

PROJECT COMMITMENTS

T.I.P. Project No. I-3802B

Interstate 85 (I-85) Reconstruction, Widening, and Interchange Improvements from North of SR 1308 (Moose Road) to North of the US 29/US 601 Connector (Exit 68)

Rowan County

Federal Aid Project No. NHIMF-085-2(78)63

W.B.S. No. 36780.1.2

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Roadway Design Unit, Hydraulics Unit, Structure Design Unit, Division 10 – Provisions for Greenway

The proposed new I-85 bridges over Irish Buffalo Creek will be designed with adequate vertical and horizontal clearance to accommodate the future Irish Buffalo Creek greenway crossing under I-85. Coordination with the local municipality will be performed during design of those bridges to ensure they are compatible with the future greenway crossing (I-3802A).

The bridge crossing Irish Buffalo Creek was designed to have sufficient length to accommodate a ten-foot wide future greenway on the north side of Irish Buffalo Creek.

Project Development and Environmental Analysis Unit (PDEA) – NEPA/Section 404 Merger Process

NEPA/Section 404 Merger Concurrence Points 3 (Least Environmentally Damaging Practicable Alternative) and 4 (Avoidance and Minimization) will be completed for the project (I-3802A & B).

A meeting to discuss Concurrence Points 3 and 4 was held on March 13, 2014. Concurrence was reached at the meeting.

PDEA, Division 10, Roadway Design Unit

Blake House, Goodman Farm, Caldwell House, and Barrier House

Blake House, Goodman Farm, Caldwell House, and Barrier House are National Register-eligible properties. These properties are located within the project's Area of Potential Effects. Currently, the proposed project will have No Effect on the Blake House and Goodman Farm and No Adverse Effect on Caldwell House and Barrier House. If design plans change near any of the properties, impacts will be re-evaluated and appropriate coordination with the Department of Cultural Resources will be undertaken (I-3802A).

Additional analysis and coordination were done for the proposed design modifications. There will be no effect on any historic resources.

North Cabarrus Park

North Cabarrus Park, owned and managed by Cabarrus County, is located on the west side of I-85 near Irish Buffalo Creek. No additional right-of-way or easements are proposed along I-85 on park property; thus, the project will not impact North Cabarrus Park. If design plans change and result in impacts to North Cabarrus Park, a Section 4(f) evaluation will be prepared (I-3802A).

The proposed design modifications will not affect the park.

Hydraulics Unit – Floodplain Mapping Program Coordination

The NCDOT Hydraulics Unit will coordinate with the North Carolina Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to the applicability of NCDOT's Memorandum of Agreement with the FMP or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR) (I-3802A & B).

Two FEMA crossings, Irish Buffalo and Cold Water Creek, were impacted. An MOA Type 2 approval was obtained.

Divisions 9 and 10 – As-Built Construction Plans

The Divisions shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically (I-3802A & B).

The Team will work with the Division to obtain as-builts of the constructed bridges and will review for compliance with the construction plans.

Division 10 and Roadside Environmental Unit – Landscaping

NCDOT will provide vegetative screening along the Dale Earnhardt Boulevard southbound off-ramp, which utilizes Jaycee Road (I-3802A).

This commitment is no longer applicable with the design modifications.

Congestion Management Unit/Design Build Team – Interchange Modification Report

Due to the proposed improvements at the I-85 interchanges in the study area, an interchange modification report is being prepared and will be submitted to the Federal Highway Administration for approval following completion of the final environmental document (I-3802A & B).

The most recent modification was approved 10/12/14 and an addendum was approved by FHWA 3/24/15. Any changes resulting from the Design Build process will be the responsibility of the Design Build Team.

Design-Build Unit

During Final Design, NCDOT will investigate the feasibility of a roundabout at Vinehaven Drive and Copperfield Boulevard (I-3802A).

NCDOT determined that a roundabout at this location is not feasible.

NCDOT will provide a leftover from northbound US 29-601 (Cannon Boulevard) to S. Ridge Avenue, and will provide access from Ridge Avenue to the Rider Transit Center. The proposed roundabout on S. Main Street will be removed from the design (I-3802A).

This commitment is no longer applicable with the design modifications.

NCDOT will connect S. Ridge Avenue to US 29-601 with right-in/right-out access (I-3802A).

This commitment is no longer applicable with the design modifications.

NCDOT will provide full access at the intersection of Old Earnhardt Road and Dale Earnhardt Boulevard (I-3802A).

This commitment is no longer applicable with the design modifications.

NCDOT will coordinate with representatives of F&M Bank to minimize impacts (I-3802A).

NCDOT will modify the proposed service road at the Dale Earnhardt Boulevard interchange to provide improved access to F&M Bank, the Chamber of Commerce Building, and Lowe's Home Improvement store (I-3802A).

This commitment is no longer applicable with the design modifications.

NCDOT will provide a leftover into the Pilot Truck Stop on Lane Street (I-3802B).

A leftover is provided in the design plans.

NCDOT will provide right-in/right-out access to Motel 6, Waffle House, and Brantley property on Lane Street. The proposed service road will be removed (I-3802B).

A right-in/ right-out is provided in the plans and the proposed service road has been eliminated.

NCDOT will coordinate, on a case-by-case basis, the location of bus stops, sidewalks, and pedestrian controls with the City of Concord, City of Kannapolis, and Rider Transit (I-3802A & B).

The Team will coordinate with the local municipalities to locate bus stops, sidewalks, and pedestrian controls.

NCDOT will coordinate with local officials regarding emergency access in the NC 152/US 29 interchange area (I-3802B).

This has been accomplished.

Design Build Team – Northern Long Eared Bat

Construction authorization will not be requested until Endangered Species Act compliance is satisfied for the northern long-eared bat (NLEB).

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

COMMITMENTS FROM PERMITTING

Division 10

The permittee shall use Design Standards in Sensitive Watersheds (15A NCAC 4B.0124[a]-[e]) in drainage areas of the project that are within the 0.5-mile Critical Area (CA) of Lake Fisher's water supply intake.

The NCDOT shall design, construct, and operate and maintain five hazardous spill catch basins (HSCBs) within the CA of Lake Fisher watershed. The HSCBs shall be located at Station numbers: L-484+ 72 Lt; L-496+50 Lt; L-514+50 Lt; L-521 +50 Lt; L-534+00 Lt.

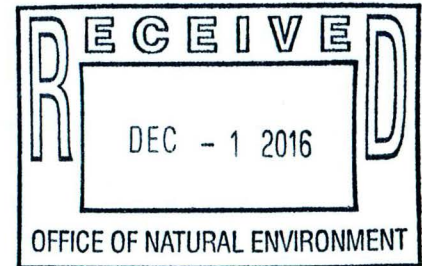
**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action Id. SAW-2016-02325 County: Rowan U.S.G.S. Quad: NC-CHINA GROVE

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Permittee: North Carolina Department of Transportation
Philip Harris III
Address: 1598 Mail Service Center
Raleigh, NC, 27699
Telephone Number: 919 707-9000
Size (acres) 200
Nearest Waterway Cold Water Creek
USGS HUC 03040105

Nearest Town China Grove
River Basin Upper Pee Dee
Coordinates Latitude: 35.546605
Longitude: -80.572482



Location description: NC DOT Interstate 85 (I-85) reconstruction, widening, and interchange improvements from north of SR 1308 (Moose Road) to north of US 29/US 601 Connector (Exit 68) adjacent to Town Creek and Cold Water Creek, China Grove, Rowan County, North Carolina. TIP I-3802B

Description of projects area and activity: Interstate (I-85) reconstruction, widening and interchange improvement

Applicable Law: ☒ Section 404 (Clean Water Act, 33 USC 1344)
☐ Sections 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number or Nationwide Permit Number: GP 198200031 NCDOT Bridges, Widening Projects.... (Authorized 2015) Mechanized land clearing, excavation, and the discharge of fill material associated with NC DOT Interstate 85 (I-85) reconstruction, widening, and interchange improvements from north of SR 1308 (Moose Road) to north of US 29/US 601 Connector (Exit 68) including 819 linear feet of stream channel impact for culvert extension, 331 linear feet of temporary stream channel impact for temporary construction fill, ~~326~~ ³²⁹ linear feet of stream bank stabilization, 210 linear feet of construction temporary bank stabilization, 0.07 acre of wetland fill (.05 riparian & .02 non-riparian) and less than 0.01 acre of temporary construction fill to the jurisdictional waters of Town Creek and Cold Water Creek.

SEE ATTACHED RGP or NWP GENERAL, REGIONAL AND SPECIAL CONDITIONS

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted application and attached information dated 11/14/2016. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management in Elizabeth City, NC, at (252) 264-3901.

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

*Please see
12/14/16 email
from USACE regarding
collection. JSM*

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact John Thomas at 919-554-4884 x25 or John.T.Thomas.JR@usace.army.mil.

Corps Regulatory Official: 

Date: November 21, 2016

Expiration Date of Verification: 04/30/2020

Determination of Jurisdiction:

- A. ☒ There are waters, including wetlands, on the above described project area that may be subject to Section 404 of the Clean Water Act (CWA) (33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction. Please note, if work is authorized by either a general or nationwide permit, and you wish to request an appeal of an approved JD, the appeal must be received by the Corps and the appeal process concluded prior to the commencement of any work in waters of the United States and prior to any work that could alter the hydrology of waters of the United States.
- B. ☐ There are Navigable Waters of the United States within the above described project area subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- C. ☐ There are waters, including wetlands, within the above described project area that are subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- D. ☐ The jurisdictional areas within the above described project area have been identified under a previous action. Please reference jurisdictional determination issued . Action ID: **SAW-** .

Basis For Determination: Site includes tributaries of Town Creek and Cold Water Creek which flows to the Yadkin River and on to the Atlantic Ocean.

Remarks:

E. Attention USDA Program Participants

This delineation/determination has been conducted to identify the limits of Corps' Clean Water Act jurisdiction for the particular site identified in this request. The delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

F. Appeals Information (This information applies only to approved jurisdiction determinations as indicated in B and C above).

This correspondence constitutes an approved jurisdiction determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers
South Atlantic Division
Attn: Jason Steele, Review Officer
60 Forsyth Street SW, Room 10M15
Atlanta, Georgia 30303-8801

Phone: (404) 562-5137

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by _____.

****It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.****

Corps Regulatory Official: _____


John Thomas

Date of JD: 11/21/2016

Expiration Date of JD: 04/30/2020

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete our Customer Satisfaction Survey, located online at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

SAW-2016-02325

SPECIAL CONDITIONS

NC DOT I-85 reconstruction / widening Exit 68 to SR 1308 Div 9 Rowan Co. TIP I-3802B

1) Endangered Species:

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

2) 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 authorization.

3.) 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, shall be available at the project site during construction and maintenance of this project.

4.) Notification of construction commencement and completion: The permittee shall advise the Corps in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

- 5.) **Pre Construction Meetings:** The permittee shall schedule and attend a preconstruction meeting between its representatives, the contractors representatives, and the Corps of Engineers, Asheville Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all the terms and conditions contained with this Department of Army Permit. The permittee shall schedule the preconstruction meeting for a time frame when the USACE, NCDCM, and NCDWQ Project Managers can attend. The permittee shall invite the Corps, NCDCM, and NCDWQ Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedules and participate in the required meeting.
- 6.) **Water Contamination:** All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.
- 7.) **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 to borrow material or to dispose of dredged, fill or waste material. The permittee shall provide the Corps of Engineers with appropriate maps indicating the locations of proposed borrow or waste sites as soon as such information is available. The permittee will coordinate with the Corps of Engineers before approving any borrow or waste sites that are within 400 feet of any stream or wetland. All jurisdictional wetland delineations on borrow and waste areas shall be verified by the Corps of Engineers and shown on the approved reclamation plans. The permittee shall ensure that all such areas comply with the Special Condition (b) of this permit and shall require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This documentation will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with Special Condition (b). All information will be available to the Corps of Engineers upon request. The permittee shall require its contractors to complete and execute reclamation plans for each waste and borrow site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the Corps of Engineers within 30 days of the completion of the reclamation work.
- 8.) **Sediment sluicing:** The permittee shall take measures to control any bottom sediment that may be sluiced by draining the pond(s) on the project site. Sediment sluicing from ponds is not authorized by this permit.
- 9.) **Violation Reporting:** Violations of these conditions or violations of Section 404 of the Clean Water must be reported in writing to the Wilmington District U.S. Army Corps of Engineers within 24 hours of the permittee's discovery of the violation.

Action ID Number: SAW-2016-02325

County: Rowan

Permittee: North Carolina Department of Transportation
Philip Harris III

Project Name: NC DOT I-85 reconstruction / widening Exit 68 to SR 1308 Div 9 Rowan Co. TIP I-3802B

Date Verification Issued: November 21, 2016

Project Manager: John Thomas

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

US ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT
Attn: John Thomas
Raleigh Regulatory Field Office
3331 Heritage Trade Drive, Suite 105
Wake Forest, NC 27587

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

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

U.S. ARMY CORPS OF ENGINEERS

Wilmington District

Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation

Action ID: SAW- 201602325

Project Name: I-85 reconstruction, widening, & interchange TIP I-3802B

County: Rowan

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 Ecosystem Enhancement Program (NCEEP), 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 to the U.S. Army Corps of Engineers (USACE) 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 must verify that the mitigation requirements shown below are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether or not they have received payment from the Permittee. Once the form is signed, the Sponsor must update the appropriate ledger and provide a copy of the signed form to the Permittee and to the USACE Bank/In-Lieu Fee Program Manager. 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: 03040105, Yadkin River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-riverine	Non-Riparian	Coastal
819			.05		.02	

*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: 03040105, Yadkin River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-riverine	Non-Riparian	Coastal
1596			.10		.04	

Mitigation Site Debited: NCEEP / DMS

(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCEEP, list NCEEP. If the NCEEP 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 NCEEP), as approved by the USACE, 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 USACE 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 USACE 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. 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 the Sponsor must be provided to the USACE within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the USACE 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 USACE 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 USACE, the Sponsor must obtain case-by-case approval from the USACE 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 USACE administrative records for both the permit and the Bank/ILF Instrument.

Comments/Additional Conditions: Stream Channel Mitigation : 777 linear feet at 2:1 & 42 linear feet at 1:1. Wetland Mitigation .07 acre at 2:1.

This form is not valid unless signed by the mitigation Sponsor and USACE Project Manager. For questions regarding this form or any of the conditions of the permit authorization, contact the Project Manager at the address below.

USACE Project Manager: John Thomas
USACE Field Office: Raleigh Regulatory Field Office
US Army Corps of Engineers
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina 27587
Email: john.t.thomas.jr@saw02.usace.army.mil



USACE Project Manager Signature

November 21, 2016

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>.

DEPARTMENT OF THE ARMY
Wilmington District, Corps of Engineers
Post Office Box 1890
Wilmington, North Carolina 28402-1890

Regional General Permit No. 198200031

Name of Permittee: General Public

Effective Date: November 1, 2008

Expiration Date: October 31, 2013

DEPARTMENT OF THE ARMY
REGIONAL GENERAL PERMIT

A regional general permit (RGP) to perform work in or affecting navigable waters of the United States and waters of the United States, upon recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344), is hereby modified and re-issued by authority of the Secretary of the Army by the

District Engineer
U.S. Army Engineer District, Wilmington
Corps of Engineers
Post Office Box 1890
Wilmington, North Carolina 28402-1890

TO AUTHORIZE THE DISCHARGE OF DREDGED OR FILL MATERIAL IN WATERS OF THE UNITED STATES, INCLUDING WETLANDS, ASSOCIATED WITH THE CONSTRUCTION, MAINTENANCE AND REPAIR OF BRIDGES, INCLUDING COFFERDAMS, ABUTMENTS, FOUNDATION SEALS, PIERS, APPROACH FILLS, DETOUR FILLS, BOX CULVERT INSTALLATION AND TEMPORARY CONSTRUCTION AND ACCESS FILLS, IN WATERS OF THE UNITED STATES AS PART OF WORK CONDUCTED BY THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) OR OTHER STATE, FEDERAL OR LOCAL GOVERNMENTAL ENTITY, IN THE STATE OF NORTH CAROLINA.

1. Special Conditions.

a. Written confirmation that the proposed work complies with this RGP must be received from the Wilmington District Engineer prior to the commencement of any work. To enable this determination to be made, the permittee must furnish the Wilmington District Engineer a pre-construction notification with the following information:

- (1) A map indicating the location of the work.
- (2) Plans of the proposed work showing all pertinent structures, elevations, dimensions and quantities of materials and locations of all structures and/or fill in wetlands or waterward of the normal/high water elevation contours.
- (3) A brief discussion of the affected aquatic resources, including streams and wetlands. The discussion shall include the identification and types of vegetation present.
- (4) Approximate commencement and completion dates.
- (5) A description of methods to be employed to avoid and/or minimize permanent and temporary impacts to aquatic resources caused by the proposed work.
- (6) Plans, including timetables and techniques, for construction, stabilization and removal of all unavoidable temporary fills.
- (7) Names and addresses of adjoining property owners.

b. In the case of fills of one acre or less, including permanent approach fills, detour fills and fills associated with culvert installation, the Corps of Engineers' Project Manager will determine, after appropriate onsite visits and review of plans, if the impacts on aquatic resources, including streams and wetlands, are likely to be such as to require review by Federal and State agencies. If it is determined that impacts are minimal or can be made minimal by changes agreed to by the applicant, a letter of authorization to proceed will be provided. If it is determined that review by Federal and State agencies is necessary to fully evaluate impacts, copies of all plans and materials will be forwarded to the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the U.S. Environmental Protection Agency (EPA) and the North Carolina Department of Environment and Natural Resources (NCDENR). These agencies will furnish comments to the Wilmington District Engineer within thirty (30) days.

c. In cases of fills greater than one acre, copies of all plans and materials will be forwarded to the USFWS, the NMFS, the EPA and the NCDENR. These agencies will furnish comments to the Wilmington District Engineer in thirty (30) days. In cases of land disturbing activities comprising more than one acre, a Sedimentation/Erosion Control Plan will be filed with the North Carolina Division of Land Resources, Land Quality Section, thirty (30) days prior to commencing work.

d. Where work is proposed within the twenty (20) coastal counties, as defined by the North Carolina Division of Coastal Management, the applicant shall forward a copy of the pre-construction notification to:

National Marine Fisheries Service
101 Pivers Island Road

Beaufort, North Carolina 28516

The counties in which this condition applies are:

Bertie	Carteret	Dare	Hyde	Pender
Beaufort	Chowan	Gates	Onslow	Perquimans
Brunswick	Craven	New Hanover	Pamlico	Tyrrell
Camden	Currituck	Hertford	Pasquotank	Washington

e. In the event that any Federal agency maintains an objection or any required State authorization is outstanding, no notice to proceed will be given until objections are resolved and State authorizations are issued.

f. No work will proceed until after the applicant has received written notice to proceed from the Wilmington District Engineer. This notice may include additional conditions and/or restrictions. Copies of the notice to proceed will be furnished to the USFWS, the NMFS, the EPA and the NCDENR with a brief description of the work, including the area of wetlands affected and the quantity of fill material.

g. Upon completion of any work authorized by this RGP, all temporary fills will be completely removed and the area reestablished as a wetland by restoring natural hydrology and native vegetation. Stream contours and riparian vegetation will be reestablished upon the removal of temporary culverts. In such instances, a restoration plan will be submitted to the Wilmington District Engineer for approval. Information in the restoration plan will be in accordance with special condition j. below.

h. Appropriate soil and erosion control measures must be established and maintained during construction. All fills, temporary and permanent, must be adequately stabilized at the earliest practicable date to prevent erosion of fill material into adjacent waters or wetlands.

i. In cases where new alignment approaches are to be constructed and the existing wetland approach fill is to be abandoned and no longer to be maintained as a roadway, the abandoned fill shall be removed and the area reestablished as a wetland. In such instances, a restoration plan will be submitted to the Wilmington District Engineer for approval. Information in the restoration plan will be in accordance with special condition j. below.

j. Discharges of dredged or fill material into waters of the United States, including wetlands, must be minimized or avoided to the maximum extent practicable. In reviewing an activity, the Wilmington District Engineer will first determine whether the activity will result in more than minimal adverse environmental affects. For activities that are determined to have more than minimal impacts, compensatory mitigation will be required. To expedite the process, the applicant will provide a mitigation plan with the request for authorization. Site specific mitigation proposals will include, but are not necessarily limited to, a description of work, a schedule of work and a monitoring plan, and they will be in accordance with currently approved

Wilmington District and/or Corps-wide mitigation guidelines. The applicant may propose other forms of mitigation, such as mitigation bank credits or in-lieu fee mitigation with the notification, which in some situations and at the discretion of the Wilmington District, may be considered acceptable mitigation.

k. Activities in any North Carolina designated "Mountain Trout Waters" must comply with all pH, temperature and turbidity criteria established for such waters by the North Carolina Wildlife Resources Commission (NCWRC) and/or the North Carolina Division of Water Quality (NCDWQ). Work that may result in the sedimentation of trout waters will generally be prohibited from October 15 to April 15, of any year, to avoid impacts on trout spawning.

l. Before discharging dredged or fill material into waters of the United States, including wetlands, in the twenty-five (25) mountain counties of North Carolina that contain trout waters, the applicant will obtain and provide a letter of comments and recommendations from the NCWRC on the proposed activities. A discussion of alternatives to working in the mountain trout waters and why alternatives were not selected, and a plan to provide compensatory mitigation for all unavoidable adverse impacts to the mountain trout waters shall also be submitted with the letter from NCWRC. To facilitate coordination with the NCWRC, the proponent may provide a copy of the notification to the NCWRC concurrent with the notification to the District Engineer. The NCWRC will respond both to the proponent and directly to the Corps of Engineers.

The applicant should contact NCWRC in the following NC Trout Counties at:

Mr. Ron Linville Western Piedmont Region Coordinator 3855 Idlewild Road Kernersville, NC 27284-9180 Telephone: (336) 769-9453	Counties		
	Alleghany	Caldwell	Watauga
	Ashe	Mitchell	Wilkes
	Avery	Stokes	
	Burke	Surry	

Mr. Dave McHenry Mountain Region Coordinator 20830 Great Smoky Mtn. Expressway Waynesville, NC 28786 Telephone: (828) 452-2546 Fax: (828) 452-7772	Counties		
	Buncombe	Henderson	Polk
	Cherokee	Jackson	Rutherford
	Clay	Macon	Swain
	Graham	Madison	Transylvania
	Haywood	McDowell	Yancey

m. This permit does not authorize the use of culverts in areas designated as anadromous fish spawning areas by the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC).

n. Discharges into Waters of the United States designated by either the North Carolina Division of Marine Fisheries (NCDMF) or the NCWRC as anadromous fish spawning area are prohibited during the period between February 15 and June 30, without prior written approval from NCDMF or NCWRC and the Corps. Discharges into waters of the United States designated by NCDMF as primary nursery areas and discharges into waters of the United States designated by NCWRC as inland nursery areas shall be coordinated with NCDMF and NCWRC prior to being authorized by this RGP. Coordination with NCDMF and NCWRC may result in a required construction moratorium during periods of significant biological productivity or critical life stages.

The Applicant should contact:

NC Division of Marine Fisheries
3441 Arendell Street
Morehead City, NC 28557
Telephone 252-726-7021
or 800-682-2632

North Carolina Wildlife Resources Commission
Habitat Conservation Program Manager
1721 Mail Service Center
Raleigh, NC 27699-1721
Telephone (919) 733-7638

o. No activity may result in substantial permanent disruption of the movement of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area. The dimension, pattern, and profile of the stream above and below a pipe or culvert should 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 should be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gage data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

p. This permit generally allows the permanent installation of culverts to 100 feet in length. For culverts longer than 100 feet, the proposed application will be closely evaluated to determine if unacceptable impacts on movement of aquatic organisms would result. In such cases, approval may not be provided.

q. If the project is located within the twenty (20) counties of North Carolina designated as coastal counties by the Coastal Area Management Act (CAMA), then all pipe and culvert inverts will be buried at least one foot below normal bed elevation when they are placed within the Public Trust Area of Environmental Concern (AEC) and/or the Estuarine Waters AEC as designated by CAMA, and/or all streams appearing as blue lines on United States Geological Survey (USGS) quad sheets. If the project is not located within the twenty (20) counties of North Carolina designated as coastal counties by CAMA, then culvert inverts will be buried at least one foot below the bed of the stream for culverts greater than 48 inches in diameter. Culverts 48 inches in diameter or 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 the existing channel slope. The potential for destabilization of the channel and head cutting upstream should

be considered in the placement of the culvert. A waiver from the depth specifications in this condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this condition would result in more adverse impacts to the aquatic environment. Culverts placed in wetlands do not have to be buried.

r. All activities authorized by this RGP shall, to the extent practicable, be conducted "in the dry", with barriers installed between work areas and aquatic habitat to protect that habitat from cement or other pollutants. Where concrete is utilized, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the state until the concrete has hardened. Water in the work area will be pumped to holding and settling ponds as practicable, and water will not be allowed to re-enter the water column until decanted.

s. If the project authorized by this RGP is proposed by a Federal or State agency, and is located within the twenty (20) counties of North Carolina designated as coastal counties by the CAMA, then prior to project initiation the proponent must obtain a consistency concurrence that the proposed project would be consistent with the state's coastal management program from the N.C. Division of Coastal Management (DCM). A copy of the state's consistency approval must be provided to the appropriate Wilmington District Regulatory Office at the following address:

Wilmington Regulatory Field Office
P.O. Box 1890
Wilmington, NC 28402

Washington Regulatory Field Office
P.O. Box 1000
Washington, NC 27889

The state's consistency approval will be conveyed in the form of a CAMA permit if the project is located within a designated CAMA Area of Environmental Concern (AEC), and will be conveyed in the form of a Consistency concurrence letter from DCM if the project is not located within a designated CAMA AEC.

t. No work shall be authorized by the RGP within the twenty coastal counties, as defined by the North Carolina Division of Coastal Management, without prior consultation with NOAA Fisheries. For each activity reviewed by the Corps of Engineers where it is determined that the activity may affect Essential Fish Habitat (EFH) for Federally managed species, an EFH Assessment shall be prepared by the applicant and forwarded to the Corps of Engineers and NOAA Fisheries for review and comment prior to authorization of work.

u. All work will comply with Water Quality Certification No. 3404, issued by the NCDWQ on 30 September 2008.

v. The activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows and the structure or discharge of dredged or fill material must withstand expected high flows

2. General Conditions.

a. All activities authorized by this RGP that involve the discharge of dredged or fill material in waters of the United States will be consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pre-treatment standards and management practices established pursuant to the Clean Water Act (33 U.S.C. 1344) and applicable State and local law. If the proposed activity involves the discharge of dredged or fill material in waters of the United States, prior to the commencement of any work, the applicant will satisfy the NCDWQ regarding the need for a Water Quality Certification pursuant to Section 401 of the Clean Water Act.

b. All activities authorized by this RGP that involve the use of concrete as a building material, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the state until the concrete has hardened.

c. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

d. All activities authorized by this RGP that involve the use of riprap material for bank stabilization, the following measures shall be applied:

(1) Filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters.

(2) The placement of riprap shall be limited to the areas depicted on submitted work plan drawings.

(3) The riprap material shall be clean and free from loose dirt or any pollutant except in trace quantities that would not have an adverse environmental effect.

(4) It shall be of a size sufficient to prevent its movement from the authorized alignment by natural forces under normal conditions.

(5) The riprap material shall consist of clean rock or masonry material such as, but not limited to, granite, marl, or broken concrete.

(6) A waiver from the specifications in this general condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this Regional condition would result in greater adverse impacts to the aquatic environment.

e. There will be no unreasonable interference with navigation or the right of the public to riparian access by the existence or use of activities authorized by this RGP.

f. The activity must comply with applicable FEMA approved state or local floodplain management requirements.

g. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

h. A permittee, upon receipt of written notice from the Wilmington District Engineer of failure to comply with the terms or conditions of this RGP, will, within 60 days, without expense to the U.S. Government, and in such manner as the Wilmington District Engineer may direct, affect compliance with the terms and conditions or return the worksite to a pre-work condition.

i. The permittee must make every reasonable effort to perform the work authorized herein in a manner so as to minimize any adverse impact on fish, wildlife and natural environmental values.

j. The permittee must perform the work authorized herein in a manner so as to minimize any degradation of water quality. The activity will be conducted in such a manner as to prevent a significant increase in turbidity outside the area of construction or construction-related discharge. Increases such that the turbidity in the water body is 50 NTU's or less in all rivers not designated as trout waters by the North Carolina Division of Environmental Management (NCDEM), 25 NTU's or less in all saltwater classes and in all lakes and reservoirs, and 10 NTU's or less in trout waters, are not considered significant.

k. The permittee will permit the Wilmington District Engineer or his representative to make periodic inspections at any time deemed necessary in order to assure that the activity is being performed or maintained in strict accordance with the Special and General Conditions of this permit.

l. This RGP **does not** convey any rights, either in real estate or material, or any exclusive privileges; and it does not authorize any injury to property or invasion of rights or any infringement of Federal, State or local laws or regulations, nor does it obviate the requirement to obtain State or local assent required by law for the activity authorized herein. These may include, but are not necessarily limited to, a Dredge and/or Fill Permit (N.C.G.S. 113-229), a CAMA Permit (N.C.G.S. 113A-118), an Easement to Fill (N.C.G.S. 146-12) and a Water Quality Certification pursuant to Section 401 of the Clean Water Act.

m. Authorization provided by this RGP may be modified, suspended or revoked in whole or in part if the Wilmington District Engineer, acting on behalf of the Secretary of the Army, determines that such action would be in the best public interest. Unless subject to modification, suspension or revocation, the term of this RGP shall be five years. Any modification, suspension or revocation of this authorization will not be the basis for any claim for damages against the U.S. Government.

n. This RGP does not authorize the interference with any existing or proposed Federal project and the permittee will not be entitled to compensation for damages or injury to the structures or work authorized herein which may be caused by or results from existing or future operations undertaken by the United States in the public interest.

o. This RGP will not be applicable to proposed construction when the Wilmington District Engineer determines that the proposed activity would significantly affect the quality of the human environment and determines that an Environmental Impact Statement (EIS) must be prepared.

p. This RGP will not be applicable to proposed construction when the Wilmington District Engineer determines, after any necessary investigations, that the proposed activity would adversely affect areas that possess historic, cultural, scenic, conservation or recreational values. Application of this exemption applies to:

(1) Rivers named in Section 3 of the Wild and Scenic Rivers Act (15 U.S.C. 1273), those proposed for inclusion as provided by Sections 4 and 5 of the Act and wild, scenic and recreational rivers established by State and local entities.

(2) Historic, cultural or archeological sites listed in or eligible for inclusion in the National Register of Historic Places as defined in the National Historic Preservation Act of 1966 as amended, the Abandoned Shipwreck Act of 1987 and the Native American Graves Protection and Repatriation Act.

(3) Sites included in or determined eligible for listing in the National Registry of Natural Landmarks.

(4) Endangered or threatened species or habitat of such species as determined by the Secretaries of Interior or Commerce and concerned in accordance with the Endangered Species Act (16 U.S.C. 1531).

(5) NOAA designated marine sanctuaries, National Estuarine Research Reserves, and coral reefs.

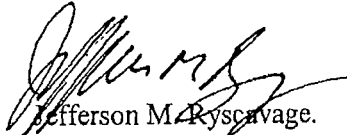
q. Permittees are advised that activities in or near a floodway may be subject to the National Flood Insurance Program, which prohibits any activities, including fill within a floodway that results in any increase in base flood elevations.

r. At his discretion, the Wilmington District Engineer may determine that this RGP will not be applicable to a specific construction proposal. In such case, the procedure for processing an individual permit in accordance with 33 CFR 325 will be available.

s. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

t. The discharge of dredged or fill material shall consist of suitable material free from toxic pollutants in toxic amounts.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:



Jefferson M. Ryscavage.
Colonel, Corps of Engineers
District Commander

Mason, James S

From: Thomas, John T Jr CIV CESA W CESAD (US) <John.T.Thomas.JR@usace.army.mil>
Sent: Wednesday, December 14, 2016 8:05 AM
To: Mason, James S
Subject: RE: I-3802B GP31 Question

Jim

I am sure it was a typing mistake. So mark over it, change it, and make a note on the permit to reference this e-mail for documentation of correction. I will do the same for our file.

John Thomas
Raleigh Regulatory Field Office
919 554-4884 ext. 25

-----Original Message-----

From: Mason, James S [mailto:jsmason@ncdot.gov]
Sent: Tuesday, December 13, 2016 11:02 AM
To: Thomas, John T Jr CIV CESA W CESAD (US) <John.T.Thomas.JR@usace.army.mil>
Subject: [EXTERNAL] I-3802B GP31 Question

John-

I was reviewing the GP31 and noticed a minor difference between the bank stabilization impacts listed in the permit compared to those listed in the permit application. The permit states that there are 576 linear ft. of bank stabilization, but the application lists 579 linear ft. Would a revision be required to update the permit to 579 linear ft. or would it be okay for us to cross out the 6 and insert a 9 onto the permit cover sheet? If you could email me back when you have an opportunity it would be much appreciated.

Thanks,

Jim

Jim Mason

Environmental Program Consultant

Natural Environment Section

Project Development & Environmental Analysis

North Carolina Department of Transportation

919 707 6136 office

704 604 8358 mobile

jsmason@ncdot.gov <<mailto:jsmason@ncdot.gov>>

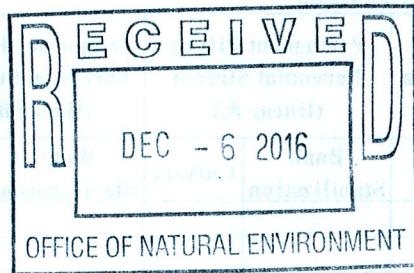
1598 Mail Service Center

Raleigh, NC 27699 -1598

1020 Birch Ridge Drive

Raleigh, NC 27610

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PAT MCCRORY
Governor
DONALD R. VAN DER VAART
Secretary
JAY ZIMMERMAN
DWR Director

November 30, 2016
Rowan County
NCDWR Project No. 20161074
I-85 Improvements
TIP I-3802B
Federal Aid Project No. NHIMF-085-2(78)63

APPROVAL of 401 WATER QUALITY CERTIFICATION, with ADDITIONAL CONDITIONS

Mr. Philip S. Harris, III, P.E., CPM
Natural Environment Section Head
Project Development and Environmental Analysis
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Dear Mr. Harris

You have our approval, in accordance with the conditions listed below, for the following impacts for the purpose of widening I-85 to an eight-lane divided facility from north of SR 1308 (Moose Road) to north of the US29/US 601 Connector (Exit 68) in Rowan County. *This is a revision to the previously issued 401 Certification dated November 16, 2016. This Certification now corresponds to the U.S. Army Corps of Engineers Section 404 General Permit 198200031 and includes a Table 3 Condition that describes pipe/culvert burial and placement at each site.*

Table 1. Wetland Impacts in the Yadkin PeeDee River Basin (riverine)

Site	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)
4	-	-	-	-	0.08	0.08
5	<0.01	-	-	<0.01	-	<0.01
8	-	-	-	-	<0.01	<0.01
9	-	<0.01	-	<0.01	-	<0.01
10	-	-	-	<0.01	-	<0.01
12	<0.01	-	-	-	<0.01	<0.01
32	-	-	0.01	0.02	-	0.02
Totals	0.02	<0.01	0.01	0.03	0.09	0.15

Total Wetland Impact for Project: 0.15 acres (rounded).

*please see 12/13/16 email
from NCDWR regarding correction JSM*



Table 2. Stream Impacts in the Yadkin PeeDee River Basin

Site	Permanent Fill in Intermittent Stream (linear ft.)		Temporary Fill in Intermittent Stream (linear ft.)		Permanent Fill in Perennial Stream (linear ft.)		Temporary Fill in Perennial Stream (linear ft.)		Stream Impacts Requiring Mitigation (linear ft.)
	Bank Stabilization	Culvert	Bank Stabilization	Fill	Bank Stabilization	Culvert	Bank Stabilization	Fill	
1	24	-	10	-	-	-	-	-	-
2	25	11	-	27	-	-	-	-	-
3	-	-	-	-	60	-	20	-	-
6	-	-	-	-	-	-	40	-	-
7	-	-	-	-	11	-	10	-	11
9	-	23	-	10	-	-	-	-	-
10	14	5	10	-	-	-	-	-	-
11	-	-	-	-	11	-	10	-	-
13	-	-	-	-	22	-	10	-	22
14	-	-	-	-	10	-	10	-	10
15	-	-	-	-	12	-	10	-	12
16	-	9	-	10	30	-	10	-	30
17	24	-	20	-	-	-	-	-	-
18	-	-	-	-	18	-	10	-	18
19	-	-	-	-	13	-	10	-	13
20	14	-	10	-	-	-	-	-	-
21	10	40	-	20	-	-	-	-	-
22	-	-	-	-	30	55	-	24	-
23	-	-	-	-	7	-	10	-	7
24	-	-	-	-	14	-	10	-	14
25	-	-	-	-	12	-	10	-	12
26	21	10	-	20	-	-	-	-	-
27	-	-	-	-	32	87	-	20	119
28	31	153	-	20	-	-	-	-	-
29	-	-	-	-	15	-	10	-	15
30	21	4	-	23	-	-	-	-	-
*31	12	-	-	49	-	-	-	-	-
33	15	14	-	10	-	-	-	-	-
34	21	93	-	20	-	-	-	-	-
35	16	186	-	30	-	-	-	-	-
36	-	-	-	-	13	113	-	18	-
37	21	-	10	-	-	-	-	-	-
*38	16	-	-	-	-	-	-	-	-
Totals	285	548	60	239	310	255	180	62	283

*Temporary impacts at Site 31 include 10' for bank stabilization and 39' for stream daylighting; Impacts at Site 38 are for a standard base ditch. **Total stream impacts for Project: 1,939 linear feet.**

The project shall be constructed in accordance with your application dated received November 1, 2016. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Number 3886. This certification corresponds to General Permit 31 issued by the Corps of Engineers. In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval

will expire with the accompanying 404 permit.

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 150 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. Where multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage. [15A NCAC 02H.0506(b)(2)]. Details of culvert placement and burial are provided in Table 3 below.

Table 3. Culvert/Pipe Placements and Burial by Permit Site.

Permit Site No.	Impact Type	Pipe/Culvert Burial Details
2	48" RCP	Upstream extension is not to be buried but match existing stream elevations.
16	48" RCP	Downstream pipe replacement is not to be buried but match existing stream elevations.
21	30" RCP	Pipe replacement is not to be buried but match existing stream elevations.
26	60" RCP Ext.	Junction boxes are utilized downstream in order to match existing stream elevations.
27	7'x7" RCBC Ext.	Downstream extension is to be sloped to match existing outlet streambed elevation.
28	60" RCP Ext.	Upstream and downstream extensions are not to be buried but match existing stream elevations.
30	36" RCP Ext.	Upstream and downstream extensions are not to be buried but match existing stream elevations.
33	36" RCP	Downstream extension is not to be buried but match existing stream elevations.
34	30" RCP	Upstream and downstream extensions are not to be buried but match existing stream elevations. A junction box will be utilized to the extreme erosion/channel incision at this site.
35	36" RCP	New RCP is to be buried 20 percent.
36	30" RCP	New 30" pipe replacement is not to be buried but match existing stream elevations.

Note: Pipes at Site Nos. 9, 10 and 22 are for stormflow and are set at higher elevations.

2. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed. [15A NCAC 02H.0506(b)(2)]
3. For the streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species. [15A NCAC 02H.0506(b)(2)]
4. The stream channel shall be excavated no deeper than the natural bed material of the stream, to the maximum extent practicable. Efforts must be made to minimize impacts to the stream banks, as well as to vegetation responsible for maintaining the stream bank stability. Any applicable riparian buffer impact for access to stream channel shall be temporary and be revegetated with native riparian species. [15A NCAC 02H.0506(b)(2)]
5. The permittee shall use Design Standards in Sensitive Watersheds (15A NCAC 4B.0124[a]-[e]) in drainage areas of the project that are within the 0.5-mile Critical Area (CA) of Lake Fisher's water supply intake.
6. The NCDOT shall design, construct, and operate and maintain five hazardous spill catch basins (HSCBs) within the CA of Lake Fisher watershed. The HSCBs shall be located at Station numbers: L-484+72 Lt; L-496+50 Lt; L-514+50 Lt; L-521+50 Lt; L-534+00 Lt.
7. Compensatory mitigation for 283 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Division of Mitigation Service (DMS) (formerly NCEEP), and that the DMS has agreed to implement the mitigation for the project. The DMS has indicated in a letter dated July 7, 2016 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.

General Conditions

1. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required. [15A NCAC 02H.0506(b)(2)]
2. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. [15A NCAC 02B.0200]
3. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers. [15A NCAC 02H.0506(b)(2)]
4. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions. [15A NCAC 02H.0506(b)(2)]
5. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage. [15A NCAC 02H.0506(b)(2)]

6. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
7. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water. [15A NCAC 02H.0506(b)(3) and (c)(3)]
8. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H.0506(b)(3)]
9. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials. [15A NCAC 02H.0506(b)(3)]
10. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
11. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
12. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
13. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
14. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
15. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing/flagging prior to any land disturbing activities. Impacts within the fenced/flagged area are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]
16. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
17. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
18. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer (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)]
19. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02H.0506(b)(3) and (c)(3)]
20. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities. [15A NCAC 02H.0506(b)(3) and (c)(3)]

21. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards [15A NCAC 02H.0506(b)(3) and (c)(3)]:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
22. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. [15A NCAC 02H.0506(b)(3) and (c)(3)]

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission.
The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919) 431-3000, Facsimile: (919) 431-3100

A copy of the petition must also be served on DEQ as follows:

Mr. Sam M. Hayes, General Counsel
Department of Environmental Quality
1601 Mail Service Center

This letter completes the review of the Division of Water Resources under Section 401 of the Clean Water Act. If you have any questions, please contact Dave Wanucha at (336) 776-9703 or Dave.Wanucha@ncdenr.gov.

Sincerely,



S. Jay Zimmerman, Director
Division of Water Resources

Electronic copy only distribution:

John Thomas, US Army Corps of Engineers, Raleigh Field Office
Amy Euliss, Division 9 Environmental Officer
Rodger Rochelle, NC Department of Transportation
Carla Dagnino, NC Department of Transportation
Dr. Cynthia Van Der Wiele, US Environmental Protection Agency
Marella Buncick, US Fish and Wildlife Service
Marla Chambers, NC Wildlife Resources Commission
Beth Harmon, Division of Mitigation Services
Dave Wanucha, NC Division of Water Resources Winston Salem Regional Office
File Copy



PAT MCCRORY

Governor

DONALD R. VAN DER VAART

Secretary

JAY ZIMMERMAN

DWR Director

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, 1611 Mail Service Center, Raleigh, NC, 27699-1611. 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 _____



State of North Carolina | Environmental Quality

1611 Mail Service Center | Raleigh, North Carolina 27699-1611

919-707-9000

Mason, James S

From: Wanucha, Dave
Sent: Tuesday, December 13, 2016 1:36 PM
To: Mason, James S
Subject: RE: I-3802B WQC Question

Jim,
In this case, since impacts are rounded, it would be acceptable to cross out the "<" and use this email as supporting documentation, in the unlikely event that it would be questioned (that is, unless DOT would like a clean revised Certification). Thanks for letting me know.

Dave W.

Dave Wanucha
Division of Water Resources
Transportation Permitting Unit
NC Department of Environmental Quality

336-776-9703 office
336-403-5655 mobile
Dave.Wanucha@ncdenr.gov

NC DEQ Winston Salem Regional Office
450 West Hanes Mill Road, Suite 300
Winston Salem, NC 27105



Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Mason, James S
Sent: Tuesday, December 13, 2016 11:10 AM
To: Wanucha, Dave <dave.wanucha@ncdenr.gov>
Subject: I-3802B WQC Question

Dave-

Thank you for providing the updated WQC for I-3802B. When reviewing the certification, I noticed a minor difference between the certification and the application. The WQC lists <0.01 ac. of excavation in wetlands, but the application lists 0.01 ac. of excavation. Would a revision be required to update the WQC or would it be okay to cross out the "<" on the permit? If you could email me back when you have an opportunity it would be much appreciated.

Thanks,

Jim

Jim Mason

Environmental Program Consultant
Natural Environment Section
Project Development & Environmental Analysis
North Carolina Department of Transportation

919 707 6136 office
704 604 8358 mobile
jmason@ncdot.gov

1598 Mail Service Center
Raleigh, NC 27699 -1598

1020 Birch Ridge Drive
Raleigh, NC 27610

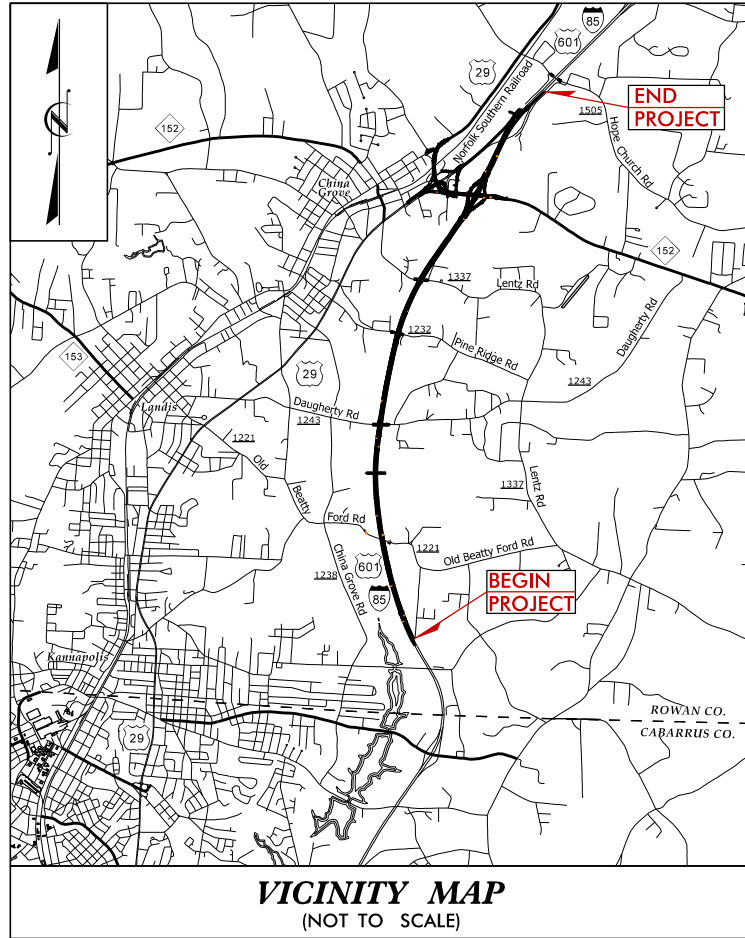


Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

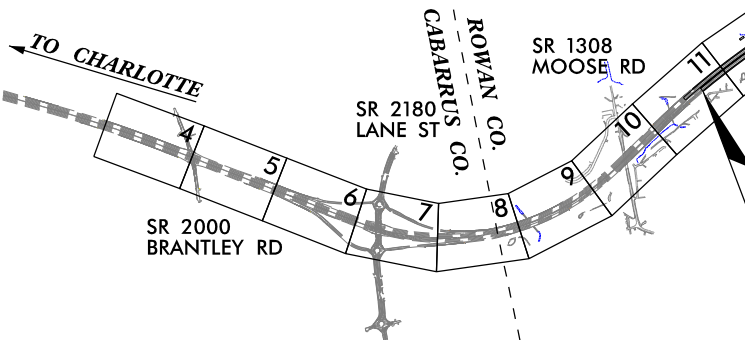
TIP PROJECT: I-3802B

CONTRACT: C203702

See Sheet 1A For Conventional Symbology

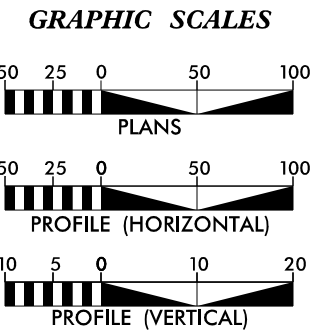


VICINITY MAP
(NOT TO SCALE)



PROPOSED TRAFFIC SIGNAL

THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF CHINA GROVE.

