STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

October 23, 2026

MEMORANDUM TO: Rail Division Construction Unit

FROM: Michael A. Turchy, ECAP Group Leader
Environmental Analysis Unit

SUBJECT: Environmental Permits for the
Franklin Boulevard Grade Separation and O'Ferrell Street Crossing Closure.
Guilford County, P-5709.

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 14 Action ID: SAW-2017-01181 Dated October 23, 2026	March 14, 2031
NC Division of Water Resources Section 401 Water Quality Certification	Individual Water Quality Certification Project ID: 20241263v2 Dated October 22, 2026	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.

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

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

Telephone: (919) 707-6000
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

404 Permit (USACE)

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
WRDA / TRANSPORTATION BRANCH
3331 HERITAGE TRADE DR, SUITE 105
WAKE FOREST NC 27587

October 23, 2026

Regulatory Division
SAW-2017-01181

Sent Via email: maturchy@ncdot.gov

Michael Turchy
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, NC 27606

Dear Mr. Turchy:

This letter is in response to the Pre-Construction Notification (PCN) you submitted to the Wilmington District, WRDA / Transportation Branch on September 16, 2024, for a Department of the Army Nationwide Permit (NWP) verification. This project has been assigned the file number SAW-2017-01181 and is known as NCDOT Rail Division / P5709 / Franklin Blvd Grade Separation and O'Ferrell Street Crossing Closure / Guilford County / Div7. 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 the existing at-grade railroad crossing with a grade-separated crossing (TIP P-5709), with a relocated driveway crossing impacting less than 0.01 acre of wetlands with permanent roadway fill, and 171 linear feet (lf, 0.03 acre) of tributaries (163 lf permanent roadway fill loss, and 8 lf bank stabilization).. The project area for this determination is illustrated on the enclosed permit drawings. The project/ is located at the existing Franklin Blvd railroad crossing (722959A), south of Burlington Road, at Latitude 36.082950 and Longitude -79.740820; in Greensboro, Guilford County, North Carolina.

We have determined that the proposed work is authorized by Nationwide General Permit 14 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 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.

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 Eric Alsmeyer, Project Manager of the WRDA / Transportation Branch at 919-817-1570, by mail at the above address, or by email at eric.c.alsmeyer@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,



M. Scott Jones, PWS
WRDA / Transportation Branch Chief

Enclosures

U.S. Army Corps of Engineers (USACE)

CERTIFICATION OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT

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.

Form Approved - OMB No. 0710-0003 Expires 2027-10-31

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 eric.c.alsmeyer@usace.army.mil or by mail at the below address:

U.S. Army Corps of Engineers
Wilmington District Office
Street Address: 3331 Heritage Trade Dr, Suite 105
City: Wake Forest State: NC Zip Code: 27587

COMPLETED BY THE CORPS

Corps Action Number: SAW-2017-01181

Permit Type: General Permit

General Permit Number and Name (*if applicable*): NWP 14

Name of Permittee: NCDOT Rail Division

Project Name: NCDOT Rail Division / P5709 / Franklin Blvd Grade Separation and O'Ferrell Street Crossing Closure / Guilford County / Div7

Project Location (*physical address*): Franklin Boulevard

Greensboro, NC

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

401 Certification (NCDWR)

Docusign Envelope ID: B6CC3CE7-3FB0-8519-82DA-F5EE8C33A99B

JOSH STEIN
Governor
D. REID WILSON
Secretary
MICHAEL PJETRAJ
Director

NORTH CAROLINA
Environmental Quality

October 22, 2026

DWR #20241263v2
Guilford County

Michael Turchy
NCDOT Division 7
1000 Birch Ridge Drive (Delivery)
Raleigh, NC 27610
maturchy@ncdot.gov

Subject: **Approval of Individual 401 Water Quality Certification**
Franklin Boulevard Grade Separation and O'Ferrell Street Crossing Closure in Guilford County
WBS 46920.1.3

Location: Lat-36.084047 Long-79.740467

Dear Michael Turchy:

Attached hereto is a copy of Certification No. WQC007200 issued to NCDOT Division 7, dated October 22, 2026, this Certification replaces the Certification issued on October 21, 2024. This approval is for the purpose and design described in your application.

This Water Quality Certification does not relieve the recipient of the certificate (or the Permittee) of the responsibility to obtain all other required federal, state, or local approvals before proceeding with the project, including those required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout Buffer regulations.

Upon the presentation of proper credentials, the Division of Water Resources (Division or DWR) may inspect the property.

This Water Quality Certification shall expire on the same day as the expiration date of the corresponding Section 404 Permit that is current at the time this Certification is issued. The conditions shall remain in effect for the life of the project, regardless of the expiration date of this Water Quality Certification.

Non-compliance with or violation of the conditions herein set forth may result in revocation of this Water Quality Certification for the project and may also result in criminal and/or civil penalties.

Docusign Envelope ID: B6CC3CE7-3FB0-8519-82DA-F5EE8C33A99B

Notice regarding the right to contest this 401 Water Quality Certification decision is attached to this letter.

This letter completes the DWR's review under Section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Thomas Booton at 919-707-9144 or Thomas.Booton@deq.nc.gov if you have any questions or concerns.

Sincerely,

Signed by:
Faith Hardin
3185423002EA45E...

Faith Hardin, Supervisor
401 & Buffer Transportation Permitting Branch
Division of Water Resources, NCDEQ

Enclosures: Notice Regarding The Right To Contest A DWR 401 Water Quality Certification Decision And/Or Buffer Authorization

Electronic cc:
Christopher McGinness, Environmental Supervisor
NCDOT Division 7
(chmcginness@ncdot.gov)
Eric Alsmeyer, USACE Raleigh Regulatory Office
(eric.c.alsmeyer@usace.army.mil)

DWR 401 & Buffer Permitting Branch Electronic file

Docusign Envelope ID: B6CC3CE7-3FB0-8519-82DA-F5EE8C33A99B

NOTICE REGARDING THE RIGHT TO CONTEST A DWR 401 WATER QUALITY CERTIFICATION AND/OR BUFFER AUTHORIZATION

Right of Persons Aggrieved to File a Contested Case for the Decision on a 401 Water Quality Certification and/or Buffer Authorization:
The Division's decision is subject to review under NCGS 150B-23.

Rights of Persons Aggrieved to File a Contested Case: Pursuant to NCGS 150B, Article 3, a party or person aggrieved may commence a contested case by filing a petition under NCGS 150B-23 in the Office of Administrative Hearings within 60 days after the Division provides notice of its decision on an application, as provided in NCGS 150B-23(f). If no contested case is commenced within the required time, the Division's decision is final and is not subject to review.

