



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

November 4, 2022

Regulatory Division

Action ID. SAW-2008-01413
NC DOT TIP No.: U2519 AA&AB

Jamie Lancaster, PE
Environmental Analysis Unit Head
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Lancaster:

Reference the Department of the Army (DA) permit issued to the North Carolina Department of Transportation (NCDOT) on October 23, 2008, and subsequently modified on several occasions after the original issuance. The permit authorizes the discharge of fill material into waters of the United States for construction of the Fayetteville Outer Loop from I-95 South of Fayetteville to NC 24-87 in Cumberland, Hoke, and Robeson Counties, North Carolina. NCDOT has identified a portion of this project as U-2519 AA&AB.

Also, please reference your June 30, 2022, letter submitting a modification request for a portion of U-2519 AA&BB as described above. Specifically, it was identified that a small geographical area fell between two large projects, the Fayetteville Outer Loop and the widening of I-95 (I-5987). This small area was included within overlapping review areas of both projects and was described within the National Environmental Policy Act (NEPA) documents of the lead federal agency, the Federal Highway Administration (FHWA). However, it was not included within the Department of the Army (DA) permit applications for either project. The June 30th permit modification letter makes a request to incorporate the unavoidable impacts for this area under the U-2519 AA&AB section of the Fayetteville Outer Loop DA permit.

In total, this request includes permanent impacts to 1.48 acres of wetlands, less than 0.01 acre of open water, and 287 linear feet of streams. Temporary impacts include less than 0.01 acre of open water and 85 linear feet of streams. A detailed description of the impact are as follows:

- 1) Site 22A, riparian wetland, 0.41-acre permanent wetland impact.
- 2) Site 22B, riparian wetland, 0.73-acre permanent wetland impact.
- 3) Site 22C, Horsepen Branch, 105 linear feet permanent impact, 28 linear feet of temporary impact.
- 4) Site 31, riparian wetland, 0.34-acre permanent wetland impact.
- 5) Site 32, Cole Camp Creek, 112 linear feet of permanent impact, 47 linear feet of temporary stream impact.
- 6) Site 33, tributary C, less than 0.01-acre of permanent and temporary impact, respectively.
- 7) Site 34, Grays Creek, 70 linear feet of permanent stream impact, 10 linear feet of temporary impact.

Also reference your email of November 4th, 2022, requesting an extension to the permit expiration date of December 31, 2022.

The Corps has completed the evaluation of your request and has determined that it is appropriate and reasonable. In addition, it has been determined that a public notice is not required for this modification for the following reasons: 1) this area was disclosed under the FHWA previous NEPA documents; 2) it is contained between two large DA permitted projects; 3) it has been described throughout NCDOT's public involvement process; and 4) this approach has been concurred on by state and federal agencies attending the May 11th, 2022, Merger Concurrence Meeting. Furthermore, we have determined the proposed project modifications described above are not contrary to the public interest and are consistent with the 404(b)(1) Guidelines and therefore, the DA permit is hereby modified.

The authorized work covered under this modification shall be completed in accordance with the attached permit drawings submitted with the permit modification

letter of June 30, 2022, and the additional Special Conditions listed below. Please note that as there are an additional permanent stream and wetland impacts, compensatory mitigation is required with this modification.

Special Conditions applicable to this DA permit modification include:

Special Condition #A for November 2022 Modification: All work authorized by this permit shall be performed in strict compliance with the attached permit plans which are a part of this permit. The Permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Any modification to the attached permit plans must be approved by the US Army Corps of Engineers prior to any active construction in waters or wetlands.

Special Condition #B for November 2022 Modification: In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit.

Special Condition #C for November 2022 Modification: The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Biological Opinion (PBO) titled, "NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1- 8", dated November 6, 2020, contains agreed upon conservation measures for the NLEB. As noted in the PBO, applicability of these conservation measures varies depending on the location of the project. Your authorization under this Department of the Army permit is conditional upon your compliance with all applicable conservation measures in the PBO, which are incorporated by reference in this permit. Failure to comply with the applicable conservation measures would constitute non-compliance with your Department of the Army permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO, and with the ESA.

In addition, the permit expiration date has been extended until December 31, 2027. All other conditions of the original permit and previous modifications remain applicable.

This approved modification should be attached to the original permit and will be utilized for future compliance reviews of the project. If you have questions, please contact Eric Alsmeyer of the Regulatory Field Office, at telephone (919) 554-4884 or email eric.c.alsmeyer@usace.army.mil.

FOR THE COMMANDER

 Date: 2022.11.04
13:29:28 -04'00'

Monte Matthews
Lead Project Manager
Wilmington District

Enclosures

Copies Furnished (by email):

Amy Chapman, NCDEQ

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

Permittee: NCDOT
Project Name: U-2519 AA&AB

Action ID: 2008-01413
County: Robeson

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

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

Permitted Impacts and Compensatory Mitigation Requirements

Permitted Impacts Requiring Mitigation*:

8-digit HUC and Basin: Choose the 8-digit HUC

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
287			1.31			

*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: 03030004, Cape Fear River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
431			3.93			

Mitigation Site Debited: Privateer Wetland and Stream Mitigation Site

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

Section to be completed by the Mitigation Sponsor

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

Mitigation Sponsor Name: North Carolina Department of Transportation

Name of Sponsor's Authorized Representative: LeiLani Y Paugh

LeiLani Y. Paugh

Signature of Sponsor's Authorized Representative

11/07/2022

Date of Signature

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

Conditions for Transfer of Compensatory Mitigation Credit:

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

Comments/Additional Conditions:

Since the mitigation will occur out-of-HUC, wetlands are mitigated at a 3:1 ratio and streams at a 1.5:1 ratio.

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

USACE Project Manager: Monte Matthews
USACE Field Office: Raleigh Regulatory Field Office
US Army Corps of Engineers
3331 Heritage Trade Drive, Suite 105
Wake Forest, NC 27587

Email:



Date: 2022.11.04
09:34:04 -04'00'

Wilmington District Project Manager Signature

November 4, 2022
Date of Signature

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



NORTH CAROLINA
Environmental Quality

July 22, 2022

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director

Mr. Philip S. Harris, III, P.E., CPM
Environment Analysis Unit Head
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Subject: Modification to the 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for the Proposed Improvements to the Fayetteville Outer Loop from I-95 South of Fayetteville to NC 24-87 in Cumberland, Hoke and Robeson Counties. Federal Aid Project No. NHP-0620(031), State Project No. 34817.3.13, TIP Nos. X-0002 B & C, and U-2519 AA, AB, BA, BB, CA, CB, DA, & E and I-5987.
NCDWR Project No. 20080737 v. 14.

Dear Mr. Harris:

Attached hereto is a modification of Certification No. 003758 issued to The North Carolina Department of Transportation (NCDOT) dated October 6, 2008, and modifications dated June 3, 2010, December 16, 2010, May 22, 2014, January 19, 2017, March 29, 2017, April 28, 2017, January 29, 2018, June 21, 2018, October 18, 2018, July 15, 2019, December 15, 2021, March 8, 2022.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,

DocuSigned by:

A handwritten signature in black ink, appearing to read "Robert Rogers", enclosed within a blue DocuSign signature box.

80ECA32C7C38490
Richard E. Rogers, Jr., Director
Division of Water Resources

Attachments

Electronic copy only distribution:

Liz Hair, US Army Corps of Engineers, Wilmington Field Office
Gregory Price, Division 6 Environmental Officer
Chris Rivenbark, NC Department of Transportation
Gary Jordan, US Fish and Wildlife Service
Travis Wilson, NC Wildlife Resources Commission
Beth Harmon, Division of Mitigation Services
Hannah Sprinkle, NC Division of Water Resources Wilmington Regional Office File Copy



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

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

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to permanently impact an additional **1.48 acres** of jurisdictional wetlands, **287 linear feet** of streams and **0.007 acres** of open water in Cumberland, Hoke and Robeson County. The project shall be constructed pursuant to the revised modification request dated received June 30, 2022. The authorized impacts are as described below:

Wetland Impacts in the Lumber River Basin

Sites	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)
22A	0.29	--	--	0.12	--	0.41
22B	0.40	--	--	0.33	--	0.73
31	0.21	--	--	0.13	--	0.34
Total	0.90	--	--	0.58	--	1.48

compensation has already been provided for 0.17 acres at Site 22, 1.31 ac still need mitigation

Total Wetland Impacts: 1.48 acres

Total Permanent Wetland Impacts: 1.48 acres

Stream Impacts in the Lumber and Cape Fear River Basin

Site	Waterbody	Permanent (linear ft)	Temporary (linear ft)	Total Stream Impact (linear ft)
22C	Horsepen Branch	105	28	133
32	Cold Camp Creek	112	47	159
34	Grays Creek	70	10	80
Total		287	85	372

Total Stream Impacts: 372 linear feet

Total Permanent Stream Impacts: 287 linear feet

Open Water Impacts in the Lumber and Cape Fear River Basin

Sites	Permanent (ac)	Temporary (ac)	Total SW Impact (ac)
33	0.007	0.001	0.008
Total	0.007	0.001	

*<0.01 total SW impacts

Total Open Water Impacts: 0.008 acres

Total Permanent Open Water Impacts: 0.007 acres

The application provides adequate assurance that the discharge of fill material into the waters of the Lumber and Cape Fear River Basin in conjunction with the proposed activity will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your modified application dated received June 30, 2022. Should your project change, you are required to notify 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 any additional impacts, for this project (now or in the future) are required the applicant should contact NCDWR as a modification of this Certification may be required. For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Condition(s) of Certification:

1. This modification is applicable only to the additional proposed activities. All of the authorized activities and conditions associated with the original Water Quality Certification dated October 6, 2008 and subsequent modifications still apply except where superseded by this certification.
2. 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)]
3. The permittee shall ensure that final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 02H .0506(b)(2) and (c)(2)]
4. Compensatory mitigation for impacts **1.31 acres** of wetlands is required. We understand that you have been debited from the Privateer Wetland and Stream Mitigation Site in lieu of compensatory mitigation through the North Carolina Division of Mitigation Services (DMS).

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 permit.

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



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


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. Bill F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center

This the 22nd day of July, 2022

DIVISION OF WATER RESOURCES

DocuSigned by:

80ECA32C7C38490...

Richard E. Rogers, Jr.
Director

WQC No. 003758

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

RICHARD E. ROGERS, JR.
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, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, **or** the project engineer. It is not necessary to send certificates from all of these.

Applicant's Certification

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

Signature: _____ Date: _____

Agent's Certification

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

Signature: _____ Date: _____



Engineer's Certification



_____ Partial _____ Final

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

Signature _____ Registration No. _____
Date _____



 <div style="text-align: center;"> North Carolina Department of Transportation Highway Stormwater Program STORMWATER MANAGEMENT PLAN FOR NCDOT PROJECTS </div> 									
(Version 3.00; Released August 2021)									
WBS Element: 34817.3.4		TIP/Proj No: U-2519AA & AB		County(ies): Cumberland Robeson			Page 1 of 2		
General Project Information									
WBS Element:		34817.3.4		TIP Number:		U-2519AA & AB		Project Type: Roadway Widening	
NCDOT Contact:		Paul Atkinson, PE		Contractor / Designer:		Joshua G. Dalton, PE		Date: 2/15/2022	
		Address:				Address:			
		NCDOT Hydraulics Unit				Sunate Design Group, P.A.			
		1590 Mail Service				905 Jones Franklin Road			
		Raleigh, NC 27699-1590				Raleigh, NC 27606			
		Phone: 919-707-6707				Phone: 919-859-2243			
		Email: patkinson@ncdot.gov				Email: jdaltan@sungatedesign.com			
City/Town:		Hope Mills		County(ies):		Cumberland		Robeson	
River Basin(s):		Cape Fear		CAMA County?		No		No	
Wetlands within Project Limits?		Yes							
Project Description									
Project Length (lin. miles or feet):		4.16		Surrounding Land Use:		Rural, Low Density Residential, Agricultural, Woods			
Proposed Project									
Project Built-Upon Area (ac.)		83.5		ac.		Existing Site			
Typical Cross Section Description:		I-95 Sta. 18+80 - 22+90, 145+00 - 246+00 -Y-: Grassed ditch median with varying 4:1 to 10:1 side slopes. 8 paved lanes (total 96' wide). 12' full depth paved shoulder on each side (17' with guardrail). Varying fill and cut slopes (see project XSC's for detailed information). I-95 Sta 22+90 - 145+00 -Y-: Paved median separated by median barrier with 13'-24' paved median. 8 paved lanes (total 96' wide). 12' full depth paved shoulder on each side (17' with guardrail). Varying fill and cut slopes (see project XSC's for detailed information).		ac.		I-95: Grassed ditch median with varying 6:1 to 8:1 side slopes. 4 paved lanes (total 48' wide). 12' paved shoulder on each side. Varying fill and cut slopes.			
Annual Avg Daily Traffic (veh/hr/day):		Design/Future: 77,900		Year: 2040		Existing: 58,300		Year: 2018	
General Project Narrative: (Description of Minimization of Water Quality Impacts)		<p>The North Carolina Department of Transportation (NCDOT) has proposed the widening and improvements of existing I-95 in Hope Mills, NC. As part of the U-2519AA&AB project, I-95 is considered the -Y- alignment because it is part of the Fayetteville Loop project. The U-2519 AA & AB project includes 2 proposed culverts at existing stream crossings along I-95. All major structures have been designed to have as little environmental and surface water impacts as possible. The first proposed major structure is along I-95 at Horsepen Branch. The proposed structure is a 2@10'x8' Reinforced Concrete Box Culvert buried 1'. The existing structure at this crossing is a 1@7'x6' Reinforced Concrete Box Culvert. The second proposed major structure is along I-95 at Cold Camp Creek. The proposed structure is a 2@10'x9' Reinforced Concrete Box Culvert buried 1'. The existing structure at this crossing is a 1@9'x7' Reinforced Concrete Box Culvert. Grassed conveyances were used to reduce flow velocity, promote sedimentation infiltration and runoff attenuation. Velocities at jurisdictional and wetland features are non-erosive.</p>							