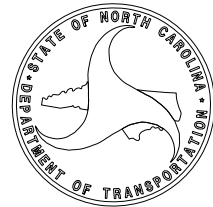


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ADT 2016 =	85,900
ADT 2040 =	128,300
DHV =	8 %
D =	55 %
T =	15 % *
V =	70 MPH
* (TTST 11% + DUALS 4%)	
FUNC CLASS = INTERSTATE	
STATEWIDE TIER	

PROJECT LENGTH	
LENGTH ROADWAY TIP PROJECT I-3802B	= 5.472 MILES
LENGTH STRUCTURE TIP PROJECT I-3802B	= 0.000 MILES
TOTAL LENGTH TIP PROJECT I-3802B	= 5.472 MILES
BRIDGE LENGTH BASED ON CENTERLINE PROJECTION STATION	

Prepared for the Office of: DIVISION OF HIGHWAYS 1000 Birch Ridge Dr., Raleigh NC, 27610	
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: FEBRUARY 25, 2016	JONATHAN HENDERSON, P.E. PROJECT ENGINEER
LETTING DATE: FEBRUARY 25, 2016	CALVIN W. MOODY, III, P.E. PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER	
SIGNATURE:	P.E.
ROADWAY DESIGN ENGINEER	
SIGNATURE:	P.E.



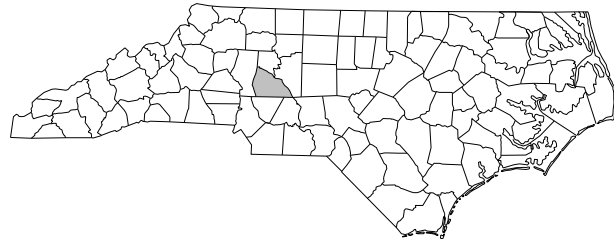
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ROWAN COUNTY

LOCATION: I-85 FROM NORTH OF LANE ST (EXIT 63) TO NORTH OF US 29 /601 CONNECTOR INTERCHANGE (EXIT 68)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, GUARDRAIL, STRUCTURES, & SIGNALS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-3802B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
36780.3.GV3	NHMF-085-2(78)63		



NAD 83/NSRS 2007

I-3802B: WETLAND AND SURFACE WATER IMPACT PERMIT
SUBMITTED: 10-24-2016
SUBMITTAL #T-018

END TIP PROJECT I-3802B
-L- STA. 773 + 34.53



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

LANE

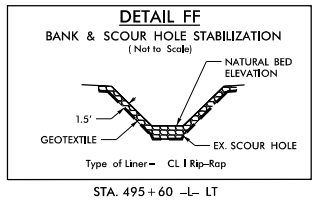
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWINGS
SHEET 1 OF 91

REVISIONS

MATCHLINE -L- STA. 489 + 00, SEE SHEET 11

490+00



1

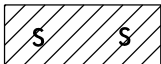
THOMAS DELL MCGUIRE

SEE SHEET 12A

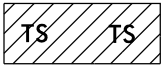
SITE 1

495+00

LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

CITY OF CONCORD



LANE



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N.C.B.E.L.S. License Number: F-0116



500+00

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		12	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

MATCHLINE -L- STA. 503 + 00, SEE SHEET 13

THOMAS DELL MCGUIRE

LAVAUGHN MCGUIRE GAINERY

GARY ELDER MCGUIRE

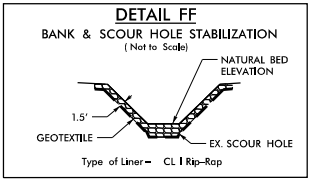
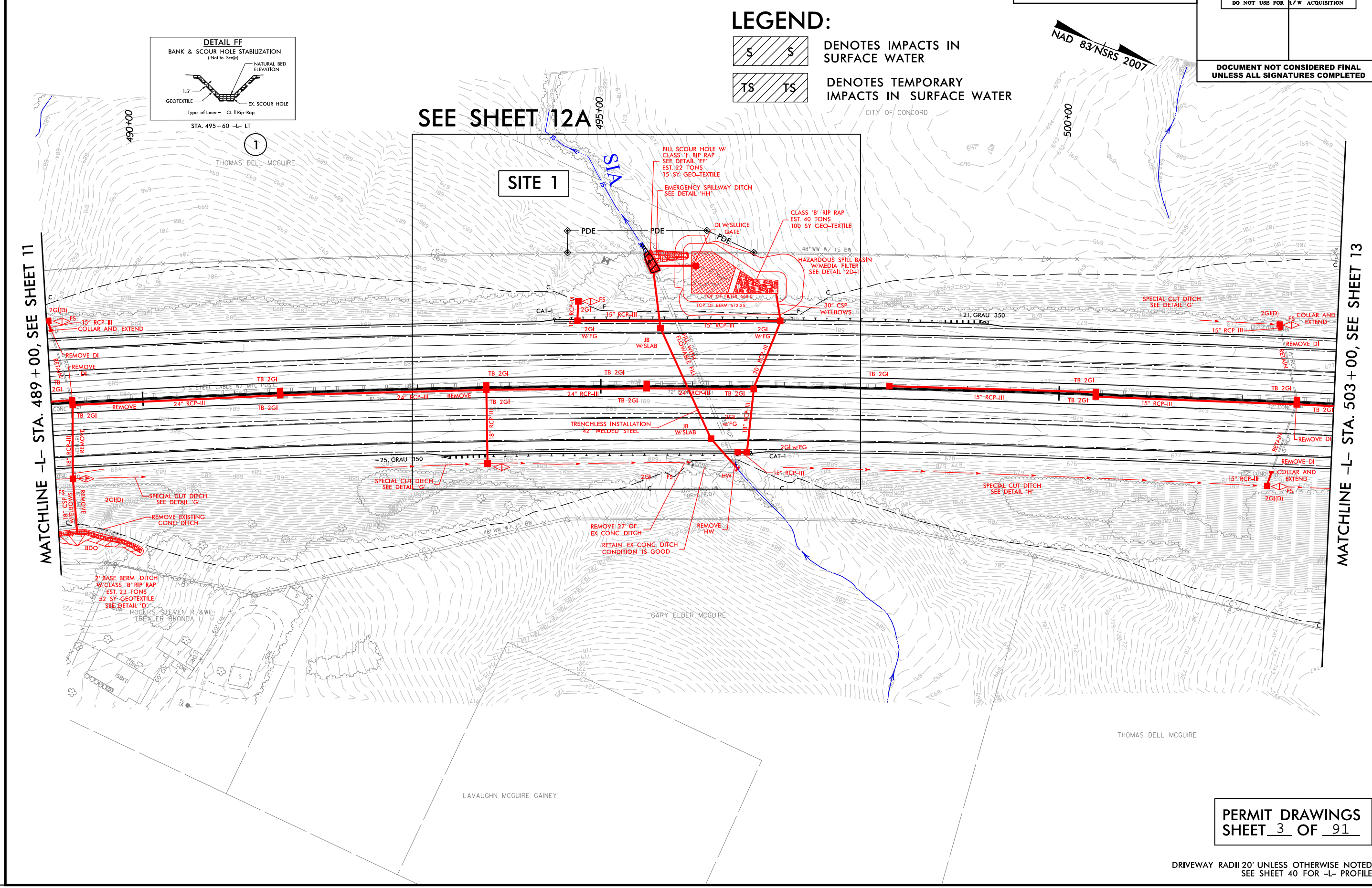
2' BASE BERM DITCH
W/ CLASS 'B' RIP RAP
EST. 23 TONS
52 SY GEOTEXTILE
SEE DETAIL 'D'

ROGERS STEVEN R & W F
TREXLER RHONDA L

PERMIT DRAWINGS
SHEET 2 OF 91

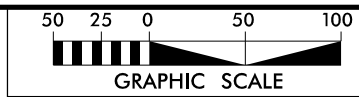
DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 40 FOR -L- PROFILE

REVISIONS



LEGEND:

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

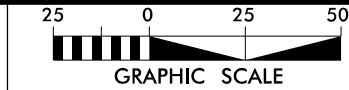


LANE

HR HDR Engineering, Inc. of the Carolinas
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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO. I-3802B		SHEET NO. 12	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

REVISIONS



THE
LANE
CONSTRUCTION
CORPORATION

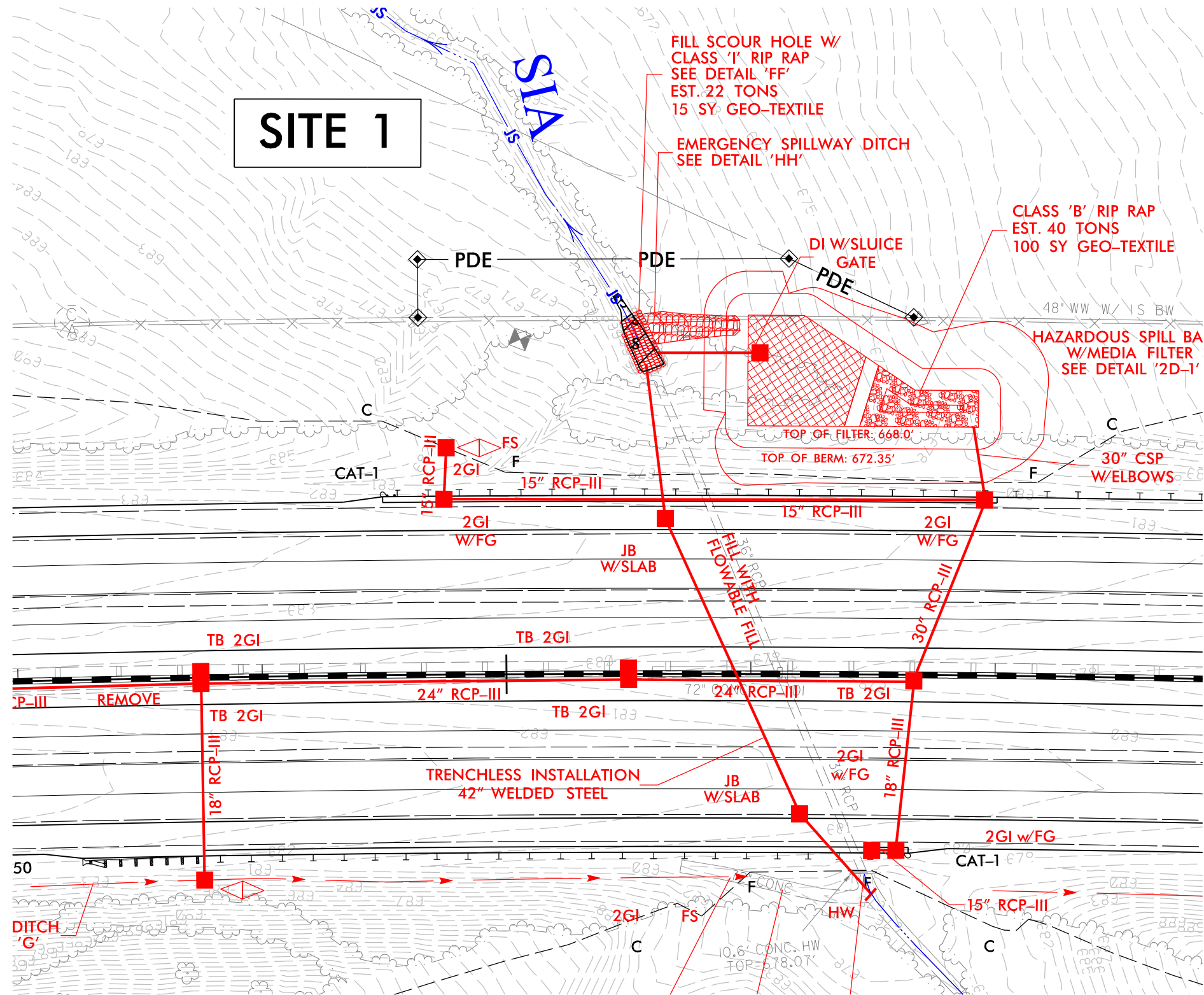
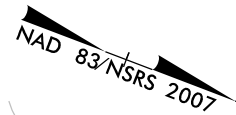
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

INCOMPLETE PLANS
DO NOT USE FOR A/W ACQUISITION

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		12A	
RW SHEET NO.			
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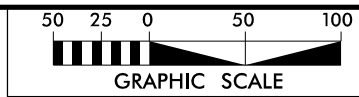
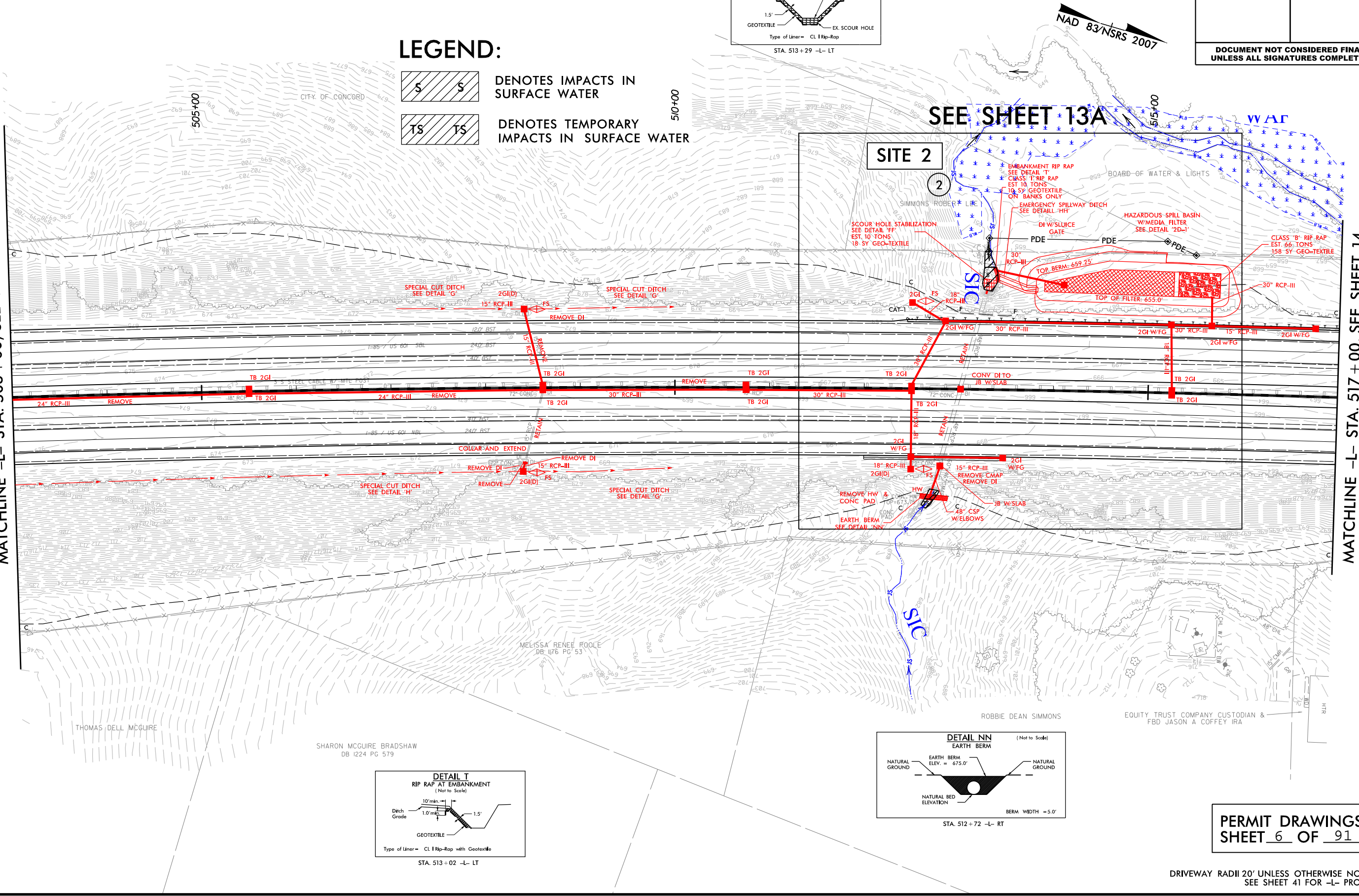
LEGEND:

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



REVISIONS

MATCHLINE -L- STA. 503 + 00, SEE SHEET 12



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

PROJECT REFERENCE NO.	SHEET NO.
I-3802B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
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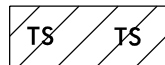
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REVISIONS

LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

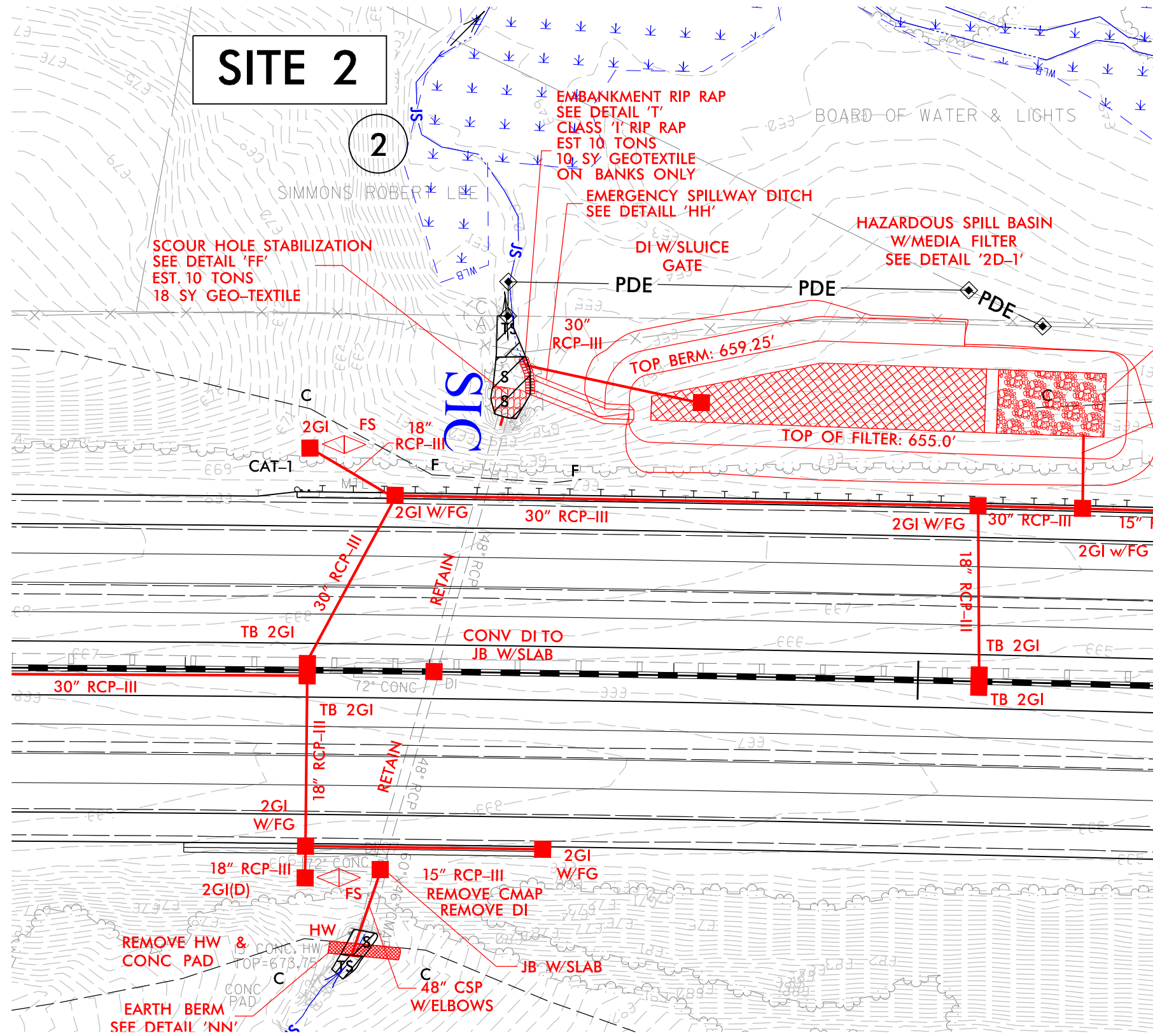
LANE

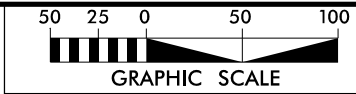
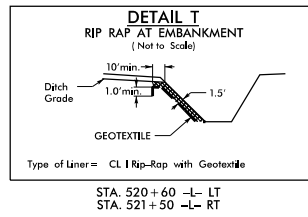


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PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		13A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
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NAD 83/NSRS 2007

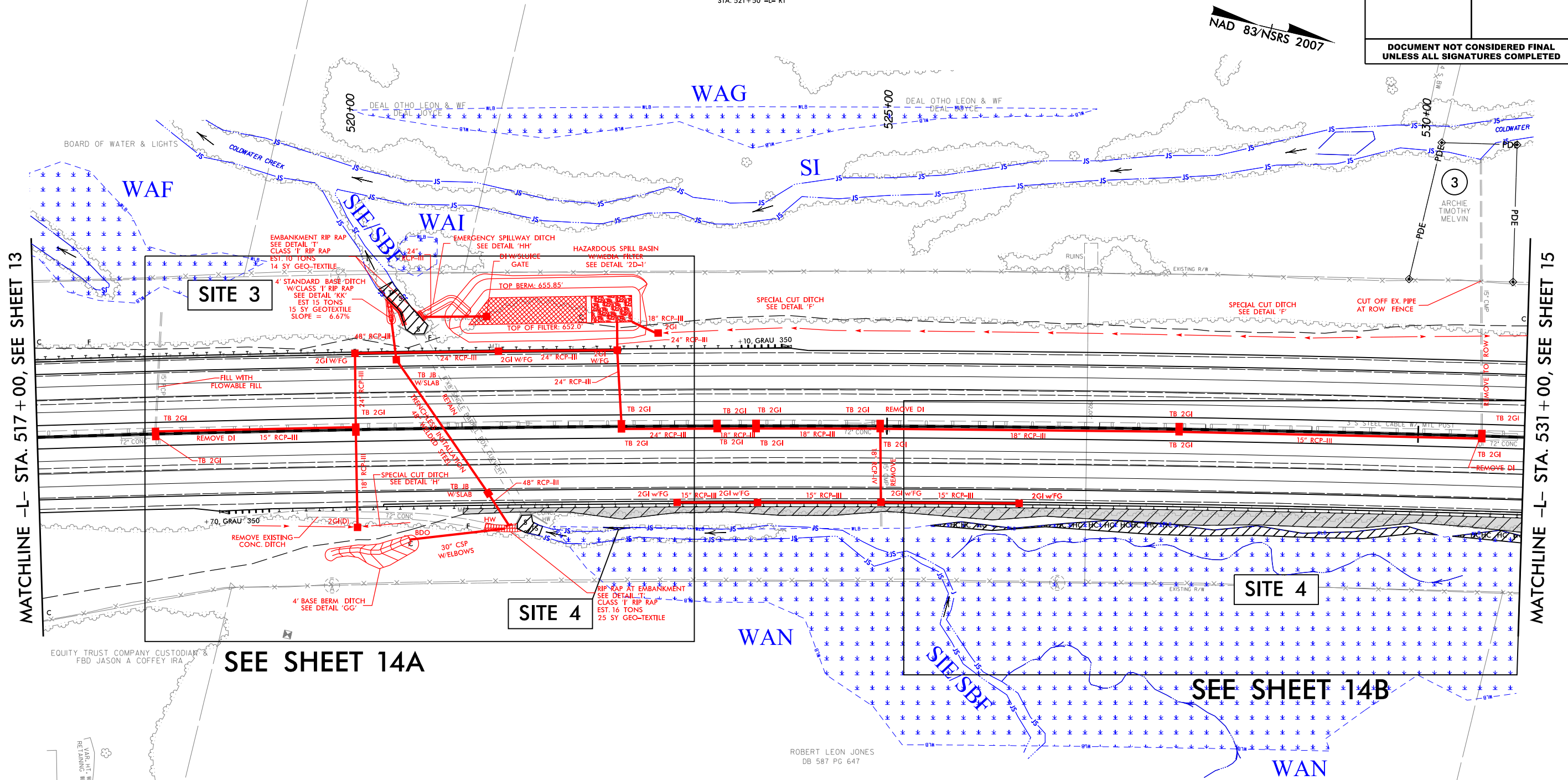




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N.C.B.E.L.S. License Number: F-0116

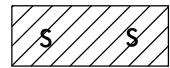
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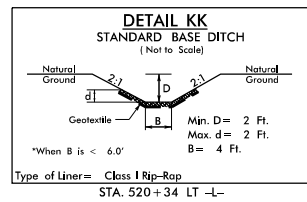
LEGEND:



DENOTES HAND
CLEARING

DENOTES IMPACTS IN
SURFACE WATER

DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

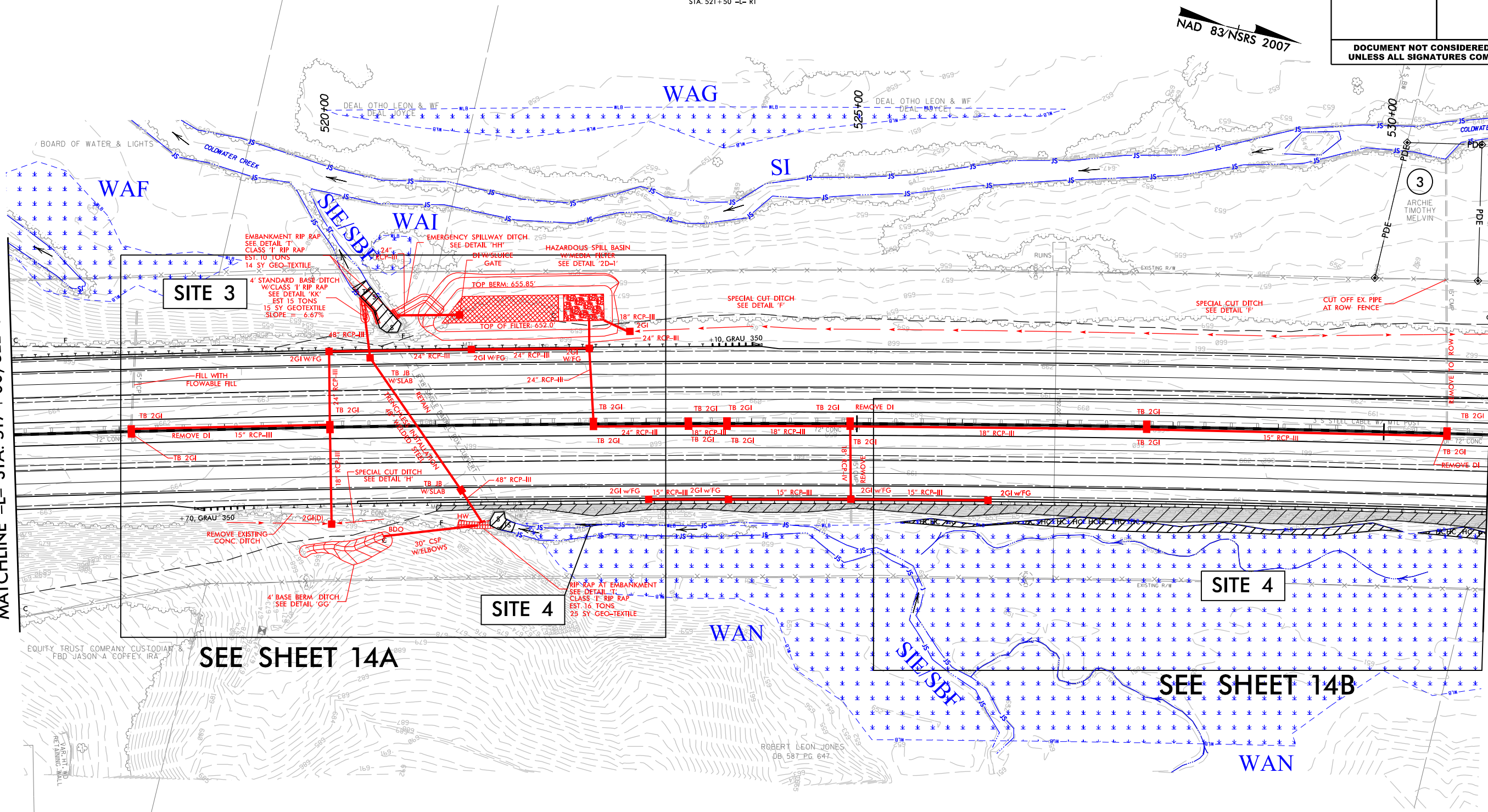


DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 42 FOR -L- PROFILE

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REVISIONS

MATCHLINE -L- STA. 517+00, SEE SHEET 13



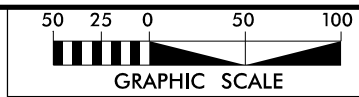
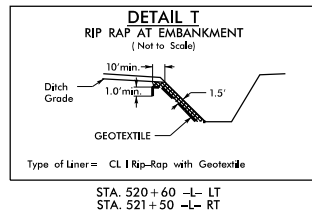
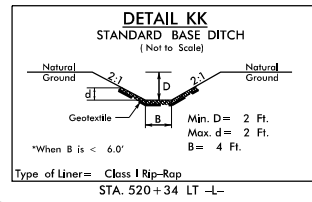
SEE SHEET 14A

SEE SHEET 14B

MATCHLINE -L- STA. 531+00, SEE SHEET 15

LEGEND:

- HC HC DENOTES HAND CLEARING
- S S DENOTES IMPACTS IN SURFACE WATER
- TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER



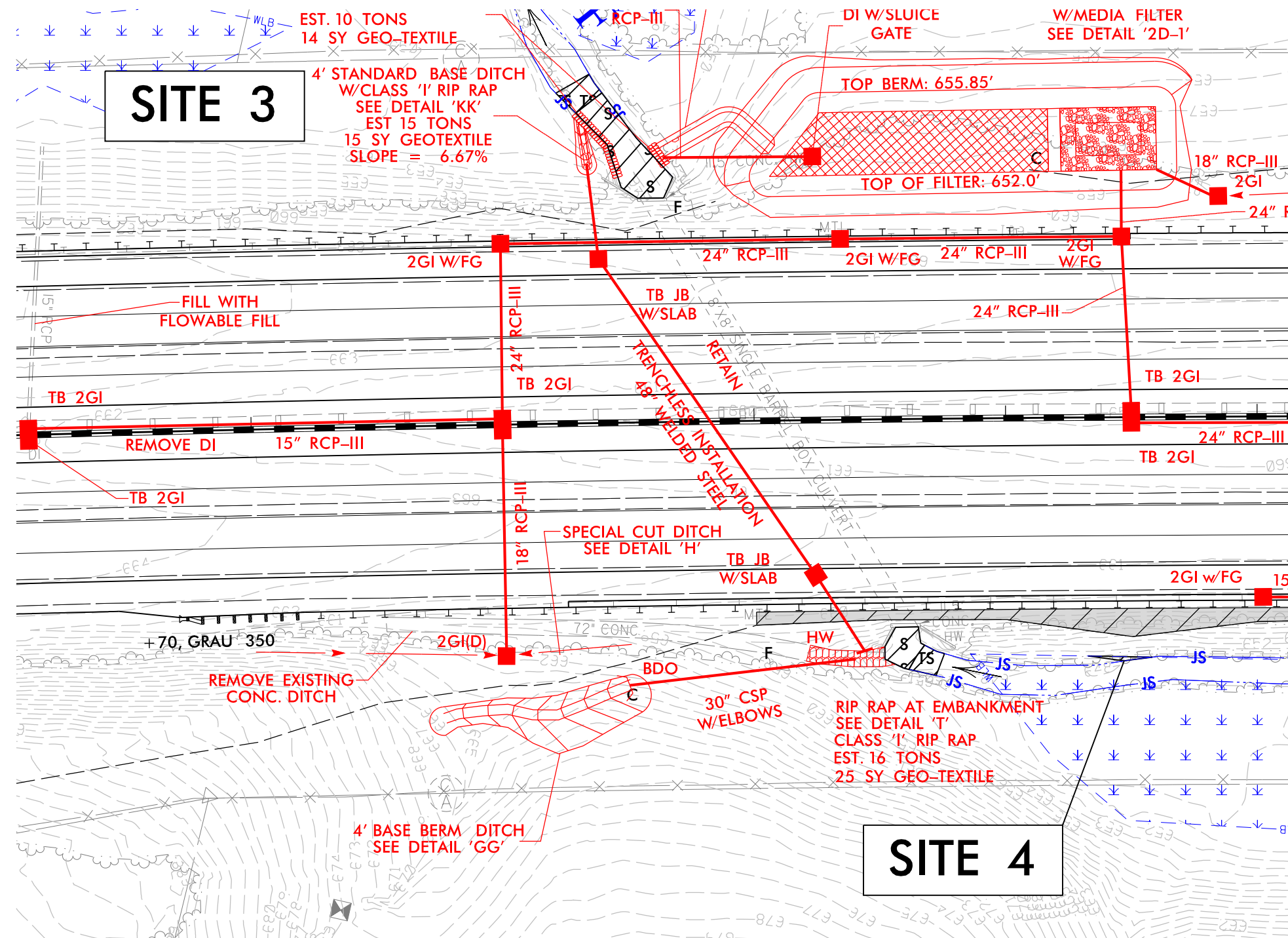
LANE

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

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		14	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

PERMIT DRAWINGS
SHEET 9 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 42 FOR -L- PROFILE

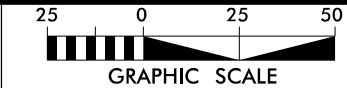


REVISIONS

LEGEND:



DENOTES HAND
CLEARING

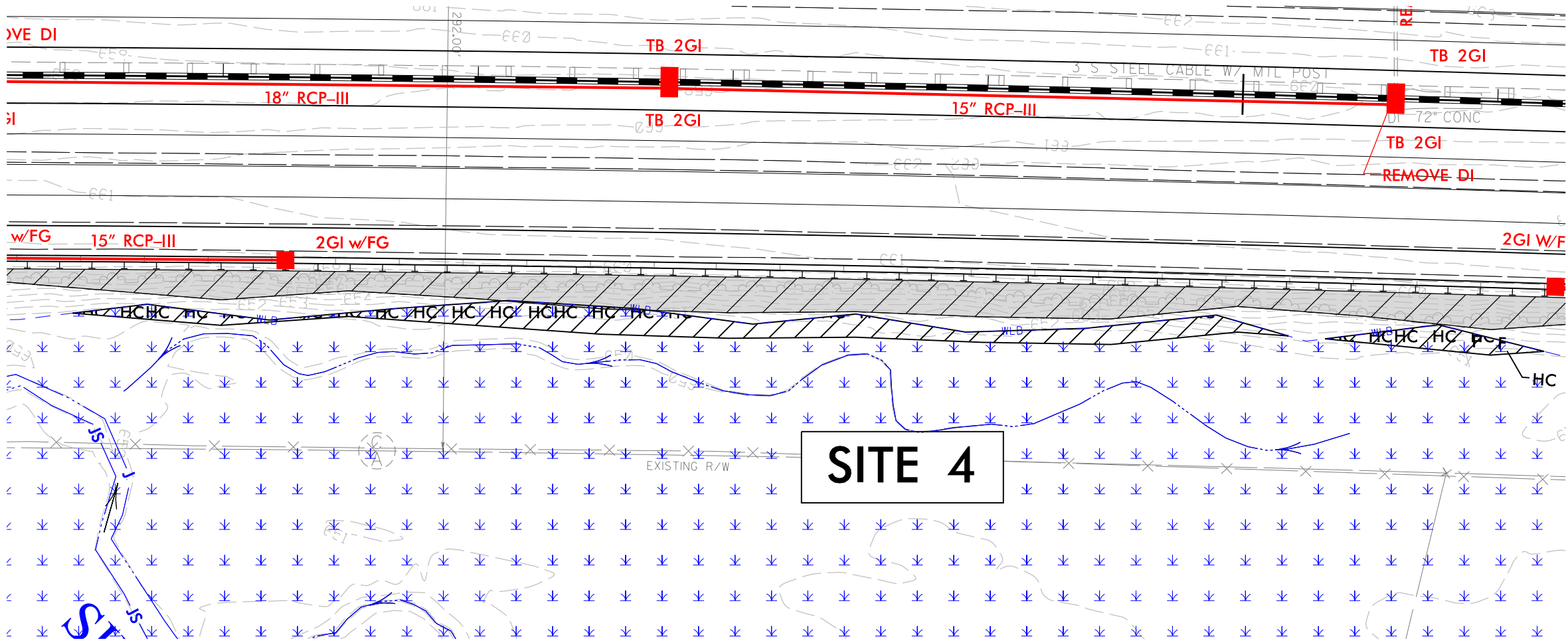


THE
LANE
CONSTRUCTION
CORPORATION

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

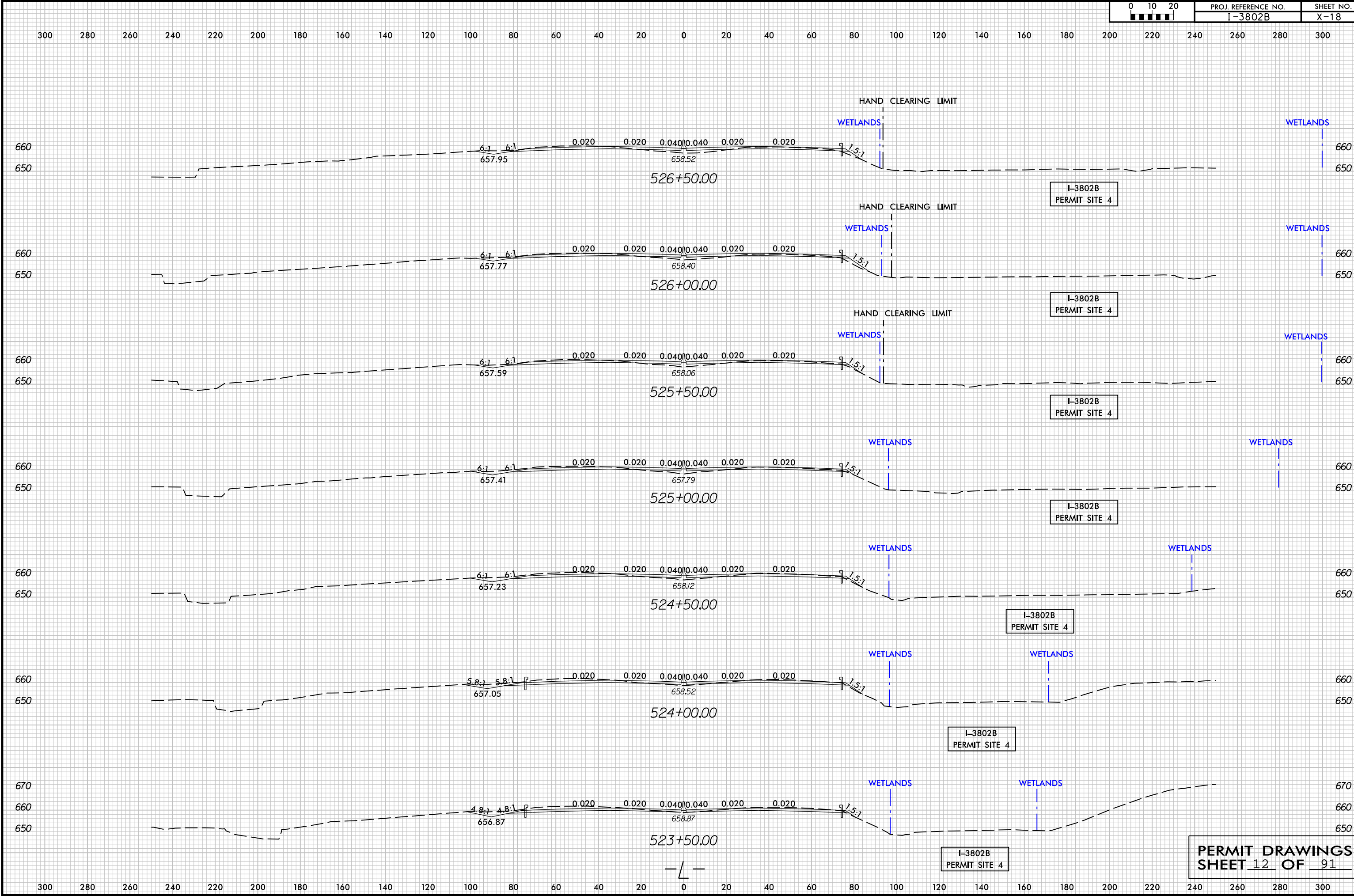
NAD 83/NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		14B	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			



SITE 4

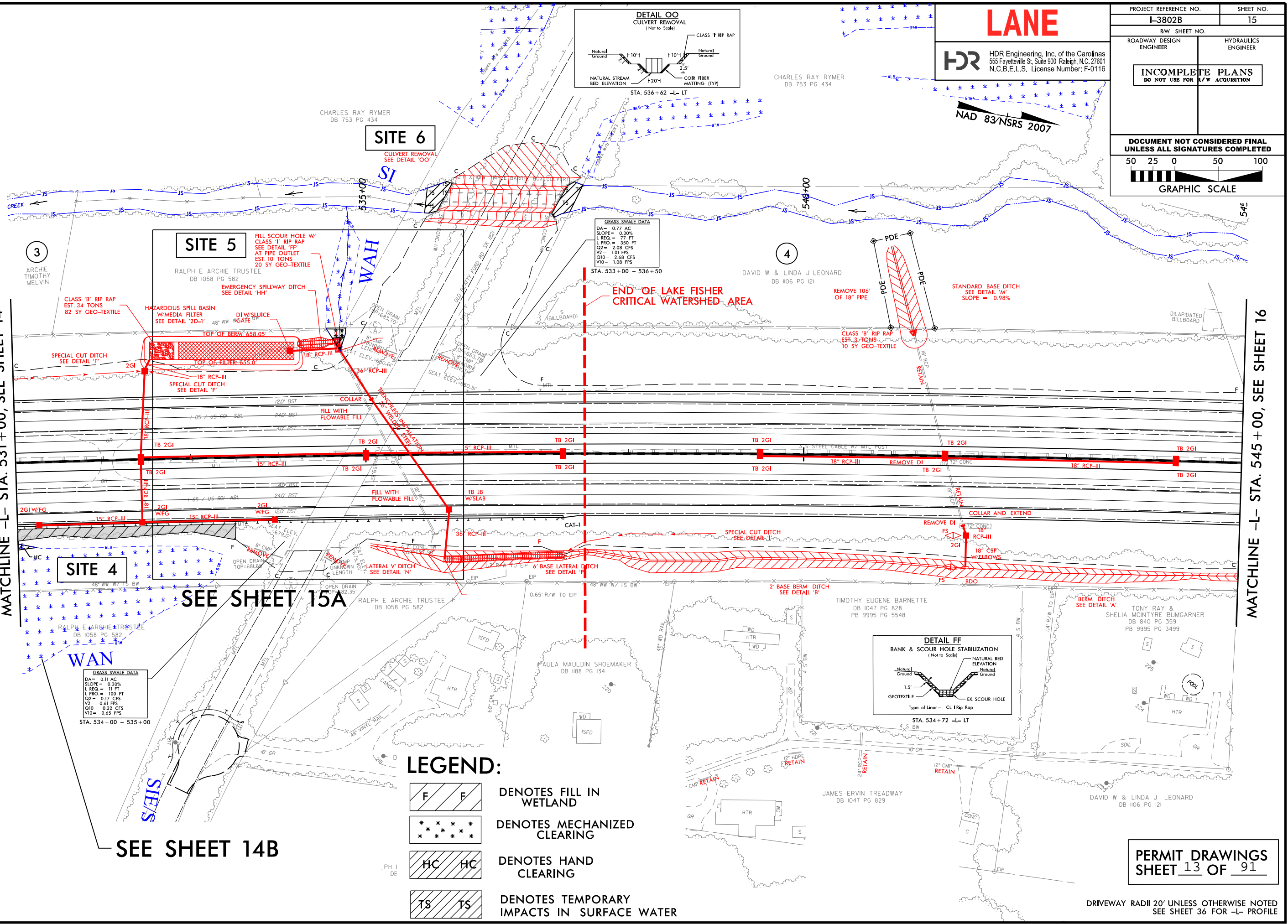
8/23/99



3:00:02 PM
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\$\$\$\$\$USERNAME\$\$\$\$\$

REVISIONS

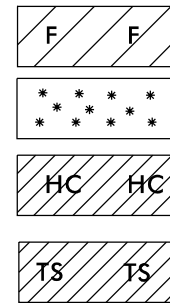
MATCHLINE -L- STA. 531+00, SEE SHEET 14



SEE SHEET 14B

SEE SHEET 15A

LEGEND:




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

LANE



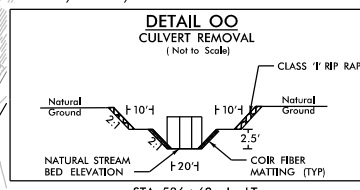
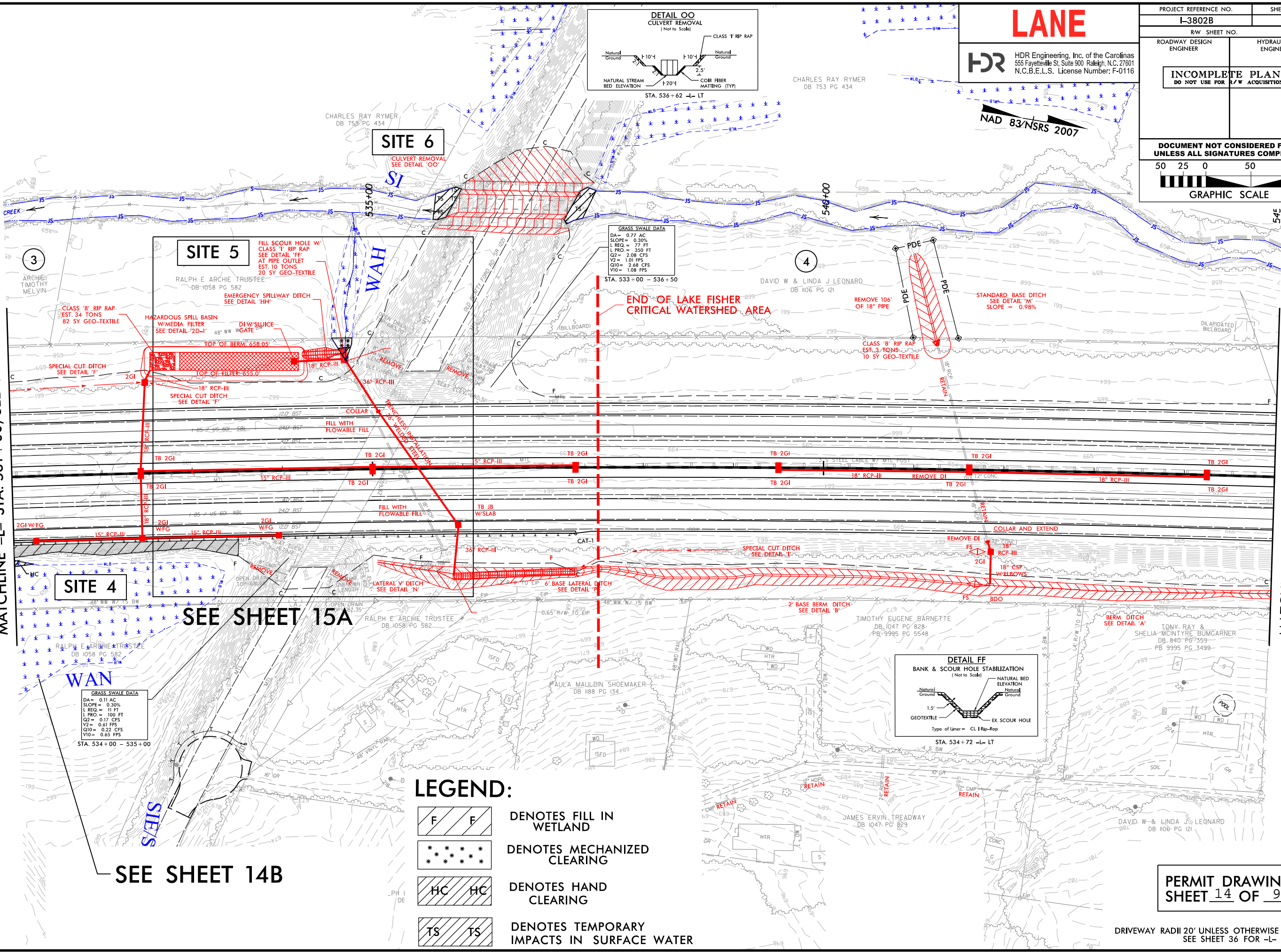
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		15	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
50 25 0 50 100			
			