General Filing Instructions: A petition for contested case hearing must be in the form of a written petition, conforming to NCGS 150B-23, and filed with the Office of Administrative Hearings, 1711 New Hope Church Road, Raleigh NC, 27609, along with a fee in an amount provided in NCGS 150B-23.2. A petition for contested case hearing form may be obtained upon request from the Office of Administrative Hearings or on its website at https://www.oah.nc.gov/hearings-division/filing/hearing-forms. Additional specific instructions for filing a petition are set forth at 26 NCAC Chapter 03.

Service Instructions: A party filing a contested case is required to serve a copy of the petition, by any means authorized under 26 NCAC 03 .0102, on the process agent for the Department of Environmental Quality:

Daniel Hirschman, General Counsel
North Carolina Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

If the party filing the petition is a person aggrieved other than the recipient of the certificate (the "Permittee"), the party must also serve the Permittee in accordance with NCGS 150B-23(a).

Be aware that other rules or laws may apply to the filing of a petition for a contested case. Additional information is available at https://www.oah.nc.gov/hearings-division/hearing-process/filing-contested-case. Please contact the Office of Administrative Hearings at (984) 236-1850 with all questions regarding the filing fee and/or the details of the filing process.

Docusign Envelope ID: B6CC3CE7-3FB0-8519-82DA-F5EE8C33A99B

NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

CERTIFICATION #WQC007200 is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to North Carolina's Regulations in 15 NCAC 02H .0500 and 15A NCAC 02B .0200, to NCDOT Division 7, who have authorization for the impacts listed below, as described within your application received by the N.C. Division of Water Resources (DWR) on October 16, 2026. , and by Public Notice issued by the DWR on September 9, 2024, and within the *Reasonable Period of Time* pursuant to 40 CFR Part 121.6. This certification replaces the one published on October 21, 2024.

The State of North Carolina certifies that this activity will comply with water quality requirements and the applicable portions of Sections 301, 302, 303, 306, 307 of the Public Laws 92-500 and PL 95-217 if conducted in accordance with the application, the supporting documentation, and the conditions hereinafter set forth.

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

Stream Impacts in the Cape Fear River Basin

Site	Perm. Fill in Stream (linear ft)	Temp. Fill in Stream (linear ft)	Total Stream Impact (linear ft)
Sl- 42" RCP-IV and Roadway **Fill**	125		125
S2- Pipe Outlet Channel Stabilization	38		38
S3- Pipe Outlet Channel Stabilization		8	8
Totals	**163**	**8**	**171**

Total Stream Impacts: 171 linear feet.

Wetland Impacts in the Cape Fear River Basin

Site	Perm. Fill in Wetlands (acres)	Temp. Fill in Wetlands (acres)	Total Wetland Impact (acres)
1- 42" RCP-IV and Roadway Fill	0.004		0.004
Totals	**0.004**		**0.004**

Total Wetland Impacts: 0.004 acres.

This approval requires you to follow the conditions listed in the Certification below.

CONDITIONS OF CERTIFICATION [15A NCAC 02H .0507(c)]:

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1. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. Any final construction plans for a project must include or reference the application and plans submitted to the DWR. The Permittee must evaluate all other acquired permits to ensure that they are consistent with the plans submitted to the DWR, and all relative impacts are accounted for and shown on the final construction plans. Any modifications or additional impacts to streams and/or wetlands and/or waters within the project require the permittee to notify the DWR and may require submission of a new application package with the appropriate fee.

   Citation: 15A NCAC 02H .0506(b)(2) and (3); 15A NCAC 02H .0507(c)

2. If the property is sold, the Permittee shall provide the new owner with a copy of this Certification and all plans and specifications incorporated by reference. The Permittee may transfer a Certification to the new owner by submitting a letter to the Division with the following statement: *"At the time the property is transferred, the terms and conditions of this 401 Individual Water Quality Certification, including the responsibility to ensure compliance, are binding on the new owner(s) of the property."* <u>The letter shall be signed and dated by both the transferee and the new owner.</u>

   Citation: 15A NCAC 02H .0507(d)(2)

3. The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as may be required by law, to: *Citation: 15A NCAC 02H .0502(e); 15A NCAC 02H .0507(c)*

   a. Enter, at reasonable times, upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this certificate;
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this certificate;
   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this certificate; and
   d. Sample or monitor at reasonable times, for the purposes of assuring certificate compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location

4. For all projects that include multiple parcels and/or lots, including transportation and/or utility-related projects installed as infrastructure for multiple parcels and/or lots, deed notifications or similar mechanisms shall be placed on all lots/parcels that include jurisdictional wetlands, streams, open waters, and state-regulated riparian buffers within the overall project boundaries. These mechanisms shall be put in place at the time of recording of the property or individual parcels, whichever is appropriate.

   Citation: 15A NCAC 02H .0502(a); 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

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5. All wetlands, streams, and surface waters located within the limits of disturbance and within 50 feet of the limits of disturbance/construction area on the project site shall be clearly marked (example- orange fabric fencing) prior to any land disturbing activities. The marking/fencing shall be maintained until the project or project phase is completed. Impacts to areas within the marked area/fencing are prohibited unless otherwise authorized by this certification.

   Citation: 15A NCAC 02H .0506(b)(2); 15A NCAC 02H .0507(c)

6. When requested by DWR, the Permittee and/or authorized agent shall schedule a pre-construction meeting with DWR, shall contact the appropriate DWR Regional Office upon project commencement of construction, shall submit a Certificate of Completion and/or shall provide as-built documentation.

   Citation: 15A NCAC 02H .0502(e); 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

7. The permittee shall report to the appropriate DWR 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.

   Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

8. No additional temporary or permanent impacts from waste, spoil, solids, fill, excavation, or staging of equipment, shall occur in wetlands or waters beyond the footprint of the impacts (including temporary impacts) identified in this Certification.

   Citation: 15A NCAC 02H .0506; 15A NCAC 02H .0507(c)

9. All activities shall be in compliance with any applicable State Regulated Riparian Buffer Rules in Chapter 2B of Title 15A in the North Carolina Administrative Code.

   Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

10. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sedimentation Pollution Control Act of 1973). Regardless of applicability of the Sedimentation Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur.

    Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *North Carolina Erosion and Sediment Control Planning and Design Manual*, or the *North Carolina Department of Transportation Erosion and Sediment Control Design and Construction Manual*.