 <div style="text-align: center;"> North Carolina Department of Transportation Highway Stormwater Program STORMWATER MANAGEMENT PLAN FOR NCDOT PROJECTS </div> 									
(Version 3.00; Released August 2021)									
WBS Element: 34817.3.4		TIP/Proj No.: U-2519AA & AB		County(ies): Cumberland Robeson			Page 2 of 2		
General Project Information									
Waterbody Information									
Surface Water Body (1):		Horsepen Branch			NCDWR Stream Index No.:		14-22-1-1-1		
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C					
		Supplemental Classification:		Swamp Waters (Sw)					
Other Stream Classification:		None							
Impairments:		None							
Aquatic T&E Species?		No		Comments:					
NRTR Stream ID:						Buffer Rules in Effect:		N/A	
Project Includes Bridge Spanning Water Body?		No		Deck Drains Discharge Over Buffer?		N/A		Dissipator Pads Provided in Buffer?	
Deck Drains Discharge Over Water Body?		N/A		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)			
Surface Water Body (2):		Cold Camp Creek			NCDWR Stream Index No.:		14-22-1-1		
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class C					
		Supplemental Classification:		Swamp Waters (Sw)					
Other Stream Classification:		None							
Impairments:		None							
Aquatic T&E Species?		No		Comments:					
NRTR Stream ID:						Buffer Rules in Effect:		N/A	
Project Includes Bridge Spanning Water Body?		No		Deck Drains Discharge Over Buffer?		N/A		Dissipator Pads Provided in Buffer?	
Deck Drains Discharge Over Water Body?		N/A		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)			
Surface Water Body (3):		Grays Creek (Rainey Pond, Rainbow Pond)			NCDWR Stream Index No.:		18-35-(1)		
NCDWR Surface Water Classification for Water Body		Primary Classification:		Class B					
		Supplemental Classification:		None					
Other Stream Classification:		None							
Impairments:		None							
Aquatic T&E Species?		No		Comments:					
NRTR Stream ID:						Buffer Rules in Effect:		N/A	
Project Includes Bridge Spanning Water Body?		No		Deck Drains Discharge Over Buffer?		N/A		Dissipator Pads Provided in Buffer?	
Deck Drains Discharge Over Water Body?		N/A		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)			

See Sheet 1A For Index of Sheets
See Sheet 1B For Standard Symbolology Sheet

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PERMIT DRAWING
SHEET 1 OF 132
DATE: 06-10-22

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2519AA&AB	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34817.3.4	NHP-1118(11)	P.E., ROW, UTILITIES & CONSTRUCTION	

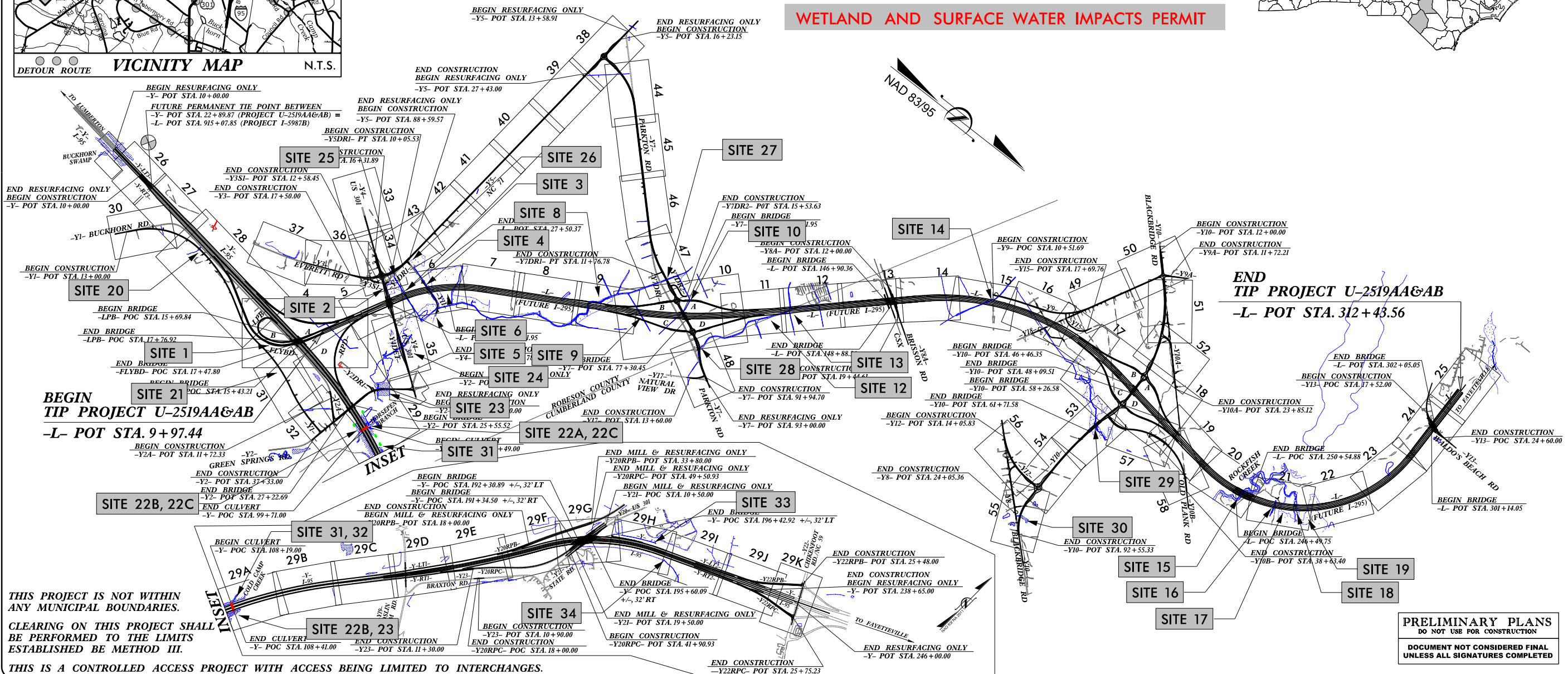
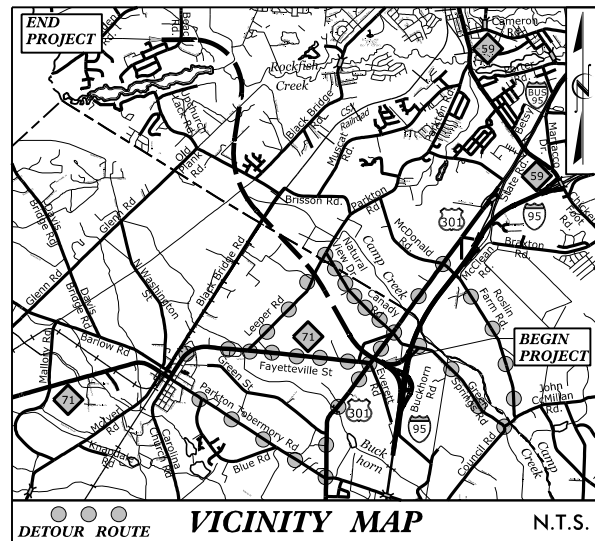
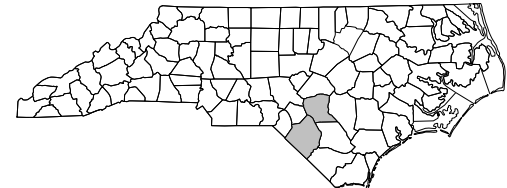
Submitted 6/30/2022

CUMBERLAND /ROBESON COUNTY

LOCATION: FUTURE I-295 - FAYETTEVILLE OUTER LOOP FROM I-95 IN ROBENSON COUNTY TO SOUTH OF SR 1003 (CAMDEN RD) IN CUMBERLAND COUNTY

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING AND STRUCTURES

WETLAND AND SURFACE WATER IMPACTS PERMIT

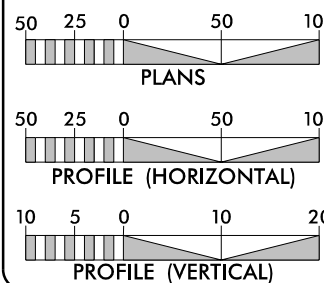


THIS PROJECT IS NOT WITHIN
ANY MUNICIPAL BOUNDARIES.

CLEARING ON THIS PROJECT SHALL
BE PERFORMED TO THE LIMITS
ESTABLISHED BY METHOD III.

THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

GRAPHIC SCALES



DESIGN DATA

ADT 2015 = 25,000
ADT 2040 = 33,100
K = 8%
D = 55%
T = 12%*
V = 70 MPH
* (TTST=4% + DUAL 8%)
FUNC. CLASSIFICATION =
INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-2519AA & AB = 5.582 MILES
LENGTH STRUCTURE TIP PROJECT U-2519AA & AB = 0.150 MILES *
TOTAL LENGTH OF TIP PROJECT U-2519AA & AB = 5.732 MILES
* LENGTH BASED OFF NB BRIDGES

NCDOT CONTACT: MICHAEL PENNEY, PE
DESIGN BUILD ENGINEER - DESIGN BUILD

PLANS PREPARED FOR THE NCDOT BY:

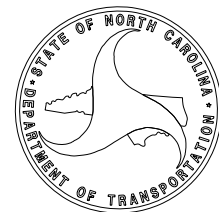
2012 STANDARD SPECIFICATIONS
RIGHT OF WAY DATE:
NOVEMBER 21, 2017
LETTING DATE:
NOVEMBER 21, 2017

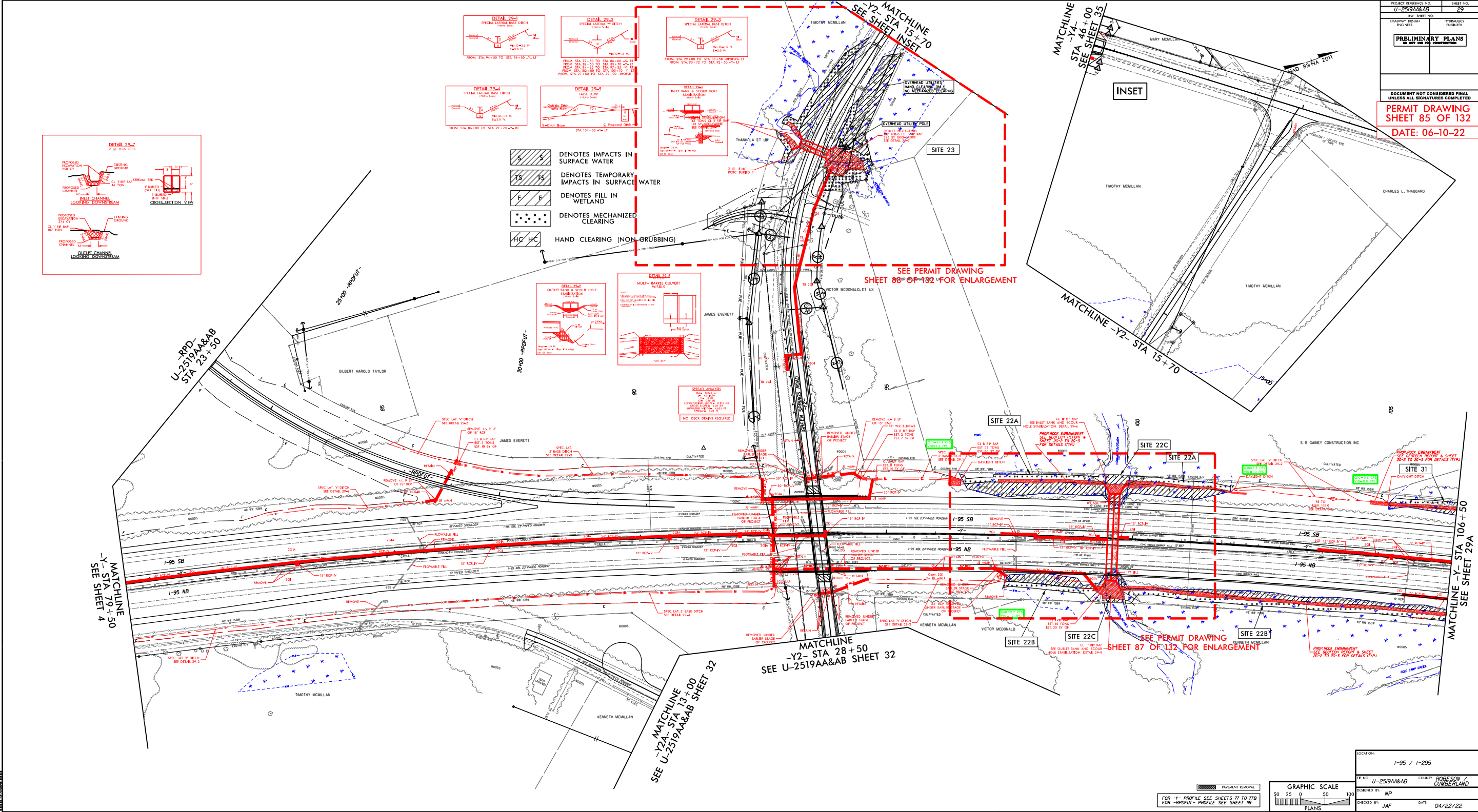
JOSEPH A. FREEMAN, PE
DESIGN PROJECT MANAGER
NARONG PHAL, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.



