



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

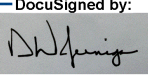
J. ERIC BOYETTE
SECRETARY

August 14, 2023

MEMORANDUM TO: Mr. Brandon Jones, P.E.
Division 5 Engineer

FROM: Dennis Jernigan, P.E.
NCTA Interim Chief Engineer

SUBJECT: Triangle Expressway Southeast Extension (Complete 540) from NC 55 Bypass in Apex to US 64/264 (I-87) in Knightdale, Wake and Johnston Counties; Federal Aid No. STP-0540(19), STP-0540(20), and STP-0540(21); WBS Nos. 37673.1.TA1, 35516.1.TA1, and 35517.1.TA1; STIP Project Nos. R-2721, R-2828, and R-2829

DocuSigned by:

F33D97B5AFE34BE...

Attached are the modified US Army Corps of Engineers (USACE) Phased Section 404 Individual Permit, NC Division of Water Resources (NCDWR) Section 401 Individual Water Quality Certification, Neuse Riparian Buffer Authorization, and Non-404 Jurisdictional Wetlands and Waters Permit for the construction of the Triangle Expressway Southeast Extension (Complete 540) from NC 55 Bypass in Apex to US 64/264 (I-87) in Knightdale, Wake and Johnston Counties. STIP Nos. R- 2721, R-2828, and R-2829. ***This change is based on the August 10, 2023 email requesting modification of the permit regarding Permit Site 9 on the R-2721B section of the project. There are no changes to the mitigation requirements.*** Subject to any requisite permit modifications, all environmental permits have been received for the construction of the final design sections of this project.

A copy of this permit package is posted on the NCDOT website at:
<https://xfer.services.ncdot.gov/pdea/PermIssued>

cc: w/o attachment (see website for attachments)
Mr. Ron Davenport, P.E. Contracts Management
Mr. Clarence Coleman, P.E., FHWA
Mrs. Heather Montague, Division 5
Mr. Mark Craig, P.E., Division 5
Mr. Boyd Tharrington, P.E., Director of Field Support
Mr. Corey McLamb, P.E., Division 4
Dr. Majed Al-Ghandour, P.E., Programming and TIP
Mr. Mateen Alinaghian, Utilities Unit
Mr. Stephen Morgan, P.E., Hydraulics Unit
Mr. Brian Hanks, P.E., Structures Management Unit
Mr. Mark Staley, Roadside Environmental
Mr. John Jamison, Environmental Policy Unit
Ms. Beth Harmon, NCDMS
Ms. Deanna Riffey, Natural Environment Unit-Environmental Coordination & Permitting

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
TURNPIKE AUTHORITY
1578 MAIL SERVICE CENTER
RALEIGH, NC 27699-1578

Telephone: (919) 707-2700
Fax: (919) 715-5511
Customer Service: 1-877-368-4968

Website: ncdot.gov

Location:
1 SOUTH WILMINGTON STREET
RALEIGH, NC 27601

From: [Alsmeyer, Eric C CIV USARMY CESAW \(USA\)](#)
To: [Ridings, Rob](#); [Thomson \(Sage Group\), Nicole J](#)
Cc: [Riffey, Deanna](#); [Abi Sheffey](#); [Matthews, Monte K CIV USARMY CESAW \(USA\)](#)
Subject: [External] With attachment RE: Mod 13 RE: Complete 540, R2721B Permit Site 9 Mod Request; DA# SAW-2009-02240
Date: Friday, August 11, 2023 12:22:42 PM
Attachments: [image001.png](#)
[230810_Updated Permit Drawings_Mod13_Site9_R-2721B_Complete540_Wake.pdf](#)

CAUTION: External email. Do not click links or open attachments unless verified. Report suspicious emails with the Report Message button located on your Outlook menu bar on the Home tab.