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Appropriate measures should be installed prior to any land clearing activities to protect wetlands, streams, and/or buffers from turbidity and/or sedimentation. These measures should be routinely inspected and properly maintained, and excavated materials should be contained outside wetland, stream, and/or buffer boundaries.

For installation of bridges that involve driving or drilling activities within stream channels, open waters, or along streambanks turbidity curtains shall be installed within the surface water.

All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.

For borrow pit sites, the erosion and sediment control measures shall be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*. Reclamation measures and implementation shall comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.

If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-I, WS-II, High Quality Waters (HQW), Outstanding Resource Waters (ORW), or 303(d) impaired waters, then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watersheds*.

Citation: 15A NCAC 02H .0506(b)(2); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

11. Sediment and Erosion Control Measures (S&EC) in wetlands or waters should be avoided to the maximum extent possible and any S&EC occurring in wetlands or waters shall be restored to pre-existing conditions upon completion of the project. The Permittee shall utilize sediment and erosion control measures that avoid and minimize the need for the placement of silt fence along streams at the normal water level. Where measures are placed within authorized impact areas then placement of such measures shall not be conducted in a manner that results in a loss of function of any wetlands, streambeds, or streambanks. Any erosion control measures, including silt fence, installed within wetlands shall be removed from wetlands and the natural grade restored and revegetated within two (2) months of the date the appropriate sediment and erosion control program has released the specific area within the project to ensure wetland standards are maintained upon completion of the project.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

12. Erosion control matting shall not be placed within a stream bed. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

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13. If the project is covered by NPDES Construction Stormwater Permit Number NCG010000 or NPDES Construction Stormwater Permit Number NCG250000, full compliance with permit conditions including the erosion and sedimentation control plan, inspections and maintenance, self-monitoring, record keeping and reporting requirements is required.

    Citation: 15A NCAC 02H .0506(b) and (c); 15A NCAC 02H .0507(c)

14. The North Carolina Department of Transportation (NCDOT) shall maintain full compliance with the conditions related to construction activities and post construction stormwater design, construction and maintenance, within the most recent version of their Individual NPDES Stormwater Permit Number NCS000250.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

15. All work in or adjacent to streams, ponds, lakes, and reservoirs shall be conducted so that the work area is isolated from surface waters. Approved best management practices from the most current version of the DEMLR *NC Erosion and Sediment Control Planning and Design Manual*, or the *NC Department of Transportation Best Management Practices For Construction and Maintenance Activities Manual*, such as sandbags, rock berms, cofferdams, pump-arounds, and other diversion structures shall be used to minimize excavation in flowing water. Water that comes in contact with the work area shall be treated through an appropriate sediment/erosion control measure (sediment basin, filter bag, etc.) prior to discharging to a surface water. All temporarily disturbed areas for the purpose of isolation/dewatering shall be restored to original grade, including each stream's original cross-sectional dimensions, planform pattern, and longitudinal bed profile. All temporarily impacted sites shall be restored and stabilized with native vegetation as practicable. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200*

16. Demolition of existing structures, such as culvert or bridge removal, shall be conducted to ensure water quality standards are maintained. NCDOT activities shall adhere to NCDOT's *Best Management Practices for Construction and Maintenance Activities*.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200

17. Culverts shall be designed and installed in such a manner that the original stream profiles are not altered and allows for aquatic life movement during low flows. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed culvert shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. If the width of the culvert is wider than the stream channel, the culvert shall include multiple boxes/pipes, baffles, benches and/or sills to maintain the natural width of the stream channel. If multiple culverts/pipes/barrels are used, low flows shall be accommodated in one culvert/pipe and additional culverts/pipes shall be installed such that they receive only flows above bankfull.

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Placement of culverts and other structures in streams shall also meet one of the following requirements:

a. For structures less than 72" in diameter/width and in area where topographic constraints dictate culvert slopes will be greater than 2.5%, culverts shall be installed "at grade" such that low flow conditions in the stream are maintained provided that all alternative options for flattening the slope have been investigated and aquatic life movement/connectivity has been provided when possible (e.g. rock ladders, cross-vanes, sills, baffles etc.); or
b. When bedrock is present in culvert locations, culvert burial is not required, provided that there is documentation of the presence of bedrock.
c. For all other culverts:
    i. Culverts with a diameter greater than 48 inches shall be below the elevation of the streambed by one foot
    ii. Culverts with diameter less than or equal to 48 inches shall be below the streambed by 20% of the culvert diameter

If a culvert outlet is submerged within a pool or scour hole and designed to provide for aquatic passage, then culvert burial into the streambed is not required.

Documentation such as a location map of the culvert, culvert profile drawings, slope calculations, geotechnical reports, photographs, etc. shall be provided to DWR upon written request.

For culvert replacements within the same location/footprint, and of similar length, culverts shall be designed and installed to meet the above requirements of this Condition unless prohibited by existing conditions on site, such as existing infrastructure or topographic constraints.

Installation of culverts in wetlands shall ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. When roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges shall be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

The establishment of native woody vegetation and other soft stream bank stabilization techniques shall be used where practicable instead of rip-rap or other bank hardening methods.

Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

18. Application of fertilizer to establish planted/seeded vegetation within disturbed riparian areas and/or wetlands shall be conducted at agronomic rates and shall comply with all other Federal, State and Local regulations. Fertilizer application shall be accomplished in a manner that minimizes the risk of contact between the fertilizer and surface waters.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0231

19. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in, or adjacent to, surface waters is prohibited.

Docusign Envelope ID: B6CC3CE7-3FB0-8519-82DA-F5EE8C33A99B

Citation: 15A NCAC 02H.0506(b)

20. If concrete is used during construction (including bulkhead components, such as deadman anchors, tie-back systems and concrete caps), then all necessary measures shall be taken to isolate the concrete from waters of the state by maintaining a dry work area to prevent direct contact between curing concrete and surface waters. Drill slurry and water that inadvertently contacts uncured concrete shall not be discharged to waters of the state. 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. Any water that contacts uncured concrete shall be captured, treated, and disposed of properly.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

21. All temporary pipes, culverts, rip-rap pads etc. in streams shall be installed so as not to restrict stream flow or installed in such a manner that restricts aquatic life movement during low flow conditions. All temporary pipes and/or culverts shall be installed as outlined in the most recent edition of the *North Carolina Erosion and Sediment Control Planning and Design Manual* or the *North Carolina Surface Mining Manual* or the *North Carolina Department of Transportation Best Management Practices for Construction and Maintenance Activities*.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

