



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

November 17, 2023

Regulatory Division

Action ID. SAW-2018-02113, NCDOT R-2577 ABC Forsyth & Guilford Counties

North Carolina Department of Transportation (NCDOT)
Attn: Matt Jones, P.E.
Division 9 Project Development Engineer
375 Silas Creek Parkway
Winston-Salem, NC 27127

Dear Mr. Jones:

In accordance with the written request of January 27, 2023, and the ensuing administrative record, enclosed is a permit to place fill material elevate vertical grade and widen existing US 158 (Reidsville Road) to a multi-lane, median divided facility. This proposed three phase roadway widening project will include a total of 1.74 acres of permanent wetland impacts and 8,022 linear feet of permanent stream impact.

Specifically, for Phase A, this phase of the project will include 0.06 acre of permanent impacts to wetlands and 1,633 linear feet of permanent impacts to streams. For Phase B (based upon preliminary design), this phase of the project will include 2,210 linear feet of stream impacts and 0.32-acre wetland impacts. For Phase C (based upon preliminary design), this phase of the project will include 4,179 linear feet of stream impacts and 1.36-acre wetland impacts.

Any deviation in the authorized work will likely require modification of this permit. If any change in the authorized work is necessary, you should promptly submit revised plans to the Corps showing the proposed changes. You may not undertake the proposed changes until the Corps notifies you that your permit has been modified.

Carefully read your permit. The general and special conditions are important. Your failure to comply with these conditions could result in a violation of Federal law. Certain significant general conditions require that:

- a. You must complete construction before **December 31, 2028**.
- b. You must notify this office in advance as to when you intend to commence and complete work.
- c. You must allow representatives from this office to make periodic visits to your

worksite as deemed necessary to assure compliance with permit plans and conditions.

You should address all questions regarding this authorization to Stephen A. Brumagin at the Charlotte Regulatory Field Office, telephone (704) 798-6471, or via email at stephen.a.brumagin@usace.army.mil.

FOR THE CHIEF, REGULATORY DIVISION

 2023.11.17
07:07:43 -05'00'

Monte K. Matthews
WRDA/Transportation Permitting
Wilmington District Enclosures:

Enclosures

Electronic Copies Furnished (with enclosures):

Chief, Source Data Unit
NOAA/National Ocean Service
1315 East-west Highway, Room 7316
Silver Spring, Maryland 20910-3282

Electronic Copies Furnished with Special Conditions and Plans:

U. S. Fish and Wildlife Service
Asheville Ecological Services Field Office
160 Zillicoa Street
Asheville, North Carolina 28801

Mr. Todd Bowers
Wetlands and Marine Regulatory Section
Water Protection Division – Region IV
U. S. Environmental Protection Agency
61 Forsyth St. SW
Atlanta, Georgia 30303-8931

North Carolina, Division of Water Resources
Department of Environmental Quality
1617 Mail Service Center
Raleigh, North Carolina 27699

DEPARTMENT OF THE ARMY PERMIT

Permittee: **North Carolina Department of Transportation, Division 9, Attn: Matt Jones, P.E.**

Permit No. **SAW-2018-02113, NCDOT STIP R-2577 ABC**
Issuing Office **CESAW-RG-D**

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To place fill material to elevate vertical grade and widen existing 18.8 mile long section of US 158 (Reidsville Road) in Forsyth and Guilford Counties to a multi-lane, median divided facility. This proposed three phase roadway widening project will include a total of 1.74 acres of permanent wetland impacts and 8,022 linear feet of permanent stream impact.

Specifically, for Phase A, this phase of the project will include 0.06 acre of permanent impacts to wetlands and 1,632 linear feet of permanent impacts to streams. For Phase B (based upon preliminary design), this phase of the project will include 2,210 linear feet of stream impacts and 0.32-acre wetland impacts. For Phase C (based upon preliminary design), this phase of the project will include 4,179 linear feet of stream impacts and 1.36-acre wetland impacts.

THIS IS A PHASED PERMIT AUTHORIZATION: This permit only authorizes work on Sections R-2577 A of the STIP R-2577 project. The permittee is authorized to impact regulated waters along R-2577 A as follows: permanent discharge of fill material into 1496 linear feet of streams and 0.06 acres of wetlands. The permittee is also authorized to temporarily impact 136 linear feet of streams during construction. Construction on the remaining sections of STIP R-2577 (B & C) shall not commence until final designs have been completed for these sections; the permittee has minimized impacts to waters and wetlands to the maximum extent practicable, and; any modifications to the plans, and the compensatory mitigation plans, have been approved by the US Army Corps of Engineers (the Corps).

Project Location: The NCDOT R-2577 ABC project is located along existing US 158 (Reidsville Road) for distance of approximately 18.8 miles from a location starting near the US 158 intersection with Old Greensboro Road in Forsyth County near Winston-Salem to a new proposed interchange of US 158 with US 220/I-73 in Guilford County near Stokesdale, North Carolina.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **December 31, 2028.** If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized

activity, or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

SEE ATTACHED SPECIAL CONDITIONS

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(**X**) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit, Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

DocuSigned by:

0B45D6C71F00459...

11/16/2023

(PERMITTEE) NCDOT, ATTN: MR. MATT JONES, P.E.

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



2023.11.17 07:20:27
-05'00'

FOR/

(DISTRICT COMMANDER) BRAD A. MORGAN, COLONEL

(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFeree)

(DATE)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: North Carolina Department of Transportation, Div. 9	File Number: SAW-2018-02113	Date: November 17, 2023
Attached is:		See Section below
<input type="checkbox"/> INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
<input checked="" type="checkbox"/> PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
<input type="checkbox"/> PERMIT DENIAL	C	
<input type="checkbox"/> APPROVED JURISDICTIONAL DETERMINATION	D	
<input type="checkbox"/> PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

**District Engineer, Wilmington Regulatory Division,
Attn: Stephen A. Brumagin
Charlotte Regulatory Field Office
8430 University Executive Park Dr., Suite 615
Charlotte, NC 28262
Phone: (704) 798-6471
EMAIL: stephen.a.brumagin@usace.army.mil**

If you only have questions regarding the appeal process you may also contact:

**MR. PHILIP A. SHANNIN
ADMINISTRATIVE APPEAL REVIEW OFFICER
CESAD-PDS-O
60 FORSYTH STREET SOUTHWEST, FLOOR M9
ATLANTA, GEORGIA 30303-8803

PHONE: (404) 562-5136; FAX (404) 562-5138
EMAIL: PHILIP.A.SHANNIN@USACE.ARMY.MIL**

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.	Date:	Telephone number:
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For appeals on Initial Proffered Permits send this form to:

**District Engineer, Wilmington Regulatory Division, Attn: Stephen A. Brumagin
Charlotte Regulatory Field Office, 8430 University Executive Park Dr., Suite 615 Charlotte, NC 28262**

For Permit denials, Proffered Permits and approved Jurisdictional Determinations send this form to:

**Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Phillip Shannin,
Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801
Phone: (404) 562-5137**

Special Conditions
R-2577ABC, SAW-2018-02113

Special Condition 1: Work Limits: All work authorized by this permit shall be performed in strict compliance with the attached permit plans as provided in the February 3, 2023, permit application, which are a part of this permit. The Permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Any modification to the attached permit plans must be approved by the U.S. Army Corps of Engineers (Corps) prior to any active construction in waters or wetlands.

Special Condition 2: Permit Distribution: The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit 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 permit. A copy of this permit, including all conditions and drawings shall be available at the project site during construction and maintenance of this project.

Special Condition 3: Preconstruction Meeting: The Permittee shall conduct an onsite preconstruction meeting between its representatives, the contractor's representatives, and the appropriate U.S. Army Corps of Engineers Project Manager prior to undertaking any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all terms and conditions contained within the Department of the Army permit. The Permittee shall schedule the preconstruction meeting for a time frame when the Corps and NCDWR Project Managers can attend. The Permittee shall invite the Corps and NCDWR Project Managers a minimum of thirty (30) days in advance of the scheduled meeting to provide those individuals with ample opportunity to schedule and participate in the required meeting. The thirty (30) day requirement can be waived with the concurrence of the Corps.

Special Condition 4: Notification of Construction Commencement and Completion: The Permittee shall notify the U.S. Army Corps of Engineers in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

Special Condition 5: Reporting Address: All reports, documentation, and correspondence required by the conditions of this permit shall be submitted to the following: U.S. Army Corps of Engineers, Wilmington District, Charlotte Regulatory Field Office, Attn: Stephen Brumagin 8340 University Executive Park Drive, Charlotte, North Carolina 28262, or stephen.a.brumagin@usace.army.mil. The Permittee shall reference the following permit number, SAW-2018-00393, on all submittals.

Special Condition 6: Permit Revocation: The Permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army

Special Conditions
R-2577ABC, SAW-2018-02113

or his authorized representative may direct, restore the water or wetland to its pre-project condition.

Special Condition 7: Reporting Violations: Violation of these permit conditions or violation of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act shall be reported to the Corps in writing and by telephone at: 704-798-6471 within 24 hours of the Permittee's discovery of the violation.

Special Condition 8: Clean Fill: The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, construction debris, metal and plastic products, and concrete block with exposed reinforcement bars. Soils used for fill shall not be contaminated with any toxic substance in concentrations governed by Section 307 of the Clean Water Act. Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source.

Special Condition 9: Endangered Species Act: The Permittee shall implement all necessary measures to ensure the authorized activity does not kill, injure, capture, harass, or otherwise harm any federally listed threatened or endangered species. While accomplishing the authorized work, if the Permittee discovers or observes an injured or dead threatened or endangered species, the U.S. Army Corps of Engineers, Wilmington District Charlotte Field Office, Attn: Stephen A. Brumagin at (704) 798-6471, or stephen.a.brumagin@usace.army.mil will be immediately notified to initiate the required Federal coordination.

Special Condition 10: Endangered Species Act: The Wilmington District, U.S. Fish and Wildlife Service (USFWS), and the North Carolina Department of Transportation (NCDOT) have conducted Section 7(a)(2) consultation for the Tricolored bat (TCB) for this project. The result of this consultation is a Conference Opinion (CO) letter from the USFWS dated October 30, 2023, that includes conservation measures to minimize all adverse effects specifically for the Tricolored bat. These conservation measures include:

1. Tree clearing will not take place from April 1 – October 15, effective with the federal listing of the tricolored bat (*Perimyotis subflavus*).
2. Tree clearing will be minimized to the maximum extent possible and limits will be clearly marked for the contractor.
3. NCDOT will ensure that tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field. Clearing limits follow the most recent version of the NCDOT Manual for Construction Layout and are typically marked by placing blue and white striped flagging on 36-inch stakes or trees.
4. On the A section, NCDOT commits to planting native, fast-growing, containerized trees at the following locations: -L- Sta. 139+50 to -L- Sta. 144+00 +/- LT and -L- Sta. 147+50 +/- to -L- Sta. 151+00 LT (plan sheet 15) and -L- Sta. 164+00 +/- to -L- Sta. 166+60 +/- (plan sheet 16). If native trees are

Special Conditions
R-2577ABC, SAW-2018-02113

already established at any of the locations, then no planting will occur. Plan sheets UO-13 (Figure 1), UO-14 (Figure 2), and UO-15 (Figure 3) with planting locations highlighted in yellow are included for reference in Appendix A.

5. NCDOT will install riparian plantings utilizing native, fast-growing containerized trees for the riparian areas in the B and C sections, where feasible. These riparian areas include but are not limited to Belews Creek and Troublesome Creek. These areas will be reviewed at Merger points CP4B and CP4C for each section.
 - a. Note: Riparian plantings cannot be done in easements (utility, drainage, and construction).
 - b. At the bridge sites, NCDOT cannot commit to planting riparian trees or shrubs for the entire width of the right of way beginning at a station 3 feet beyond the beginning and ending extremity of the structure. If excess property outside of normal maintenance limits is available at bridge locations, riparian plantings will be installed where feasible.
6. NCDOT will use downcast lighting for all permanent lighting. Any existing lights that are impacted by the project and relocated will be replaced with downcast lights.
7. NCDOT will use shoulder/median mounted LED light fixtures with Backlight-Uplight-Glare (BUG) ratings not to exceed 3-0-3. High mast lighting will have BUG ratings not to exceed 5-0-5.
8. With the exception of high mast lights, NCDOT will use the shortest poles possible that still meet highway requirements and safety parameters while limiting excess lighting within the project area.
9. NCDOT will provide the U.S. Fish and Wildlife Service (Service) the opportunity to review and comment on the lighting plans prior to finalization of the plans for the B and C projects. Portions of lighting plans in proximity to riparian corridors will be called out as priority sections for Service review.
10. Lighting used for nighttime construction will be limited to what is necessary to maintain safety standards. Temporary lighting will only direct light towards active work areas except in instances necessitating balloon lighting.
11. No blasting will occur at night.
12. Blast monitoring will occur per NCDOT standard specifications for all blasting in the project area.
13. Blast mats or soil cover will be used over all blast sites, which minimizes noise, air blasts, and debris. In general, NCDOT blasting activities are not strong enough to cause trees to fall or glass to break.
14. Blasting and pile driving will not occur until the trees within the project clearing limits that are immediately adjacent to the blasting site or pile driving site have been removed.
15. Prior to modifying the Individual permit for final design of the B and C sections, NCDOT will update the protected species surveys for each section at the time of final design in accordance with the current NCDOT Protected Species Protocols.

Special Conditions
R-2577ABC, SAW-2018-02113

Special Condition 11: Sediment and Erosion Control:

1) During the clearing phase of the project, heavy equipment shall not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodible materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.

2) No fill or excavation impacts for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless the impacts are included on the plan drawings and specifically authorized by this permit. This includes, but is not limited to, sediment control fences and other barriers intended to catch sediment losses.

3) The Permittee shall remove all sediment and erosion control measures placed in waters and/or wetlands, and shall restore natural grades on those areas, prior to project completion.

4) The Permittee shall use appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" to ensure compliance with the appropriate turbidity water quality standard. Erosion and sediment control practices shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices to ensure compliance with the appropriate turbidity water quality standards. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project shall remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4). Adequate sedimentation and erosion control measures shall be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. These measures shall be inspected and maintained regularly, especially following rainfall events. All fill material shall be adequately stabilized at the earliest practicable date to prevent sediment from entering adjacent waters or wetlands.

Special Condition 12: Temporary Fills: Within thirty (30) days of the date of completing the authorized work, the Permittee shall remove all temporary fills in waters of the United States and restore the affected areas to pre-construction contours and elevations. The affected areas shall be re-vegetated with native, non-invasive vegetation as necessary to minimize erosion and ensure site stability.

Special Condition 13: Borrow and Waste: To ensure that all borrow, and waste activities occur on high ground and do not result in the degradation of adjacent waters and wetlands, except as authorized by this permit, the Permittee shall require its contractors and/or agents to identify all areas to be used as borrow and/or waste sites

Special Conditions
R-2577ABC, SAW-2018-02113

associated with this project. The Permittee shall provide the U.S. Army Corps of Engineers with appropriate maps indicating the locations of proposed borrow and/or waste sites as soon as such information is available. The Permittee shall submit to the Corps site-specific information needed to ensure that borrow and/or waste sites comply with all applicable Federal requirements, to include compliance with the Endangered Species Act and the National Historic Preservation Act, such as surveys or correspondence with agencies (e.g., the USFWS, the NC-HPO, etc.). The required information shall also include the location of all aquatic features, if any, out to a distance of 400 feet beyond the nearest boundary of the site. The Permittee shall not approve any borrow and/or waste sites before receiving written confirmation from the Corps that the proposed site meets all Federal requirements, whether or not waters of the U.S., including wetlands, are located in the proposed borrow and/or waste site. All delineations of aquatic sites on borrow and/or waste sites shall be verified by the U.S. Army Corps of Engineers and shown on the approved reclamation plans. The Permittee shall ensure that all borrow and/or waste sites comply with **Special Condition 14** of this permit. Additionally, the Permittee shall produce and maintain documentation of all borrow and waste sites associated with this project. This documentation will include data regarding soils, vegetation, hydrology, any delineation(s) of aquatic sites, and any jurisdictional determinations made by the Corps to clearly demonstrate compliance with **Special Condition 14**. All information will be available to the U.S. Army Corps of Engineers upon request. The Permittee shall require its contractors to complete and execute reclamation plans for each borrow and/or waste site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the U.S. Army Corps of Engineers within 30 days of the completion of the reclamation work.

Special Condition 14: Except as authorized by this permit or any U.S. Army Corps of Engineers approved modification to this permit, no excavation, fill, or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands, or shall any activities take place that cause the degradation of waters or wetlands. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and waste activities connected with this project. In addition, except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.

Special Condition 15: Culverts:

1) Unless otherwise requested in the application and depicted on the approved permit plans, culverts greater than 48 inches in diameter shall be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain existing channel slope. The bottom

Special Conditions
R-2577ABC, SAW-2018-02113

of the culvert shall be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions. Culverts shall be designed and constructed in a manner that minimizes destabilization and head cutting.

2) Measures shall be included in the culvert construction/installation that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a culvert or pipe 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 opening shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gauge data, if available. In the absence of such data, bank full flow can be used as a comparable level.

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

4) Culverts placed within wetlands must be installed in a manner that does not restrict the flows and circulation patterns of waters of the United States. Culverts placed across wetland fills purely for the purposes of equalizing surface water shall not be buried, but the culverts must be of adequate size and/or number to ensure unrestricted transmission of water.