From: Alsmeyer, Eric C CIV USARMY CESAW (USA)
Sent: Friday, August 11, 2023 12:18 PM
To: Ridings, Rob <rob.ridings@deq.nc.gov>; Thomson (Sage Group), Nicole J <ext-njthomson2@ncdot.gov>
Cc: Riffey, Deanna <driffey@ncdot.gov>; Abi Sheffey <asheffey@SAGEECOLOGICAL.COM>; Matthews, Monte K CIV USARMY CESAW (USA) <Monte.K.Matthews@usace.army.mil>
Subject: Mod 13 RE: Complete 540, R2721B Permit Site 9 Mod Request; DA# SAW-2009-02240

Nikki: Reference the Department of the Army (DA) permit issued to the North Carolina Department of Transportation (NCDOT) on October 24, 2019, and subsequently modified, last on August 4, 2023. This permit authorized the discharge of fill material into waters of the United States for construction of the Triangle Expressway Southeast Extension (Complete 540) from NC 55 Bypass in Apex to US 64/264 (I-87) in Knightdale, Wake and Johnston Counties. Sections included within this permit are R-2721, R-2828, and R- 2829. Currently, only STIPs R-2721A&B and R-2828 are authorized for construction; STIP R-2829 has not yet been through final design, has not completely minimized impacts to waters and wetlands, nor has a final compensatory mitigation plan.

On August 10, 2023, the U.S. Army Corps of Engineers (Corps) received a request from NCDOT to modify the standard permit for the R- 2721B project (Mod13), to adjust impacts at Permit Site 9, under -Y10A. NCDOT noted that the inlet to the 66-inch RCP culvert at Permit Site 9 had destabilized. Therefore, it was determined that additional in-stream stabilization would be needed at the site to prevent further scour at the inlet to this culvert. Total stream impacts at Site 9 would not be changed; however, the stream impact type would be changed from bank stabilization (at the inlet) to countersunk in-stream stabilization. The overall footprint of the site would be unchanged. NCDOT proposes a change in the stream stabilization at the inlet of the 66" RCP on Y10A. Of the 135 feet of previously accounted for impacts (which included bank stabilization at the inlet, the culvert and the outlet rip rap dissipator pad), 20 feet will now be embedded for stream stabilization at the same location at the inlet noted as permanent bank stabilization.

The Corps has completed the evaluation of your request and has determined that it is appropriate and reasonable, and that no public notice is required for this modification. Therefore, the permit is modified as requested and as shown on the attached

drawings. No additional compensatory mitigation is required.

All conditions of the permit, including the permit expiration date of December 31, 2024, remain in effect as written.

This electronic copy is your official Department of the Army authorization; no paper copy will be mailed.

Please reply or call if you have any questions or if I may serve you in any other way.

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Eric

Eric Alsmeyer
Project Manager

Regulatory Division Office
US Army Corps of Engineers, Wilmington District
3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587
Office Tel: (919) 554-4884, x23 (I am working out of the office most days of the week, but I try to check my voicemails daily)
Regulatory Homepage:
<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx>

From: Ridings, Rob <rob.ridings@deq.nc.gov>

Sent: Friday, August 11, 2023 12:00 PM

To: Thomson (Sage Group), Nicole J <ext-njthomson2@ncdot.gov>; Alsmeyer, Eric C CIV USARMY CESAW (USA) <Eric.C.Alsmeier@usace.army.mil>

Cc: Riffey, Deanna <driffey@ncdot.gov>; Abi Sheffey <asheffey@SAGEECOLOGICAL.COM>

Subject: [Non-DoD Source] RE: Complete 540, R2721B Permit Site 9 Modification Request; DA# SAW-2009-02240

Hi all!

Here is the in-field mod for R-2721B Site 9. Forward to anyone else you feel needs a copy.

Thanks!