22. All temporary fill and temporary culverts shall be removed, and the impacted area shall be returned to natural conditions, within 60 calendar days after the temporary impact is no longer necessary. The impacted areas shall be restored to original grade, including each stream's original cross-sectional dimensions, planform pattern, and longitudinal bed profile. All temporarily impacted sites shall be restored and stabilized with native vegetation when practicable. For all areas where wetlands are impacted by temporary roads constructed by temporary fill material, the Permittee shall remove the fill material and conduct activities necessary to restore preconstruction hydrology by addressing soil compaction. When temporary fill has been added to wetlands, or heavy equipment has been placed within a wetland, the Permittee shall ensure restoration of preconstruction soil conditions when restoring wetland areas. Upon restoration of the wetland, the Permittee shall inspect the area quarterly for a minimum of two years to document successful restoration. The Permittee shall provide documentation of inspections to DWR when requested. The monitoring requirement can be relieved with review and written approval by DWR. If the area is not restored to preconstruction conditions the impacts shall be considered permanent, and the Permittee shall request a modified Certification from DWR. With prior written approval from DWR, removal of temporary fill and temporary culverts and restoration of the impacted area may be postponed to accommodate moratorium periods.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Docusign Envelope ID: B6CC3CE7-3FB0-8519-82DA-F5EE8C33A99B

23. Any rip-rap or other armoring materials required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the construction activity covered by this Certification. All rip-rap or other non-natural armoring material placed in streams shall be placed such that the original streambed elevation and streambank contours are restored, and that the finished elevation of the rip rap shall not exceed that of the original stream bed. All rip-rap or other armoring materials shall consist of clean rock or masonry material free of debris or toxic pollutants. Placement of rip-rap or other armoring materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or be installed in a manner that precludes aquatic life passage.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

24. Any rip-rap or other non-natural armoring material (i.e. gabion baskets, revetments, bulkheads, seawalls, retaining walls) used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows, and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap or other armoring materials shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. Any rip-rap or other armoring materials placed in the streambed shall be such that the finished elevation of the rip rap or other armoring materials shall not exceed that of the original stream bed.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0201

25. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication, and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231

26. Heavy equipment working in wetlands shall be placed on mats or non-impact equipment shall be used to ensure no disturbance and/or compaction of soil from equipment except within the footprint of the impacts covered by this Certification. Heavy equipment necessary for in stream activities shall be operated from the banks to the maximum extent practical and in no cases shall cause unstable stream banks or a violation of water quality standards.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0231

27. In accordance with G.S. 143-215.85(b), the Permittee shall report any petroleum spill of 25 gallons or more; any spill regardless of amount that causes a sheen on surface waters; any petroleum spill regardless of amount occurring within 100 feet of surface waters; and any petroleum spill less than 25 gallons that cannot be cleaned up within 24 hours.

Docusign Envelope ID: B6CC3CE7-3FB0-8519-82DA-F5EE8C33A99B

Citation: 15A NCAC 02H .0507(c); N.C.G.S 143-215.85(b)

28. The Permittee and their authorized agents shall conduct all 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.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

29. A copy of this Certification shall be retained on site during the construction and maintenance of this project, or with the project manager, and be available for inspection at all times. The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this Certification 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 Certification. If the Permittee becomes aware of any inability to comply with any of the conditions of this Certification, they must notify the appropriate 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.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

30. This Water Quality Certification neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Water Quality Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This Water Quality Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Water Quality Certification to possess any prescriptive or other right of priority with respect to any other consumptive user.

    Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

Docusign Envelope ID: B6CC3CE7-3FB0-8519-82DA-F5EE8C33A99B

This Water Quality Certification shall expire on the same day as the expiration date of the corresponding Section 404 Permit that is current at the time this Certification is issued. The conditions shall remain in effect for the life of the project, regardless of the expiration date of this Water Quality Certification.

Upon completion of the proposed project, the applicant shall submit a Certificate of Completion and/or shall provide as-built documentation. Certificates of Completion and/or as-built documentation can be submitted via the DWR website: https://edocs.deq.nc.gov/Forms/Certificate-of-Completion.

This, the 22 day of October, 2026

Signed by:
Faith Hardin
3185423002EA45E...

Faith Hardin, Supervisor
401 & Buffer Permitting Transportation Branch
Division of Water Resources, NCDEQ

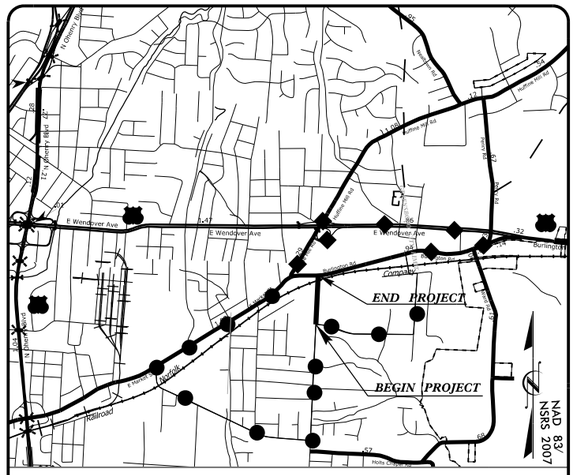
Permitted Drawings

09/08/99

TIP PROJECT: P-5709

CONTRACT:

See Sheet 1B For Conventional Symbols



VICINITY MAP

FRANKLIN BLVD OFFSITE DETOUR

BURLINGTON RD OFFSITE DETOUR

STATE OF NORTH CAROLINA
RAIL DIVISION

GUILFORD COUNTY

LOCATION: *GRADE SEPARATION AT FRANKLIN BOULEVARD CROSSING (722959A) IN GREENSBORO, AND CLOSE O'FERRELL STREET CROSSING (MP 003.49–NC) (722961B) AT NCRR/NSR*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, STRUCTURE, SIGNALS, RETAINING WALL, TRACKBED AND CROSSING CLOSURE*