Special Condition 16: Historic Properties: The Permittee shall implement all necessary measures to ensure the authorized activity avoids or mitigates an adverse effect upon eligible for listing historic properties, Edgewood Baptist Church, and Bel Air Drive-In Theatre within the R-2577 A project. The initial findings were dated July 9, 2013, and were amended on September 22, 2015. Then on June 12, 2018, these findings were superseded with an updated Concurrence Form for Assessment of Effects for the NCDOT R-2577 A project. Finally, in a supplemental concurrence form signed November 30, 2022, NCDOT and SHPO agreed that this minimization alternative constitutes no adverse effect to the Edgewood Baptist Church if the specified commitments are met. These commitments include the following;

Edgewood Baptist Church

- Incorporate best-fit widening with a reduced median (23 feet instead of 30 feet) and a retaining wall in front of the church to minimize impacts to both the church and the residences located across from the church; will not require relocations of residences across from the church but will result in the loss of some parking spaces in front of the church and will require the

Special Conditions
R-2577ABC, SAW-2018-02113

- church sign (two if needed) to be relocated.
- Include safety treatments along retaining wall in front (southeast of) church building.
 - The rear (northwest side) of the retaining wall facing the church building will be finished with a brick veneer matching the church facade in bond and color. The barrier with moment slab will receive a warm, neutral stain to complement the brick veneer.
 - The one-foot-tall fence will be black in color and conform.
 - A seven-foot-wide grassed planting strip is also included in the design.
 - The structure will not compromise any contributing element of the historic property.
 - The driveway on Churchland Drive will be relocated further from the Reidsville Road intersection per request of the church. New location is at similar grade to existing.
 - Temporary construction easement will be shifted northwest, and existing driveway removed (see attached aerial in the supplemental concurrence form).
 - Driveway relocation will not impact any contributing element of the historic property.

Bel Air Drive-In Theater

- Minimizes ROW acquisition to the drive-in; preservation of access; no impacts to components; maintains 2:1 side slopes along the parcel.

Special Condition 17: Mitigation: In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit.

Special Condition 18: Phased Construction: This permit only authorizes work on Section A of TIP R-2577. Construction on Sections B and C of TIP 2577 shall not commence until: (a) final design has been completed for those sections and submitted to the U.S. Army Corps of Engineers (Corps); (b) the Permittee has minimized impacts to waters and wetlands to the maximum extent practicable and the Corps concurs with this assessment through standard Merger 4B and 4C meetings; (c) any modification to the plans have been approved by the Corps in writing; and (d) a final compensatory mitigation plan has been submitted by the Permittee and approved by the Corps

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
RICHARD E. ROGERS, JR.
Director



March 28, 2023

Ms. Amy Euliss
NCDOT, Division 9 PDEA Engineer
375 Silas Creek Parkway
Winston Salem, NC 27127

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for proposed widening of US 158 from the 4-lane roadway north of I-40 in Forsyth County to US 220 in Guilford County (TIP No. R-2577ABC); NCDWR Project No. 20210452; WQC No. WQ005776.

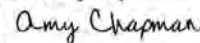
Dear Ms. Euliss:

Attached hereto is a copy of Certification No. 005776 issued to NCDOT dated March 28, 2023.

This approval is for the purpose and design described in your application dated February 17, 2023. The plans and specifications for this project are incorporated by reference as part of this Water Quality Certification. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)]. This Certification does not relieve 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.

This letter completes the review of the Division under section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Dave Wanucha at 336-403-5655 or <mailto:wanucha@ncdenr.gov> if you have any questions or concerns.

Sincerely,
DocuSigned by:



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

Electronic copy only distribution:

Steve Brumagin US Army Corps of Engineers
Rebekah Reid, US Fish and Wildlife Service
David McHenry, NC Wildlife Resources Commission
Beth Harmon, NC DMS
Amanetta Somerville, USEPA

File Copy



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

**Individual 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act
with ADDITIONAL CONDITIONS**

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes NCDOT to impact 1,632 linear feet of jurisdictional streams and 0.06 acres of wetlands in Forsyth County related to Section A of R-2577. Preliminary impacts for future Sections B and C are provided in Table 3 below. The project shall be constructed pursuant to your application dated February 17, 2023. The authorized impacts are as described below:

Table 1. Stream Impacts in the Yadkin Pee Dee and Roanoke River Basin - R-2577A (linear feet).

Site	Perennial Stream					Intermittent Stream				Impacts Requiring Mitigation
	Permanent				Temporary	Permanent			Temporary	
	Bank Stabilization	Fill	Culvert	Armoring		Fill	Bank Stabilization	Culvert		
1A	-	-	-	25	22	-	-	-	-	-
1B	-	-	84	-	-	-	-	-	-	-
1C	-	58	-	-	-	-	-	-	-	-
1D	-	-	77	-	-	-	-	-	-	-
1E	-	-	-	24	22	-	-	-	-	-
2A	13	-	-	-	14	-	-	-	-	-
2B	-	-	-	20	-	-	-	-	-	-
2C	-	-	81	-	-	-	-	-	-	-
2D	-	-	86	-	-	-	-	-	-	-
2E	-	-	-	15	26	-	-	-	-	-
3A	-	-	-	-	-	-	-	29	9	-
3B	-	-	-	-	-	-	30	-	-	-
3C	-	-	-	-	-	-	27	-	-	-
3D	-	-	-	-	-	63	-	-	-	-
4A	114	-	-	-	-	-	-	-	-	-
4B	88	-	-	-	-	-	-	-	-	-
5A	-	331	-	-	14	-	-	-	-	331
6A	-	-	-	24	6	-	-	-	-	-
6B	-	-	26	-	-	-	-	-	-	-
6C	-	-	56	-	-	-	-	-	-	-
6D	-	-	-	31	10	-	-	-	-	-
7A*	-	-	-	-	-	-	178	-	-	-
7B*	16	-	-	-	13	-	-	-	-	-
Totals	231	389	410	139	127	63	235	29	9	331

*Roanoke River Basin.

Total Stream Impacts for Project: 1,632 linear feet



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Table 2. Wetland Impacts (acres) in the Yadkin River Basin - R-2577A (riverine).

Site	Fill	Temporary Fill	Excavation	Mechanized Clearing	Hand Clearing	Impacts Requiring Mitigation
5B	0.02	-	<0.01	0.02	-	-
5C	0.02	-	-	-	-	-
Total	0.04	-	<0.01	0.02	-	-

Total Wetland Impact for Project: 0.06 acres.

Table 3. Summary of preliminary impacts for future sections of R-2577.

Section	Streams (linear feet)	Wetlands (acres)
B	2,210	0.32
C	4,179	1.36
Totals	6,389	1.68

Note: Mitigation for Sections B and C will be determined following final design and subsequent permit modification(s).

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the NCDWR 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 the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification(s) and any additional conditions listed below.

Condition(s) of Certification:

Project Specific Conditions

1. All work in or adjacent to stream waters shall be conducted per approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual. [15A NCAC 02H.0506(b)(3) and (c)(3)]
2. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507 (c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
3. Compensatory mitigation for 331 linear feet of impact to streams and is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through a combination of public and private mitigation service providers. North Carolina Division of Mitigation Service (DMS) (formerly NCEEP), and that the DMS has agreed to implement the mitigation for a portion of the project. The DMS has indicated in a letter dated January 23, 2023 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the DMS Mitigation Banking Instrument signed July 28, 2010. Brushy Mountain mitigation site sponsored by Restoration Systems provides additional credits as does NCDOT's Little Peters Creek mitigation site as explained in the application.
4. When final design plans are completed for R-2577 Sections B and C, a modification to the 401 Water Quality Certification shall be submitted with five copies and fees to the NC Division of Water Resources. Final designs shall reflect all appropriate avoidance, minimization, and mitigation for impacts to wetlands, streams, and other surface waters, and Jordan Lake Riparian Buffers. No construction activities that impact any wetlands, streams, surface waters, or buffers located in R-2577 Sections B and C shall begin until after the permittee applies for and receives a written modification of the 401 Water Quality Certification including a Jordan Lake Riparian Buffer Authorization (if applicable) from the NC Division of Water Resources.



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5. Design and placement of pipes/culverts shall be installed in such a manner that the original stream profiles are not significantly altered. The pipes/culverts shall be designed and installed, per the plans, and to prevent upstream and downstream instability. Pipe installations at Permit Sites 1, 2, 3, 6 and 7 do not require burial as explained in the application. [15A NCAC 02H.0506(b)(2)]

General Conditions

1. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
2. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
3. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]
4. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
5. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
6. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
7. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
8. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
9. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification, and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
10. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]
11. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
12. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]



13. Upon completion of the project (including any impacts at associated borrow or waste sites), the Division Engineer (or appointee) shall complete and return the enclosed "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
14. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02H.0506(b)(3) and (c)(3)]
15. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)]
16. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface water standards [15A NCAC 02H.0506(b)(3) and (c)(3)]:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
17. Where placement of sediment and erosion control devices in wetlands and/or waters is unavoidable, they shall be removed, and the natural grade restored upon completion of the project. [15A NCAC 02H.0506(b)(3) and (c)(3)]

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

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



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

A party filing a Petition must serve a copy of the Petition on:

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

If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Certification in accordance with N.C.G.S 150B-23(a).

This the 28th March 2023

DIVISION OF WATER RESOURCES

DocuSigned by:
Amy Chapman
9C9886312DCQ474...

Richard E. Rogers Jr., Director

WQC No. 005776



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director



NORTH CAROLINA
Environmental Quality

NCDWR Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of 401 Water Quality Certification: _____

Certificate of Completion

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Agent's Certification

I, _____, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: _____ Date: _____

Engineer's Certification

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____

mailto:

Completed hard copies can be emailed to kristynn.carnahan@ncdeq.gov or mailed to:

NCDEQ Transportation Permitting
1617 Mail Service Center
Raleigh NC 27699-1617



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation, Division 9
Project Name: NCDOT R-2577 ABC, US 158 Widening
Mitigation for R-2577A Section

Action ID: SAW-2018-02113
County: Forsyth and Guilford

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

Instructions to Sponsor: The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03040101, Yadkin River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
1,024						

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03040101, Yadkin River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
1,962						

Mitigation Site Debited: RS Yadkin UMB-Brushy Mountain Mitigation Site.

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the District is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. When NCDMS provides mitigation for authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by NCDMS must be provided to the District within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the District has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the District Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.

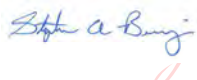
Comments/Additional Conditions:

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).***

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Stephen A. Brumagin
USACE Field Office: Charlotte Regulatory Field Office
US Army Corps of Engineers
8430 University Executive Drive, Suite 615
Charlotte, NC 28262

Email: stephen.a.brumagin@usace.army.mil


Digitally signed by
BRUMAGIN.STEPHEN.A.128
3520737
Date: 2023.11.15 07:57:15
-05'00'

Wilmington District Project Manager Signature

November 15, 2023

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation, Division 9
Project Name: NCDOT R-2577 ABC, US 158 Widening

Action ID: SAW-2018-02113
County: Forsyth and Guilford

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

Instructions to Sponsor: The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03010103, Roanoke River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
47.5			0.06			

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03010103, Roanoke River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
95			0.12			

Mitigation Site Debited: NC DMS

(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the District is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. When NCDMS provides mitigation for authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by NCDMS must be provided to the District within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the District has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the District Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.


Comments/Additional Conditions: NCDMS approved providing mitigation for 47.5 linear feet of stream impact and 0.06 acre of wetland impact in a letter dated January 23, 2023.

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).***

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Stephen A. Brumagin
USACE Field Office: Charlotte Regulatory Field Office
US Army Corps of Engineers
8430 University Executive Drive, Suite 615
Charlotte, NC 28262

Email: stephen.a.brumagin@usace.army.mil


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BRUMAGIN,STEPHEN.A.1283
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Date: 2023.11.15 08:00:32
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Wilmington District Project Manager Signature

November 15, 2023

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation, Division 9
Project Name: NCDOT R-2577 ABC, US 158 Widening

Action ID: SAW-2018-02113
County: Forsyth and Guilford

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

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Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03010103, Roanoke River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
130.5						

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03010103, Roanoke River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
261						

Mitigation Site Debited: NCDOT Little Peters Creek Mitigation Site.

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
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- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.

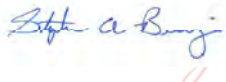
Comments/Additional Conditions:

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).***

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Stephen A. Brumagin
USACE Field Office: Charlotte Regulatory Field Office
US Army Corps of Engineers
8430 University Executive Drive, Suite 615
Charlotte, NC 28262

Email: stephen.a.brumagin@usace.army.mil


Digitally signed by
BRUMAGIN.STEPHEN.A.12835
20737
Date: 2023.11.15 08:03:03
-05'00'

Wilmington District Project Manager Signature

November 15, 2023

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation, Division 9
Project Name: NCDOT R-2577 ABC, US 158 Widening

Action ID: SAW-2018-02113
County: Forsyth and Guilford

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

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Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03010103, Roanoke River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
130.5						

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03010103, Roanoke River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
261						

Mitigation Site Debited: NCDOT Little Peters Creek Mitigation Site.

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: NCDOT

Name of Sponsor's Authorized Representative: LeiLani Y. Paugh

LeiLani Y. Paugh

Signature of Sponsor's Authorized Representative

11/20/2023

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
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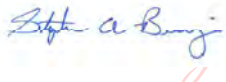
Comments/Additional Conditions:

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Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Stephen A. Brumagin
USACE Field Office: Charlotte Regulatory Field Office
US Army Corps of Engineers
8430 University Executive Drive, Suite 615
Charlotte, NC 28262

Email: stephen.a.brumagin@usace.army.mil


Digitally signed by
BRUMAGIN.STEPHEN.A.12835
20737
Date: 2023.11.15 08:03:03
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Wilmington District Project Manager Signature

November 15, 2023

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation, Division 9
Project Name: NCDOT R-2577 ABC, US 158 Widening
Mitigation for R-2577A Section

Action ID: SAW-2018-02113
County: Forsyth and Guilford

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

Instructions to Sponsor: The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: 03040101, Yadkin River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
1,024						

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:

8-digit HUC and Basin: 03040101, Yadkin River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
1,962						

Mitigation Site Debited: RS Yadkin UMB-Brushy Mountain Mitigation Site.

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: Restoration Systems, LLC

Name of Sponsor's Authorized Representative: TJ Mascia


Signature of Sponsor's Authorized Representative

11/21/2023

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
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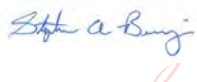
Comments/Additional Conditions:

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).***

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Stephen A. Brumagin
USACE Field Office: Charlotte Regulatory Field Office
US Army Corps of Engineers
8430 University Executive Drive, Suite 615
Charlotte, NC 28262

Email: stephen.a.brumagin@usace.army.mil


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BRUMAGIN.STEPHEN.A.128
3520737
Date: 2023.11.15 07:57:15
-05'00'

Wilmington District Project Manager Signature

November 15, 2023

Date of Signature

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

U.S. ARMY CORPS OF ENGINEERS
Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation, Division 9
Project Name: NCDOT R-2577 ABC, US 158 Widening

Action ID: SAW-2018-02113
County: Forsyth and Guilford

Instructions to Permittee: The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

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Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*: **8-digit HUC and Basin:** 03040101 Yadkin WS & 03010103 Roanoke WS

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
47.5			0.06			

*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements: **8-digit HUC and Basin:** 03040101 Yadkin WS & 03010103 Roanoke WS

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
95			0.12			

Mitigation Site Debited: NC DMS will deduct stream mitigation from Roanoke WS and wetland mitigation from Yadkin WS.
(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

Section to be completed by the Mitigation Sponsor

Statement of Mitigation Liability Acceptance: I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

Mitigation Sponsor Name: NCDEQ - DMS

Name of Sponsor's Authorized Representative: Beth Harmon

Beth Harmon

Signature of Sponsor's Authorized Representative

11/17/2023

Date of Signature

**USACE Wilmington District
Compensatory Mitigation Responsibility Transfer Form, Page 2**

Conditions for Transfer of Compensatory Mitigation Credit:


- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the District is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. When NCDMS provides mitigation for authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by NCDMS must be provided to the District within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the District has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the District Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.

Comments/Additional Conditions: NCDMS approved providing mitigation for 47.5 linear feet of stream impact and 0.06 acre of wetland impact in a letter dated January 23, 2023.

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to SAWMIT@usace.army.mil).*** Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Stephen A. Brumagin
USACE Field Office: Charlotte Regulatory Field Office
US Army Corps of Engineers
8430 University Executive Drive, Suite 615
Charlotte, NC 28262

Email: stephen.a.brumagin@usace.army.mil

 Digitally signed by
BRUMAGIN.STEPHEN.A.1283
520737
Date: 2023.11.15 08:00:32
-05'00'

Wilmington District Project Manager Signature

**November 15, 2023
Date of Signature**

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

(Version 2.08; Released April 2018)

WBS Element: 37405.1.2 TIP No.: R-2577A County(ies): Forsyth Page 1 of 3

General Project Information

WBS Element:		37405.1.2	TIP Number:		R-2577A	Project Type:		Roadway Widening	Date:	3/8/2021
NCDOT Contact:		Erik Seiler, PE			Contractor / Designer:		RK&K: Brent Huskey, PE			
	Address:	NC Department of Transportation 1000 Birch Ridge Drive Raleigh, NC 27610				Address:	900 Ridgefield Drive Suite 350 Raleigh, NC 27609			
	Phone:	919-707-6757				Phone:	919-878-9560			
	Email:	epseiler@ncdot.gov				Email:	bhuskey@rkk.com			
City/Town:		Walkertown			County(ies):		Forsyth			
River Basin(s):		Yadkin-Pee Dee		Roanoke	CAMA County?		No			
Wetlands within Project Limits?		Yes								

Project Description

Project Length (lin. miles or feet):	5.76	Surrounding Land Use:	Commercial / Residential
		Proposed Project	Existing Site
Project Built-Up Area (ac.)	66.6 ac.	34.8 ac.	
Typical Cross Section Description:	The proposed typical cross section of US 158 will be a four lane divided highway with (2)-12' lanes each direction and 2'-6" curb and gutter on the outside lanes. For the majority of the roadway facility it will have a raised grass median with 1'-6" curb and gutter, protected turn lanes and turn bulbs.		
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 35,000	Year: 2040	Existing: 23,600 Year: 2017
General Project Narrative: (Description of Minimization of Water Quality Impacts)	The widening of US 158 between Old Greensboro Rd and Belews Creek Rd will involve alignment improvement, adding lanes, drainage improvements, new structures such as dual bridges and culvert extensions. The project also includes signal improvements and utility relocations. There are three major crossings on the project providing adequate cross sectional openings to allow water to travel under US 158 without impacting any structures adjacent to the project. The three major crossings consist of a set of dual bridges and two RCBC extensions. Drainage outfalls along the project have been analyzed to verify stability as well as outlet protection has been incorporated into the design for all proposed drainage improvements. Areas of the project around jurisdictional features have incorporated steeper side slopes of 2:1 to minimize impacts. The first 75 percent of the project is located in the Yadkin Pee-Dee river basin and the remaining 25 percent of the project as you travel through the NC-66 intersection transitions to the Roanoke river basin. Neither river basin adheres to buffer requirements.		

