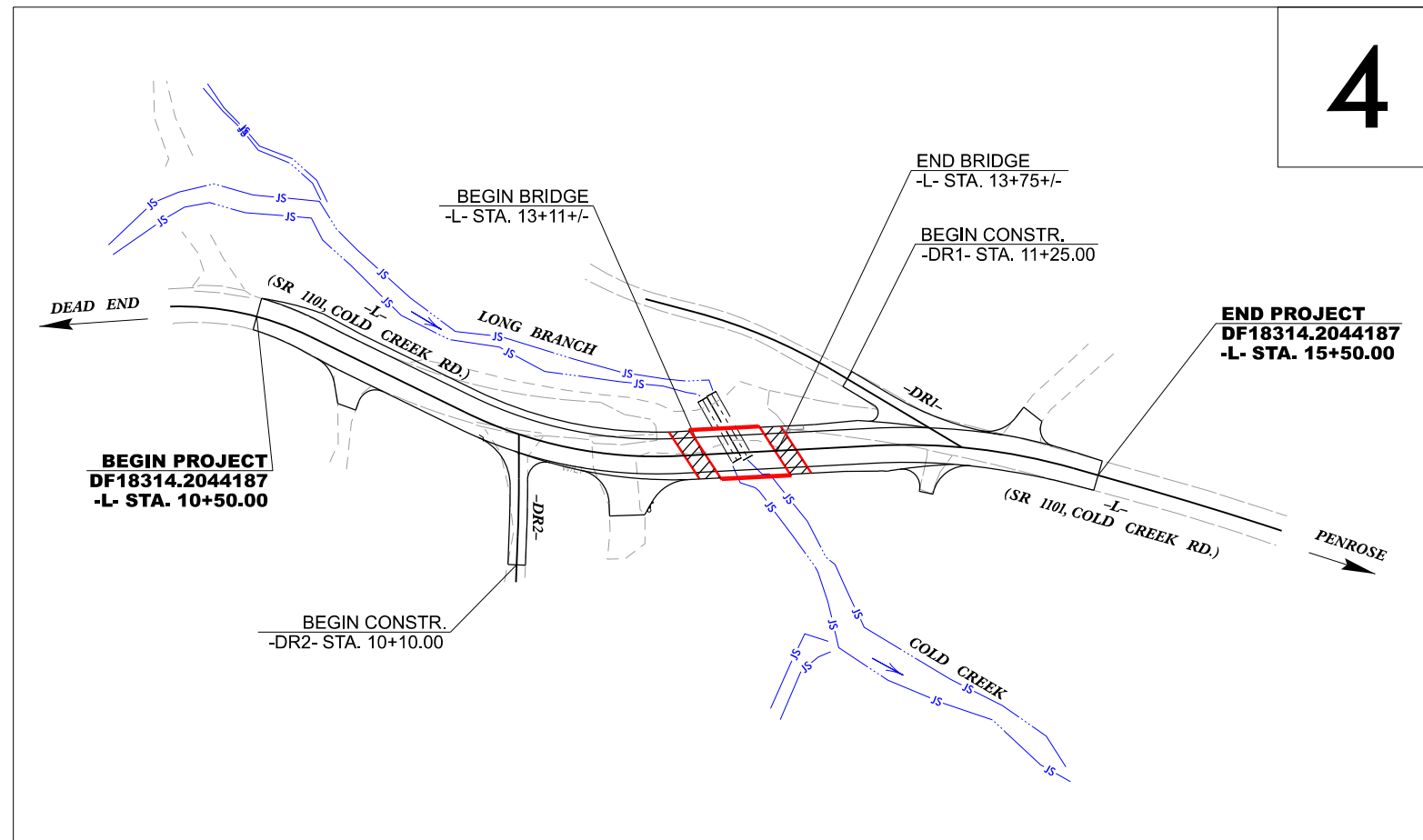
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