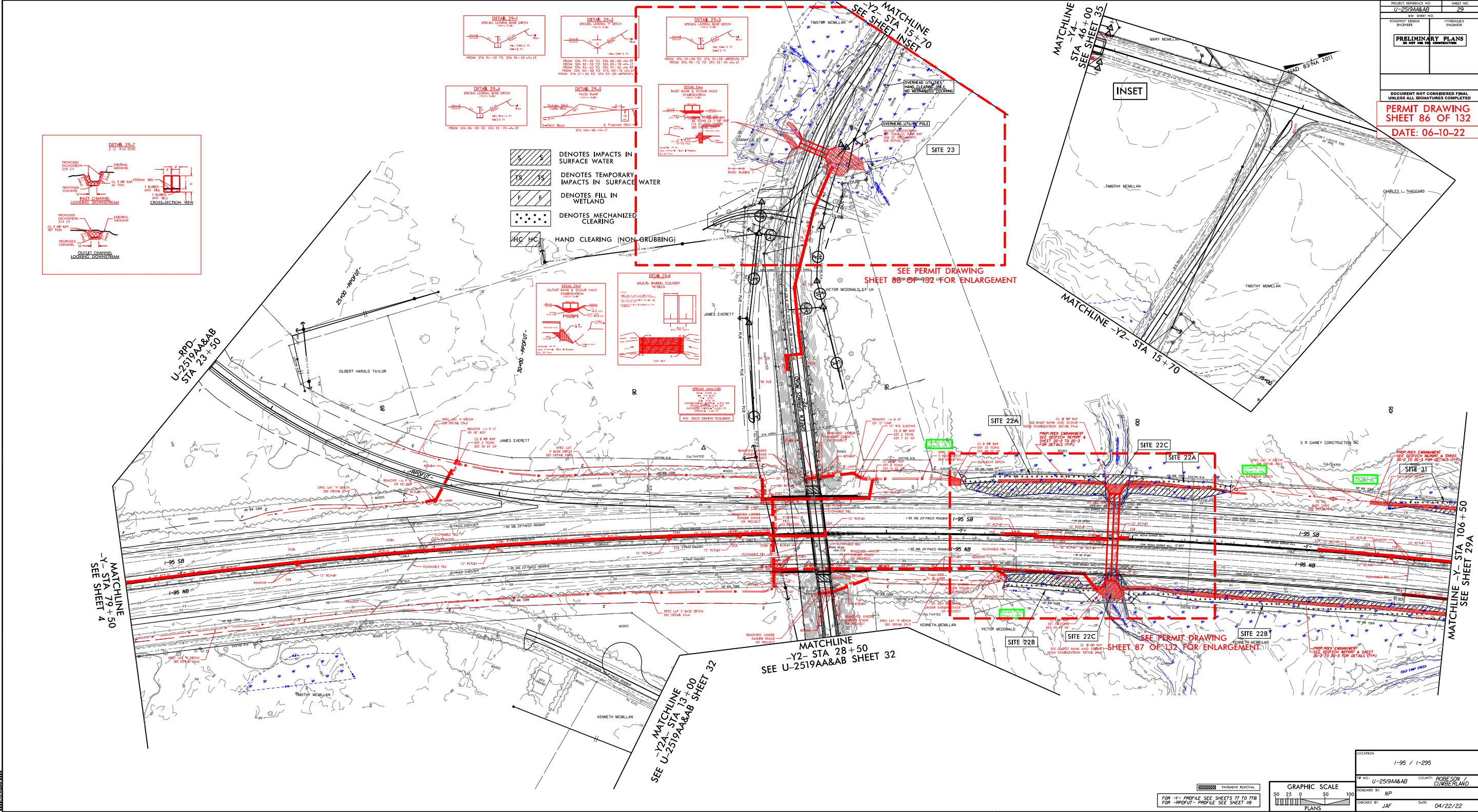


PROJECT REFERENCE NO.	U-2519AA&AB
SHEET NO.	29
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PERMIT DRAWING SHEET 85 OF 132	
DATE: 06-10-22	

LOCATION: I-95 / I-295	
TP NO: U-2519AA&AB	COUNTY: ROBERTSON / CUMBERLAND
DESIGNED BY: NP	CHECKED BY: JAF
DATE: 04/22/22	

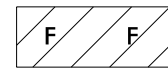
FOR -Y- PROFILE SEE SHEETS 77 TO 77B
FOR -RPOFUT- PROFILE SEE SHEET 19

GRAPHIC SCALE
50 25 0 50 100
PLANS



PROJECT REFERENCE NO.	U-2519AA&AB
SHEET NO.	22
DESIGNED BY	NP
CHECKED BY	JAF
DATE	04/22/22
PERMIT DRAWING SHEET 86 OF 132 DATE: 06-10-22	

GRAPHIC SCALE	0 25 50 100
PLANS	
FOR -Y- PROFILE SEE SHEETS 77 TO 77B	
FOR -RPOFUT- PROFILE SEE SHEET 119	



DENOTES FILL IN
WETLAND



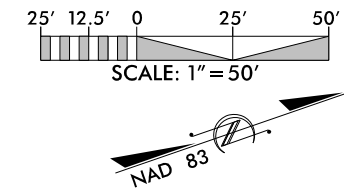
DENOTES IMPACTS IN
SURFACE WATER



DENOTES MECHANIZED
CLEARING



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

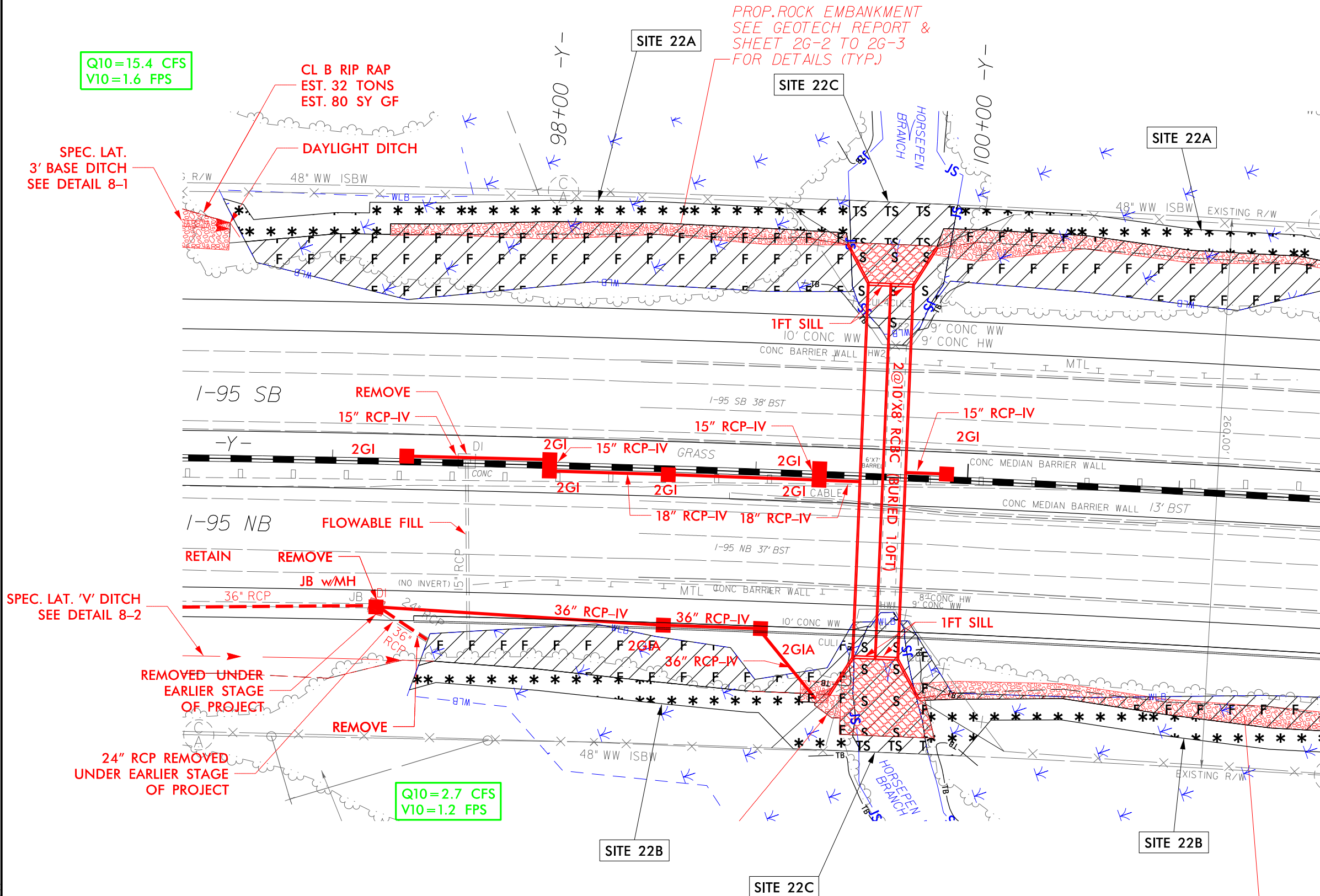


PROJECT REFERENCE NO.	SHEET NO.
U-2519AA&AB	
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 87 OF 132

DATE: 06-10-22



PROP. ROCK EMBANKMENT
SEE GEOTECH REPORT & SHEET
26-2 TO 26-3 FOR DETAILS (TYP.)

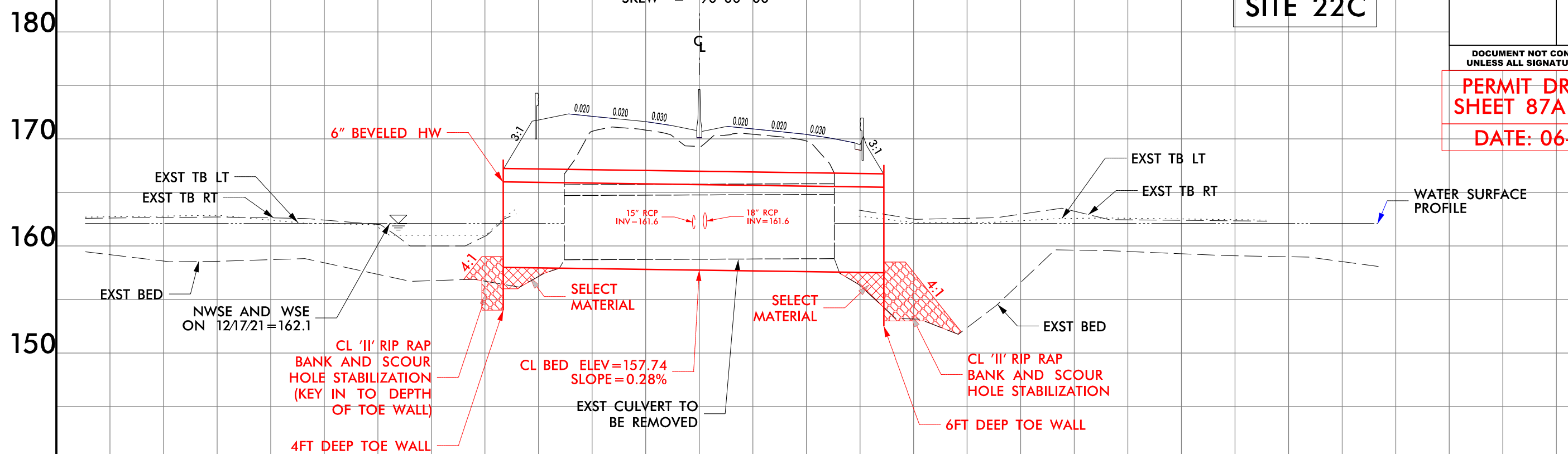
PROJECT REFERENCE NO.	SHEET NO.
U-2519AA&AB	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 87A OF 132
DATE: 06-10-22

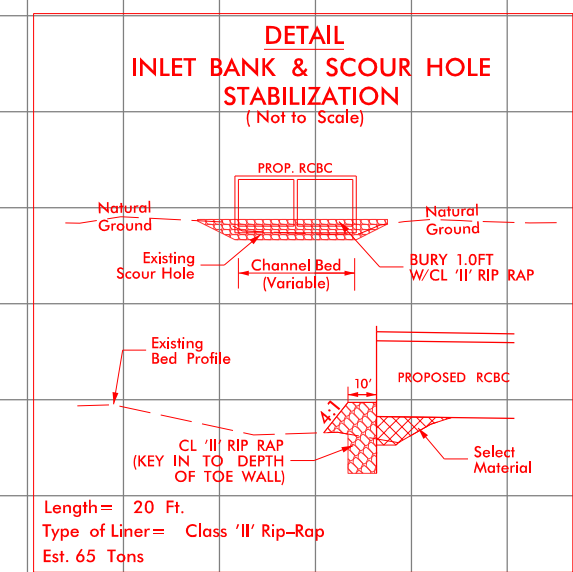
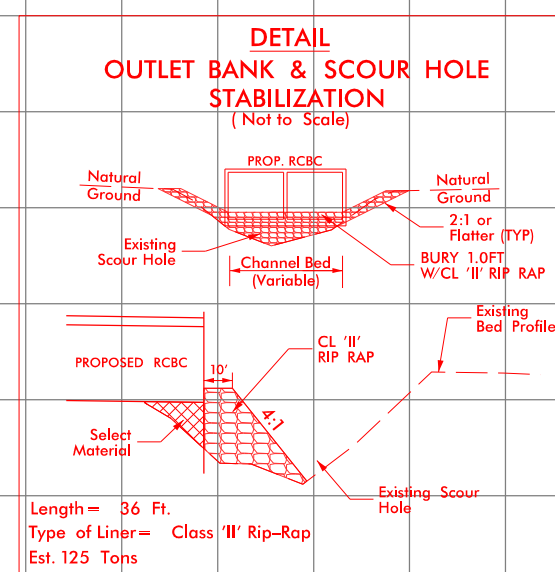
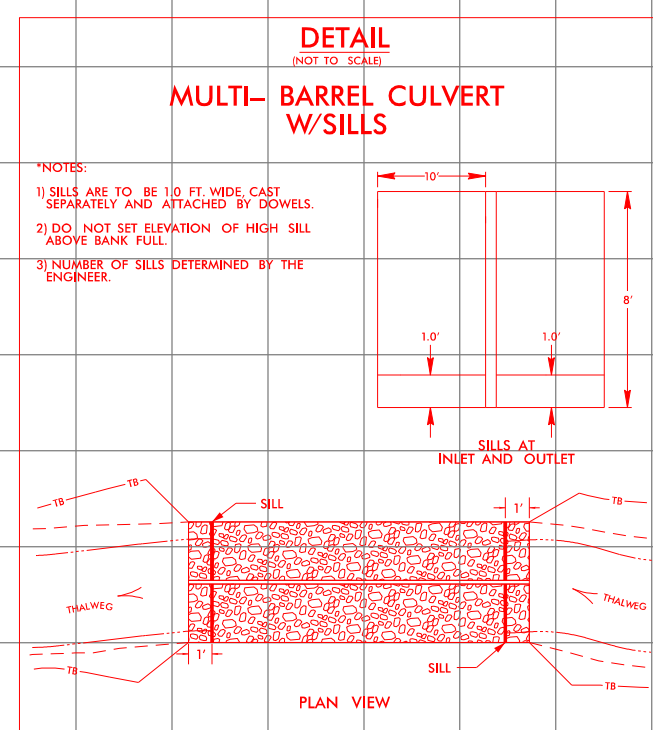
SITE 22C