Waterbody Information

Surface Water Body (1):		Lowery Mill Creek		NCDWR Stream Index No.:		19-94-12-3-(0.5)			
NCDWR Surface Water Classification for Water Body			Primary Classification:	Water Supply III (WS-III)					
			Supplemental Classification:	None					
Other Stream Classification:		None							
Impairments:		None							
Aquatic T&E Species?		No		Comments:					
NRTR Stream ID:		SEW				Buffer Rules in Effect:		N/A	
Project Includes Bridge Spanning Water Body?		Yes		Deck Drains Discharge Over Buffer?		N/A		Dissipator Pads Provided in Buffer?	N/A
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)									



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



(Version 2.08; Released April 2018)

WBS Element: 37405.1.2 TIP No.: R-2577A County(ies): Forsyth Page 2 of 3

Additional Waterbody Information

Surface Water Body (2):	Martin Mill Creek		NCDWR Stream Index No.:	12-94-12-3-1	
NCDWR Surface Water Classification for Water Body		Primary Classification:	Water Supply III (WS-III)		
		Supplemental Classification:	None		
Other Stream Classification:	None				
Impairments:	None				
Aquatic T&E Species?	No	Comments:			
NRTR Stream ID:	SES		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(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):	Left Fork Belews Creek		NCDWR Stream Index No.:	22-27-5	
NCDWR Surface Water Classification for Water Body		Primary Classification:	Class C		
		Supplemental Classification:	None		
Other Stream Classification:	None				
Impairments:	None				
Aquatic T&E Species?	No	Comments:			
NRTR Stream ID:	SEL		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(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)					

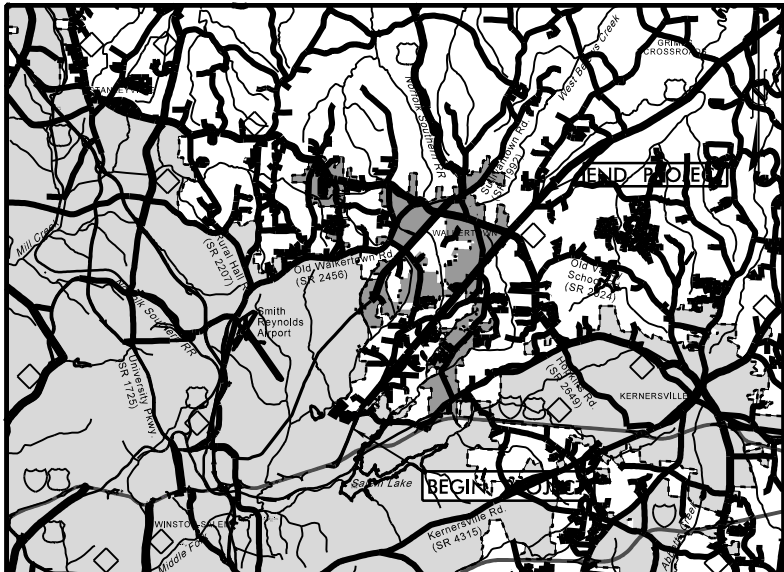


Page 3 of 3

* Refer to the NCDOT Best Management Practices Toolbox (2014), NCDOT Standards, the Federal Highway Administration (FHWA) Hydraulic Engineering Circular No. 14 (HEC-14), Third Edition, Hydraulic Design of Energy Dissipators for Culverts and Channels (July 2006), as applicable, for design guidance and criteria.

09/08/99
5/6/2021
R:\Hydraulics\PERMITS_Environmental\Drawings\Final\R-2577A-hyd.prm_tsh.dgn
Fkeys

TIP PROJECT: R-2577A
CONTRACT:



VICINITY MAP (NTS)

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

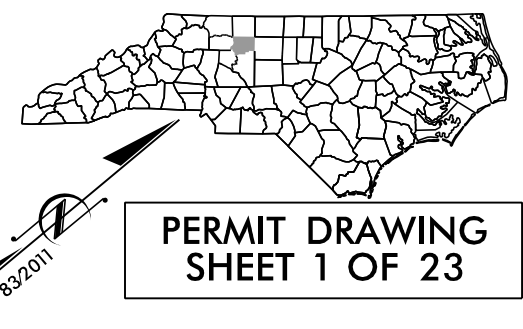
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
FORSYTH COUNTY

LOCATION: US 158 (REIDSVILLE RD.) FROM NORTH OF
US 421 /I-40 BUS. TO SR 1965 (BELEWS CREEK RD.)

TYPE OF WORK: GRADING, PAVING, WIDENING, DRAINAGE,
CULVERTS, SIGNING, STRUCTURES, RETAINING WALL,
SIGNALS, & UTILITIES

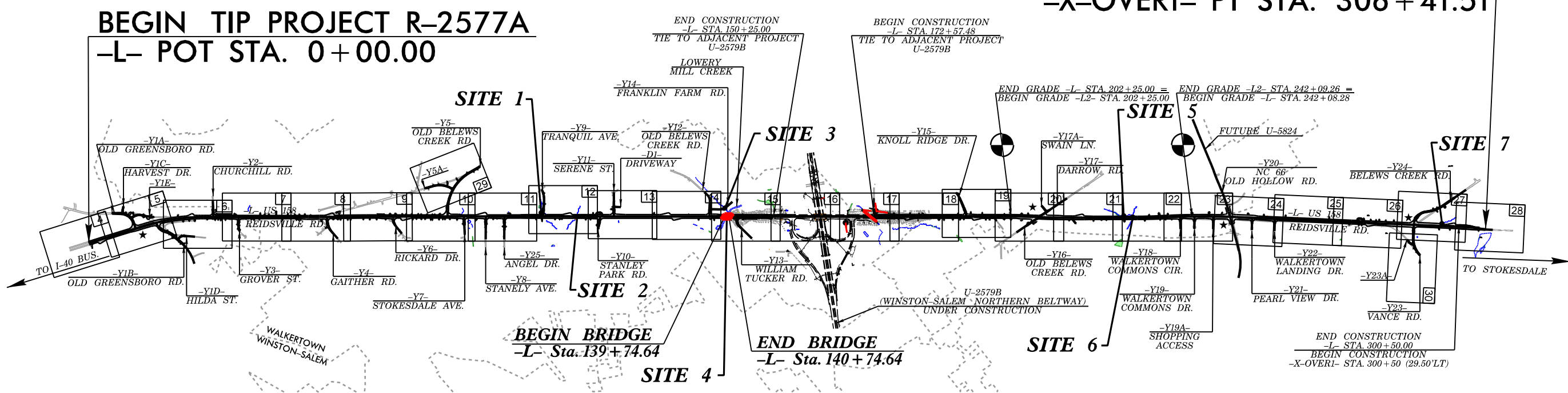
**STREAM AND
WETLAND IMPACTS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2577A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
37405.1.2	N/A	PE	
37405.2.4	N/A	RW	
37405.3.1	N/A	CONST.	



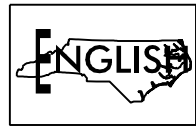
PERMIT DRAWING
SHEET 1 OF 23

END TIP PROJECT R-2577A
-X-OVER1- PT STA. 306 + 41.51

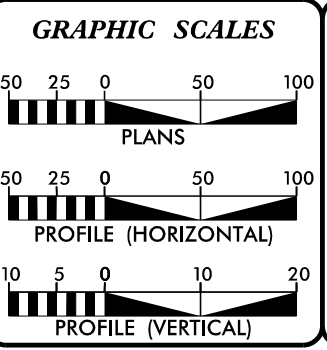


- NOTES:
1. A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF WINSTON-SALEM AND WALKERTOWN.
2. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
3. THIS PROJECT HAS PARTIAL CONTROL OF ACCESS WITH FULL CONTROL OF ACCESS AT POINTS AS SHOWN ON PLANS.

★ PROPOSED TRAFFIC SIGNAL



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA
ADT 2017 = 23,600
ADT 2040 = 35,000
V = 50 MPH
K = 8%
D = 60%
T = 14%
* TTST = 8% DUAL = 6%
FUNC CLASS = ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2577A..... 5.349 miles
LENGTH STRUCTURE TIP PROJECT R-2577A..... 0.031 miles
TOTAL LENGTH OF PROJECT R-2577A..... 5.380 miles

PLANS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
8601 SIX FORKS ROAD, FORUM 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615-3960
NC LICENSE NO. E-0112
1-888-521-4455 OR 919-878-9560

FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: February 26, 2021
LETTING DATE: December 19, 2023

NCDOT CONTACT: Connie James, PE
DIVISION 9

Scott D. Blevins, PE
PROJECT ENGINEER

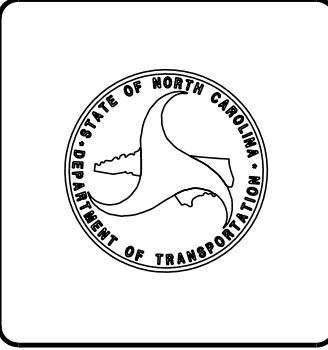
John R.G. Olinger, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

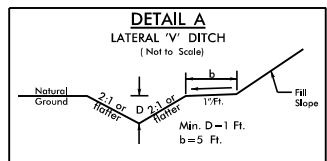
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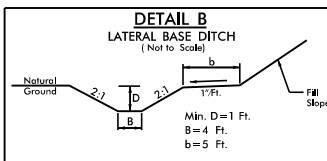
PROJECT REFERENCE NO.	SHEET NO.
R-2577A	2D-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



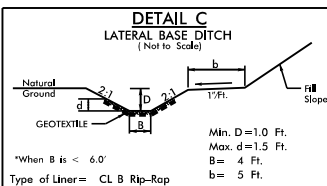
PERMIT DRAWING SHEET 2 OF 23



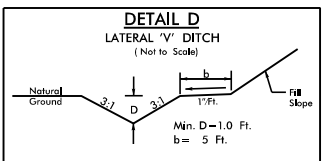
- L- STA. 1+00 TO STA. 1+65 RT
- L- STA. 6+50 TO STA. 8+00 LT
- L- STA. 11+19 TO STA. 11+44 LT
- L- STA. 12+00 TO STA. 16+00 LT
- L- STA. 16+50 TO STA. 20+50 RT
- L- STA. 22+00 TO STA. 23+24 RT
- L- STA. 25+00 TO STA. 27+50 RT
- L- STA. 35+80 TO STA. 38+00 RT
- L- STA. 41+00 TO STA. 45+50 RT
- L- STA. 47+50 TO STA. 51+50 RT
- L- STA. 58+50 TO STA. 60+50 RT
- L- STA. 62+79 TO STA. 66+50 RT
- L- STA. 67+80 TO STA. 69+00 RT
- Y1A- STA. 15+61.54 TO STA. 15+95.66 LT
- Y6- STA. 10+62 TO STA. 11+35 RT
- Y8- STA. 10+67 TO STA. 11+50 LT
- L- STA. 78+00 TO STA. 82+49 RT
- L- STA. 82+00 TO STA. 83+00 LT
- L- STA. 88+50 TO STA. 89+90 RT
- L- STA. 88+00 TO STA. 90+00 LT
- L- STA. 103+00 TO STA. 105+00 RT
- L- STA. 109+50 TO STA. 112+00 RT
- L- STA. 113+50 TO STA. 128+50 RT
- L- STA. 116+22 TO STA. 123+00 LT
- L- STA. 175+46 TO STA. 179+00 LT
- L- STA. 182+11 TO STA. 184+00 LT
- L- STA. 185+20 TO STA. 185+50 RT
- L- STA. 186+50 TO STA. 192+52 RT
- L- STA. 195+69 TO STA. 198+50 LT
- L- STA. 199+50 TO STA. 200+07 RT
- L- STA. 242+22 TO STA. 245+50 LT
- L- STA. 228+23 TO STA. 228+69 RT
- L- STA. 284+00 TO STA. 285+22 RT
- L- STA. 286+50 TO STA. 290+10 RT
- L- STA. 291+00 TO STA. 296+00 RT, D=1.5'
- L- STA. 291+50 TO STA. 294+50 LT, D=1.5'
- Y24- STA. 15+50 TO STA. 17+34 RT
- Y24- STA. 17+65.16 TO STA. 18+50 RT
- Y24- STA. 20+00 TO STA. 22+23 RT
- Y24- STA. 23+00 TO STA. 23+63 RT
- L2- STA. 215+50 TO STA. 217+50 LT
- L2- STA. 237+00 TO STA. 238+65 RT
- L- STA. 247+11 TO STA. 250+00 RT
- L2- STA. 228+23 TO STA. 228+69 RT
- L2- STA. 229+50 TO STA. 230+00 LT
- L2- STA. 235+34 TO STA. 238+50 LT
- Y10- STA. 10+72 TO STA. 11+50 LT
- Y17A- STA. 10+50 TO STA. 11+34 LT
- L- STA. 199+43 TO STA. 200+07 RT
- L- STA. 296+28 TO STA. 297+68 RT, D=2'
- L- STA. 297+68 TO STA. 298+00 RT, D=1.5'
- L- STA. 301+05 TO STA. 304+77 RT



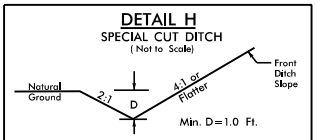
- L- STA. 2+00 TO STA. 3+00 LT
- L- STA. 34+50 TO STA. 35+80 RT, M=4
- L- STA. 129+50 TO STA. 131+75 LT
- Y9- STA. 13+50 TO STA. 14+50 LT
- Y11- STA. 12+17 TO STA. 13+00 LT
- Y11- STA. 14+00 TO STA. 14+40 LT



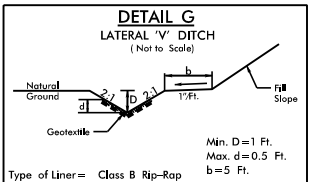
- Type of Liner = CL B Rip-Rap
- L- STA. 98+00 TO STA. 99+71 RT
- L- STA. 100+50 TO STA. 100+92 RT
- L- STA. 101+02 TO STA. 102+00 LT
- L- STA. 106+50 TO STA. 108+50 LT
- L- STA. 113+02 TO STA. 113+50 RT
- L- STA. 140+51 TO STA. 142+00 RT
- Y13- STA. 10+85 TO STA. 11+50 RT
- Y9- STA. 14+50 TO STA. 15+06 LT
- L- STA. 294+50 TO STA. 297+50 LT, D=1.5, B=3, CL I RIP-RAP
- L- STA. 297+50 TO STA. 298+07 LT, M=3, D=1.5, B=3



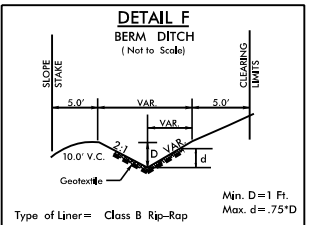
- L- STA. 287+00 TO STA. 290+20 LT



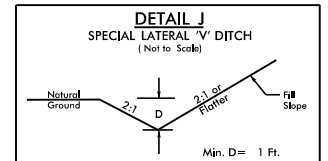
- Y1B- STA. 11+03 TO STA. 15+79 LT
- Y1B- STA. 17+50 TO STA. 18+00 LT
- Y1B- STA. 17+50 TO STA. 18+00 RT
- Y1C- STA. 10+00 TO STA. 11+00 LT
- Y1C- STA. 10+00 TO STA. 11+00 RT
- Y1D- STA. 12+00 TO STA. 12+50 LT
- Y1D- STA. 12+00 TO STA. 12+50 RT
- Y2- STA. 12+00 TO STA. 12+50 RT
- Y3- STA. 11+50 TO STA. 13+00 LT
- Y3- STA. 11+50 TO STA. 13+00 RT
- Y25- STA. 12+50 TO STA. 13+00 LT
- Y25- STA. 12+50 TO STA. 13+00 RT
- Y11- STA. 11+50 TO STA. 12+00 RT
- Y12- STA. 21+25 TO STA. 22+50 RT
- Y13- STA. 11+00 TO STA. 13+00 LT
- Y4- STA. 12+50 TO STA. 14+00 LT
- Y5- STA. 21+50 TO STA. 22+50 LT
- Y5- STA. 10+00 TO STA. 11+50 LT
- Y5A- STA. 10+00 TO STA. 11+00 LT
- Y5A- STA. 10+00 TO STA. 11+00 RT
- Y5A- STA. 15+50 TO STA. 16+14 RT
- Y6- STA. 11+35 TO STA. 11+85 LT
- Y6- STA. 11+35 TO STA. 11+85 RT
- Y7- STA. 10+94 TO STA. 12+00 RT
- Y8- STA. 11+78 TO STA. 12+50 LT
- Y15- STA. 11+25 TO STA. 11+50 LT
- Y15- STA. 11+25 TO STA. 12+50 RT
- Y23- STA. 15+50 TO STA. 17+00 RT
- Y23- STA. 16+00 TO STA. 17+00 LT
- Y24- STA. 13+09 TO STA. 14+00 LT
- Y24- STA. 13+09 TO STA. 15+50 RT
- Y24- STA. 18+50 TO STA. 20+00 RT
- Y10- STA. 13+50 TO STA. 13+77 LT
- Y5A- STA. 15+96 TO STA. 16+10 LT
- Y5- STA. 17+50 TO STA. 17+61 RT
- X-OVER- STA. 302+46.78 TO STA. 305+62.57 RT