Have a great weekend,

Rob Ridings

Environmental Specialist

401/Buffer Transportation Permitting (DOT Divisions 4-5)

Division of Water Resources, NC Department of Environmental Quality

NEW EMAIL: rob.ridings@deq.nc.gov

919-707-8786

From: Thomson (Sage Group), Nicole J <ext-njthomson2@ncdot.gov>

Sent: Thursday, August 10, 2023 8:10 PM

To: Alsmeyer, Eric C SAW <Eric.C.Alsmeier@usace.army.mil>; Ridings, Rob <rob.ridings@deq.nc.gov>

Cc: Riffey, Deanna <driffey@ncdot.gov>; Abi Sheffey <asheffey@SAGEECOLOGICAL.COM>

Subject: Complete 540, R2721B Permit Site 9 Modification Request; DA# SAW-2009-02240

Eric & Rob -

As you are aware, the North Carolina Department of Transportation (NCDOT) applied for a phased Section 404 Individual Permit, Section 401 Individual Water Quality Certification (WQC), Neuse River Riparian Buffer Authorization, Non-404 Jurisdictional Wetlands and Waters Permit for the subject project in September 2018. The project, also known as Complete 540, encompasses three NCDOT Transportation Improvement Plan (TIP) projects: R-2721 (NC-55 Bypass to US-401), R-2828 (east of US-401 to I-40 Interchange) and R-2829 (east of I-40 to US 64/264). Revised permit applications were submitted in February 2019 and the NCDWR 401 and USACE 404 Permits were issued in February and October of 2019. Additionally, NCDOT received a modified 401 WQC for the Complete 540 Project on January 30, 2020, April 23, 2020, June 1, 2020, December 29, 2020, March 9, 2021, April 8, 2021, November 1, 2021, May 18, 2022, July 22, 2022, February 15, 2023, June 19, and July 19, 2023 from the NC Division of Water Resources (NCDWR) and a modified Department of the Army authorization #SAW-2009-02240 on February 4, 2020 (revision issued on February 7, 2020), April 29, 2020, January 7, 2021, March 19, 2021, March 3, 2022, July 1, 2022, and September 13, 2022, February 17, 2023, June 21, 2023, July 19, 2023 and August 4, 2023.

During previous agency site visits, it was noted that the inlet to the 66-inch RCP culvert at Permit Site 9 under -Y10A- had destabilized. Therefore, it was determined that a modification would be necessary to account for additional in-stream stabilization to prevent further scour at the inlet to this culvert. Total stream impacts at Site 9 have not changed; however, the stream impact type has changed at Permit Site 9 from bank stabilization (at the inlet) to countersunk in-stream stabilization. The overall footprint of the site is unchanged. Site 9 now includes stream stabilization at the inlet of the 66" RCP on Y10A due to the ditch tie to the stream and for future stability of not only the channel banks but also the stream bottom. Of the 135 feet of previously accounted for impacts (which included bank stabilization at the inlet, the culvert and the outlet rip rap dissipator pad), 20 feet will now be embedded for stream stabilization at the same location at the inlet noted as permanent bank stabilization. The attached revised permit sheets demonstrate this requested change. The department is not proposing any additional mitigation at this location as countersunk rip rap pads are historically thought of as permanent impact, but not permanent loss of function.

Thank you for your time in reviewing this modification request and please let me know if you have any questions.

Nikki

Nicole Thomson, PWS

North Carolina Turnpike Authority
North Carolina Department of Transportation

919-754-7806

1 South Wilmington Street
Raleigh, NC 27601
1578 Mail Service Center
Raleigh, NC 27699-1578



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ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director



NORTH CAROLINA
Environmental Quality

**North Carolina Division of Water Resources
Transportation Permitting Unit
In-Field Minor 401 Water Quality Certification Modification**

Project Name/ TIP Project No.: R-2721B; NC Hwy 540 Date: August 11, 2023

DOT Division: 5 County: Wake DWR Project No. **20181249 ver 15** Permit Type: **WQC#4179**