CL STA 99+60 -Y-
GP EL = 171.62 -Y- (LEFT)
GP EL = 170.94 -Y- (RIGHT)
2@10'x8' RCBC (BURIED 1.0FT)
SKEW = 90°-00'-00"



NATIVE MATERIAL SPECIFICATION FOR BACKFILLING NOTE

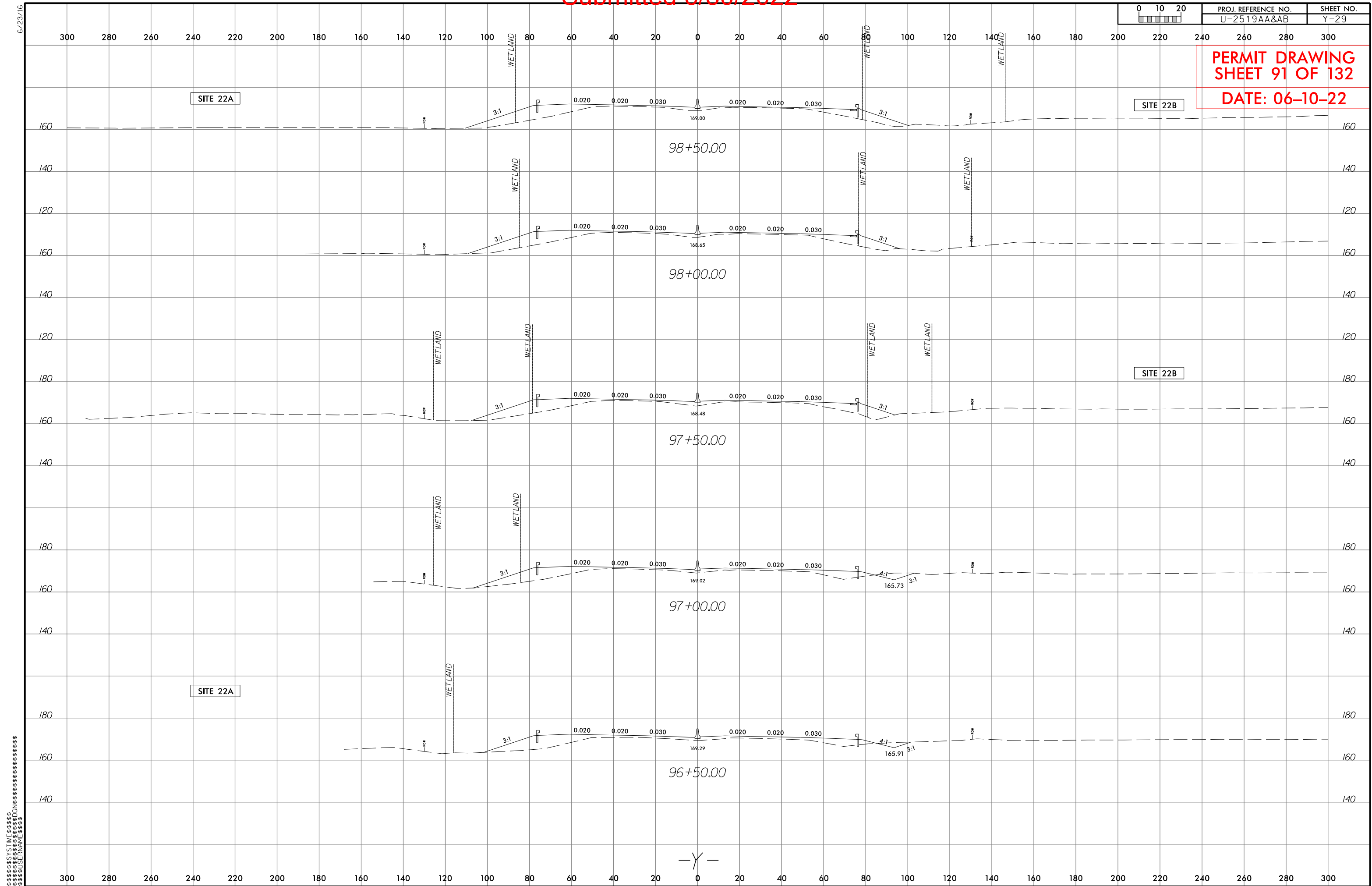
The Engineer, in consultation with DEO staff, shall review all material to be used as backfill prior to conducting the backfill activity. Backfill shall consist of native material only unless the Engineer, in consultation with DEO staff, determines that (1) the native material is unsuitable, or (2) additional material is required to supplement the native material. The chosen backfill material shall not have adverse effects to aquatic life, aquatic life passage, or water quality. Native material consists of material that is excavated from the stream bed or floodplain at the project site during culvert construction. Native material may also be subject to permit conditions.



Length = 36 Ft.
Type of Liner = Class 'II' Rip-Rap
Est. 125 Tons

Length = 20 Ft.
Type of Liner = Class 'II' Rip-Rap
Est. 65 Tons

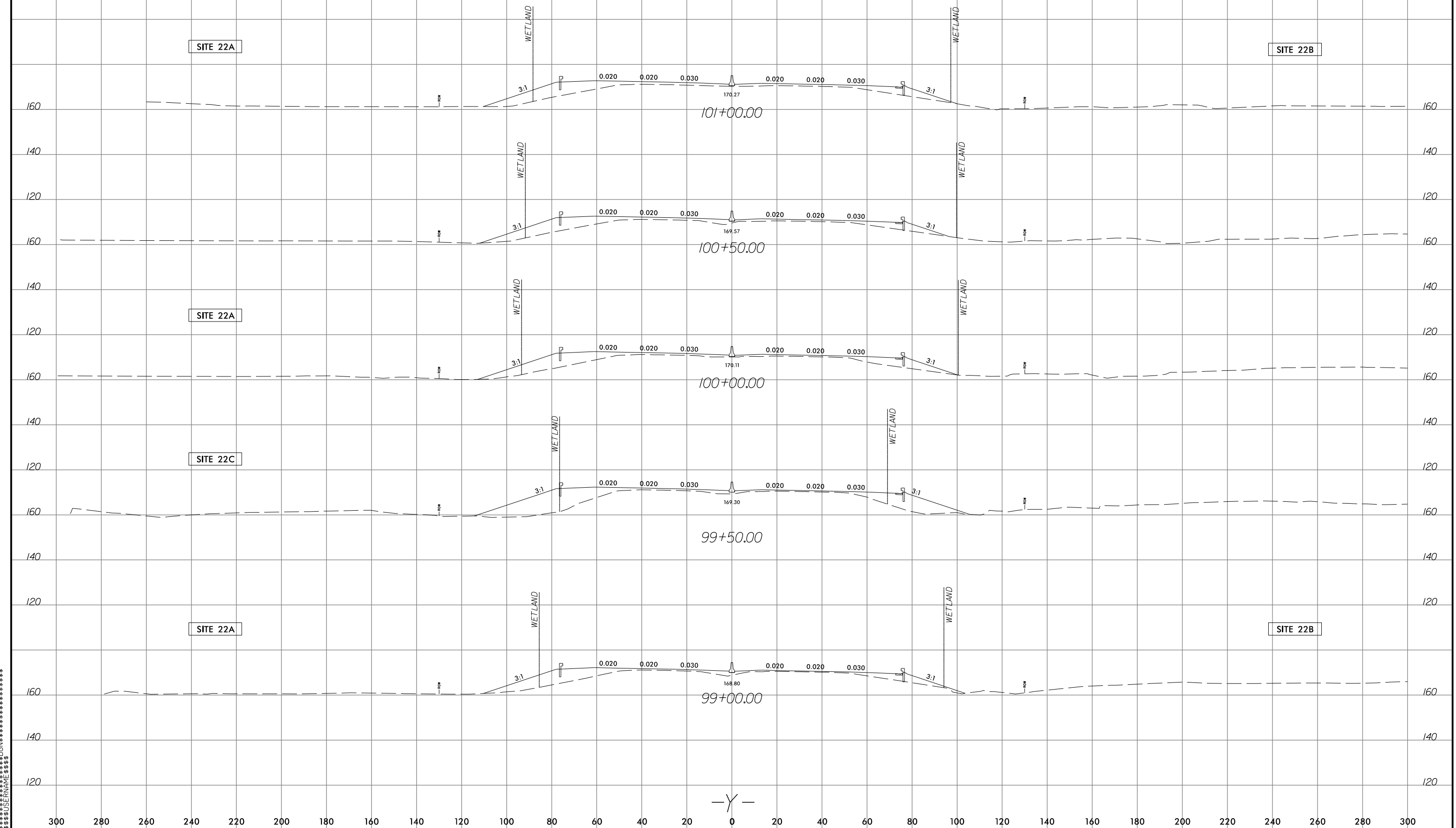
Submitted 6/30/2022



6/23/16

01020	PROJ. REFERENCE NO.	SHEET NO.
	U-2519AA&AB	Y-30

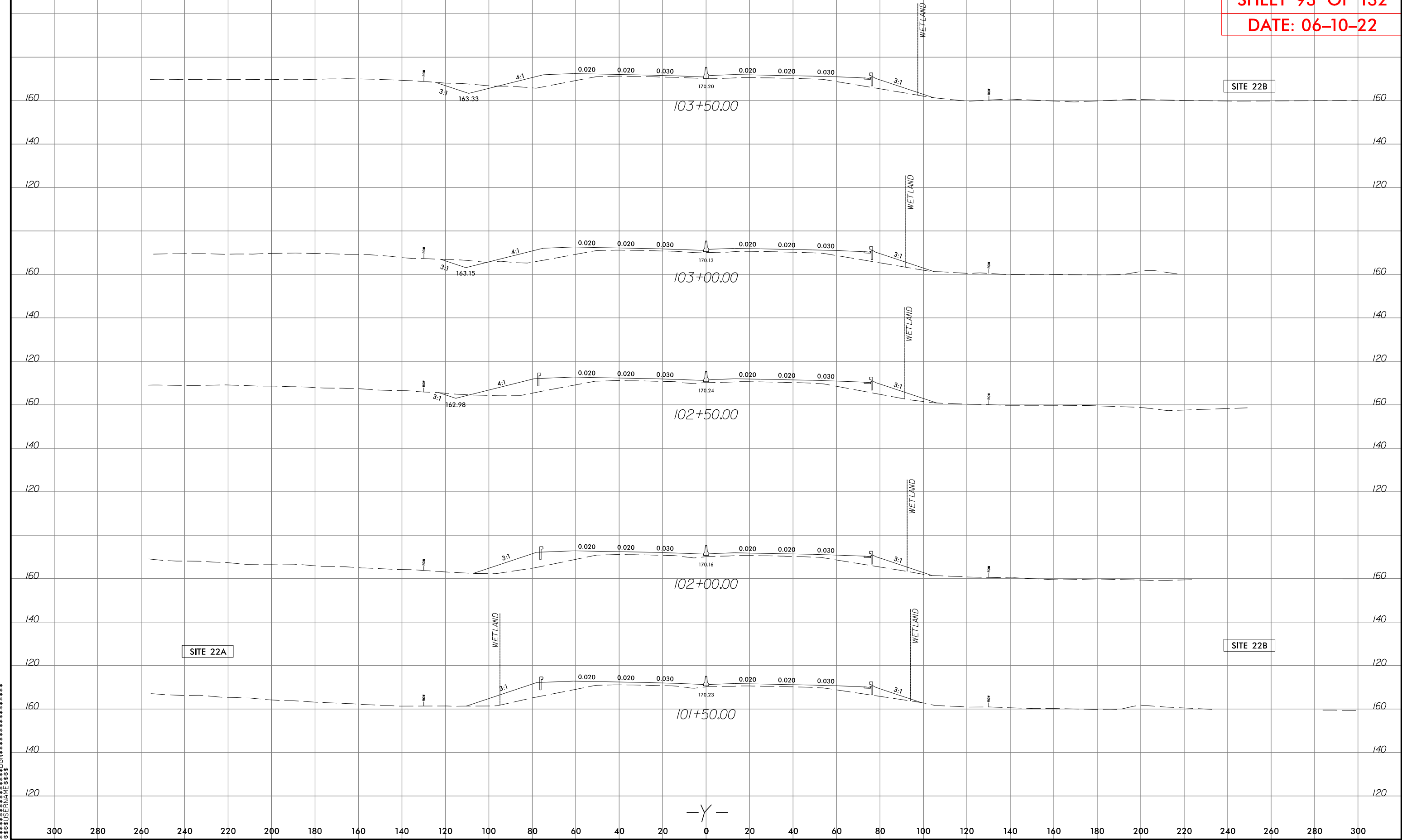
PERMIT DRAWING
SHEET 92 OF 132
DATE: 06-10-22







6/23/16

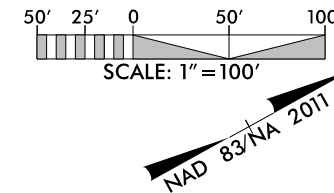
0 10 20	PROJ. REFERENCE NO.	SHEET NO.
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PERMIT DRAWING
SHEET 93 OF 132
DATE: 06-10-22