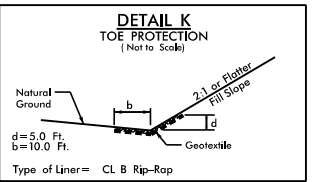
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- L- STA. 11+44 TO STA. 12+00 LT, CL I RIP RAP
- L- STA. 60+50 TO STA. 62+79 RT
- L- STA. 81+50 TO STA. 82+00 LT
- L- STA. 185+50 TO STA. 186+50 RT
- Y17- STA. 14+00 TO STA. 14+50 LT, CL I RIP RAP



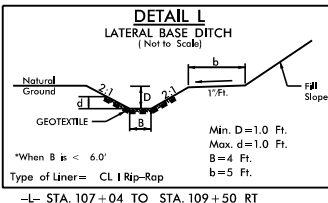
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- L- STA. 83+50 TO STA. 84+50 LT
- L- STA. 87+28 TO STA. 88+00 LT
- L- STA. 94+00 TO STA. 94+50 LT
- Y12- STA. 22+00 TO STA. 23+88 RT



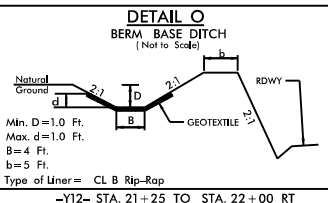
- D3- STA. 10+50 TO STA. 11+25 RT
- L- STA. 0+00 TO STA. 02+00 LT
- L2- STA. 236+00 TO STA. 237+00 RT
- Y1A- STA. 11+00 TO STA. 12+00 LT
- Y1E- STA. 12+00 TO STA. 15+00 RT



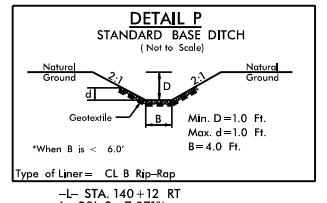
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- L- STA. 3+00 TO STA. 3+60 LT
- L- STA. 4+05 TO STA. 6+00 LT
- L- STA. 7+06 TO STA. 9+45 RT
- L- STA. 8+40 TO STA. 9+86 LT
- L- STA. 22+00 TO STA. 23+00 LT
- L- STA. 37+00 TO STA. 38+00 LT
- L- STA. 95+00 TO STA. 97+50 RT
- L- STA. 98+40 TO STA. 99+54 LT
- L- STA. 101+50 TO STA. 102+62 RT
- Y14- STA. 13+22 TO STA. 13+73 RT
- L- STA. 137+50 TO STA. 139+50 LT
- L2- STA. 217+52 TO STA. 218+50 LT
- L2- STA. 229+00 TO STA. 230+50 RT



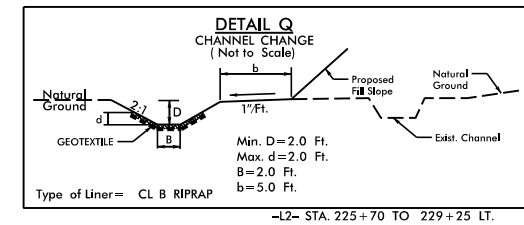
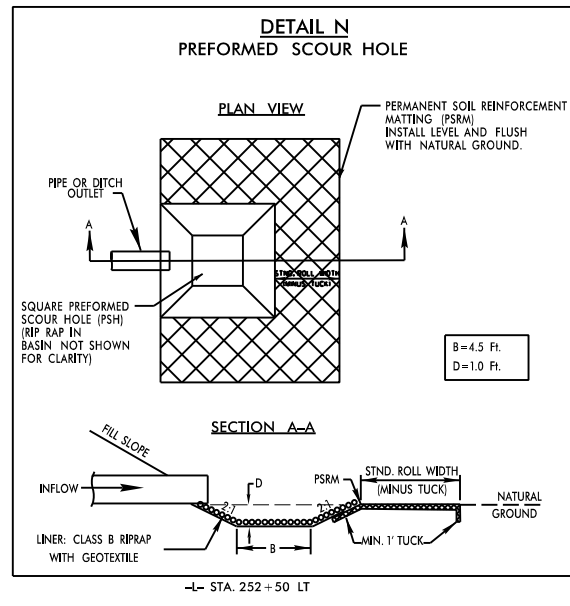
- L- STA. 107+04 TO STA. 109+50 RT



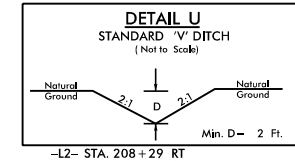
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- Y12- STA. 21+25 TO STA. 22+00 RT
- L- STA. 102+00 TO STA. 102+50 RT
- L- STA. 128+50 TO STA. 129+50 LT



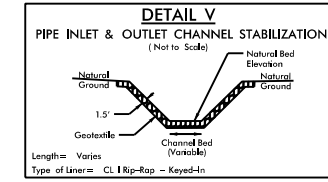
- Type of Liner = CL B Rip-Rap
- L- STA. 140+12 RT
- L=28', S=7.071%, BEG. EL=842.00', END EL=840.02'
- L- STA. 100+92 RT, MIN. D=0.5'
- L=36', S=12.64%, M=3, BEG. EL=861.00', END EL=856.45'



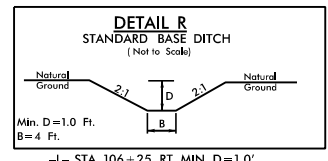
- Type of Liner = CL B RIPRAP
- L2- STA. 225+70 TO 229+25 LT



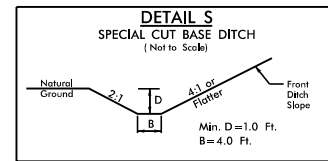
- L2- STA. 208+29 RT
- L=143.89', S=0.73%, M=4:1, BEG. EL= 966.90', END EL. 965.85'
- L- STA. 285+22 RT
- L=139', S=1.8%, M=2:1, BEG. EL= 963.93', END EL. 961.44'
- L2- STA. 240+47 RT
- L=162', S= 0.99%, M=3.5:1, BEG. EL= 962.26', END EL. 963.88'
- L- STA. 242+08 RT
- L=162', S= 1.08%, M=5:1, BEG. EL= 963.88', END EL. 963.94'
- L- STA. 243+14 RT
- L=136', S= 5.38%, M=5:1, BEG. EL= 968.22', END EL. 975.53'



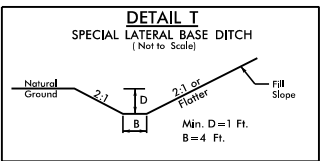
- Type of Liner = CL I Rip-Rap - Keyed-In
- L- 101+34 RT
- L- STA. 106+50 RT
- L- STA. 107+85 LT
- L- STA. 139+86 RT
- L- STA. 140+50 LT
- L- STA. 140+75 LT, CLASS II
- Y9- STA. 14+65 RT
- Y14- STA. 13+13 LT
- Y14- STA. 13+43 RT



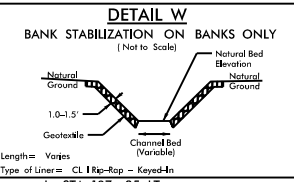
- L- STA. 106+25 RT, MIN. D=1.0'
- L=25', S=7.0%, BEG. EL=863.60', END EL=861.85'
- Y4- STA. 12+50 LT, MIN. D=1.5'
- L=163', S=1.85%, BEG. EL=927.27', END EL=924.24'



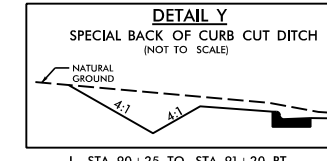
- Y11- STA. 13+00 TO STA. 14+00 LT



- L- STA. 3+59 TO STA. 4+00 LT



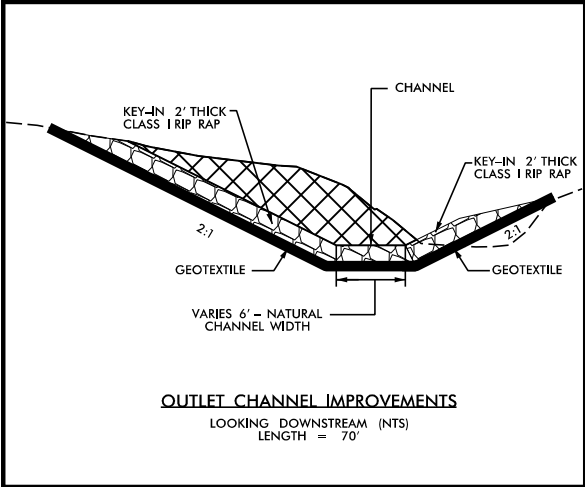
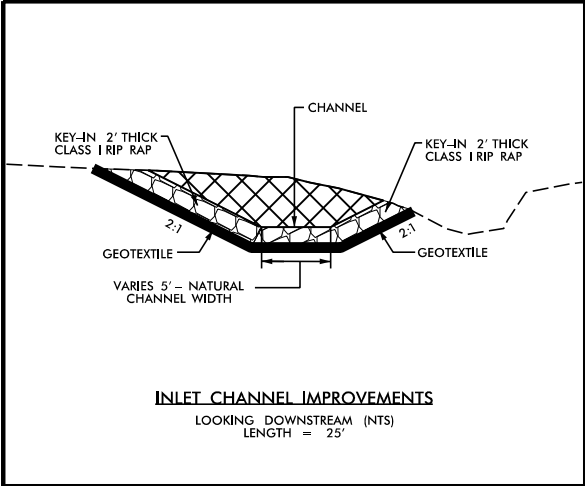
- Type of Liner = CL I Rip-Rap - Keyed-In
- L- STA. 107+85 LT
- L- STA. 139+63 RT, CLASS B
- L- STA. 139+86 RT
- L- STA. 140+50 LT
- L- STA. 140+75 LT, CLASS II
- Y9- STA. 14+65 RT
- Y14- STA. 13+45 RT



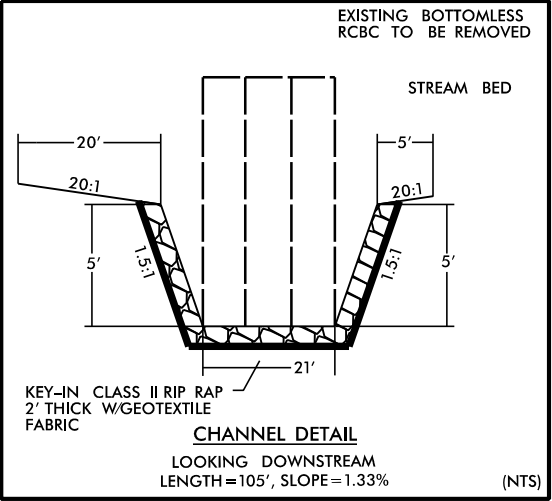
- L- STA. 90+25 TO STA. 91+20 RT
- Y25- STA. 10+73 TO STA. 11+00 RT

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	2D-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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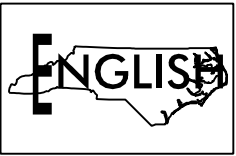
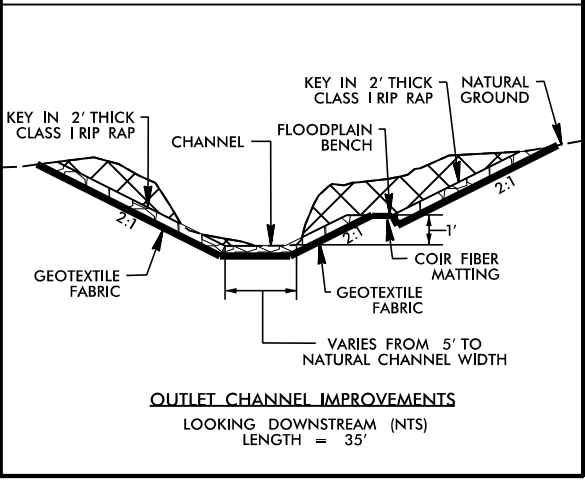
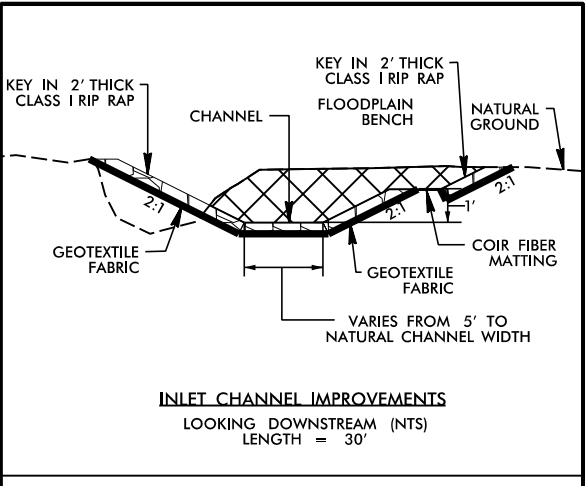
UT LOWERY MILL CREEK DETAILS
-L- 107 + 57