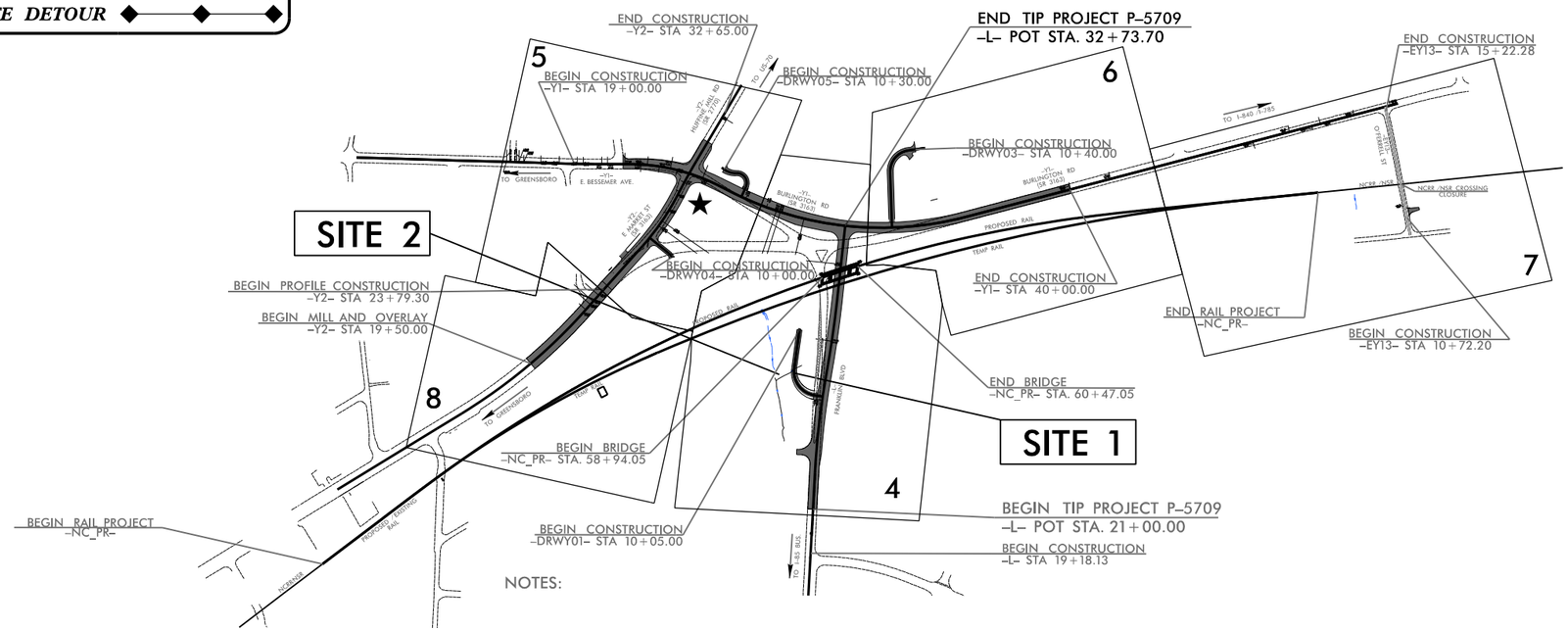
NAD 83/
NSRS 2007

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	P–5709	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46920.1.1		PE
46920.2.1		R/W
46920.2.2		UTIL.

PERMIT DRAWING
SHEET 1 OF 7

WETLAND AND SURFACE WATER IMPACTS PERMIT



1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
2. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF GREENSBORO.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100

PROFILE (HORIZONTAL): 50 25 0 50 100

PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2024 = 10,237
ADT 2044 = 11,568
V = 40 MPH

NOTE: NO TRAFFIC FORECAST WILL BE PERFORMED

FUNC CLASS = URBAN MAJOR COLLECTOR REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY T.I.P. PROJECT P–5709 = 0.222 MILES
LENGTH OF RAIL T.I.P. PROJECT P–5709 = 0.840 MILES
LENGTH OF STRUCTURES T.I.P. PROJECT P–5709 = 0.029 MILES

TOTAL LENGTH OF T.I.P. PROJECT P–5709 = 1.091 MILES

Prepared In the Office of:
HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JUNE 10, 2022

LETTING DATE: APRIL 16, 2024

DOUGLAS M. WHEATLEY, PE
PROJECT ENGINEER

THORNE KING, EI
PROJECT DESIGN ENGINEER

BRAD SMYTHE, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

PAUL CAMERON *P.E.*
SIGNATURE:

ROADWAY DESIGN ENGINEER

DOUGLAS M. WHEATLEY *P.E.*
SIGNATURE:

NC DEPARTMENT OF TRANSPORTATION
RAIL DIVISION
DESIGN AND CONSTRUCTION

7/26/2023
P-5709 Franklin Blvd GS_PRM_TSH.dgn
HNTB

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
P-5709	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PROPOSED TRAFFIC SIGNAL
PROPOSED SIDEWALK
PROPOSED PAVEMENT REMOVAL

NAD 83/NSRS2007

PERMIT DRAWING SHEET 2 OF 7

SEE PERMIT DRAWING SHEET 4 OF 6 FOR ENLARGEMENT

MATCHLINE –L– STA. 20+50.00 SEE INSET A

MATCHLINE –Y1– STA. 27+00.00 SEE SHEET 5

MATCHLINE –Y1– STA. 31+50.00 SEE SHEET 6

MATCHLINE –L– STA. 20+50.00 SEE SHEET 4

INSET A

SITE 2
SB

SITE 1
SA | WA

STATE OF NORTH CAROLINA

CITY OF GREENSBORO

GUILFORD COUNTY

GUILFORD COUNTY BOARD OF EDUCATION

NORTH CAROLINA RAILROAD CO OPERATED BY THE NORFOLK-SOUTHERN RAILWAY

DUKE POWER COMPANY SUBSTATION

FRANKLIN BLVD

BURLINGTON RD

BEGIN TIP PROJECT P-5709 –L– POT STA.21+00.00

END TIP PROJECT P-5709 –L– POT STA.32+41.20

BEGIN CONSTRUCTION –DRWY01– POT STA.10+05.00

BEGIN BRIDGE –NC_PR– STA.58+94.05
–L– POT Sta.30+83.63 =
–NC_PR– POC Sta.59+71.81
SKEW 66°11'12.7904"

END BRIDGE –NC_PR– STA.60+47.05

DETAIL TP1
TOE PROTECTION
(Not to Scale)

DETAIL SB1
STANDARD BASE DITCH
(Not to Scale)
Min. D= 1.0 Ft.
B= 5.0 Ft.
FROM –NC_PR– STA. 55+09 (109' LT)
TO –NC_PR– STA. 56+00 (30' LT)

DETAIL SB2
STANDARD BASE DITCH
(Not to Scale)
*When B is < 6.0'
Min. D= 3.0 Ft.
Max. d= 3.0 Ft.
B= 3.0 Ft.
Type of Liner= Class I Rip-Rap
FROM –L– STA. 26+83 (90' LT)
TO –L– STA. 26+96 (50' LT)