Submitted 6/30/2022

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



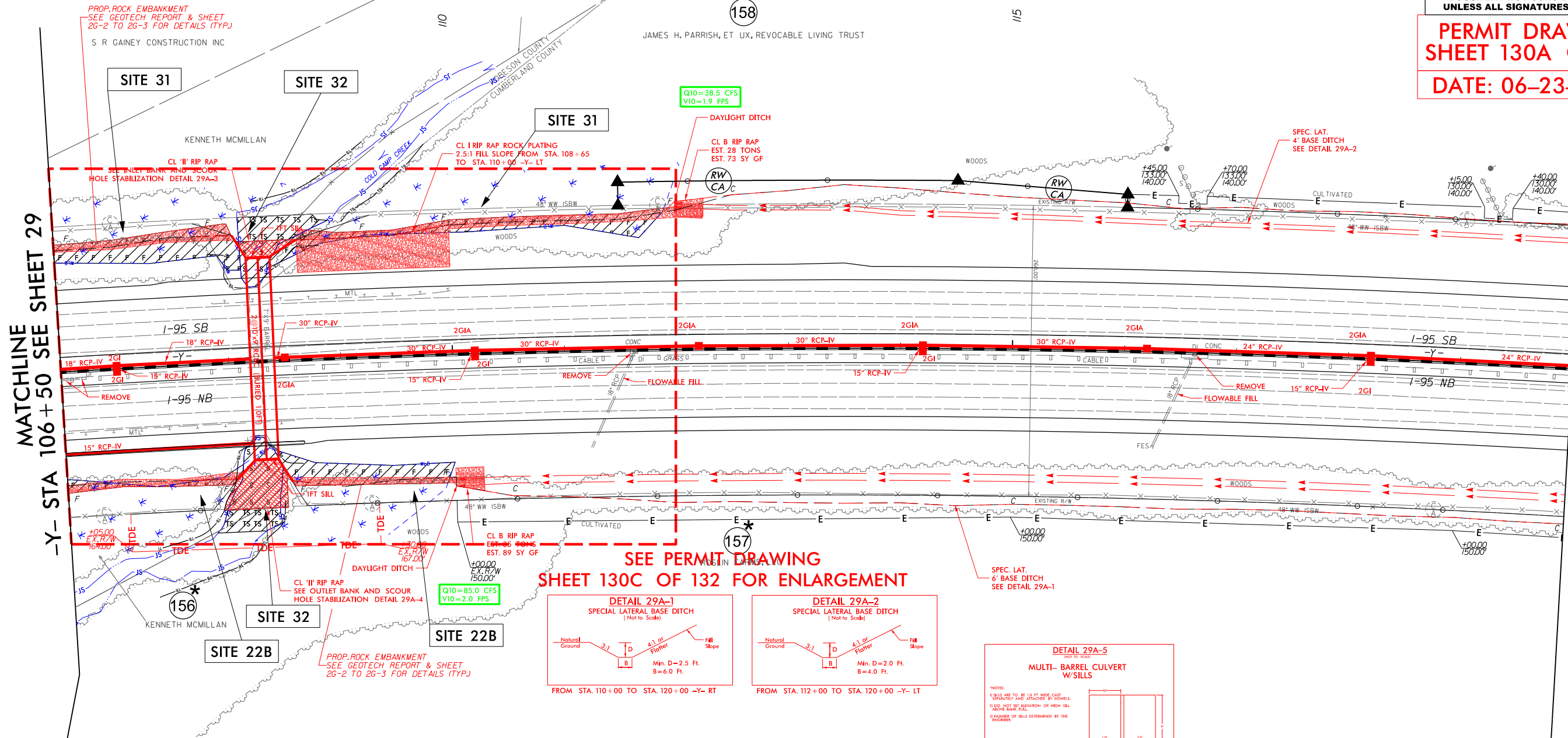
PROJECT REFERENCE NO.	SHEET NO.
U-2519AA&AB	29A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

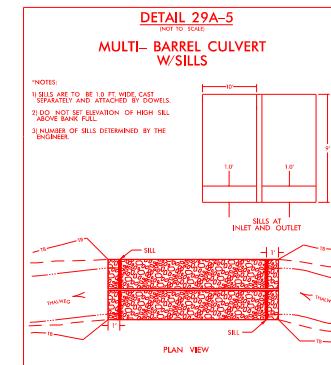
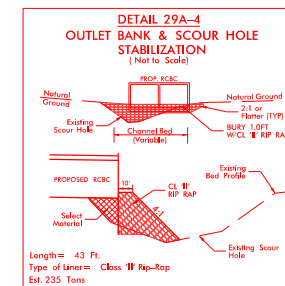
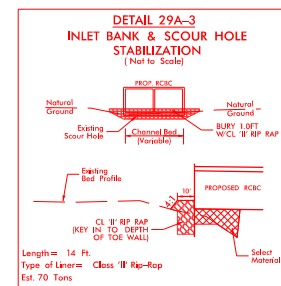
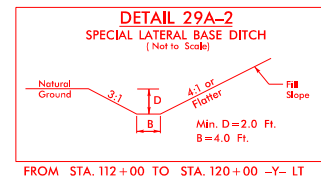
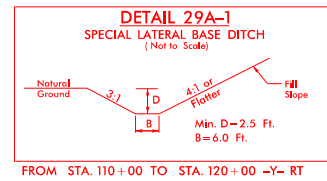
PERMIT DRAWING
SHEET 130A OF 132
DATE: 06-23-22

MATCHLINE
-Y- STA 106+50 SEE SHEET 29

MATCHLINE
-Y- STA 120+00 SEE SHEET 29B


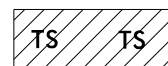
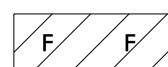



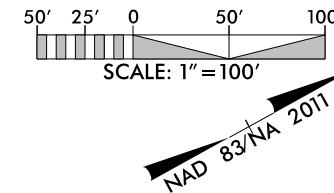
SEE PERMIT DRAWING
SHEET 130C OF 132 FOR ENLARGEMENT



FOR -Y- PROFILE SEE SHEETS 77B & 77C

Submitted 6/30/2022

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



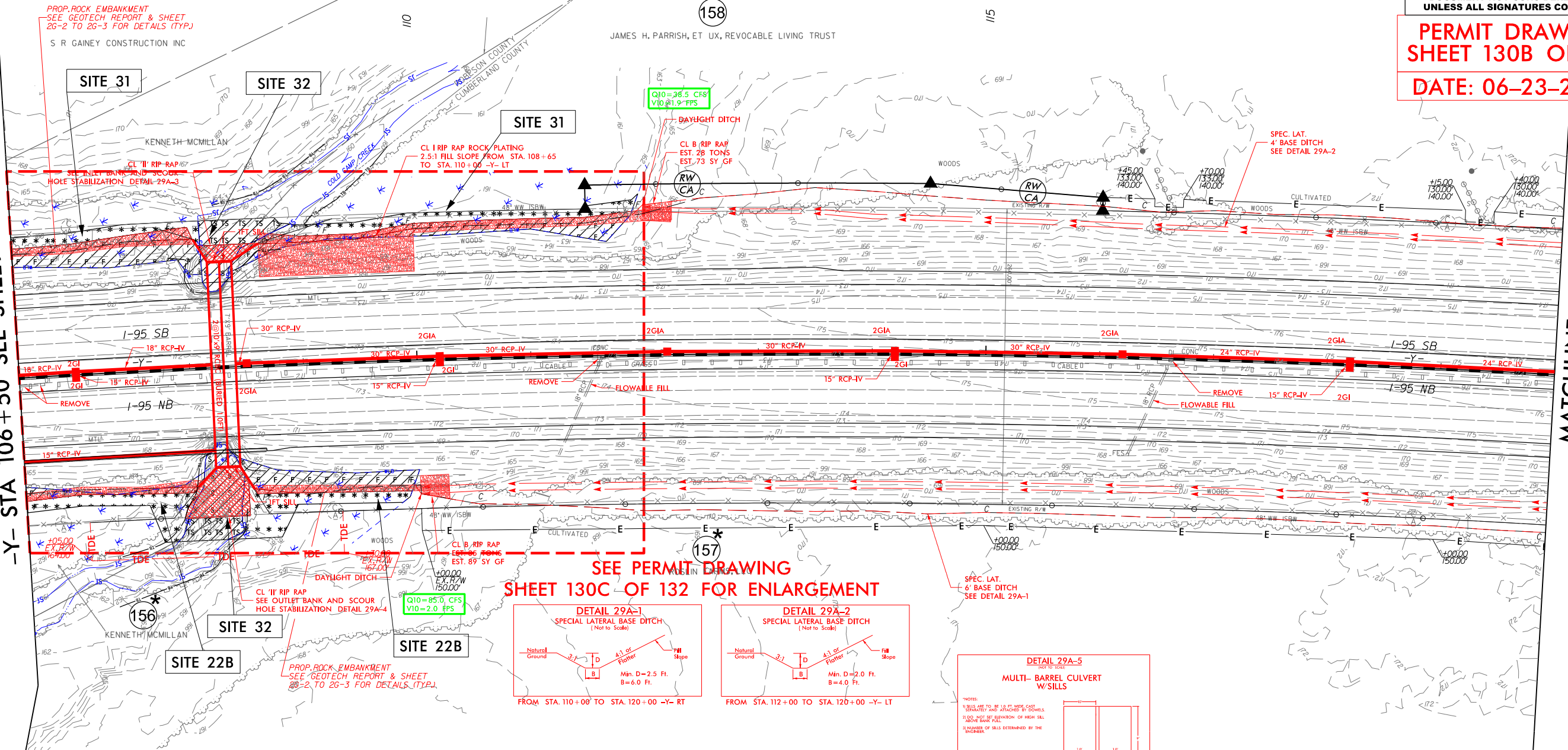
PROJECT REFERENCE NO.	SHEET NO.
U-2519AA&AB	29A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

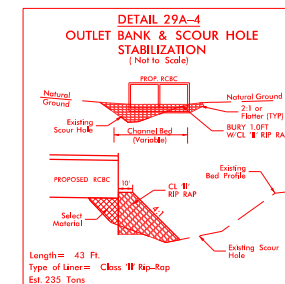
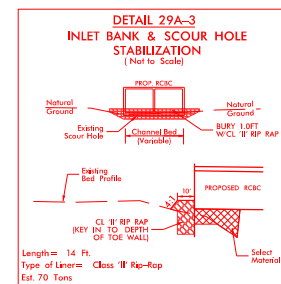
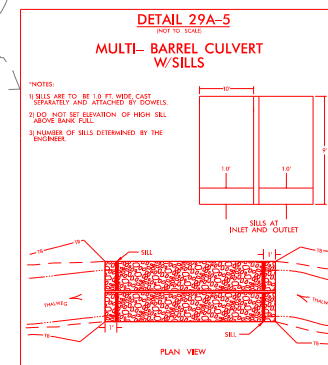
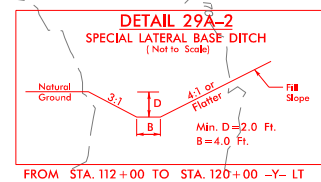
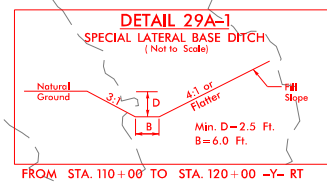
PERMIT DRAWING
SHEET 130B OF 132
DATE: 06-23-22

MATCHLINE
-Y- STA 106+50 SEE SHEET 29

MATCHLINE
-Y- STA 120+00 SEE SHEET 29B



SEE PERMIT DRAWING
SHEET 130C OF 132 FOR ENLARGEMENT



FOR -Y- PROFILE SEE SHEETS 77B & 77C

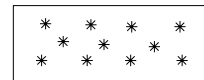
Submitted 6/30/2022



DENOTES FILL IN
WETLAND



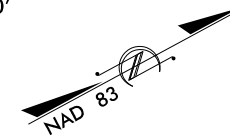
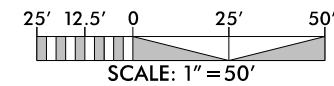
DENOTES IMPACTS IN
SURFACE WATER



DENOTES MECHANIZED
CLEARING



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



PROJECT REFERENCE NO. U-2519AA&AB	SHEET NO.
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

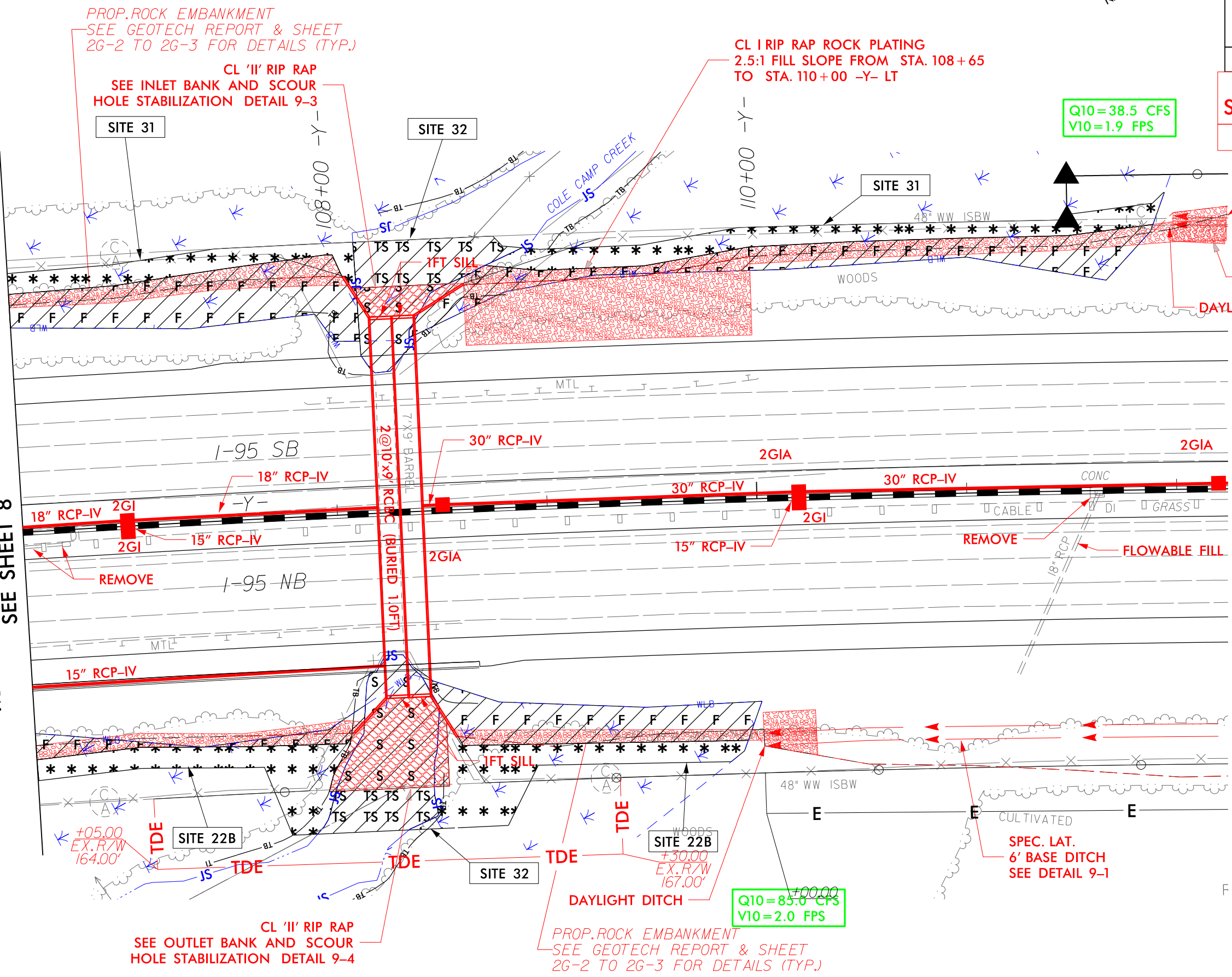
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 130C OF 132