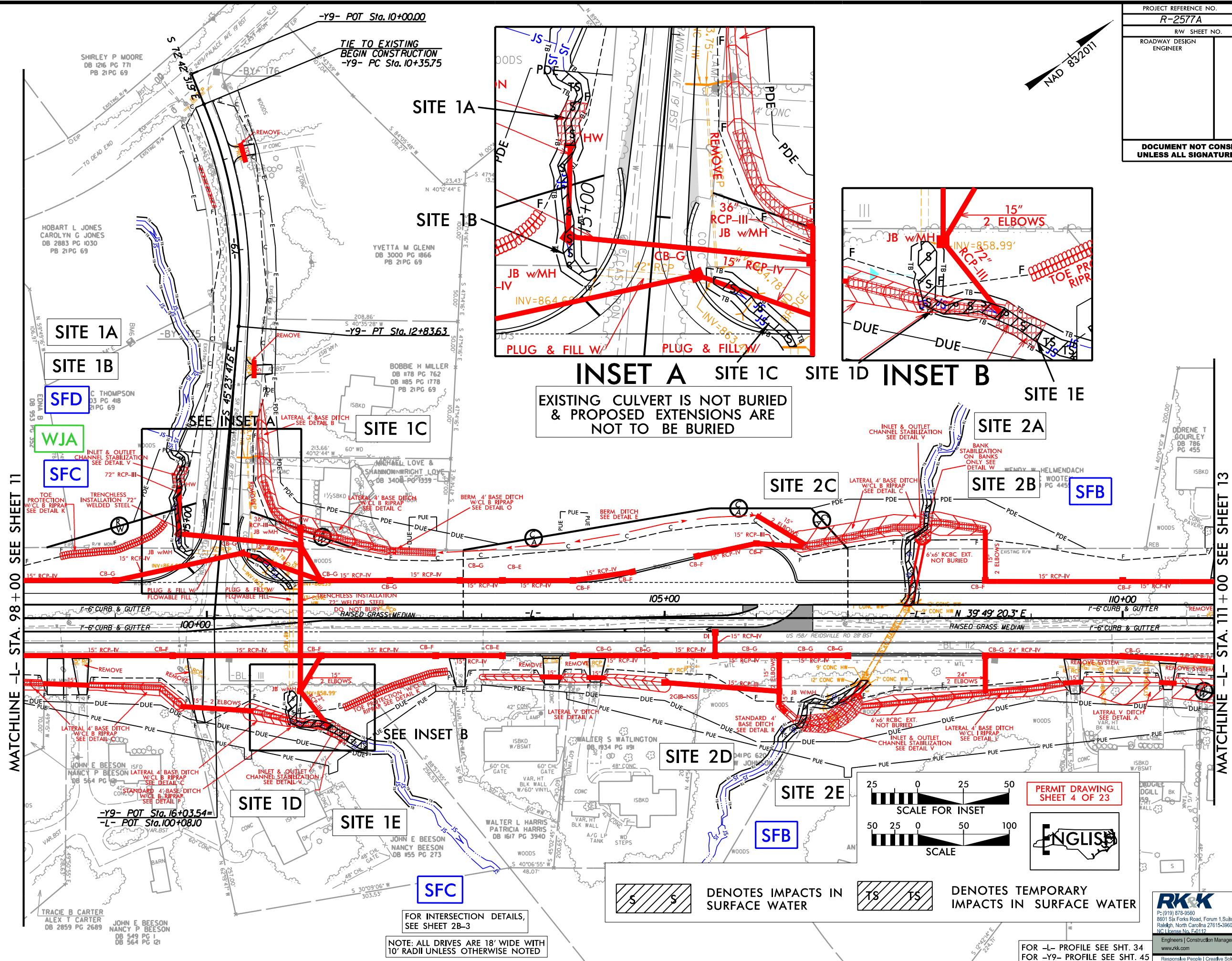
LOWERY MILL CREEK DETAIL
-L- 140 + 39.5

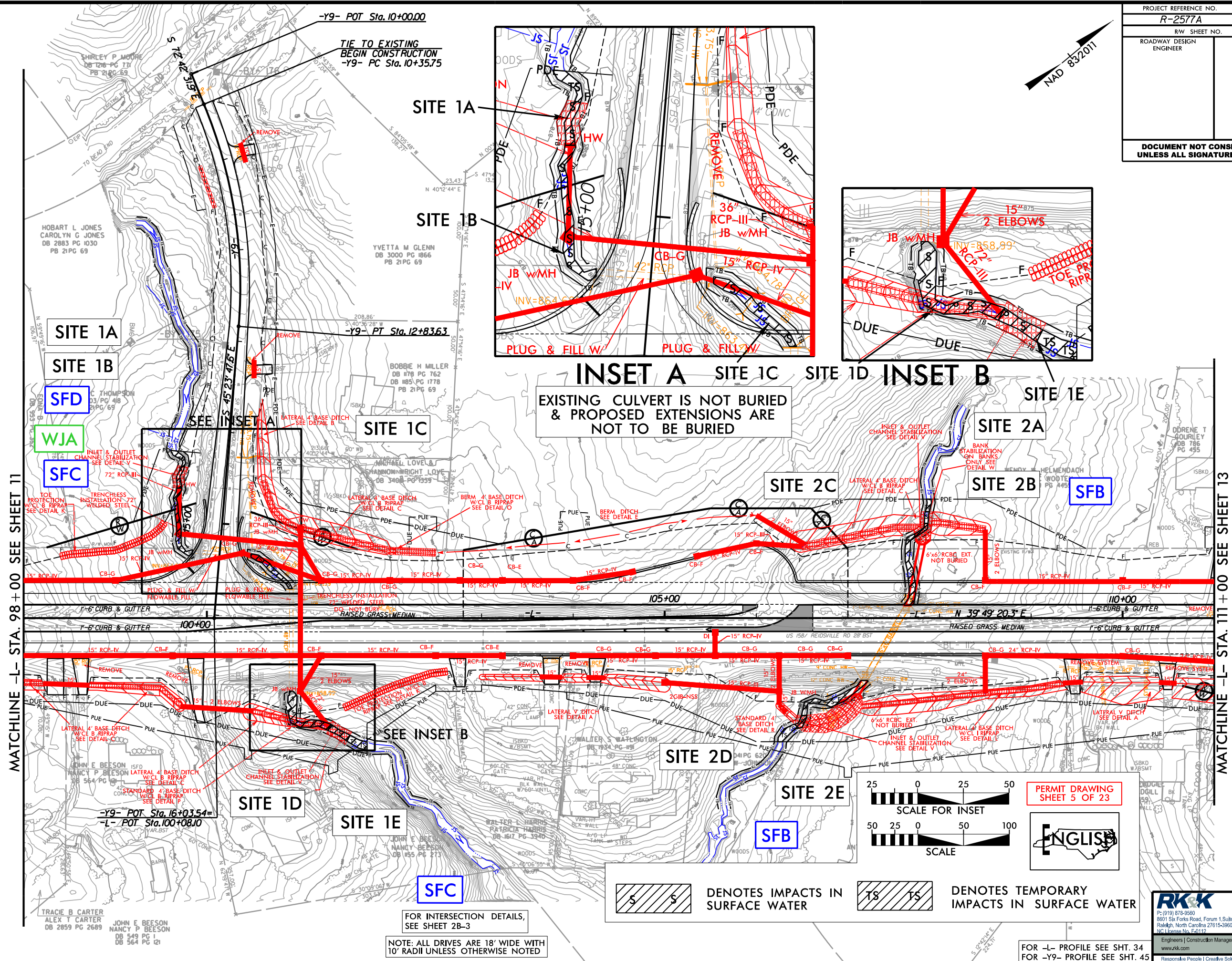


MARTIN MILL CREEK DETAILS
-L2- 229 + 09

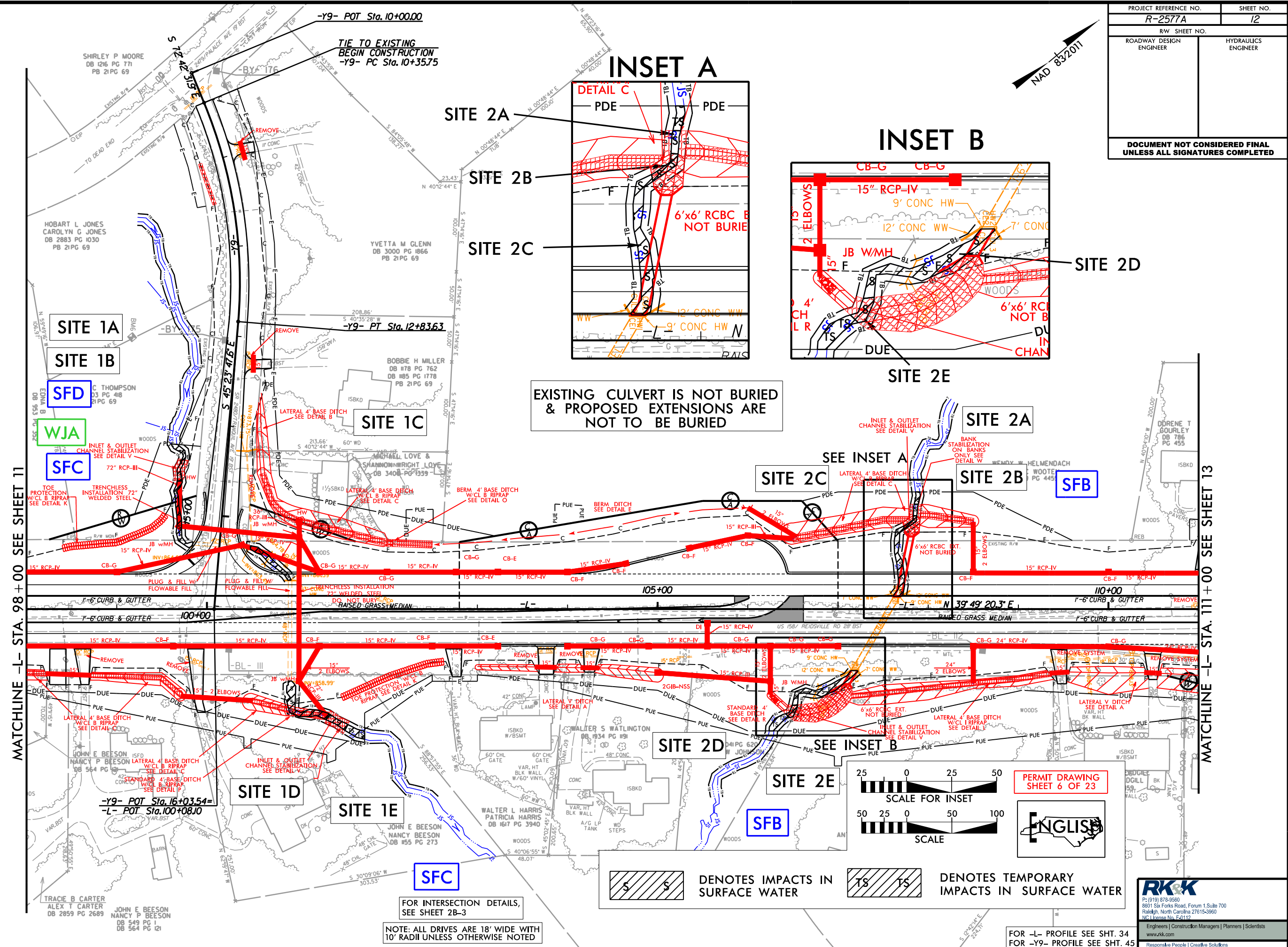


PERMIT DRAWING
SHEET 3 OF 23

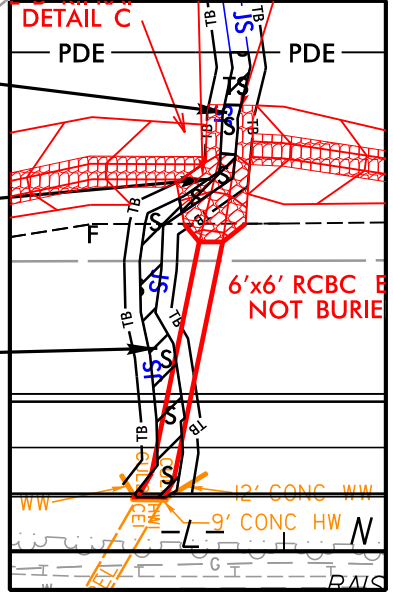




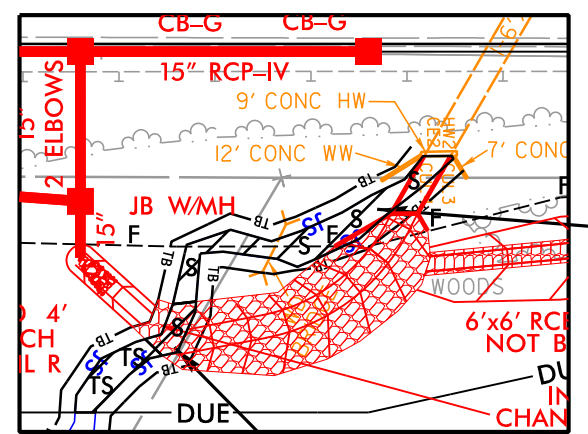
PROJECT REFERENCE NO.	SHEET NO.
R-2577A	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



INSET A



INSET B

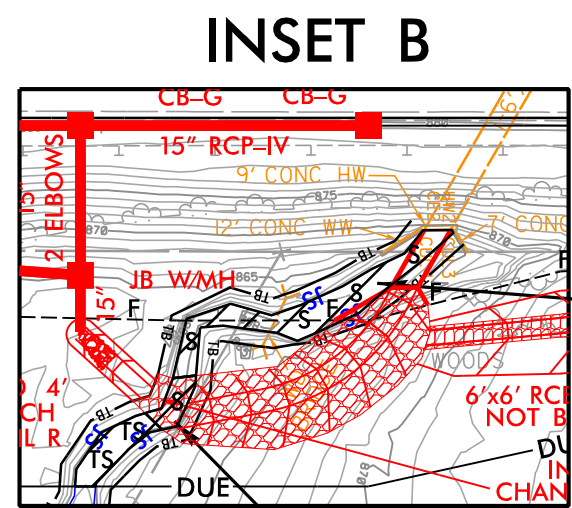
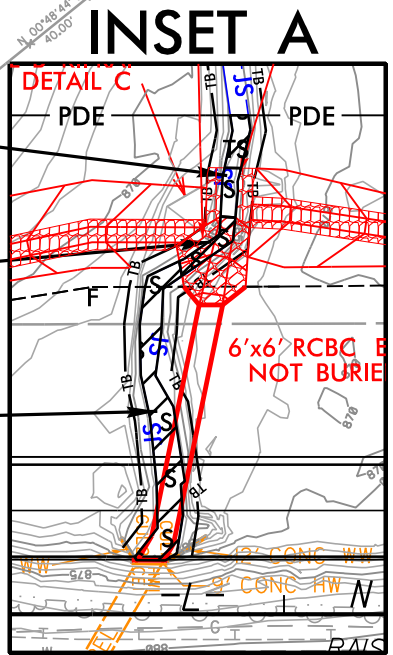
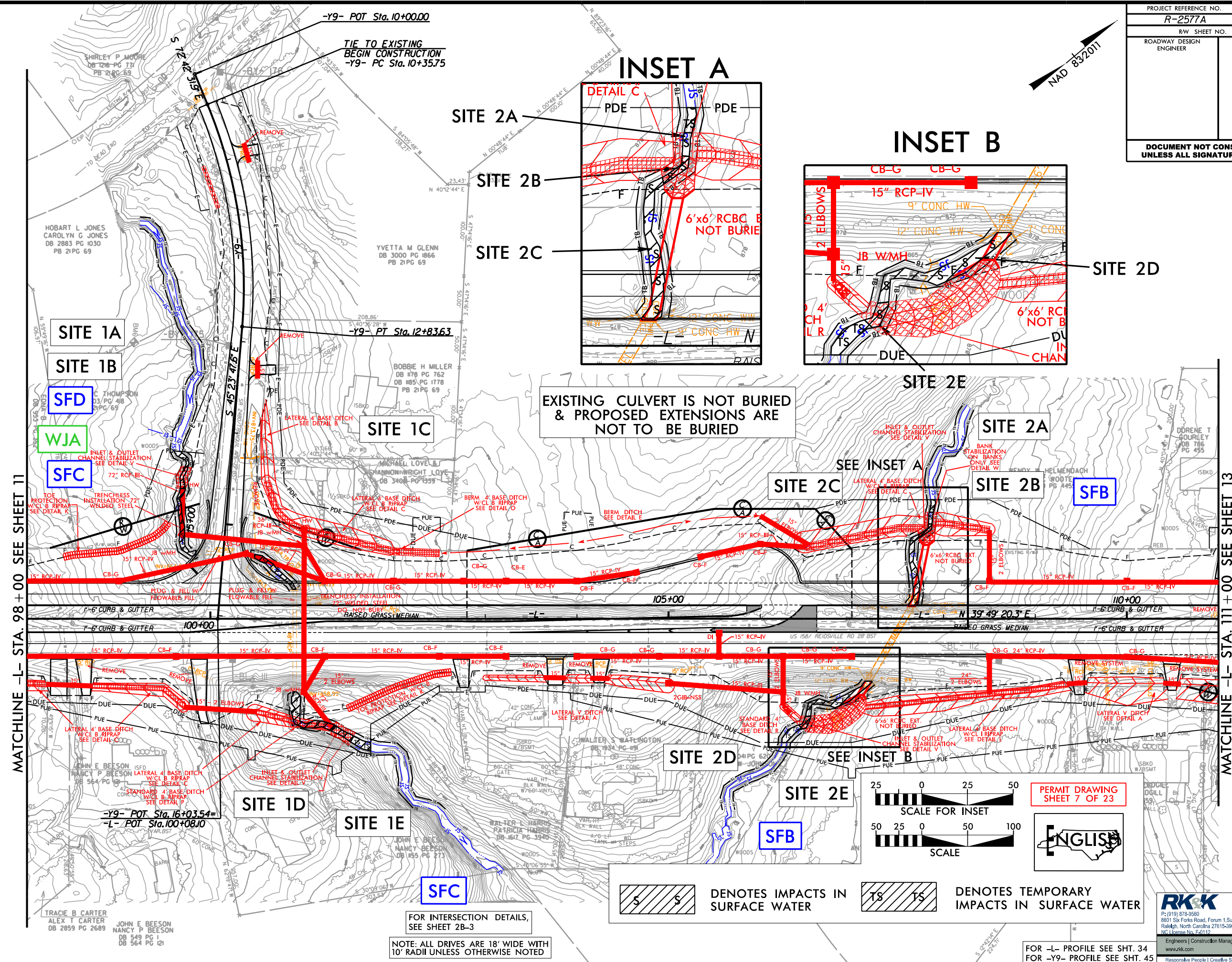


EXISTING CULVERT IS NOT BURIED
& PROPOSED EXTENSIONS ARE
NOT TO BE BURIED

SCALE FOR INSET
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ENGLISH

DENOTES IMPACTS IN SURFACE WATER
DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



DENOTES IMPACTS IN SURFACE WATER

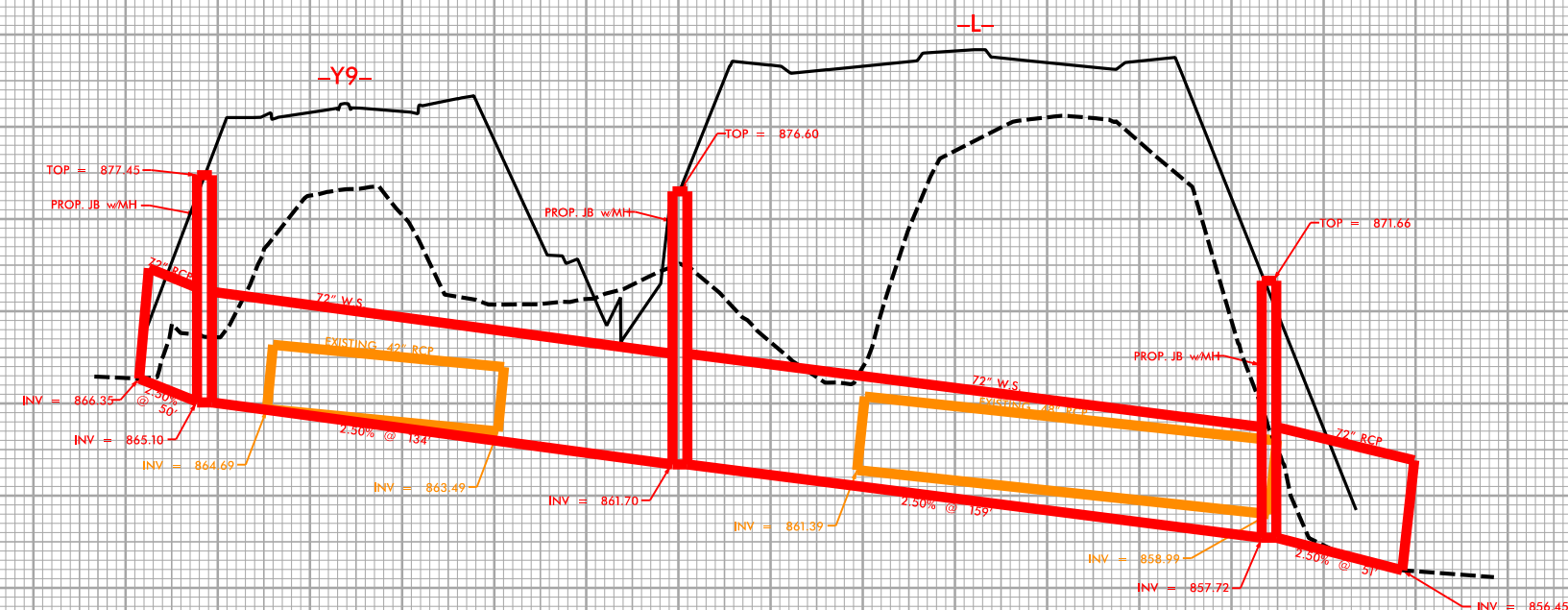
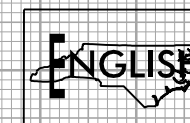
DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PERMIT DRAWING
SHEET 7 OF 23