DOT Field Staff: Nicole Thomson DWR Field Staff: Rob Ridings

Modification Description

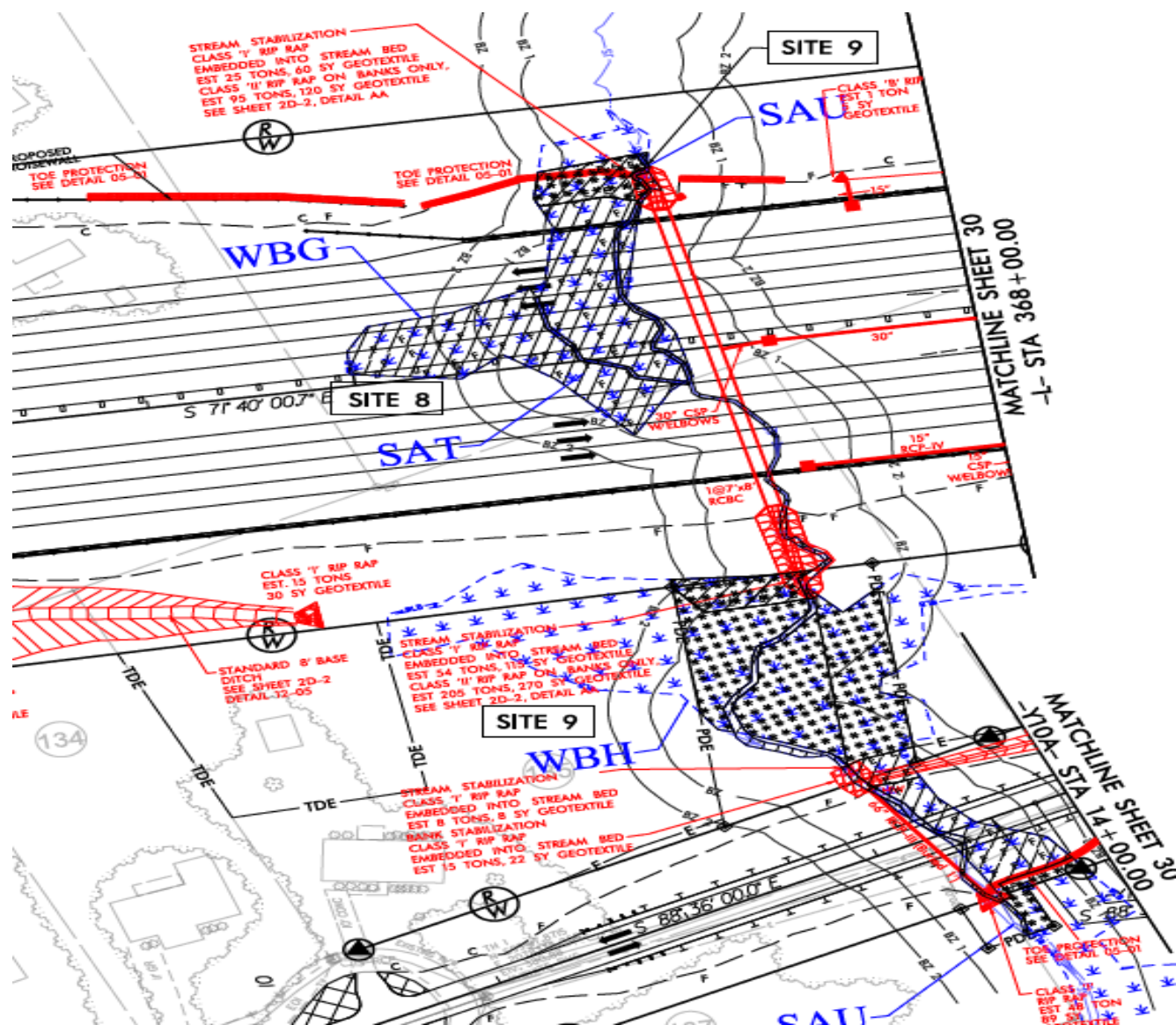
Site 9: During previous agency site visits, it was noted that the inlet to the 66-inch RCP culvert at Permit Site 9 under -Y10A- had destabilized. Therefore, it was determined that a modification would be necessary to account for additional in-stream stabilization to prevent further scour at the inlet to this culvert. Total stream impacts at Site 9 have not changed; however, the stream impact type has changed at Permit Site 9 from bank stabilization (at the inlet) to countersunk in-stream stabilization. The overall footprint of the site is unchanged. Site 9 now includes stream stabilization at the inlet of the 66" RCP on Y10A due to the ditch tie to the stream and for future stability of not only the channel banks but also the stream bottom. Of the 135 feet of previously accounted for impacts (which included bank stabilization at the inlet, the culvert and the outlet rip rap dissipator pad), 20 feet will now be embedded for stream stabilization at the same location at the inlet noted as permanent bank stabilization. The attached revised permit sheets demonstrate this requested change. The department is not proposing any additional mitigation at this location as countersunk rip rap pads are historically thought of as permanent impact, but not permanent loss of function. DOT/Turnpike Authority formally requested in-field mod via email dated August 10, 2023. This change results in no change in impact amounts.