HAYWOOD COUNTY

LOCATION: *BRIDGE NO. 430002 OVER LONG BRANCH
ON SR 1101 (COLD CREEK RD.)*

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

WETLAND AND SURFACE WATER IMPACTS PERMIT



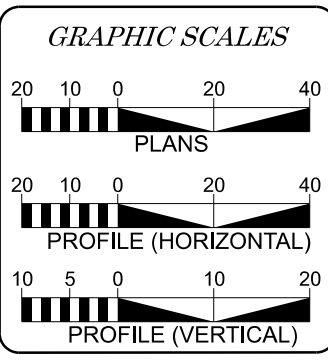
RIGHT OF WAY SUBMITTAL
MARCH 20, 2026

RELEASE FOR
CONSTRUCTION
DATE: _____

BUCKEYE BRIDGE, LLC
P.O. BOX 1367
CANTON, NC 28716
(828)648-4511

THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA	
ADT 2025 =	350
ADT 2045 =	427
K =	N/A
D =	N/A
T =	N/A
V =	25 MPH
FUNC CLASS = LOCAL RURAL	

PROJECT LENGTH
LENGTH OF ROADWAY TIP PROJECT DF18314.2044187 = 0.087 MILES
LENGTH OF STRUCTURE TIP PROJECT DF18314.2044187 = 0.008 MILES
TOTAL LENGTH OF TIP PROJECT DF18314.2044187 = 0.095 MILES

Prepared in the Office of:
WETHERILL ENGINEERING
1223 Jones Franklin Rd. Raleigh, N.C. 27606
License No. F-0377
Bus: 919.851.8077 Fax: 919.851.8107
2024 STANDARD SPECIFICATIONS

Prepared for:
**DIVISION OF HIGHWAYS
DIVISION 14**
253 Webster Road
Sylva NC, 28779

RIGHT OF WAY DATE:
MARCH 20, 2026

LETTING DATE:
APRIL 13, 2026

CHRIS ANDERSON, PE
PROJECT ENGINEER

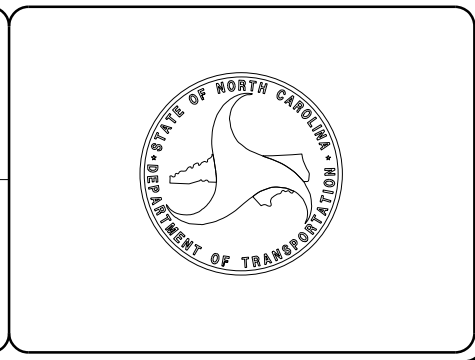
JOSE A. ROSADO JR.
PROJECT DESIGN ENGINEER

ANDREW BUCHANAN
NCDOT CONTACT

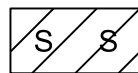
HYDRAULICS ENGINEER

SIGNATURE: _____
ROADWAY DESIGN ENGINEER

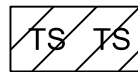
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P.E.