DATE: 06-23-22

SPEC. LAT.
4' BASE DITCH
SEE DETAIL 9-2

MATCHLINE -Y- STA 106+50
SEE SHEET 8



CL STA 108+30 -Y-
GP EL = 172.96 -Y- (LEFT)
GP EL = 172.44 -Y- (RIGHT)
2@10'x9' RCBC (BURIED 1.0FT)
SKEW = 90°00'-00"

SITE 32

PROJECT REFERENCE NO. U-2519AA&AB	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

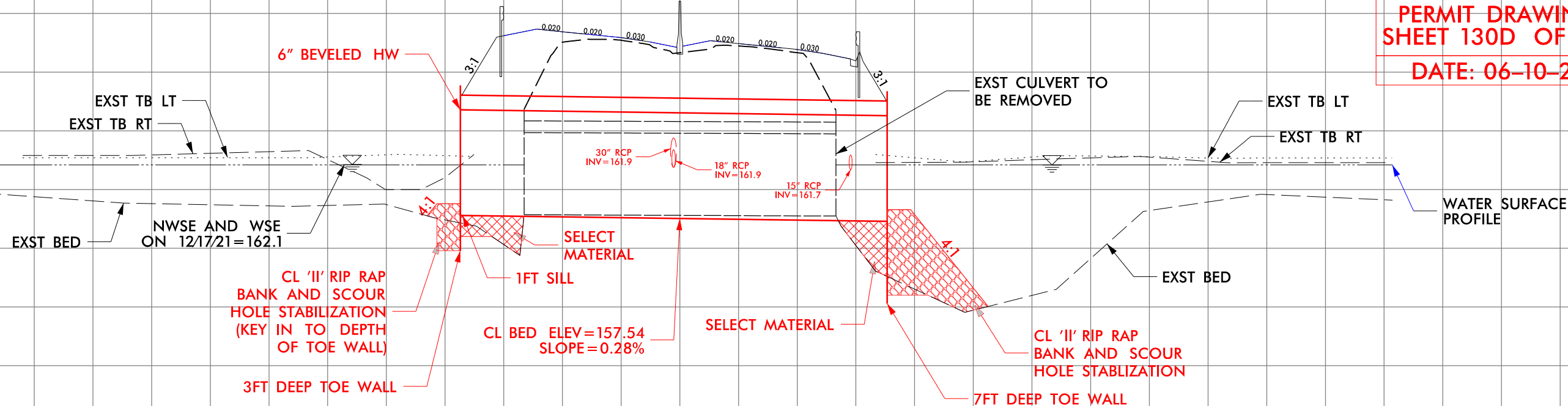
PERMIT DRAWING
SHEET 130D OF 132
DATE: 06-10-22

180

170

160

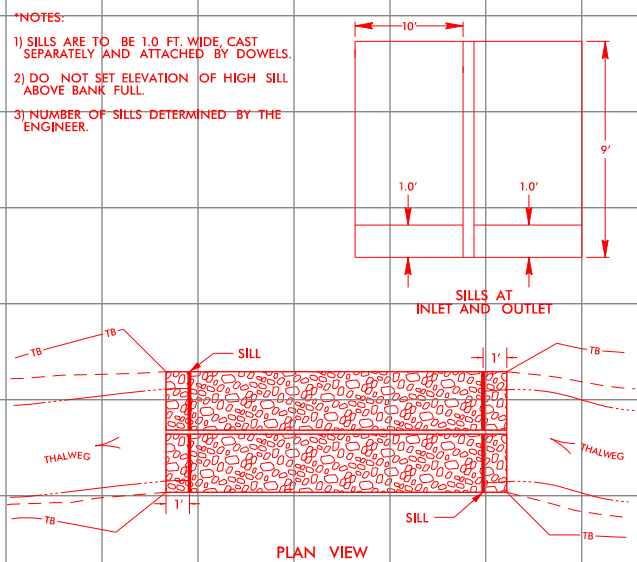
150



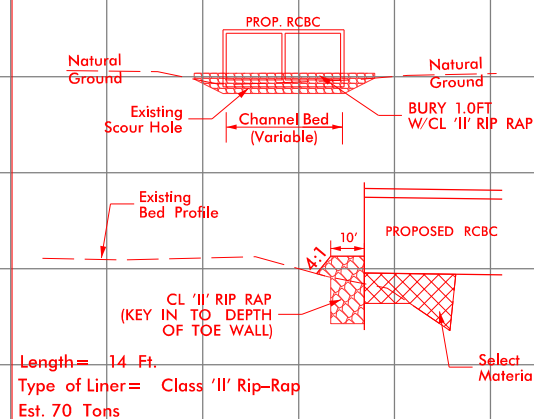
NATIVE MATERIAL SPECIFICATION FOR BACKFILLING NOTE

The Engineer, in consultation with DEO staff, shall review all material to be used as backfill prior to conducting the backfill activity. Backfill shall consist of native material only unless the Engineer, in consultation with DEO staff, determines that (1) the native material is unsuitable, or (2) additional material is required to supplement the native material. The chosen backfill material shall not have adverse effects to aquatic life, aquatic life passage, or water quality. Native material consists of material that is excavated from the stream bed or floodplain at the project site during culvert construction. Native material may also be subject to permit conditions.

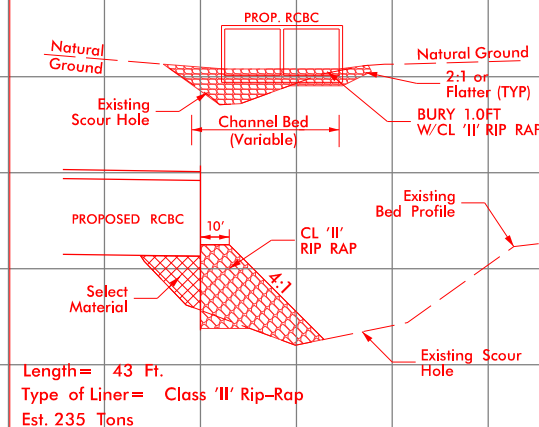
DETAIL
(NOT TO SCALE)
MULTI-BARREL CULVERT
W/SILLS



DETAIL
(Not to Scale)
INLET BANK & SCOUR HOLE
STABILIZATION



DETAIL
(Not to Scale)
OUTLET BANK & SCOUR HOLE
STABILIZATION



6/23/16



PROJ. REFERENCE NO.

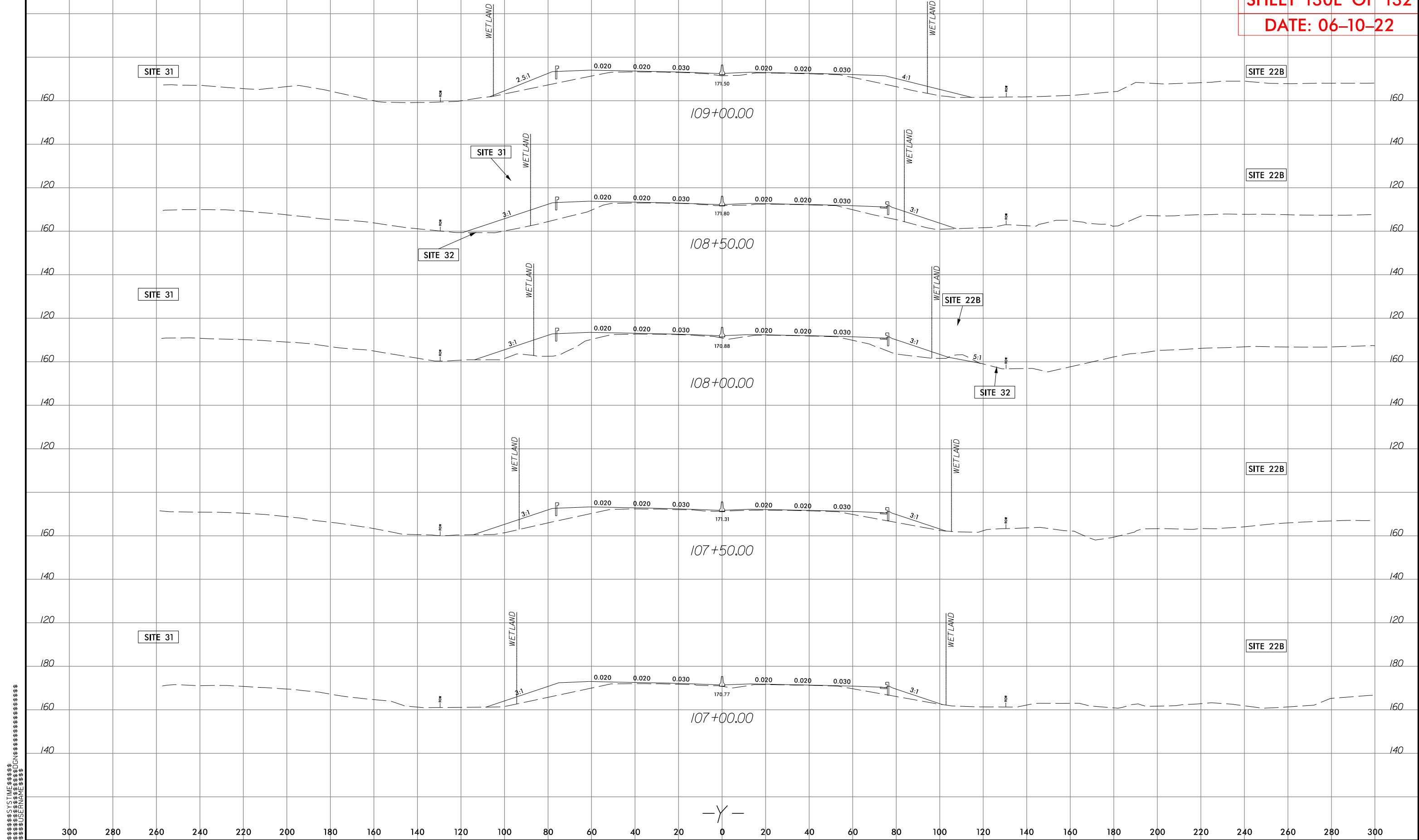
U-2519AA&AB

SHEET NO.

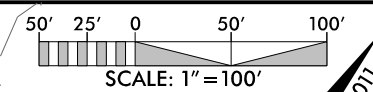
Y-33

PERMIT DRAWING
SHEET 130E OF 132

DATE: 06-10-22



Submitted 6/30/2022

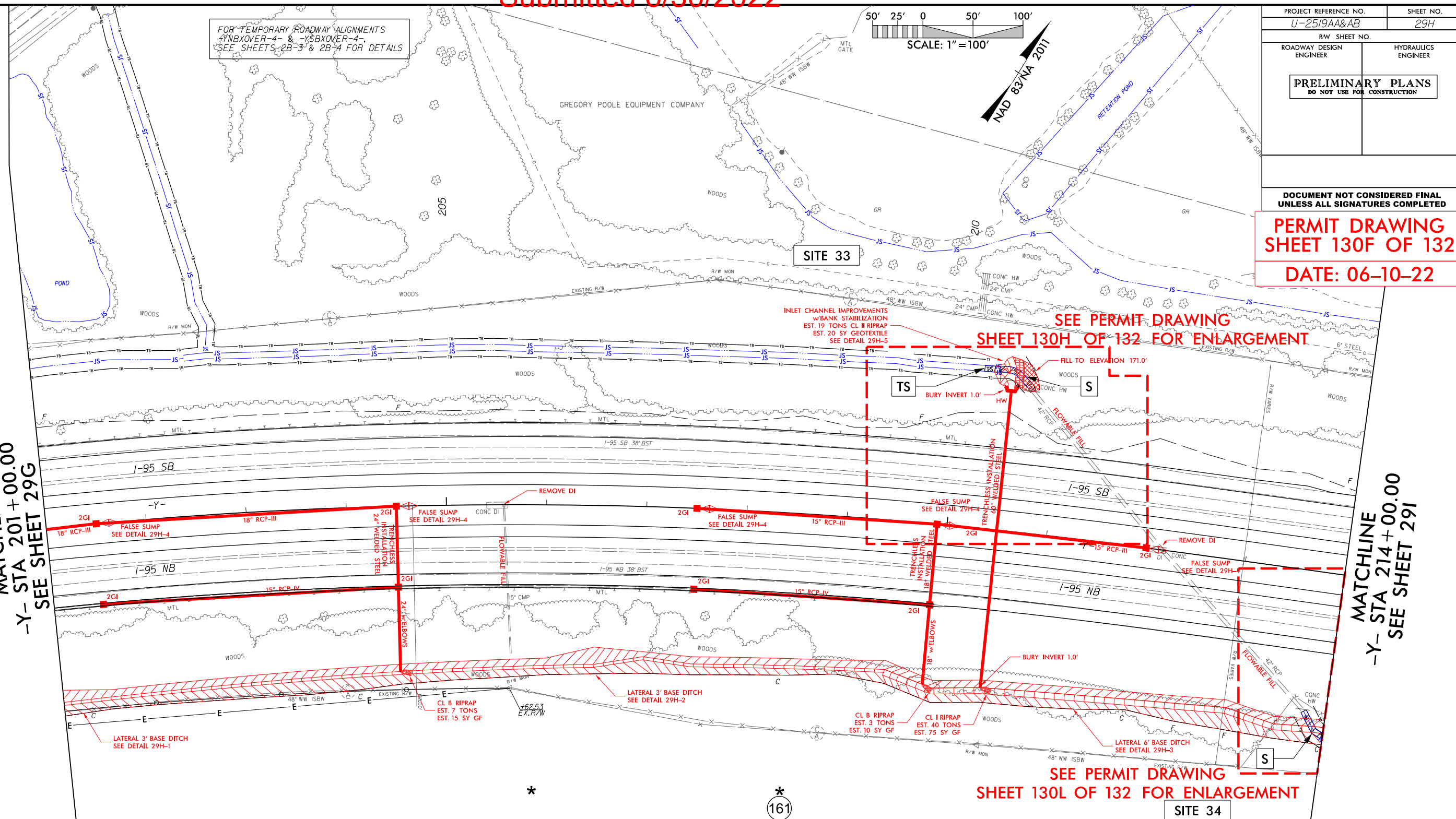


PROJECT REFERENCE NO.	SHEET NO.
<i>U-2519AA&AB</i>	<i>29H</i>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<div style="border: 1px solid black; padding: 10px; text-align: center;"> PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION </div>	