GRAPHIC SCALE			

MATCHLINE -L- STA. 545+00, SEE SHEET 16


REVISIONS

MATCHLINE -L- STA. 531+00, SEE SHEET 14

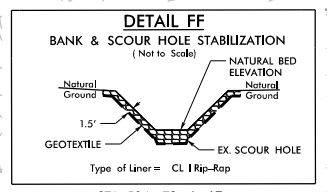


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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		15	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
<div>5025050100</div> <div></div> <div>GRAPHIC SCALE</div>			

- LEGEND:**
- DENOTES FILL IN WETLAND
 - DENOTES MECHANIZED CLEARING
 - DENOTES HAND CLEARING
 - DENOTES TEMPORARY IMPACTS IN SURFACE WATER

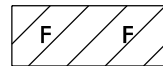


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REVISIONS

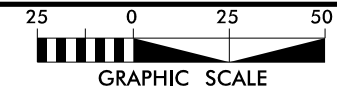
LEGEND:



DENOTES FILL IN
WETLAND



DENOTES MECHANIZED
CLEARING



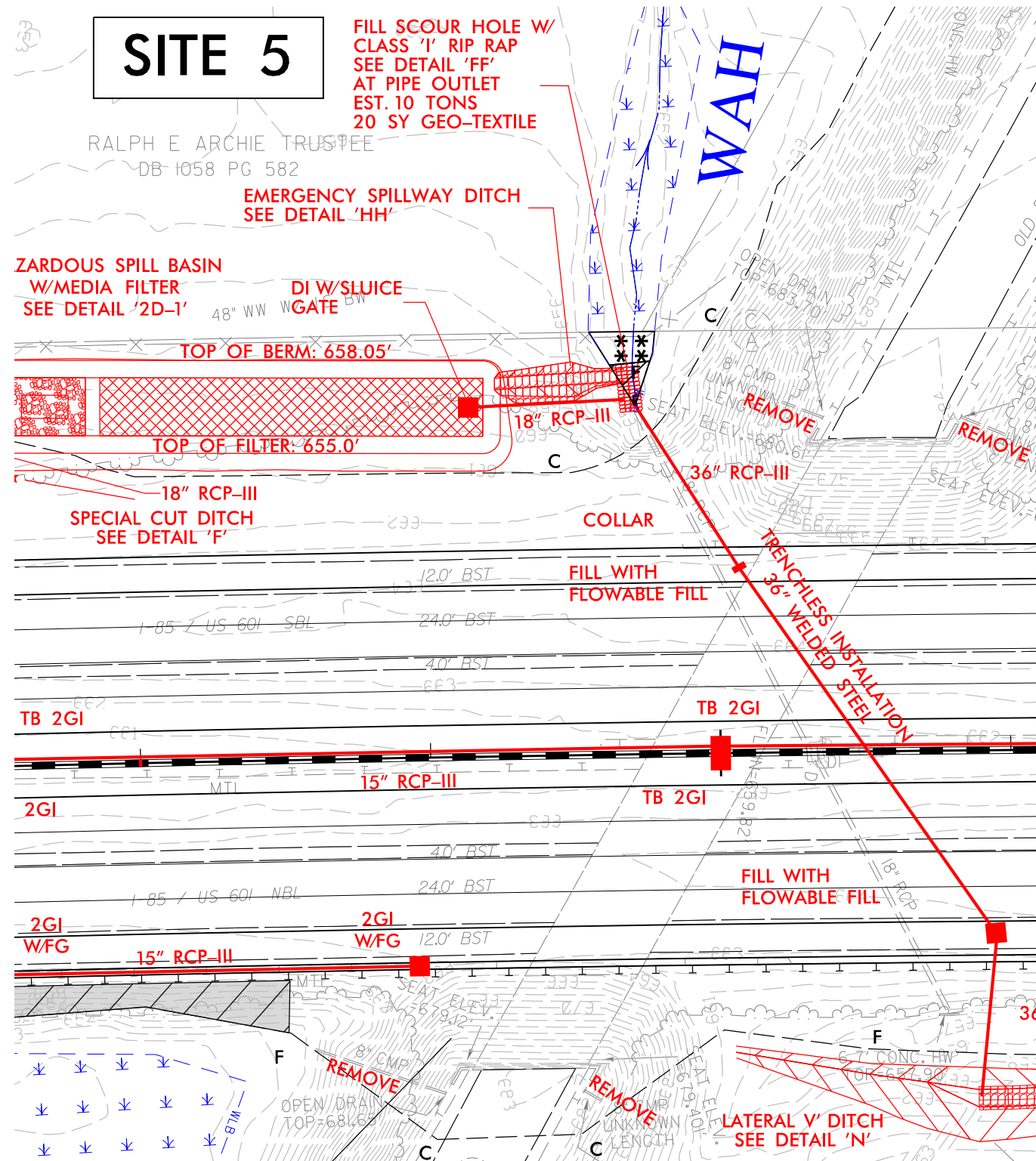
LANE



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

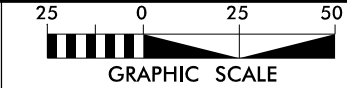
NAD 83/NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		15A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



PERMIT DRAWINGS
SHEET 15 OF 91

REVISIONS



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HDR

HDR Engineering, Inc. of the Carolinas
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N.C.B.E.L.S. License Number: F-0116

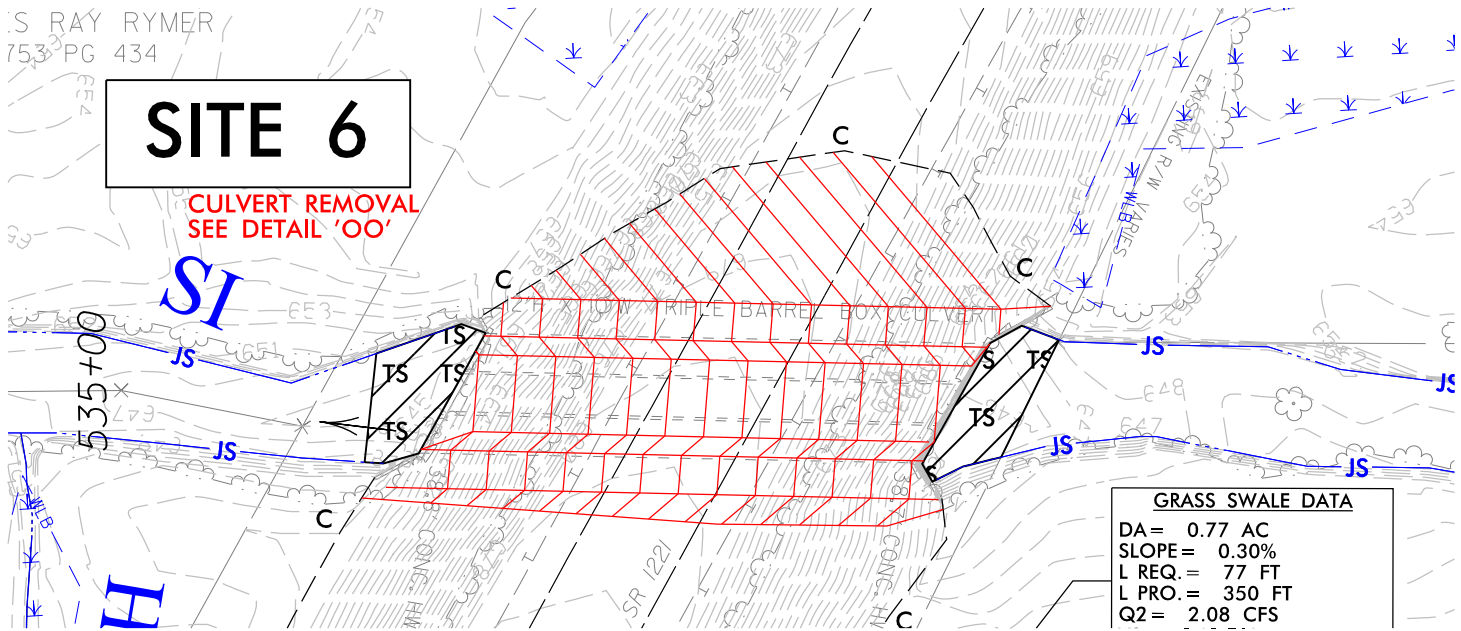
NAD 83/NSRS 2007

PROJECT REFERENCE NO.	SHEET NO.
I-3802B	15B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

LEGEND:



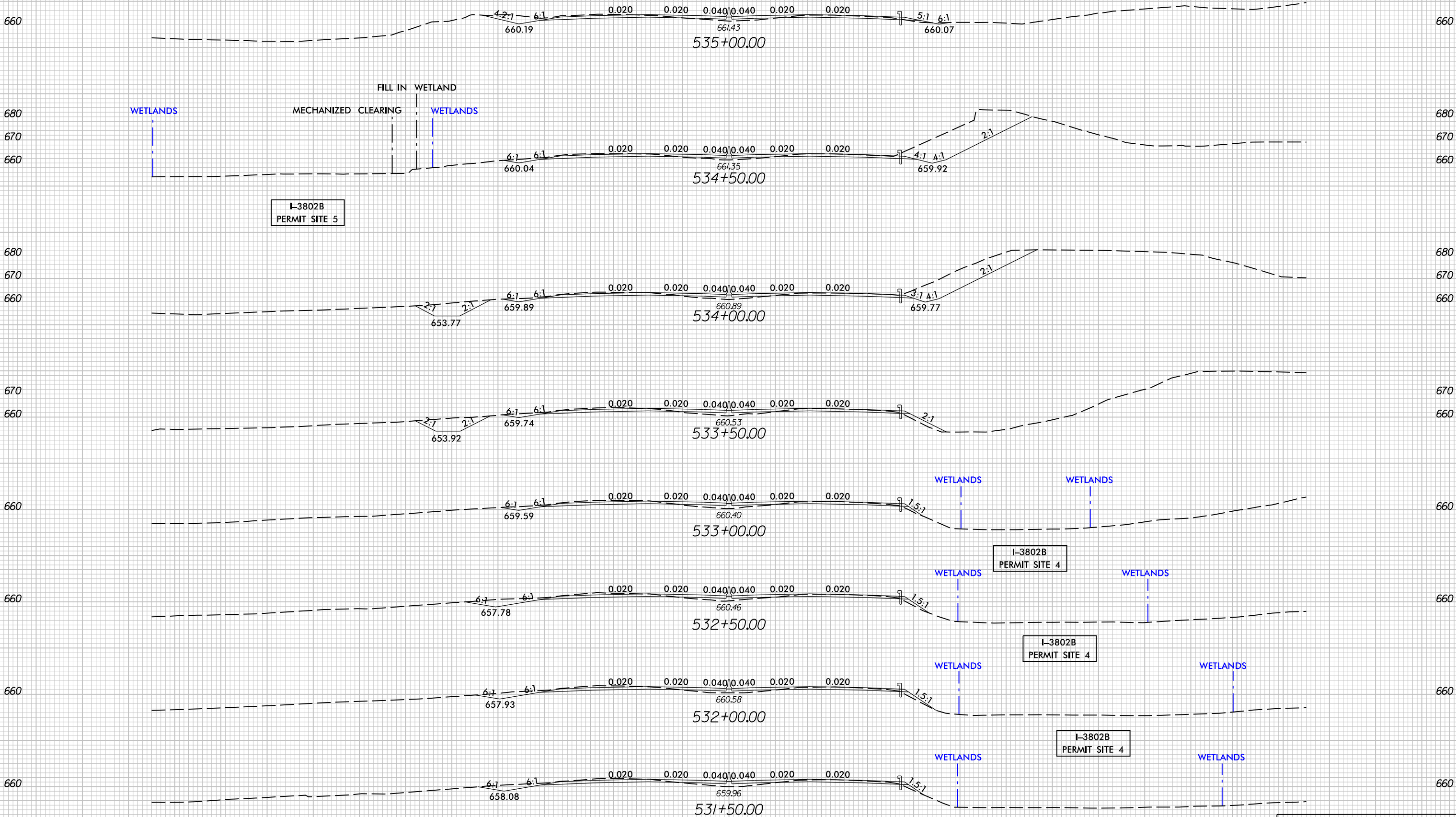
DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

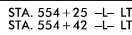
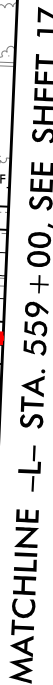


GRASS SWALE DATA	
DA =	0.77 AC
SLOPE =	0.30%
L REQ. =	77 FT
L PRO. =	350 FT
Q2 =	2.08 CFS

8/23/99

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300





DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

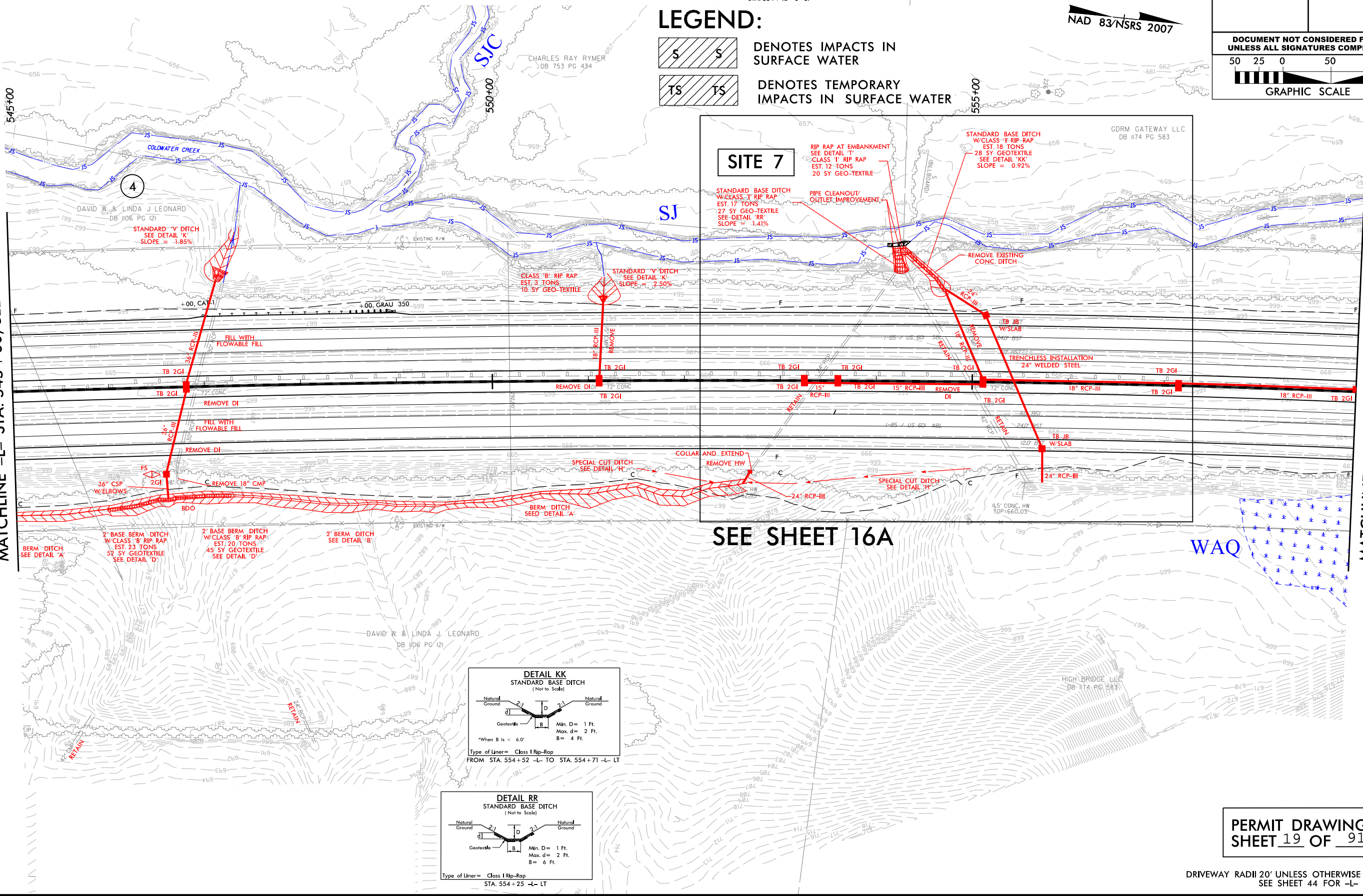
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

NAD 83/NSRS 2007

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 44 FOR -L- PROFILE

REVISIONS

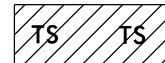
MATCHLINE -L- STA. 545 + 00, SEE SHEET 15



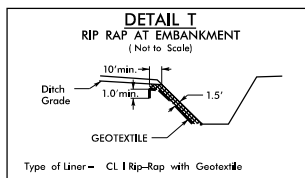
LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



Type of Liner = Class I Rip-Rap with Geotextile



STA. 554 + 25 -L- LT
STA. 554 + 42 -L- LT

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N.C.B.E.L.S. License Number: F-0116

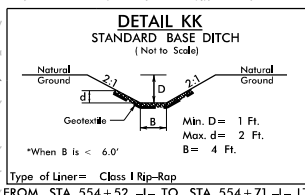
NAD 83/NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		16	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
50 25 0		50 100	
			
GRAPHIC SCALE			

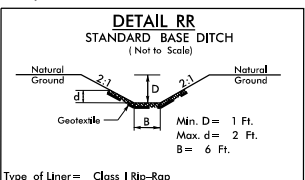
SITE 7

SEE SHEET 16A

MATCHLINE -L- STA. 559 + 00, SEE SHEET 17



Type of Liner = Class I Rip-Rap
FROM STA. 554 + 52 -L- TO STA. 554 + 71 -L- LT



Type of Liner = Class I Rip-Rap
STA. 554 + 25 -L- LT

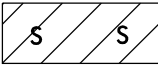
PERMIT DRAWINGS
SHEET 19 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 44 FOR -L- PROFILE

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REVISIONS

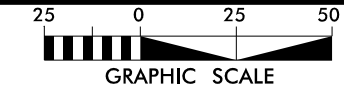
LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



NAD 83/NSRS 2007

THE
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CONSTRUCTION
CORPORATION



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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.

I-3802B

SHEET NO.

16A

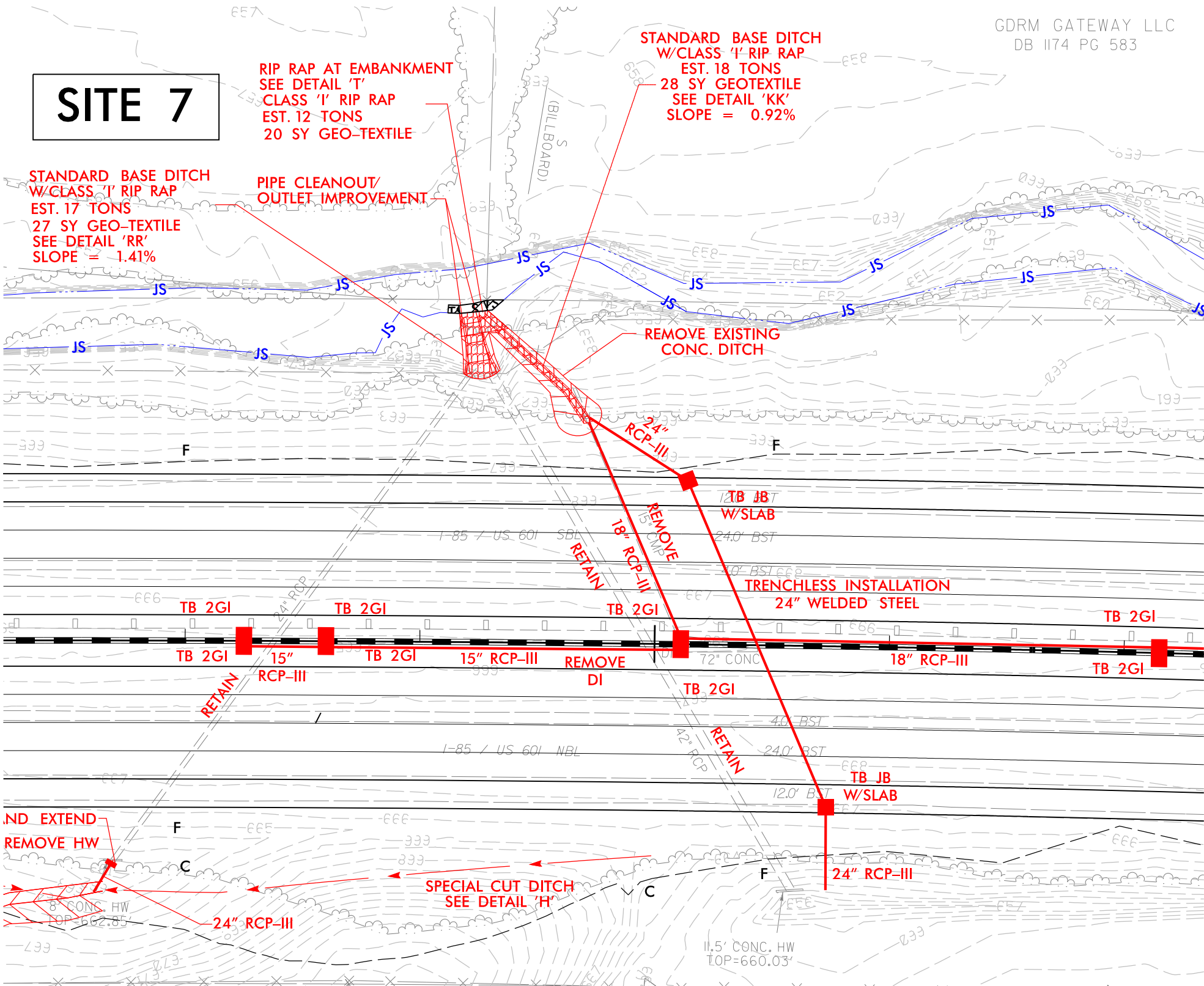
R/W SHEET NO.

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR A/W ACQUISITION

SITE 7



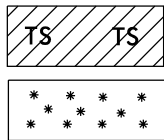
GDRM GATEWAY LLC
DB 1174 PG 583

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DATE: 9/27/2016

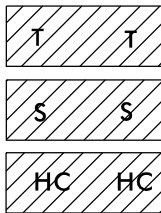
REVISIONS

LEGEND:



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

DENOTES MECHANIZED
CLEARING



DENOTES TEMPORARY
FILL IN WETLAND

DENOTES IMPACTS IN
SURFACE WATER

DENOTES HAND
CLEARING

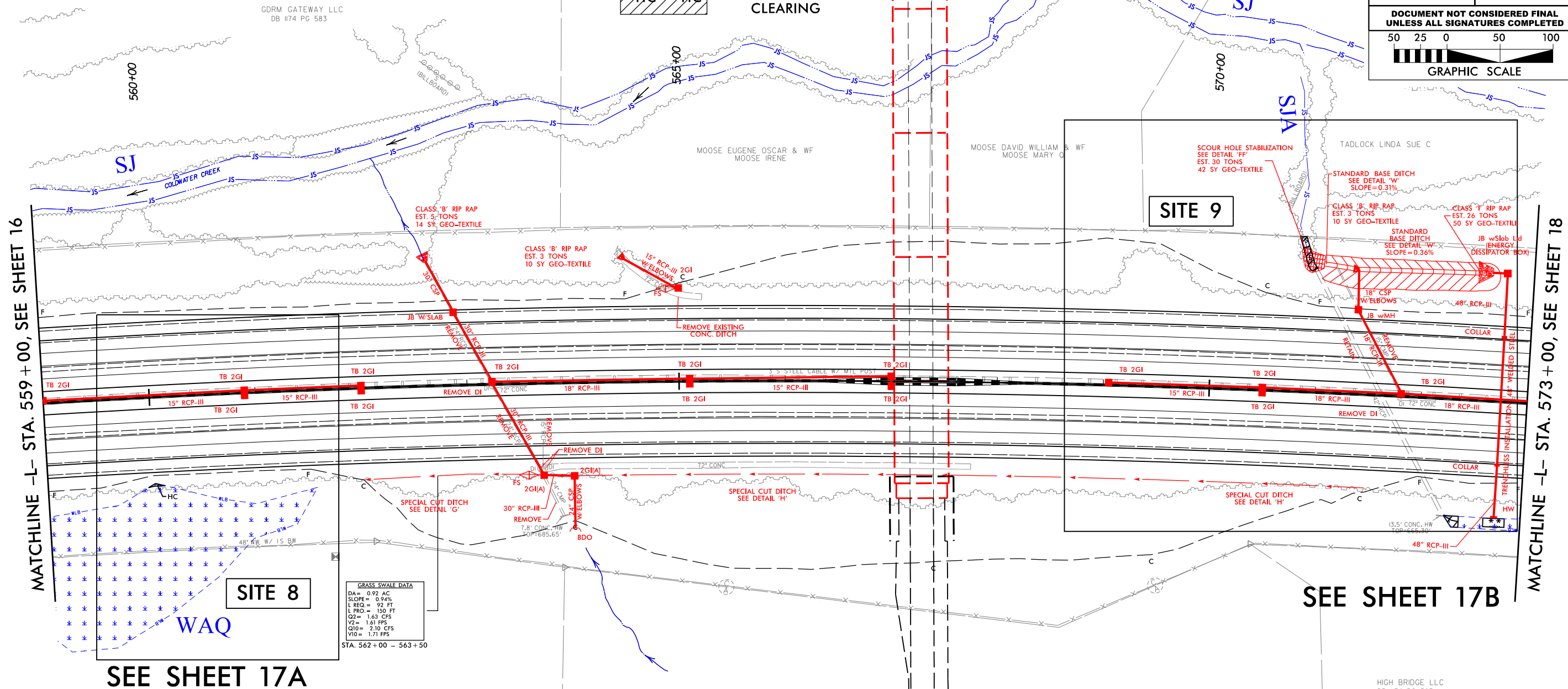
LANE



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

PROJECT REFERENCE NO.	SHEET NO.
L-3802B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
50 25 0 50 100	GRAPHIC SCALE

NAD 83/NSRS 2007



SITE 8

SITE 9

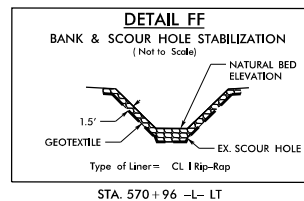
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SLOPE=	0.94%
L REQ=	92 FT
L PRO=	150 FT
Q7=	1.63 CFS
VZ=	1.61 FPS
Q10=	2.10 CFS
V10=	1.71 FPS
STA. 562+00 - 563+50	

SEE SHEET 17A

SEE SHEET 17B

HIGH BRIDGE LLC
DB 1174 PG 583

HIGH BRIDGE LLC
DB 1174 PG 583



PERMIT DRAWINGS
SHEET 21 OF 91

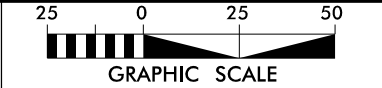
DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 45 FOR -L- PROFILE

REVISIONS

LEGEND:



DENOTES HAND
CLEARING



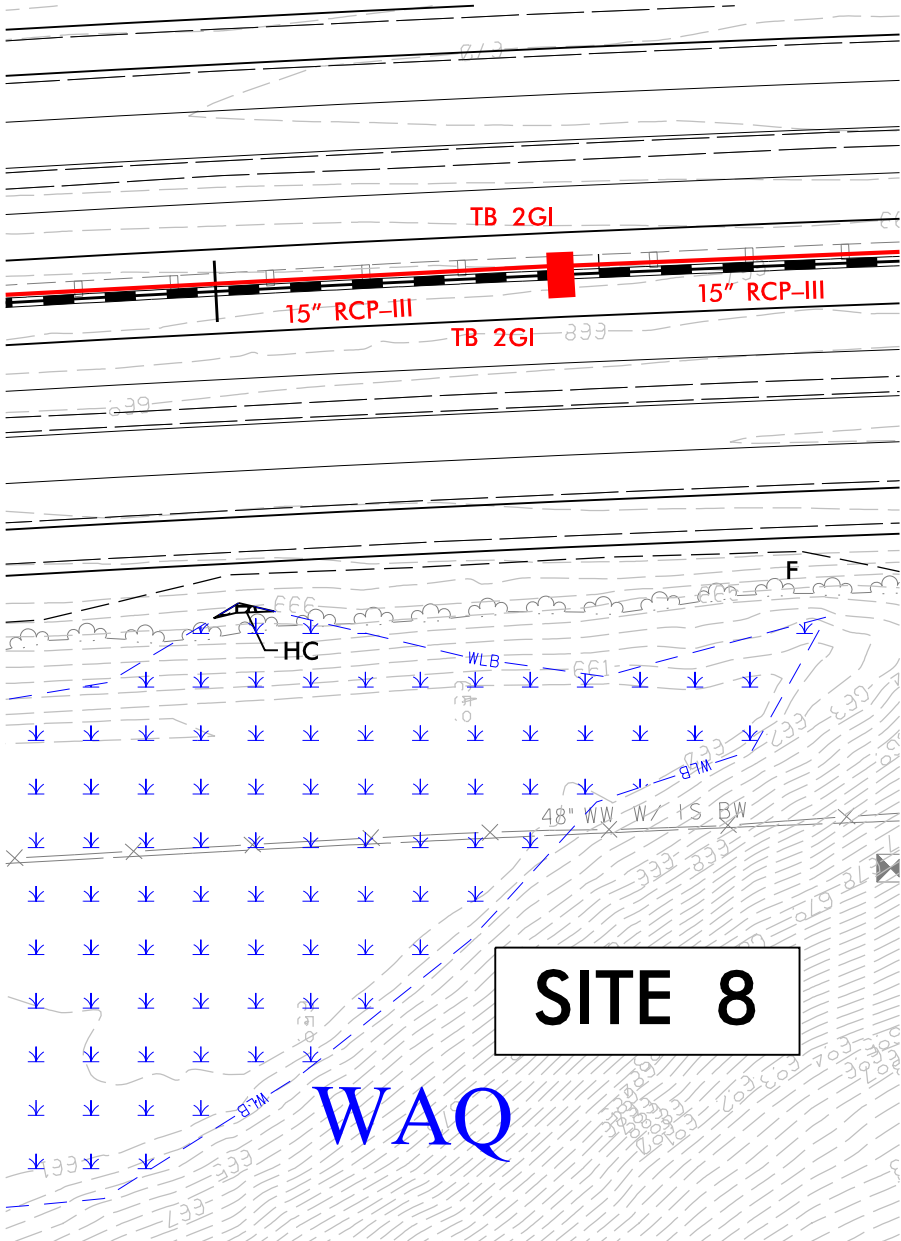
THE
LANE
CONSTRUCTION
CORPORATION



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

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		17A	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			

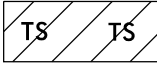
NAD 83/NSRS 2007



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TIME: 1:41:08 PM
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REVISIONS

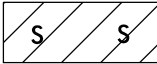
LEGEND:



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



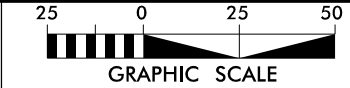
DENOTES TEMPORARY
FILL IN WETLAND



DENOTES IMPACTS IN
SURFACE WATER



DENOTES MECHANIZED
CLEARING



THE

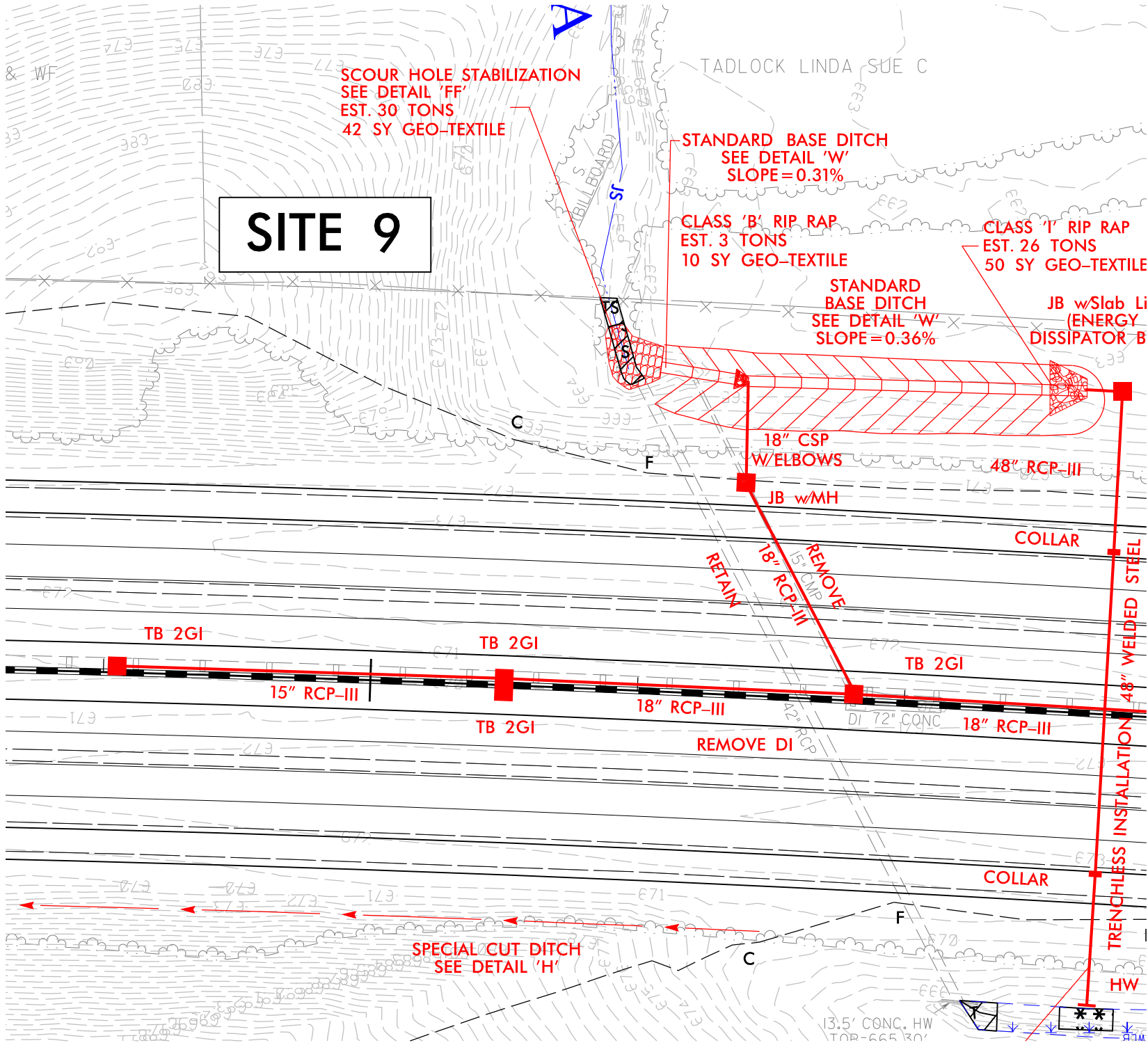
LANE

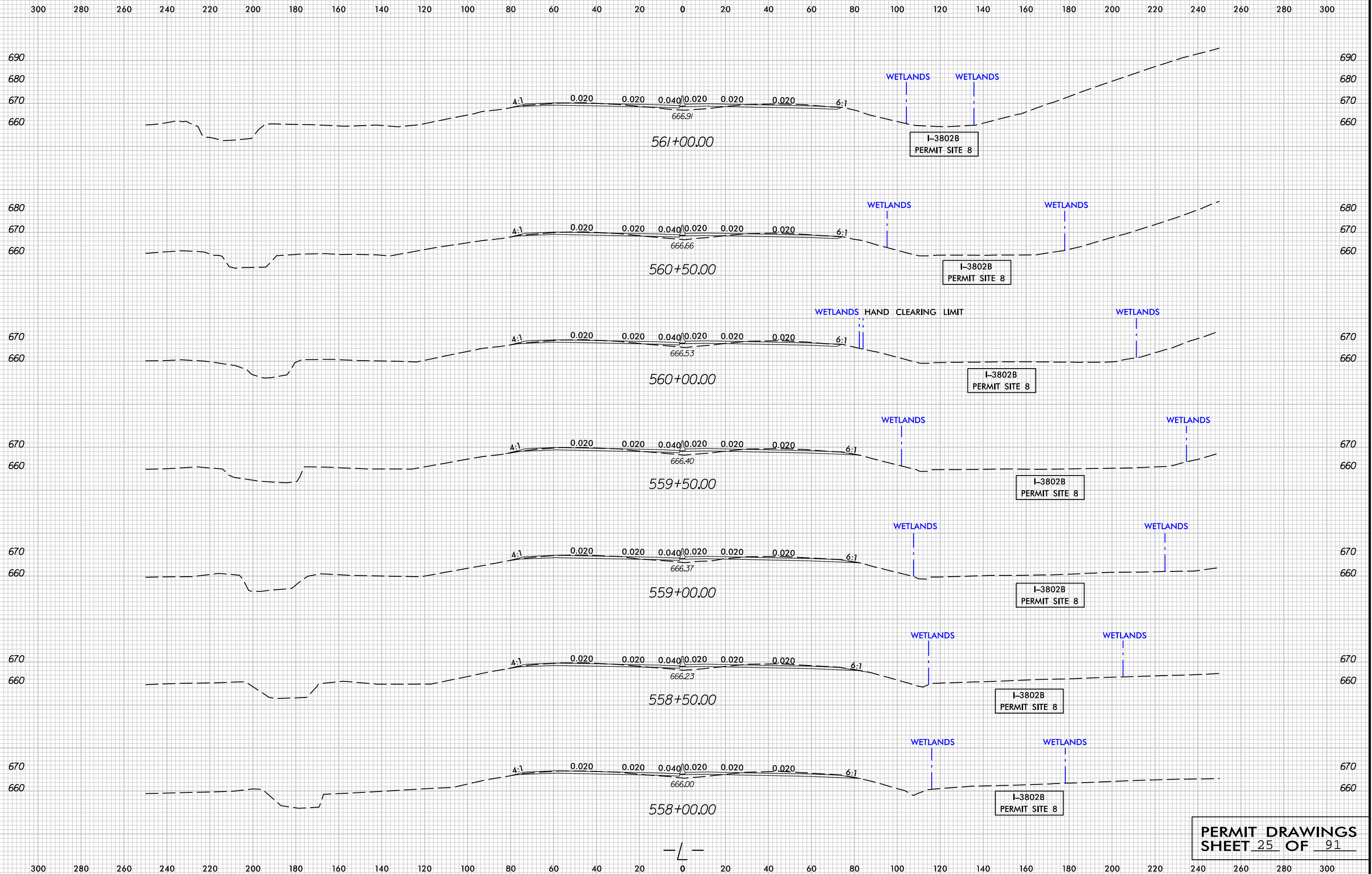
CONSTRUCTION CORPORATION

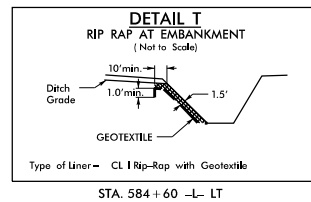
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

NAD 83/NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		17B	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			

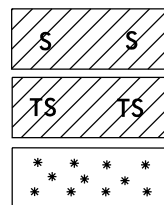






TADLOCK LINDA SUE C

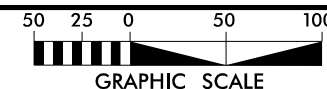
LEGEND:



DENOTES IMPACTS IN
SURFACE WATER

DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

DENOTES MECHANIZED
CLEARING



LANE



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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.	SHEET NO.
I-3802B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<div style="border: 1px solid black; padding: 10px; text-align: center;"> INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION </div>	
ALL INFORMATION NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETE	

MATCHLINE -L- STA. 573+00, SEE SHEET 17

MATCHLINE -L- STA. 587+00, SEE SHEET 19

SEE SHEET 18A

SJAA

SHE

WAR

HIGH BRIDGE LLC
DB 1174 PG 583

MORRIS JAMIE LEE & WF
MORRIS DEBORAH HELMS

MORRIS JAMIE LEE & W
MORRIS DEBORAH HEIMS

MORRIS BILLY EUGENE & WF
MORRIS JUDITH P

MORRIS ROBERT AARON & W
MORRIS TERESA GUNNER

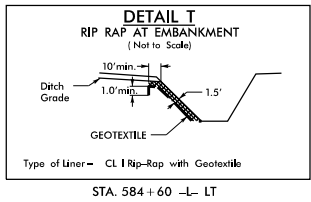
SOUTHGATE MASONRY & LUMBER
DB 1151 PG 118

PERMIT DRAWINGS
SHEET 26 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 46 FOR -L- PROFILE

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PENTABLE: NCDOT_permits.CON.tbl
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DATE: 9/27/2016
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REVISIONS



LEGEND:



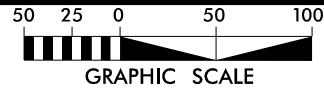
DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



DENOTES MECHANIZED
CLEARING



LANE



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

PROJECT REFERENCE NO.		SHEET NO.
I-3802B		18
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

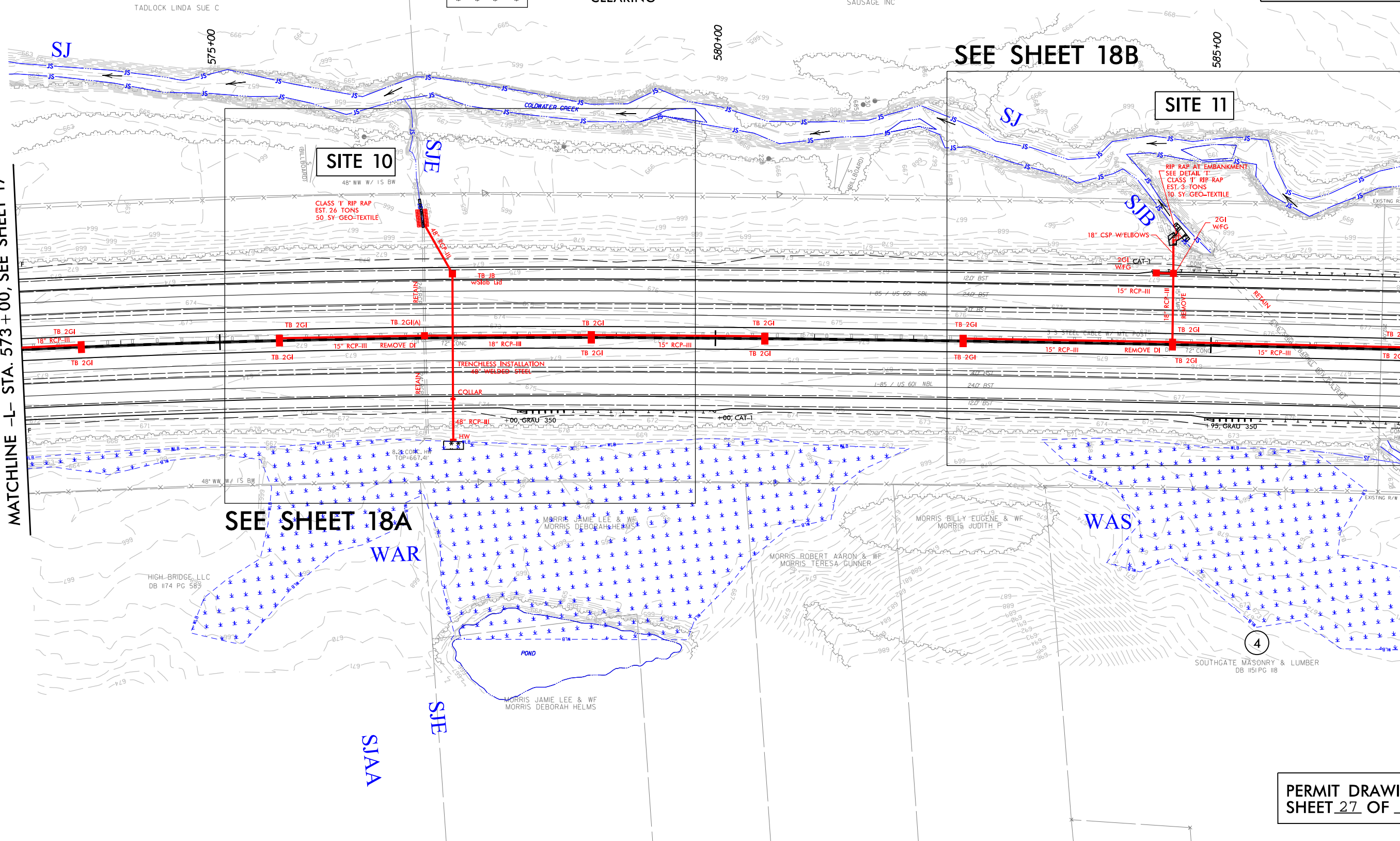
NAD 83/NSRS 2007

5

FRANK C. CORRIHER BEEF &
SAUSAGE INC.