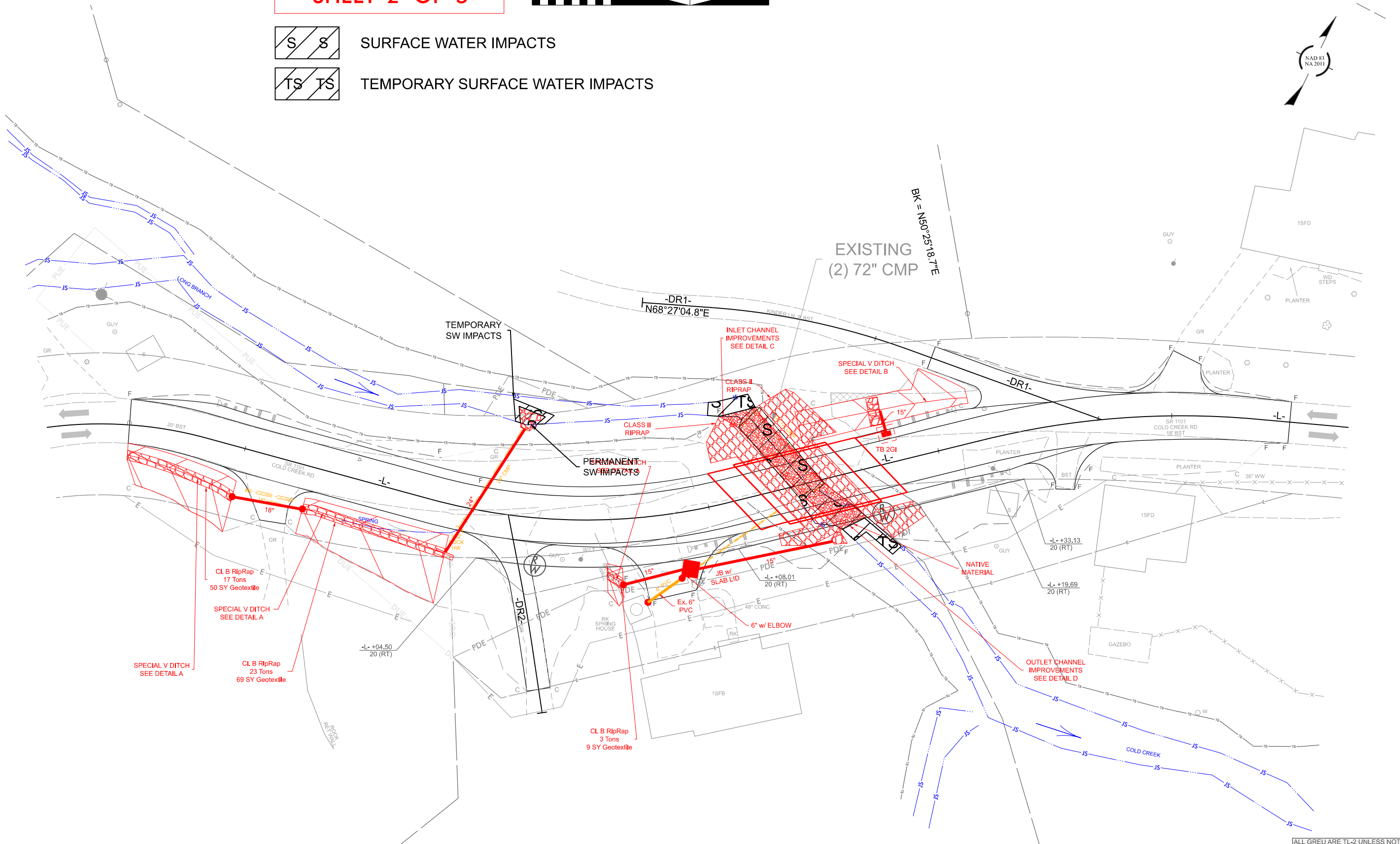
PERMIT DRAWING SHEET 2 OF 5



SURFACE WATER IMPACTS



TEMPORARY SURFACE WATER IMPACTS



DF18314.2044187

DRPS 004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HAYWOOD COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

HYDRAULICS
ENGINEER

PREPARED BY
JW
ETHERILL
ENGINEERING
1223 JONES FRANKLIN ROAD
RALEIGH, NC 27606
(919)851-8077
NC LICENSE P-0377

BUCKEYE BRIDGE, LLC
P.O. BOX 1367
CANTON, NC 28716
(828)648-4311

RELEASE FOR
CONSTRUCTION
DATE: _____

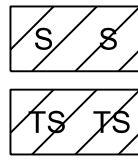
REVISIONS

ALL GREU ARE TL-2 UNLESS NOTED
ALL SAU ARE TYPE III UNLESS NOTED
ALL DRIVEWAY RADII ARE 10' UNLESS NOTED
ROTATE DRIVEWAY SLOPES AS
SHOWN ON CROSS SECTION SHEETS
FOR J-L PROFILE, SEE SHEET 5
FOR -DR1- PROFILE, SEE SHEET 6
FOR -DR2- PROFILE, SEE SHEET 6