DETAIL PO1
PIPE OUTLET CHANNEL
(Not to Scale)
Length= 35 Ft.
d= 4 Ft.
Est.= 59 Tons of Class I Rip-Rap
Est.= 83 SY of Geotextile
–DRWY01– STA. 12+25 RT

DETAIL SLB1
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Min. D= 1 Ft.
Max. d= 1 Ft.
B= 5 Ft.
Type of Liner= Class 'B' Rip-Rap
FROM –L– STA. 27+50 TO STA. 28+50 RT

DETAIL SCB1
SPECIAL CUT BASE DITCH
(Not to Scale)
Min. D= 1.0 Ft.
B= 5.0 Ft.
FROM –NC_TMP– STA. 60+42 TO STA. 62+50 RT

DETAIL SLB2
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Min. D= 1.0 Ft.
B= VAR.
FROM –NC_PR– STA. 54+50 TO STA. 58+75 LT

LEGEND
F F DENOTES FILL IN WETLAND
S S DENOTES IMPACTS IN SURFACE WATER
TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

50' 0' 50' 100' 150'
GRAPHIC SCALE

FOR –L– PROFILE, SEE SHEET 8
FOR –Y1– PROFILE, SEE SHEET 8 & 9
FOR –DRWY01– PROFILE, SEE SHEET 10
FOR INTERSECTION DETAIL, SEE SHEET 2B-1

NOTE:
1. ALL OUTSIDE CURB & GUTTER ARE 2'-6" UNLESS OTHERWISE NOTED.

8/17/2023
8/30/2023
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HNTB
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Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
P-5709	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PROPOSED TRAFFIC SIGNAL
PROPOSED SIDEWALK
PROPOSED PAVEMENT REMOVAL

NAD 83/NSRS2007

PERMIT DRAWING SHEET 3 OF 7

SEE PERMIT DRAWING SHEET 5 OF 6 FOR ENLARGEMENT

MATCHLINE –L– STA. 20+50.00 SEE INSET A

MATCHLINE –Y1– STA. 27+00.00 SEE SHEET 5

MATCHLINE –Y1– STA. 31+50.00 SEE SHEET 6

INSET A

MATCHLINE –L– STA. 20+50.00 SEE SHEET 4

BEGIN TIP PROJECT P-5709 –L– POT STA.21+00.00

BEGIN CONSTRUCTION –DRWY01– POT STA.10+05.00

END TIP PROJECT P-5709 –L– POT STA.32+41.20

BEGIN BRIDGE –NC_PR– STA.58+94.05
–L– POT Sta.30+83.63 =
–NC_PR– POC Sta.59+71.81
SKEW 66°11'12.7904"

END BRIDGE –NC_PR– STA.60+47.05

SITE 1
SA | WA

SITE 2
SB

IMPACTS IN SURFACE WATER (SB)
IMPACTS IN SURFACE WATER (SA)
TEMPORARY IMPACTS IN SURFACE WATER (SB)
FILL IN WETLAND (WA)
FILL IN EXISTING JS EST. 146 CY
PIPE OUTLET CHANNEL BANK STABILIZATION SEE DETAIL PO1

DETAIL TP1
TOE PROTECTION
(Not to Scale)
Natural Ground
2:1 or Flatter Fill Slope
b
d
d= 1 Ft.
b= 1 Ft.
Geotextile
Type of Liner= Class B Rip-Rap
FROM –NC_TMP– STA. 55+09 (109' LT)
TO –NC_PR– STA. 56+00 (80' RT)

SPECIAL LATERAL 5' BASE DITCH SEE DETAIL SLB2
CLASS 'I' RIP-RAP EST. 20 TONS EST. 39 SYGF
TRENCHLESS INSTALLATION 42" WELDED STEEL
FILL W/ FLOWABLE FILL
CLASS 'B' RIP-RAP EST. 2 TONS EST. 7 SYGF
REMOVE JB
STANDARD 5' BASE DITCH SLOPE = 4.02% SEE DETAIL SB1
CONVERT CB TO DI
SPECIAL LATERAL 5' BASE DITCH SEE DETAIL SLB2
TOE PROTECTION SEE DETAIL TP1 EST. 13 TONS EST. 18 SYGF
TEMP 18" WSP
CLASS 'B' RIP-RAP EST. 3 TONS EST. 10 SYGF
STANDARD 3' BASE DITCH w/CLASS I RIP RAP SLOPE = 3.64% SEE DETAIL SB2
42" RCP-IV (BURIED 0.7')
36" RCP-IV
24" RCP-IV
30" RCP-IV
18" RCP-IV
15" RCP-IV
36" WELDED STEEL
REMOVE FES REMOVE 17' OF 24" RCP SPECIAL LATERAL 5' BASE DITCH W/CLASS 'B' RIP-RAP SEE DETAIL SLB1
5' BERM DITCH W/CLASS 'B' RIP-RAP SEE NCDOT RDWY STD. 240.01 –L– STA. 28+50 TO 30+00 RT
CLASS 'B' RIP-RAP EST. 3 TONS EST. 10 SYGF
SPECIAL CUT 5' BASE DITCH SEE DETAIL SCB1
DO NOT DISTURB FENCE LINE
RETAIN
REMOVE
ADJUST DI
CB-E
CB-F
CB-G
JB W/MH
FRANKLIN BLVD
BURLINGTON RD
CITY OF GREENSBORO
GUILFORD COUNTY
GUILFORD COUNTY BOARD OF EDUCATION
NORTH CAROLINA RAILROAD CO OPERATED BY THE NORFOLK SOUTHERN RAILWAY
DUKE POWER COMPANY SUBSTATION
STATE OF NORTH CAROLINA
MTL POSTS AROUND OLD WATER HYDRANT
CHORD
GRAPHIC SCALE 50' 0' 50' 100' 150'

DETAIL SB1
STANDARD BASE DITCH
(Not to Scale)
Natural Ground, 2:1, D, B, 2:1, Natural Ground
Min. D= 1.0 Ft.
B= 5.0 Ft.
FROM –NC_PR– STA. 55+09 (109' LT)
TO –NC_PR– STA. 56+00 (30' LT)