MATCHLINE -L- STA. 573+00, SEE SHEET 17

MATCHLINE -L- STA. 587+00, SEE SHEET 19



PERMIT DRAWINGS
SHEET 27 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 46 FOR -L- PROFILE

PLOT DRIVER: NCDOT_pdf_color_eng-100.plt
USER: cmyers
FILE: North_Carolina_Dept_of_Transportation\LaneCC\I3802B\I85.Rowan\6.0.CAD\BIM\6.2.Work_In_Progress\I-3802B_NCDOT_File_Structure\Hydraulics\PERMITS\Environmental\Drawings\I3802B_HYD_PRM_PSH.dgn

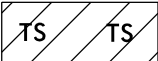
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TIME: 1:41:15 PM
DATE: 9/27/2016

REVISIONS

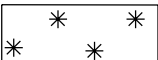
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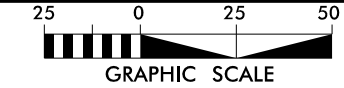
DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



DENOTES MECHANIZED
CLEARING



THE

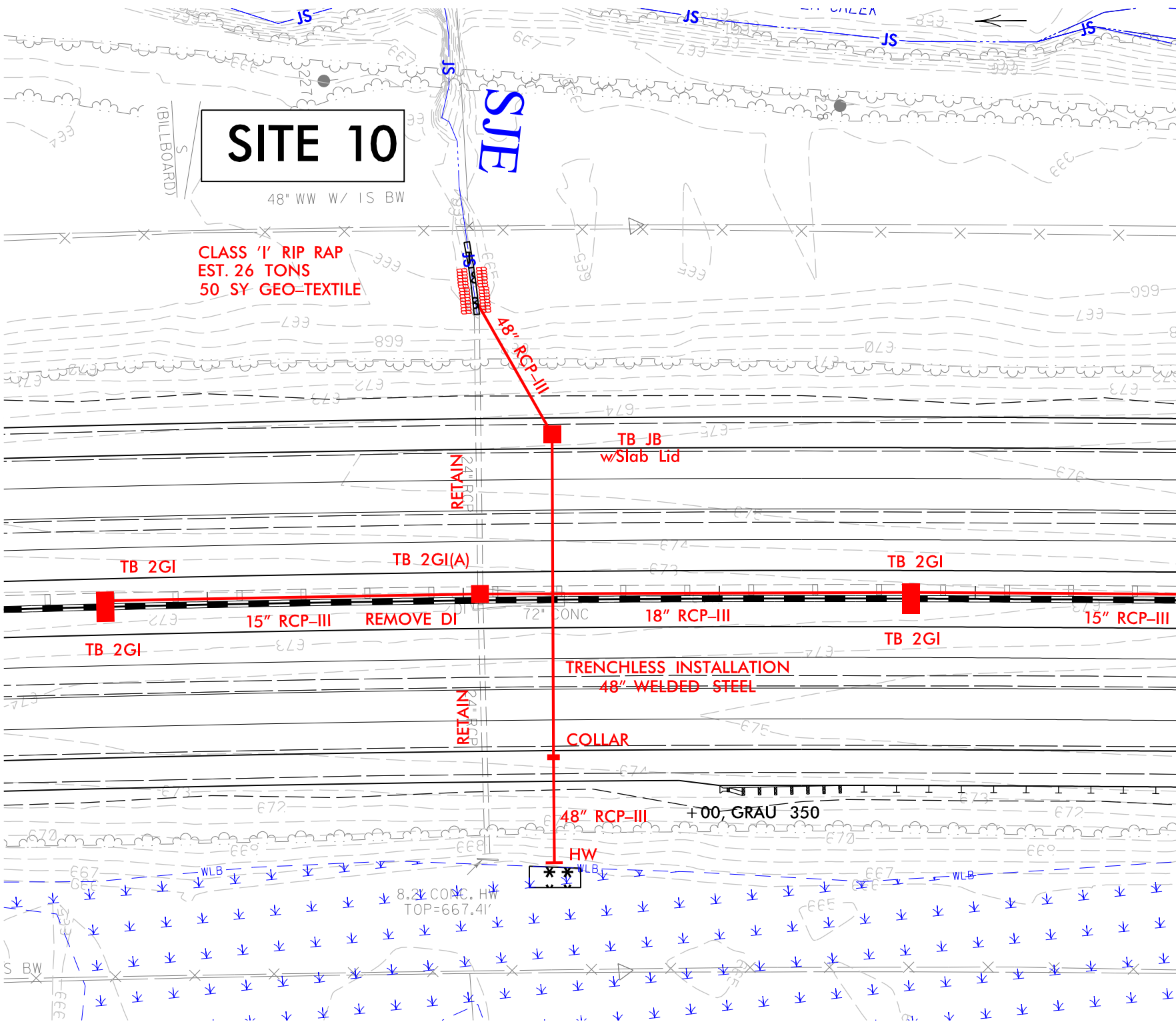
LANE

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CORPORATION

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N.C.B.E.L.S. License Number: F-0116

NAD 83/NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		18A	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			

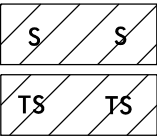


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USER: cmayers
FILE: North_Carolina_Dept_of_Transportation\LaneCC\I3802B\I85_Road\6.0_CAD_BIM\6.2_Work_In_Progress\I-3802B_NCDOT_File_Structure\Hydraulics\PERMITS\Environmental\Drawings\I3802B_HYD_PRM_PSH.dgn

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TIME: 1:41:18 PM
DATE: 9/27/2016

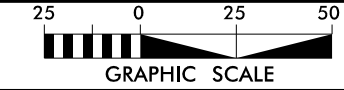
REVISIONS

LEGEND:



DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER



THE

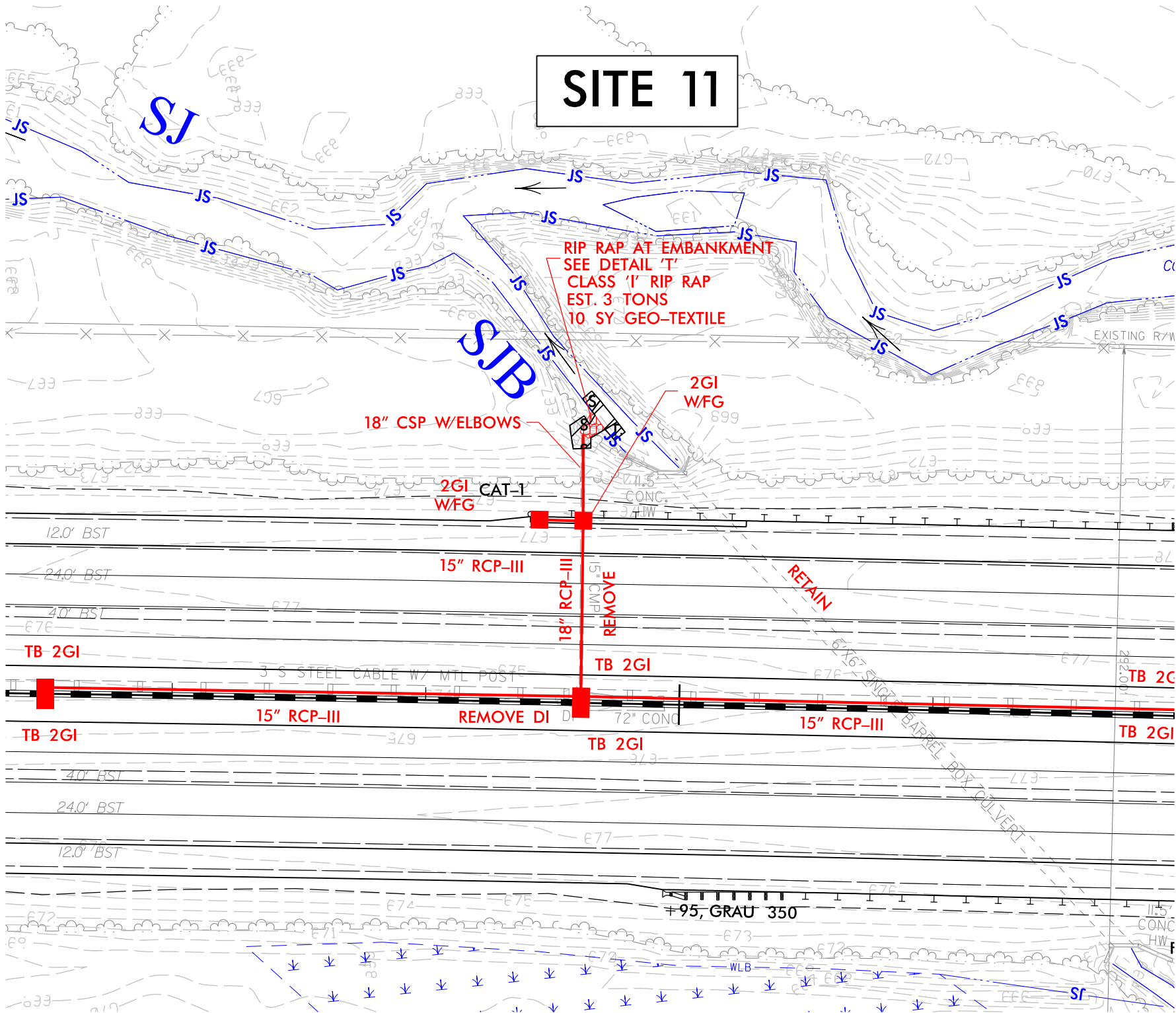
LANE

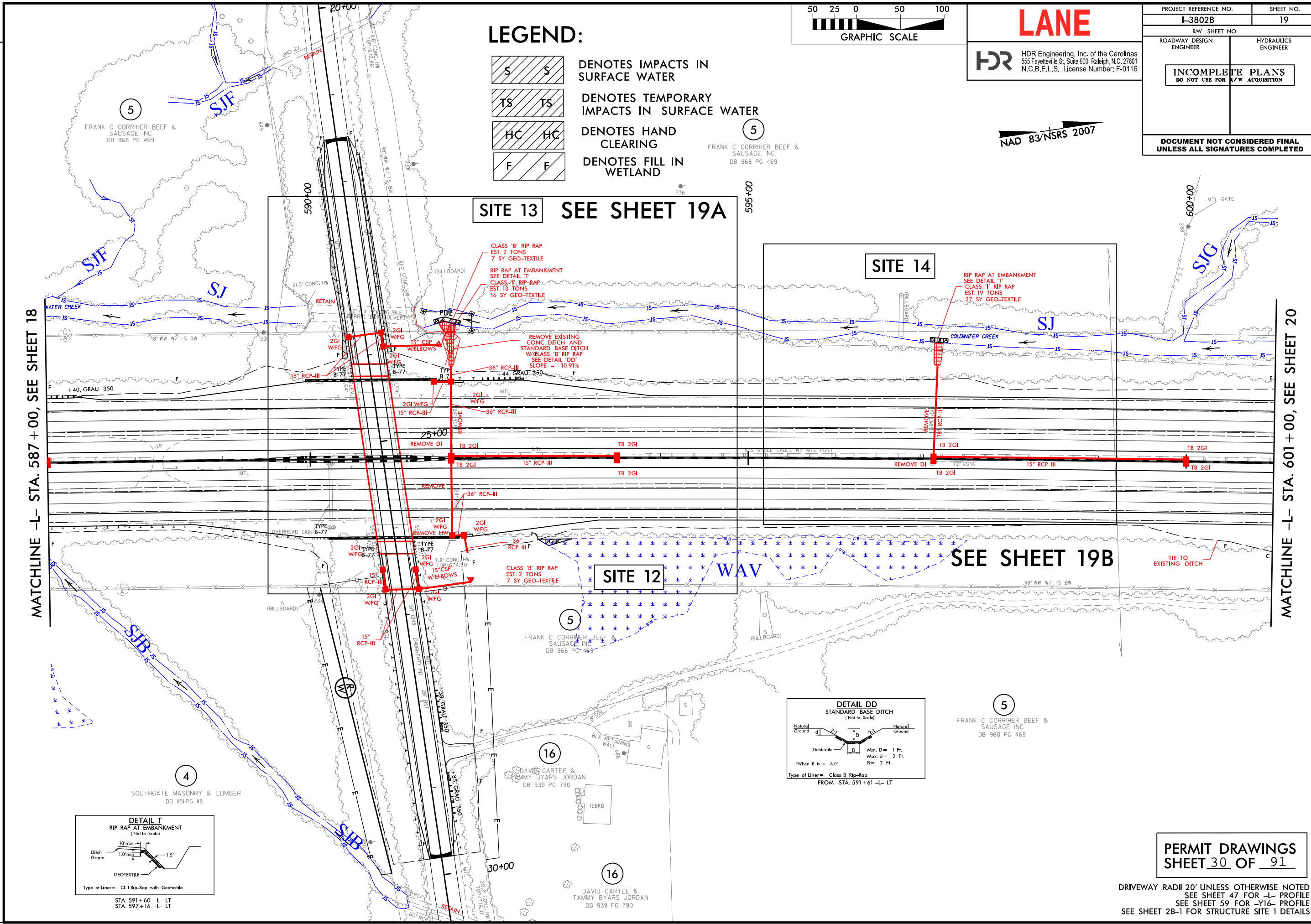
CONSTRUCTION CORPORATION

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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		18B	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION</div>			

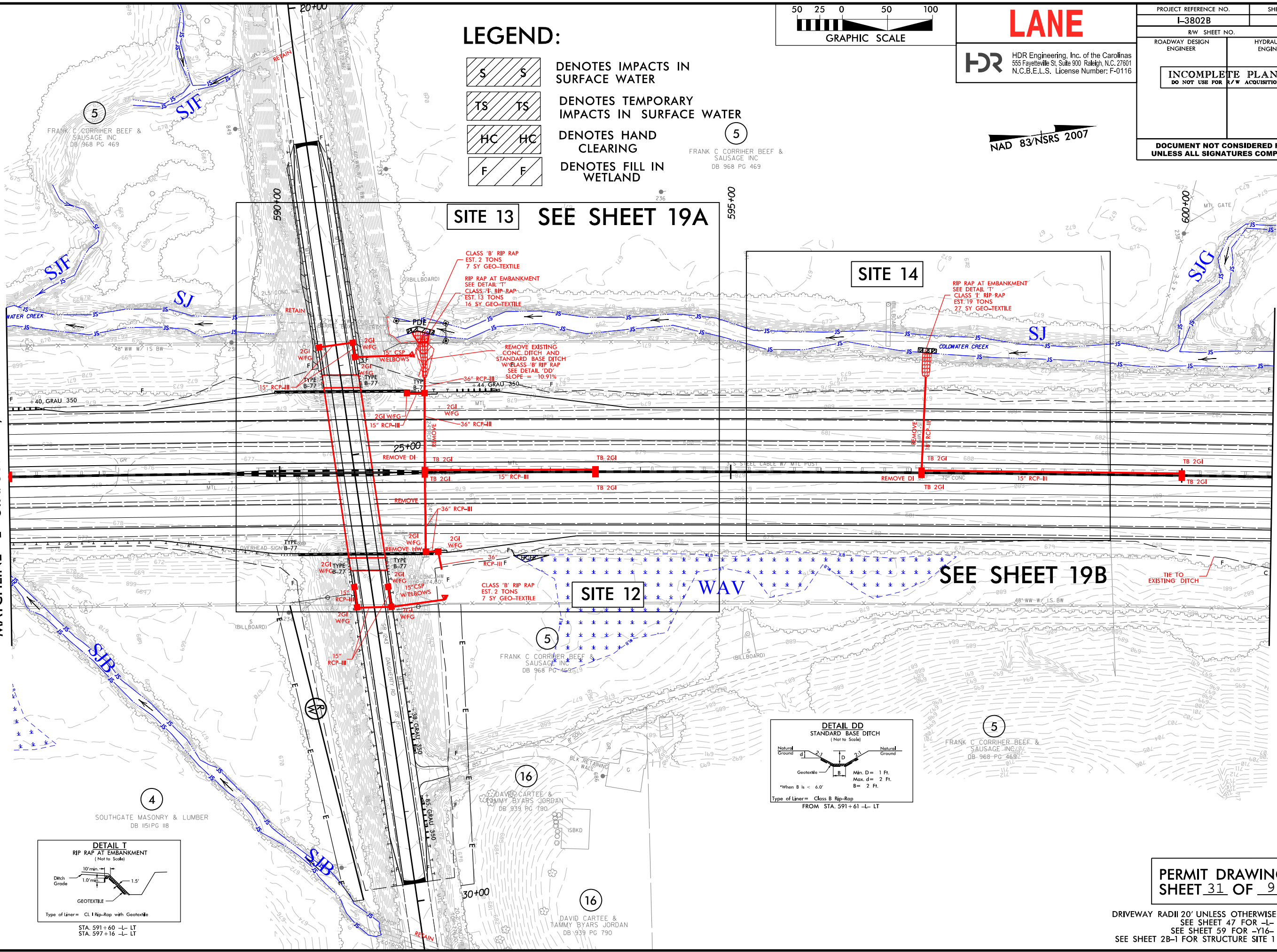
NAD 83/NSRS 2007



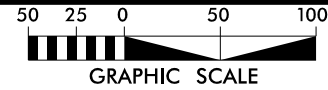
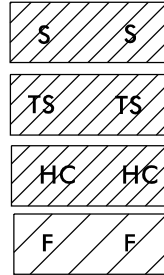


REVISIONS

MATCHLINE -L- STA. 587 + 00, SEE SHEET 18



LEGEND:



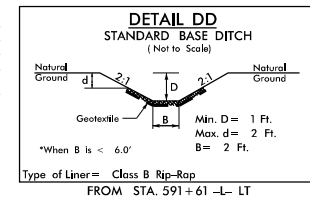
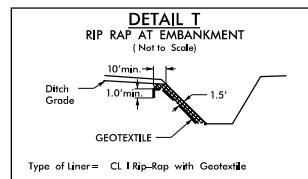
LANE



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N.C.B.E.L.S. License Number: F-0116

NAD 83/NSRS 2007

PROJECT REFERENCE NO.	SHEET NO.
I-3802B	19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



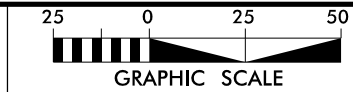
PERMIT DRAWINGS
SHEET 31 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 47 FOR -L- PROFILE
SEE SHEET 59 FOR -Y16- PROFILE
SEE SHEET 2B-1 FOR STRUCTURE SITE 1 DETAILS

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USER: cmeyers
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PENTABLE: NCDOT_permits.CON.tbl
DATE: 9/27/2016
TIME: 1:41:28 PM

REVISIONS

NAD 83/NSRS 2007



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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		19A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			

SITE 13

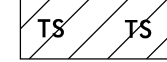
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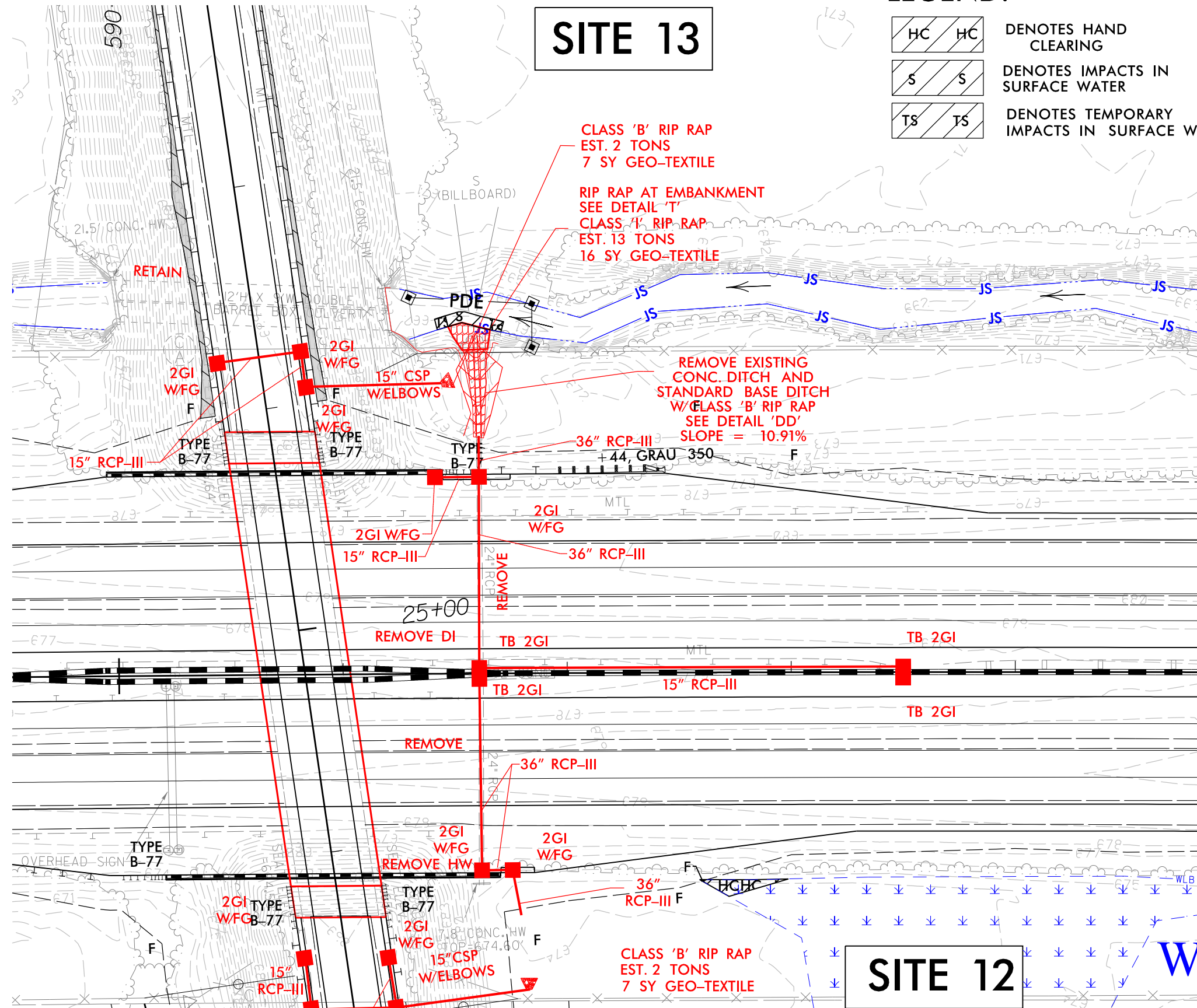
DENOTES HAND
CLEARING



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



SITE 12

PERMIT DRAWINGS
SHEET 32 OF 91

PLOT DRIVER: NCDOT_pdf_color_eng-100.plt
USER: cmyers
FILE: North_Carolina_Dept_of_Transportation\LaneCC\I3802B\I85.Rowan\6.0 CAD BIM\6.2 Work_In_Progress\I-3802B_NCDOT_File_Structure\Hydraulics\PERMITS_Environmental\Drawings\I3802B_HYD_PRM_PSH.dgn

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DATE: 9/27/2016

REVISIONS

LEGEND:

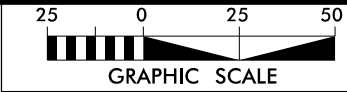
- TS

TS

DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- S

S

DENOTES IMPACTS IN SURFACE WATER



THE

LANE

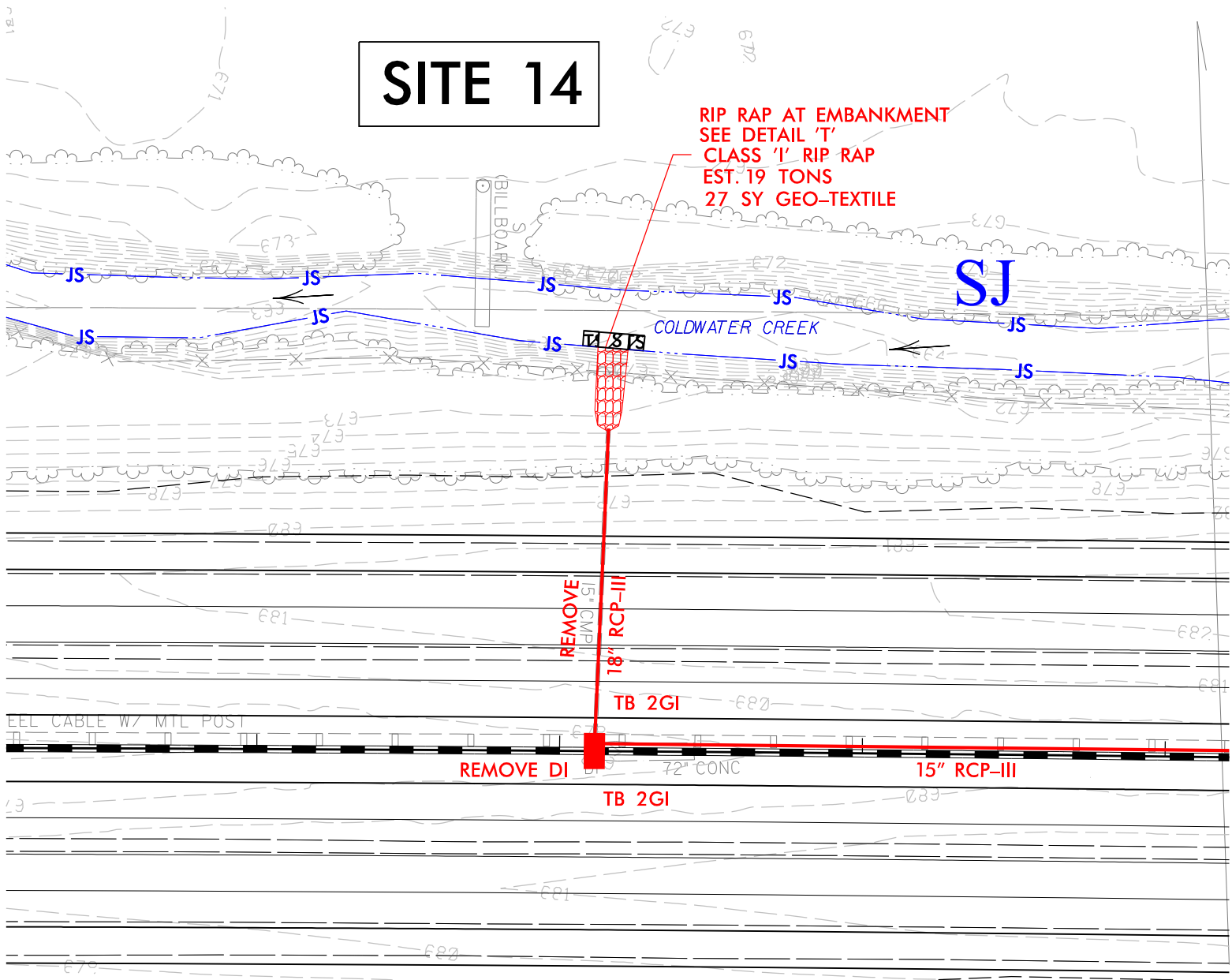
CONSTRUCTION CORPORATION

HDR

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

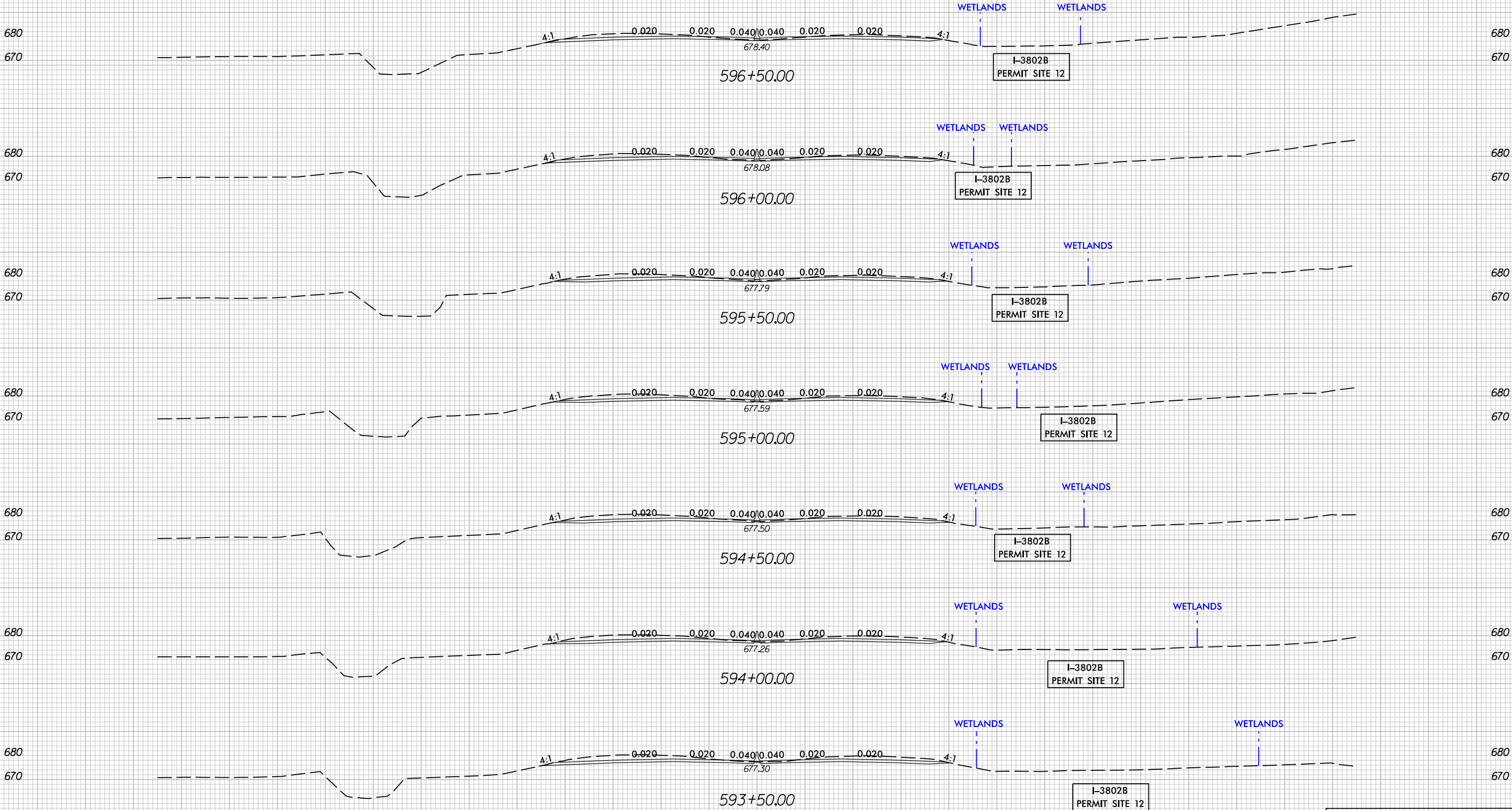
PROJECT REFERENCE NO.	SHEET NO.
I-3802B	19B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ACQUISITION	

NAD 83/NSRS 2007



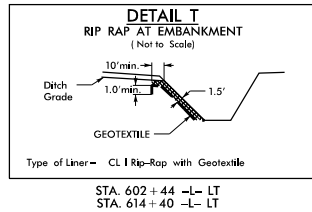
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300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300



I:\3802B HYD PERM.XPL.dgn
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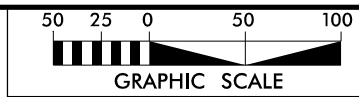
REVISIONS



LEGEND:

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

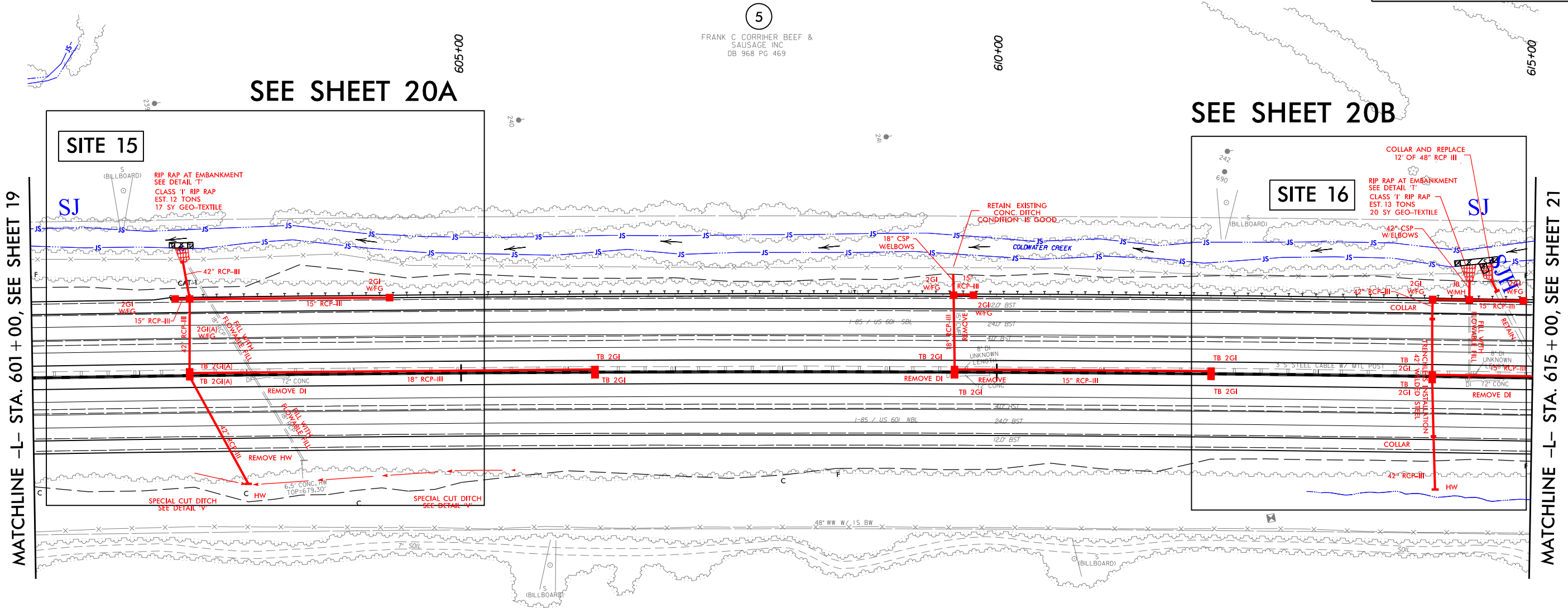


LANE

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N.C.B.E.L.S. License Number: F-0116

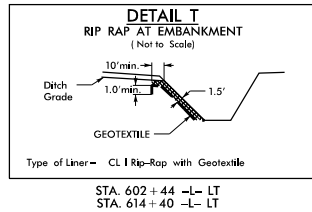
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I-3802B		20
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

NAD 83/NSRS 2007



5
FRANK C. CORRIHER, BEEF & SAUSAGE, INC.
DB 968 PG 469

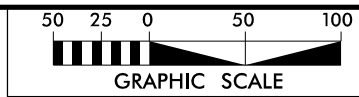
REVISIONS



LEGEND:

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

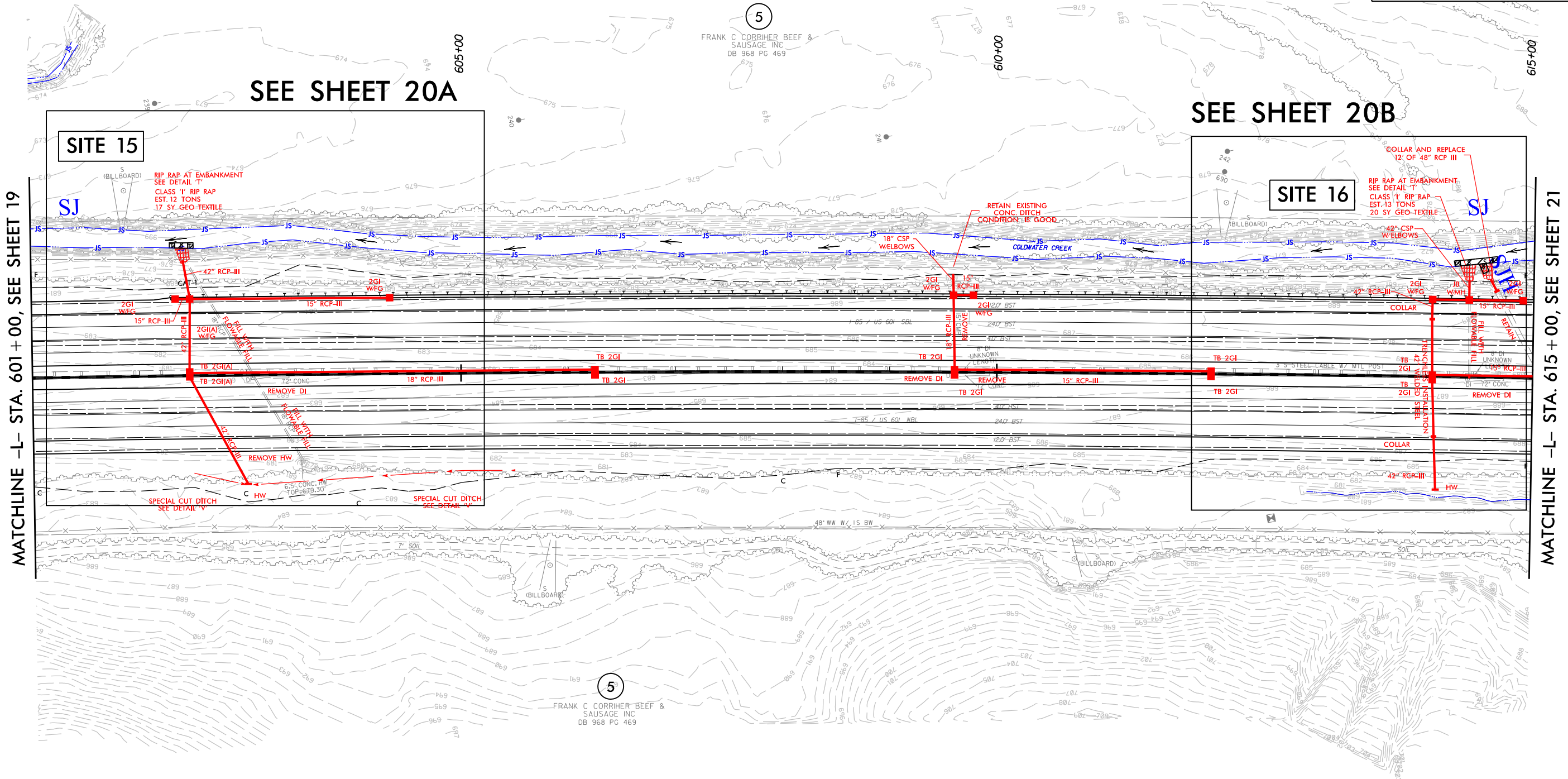


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N.C.B.E.L.S. License Number: F-0116

NAD 83/NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		20	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



PERMIT DRAWINGS
SHEET 36 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 48 FOR -L- PROFILE

PLOT DRIVER: NCDOT_pdf_color_eng-100.plt
USER: cmyers
FILE: North_Carolina_Dept_of_Transportation\LaneCC.I3802B.I85.Rowan\6.0.CAD.BIM\6.2.Work_In_Progress\I-3802B.NCDOT.File.Structure\Hydraulics\PERMITS_Environmental\Drawings\I3802B_HYD_PRM_PSH.dgn
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REVISIONS

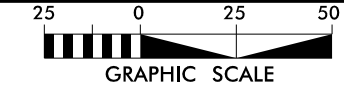
LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



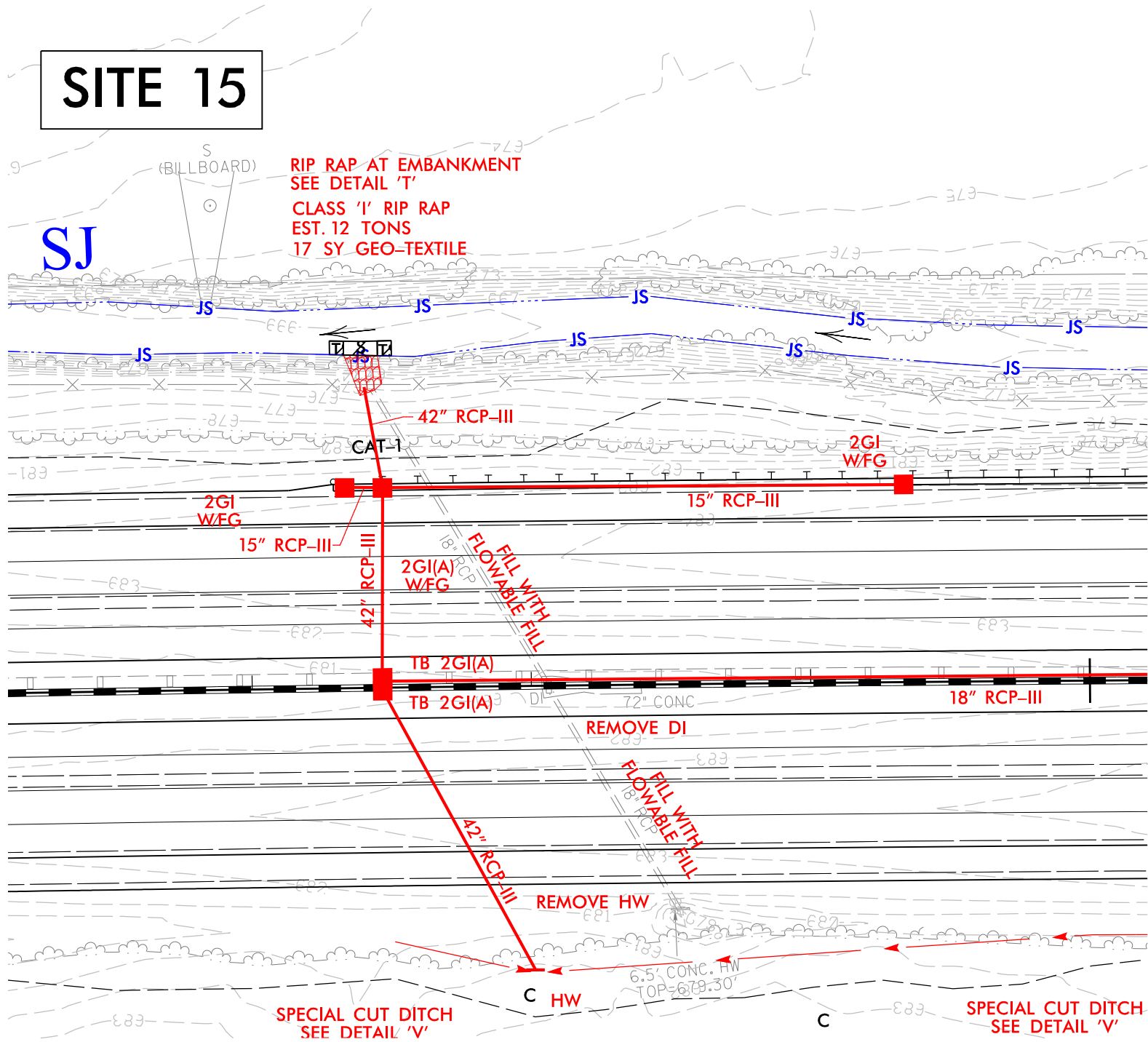
THE
LANE
CONSTRUCTION
CORPORATION



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

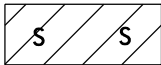
NAD 83/NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		20A	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			



REVISIONS

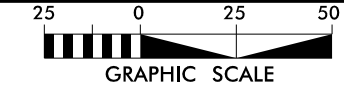
LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



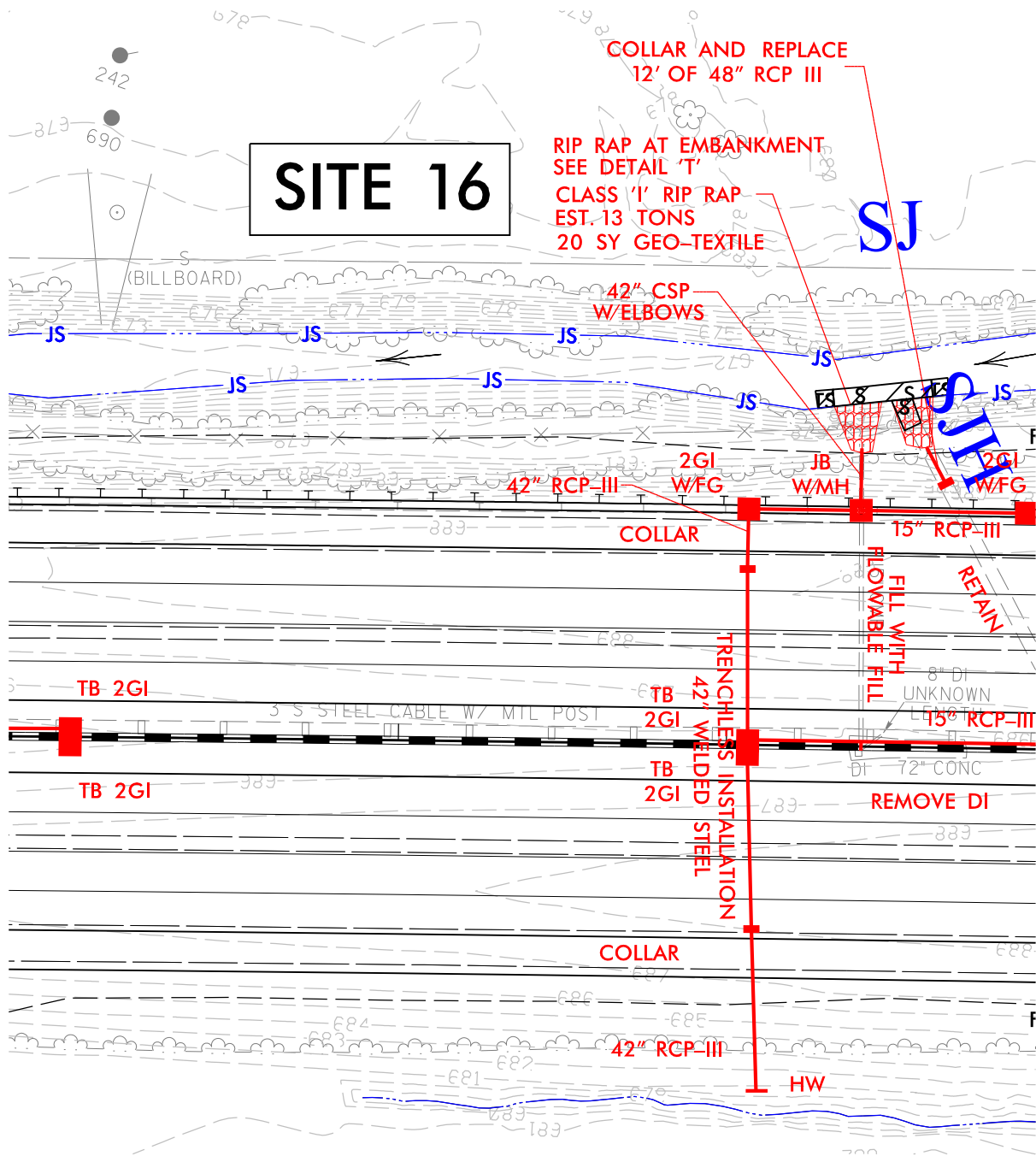
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CONSTRUCTION
CORPORATION