ENGLISH

SITE 1
-L- STA. 101+02

PERMIT SHEET	DRAWING 8 OF 23
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TRENCHLESS INSTALLATION 72" WELDED STEEL
(length = 394')

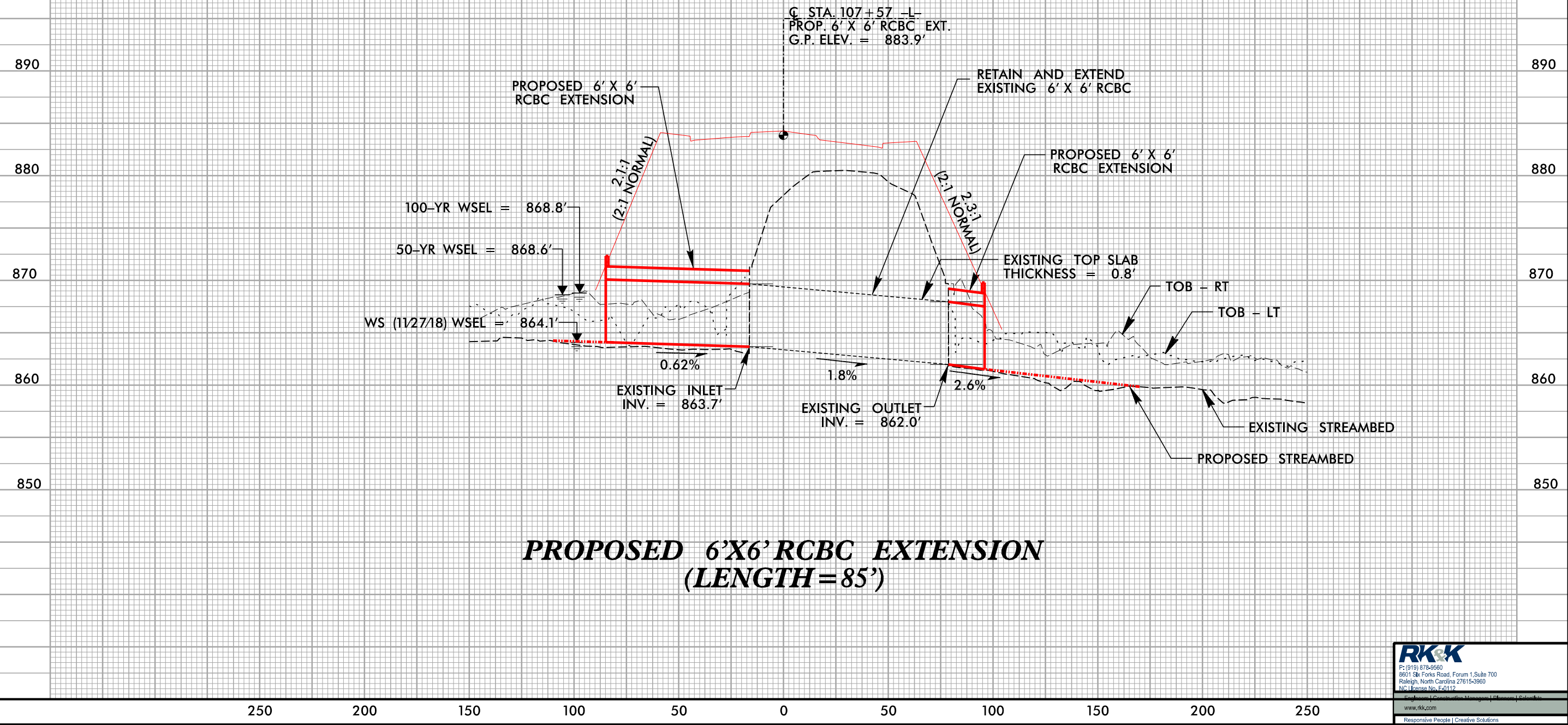
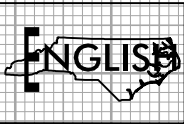
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5/6/2021
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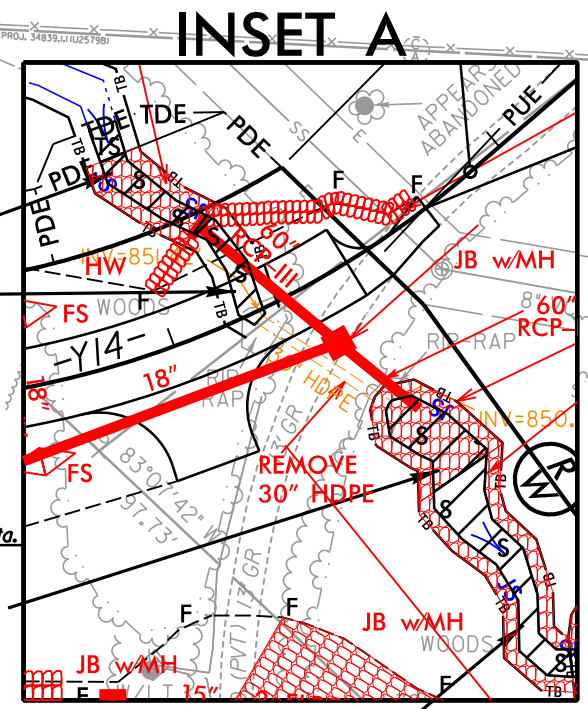
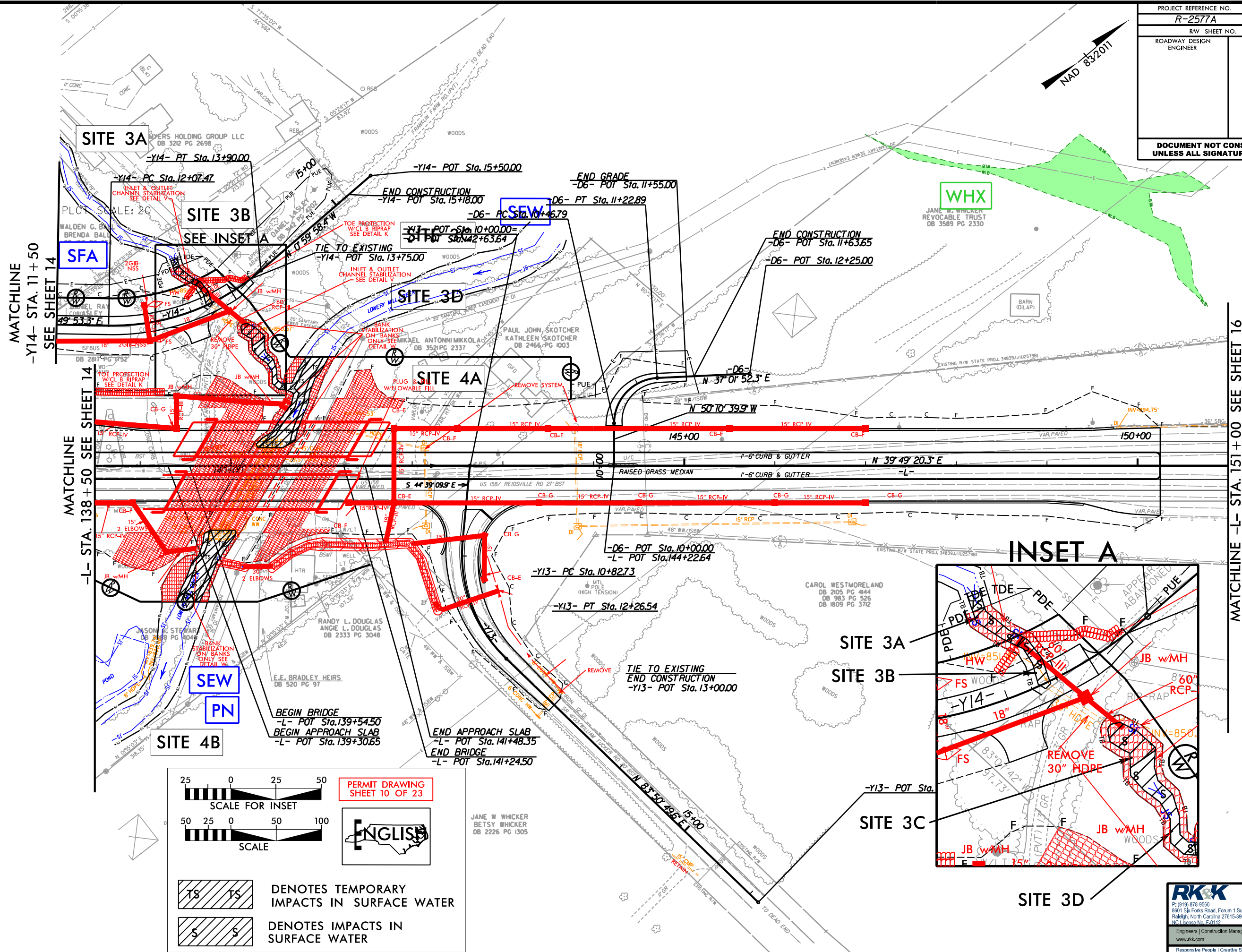
PROJECT REFERENCE NO.		SHEET NO.
R-2577A		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

SITE 2
-L- STA. 107+57

PERMIT DRAWING
SHEET 9 OF 23



PROJECT REFERENCE NO.	SHEET NO.
R-2577A	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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PERMIT DRAWING
SHEET 10 OF 23

ENGLISH

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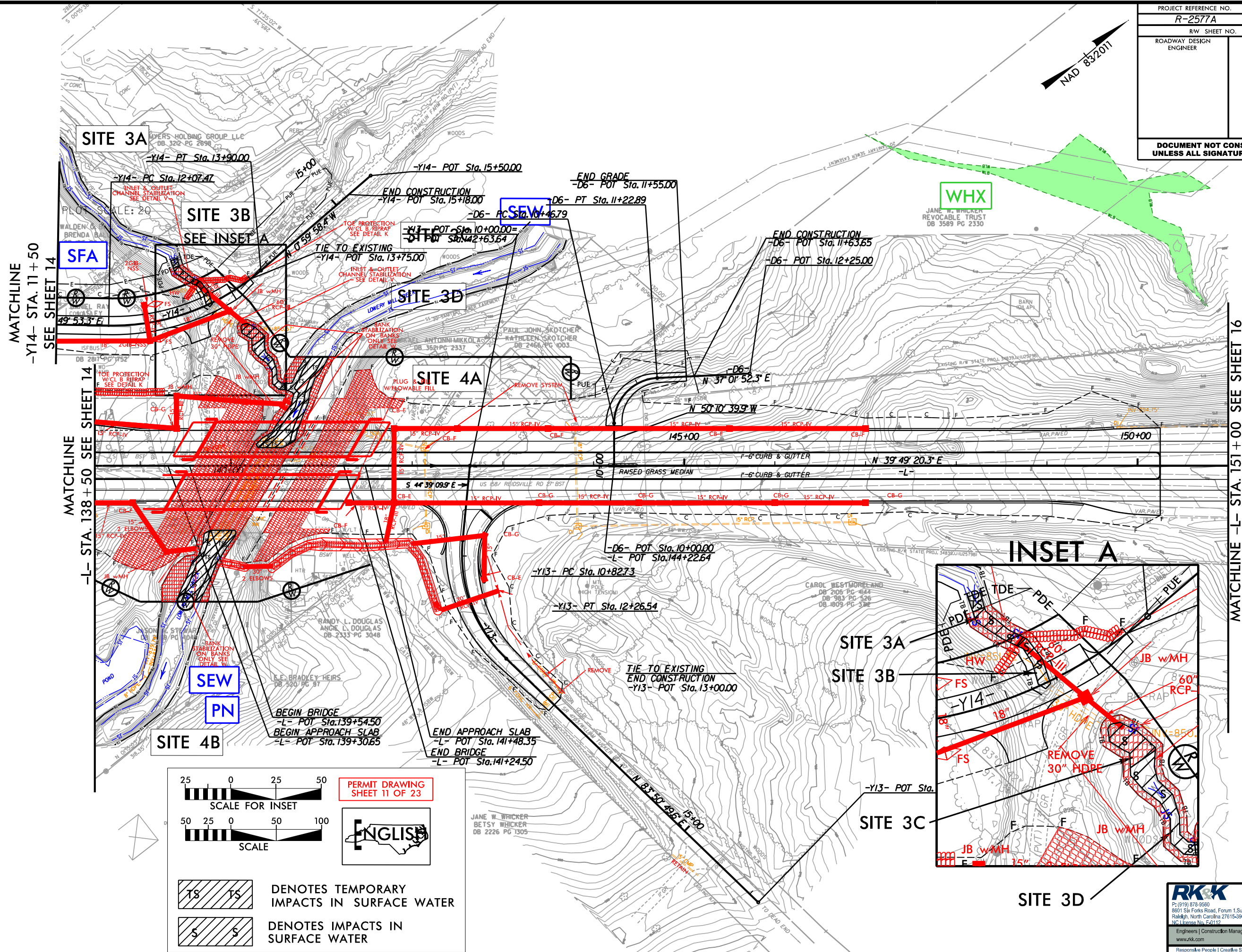
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

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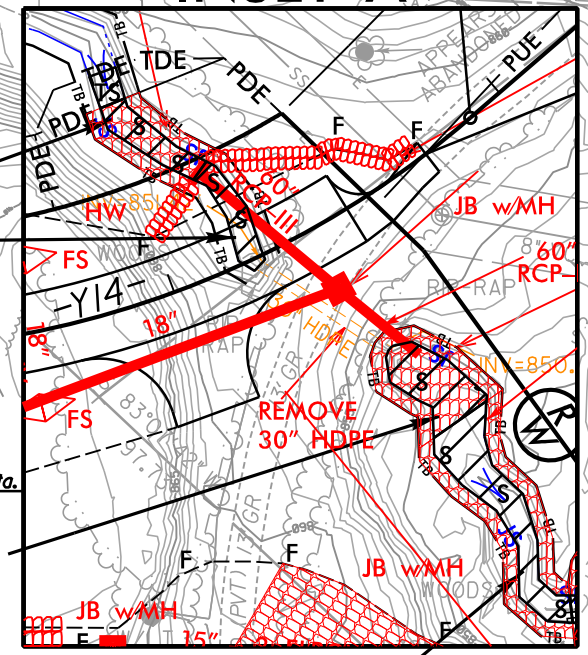
DENOTES IMPACTS IN
SURFACE WATER

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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WHX
JANE W. WHICKER
REVOCABLE TRUST
DB 3589 PG 2330

INSET A



PERMIT DRAWING
SHEET 11 OF 23



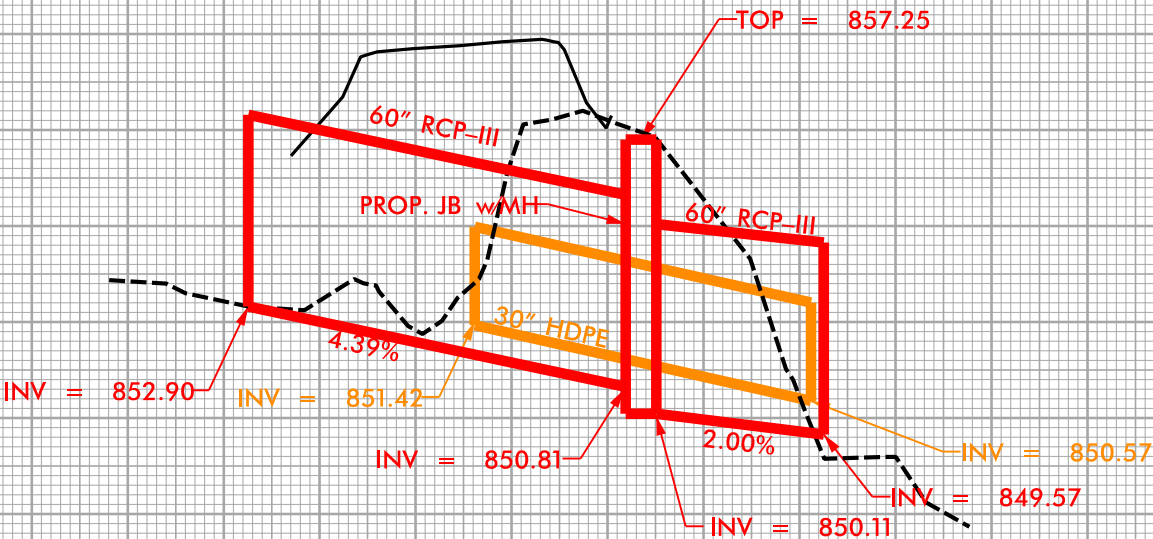
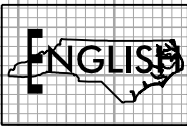
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5/6/2021
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PROJECT REFERENCE NO.		SHEET NO.
R-2577A		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

SITE 3
-Y14- STA. 13+25

PERMIT DRAWING
SHEET 12 OF 23



PROPOSED 60" RCP-III
(TOTAL LENGTH = 75')