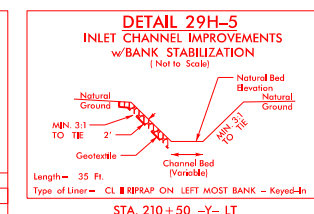
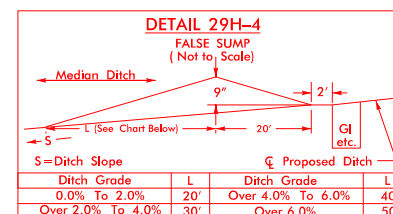
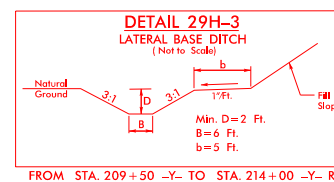
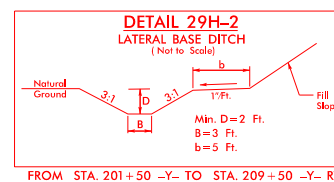
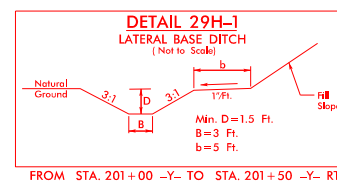
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

PERMIT DRAWING
SHEET 130F OF 132

DATE: 06-10-22

DENOTES IMPACTS IN
SURFACE WATER

DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



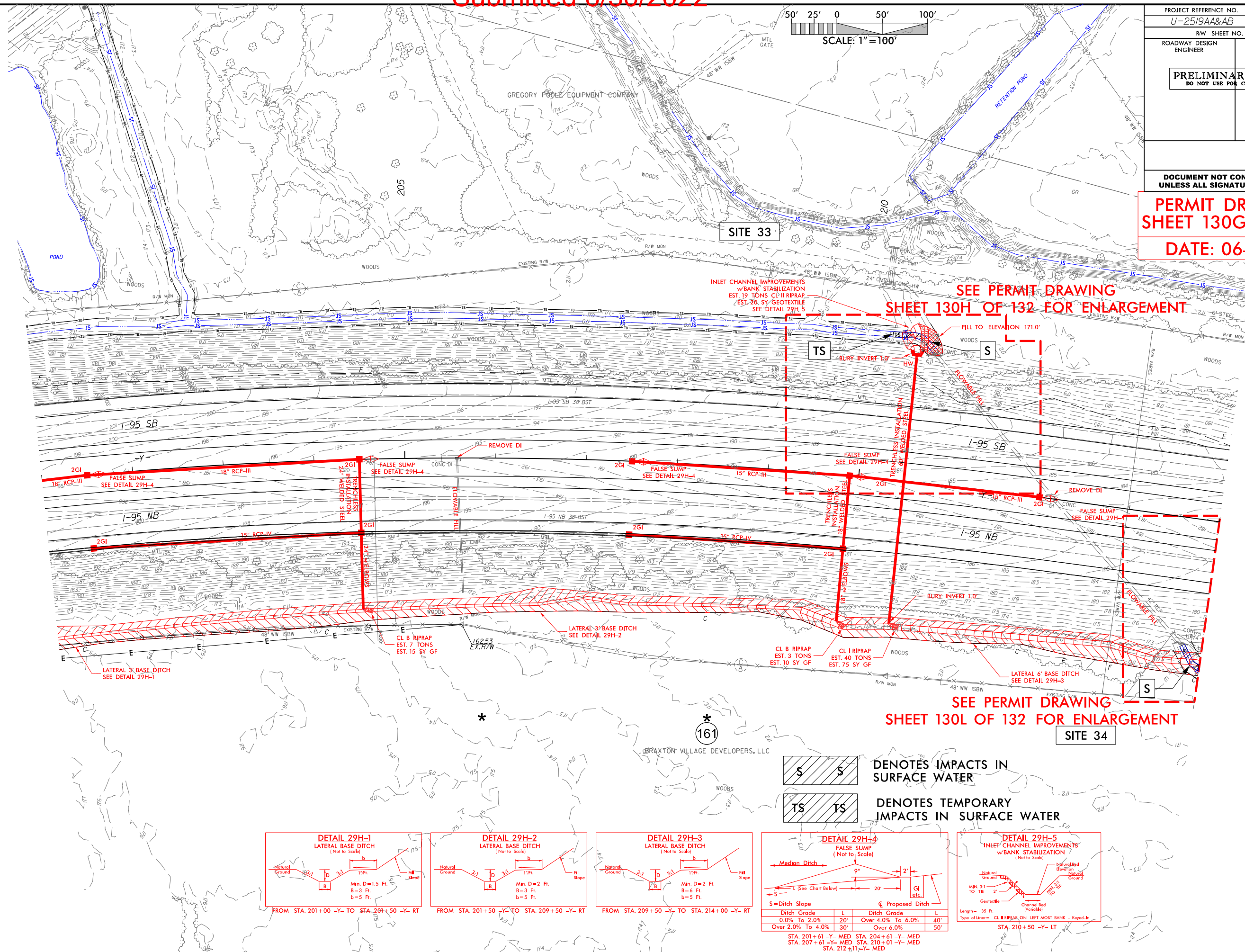
FOR -Y- PROFILE SEE SHEETS 77I & 77J

50' 25' 0 50' 100'

SCALE: 1" = 100'

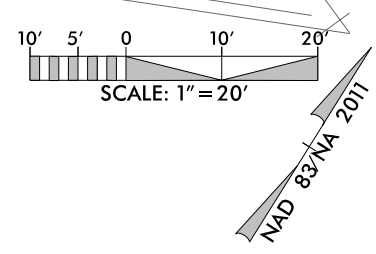
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

DATE: 06-10-22

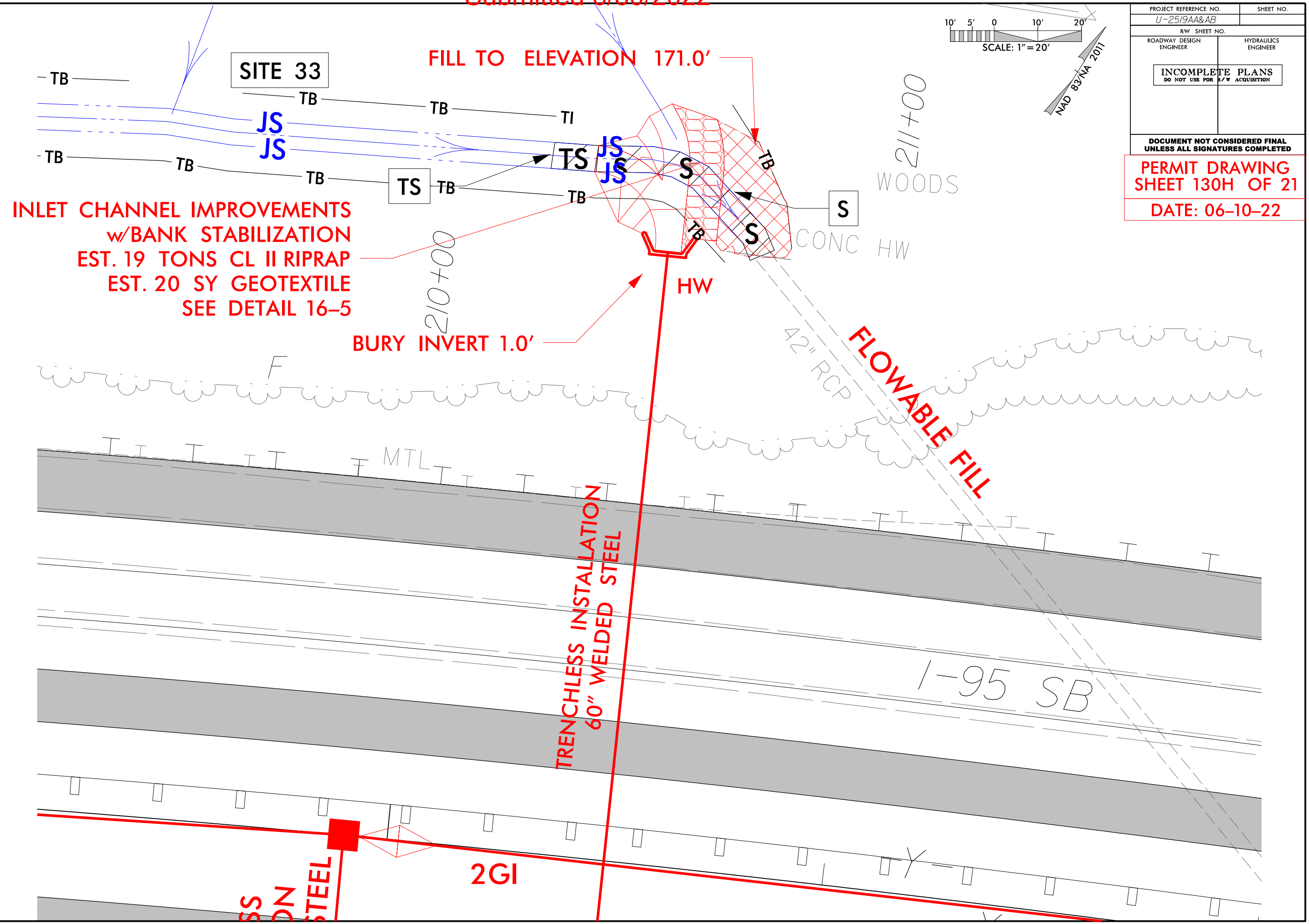


\$\$\$SYTIME\$\$\$
\$\$\$SYSDGN\$\$\$
\$\$\$USERNAME\$\$\$

8/17/99



PROJECT REFERENCE NO. <i>U-2519AA&AB</i>		SHEET NO.	
R/W 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			
PERMIT DRAWING SHEET 130H OF 21			
DATE: 06-10-22			



Submitted 6/30/2022

PROJECT REFERENCE NO.

SHEET NO.

U-2519AA&AB

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DO NOT USE FOR R/W ACQUISITION

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

PERMIT DRAWING
SHEET 130I OF 132

DATE: 06-23-22

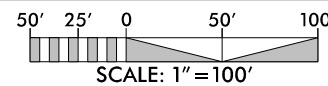
SITE 33



5/14/99

\$\$\$SYTIME\$\$\$
 \$\$\$SYSTEM\$\$\$
 \$\$\$USERNAM\$\$\$
 \$\$\$DGN\$\$\$

Submitted 6/30/2022



NAD 83 NA 2011

PROJECT REFERENCE NO.		SHEET NO.
U-2519AA&AB		29I
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
<div>PRELIMINARY PLANS</div> <div>DO NOT USE FOR CONSTRUCTION</div>		

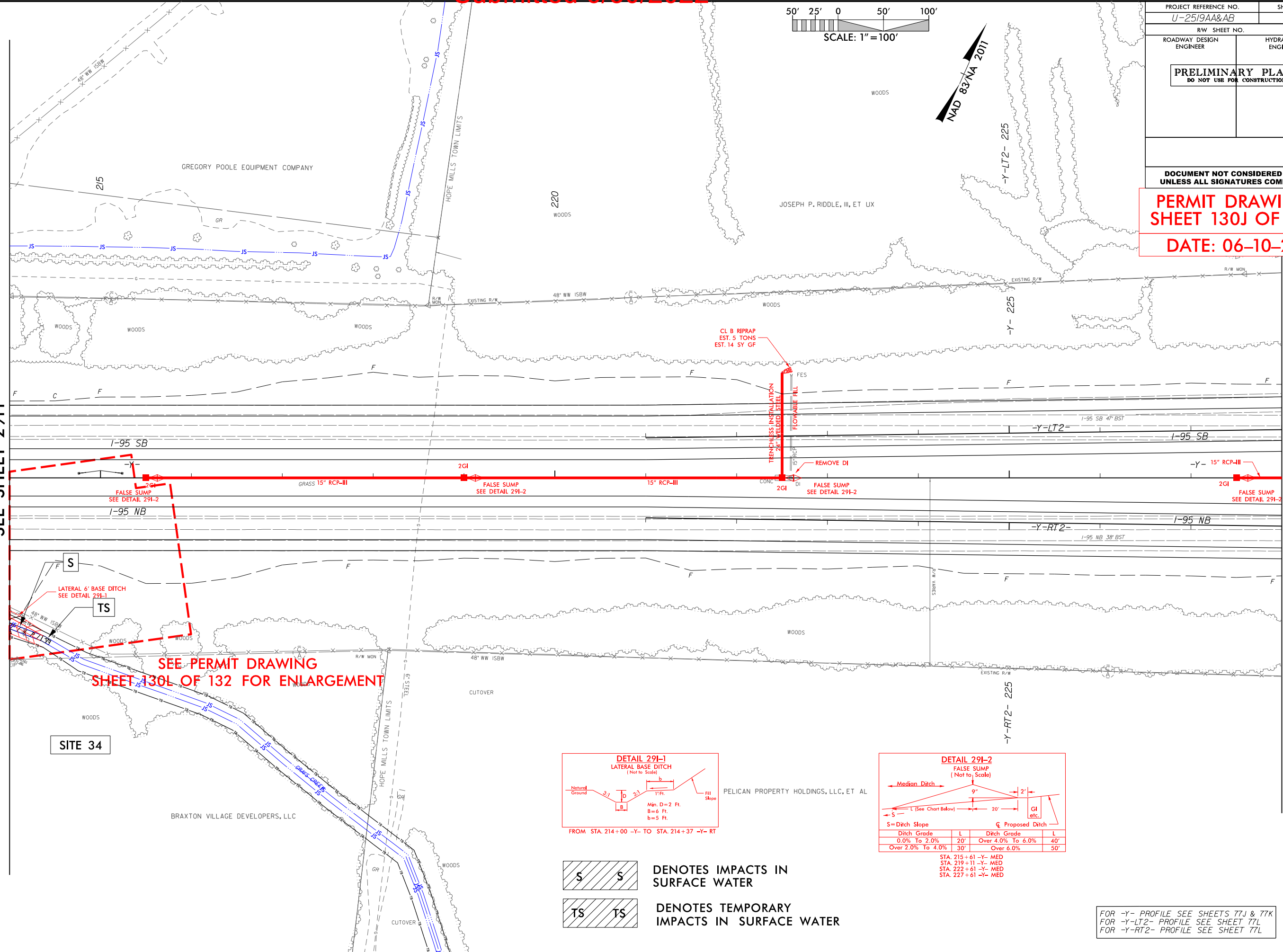
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 130J OF 132