North Carolina Department of Environmental Quality | Division of Water Resources

512 North Salisbury Street | 1611 Mail Service Center | Raleigh, North Carolina 27699-1611

919.707.9000

Modification Sketch:

This in-field modification is required for the following reason(s):

- The information contained in the application or presented in support thereof is incorrect in the following manner:

- Conditions under which the original certification was issued have changed in the following manner:



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 919.707.9000

NCTA and Agencies have concerns at Permit Site 9 regarding consistent destabilizing of the stream.

This in-field modification is valid only if issued by an authorized agent of the Division of Water Resources, Transportation Permitting Unit ¹.

This in-field modification authorizes the NCDOT to

Imbed stabilization into streambed instead of just being on banks. Rock will be keyed-in to allow for aquatic life passage while still stabilizing the stream. Change is at R-2721B Site 9.

In **WAKE** County. The project shall be constructed as described in the Modification Description and Sketch on Page 1 of this document dated **08/11/2023** to improve/construct the section of **NC 540** that extends from **NC 55** to **I-40**. The approved design is that described in the Modification Description and Modification Sketch on Page 1 of this document dated **8/11/2023**. Any further changes to the original Water Quality Certification dated **February 15, 2019, modified January 30, 2020, April 20, 2020, June 1, 2020, December 29, 2020, March 9, 2021, April 8, 2021, November 1, 2021, May 18, 2022, July 22, 2022, February 15, 2023, June 21, 2023, July 19, 2023 and August 4, 2023** may require a formal written modification request.

The description of the proposed action provides adequate assurance that the proposed action in the **Neuse** River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Section 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth. Should your project change, you are required to notify the DWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all conditions. For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state, or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Modification Approval shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit. .

Conditions(s) of Modification Approval:


- 1. As-built drawings of the proposed action shall be submitted to the NC DWR Transportation Permitting Unit within 30 days of completion of the action.**
- 2. All the authorized action activities and conditions of the certification associated with the original Water Quality Certification dated 02/15/2019 and all other corresponding modification still apply except where superseded by this certification.**
- 3. Modified Site (#41, section R-2828) shall be constructed in manner requested by NCTA in accordance with the request dated August 10, 2023 and in manner with the referenced Agency field reviews. Any variation will require an additional modification.**


Failure to construct the proposed action as described in the Modification Description and Sketch on this document and/or violations of any condition herein set forth may result in revocation of this modification approval and may result in criminal and/or civil penalties. This modification approval shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal



Area Management Act Permit. If the Corps of Engineers requires a formal written modification to the 404 permit for the proposed action, the NC DWR must require a formal written modification to the 401 WQC, and therefore, this in-field modification is invalid. If additional (wetland, stream, buffer) impacts for this project (now or in the future) exceed (one acre, 150 linear feet, or one-third of an acre/150 linear feet, respectively), or if mitigation is required above and beyond the current mitigation requirement for this project, this in-field modification is invalid and a formal written modification is required.

This in-field modification is effective upon the date the last party signs this document. This in-field modification is made upon mutual agreement between DOT and DWR as indicated by the signatures below and is, therefore, not subject to appeal by either party. Appeals by third parties must be made within sixty (60) days of notification pursuant to the contested case provisions of the Administrative Procedure Act, NC Gen. Stat. §150B-23 et seq.