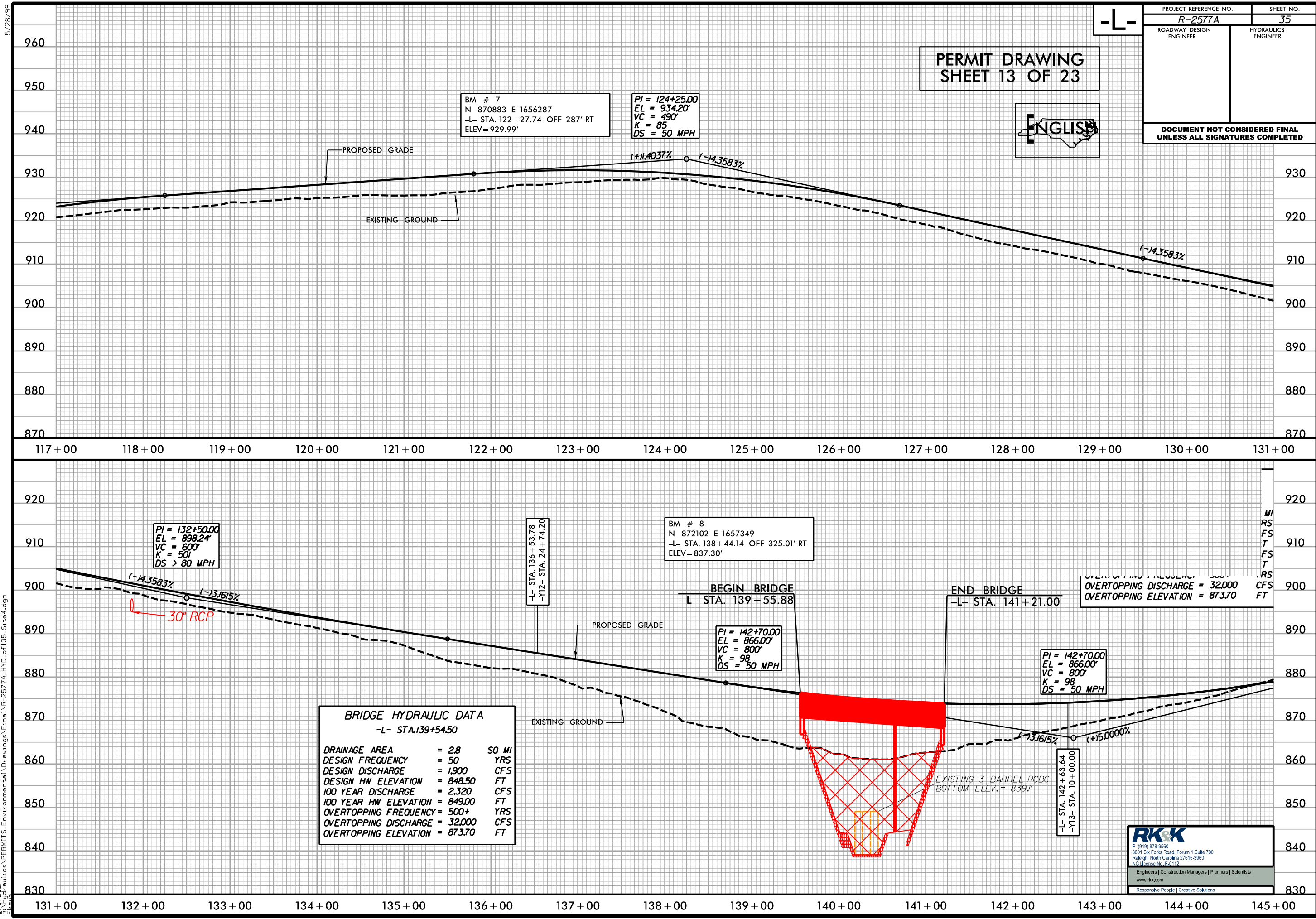
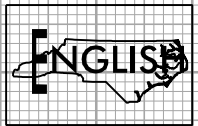
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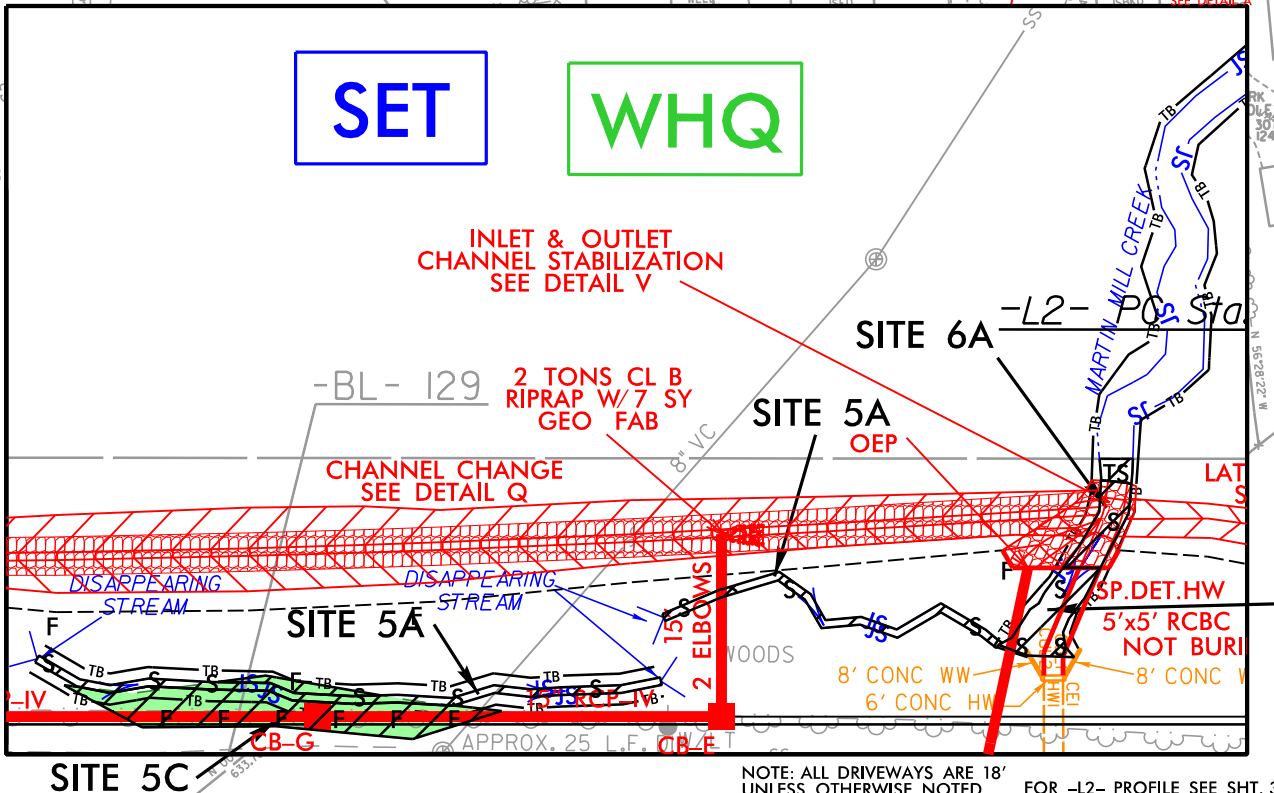
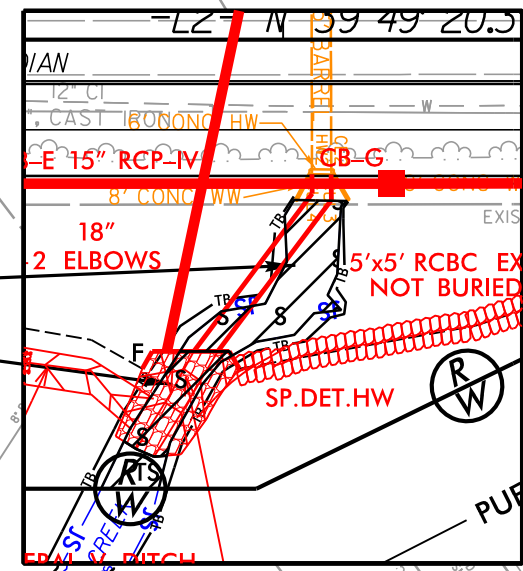
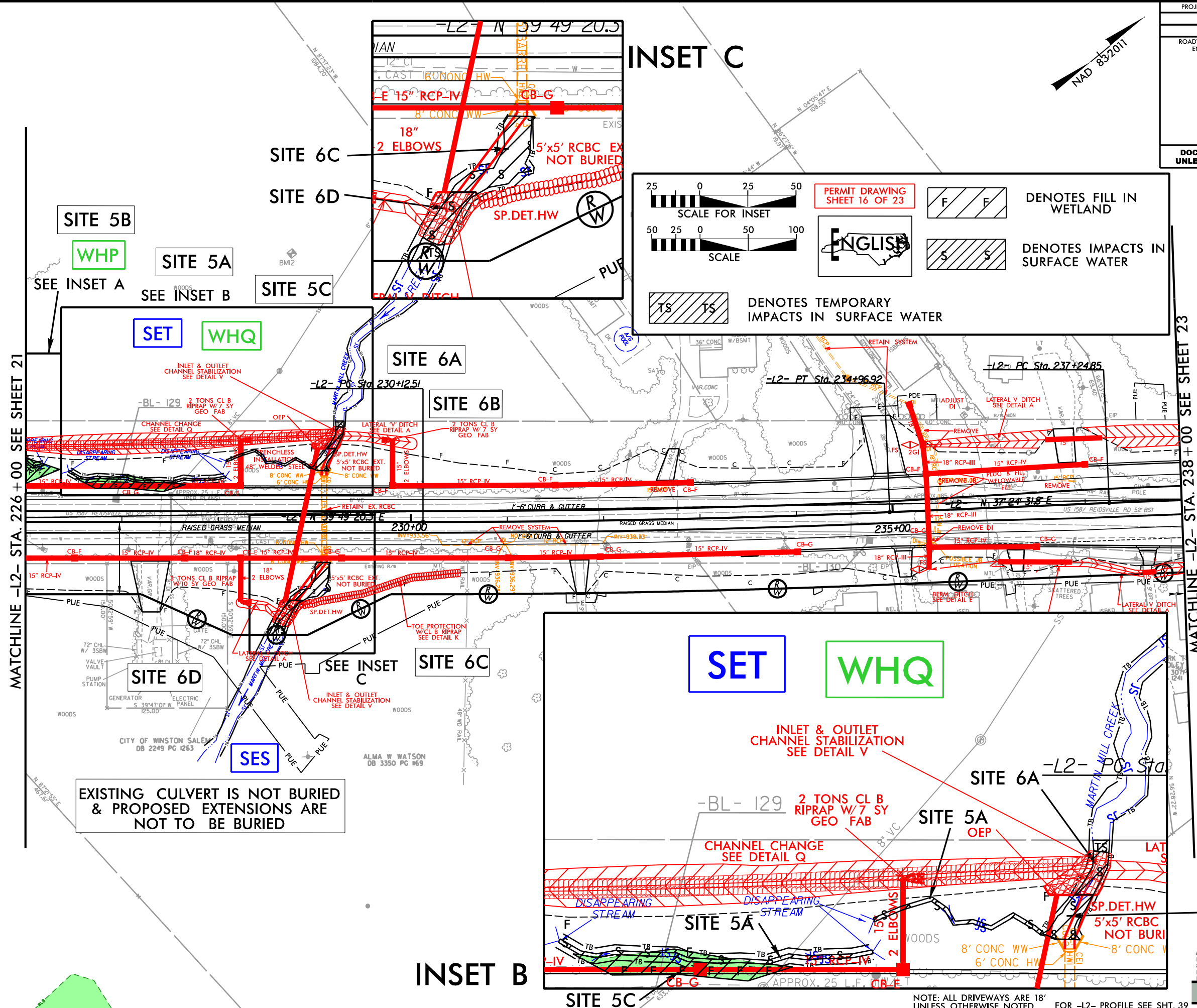
PERMIT DRAWING
SHEET 13 OF 23



BRIDGE HYDRAULIC DATA			
-L- STA. 139+54.50			
DRAINAGE AREA	= 2.8	SO MI	
DESIGN FREQUENCY	= 50	YRS	
DESIGN DISCHARGE	= 1,900	CFS	
DESIGN HW ELEVATION	= 848.50	FT	
100 YEAR DISCHARGE	= 2,320	CFS	
100 YEAR HW ELEVATION	= 849.00	FT	
OVERTOPPING FREQUENCY	= 500+	YRS	
OVERTOPPING DISCHARGE	= 32,000	CFS	
OVERTOPPING ELEVATION	= 873.70	FT	

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2/9/2023
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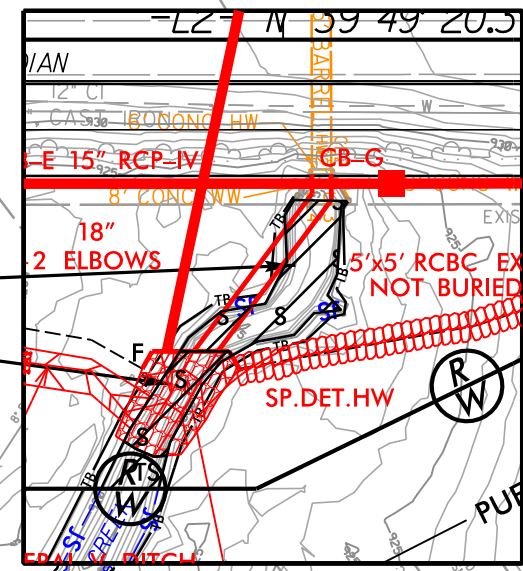
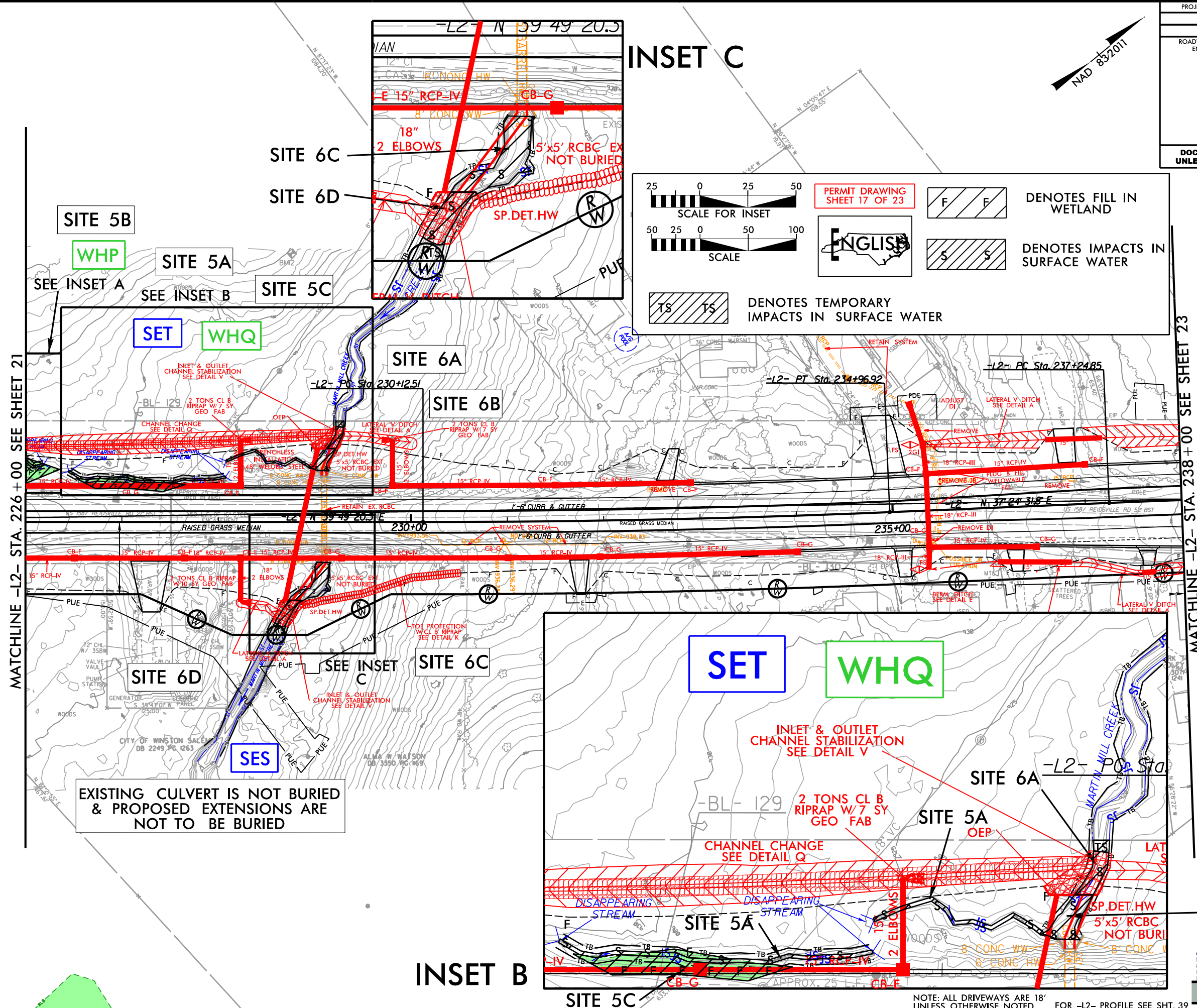
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R-2577A	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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INSET C