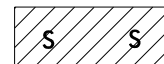
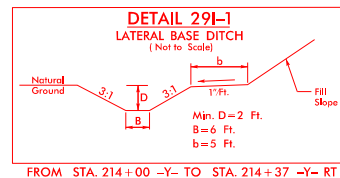
DATE: 06-10-22

MATCHLINE -Y- STA 214+00.00
SEE SHEET 29H

MATCHLINE -Y-, -Y-LT2-, -Y-RT2- STA 228+00.00
SEE SHEET 29J



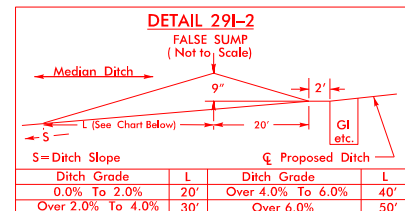
SEE PERMIT DRAWING
SHEET 130L OF 132 FOR ENLARGEMENT



DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



Ditch Slope		Proposed Ditch	
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 215+61 -Y- MED
STA. 219+11 -Y- MED
STA. 222+61 -Y- MED
STA. 227+61 -Y- MED

FOR -Y- PROFILE SEE SHEETS 77J & 77K
FOR -Y-LT2- PROFILE SEE SHEET 77L
FOR -Y-RT2- PROFILE SEE SHEET 77L

Submitted 6/30/2022

PROJECT REFERENCE NO.	SHEET NO.
U-25/9AA&AB	291
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

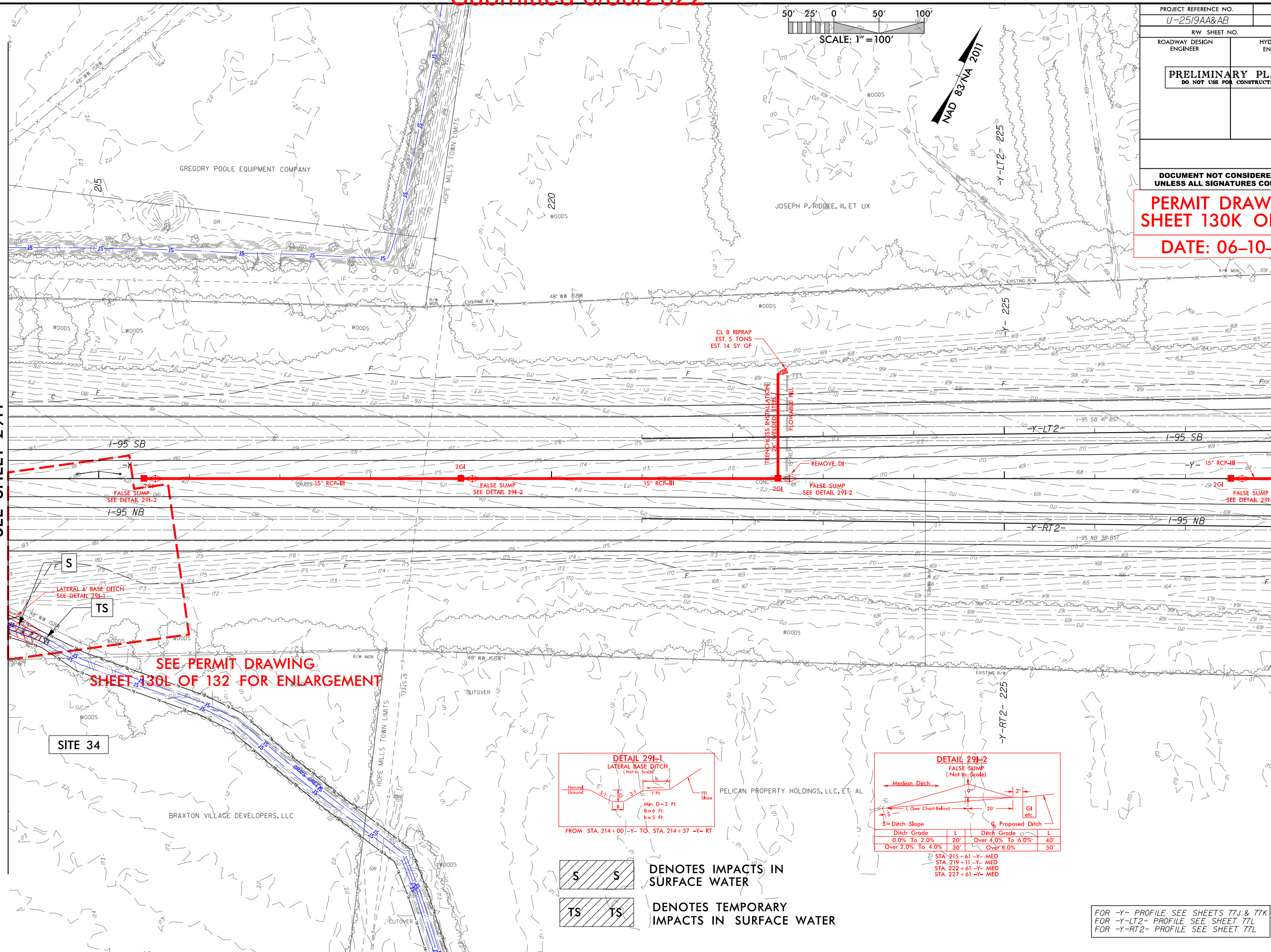
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 130K OF 132

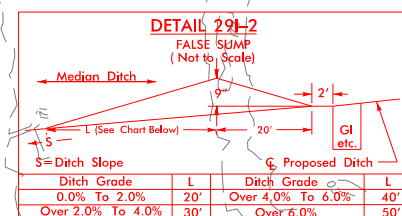
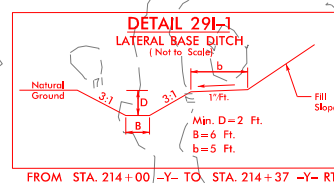
DATE: 06-10-22

MATCHLINE -Y- STA 214+00.00
SEE SHEET 29H

MATCHLINE -Y-, -Y-LT2-, -Y-RT2- STA 228+00.00
SEE SHEET 29J



SEE PERMIT DRAWING
SHEET 130L OF 132 FOR ENLARGEMENT



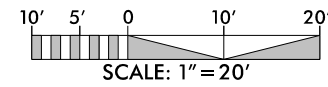
DENOTES IMPACTS IN
SURFACE WATER



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

FOR -Y- PROFILE SEE SHEETS 77J & 77K
FOR -Y-LT2- PROFILE SEE SHEET 77L
FOR -Y-RT2- PROFILE SEE SHEET 77L

Submitted 6/30/2022

~~2/5700~~

NAD 83/NA 2011

PROJECT REFERENCE NO.	SHEET NO.
<i>U-2519AA&AB</i>	
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>	

PERMIT DRAWING
SHEET 130L OF 132

DATE: 06-10-22

MATCHLINE - Y- STA 214 + 00.00
SEE SHEET 16

SEE SHEET 16
MATCHLINE
-Y- STA 214 + 00.00
SEE SHEET 17

42" R

FLOWABLE FILL

42 RCP

CONC
HW

LATERAL 6' BASE DITCH
SEE DETAIL 291-1

SITE 34

TS

WOODS

WETLAND AND SURACE WATER IMPACTS SUMMARY												
			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-FLYBD- 20+10 to 23+24	ROADWAY FILL	0.57			0.04						
2	-Y4- 24+18 to 26+65	ROADWAY FILL	0.03			0.06						
3	-L- 30+88 to 31+69	54" RCP - IV	< 0.01				0.02	0.03	< 0.01	300	43	
4	-L- 36+56 to 37+03	36" RCP - III						< 0.01	< 0.01	78	35	
5	-L- 38+17 to 38+93	60" CMP PIPE REMOVAL					0.01		< 0.01		31	
6	-L- 37+55 to 44+55	ROADWAY FILL	2.20			0.28						
8	-L- 75+02 to 79+96	2 @ 8' x 7' RCBC	1.93		0.03	0.11	0.11	0.08	0.01	518	85	
		BANK STABILIZATION						< 0.01		35		
9	-L- 85+99 to 89+87	30" RCP - III						0.08	0.02	525	101	
10	-L- 97+22 to 99+80	ROADWAY FILL						0.05	0.01	445	110	
12	-L- 115+50 to 123+12	ROADWAY FILL						0.10	0.04	522	232	
13	-L- 123+72 to 123+74	ROADWAY FILL						0.06	< 0.01	736	19	
		BANK STABILIZATION						< 0.01		44		
14	-L- 168+35 to 173+74	72" RCP						0.11	< 0.01	515	42	
		BANK STABILIZATION						0.03		125		
15	-L- 248+32 to 248+51	DITCH RIP RAP	< 0.01				< 0.01	< 0.01		35		
		BRIDGE					0.05					
		WORKBRIDGE							0.01		30	
16	-L- 256+22 to 256+64 LT	ROADWAY FILL	0.06		0.01	0.01						
17	-L- 257+79 to 258+87	ROADWAY FILL	0.15			0.02						
18	-L- 261+09 to 262+60	8'x6' RCBC	0.50			0.09						
19	-L- 263+85 to 267+61	ROADWAY FILL	1.55		0.14	0.17						
20	-Y1- 31+39 to 31+80	ROADWAY FILL	0.06			0.03						
21	-Y1- 65+90 to 67+57	ROADWAY FILL	0.20			0.07						
TOTALS*:			7.27	0	0.18	0.89	0.20	0.51	0.12	3674	728	0

*Rounded totals are sum of actual impacts

NOTES:
Bank stabilization impacts not included in totals (Site 8, Site 13, Site 14)
Site 7: Eliminated; No Impacts
Site 11: Eliminated; No Impacts
Site 16: Wetlands will be total take of .0891 AC
Site 19: Wetlands in this area will add an additional area of .5189 AC (as noted on plans)

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CUMBERLAND & ROBESON COUNTIES
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WETLAND AND SURFACE WATER IMPACTS SUMMARY												
			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
22A	96+52 to 101+94 -Y-LT	ROADWAY FILL	0.29			0.12						
22B	97+39 to 109+99 -Y-RT	ROADWAY FILL	0.40			0.33						
22C	99+42 to 99+87 -Y-	2 at 10' x 8' RCBC						0.03		50		
	99+42 to 99+85 -Y-LT	INLET CHANNEL						0.01	0.02	19	20	
	99+50 to 99+87-Y-RT	OUTLET CHANNEL						0.02	< 0.01	36	8	
23	-Y2- 15+90 to 19+16	2 @ 8' x 6' RCBC	0.17			0.17		0.03	< 0.01	78	18	
24	-Y4- 36+27 to 41+34	2 @ 9' X 6' RCBC	0.34	0.41	0.01		0.20	< 0.01	0.03	24	98	
		BANK STABILIZATION						0.03		93		
25	-Y5- 93+83 to 94+10	RCP					0.01					
26	-Y5- 88+85 to 89+44	ROADWAY FILL	0.01			0.02						
27	-Y7- 66+35 to 66+64	8' x 7' RCBC						0.02	0.02	90	87	
		BANK STABILIZATION						0.01		69		
28	-Y7- 84+38 to 87+88	2 @ 10' x 7'						0.07		416		
29	-Y10- 58+94 to 61+31	BRIDGE			0.02		0.34		0.02		83	
		WORKBRIDGE					0.11		< 0.01		31	
30	-Y10- 87+68 to 88+37	2@36" RCP	0.06			0.03		< 0.01		90		
31	105+12 to 111+91 -Y-LT	ROADWAY FILL	0.21			0.13						
32	107+90 to 108+78 -Y-	2 at 10' x 9' RCBC						0.03		48		
	108+13 to 108+57 -Y-LT	INLET CHANNEL						0.01	0.03	20	24	
	107+93 to 108+78 -Y RT	OUTLET CHANNEL						0.04	0.02	44	23	
33	210+22 to 210+73 -Y-LT	INLET CHANNEL						< 0.01	< 0.01			
34	213+76 to 214+45 -Y-RT	DRAINAGE DITCH						< 0.01	< 0.01	70	10	
											0	
TOTALS*:			1.48	0.41	0.04	0.80	0.66	0.29	0.17	985	402	0
PROJECT TOTALS*:			8.75	0.41	0.22	1.69	0.86	0.80	0.29	4659	1130	0

*Rounded totals are sum of actual impacts

NOTES:

Wetland and stream impacts at Site 22 were previously permitted under the U-2519AA & AB project. Since receiving approval of that this site has been redelineated under the I-5987 project. The impacts shown above for Site 22A-C utilize the newest wetland and survey file to calculate impact totals. The impact totals which were previously permitted at Site 22 using the U-2519AA & AB wetland as follows: Permanent Fill in Wetlands: 0.17 ac, Temp. Fill in Wetlands: 0.06 ac, Hand Clearing in Wetlands: 0.14 AC

Bank stabilization impacts not included in totals (Site 24, Site 27)

Site 33 is JS-Non Mitigable

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