DWR Field Staff Signature:  80ECA32C7C38490...
Date: 8/11/2023

DOT Field Staff Signature:  768FCFF5084D43B...
Date: 8/11/2023

¹ – An authorized agent of the Transportation Permitting Unit is defined as DWR staff that are DOT-funded and review and issue 401 Water Quality Certification for DOT projects. These staff include Central Office and Regional Office personnel.



From: [Thomson \(Sage Group\), Nicole J](#)
To: [Alsmeyer, Eric C SAW](#); [Ridings, Rob](#)
Cc: [Riffey, Deanna](#); [Abi Sheffey](#)
Subject: Complete 540, R2721B Permit Site 9 Modification Request; DA# SAW-2009-02240
Date: Thursday, August 10, 2023 8:10:00 PM
Attachments: [R-2721B Updated Permit Sheets.pdf](#)
[image001.png](#)

Eric & Rob -

As you are aware, the North Carolina Department of Transportation (NCDOT) applied for a phased Section 404 Individual Permit, Section 401 Individual Water Quality Certification (WQC), Neuse River Riparian Buffer Authorization, Non-404 Jurisdictional Wetlands and Waters Permit for the subject project in September 2018. The project, also known as Complete 540, encompasses three NCDOT Transportation Improvement Plan (TIP) projects: R-2721 (NC-55 Bypass to US-401), R-2828 (east of US-401 to I-40 Interchange) and R-2829 (east of I-40 to US 64/264). Revised permit applications were submitted in February 2019 and the NCDWR 401 and USACE 404 Permits were issued in February and October of 2019. Additionally, NCDOT received a modified 401 WQC for the Complete 540 Project on January 30, 2020, April 23, 2020, June 1, 2020, December 29, 2020, March 9, 2021, April 8, 2021, November 1, 2021, May 18, 2022, July 22, 2022, February 15, 2023, June 19, and July 19, 2023 from the NC Division of Water Resources (NCDWR) and a modified Department of the Army authorization #SAW-2009-02240 on February 4, 2020 (revision issued on February 7, 2020), April 29, 2020, January 7, 2021, March 19, 2021, March 3, 2022, July 1, 2022, and September 13, 2022, February 17, 2023, June 21, 2023, July 19, 2023 and August 4, 2023.

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Thank you for your time in reviewing this modification request and please let me know if you have any questions.

Nikki

Nicole Thomson, PWS

North Carolina Turnpike Authority

North Carolina Department of Transportation

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PERMIT DRAWING PACKAGE
LAST REVISED ON 07/18/23