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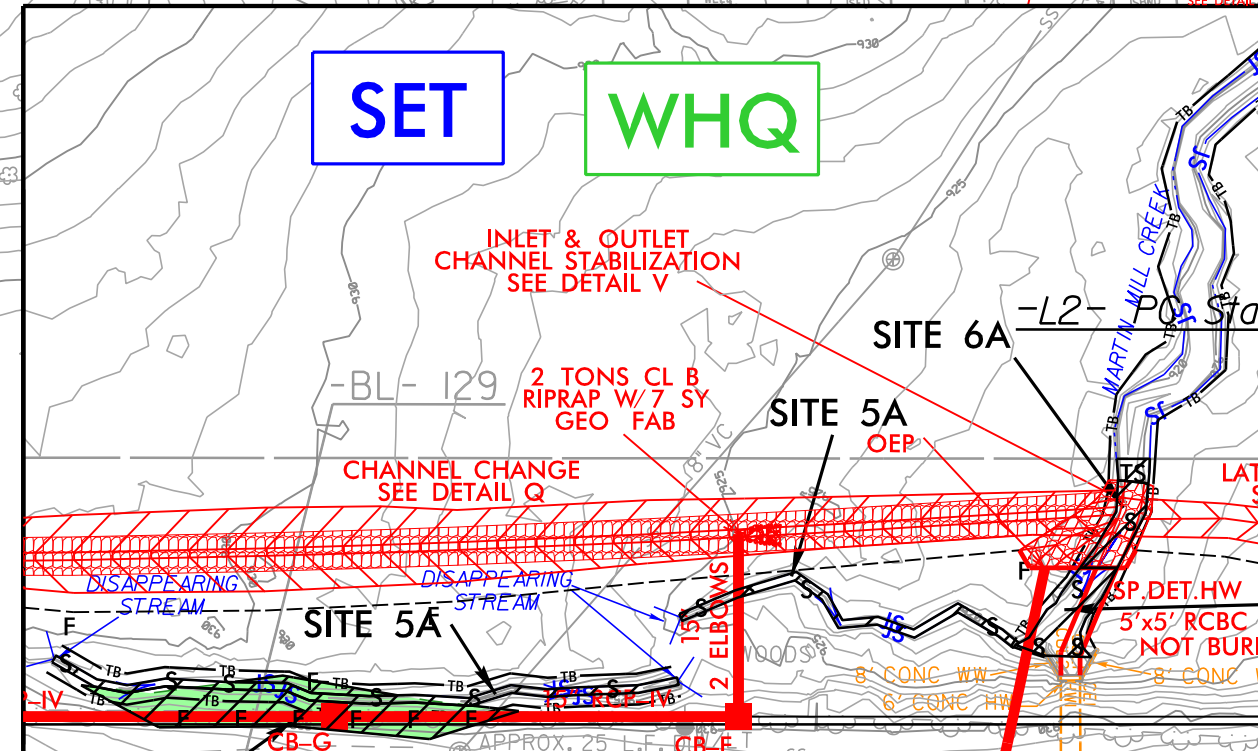
PERMIT DRAWING SHEET 17 OF 23

ENGLISH

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER



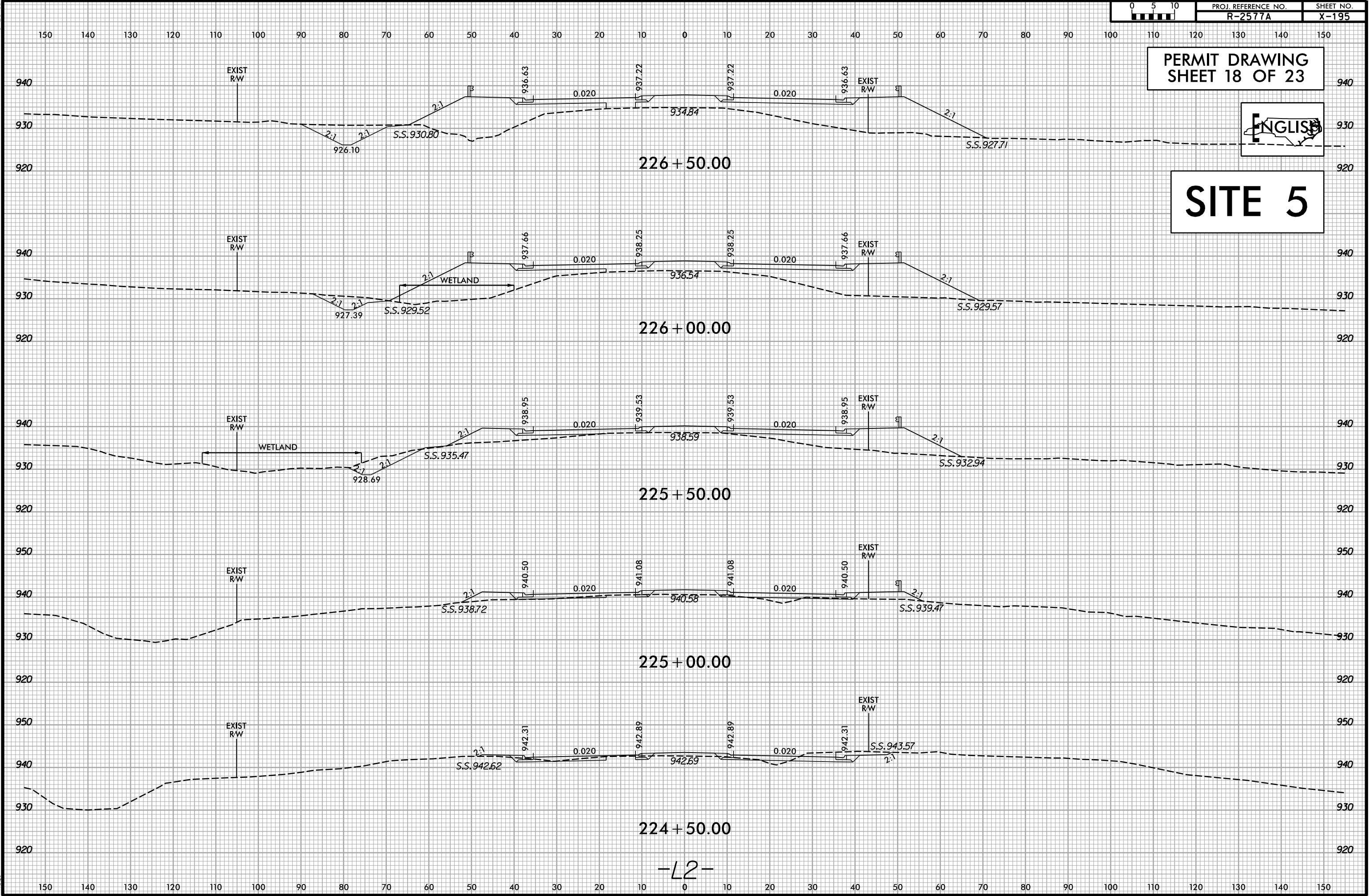
INSET B

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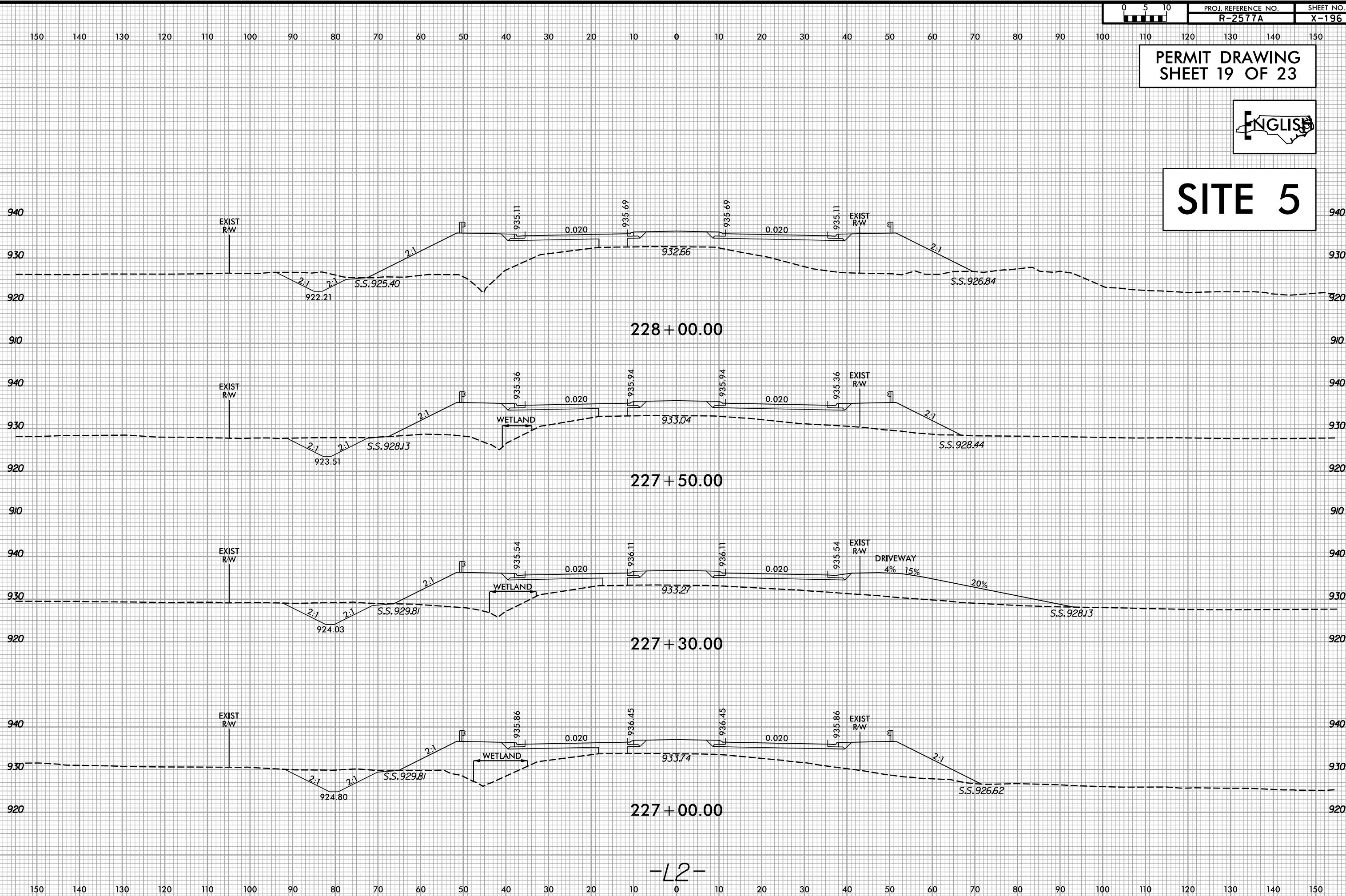


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PERMIT DRAWING
SHEET 19 OF 23



SITE 5



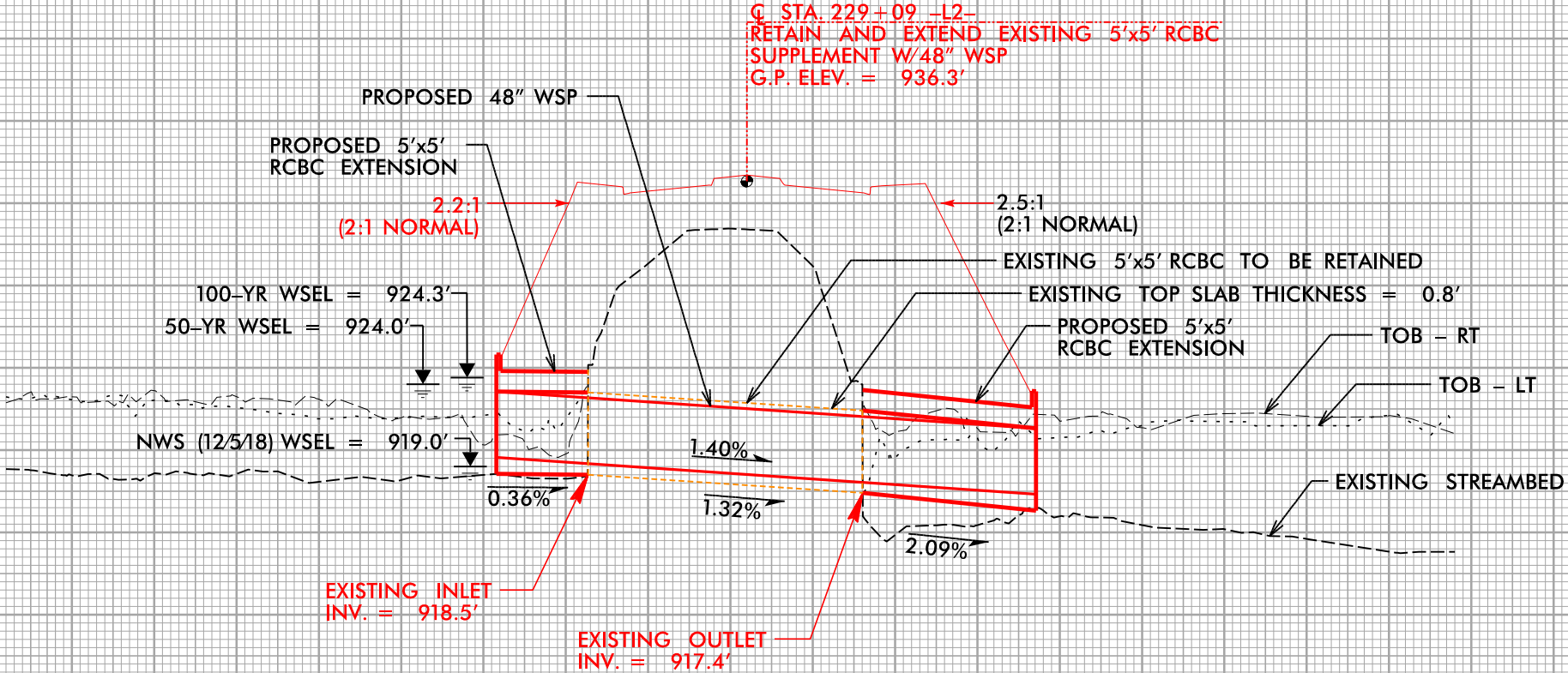
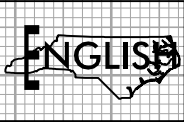
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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SITE 6
-L- STA. 229+09

PERMIT DRAWING
SHEET 20 OF 23



PROPOSED 5'X 5' RCBC EXTENSION
(LENGTH=65')
PROPOSED 48\" WS
(LENGTH=142')

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
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PERMIT DRAWING
SHEET 21 OF 23

ENGLISH

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DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

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DENOTES IMPACTS IN
SURFACE WATER

MATCHLINE -L- STA. 287+50 SEE SHEET 26

PROJECT REFERENCE NO. R-2577A	SHEET NO. 27
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
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MATCHLINE -L- STA. 301+00 SEE SHEET 28

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PERMIT DRAWING
SHEET 22 OF 23

ENGLISH

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DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

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DENOTES IMPACTS IN
SURFACE WATER

MATCHLINE -L- STA. 287+50 SEE SHEET 26

MATCHLINE -Y23- STA. 13+00 SEE SHEET 30

PROJECT REFERENCE NO. R-2577A	SHEET NO. 27
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
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VENABLE & SON LLC P. DB 2591 PG 807 P. DB 2591 PG 807 P. DB 2591 PG 807	

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MATCHLINE -L- STA. 301+00 SEE SHEET 28

WETLAND AND SURACE 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)
1A	-Y9- 14+25-14+65 RT	ARMORING CHANNEL, SFC						< 0.01	< 0.01	25	22	
1B	-Y9- 14+65-15+33 RT	72" RCP,ROADWAY FILL, SFC						< 0.01		84		
1C	-L- 100+48-100+93 LT	ROADWAY FILL, SFC						< 0.01		58		
1D	-L- 100+92-101+34 RT	72" RCP,ROADWAY FILL, SFC						0.01		77		
1E	-L- 101+34-101+75 RT	ARMORING CHANNEL, SFC						< 0.01	< 0.01	24	22	
2A	-L- 107+87 LT	BANK STABILIZATION, SFB						< 0.01	< 0.01	13	14	
2B	-L- 107+87 LT	ARMORING CHANNEL BED AND BANK, SFB						< 0.01		20		
2C	-L- 107+66 LT	UPSTREAM - 1 6x6 RCBC EXTENSION NOT BURIED, CHANNEL TIE IN, SFB						0.01		81		
2D	-L- 106+50-107+20 RT	DOWNSTREAM - 1 6x6 RCBC EXTENSION NOT BURIED, CHANNEL TIE IN, SFB						0.01		86		
2E	-L- 106+25-106+50 RT	ARMORING CHANNEL BED AND BANK, SFB						< 0.01	< 0.01	15	26	
3A	-Y14- 13+03 LT	ARMORING CHANNEL, SFA						< 0.01	< 0.01	29	9	
3B	-Y14- 13+22 LT	60" RCP, ROADWAY FILL, SFA						< 0.01		30		
3C	-Y14- 13+41 RT	60" RCP OUTLET PAD, SFA						< 0.01		27		
3D	-Y14- 13+48 RT	BANK STABILIZATION, SFA						0.01		63		
4A	-L- 140+38 LT	UPSTREAM - BANK STABILIZATION, DUAL BRIDGES REPLACING (3)-7x10 RCBC, SEW						0.03	0.03	114		
4B	-L- 139+91 RT	DUAL BRIDGES REPLACING (3)-7x10 RCBC, SEW						0.02	0.03	88		
5A	-L2- 225+52-228+95 LT	ROADWAY FILL & CHANNEL CHANGE, SET						0.02	< 0.01	331	14	
5B	-L2- 225+33-226+35 LT	ROADWAY FILL & CHANNEL CHANGE, WHP	0.02		< 0.01	0.02						
5C	-L2- 228+07-228+98 LT	ROADWAY FILL & CHANNEL CHANGE, WHQ	0.02									
6A	-L2- 229+25 LT	ARMORING CHANNEL, SES						< 0.01	< 0.01	24	6	
6B	-L2- 229+10 LT	UPSTREAM - 1 5x5 RCBC EXTENSION W/ 48" WELDED STEEL PIPE, SES						< 0.01		26		
6C	-L2- 229+10 RT	DOWNSTREAM - 1 5x5 RCBC EXTENSION W/ 48" WELDED STEEL PIPE, SES						0.02		56		
6D	-L2- 228+70 RT	ARMORING CHANNEL, SES						< 0.01	< 0.01	31	10	
7A	-L- 296+40-298+03 LT	ROADWAY FILL, 48" RCP, SEL						0.01		178		
7B	-L- 298+03-298+28 LT	BANK STABILIZATION, SEL						< 0.01	< 0.01	16	13	
TOTALS*:			0.04		< 0.01	0.02		0.20	0.08	1496	136	
*Rounded totals are sum of actual impacts												
NOTES:												
										NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS FEBRUARY 2023 FORSYTH R-2577A		
Revised 2016 09 09										SHEET	23	OF 23