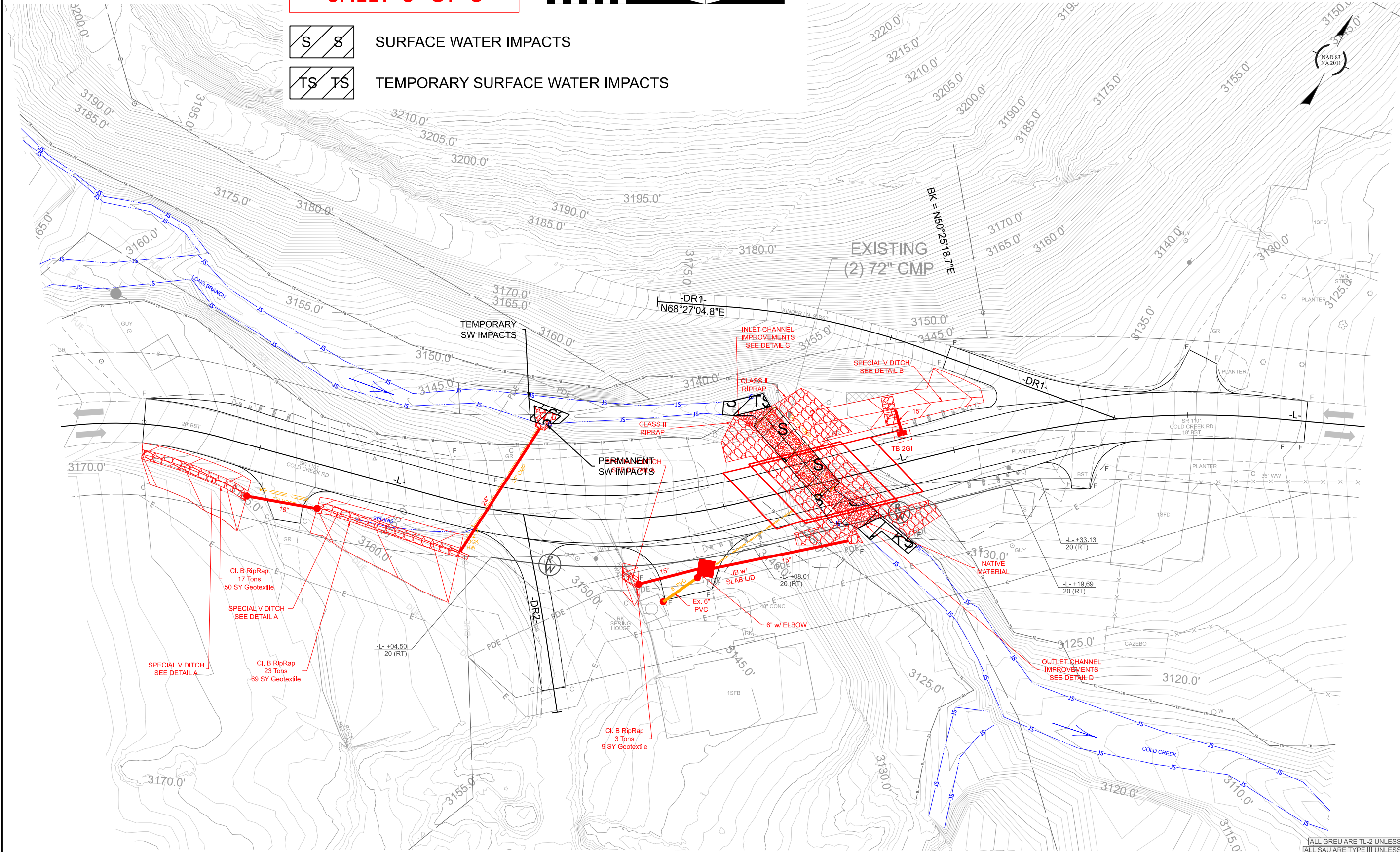
PAVEMENT REMOVAL

PERMIT DRAWING SHEET 3 OF 5



SURFACE WATER IMPACTS

TEMPORARY SURFACE WATER IMPACTS



ALL GREU ARE TL-2 UNLESS NOTED
ALL SAU ARE TYPE III UNLESS NOTED
ALL DRIVEWAY RADII ARE 10' UNLESS NOTED
ROTATE DRIVEWAY SLOPES AS SHOWN ON CROSS SECTION SHEETS
FOR J-L PROFILE, SEE SHEET 5
FOR -DR1- PROFILE, SEE SHEET 6
FOR -DR2- PROFILE, SEE SHEET 6