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

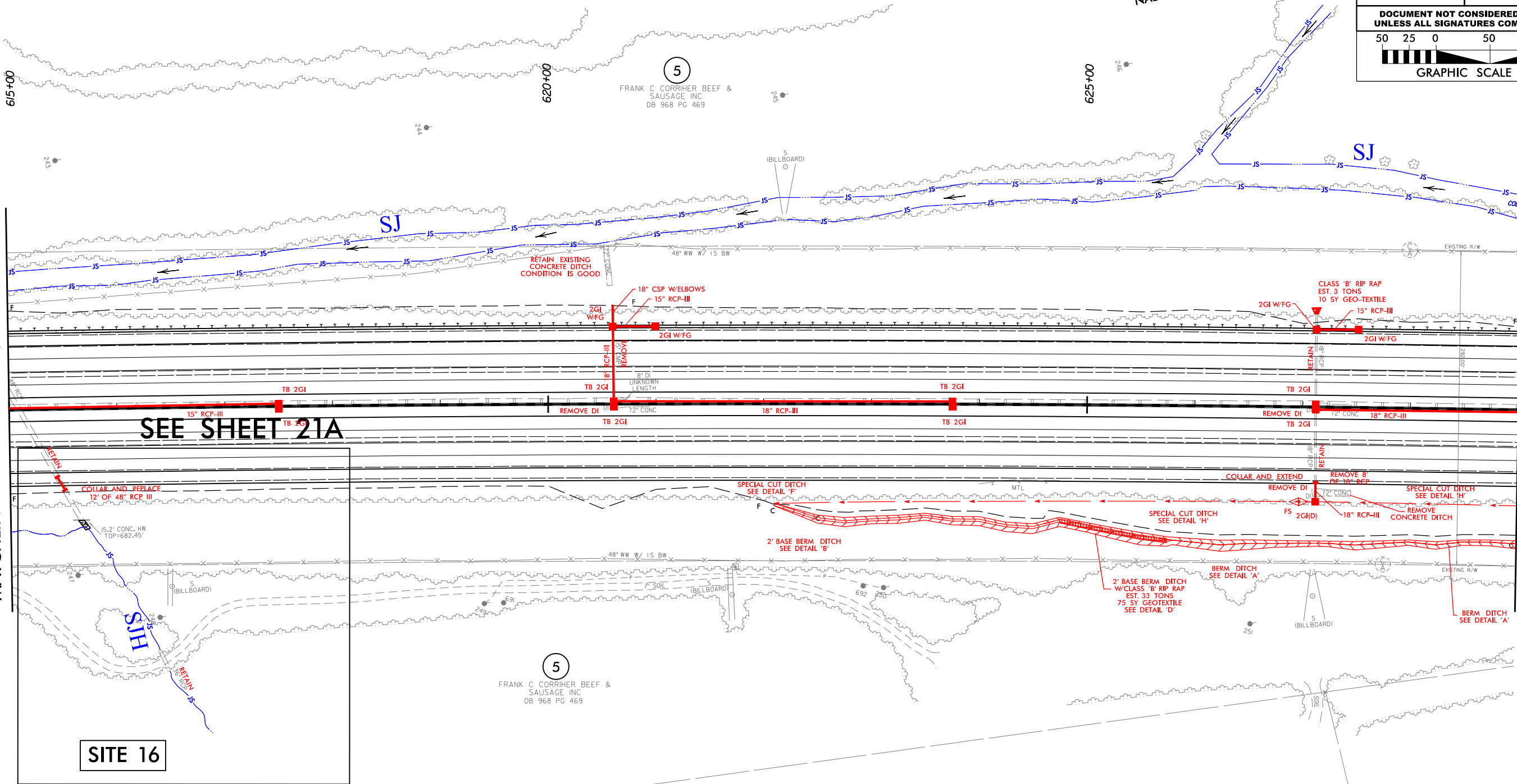
PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		20B	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			

NAD 83/NSRS 2007



REVISIONS

MATCHLINE -L- STA. 615+00, SEE SHEET 20



SITE 16

LEGEND:



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER


LINDA SUE C. TADLOCK
WB 07E PG 142

LANE



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NAD 83/NSRS 2007

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		21	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
<div>5025050100</div> <div></div> <div>GRAPHIC SCALE</div>			

KIMBERLY HANEY
DB 956 PG 492

PERMIT DRAWINGS
SHEET 39 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 49 FOR -L- PROFILE

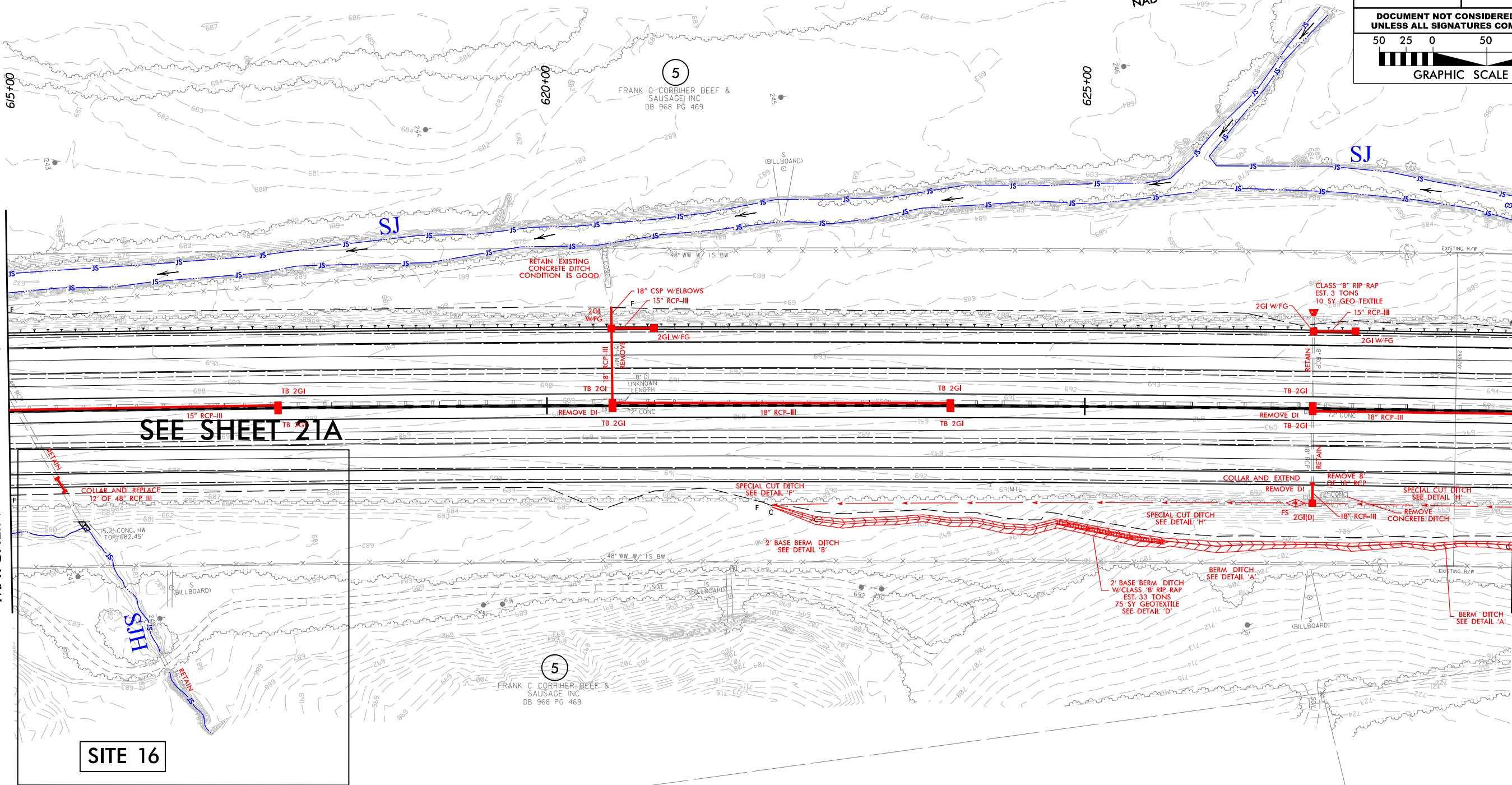
MATCHLINE -L- STA. 629+00, SEE SHEET 22

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USER: MDIEHL
FILE: \

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TIME: 3:59:58 PM
DATE: 10/21/2016

REVISIONS

MATCHLINE -L- STA. 615+00, SEE SHEET 20



SITE 16

LEGEND:




DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

LINDA SUE C. TADLOCK
WB 07E PG 142

LANE



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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		21	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
<div>5025050100</div> <div></div> <div>GRAPHIC SCALE</div>			

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 49 FOR -L- PROFILE

PERMIT DRAWINGS
SHEET 40 OF 91

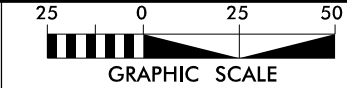
KIMBERLY HANEY
DB 956 PG 492

REVISIONS

LEGEND:



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

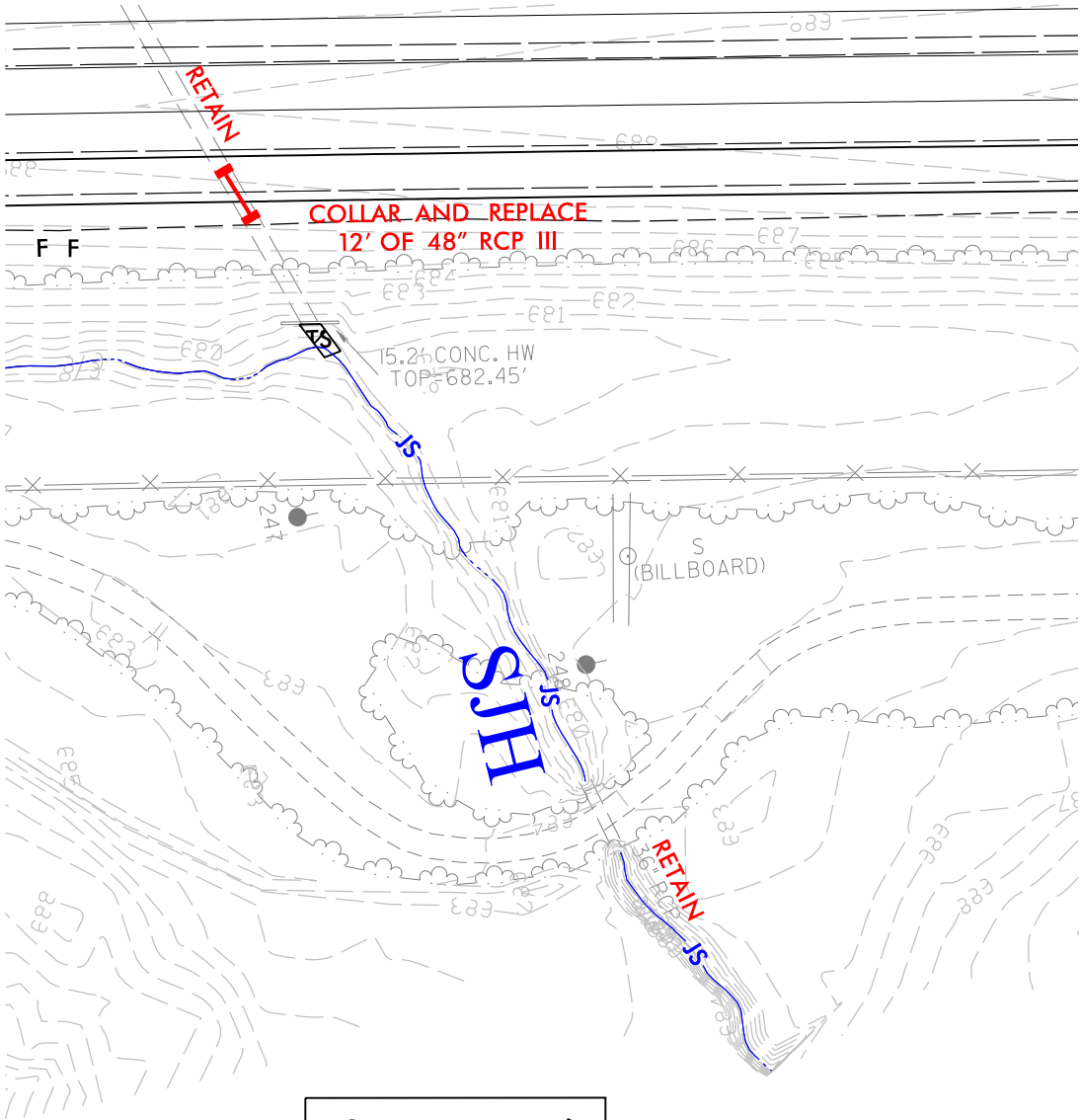


THE
LANE
CONSTRUCTION
CORPORATION

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N.C.B.E.L.S. License Number: F-0116

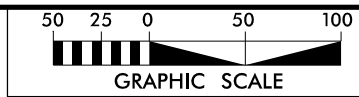
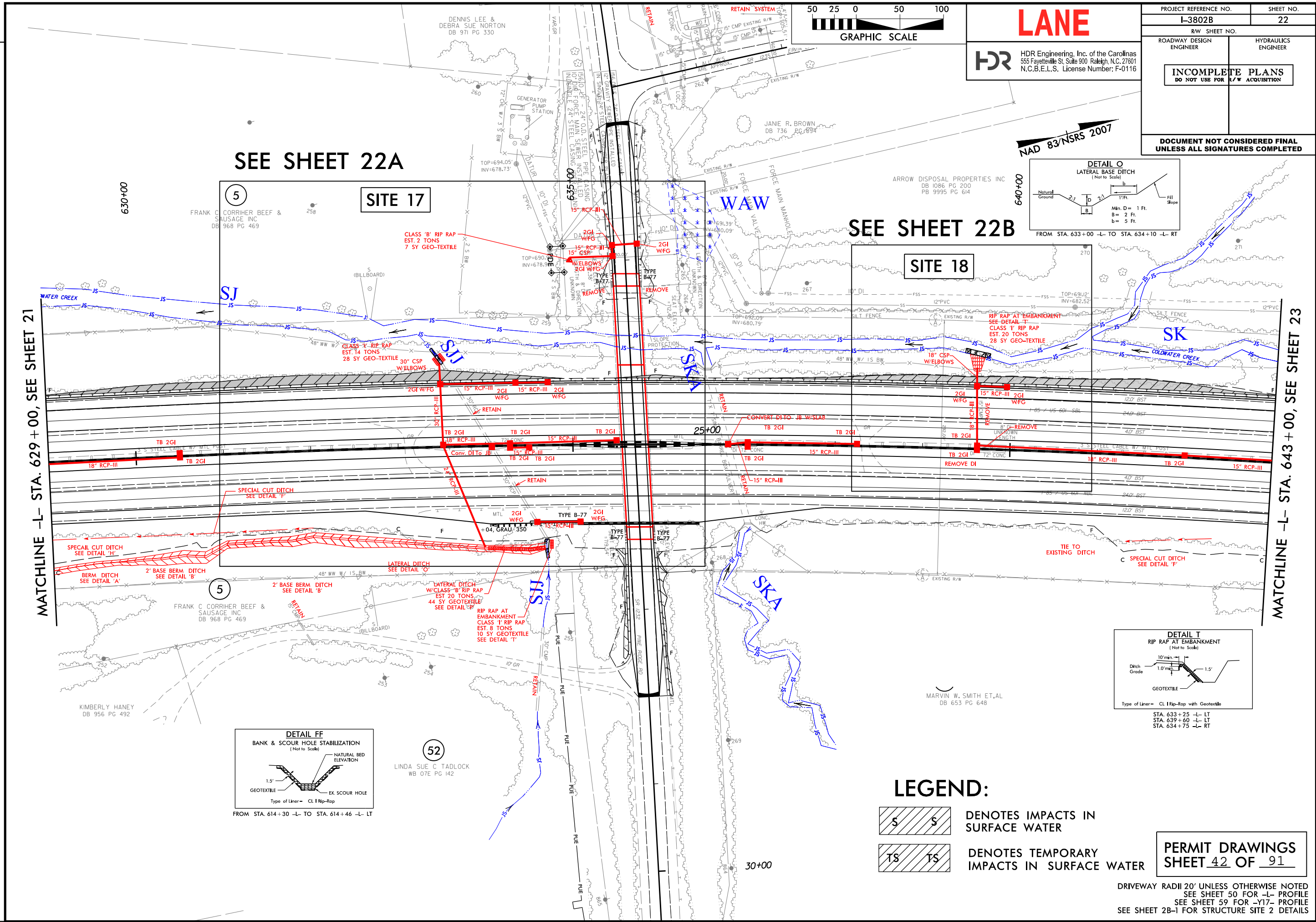
NAD 83/NSRS 2007

PROJECT REFERENCE NO.	SHEET NO.
I-3802B	21A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	



SITE 16

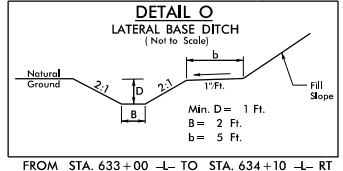
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HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		22	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

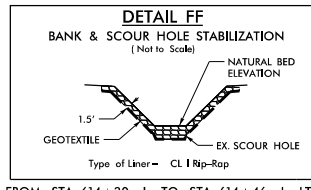
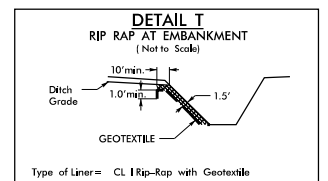
NAD 83/NSRS 2007



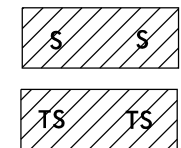
ARROW DISPOSAL PROPERTIES INC
DB 1086 PG 200
PB 9995 PG 614

SEE SHEET 22B

SITE 18



LEGEND:

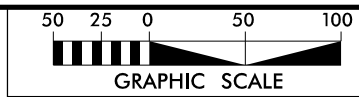
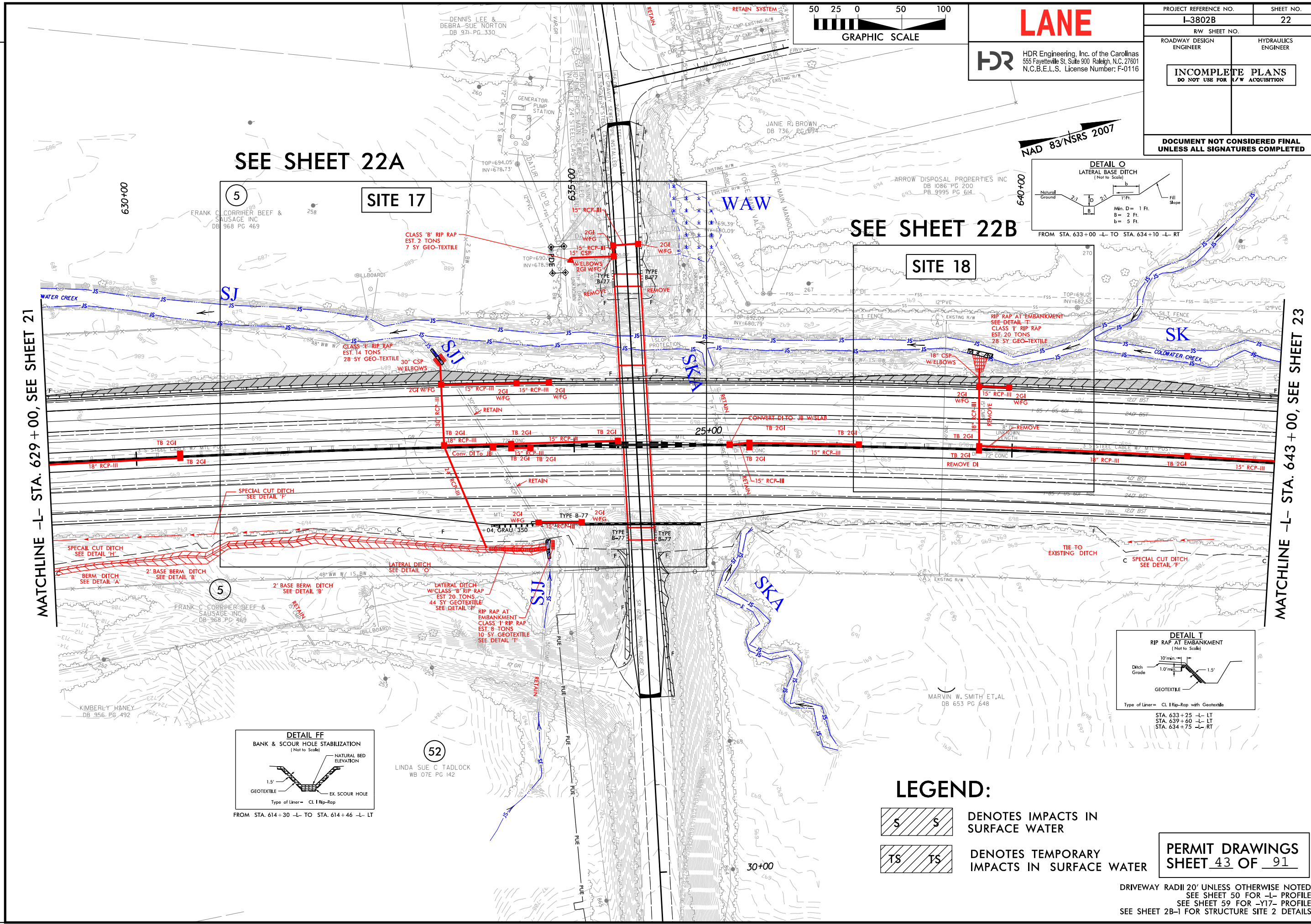


S DENOTES IMPACTS IN SURFACE WATER
TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PERMIT DRAWINGS
SHEET 22 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 50 FOR -L- PROFILE
SEE SHEET 59 FOR -Y17- PROFILE
SEE SHEET 2B-1 FOR STRUCTURE SITE 2 DETAILS

REVISIONS



LANE

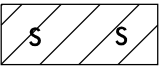
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		22	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

NAD 83/NSRS 2007

REVISIONS

LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

LANE



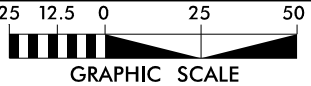
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO. SHEET NO.
I-3802B 22A

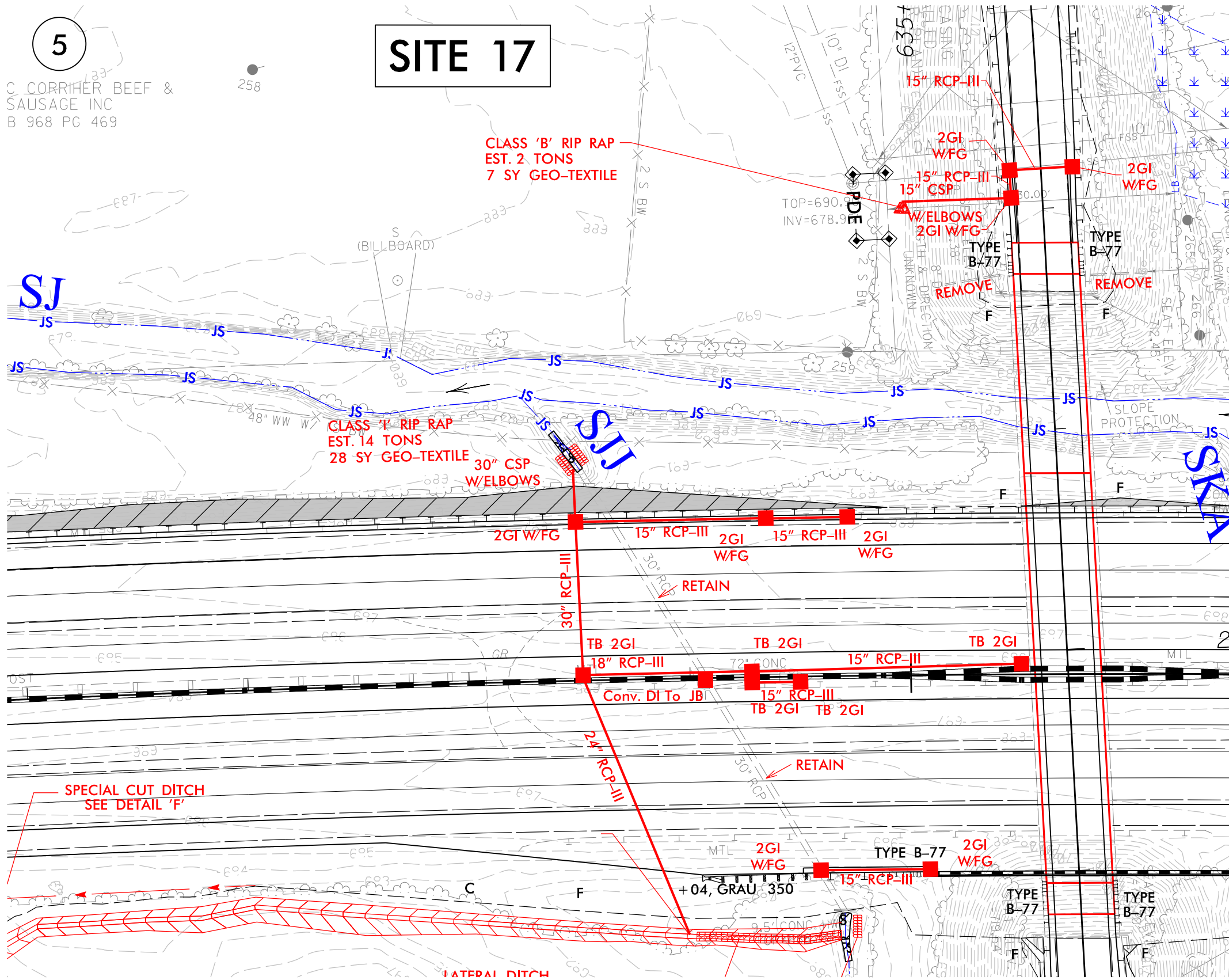
R/W SHEET NO.
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

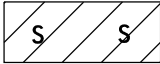


NAD 83/NSRS 2007



REVISIONS

LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

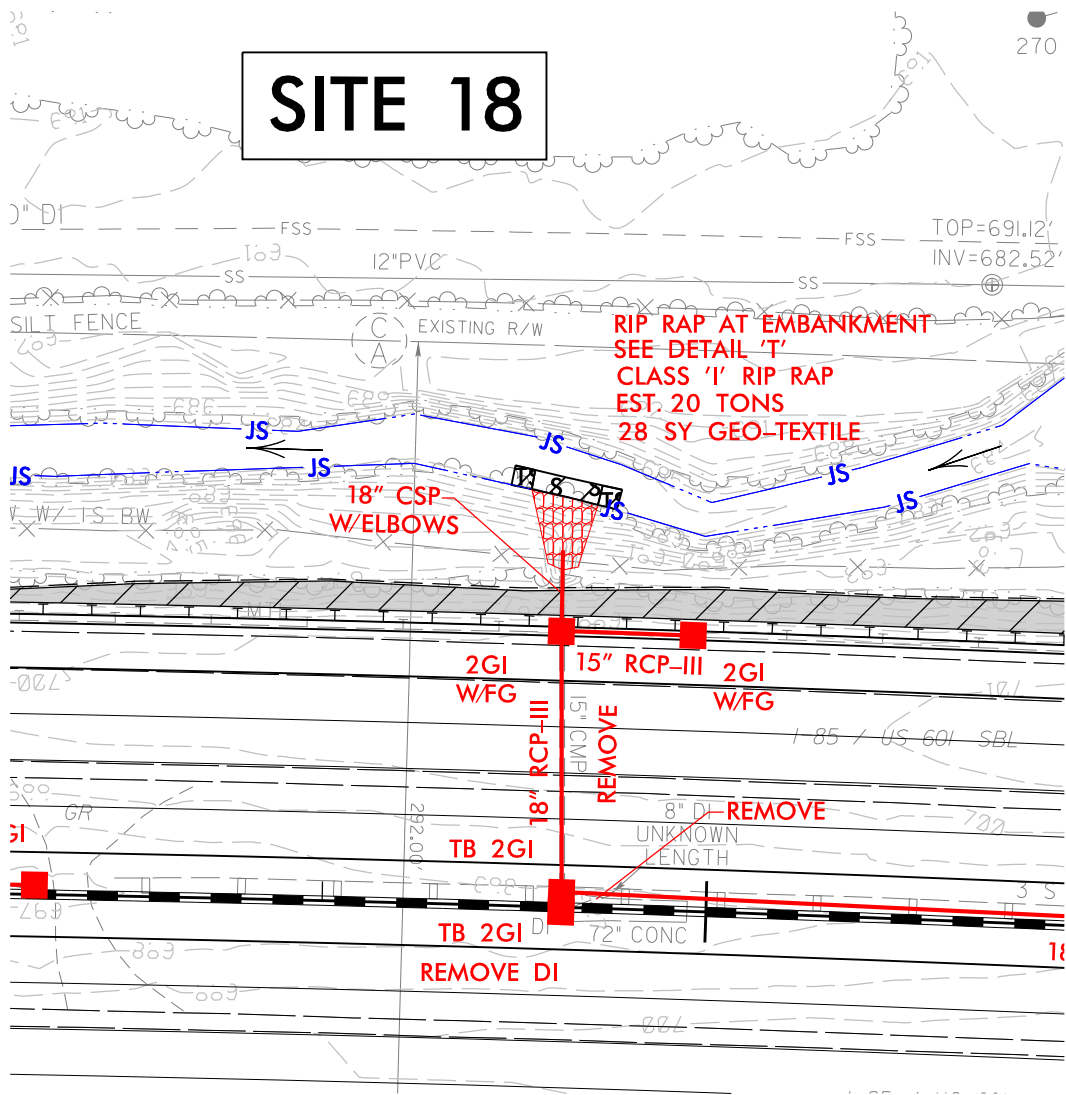
LANE



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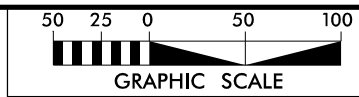
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NAD 83/NSRS 2007



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REVISIONS

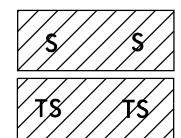


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PROJECT REFERENCE NO.		SHEET NO.
I-3802B		23
RW SHEET NO.		
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

LEGEND:



DENOTES IMPACTS IN SURFACE WATER
DENOTES TEMPORARY IMPACTS IN SURFACE WATER



D SCOTT COOK
DB 1055 PG 277

655+00

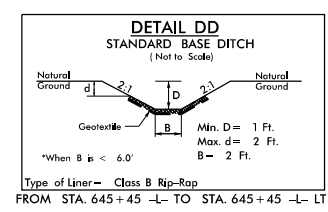
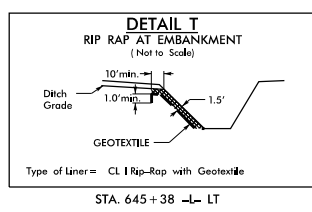
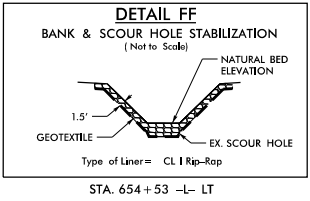
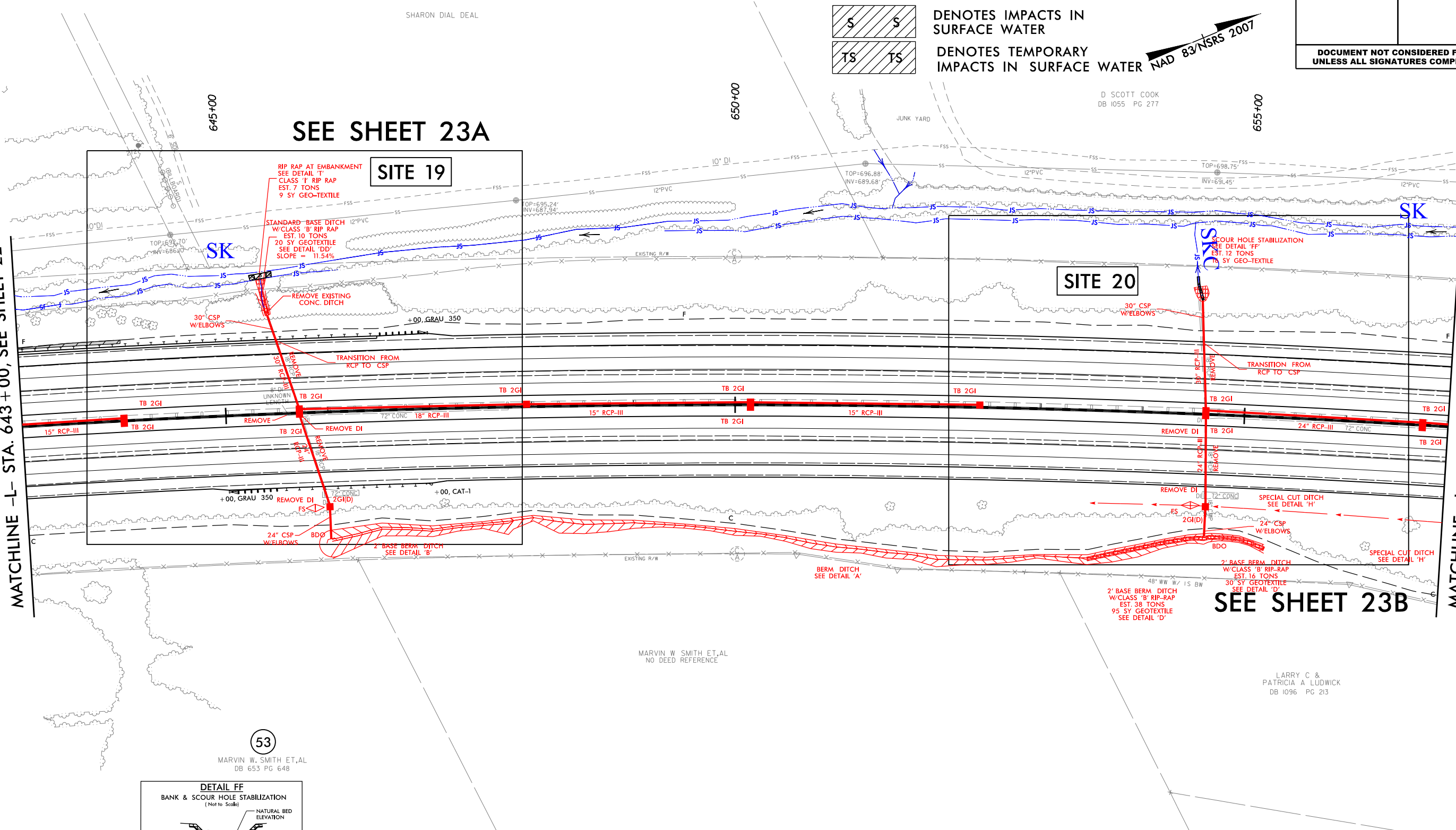
650+00

645+00

SEE SHEET 23A

MATCHLINE -L- STA. 643+00, SEE SHEET 22

MATCHLINE -L- STA. 657+00, SEE SHEET 24



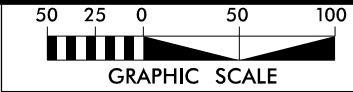
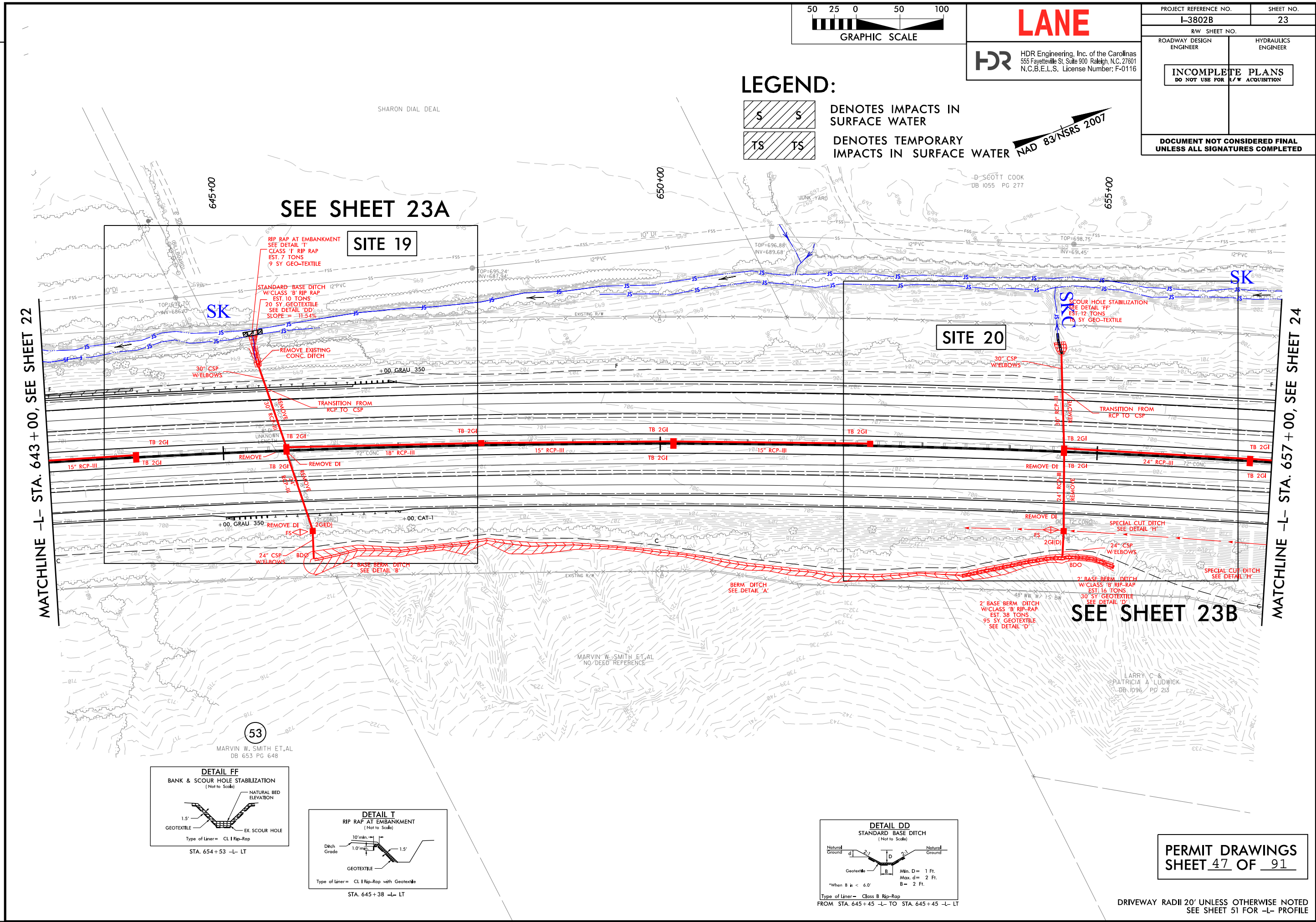
SEE SHEET 23B

LARRY C &
PATRICIA A LUDWICK
DB 1096 PG 213

PERMIT DRAWINGS
SHEET 46 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 51 FOR -L- PROFILE

REVISIONS

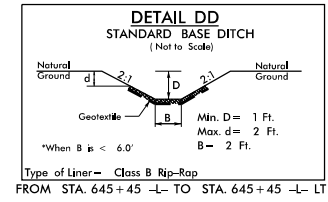
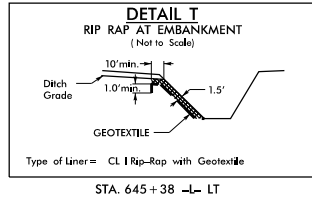
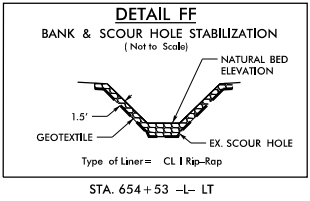


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PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		23	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

LEGEND:

- DENOTES IMPACTS IN SURFACE WATER
 - DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- NAD 83/NSRS 2007



PERMIT DRAWINGS
SHEET 47 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 51 FOR -L- PROFILE

REVISIONS

LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

LANE



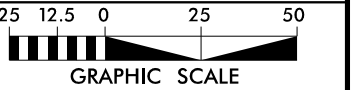
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PROJECT REFERENCE NO. SHEET NO.
I-3802B 23A

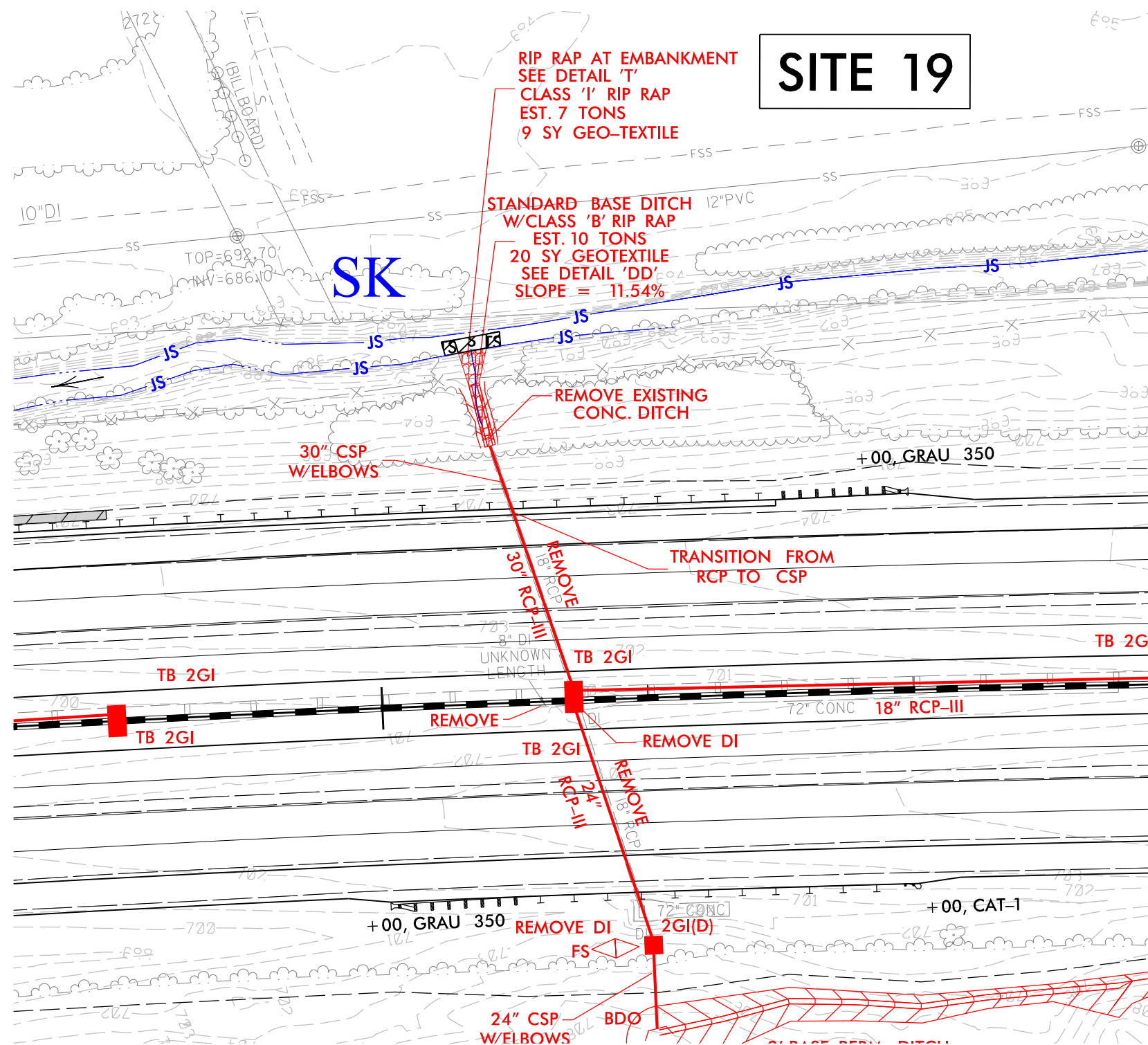
RW SHEET NO.
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



SITE 19



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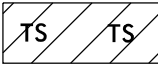
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LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

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PROJECT REFERENCE NO. SHEET NO.

I-3802B

23B

RW SHEET NO.