DETAIL SB2
STANDARD BASE DITCH
(Not to Scale)
Natural Ground, 2:1, d, D, 2:1, Natural Ground, Geotextile, B
Min. D= 3.0 Ft.
Max. d= 3.0 Ft.
B= 3.0 Ft.
*When B is < 6.0'
Type of Liner= Class I Rip-Rap
FROM –L– STA. 26+83 (90' LT)
TO –L– STA. 26+96 (50' LT)

DETAIL PO1
PIPE OUTLET CHANNEL
(Not to Scale)
Natural Ground, min 3 to 5% Finished Slope, min 1 to 1% Finished Slope, d, CHANNEL BED (Variable), Natural Ground
Length= 35 Ft.
d= 4 Ft.
Est.= 59 Tons of Class I Rip-Rap
Est.= 83 SY of Geotextile
–DRWY01– STA. 12+25 RT

DETAIL SLB1
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Natural Ground, 2:1, d, D, 2:1 or Flatter, Fill Slope, Geotextile, B
Min. D= 1 Ft.
Max. d= 1 Ft.
B= 5 Ft.
Type of Liner= Class 'B' Rip-Rap
FROM –L– STA. 27+50 TO STA. 28+50 RT

DETAIL SCB1
SPECIAL CUT BASE DITCH
(Not to Scale)
Natural Ground, 2:1, D, 2:1 or Flatter, Front Ditch Slope, B
Min. D= 1.0 Ft.
B= 5.0 Ft.
FROM –NC_TMP– STA. 60+42 TO STA. 62+50 RT

DETAIL SLB2
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Natural Ground, 2:1, D, 2:1 or Flatter, Front Ditch Slope, B
Min. D= 1.0 Ft.
B= VAR.
FROM –NC_PR– STA. 54+50 TO STA. 58+75 LT

LEGEND
F F — DENOTES FILL IN WETLAND
S S — DENOTES IMPACTS IN SURFACE WATER
TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER

FOR –L– PROFILE, SEE SHEET 8
FOR –Y1– PROFILE, SEE SHEET 8 & 9
FOR –DRWY01– PROFILE, SEE SHEET 10
FOR INTERSECTION DETAIL, SEE SHEET 2B-1

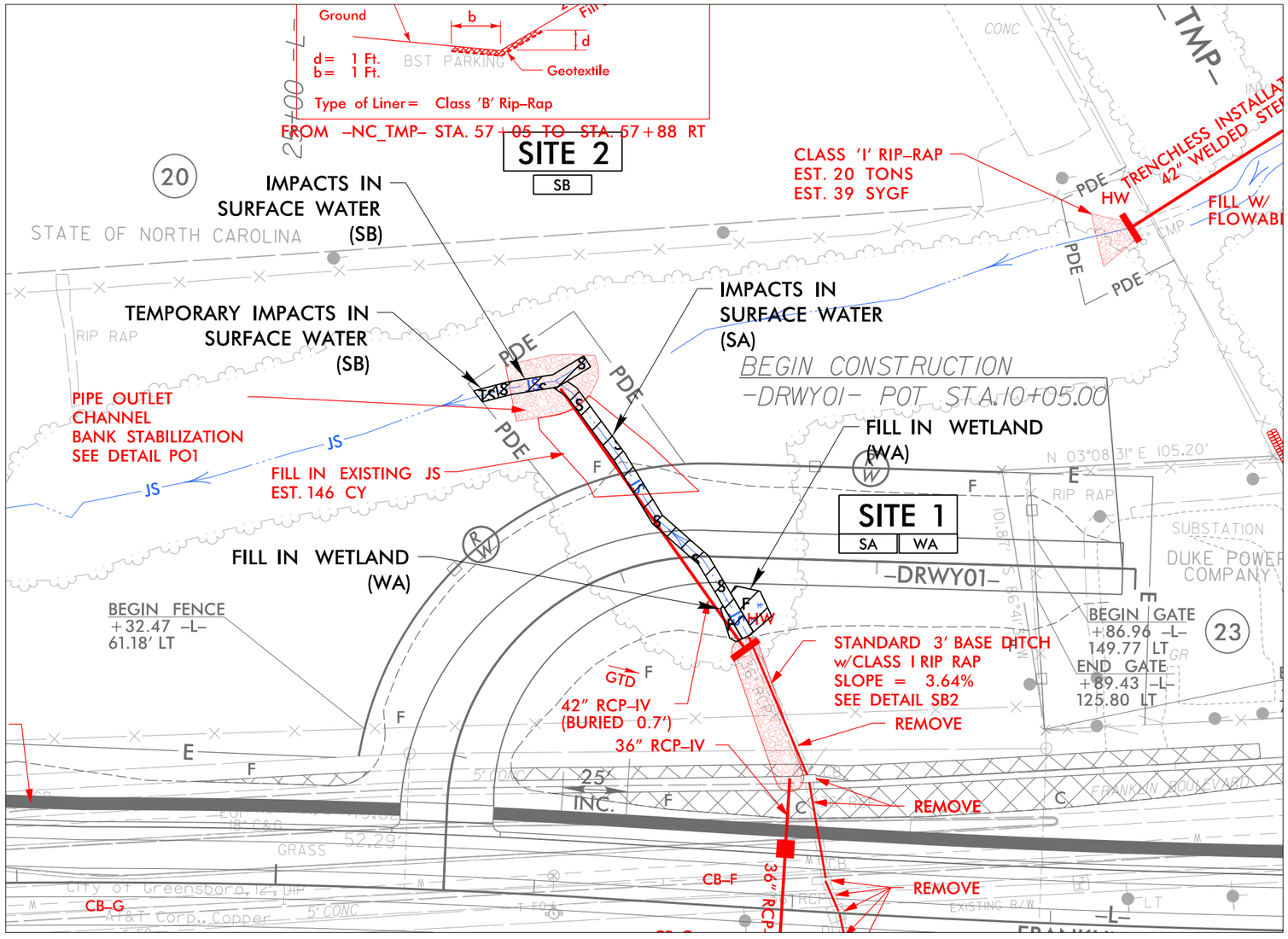
NOTE:
1. ALL OUTSIDE CURB & GUTTER ARE 2'-6" UNLESS OTHERWISE NOTED.