PAVEMENT REMOVAL

DF18314.2044187

DRPS 004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HAYWOOD COUNTY



ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED
HYDRAULICS
ENGINEER

PREPARED BY
J.W. ETHERILL
ENGINEERING
1223 JONES FRANKLIN ROAD
RALEIGH, NC 27609
(919) 851-8077
NC LICENSE P-0377

BUCKEYE BRIDGE, LLC
P.O. BOX 1367
CANTON, NC 28716
(828) 648-4311

RELEASE FOR
CONSTRUCTION
DATE: _____

REVISIONS



ROADWAY DESIGN UNIT ROADWAY DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED HYDRAULICS ENGINEER

PREPARED BY J.W. ETHERILL ENGINEERING 1223 JONES FRANKLIN ROAD RALEIGH, NC 27608 (919)551-8077 NC LICENSE P-03177

BUCKEYE BRIDGE, LLC P.O. BOX 1367 CANTON, NC 28716 (828)648-4311

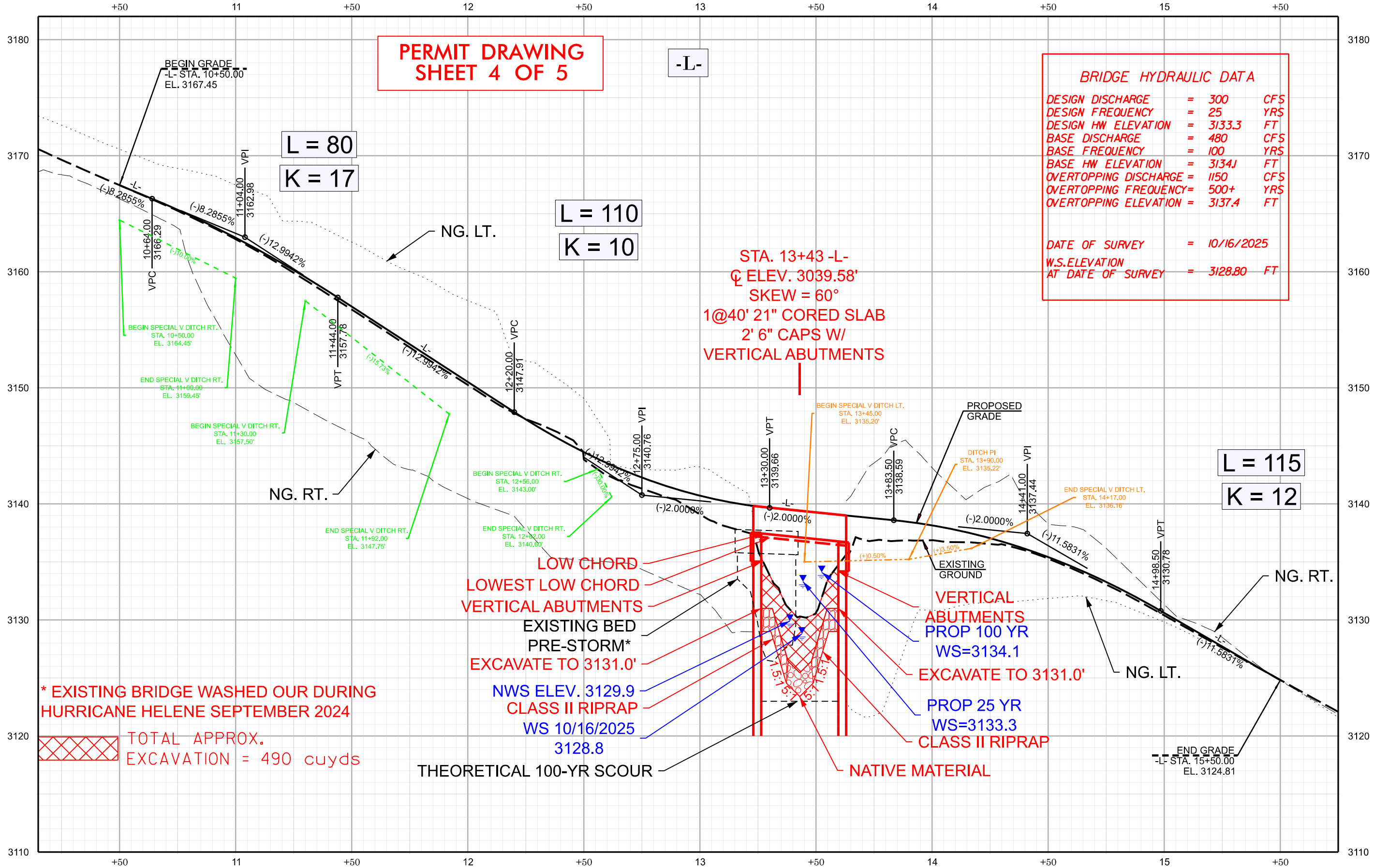
RELEASE FOR CONSTRUCTION DATE: _____

REVISIONS

PERMIT DRAWING SHEET 4 OF 5

-L-

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	=	300 CFS
DESIGN FREQUENCY	=	25 YRS
DESIGN HW ELEVATION	=	3133.3 FT
BASE DISCHARGE	=	480 CFS
BASE FREQUENCY	=	100 YRS
BASE HW ELEVATION	=	3134J FT
OVERTOPPING DISCHARGE	=	1150 CFS