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

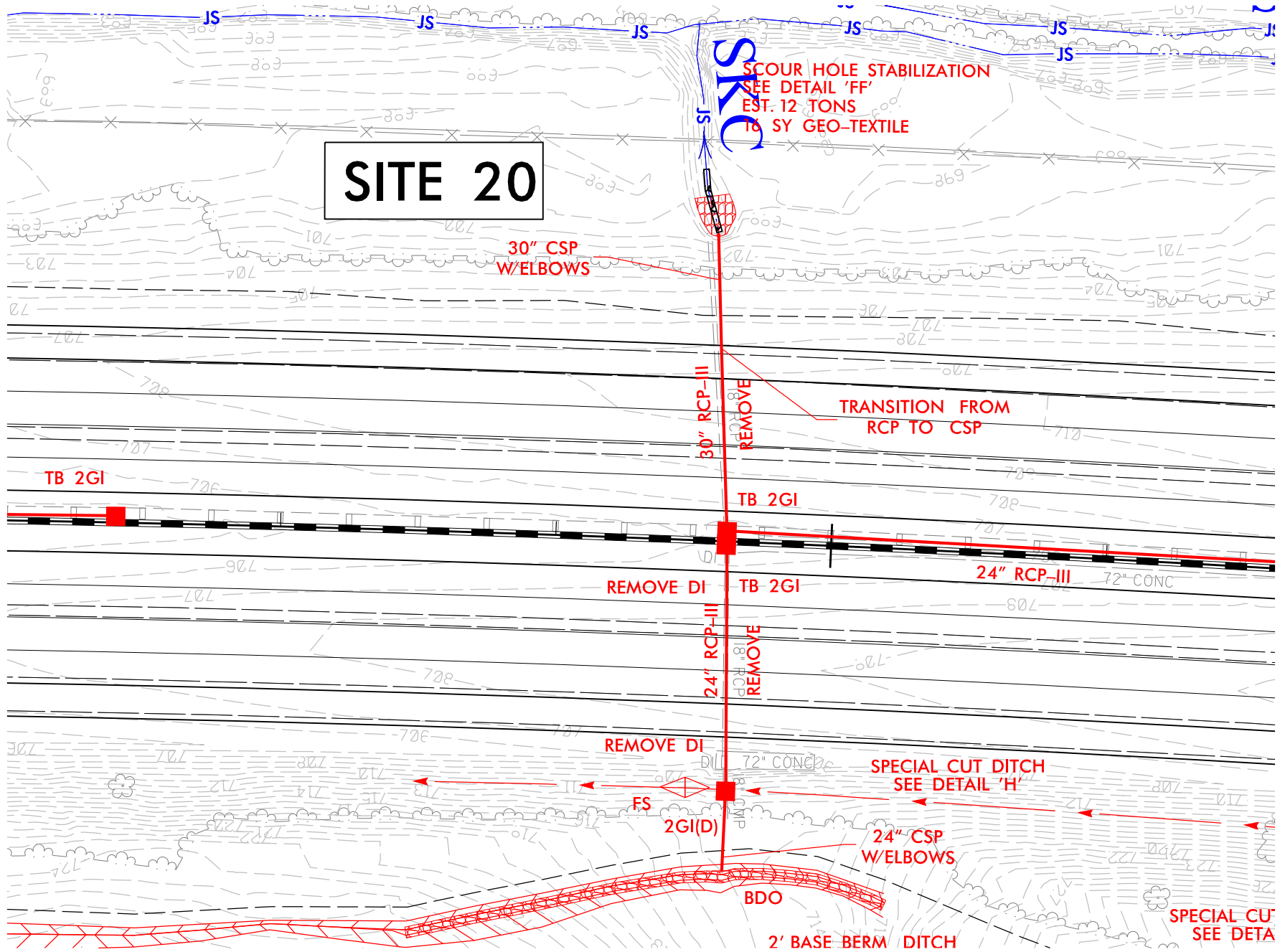
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DO NOT USE FOR ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



GRAPHIC SCALE

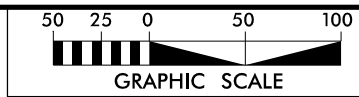
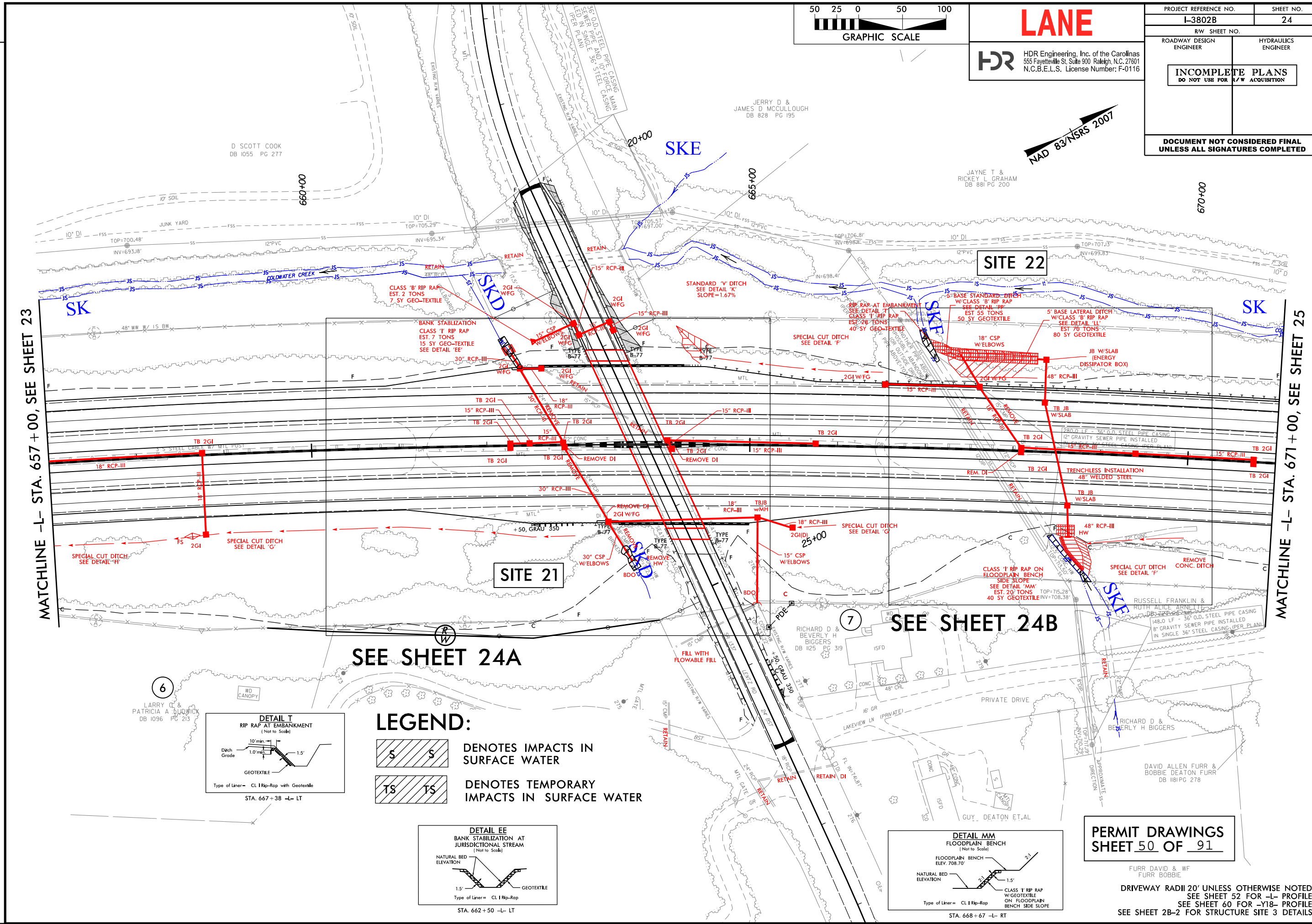
NAD 83/NSRS 2007



PERMIT DRAWINGS
SHEET 49 OF 91

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REVISIONS



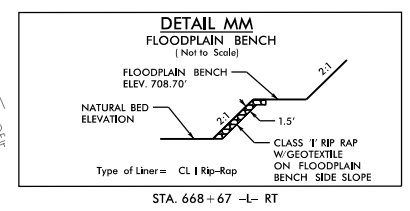
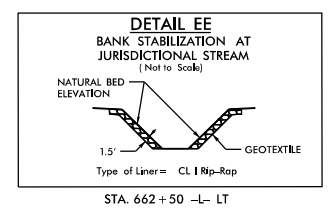
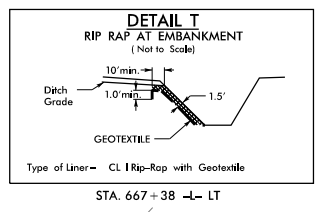
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PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		24	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
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NAD 83/NSRS 2007

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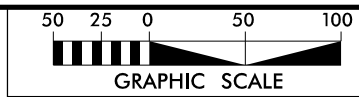
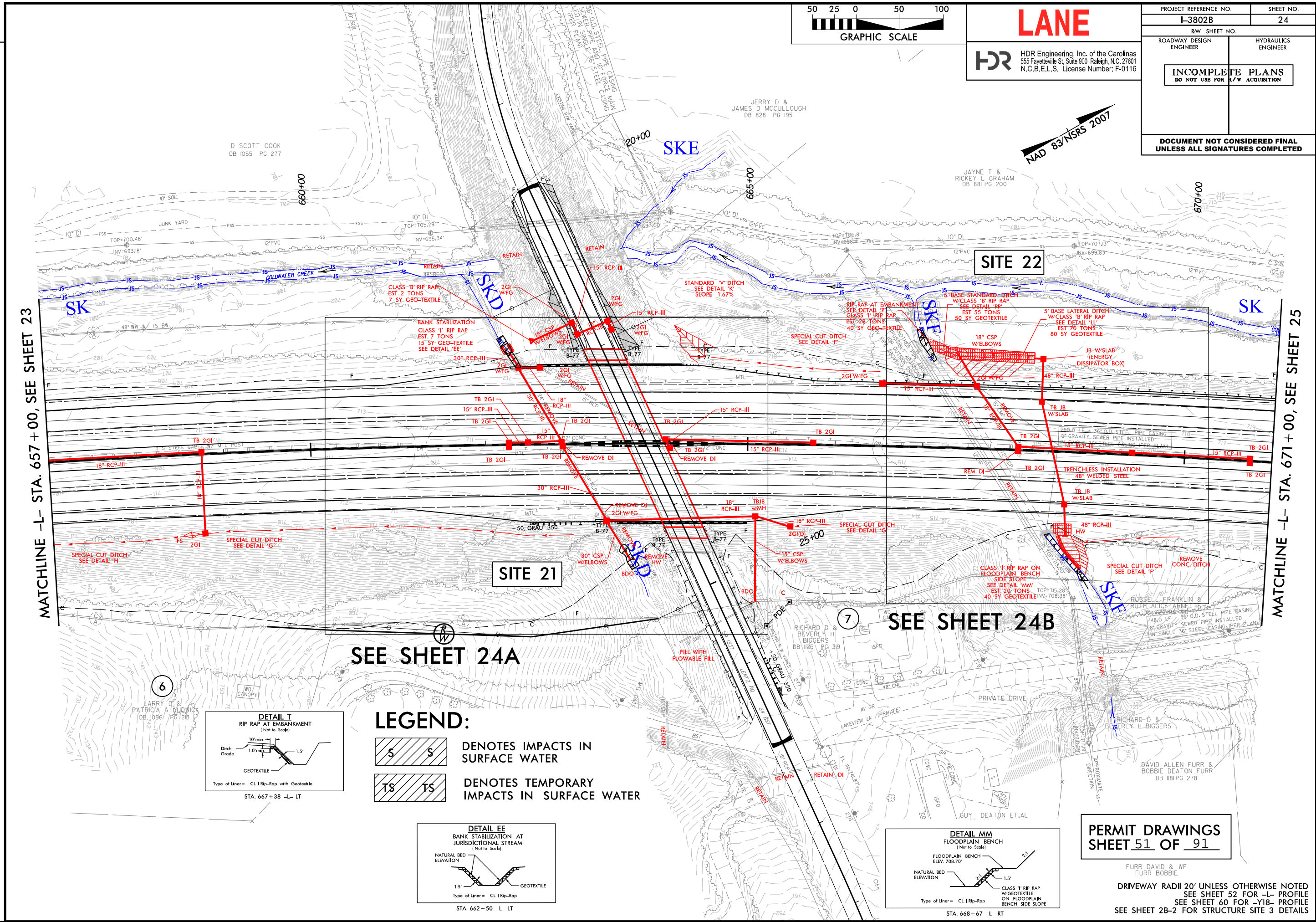
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER



PERMIT DRAWINGS
SHEET 50 OF 91

FURR DAVID & WF
FURR BOBBIE
DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 52 FOR -L- PROFILE
SEE SHEET 60 FOR -Y18- PROFILE
SEE SHEET 2B-2 FOR STRUCTURE SITE 3 DETAILS

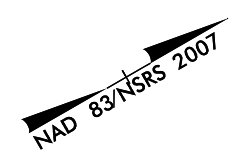
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PROJECT REFERENCE NO.		SHEET NO.	
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RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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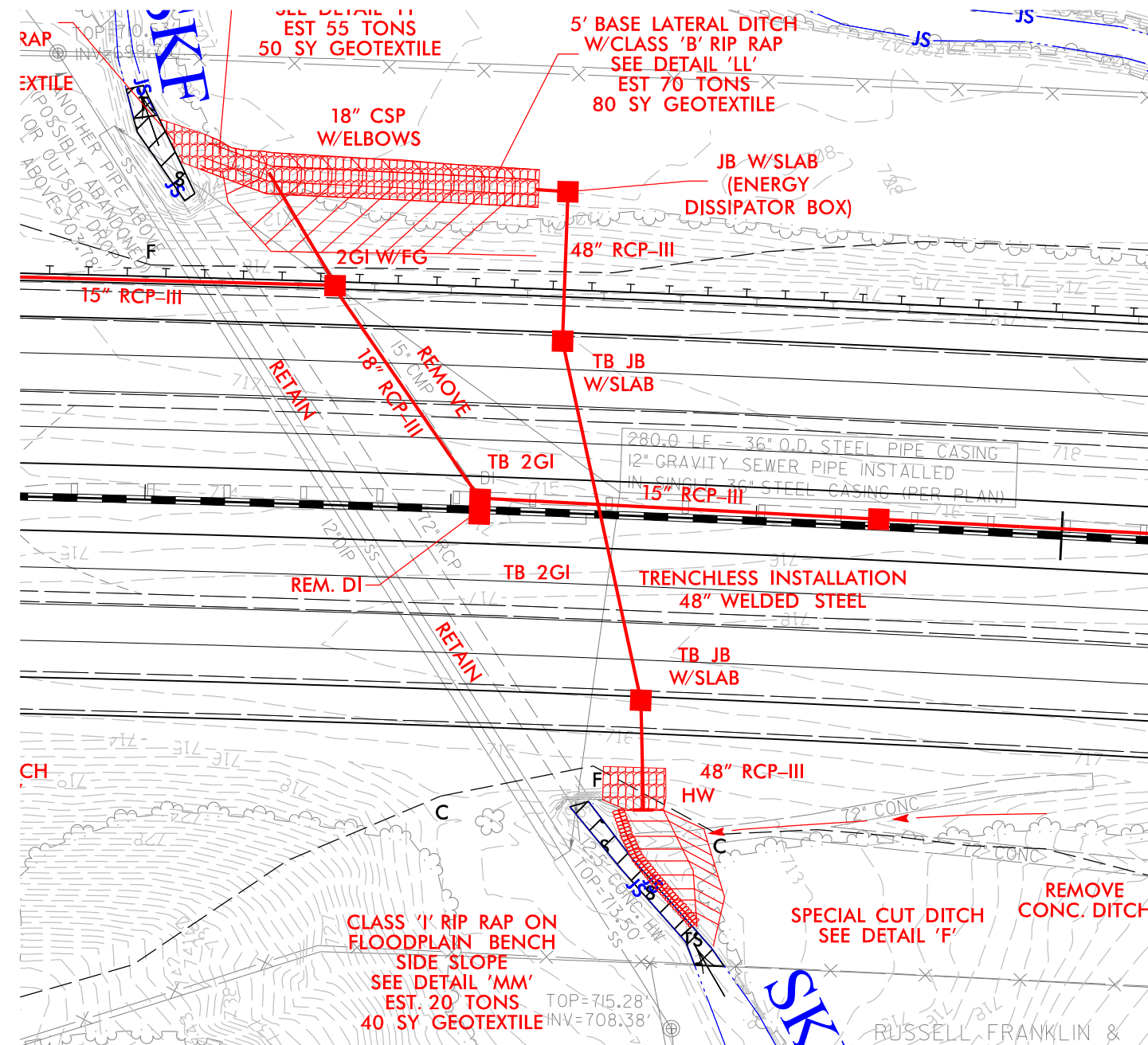


LEGEND:

DENOTES IMPACTS IN
SURFACE WATER


DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

SITE 22



NAD 83/NSRS 2007

PERMIT DRAWINGS
SHEET 53 OF 91



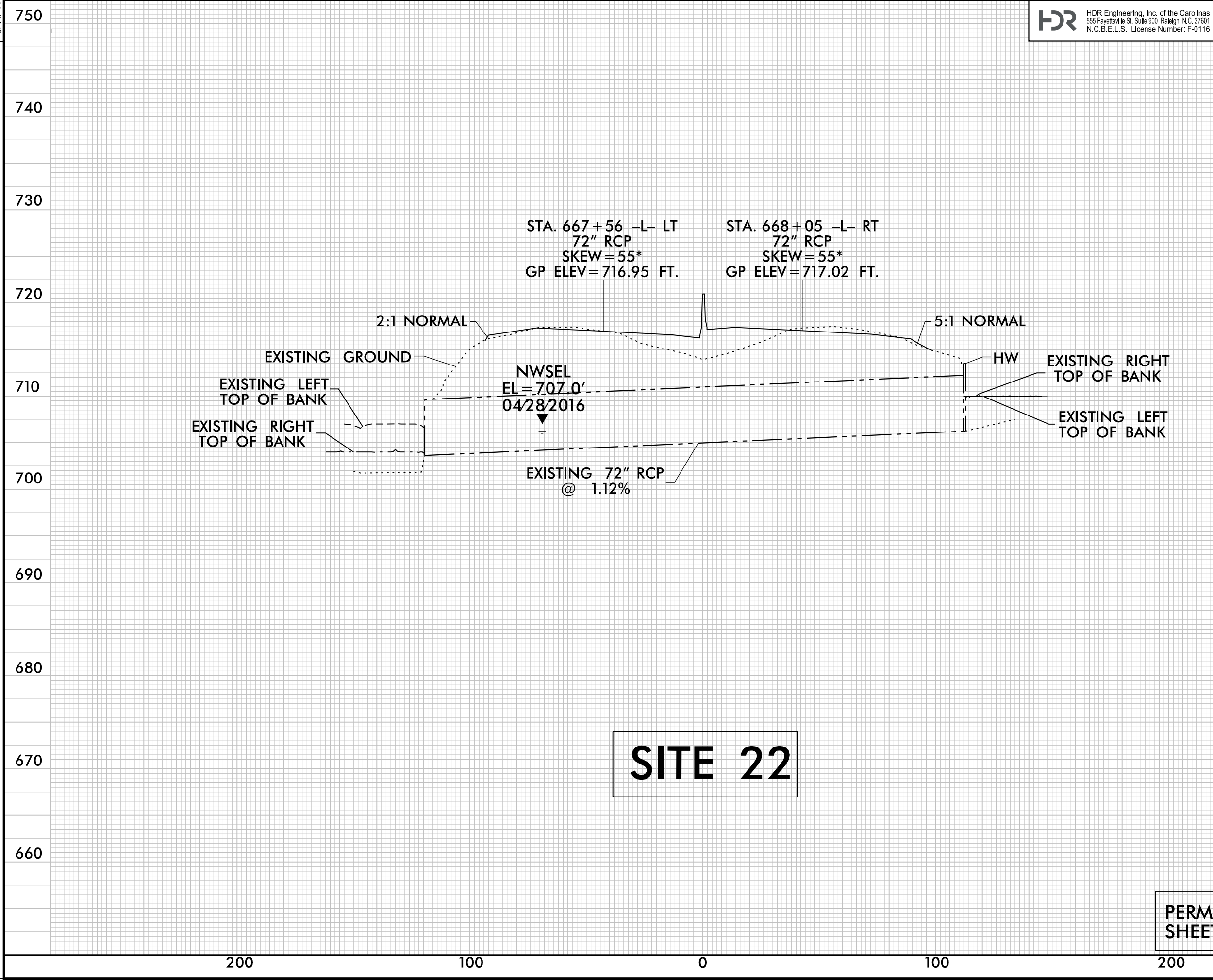
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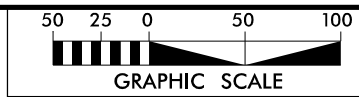
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.
I-3802B		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

DOCUMENT NOT CONSIDERED FINAL
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PROJECT REFERENCE NO.		SHEET NO.
I-3802B		25
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
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LEGEND:

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

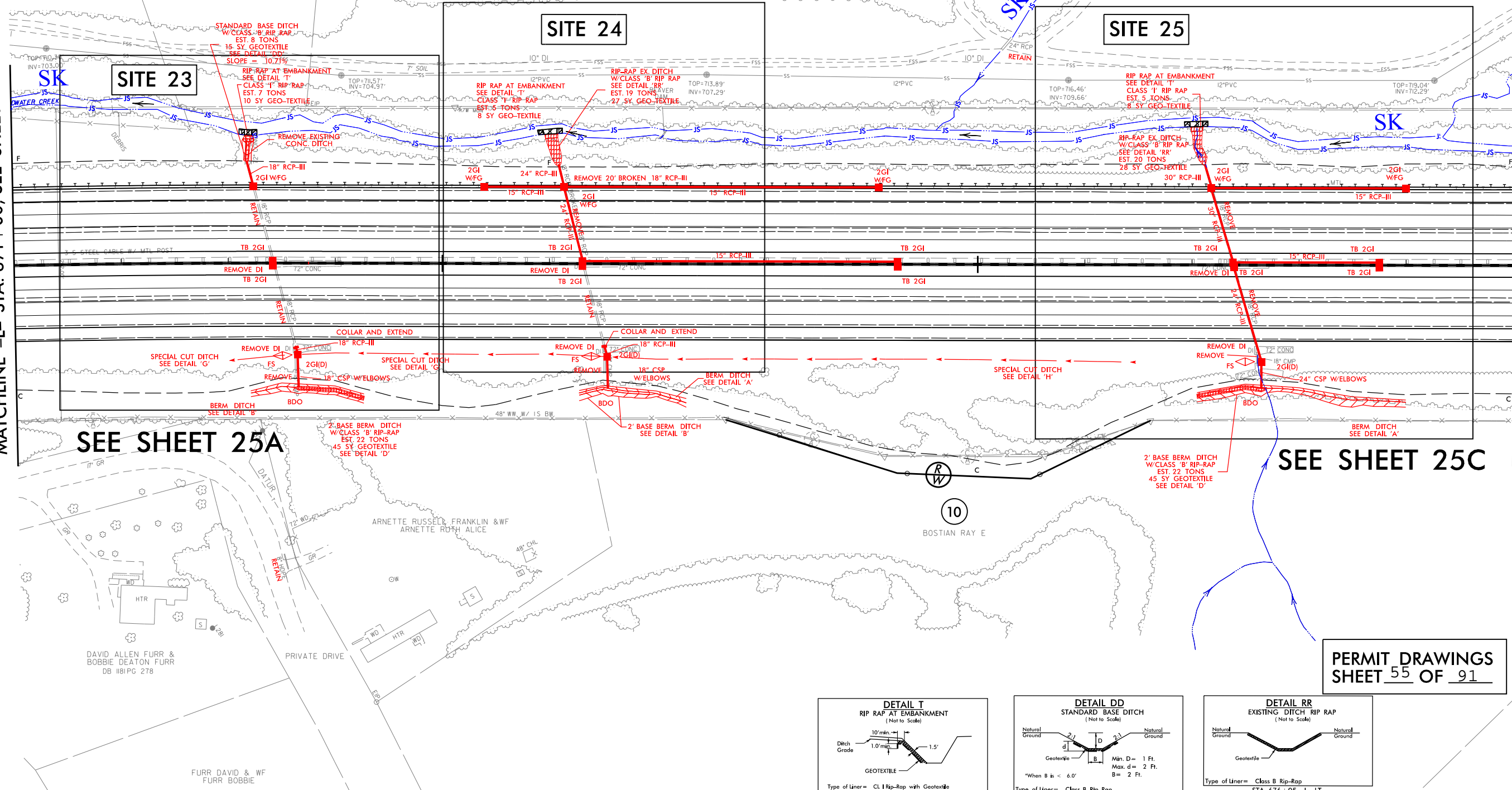
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TIAN RAY E

NAD 83/NSRS 2007

SEE SHEET 25B

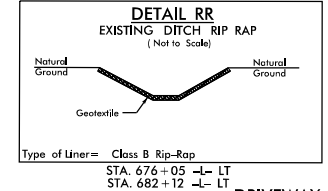
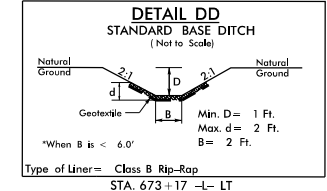
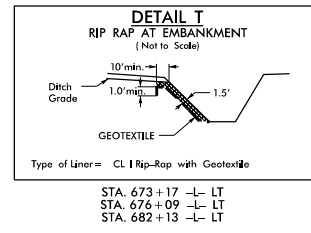
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MATCHLINE -L- STA. 685+00, SEE SHEET 26



SEE SHEET 25A

SEE SHEET 25C





PERMIT DRAWINGS
SHEET 55 OF 91

DRIVEWAY RADIUS 20' UNLESS OTHERWISE NOTED
SEE SHEET 53 FOR -L- PROFILE

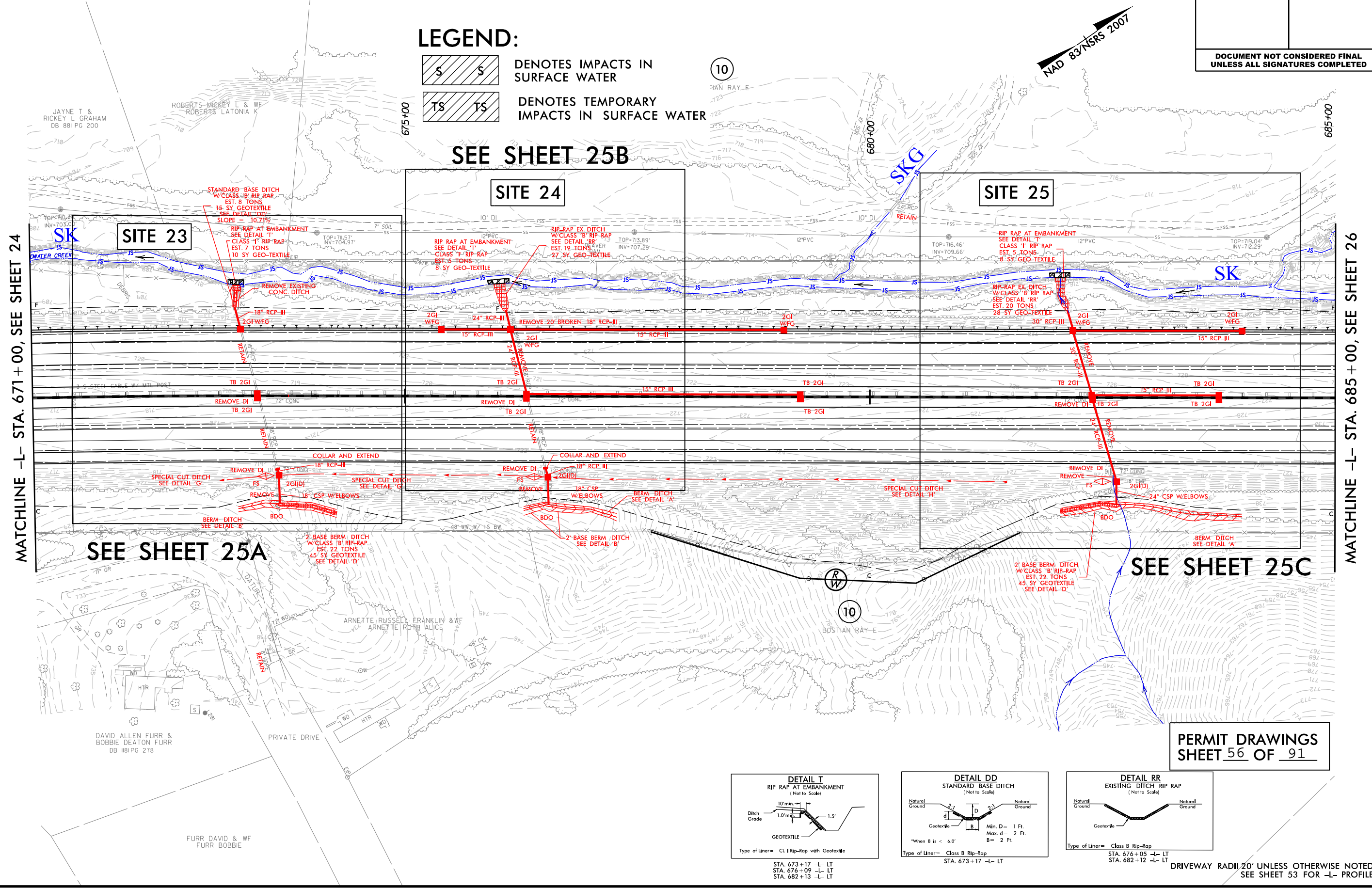


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R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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 DENOTES IMPACTS IN SURFACE WATER

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SEE SHEET 25B



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DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 53 FOR -L- PROFILE

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TIME: 1:42:34 PM

REVISIONS

LEGEND:

- S

S

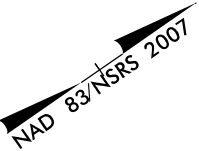
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- TS


TS
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

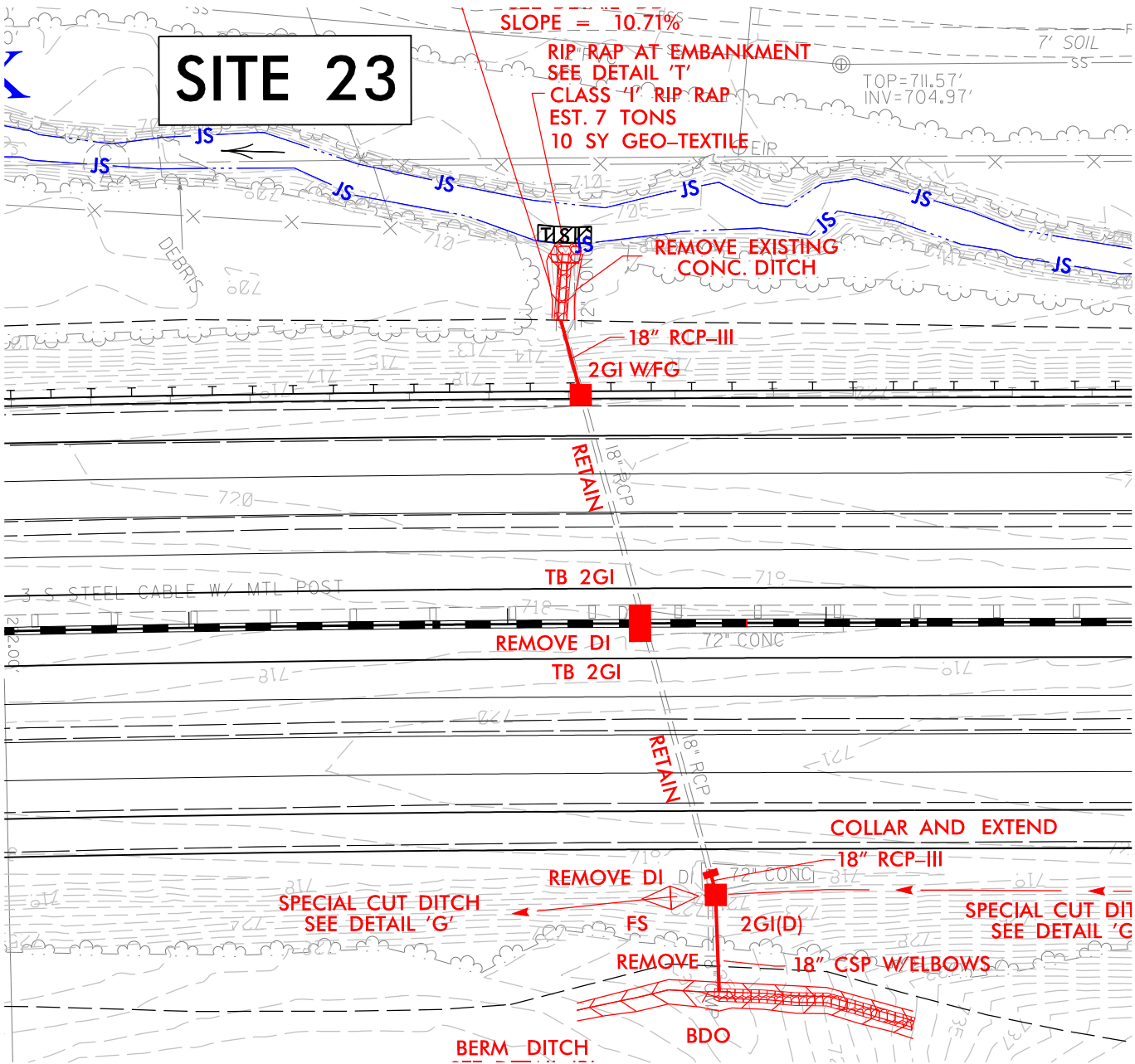
LANE



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PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		25A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
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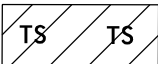
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REVISIONS

LEGEND:



DENOTES IMPACTS IN
SURFACE WATER

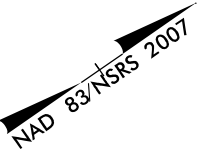



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

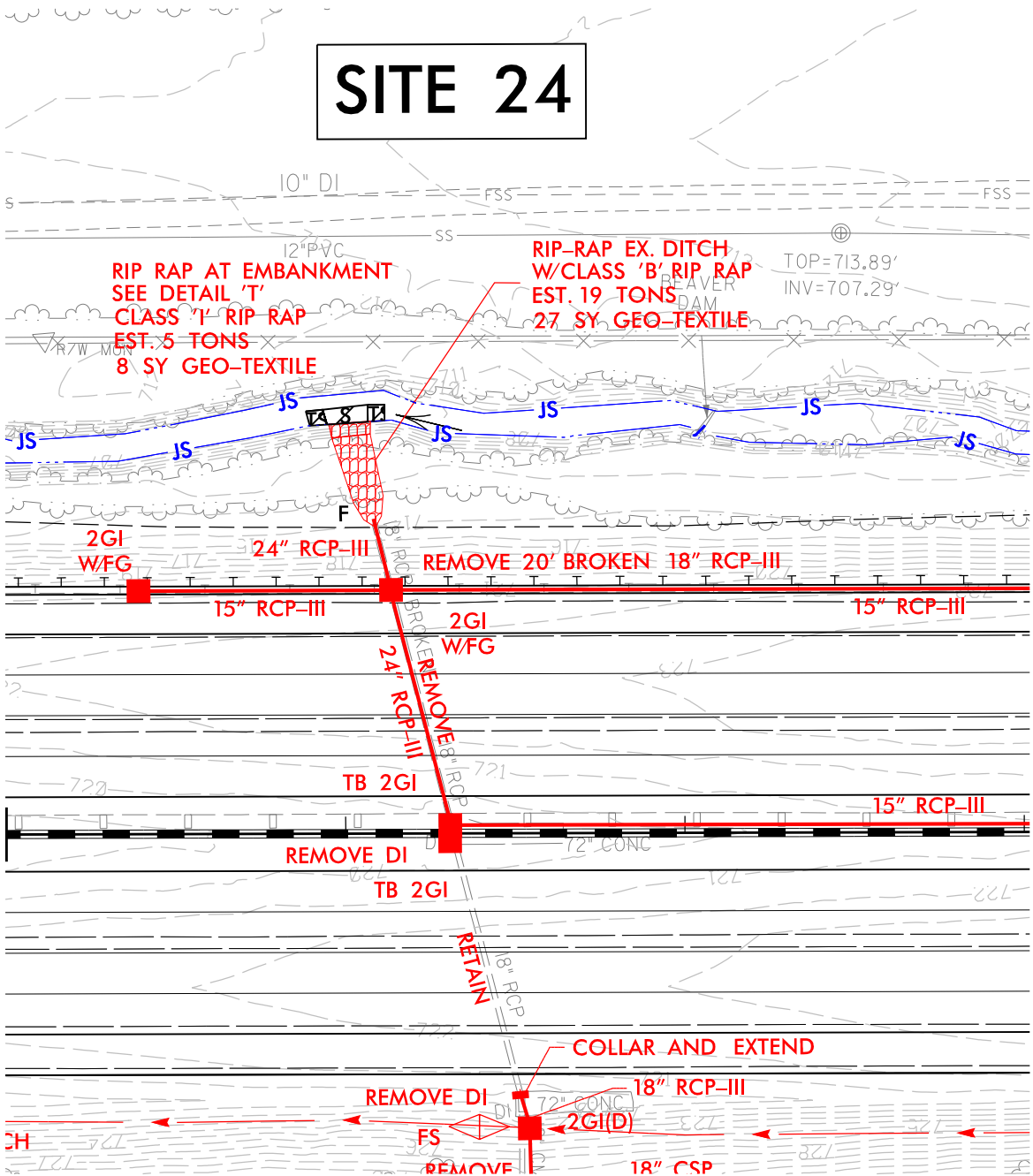
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PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		25B	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
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GRAPHIC SCALE			



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REVISIONS

LEGEND:



DENOTES IMPACTS IN
SURFACE WATER

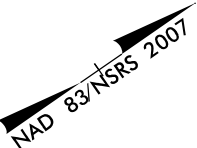



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

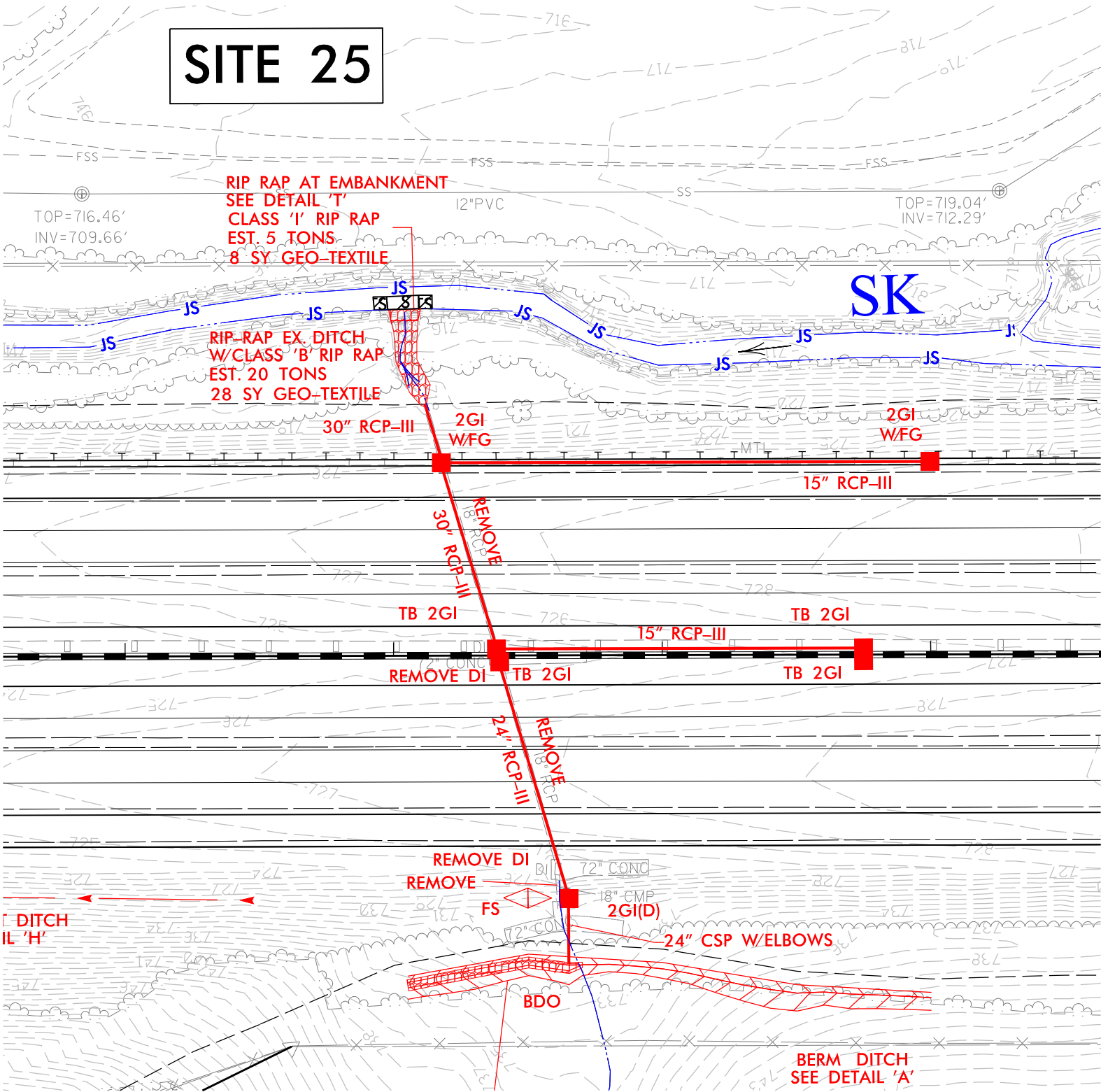
LANE

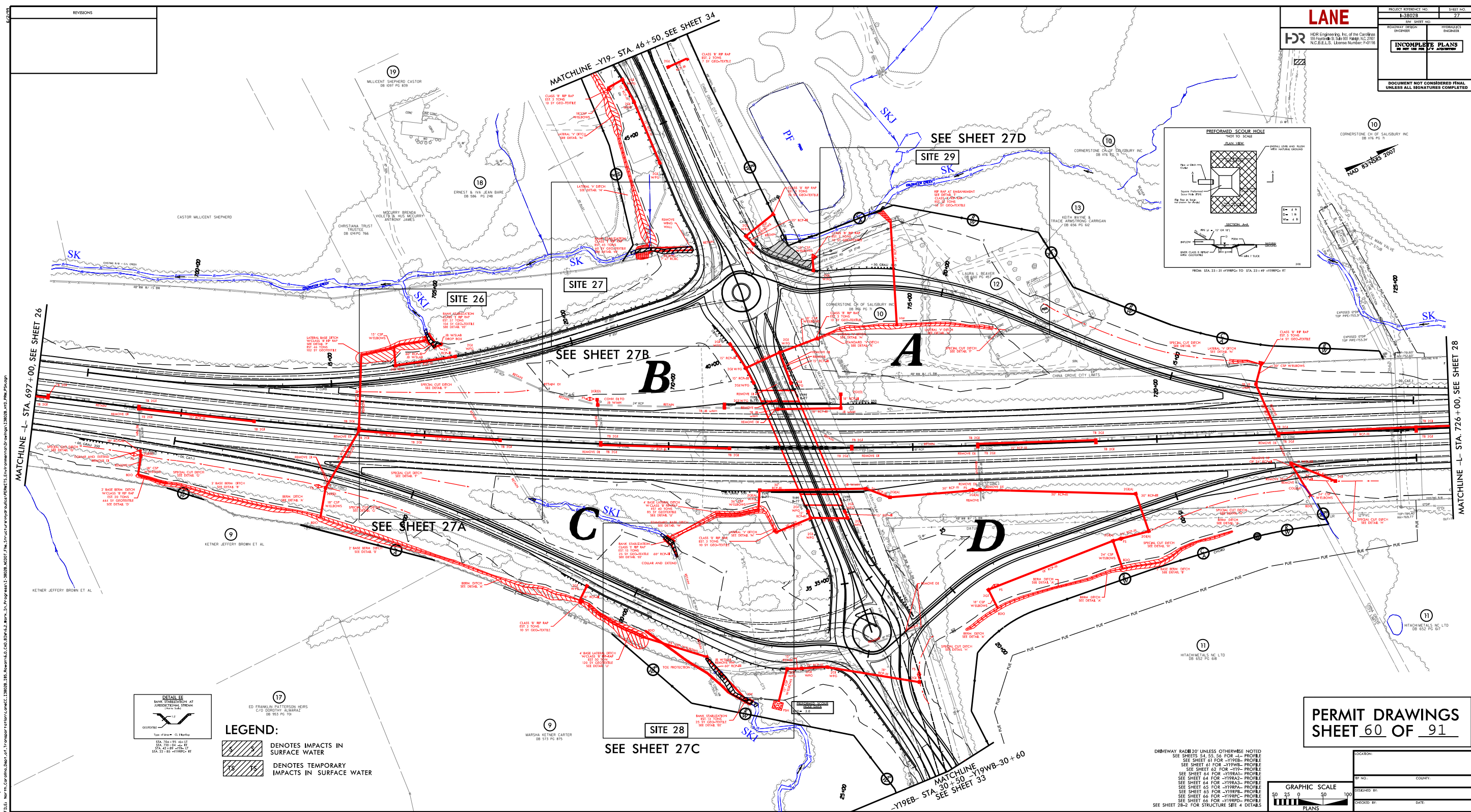


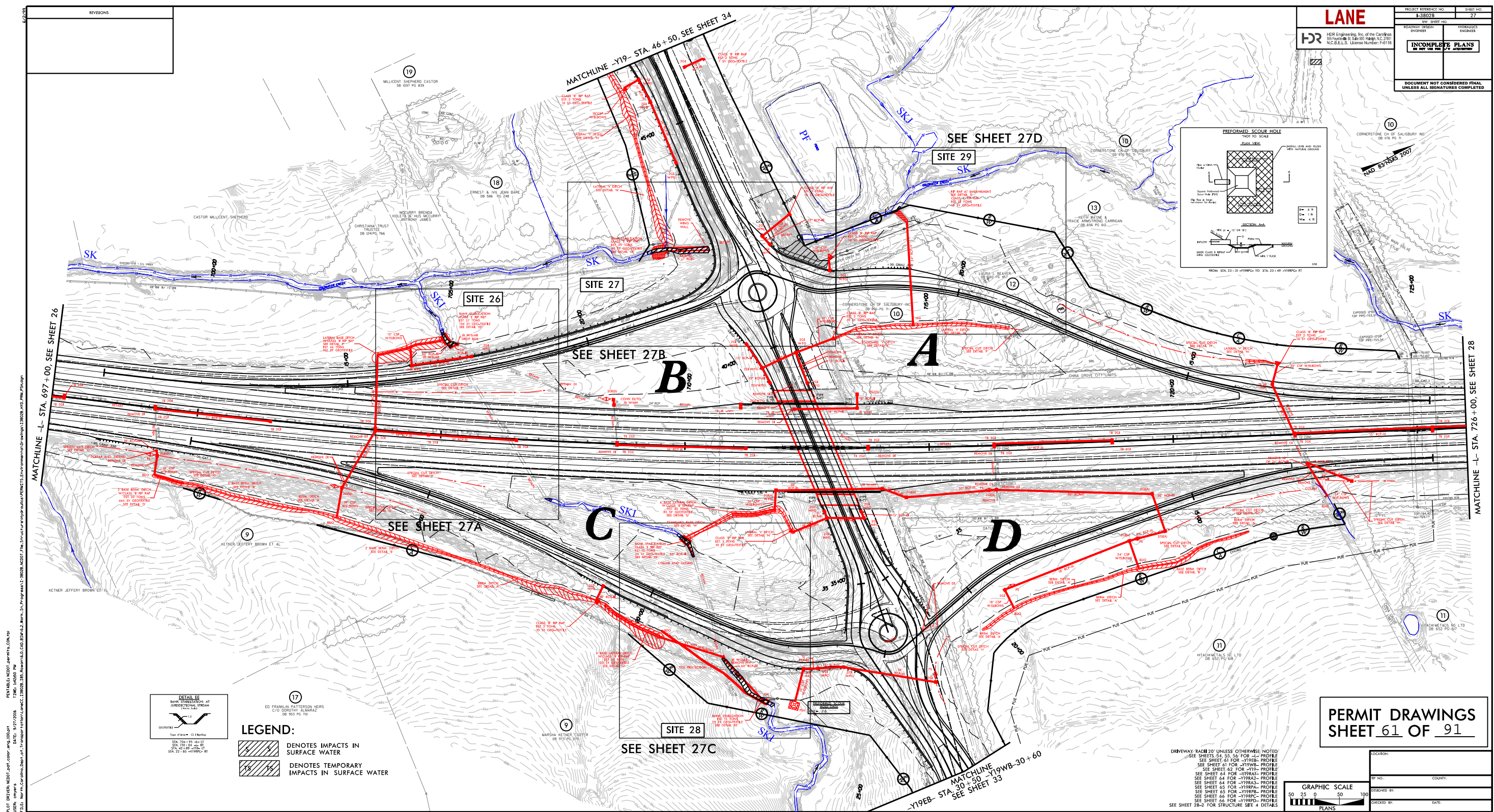
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N.C.B.E.L.S. License Number: F-0116



PROJECT REFERENCE NO.		SHEET NO.	
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ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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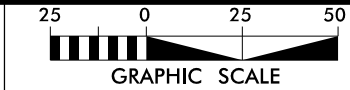
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DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

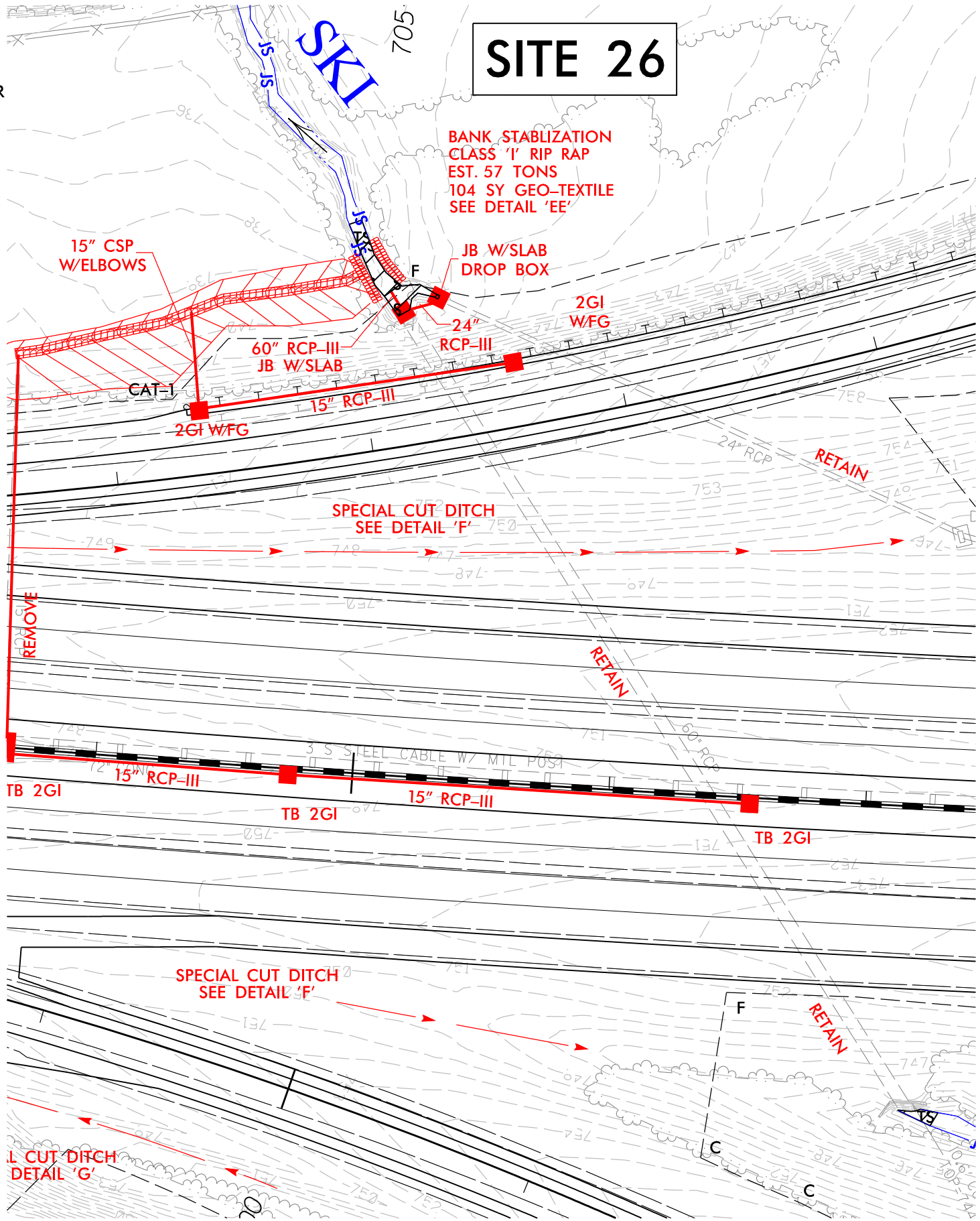
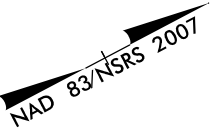


LANE




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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		27A	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



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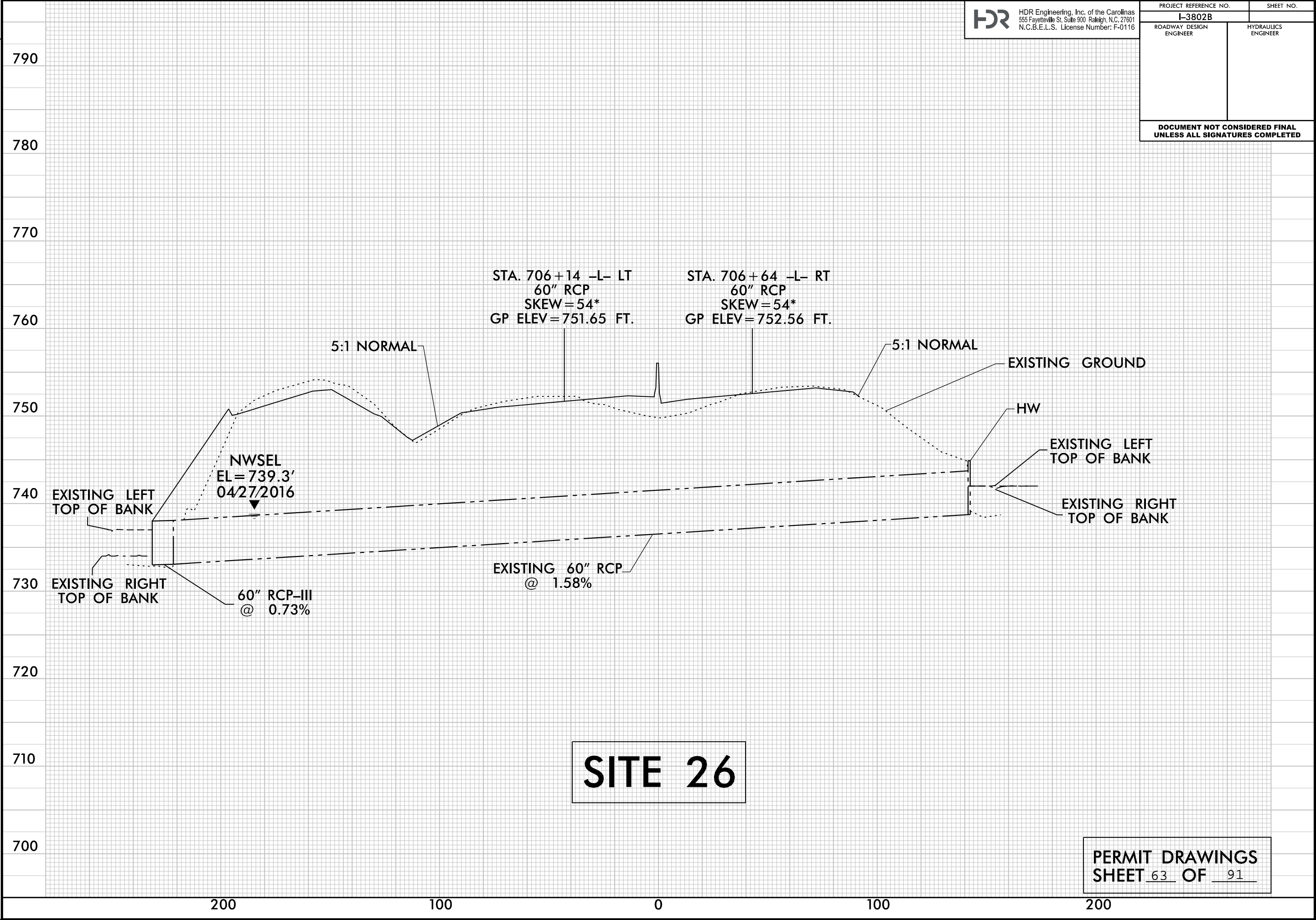
HDR Engineering, Inc. of the Carolinas

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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.
I-3802B		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

DOCUMENT NOT CONSIDERED FINAL
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REVISIONS

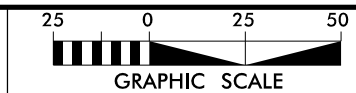
LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



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PROJECT REFERENCE NO.