PERMIT DRAWING
SHEET 27A OF 69

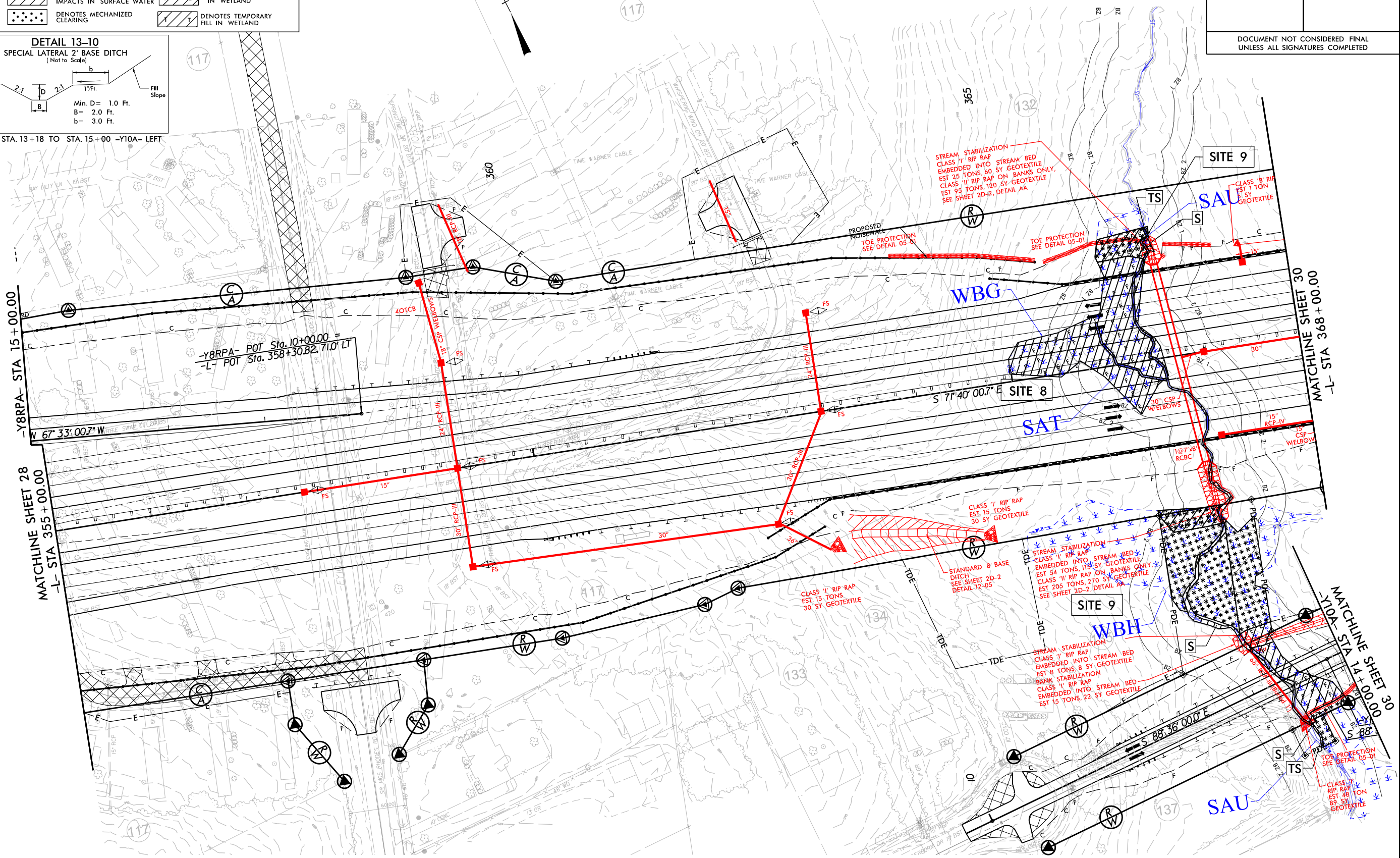
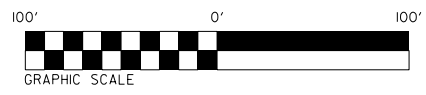
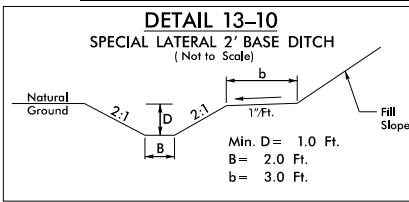


HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900, Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.	SHEET NO.
R-2721	29
R-2721B ROADWAY SHEET NO. 12 & 13	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

LEGEND

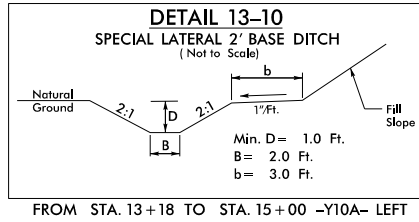
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| | DENOTES TEMPORARY IMPACTS IN SURFACE WATER | | DENOTES EXCAVATION IN WETLAND |
| | DENOTES MECHANIZED CLEARING | | DENOTES TEMPORARY FILL IN WETLAND |



51499

LEGEND

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



PERMIT DRAWING PACKAGE
LAST REVISED ON 07/18/23

PERMIT DRAWING
SHEET 27 OF 69



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555 Fayetteville St., Suite 900, Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.	SHEET NO.
R-2721	29
R-2721B ROADWAY SHEET NO. 12 & 13	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