OVERTOPPING FREQUENCY	=	500+ YRS
OVERTOPPING ELEVATION	=	3137.4 FT
DATE OF SURVEY = 10/16/2025		
W.S.ELEVATION AT DATE OF SURVEY = 3128.80 FT		



STA. 13+43 -L-
 Q ELEV. 3039.58'
 SKEW = 60°
 1@40' 21" CORED SLAB
 2' 6" CAPS W/
 VERTICAL ABUTMENTS

LOW CHORD
 LOWEST LOW CHORD
 VERTICAL ABUTMENTS
 EXISTING BED
 PRE-STORM*
 EXCAVATE TO 3131.0'
 NWS ELEV. 3129.9
 CLASS II RIPRAP
 WS 10/16/2025
 3128.8

VERTICAL
 ABUTMENTS
 PROP 100 YR
 WS=3134.1
 EXCAVATE TO 3131.0'
 PROP 25 YR
 WS=3133.3
 CLASS II RIPRAP

* EXISTING BRIDGE WASHED OUT DURING HURRICANE HELENE SEPTEMBER 2024

TOTAL APPROX. EXCAVATION = 490 cu yds

THEORETICAL 100-YR SCOUR

NATIVE MATERIAL

L = 115
 K = 12

L = 80
 K = 17

L = 110
 K = 10

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)
1	-L- 13+08 TO 13+75	CHANNEL IMPROVEMENTS						0.02	< 0.01	83	36	
2	-L- 12+09 TO 12+31 LT	24" PIPE OUTLET						< 0.01	< 0.01	12	18	
TOTALS*:								0.02	< 0.01	95	54	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 4/7/2026
 HAYWOOD COUNTY BRIDGE 002
 DF18314.2044187
 SHEET 5 OF 5