I-3802B

SHEET NO.

27B

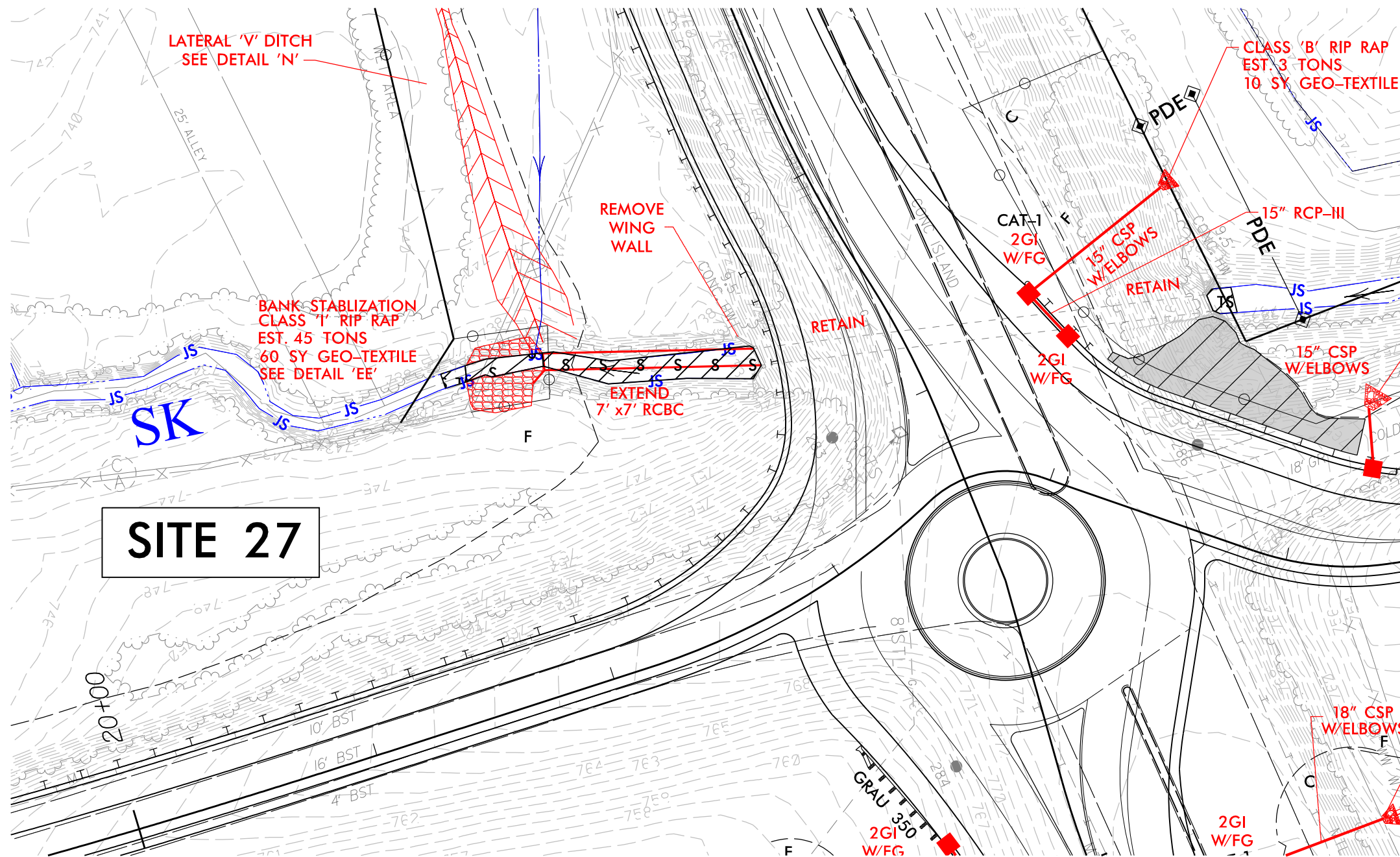
R/W SHEET NO.

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED




PERMIT DRAWINGS
SHEET 64 OF 91

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PROJECT REFERENCE NO.

I-3802B

SHEET NO.

ROADWAY DESIGN ENGINEER

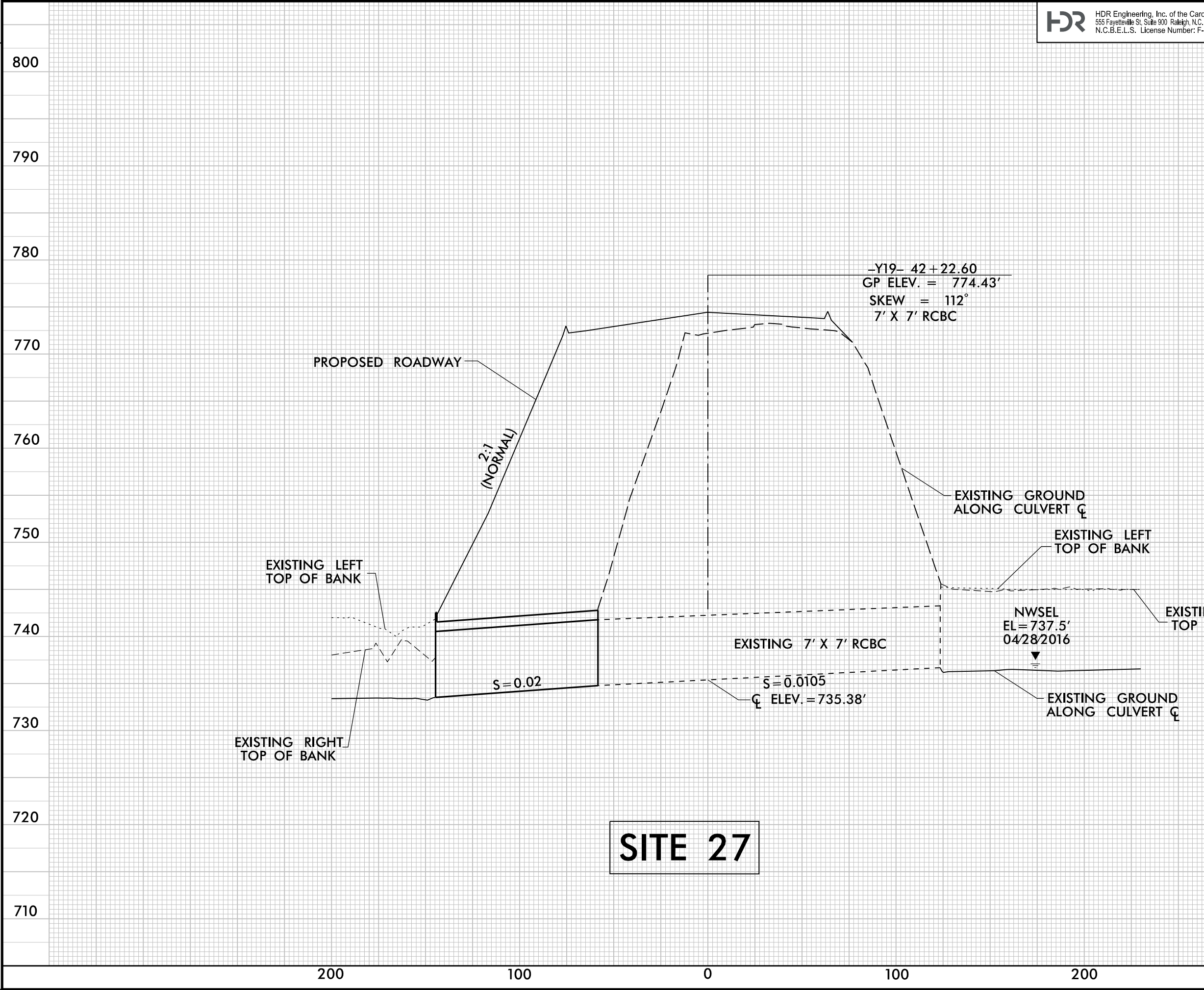
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INCOMPLETE PLANS

DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL

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REVISIONS

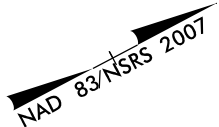
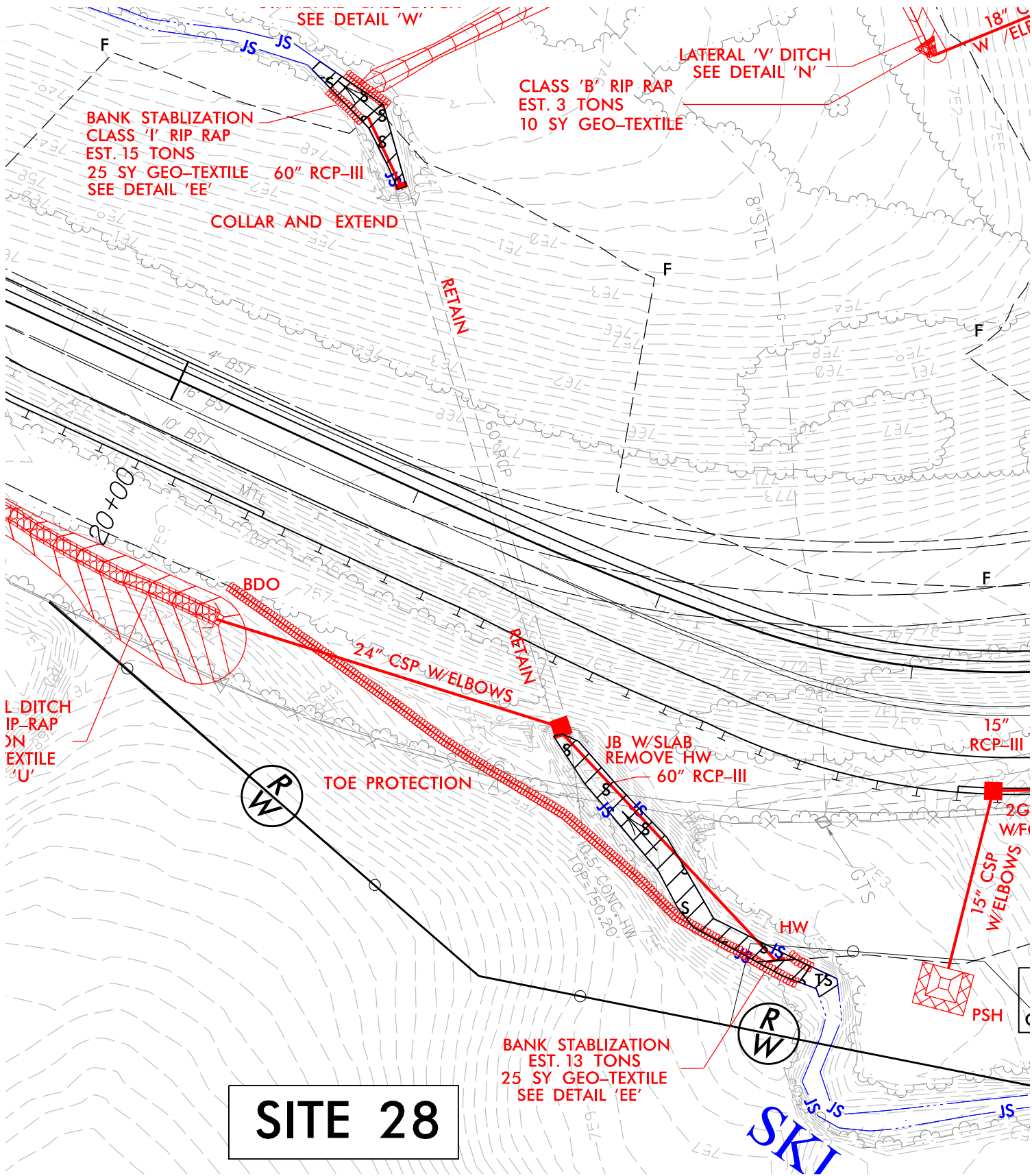
LEGEND:




DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER




PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		27C	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
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SITE 28

PERMIT DRAWINGS
SHEET 66 OF 91

REVISIONS

5/14/99



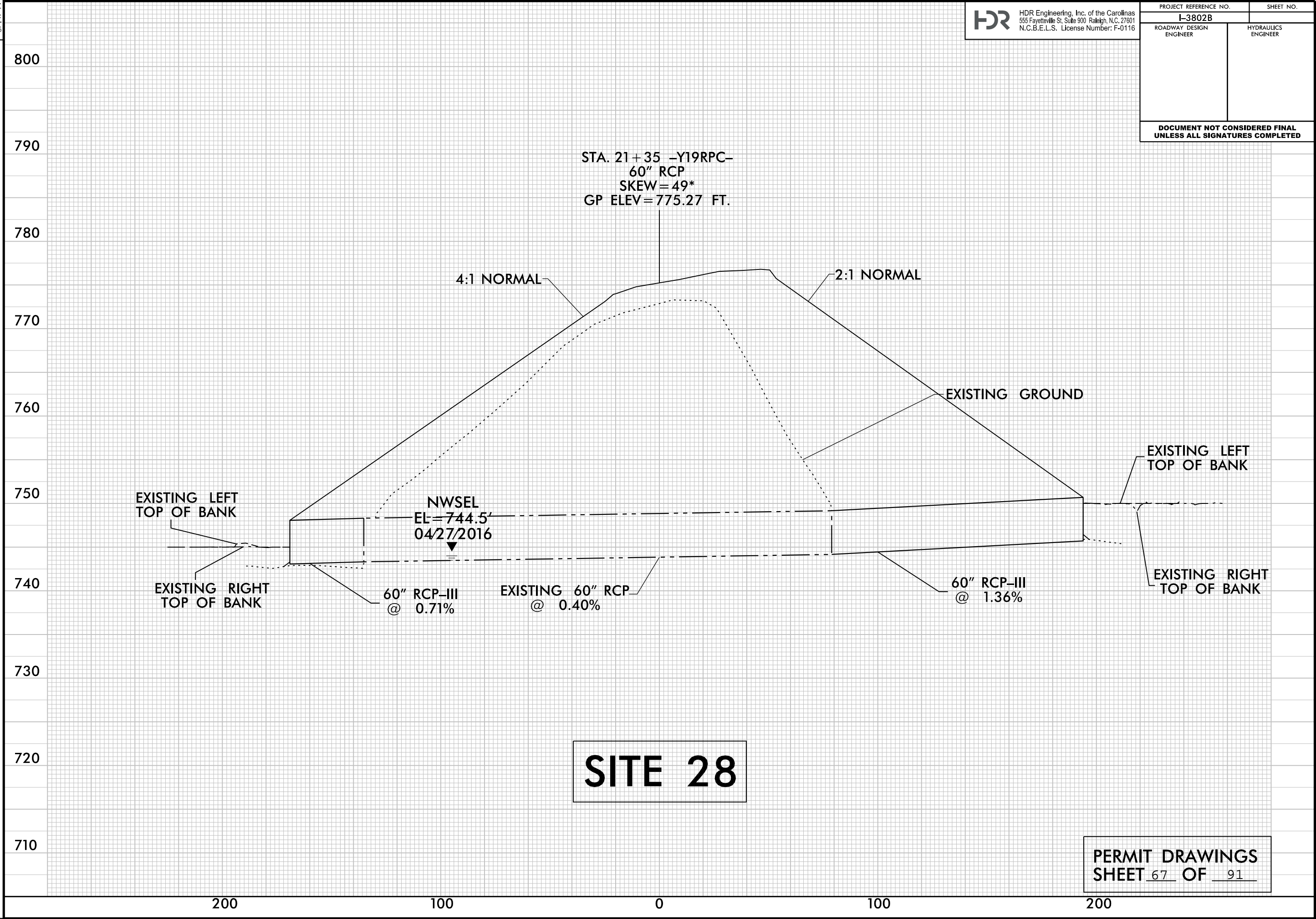
HDR Engineering, Inc. of the Carolinas

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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.
I-3802B		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



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DATE: 9/27/2016

REVISIONS

LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

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PROJECT REFERENCE NO.

I-3802B

SHEET NO.

27D

R/W SHEET NO.

ROADWAY DESIGN
ENGINEER

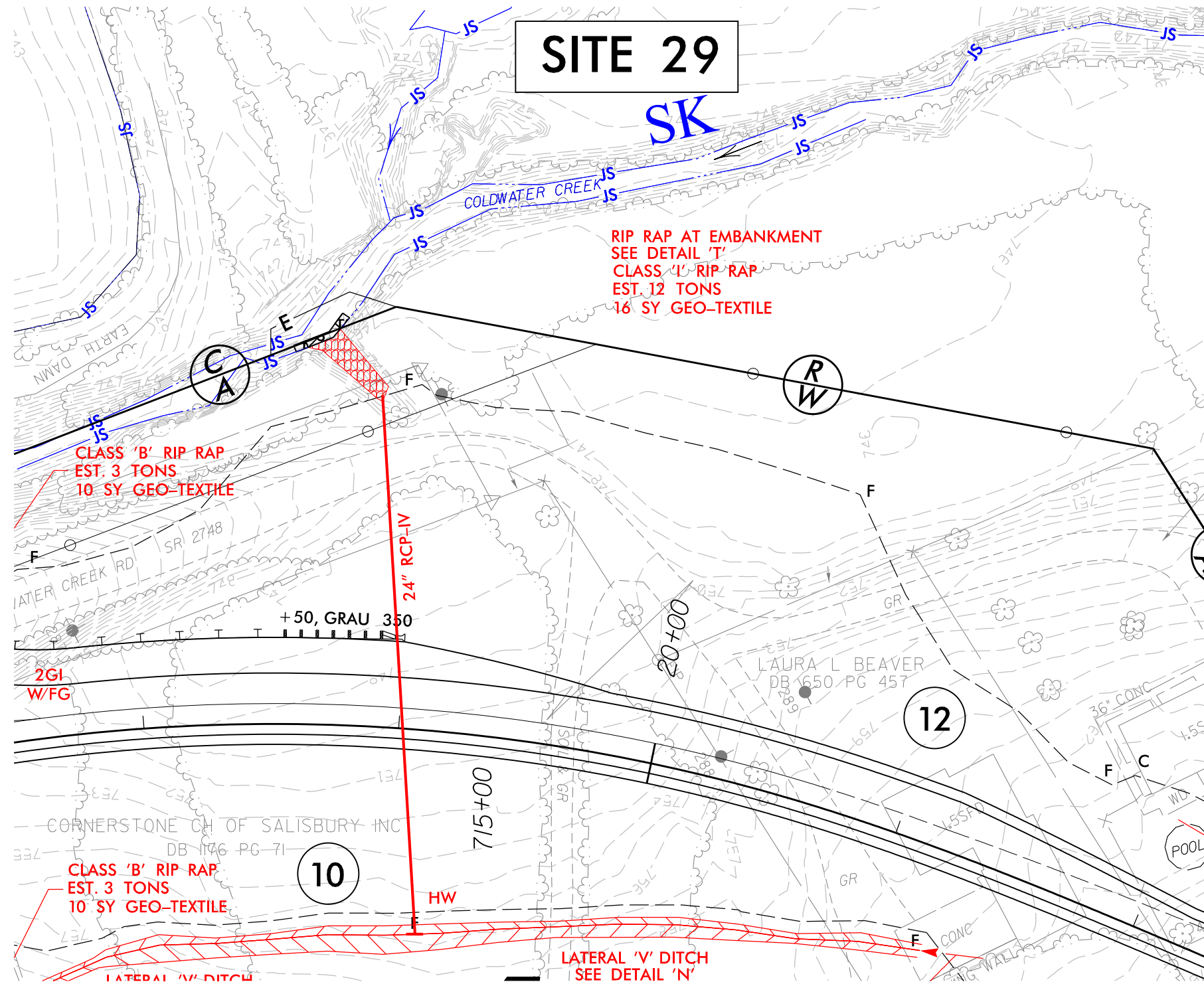
HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



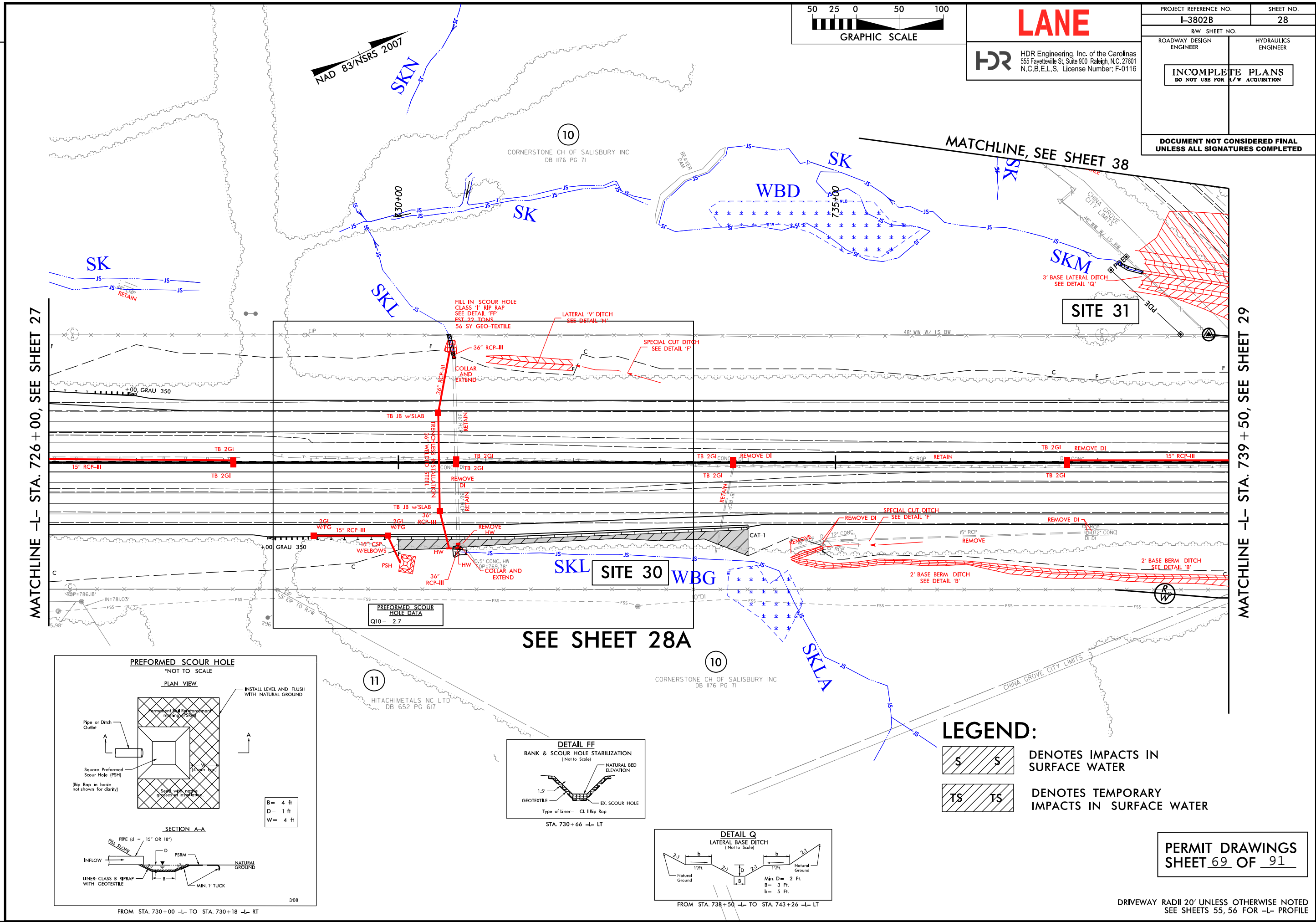
GRAPHIC SCALE



PERMIT DRAWINGS
SHEET 68 OF 91

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PROJECT REFERENCE NO. I-3802B		SHEET NO. 28	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION			
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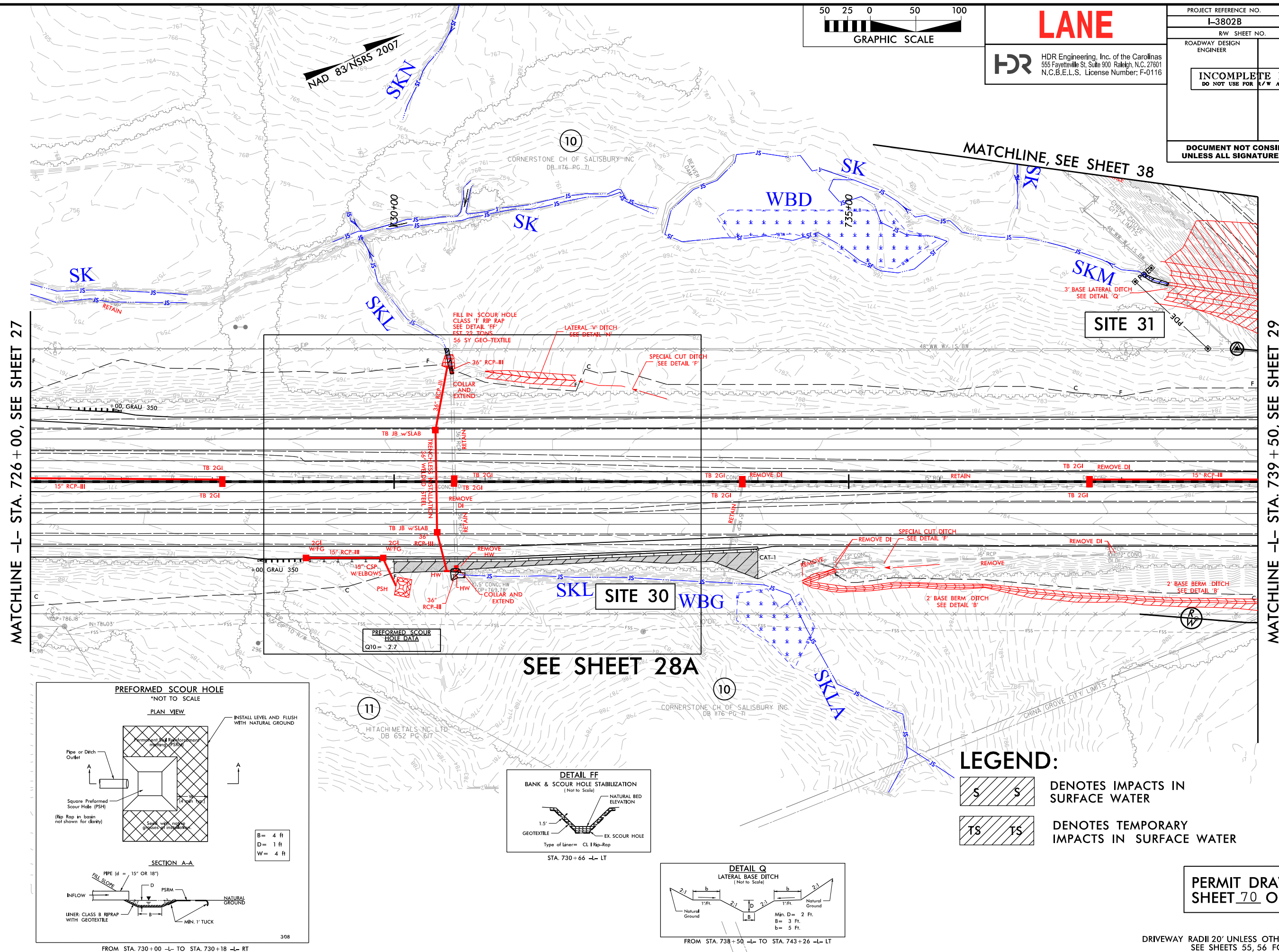
DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

PERMIT DRAWINGS
SHEET 69 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEETS 55, 56 FOR -L- PROFILE



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REVISIONS

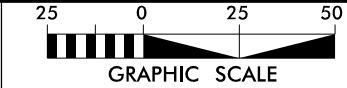
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DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

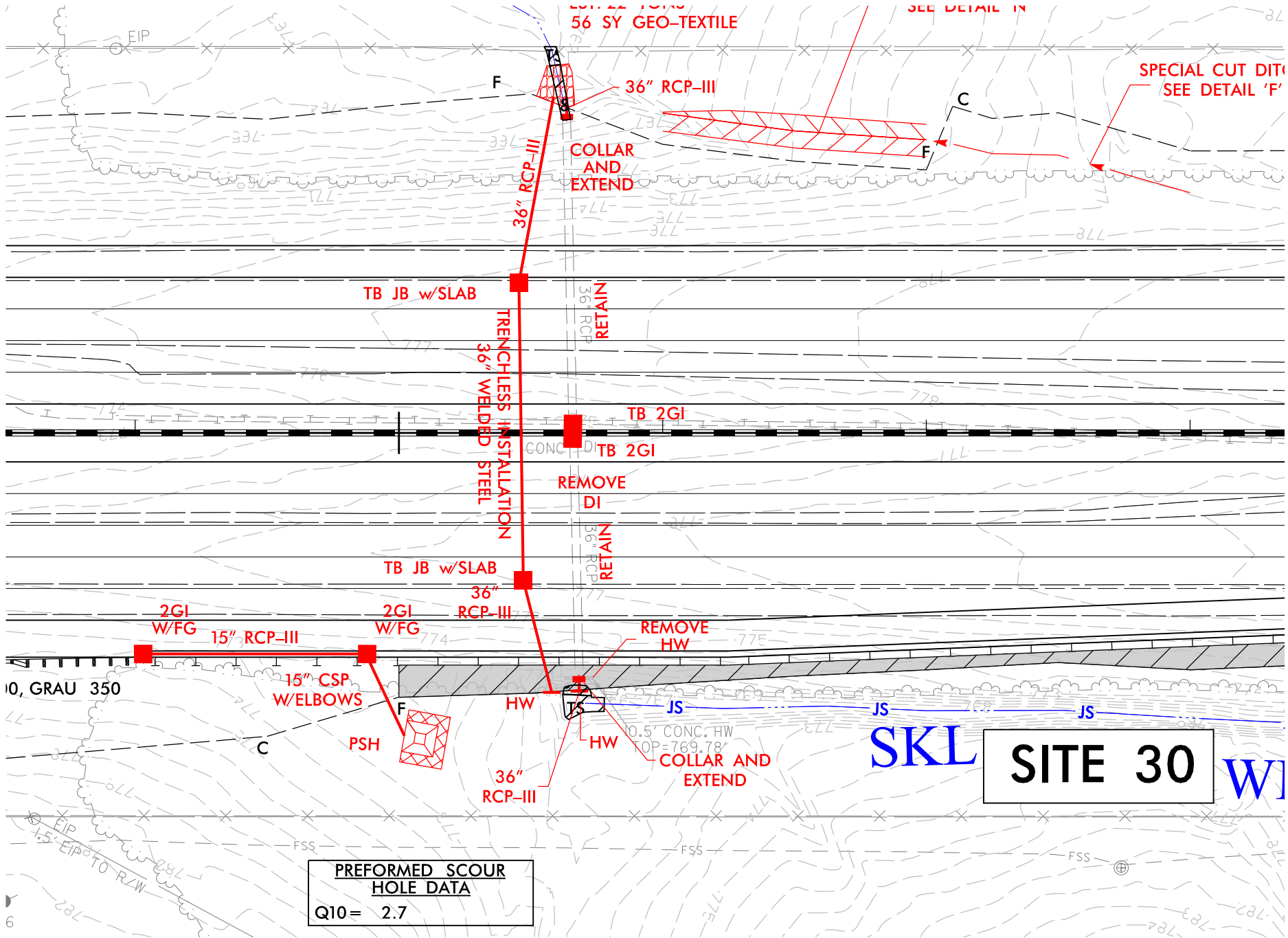


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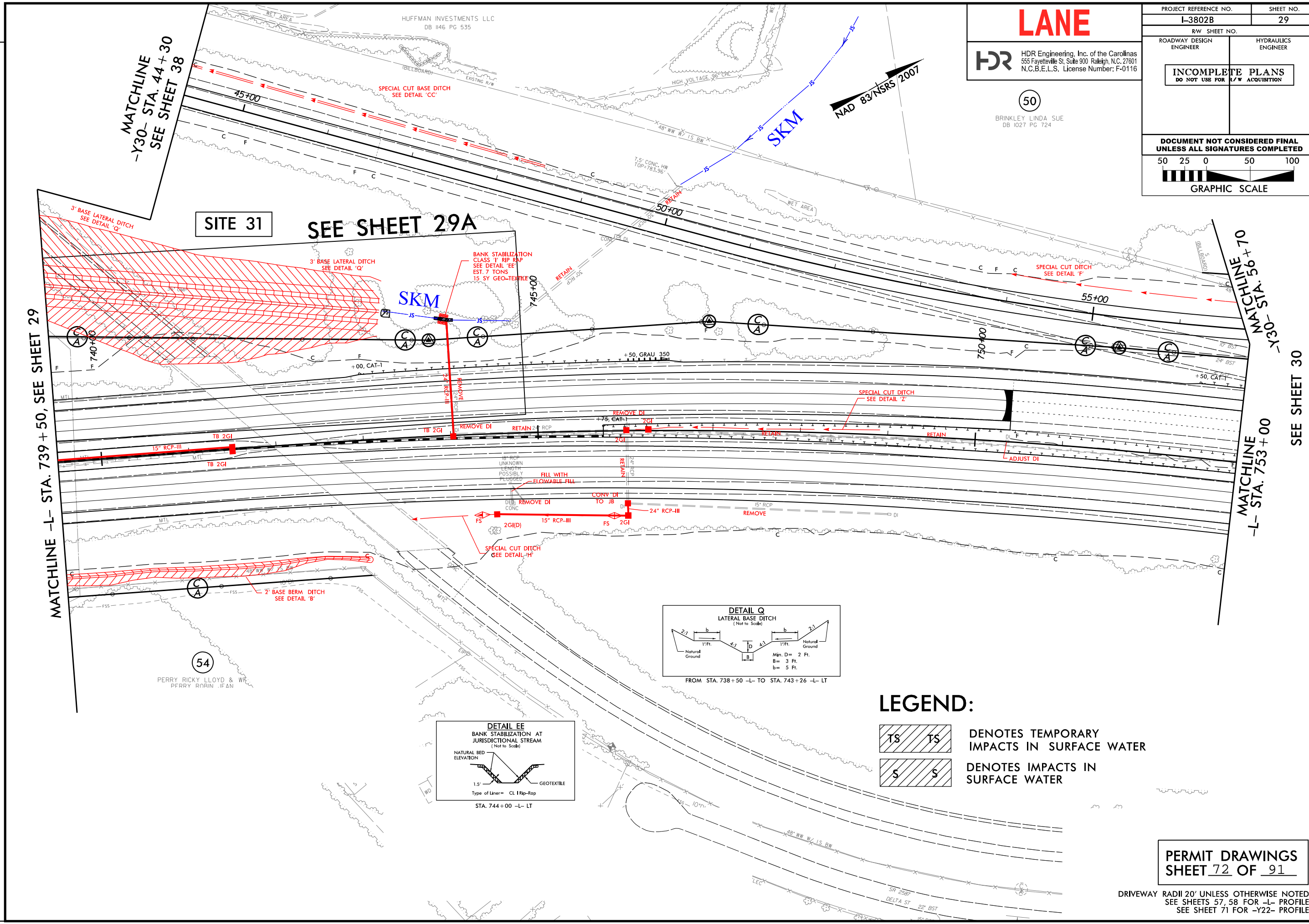
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I-3802B		28A	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



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REVISIONS



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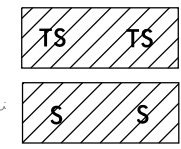
HDR Engineering, Inc. of the Carolinas
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N.C.B.E.L.S. License Number: F-0116

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BRINKLEY LINDA SUE
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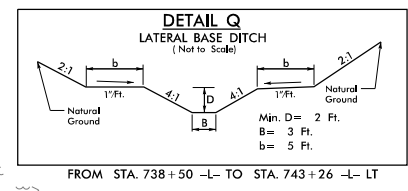
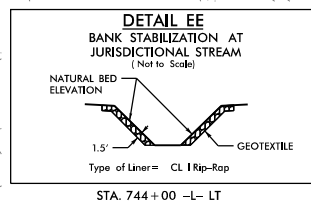
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I-3802B		29	
RW SHEET NO.			
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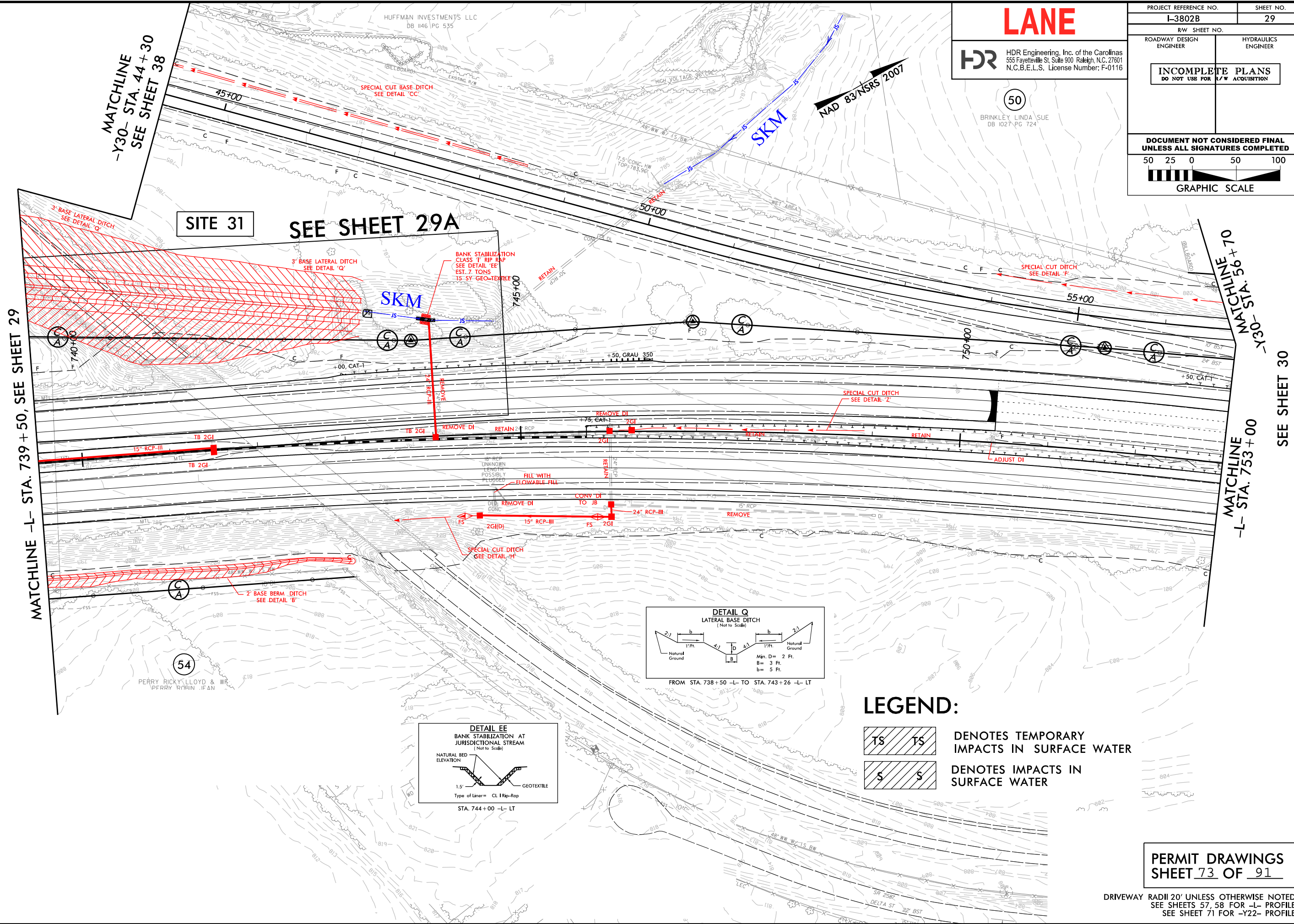
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DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN
SURFACE WATER





PERMIT DRAWINGS
SHEET 74 OF 91



DENOTES EXCAVATION
IN WETLAND

(43)
DENOTES MECHANIZED
CLEARING

DENOTES IMPACTS IN
SURFACE WATER

DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

PERMIT DRAWINGS
SHEET 75 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEETS 57,58 FOR -L- PROFILE
SEE SHEET 74 FOR -Y30- PROFILE
SEE SHEET 75 FOR -Y33- PROFILE



LANE

H2R

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SHEET NO.