8/17/23
8/30/2023
P-5709 Franklin Blvd GS_PRM_PSH4.dgn
ENTER

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
P–5709	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 4 OF 7



NAD 83/NSRS2007

50′ 0′ 50′ 100′ 150′
GRAPHIC SCALE

LEGEND

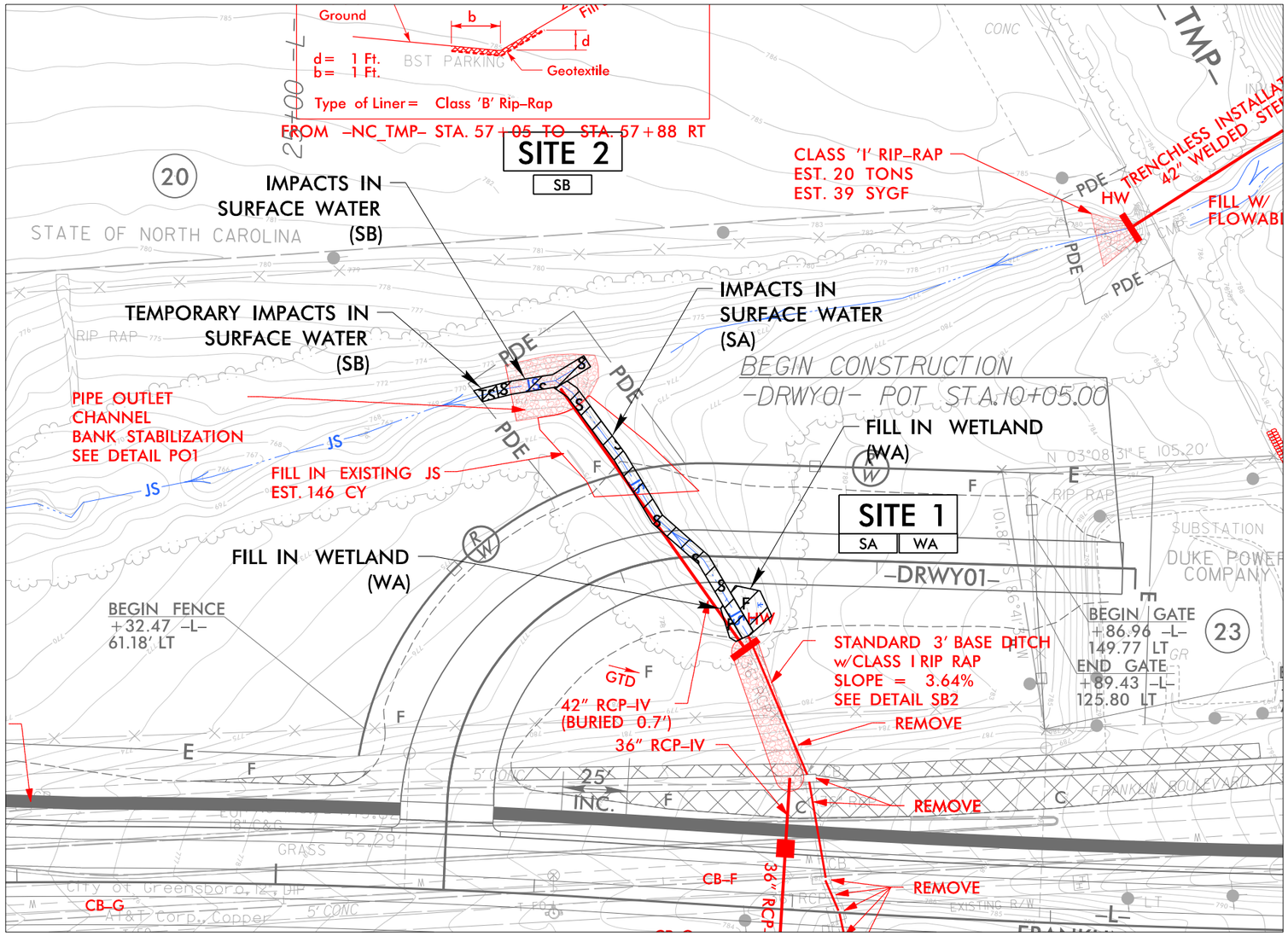
- F / F — DENOTES FILL IN WETLAND
- S / S — DENOTES IMPACTS IN SURFACE WATER
- TS / TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
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PROJECT REFERENCE NO.	SHEET NO.
P–5709	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 5 OF 7

NAD 83/NSRS2007



50′ 0′ 50′ 100′ 150′
GRAPHIC SCALE

LEGEND

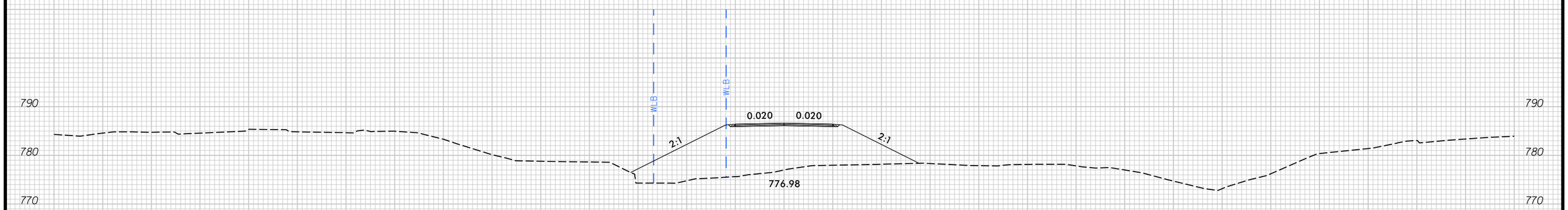
- F / F — DENOTES FILL IN WETLAND
- S / S — DENOTES IMPACTS IN SURFACE WATER
- TS / TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	P-5709	

PERMIT DRAWING
SHEET 6 OF 7

WETLAND CROSS SECTIONS



SITE 1

–DRWY01– 11+50.00

SCALE
1"=20' HORIZONTAL
1"=20' VERTICAL

GUILFORD COUNTY
PROJECT: P-5709

7/26/2023
P-5709
HNTB
I:\P-5709 Franklin Blvd CS_PRM_XPL.dgn

WETLAND AND SURFACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	DRWY01 Sta.11+40 to Sta.12+16	42" RCP-IV and Roadway Fill	< 0.01					0.01		125		
2	DRWY01 Sta.11+40 to Sta.12+00	Pipe Outlet Channel Stabilization						< 0.01	< 0.01	38	8	
TOTALS*:			< 0.01					0.02	< 0.01	163	8	

*Rounded totals are sum of actual impacts

NOTES:
Permanent Fill in Wetlands: 194 SF
Permanent Surface Water Impacts: 797 SF
Temporary Surface Water Impacts: 39 SF

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
7/26/2023
Guilford County
P-5709
46920.1.1
SHEET 7 OF 7

Revised 2018 Feb