30

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

STREAM SLA AND WETLAND WBH
HAD BEEN PREVIOUSLY IMPACTED
AND AUTHORIZED FROM PRIOR
PROJECT. IMPACTS HAVE BEEN TAKEN
FROM EXISTING ROADWAY TOE OF
SLOPE AND BEYOND ONLY

WADE ROBERT & W
WADE HELEN J

AD 83/NSRS 200

RICHARDSON ALTON L & W
RICHARDSON TERESA D

MATCHLINE -L- STA. 767+00, SEE SHEET 31

SEE SHEET 29

WATCHLINE
STA 753+00

~~SEE SHEET 30A~~

SITE 32

SEE SHEET 30B

SITE 33

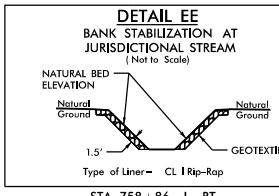
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DENOTES EXCAVATION
IN WETLAND

(43)
DENOTES MECHANIZED
CLEARING

DENOTES IMPACTS IN
SURFACE WATER

DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



PERMIT DRAWINGS
SHEET 76 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEETS 57,58 FOR -L- PROFILE
SEE SHEET 74 FOR -Y30- PROFILE
SEE SHEET 75 FOR -Y33- PROFILE

PLOT DRIVER: NCDOT_pdf_color_eng_100.plt
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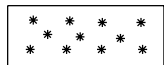
LEGEND:



DENOTES FILL IN
WETLAND



DENOTES EXCAVATION
IN WETLAND




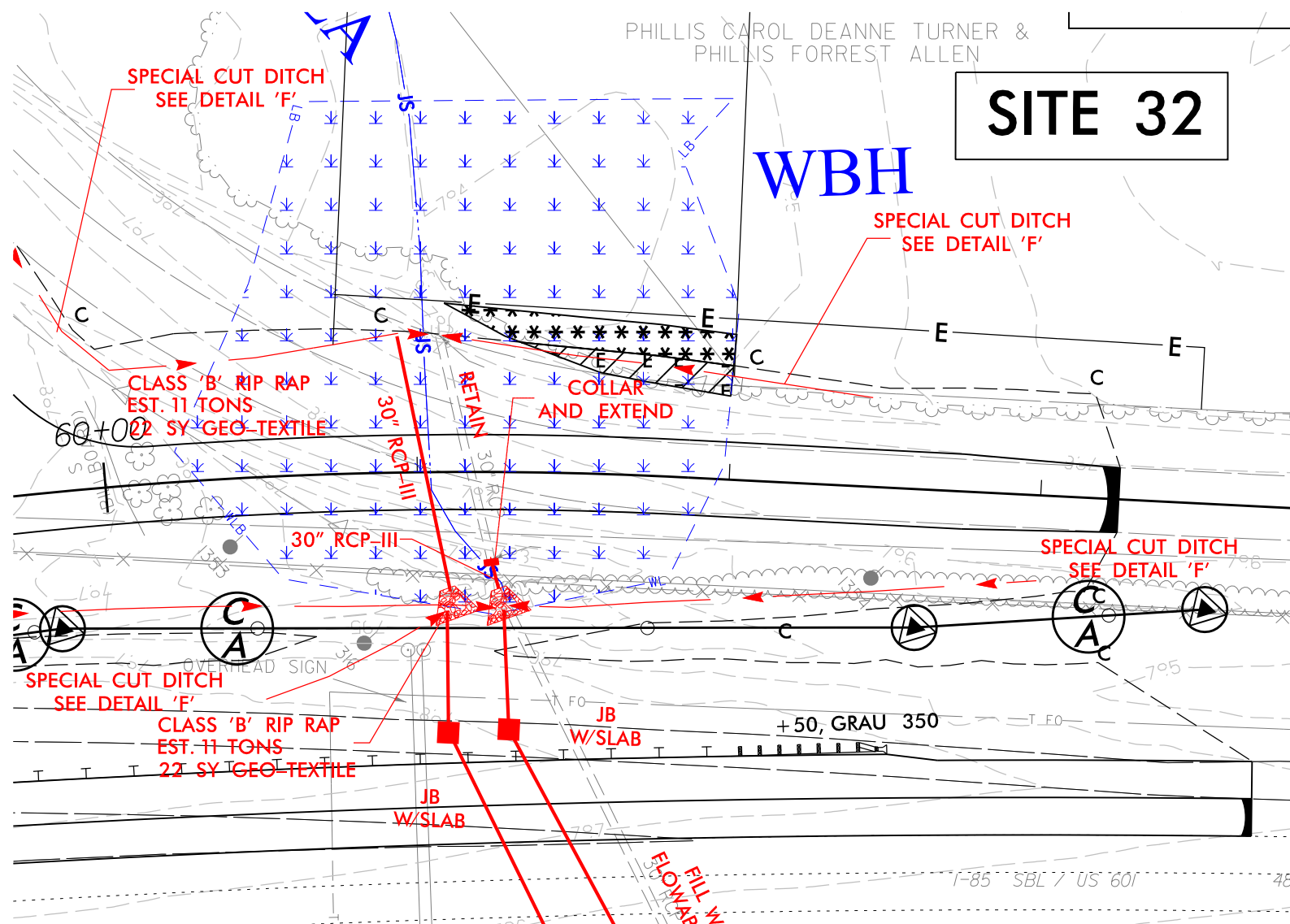
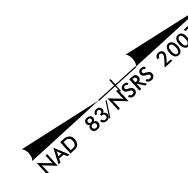
DENOTES MECHANIZED
CLEARING

LANE



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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		30A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
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GRAPHIC SCALE			



REVISIONS

LEGEND:

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S

DENOTES IMPACTS IN SURFACE WATER

TS

TS

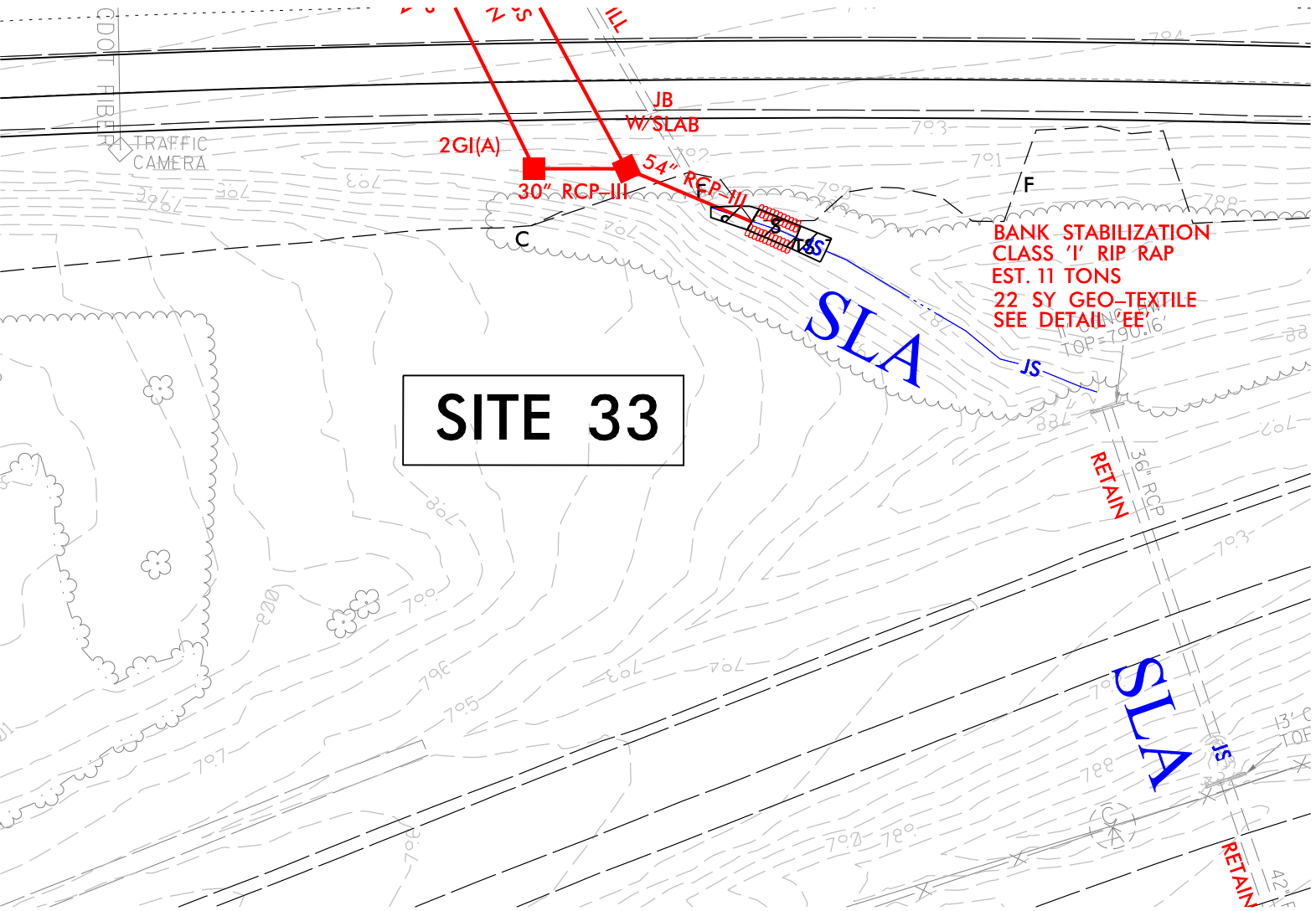
DENOTES TEMPORARY IMPACTS IN SURFACE WATER

LANE

HDR

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N.C.B.E.L.S. License Number: F-0116

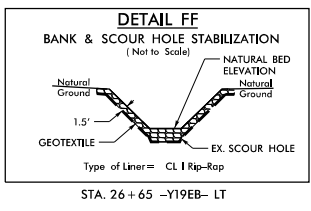
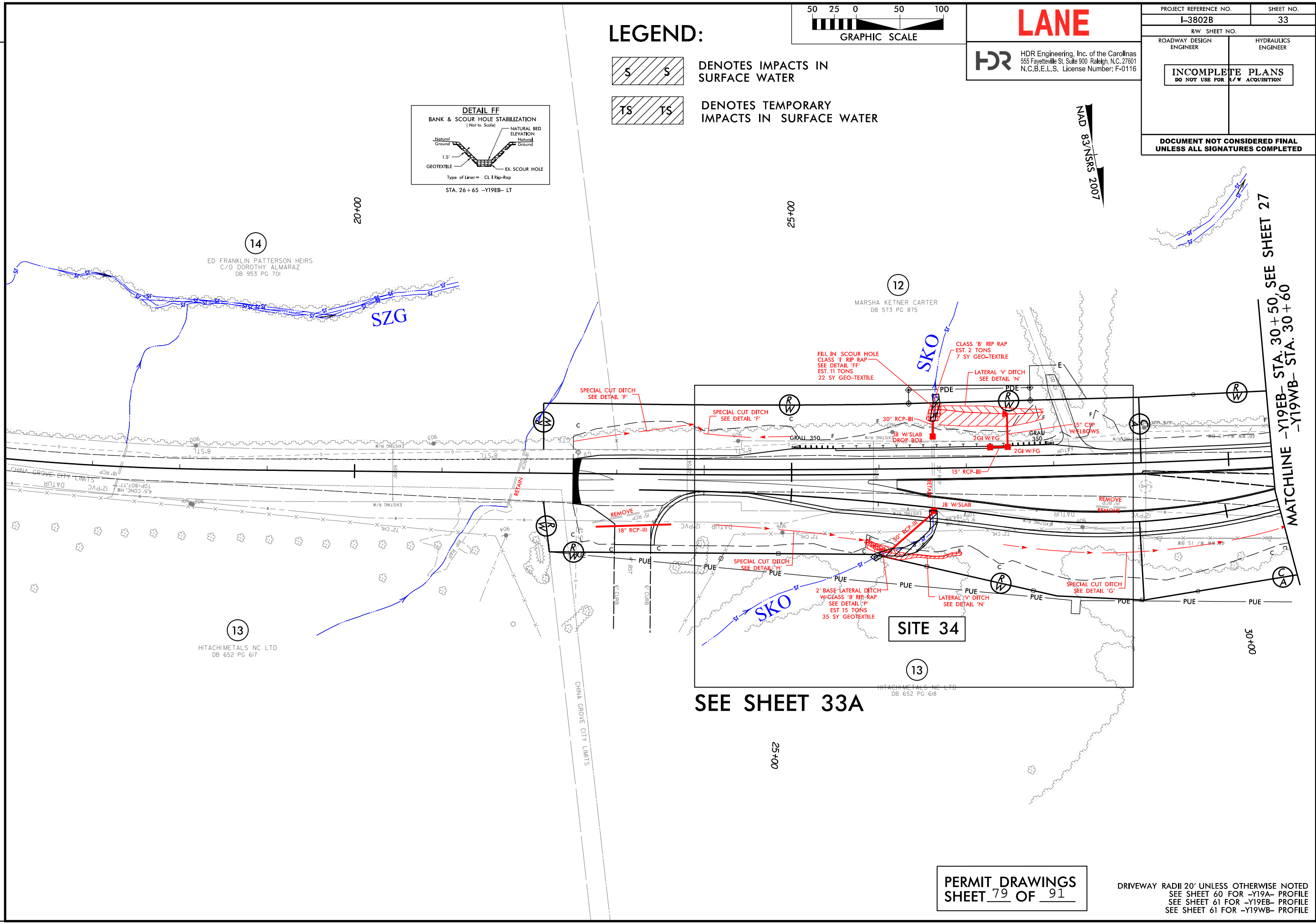
PROJECT REFERENCE NO.	SHEET NO.
I-3802B	30B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
25 12.5 0 25 50 GRAPHIC SCALE	



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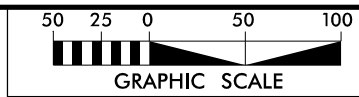
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REVISIONS



LEGEND:

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

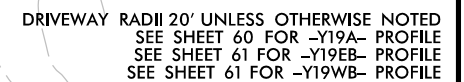


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N.C.B.E.L.S. License Number: F-0116

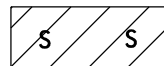
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ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET 60 FOR -Y19A- PROFILE
SEE SHEET 61 FOR -Y19EB- PROFILE
SEE SHEET 61 FOR -Y19WB- PROFILE

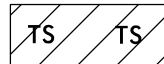


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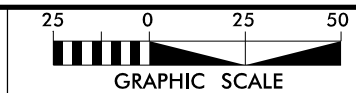
LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



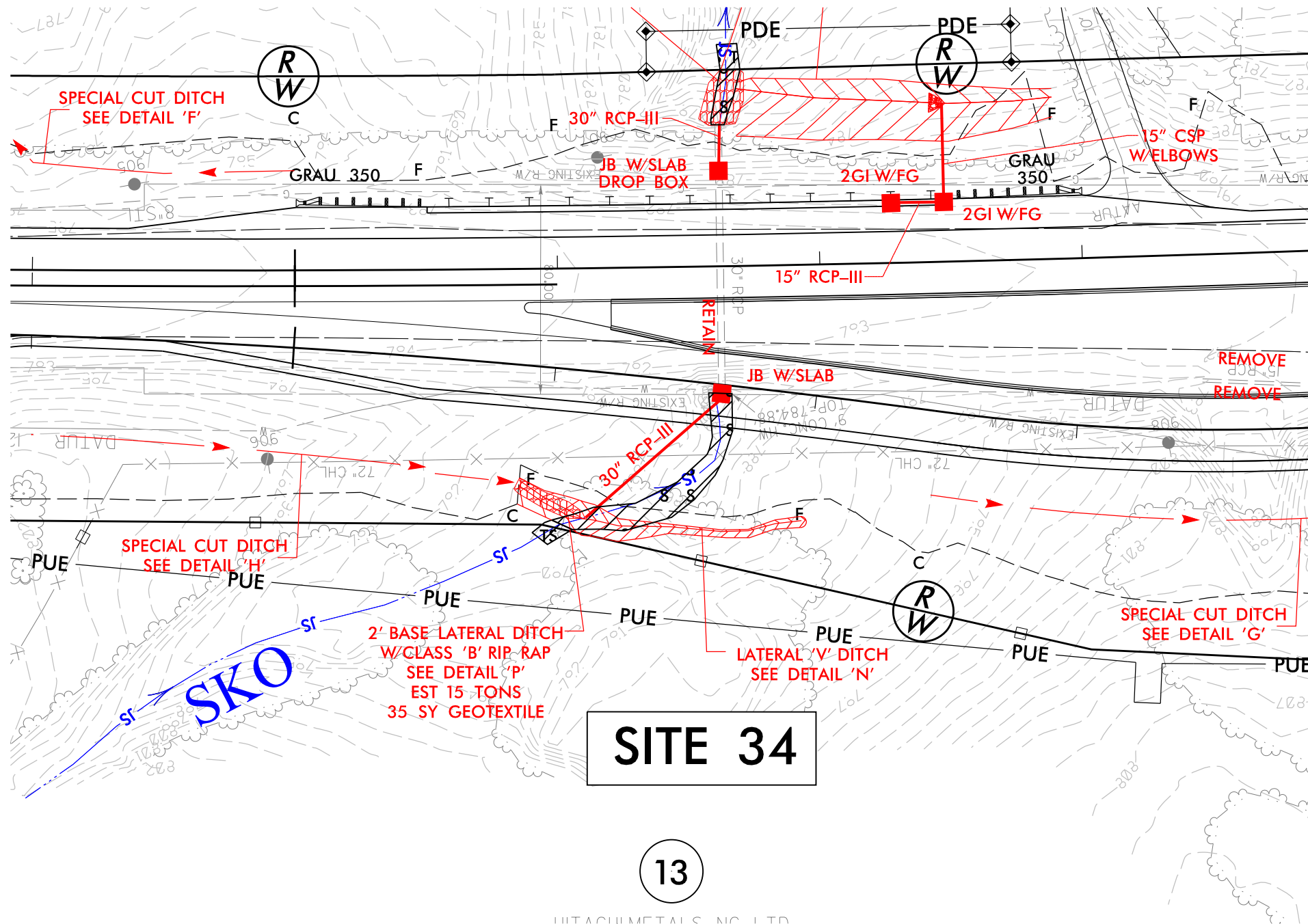
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N.C.B.E.L.S. License Number: F-0116

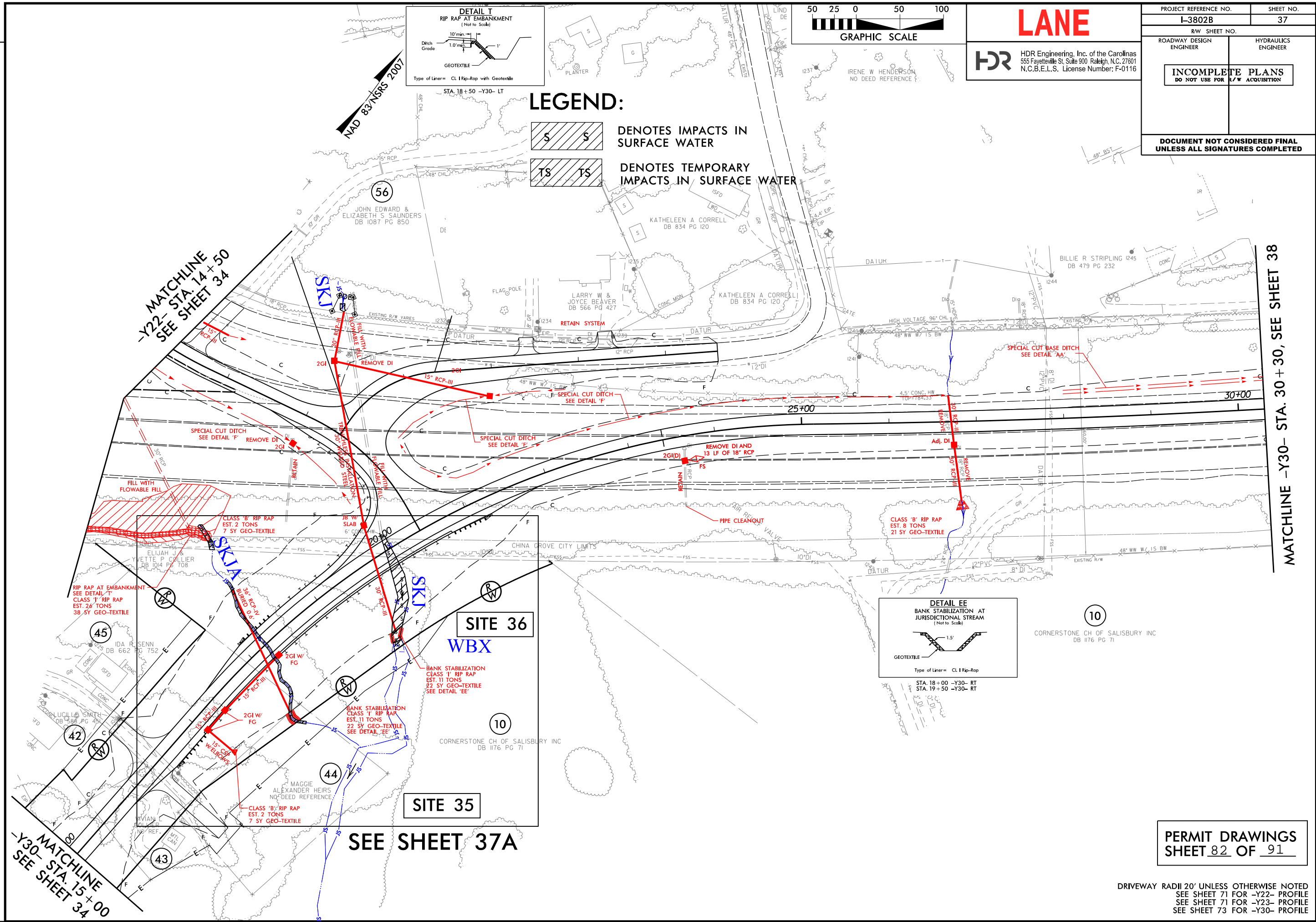
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I-3802B		33A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<div>INCOMPLETE PLANS</div> <div>DO NOT USE FOR R/W ACQUISITION</div>			
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NAD 83/NSRS 2007

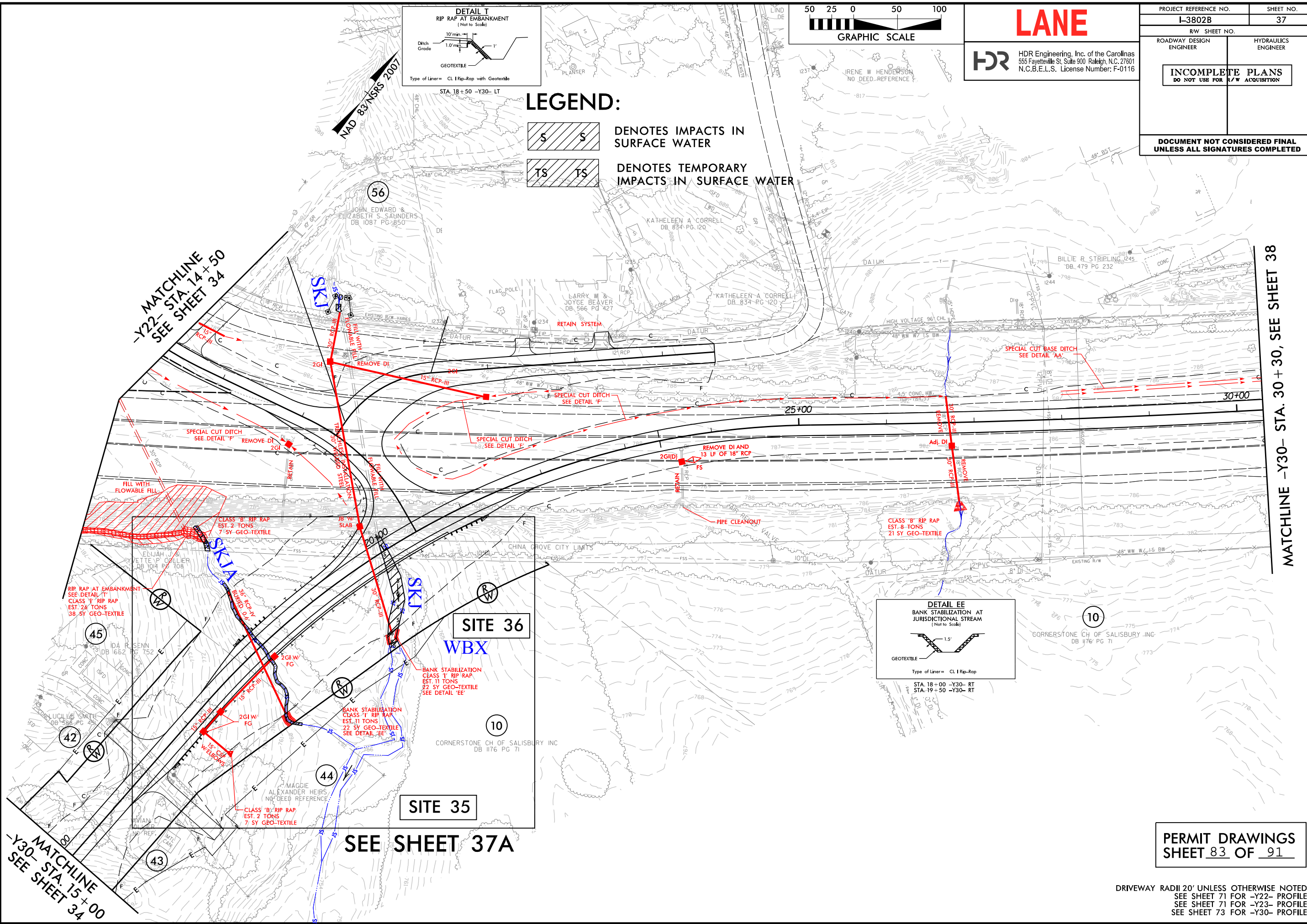


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REVISIONS



REVISIONS



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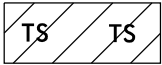
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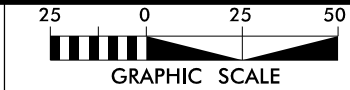
LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



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N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.

I-3802B

SHEET NO.

37A

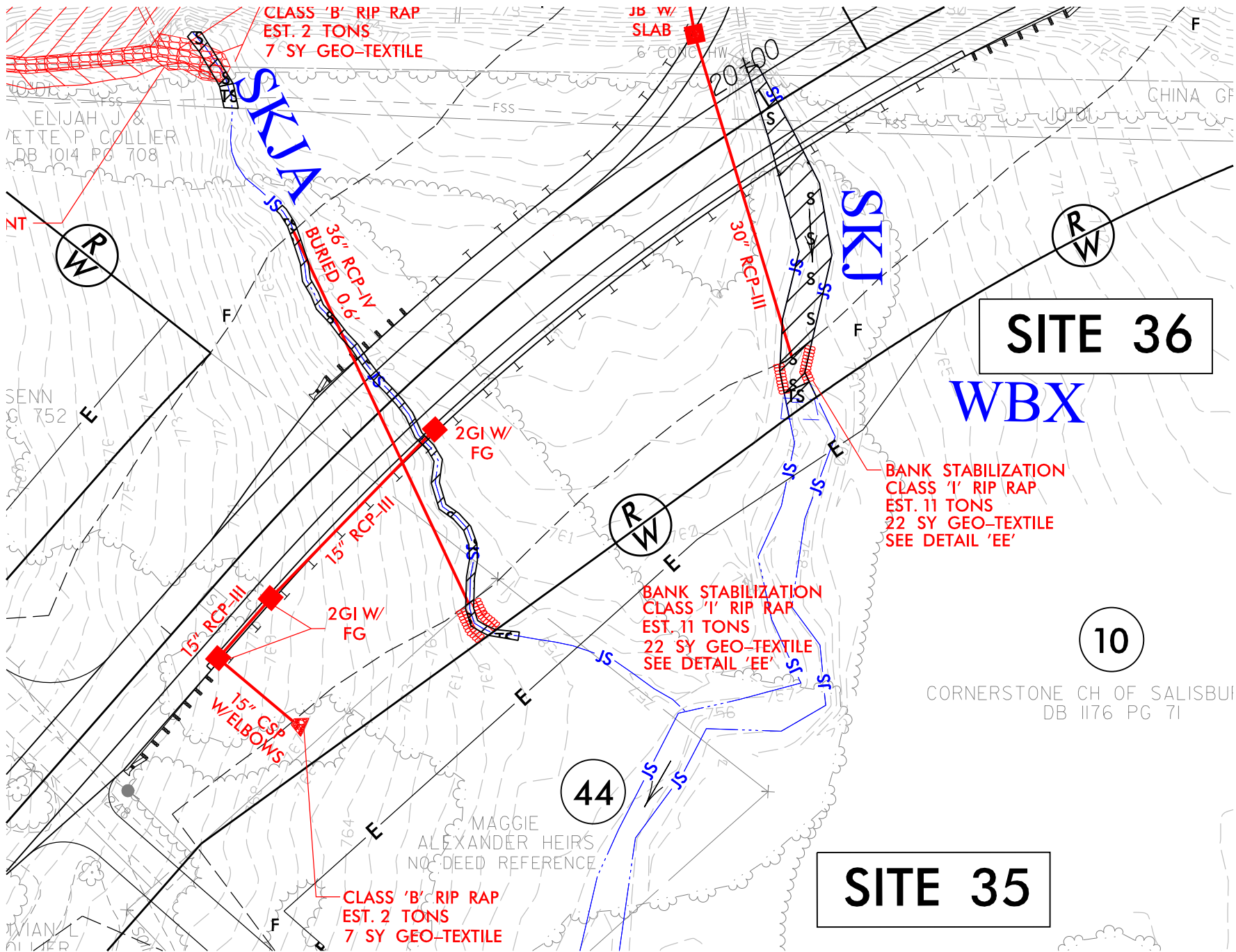
R/W SHEET NO.

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

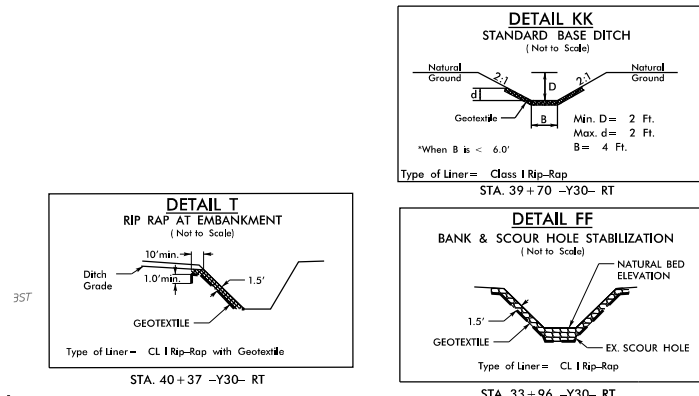
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



PERMIT DRAWINGS
SHEET 84 OF 91

REVISIONS

MATCHLINE -Y30- STA. 30 + 30, SEE SHEET 37



SALVAGE AUTO AUCTIONS

BILLIE R STRIPLING
DB 479 PG 232

10 A/G 500 GAL DIESEL

SOIL & GR

HIGH VOLTAGE 96" CHL

SPECIAL CUT BASE DITCH
SEE DETAIL 'CC'

35+00

SITE 37

10

CORNERSTONE CH OF SALISBURY INC
DB 1176 PG 71

SCOUR HOLE STABILIZATION
SEE DETAIL 'FF'
EST. 15 TONS
20 SY GEO-TEXTILE

SKIN

SEE SHEET 38B

STANDARD BASE DITCH
W/CLASS 'I' RIP RAP
EST. 120 TONS
120 SY GEOTEXTILE
SEE DETAIL 'KK'

SITE 38

MATCHLINE, SEE SHEET 28

LANE

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

NAD 83/N83 2007

LEGEND:



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



DENOTES IMPACTS IN
SURFACE WATER

HUFFMAN INVESTMENTS LLC
DB 1146 PG 535

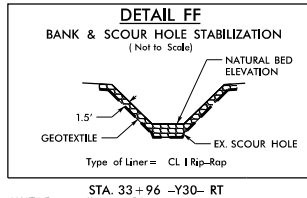
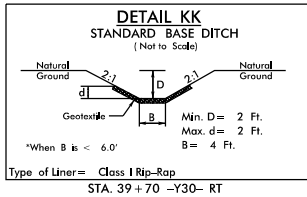
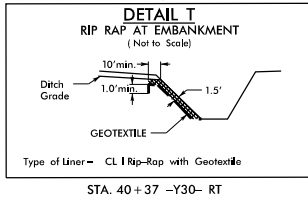
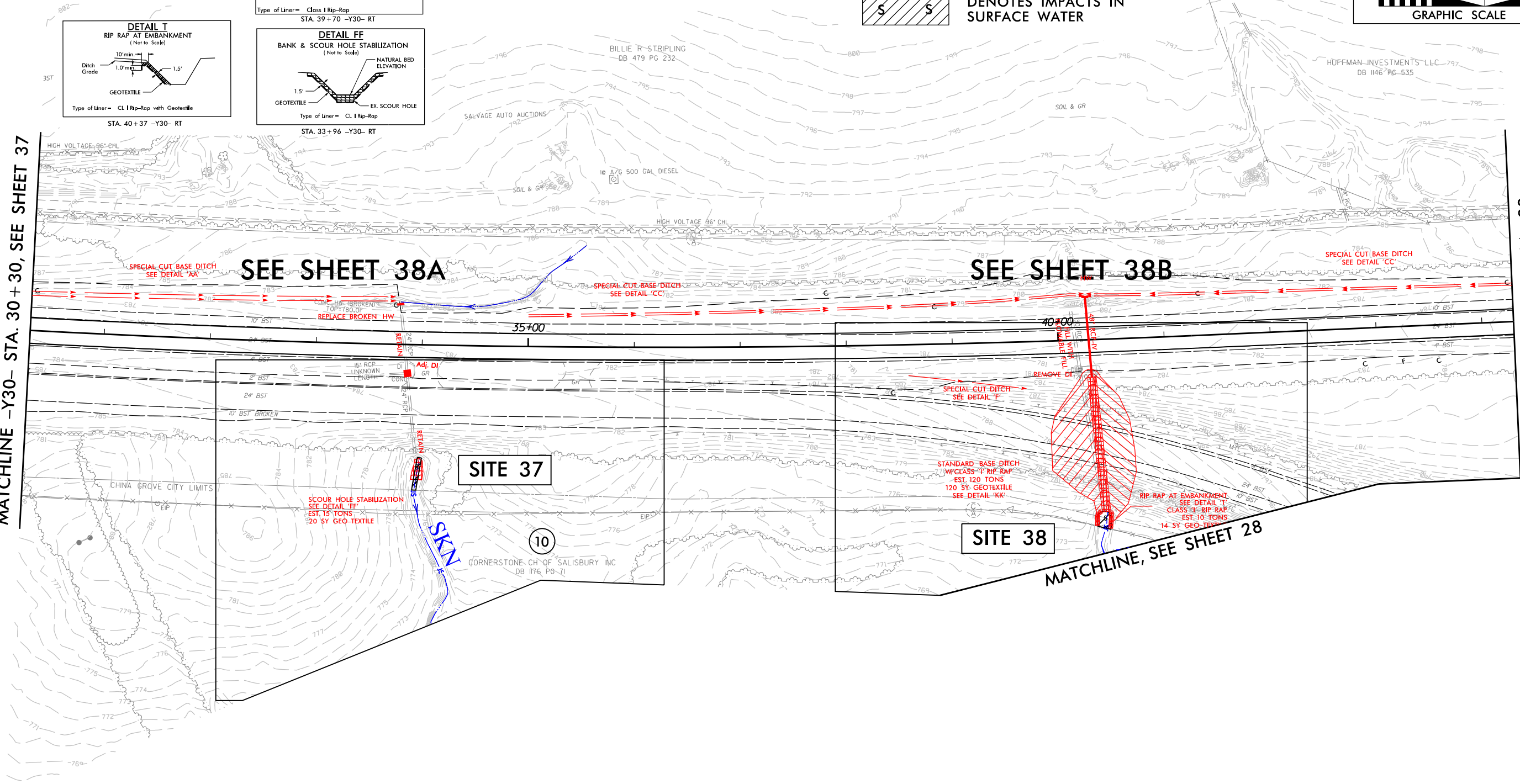
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I-3802B	38
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
50 25 0 50 100	GRAPHIC SCALE

PERMIT DRAWINGS
SHEET 85 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEETS 73, 74 FOR -Y30- PROFILE

REVISIONS

MATCHLINE -Y30- STA. 30 + 30, SEE SHEET 37



LEGEND:



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



DENOTES IMPACTS IN
SURFACE WATER

LANE



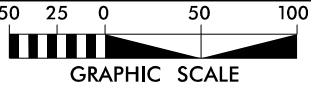
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO. SHEET NO.
I-3802B 38

R/W SHEET NO.
ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR A/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



GRAPHIC SCALE

PERMIT DRAWINGS
SHEET 86 OF 91

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEETS 73, 74 FOR -Y30- PROFILE

MATCHLINE -Y30- STA. 44 + 30,
SEE SHEET 29

LEGEND:

- TS

TS

DENOTES TEMPORARY
IMPACTS IN SURFACE WATER
- S


S

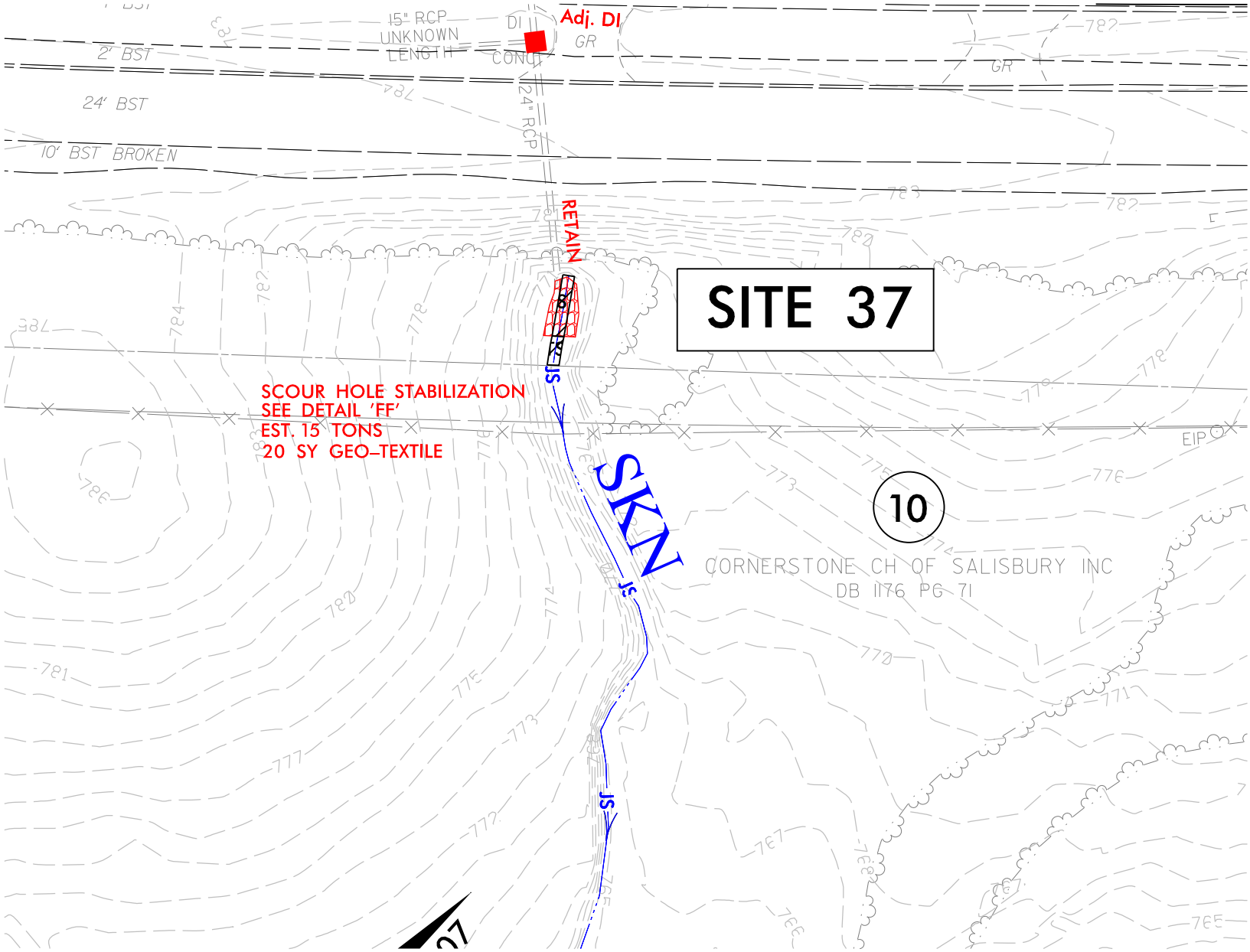
DENOTES IMPACTS IN
SURFACE WATER

LANE



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PROJECT REFERENCE NO.		SHEET NO.	
I-3802B		38A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
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GRAPHIC SCALE			



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REVISIONS

LANE

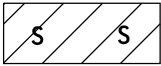


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N.C.B.E.L.S. License Number: F-0116

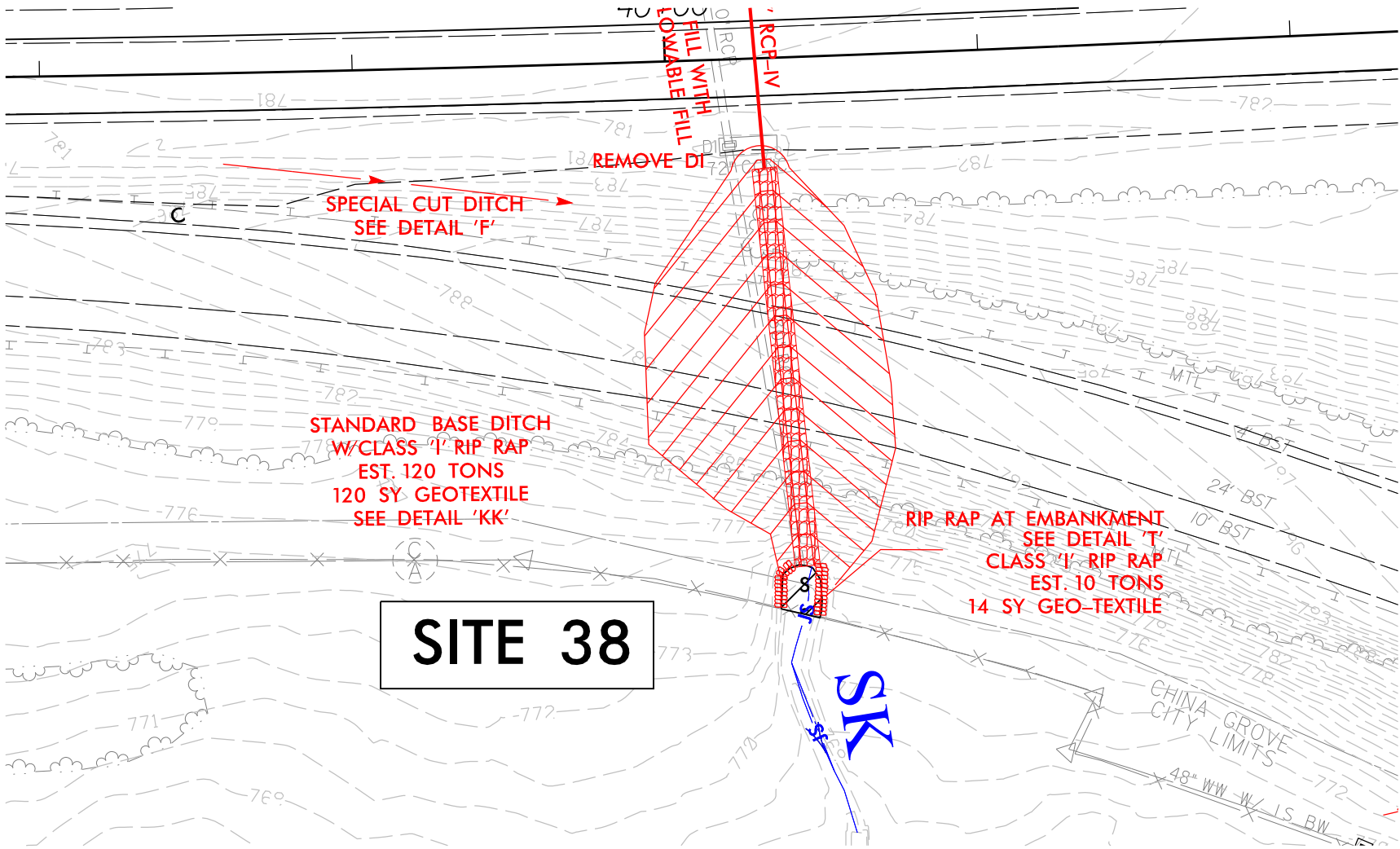
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LEGEND:



DENOTES IMPACTS IN
SURFACE WATER



WETLAND PERMIT IMPACT SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	495+60 -L-LT	BANK STABILIZATION						< 0.01	< 0.01	24	10	
2	513+02 -L-	48" RCP						< 0.01	< 0.01	11	27	
2	513+02 -L-	BANK STABILIZATION						< 0.01		25		
3	521+12 -L-	BANK STABILIZATION						0.02	< 0.01	60	20	
4	525+41 to 531+21 -L- RT	ROADWAY FILL					0.08					
5	534+72 -L- LT	36" RCP	< 0.01			< 0.01						
6	536+57 -L- LT	CULVERT REMOVAL							0.03		40	
7	554+10 - 554+35-L- LT	BANK STABILIZATION						< 0.01	< 0.01	11	10	
8	560+02 -L- RT	ROADWAY FILL					< 0.01					
9	571+62 -L-	Exist. 42" RCP/48" B&J		< 0.01		< 0.01		< 0.01	< 0.01	23	10	
10	577+06	48" RCP						< 0.01		5		
10	577+06	BANK STABILIZATION				< 0.01		< 0.01	< 0.01	14	10	
11	584+60 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	11	10	
12	592+80 -L- RT	ROADWAY FILL	< 0.01				< 0.01					
13	591+60 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	22	10	
14	597+15 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	10	10	
15	602+41 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	12	10	
16	614+30 -L- LT	BANK STABILIZATION (SJ)						< 0.01	< 0.01	30	10	
16	634+07 -L- LT	48" RCP (SJH)						< 0.01	< 0.01	9	10	
17	634+07 -L- LT	BANK STABILIZATION (SJJ)						< 0.01	< 0.01	24	20	
18	639+60 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	18	10	
19	645+39 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	13	10	
20	654+55 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	14	10	
21	662+88 -L-	30" RCP						< 0.01	< 0.01	40	20	
TOTALS*:			< 0.01	< 0.01		0.01	0.08	0.07	0.06	376	257	

*Rounded totals are sum of actual impacts

NOTES:

-Site 6 culvert removal will daylight 132' LF of stream SI.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
10/28/2016
CABARRUS & ROWAN
I-3802B
36780.3.GV3

SHEET 89 OF 91

WETLAND PERMIT IMPACT 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)
21	662+29 -L- LT	BANK STABILIZATION						< 0.01		10		
22	668+50 -L-	48" RCP						< 0.01	< 0.01	55	24	
22	667+10 -L- LT	BANK STABILIZATION						< 0.01		30		
23	673+19 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	7	10	
24	676+00 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	14	10	
25	682+05 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	12	10	
26	706+38 -L-	60" RCP EXTENSION						< 0.01	< 0.01	10	20	
26	704+98 -L- LT	BANK STABILIZATION						< 0.01		21		
27	42+15 -Y19-	7'x7' RCBC EXTENSION						0.02	< 0.01	87	20	
27	42+86 -Y19- LT	BANK STABILIZATION						< 0.01		32		
28	21+35 -Y19RPC-	60" RCP EXTENSION						0.03	< 0.01	153	20	
28	21+35 -Y19RPC-	BANK STABILIZATION						< 0.01		31		
29	21+32 -Y19RPA- RT	BANK STABILIZATION						< 0.01	< 0.01	15	10	
30	730+66 -L-	36" RCP-EXTENSION						< 0.01	< 0.01	4	23	
30	730+66 -L- LT	BANK STABILIZATION						< 0.01		21		
31	744+00 -L- LT	BANK STABILIZATION						< 0.01	< 0.01	12	10	
31	738+23 to 743+38 -L- LT	DAYLIGHTED STREAM							< 0.01		39	
32	61+09to 62+00 -Y30- LT	ROADWAY			0.01	0.02						
33	758+85 -L- RT	54" RCP						< 0.01	< 0.01	14	10	
33	758+85 -L- RT	BANK STABILIZATION						< 0.01		15		
34	26+58 -Y19WB-	30" RCP-III						0.02	< 0.01	93	20	
34	26+58 -Y19WB- LT	BANK STABILIZATION						< 0.01		21		
35	18+23 -Y30-	36" RCP-IV						0.01	< 0.01	186	30	
35	18+23 -Y30- RT	BANK STABILIZATION						< 0.01		16		
TOTALS*:					0.01	0.02		0.12	0.03	859	256	0

*Rounded totals are sum of actual impacts

NOTES:

-Site 31 culvert removal will daylight 483' LF of stream SKM.

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SHEET 90 OF 91

WETLAND PERMIT IMPACT SUMMARY													
			WETLAND IMPACTS					SURFACE WATER IMPACTS					
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	
36	20+01 -Y30- RT	30" RCP						0.03	< 0.01	113	18		
36	20+01 -Y30- RT	BANK STABILIZATION						< 0.01		13			
37	33+96 -Y30- RT	BANK STABILIZATION						< 0.01	< 0.01	21	10		
38	40+38 -Y30- RT	STANDARD BASE DITCH						< 0.01		16			
		Subtotal Sheet 1	< 0.01	< 0.01		0.01	0.08	0.07	0.06	376	257		
		Subtotal Sheet 2			0.01	0.02		0.12	0.03	859	256		
TOTALS*:			Project Totals	< 0.01	< 0.01	0.01	0.03	0.08	0.23	0.10	1398	541	0

*Rounded totals are sum of actual impacts

NOTES:

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10/28/2016
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SHEET 91 OF 91