



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

October 28, 2014

MEMORANDUM TO: Mr. Greg Burns, P.E.
Division 6 Engineer

FROM: *for* Philip S. Harris, III, P.E., Manager
Natural Environment Section
Project Development and Environmental Analysis Unit

SUBJECT: Bladen County, Proposed US 701 and NC 87 Interchange
Federal Aid Project No. NHF-87 (15);
WBS No. 40226.1.1; **TIP Project R-4903.**

Attached are the U.S. Army Corps of Engineers (USACE) Section 404 Individual Permit and the N.C. Division of Water Resources (DWR) Section 401 Water Quality Certification. All environmental permits have been received for the construction of this project.

A copy of this permit package posted on the NCDOT Website at
<https://connect.ncdot.gov/resources/Environmental>, under *Quick Links > Issued Permits*

cc: w/o attachment (see website for attachments):

Mr. Randy Garris, P.E. State Contract Officer
Mr. James J. Rerko, Division Environmental Officer
Dr. Majed Alghandour, P.E., Programming and TIP
Mr. Glenn Mumford, P.E., Roadway Design Unit
Mr. Robert Memory, Utilities Unit
Mr. Jay Twisdale, P.E., Hydraulics Unit
Mr. Tom Koch, P.E., Structure Design Unit
Mr. Mark Staley, Roadside Environmental Unit
Mr. Ron Hancock, P.E., State Roadway Construction Engineer
Mr. Kevin Bowen, P.E., State Bridge Construction Engineer
Mr. Rob Hanson, P.E., PDEA
Mr. Clarence Coleman, P.E., FHWA
Ms. LeiLani Paugh, Natural Environment Section

PROJECT COMMITMENTS

TIP Project R-4903
Proposed US 701 and NC 87 Bypass Interchange,
Bladen County
Federal-Aid Project NHF-87(15)
WBS Element 40226.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Roadway Design Unit

Four-foot wide paved shoulders will be provided along US 701 within the project study area to accommodate bicycles.

Four-foot wide paved shoulders are shown on current design plans.

Project Development and Environmental Analysis

NCDOT will investigate reducing impacts to wetlands WF and WO, and streams SA 6, SA 7, SA 10, SA 13 and SA 14 during final design.

Design changes during final design have reduced total wetland impacts by approximately 0.76 acre and total stream impacts by 427 feet.

Hydraulics Unit

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

The Brown's Creek crossing qualified for an MOA (Type 2b) submittal, which was approved on June 27, 2014.

Division 6 Construction

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division 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.

This commitment will be implemented upon completion of project construction.

COMMITMENTS FROM PERMITTING

Division 6 Construction

The permittee shall provide written verification that the final construction drawings comply with the permit drawings contained in the application dated May 16, 2014. Any deviations from the approved drawings are not authorized unless approved by the NC Division of Water Resources.

For the 68 linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.

Roadside Environmental Unit/ Division 6 Construction

Erosion control matting placed in riparian areas shall not contain a nylon mesh grid, which can impinge and entrap small animals. Matting should be secured in place with staples, stakes, or wherever possible, live stakes of native trees. Riparian areas are defined as a distance 25 feet landward from top of stream bank.



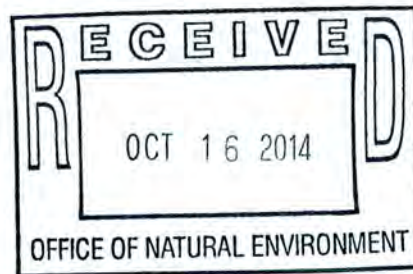
REPLY TO
ATTENTION OF:

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

October 9, 2014

Regulatory Division

Action ID: SAW-2009-00655



North Carolina Department of Transportation
Mr. Richard Hancock
Project Development and Environmental Analysis Unit
1598 Mail Service Center
Raleigh, North Carolina 27699

Dear Mr. Hancock:

In accordance with your written request of May 20, 2014 and the ensuing administrative record, enclosed are two copies of a permit to discharge dredged or fill material in order to construct to replace the existing at grade intersection of NC 87 Bypass and US 701 with a grade-separated interchange. NCDOT will carry NC 87 over US 701 on a bridge, relocate US 701 to the east in order to maintain traffic at the existing intersection during construction, replace bridge number 3 along US 701 over Brown's Creek, and widen US 701 to a two-to-three lane, roadway, with a raised median from approximately 1,800 feet south of the existing NC 242 intersection to north of Brown's Creek. Turn lanes will be provided on US 701 at the proposed interchange ramps and the relocated NC 242 intersection. NC 242 will be relocated to intersect US 701 approximately 800 feet south of its current location. The project will permanently impact 1,054 linear feet of stream channel and 0.60 acre wetlands. Impacts (permanent and temporary) to jurisdictional resources are associated with roadway construction practices and include clearing, grubbing, placement of roadway fill, bank stabilization, pipe placement, excavation, utility line installation, and hand clearing of vegetation for overhead power line clearing. An additional 0.03 acre wetland for temporary fill is authorized for construction.

You should acknowledge that you accept the terms and conditions of the enclosed permit by signing and dating each copy in the spaces provided ("Permittee" on page 3). Your signature, as permittee, indicates that, as consideration for the issuance of this permit, you voluntarily accept and agree to comply with all of the terms and conditions of this permit. All pages of both copies of the signed permit with drawings should then be returned to this office for final authorization. A self-addressed envelope is enclosed for your convenience.

This correspondence contains a proffered permit for the above described site. If you object to this decision, 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 decision you must submit a completed RFA form to the following address:

District Engineer, Wilmington Regulatory Division
Attn: Liz Hair
69 Darlington Avenue
Wilmington, North Carolina 28403

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 December 9, 2014.

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

After the permit is authorized in this office, the original copy will be returned to you; the duplicate copy will be permanently retained in this office. If you have questions, please contact Liz Hair, at the Wilmington Regulatory Field Office, telephone 910-251-4001.

Thank you in advance for completing our Customer Survey Form. This can be accomplished by visiting our website at <http://per2.nwp.usace.army.mil/survey.html> and completing the survey on-line. We value your comments and appreciate your taking the time to complete a survey each time you interact with our office.

Sincerely, .

A handwritten signature in black ink, appearing to read "Dale Beter", written over the word "Sincerely, .".

Dale Beter
Chief, Wilmington Regulatory Field Office

Enclosures (3)

DEPARTMENT OF THE ARMY PERMIT

Permittee: North Carolina Department of Transportation, c/o: Mr. Richard Hancock

Permit No.: SAW-2009-00655

Issuing Office: CESAW-RG-L

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

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

Project Description: NCDOT will carry NC 87 over US 701 on a bridge, relocate US 701 to the east in order to maintain traffic at the existing intersection during construction, replace bridge number 3 along US 701 over Brown's Creek, and widen US 701 to a two-to-three lane, roadway, with a raised median from approximately 1,800 feet south of the existing NC 242 intersection to north of Brown's Creek. Turn lanes will be provided on US 701 at the proposed interchange ramps and the relocated NC 242 intersection. NC 242 will be relocated to intersect US 701 approximately 800 feet south of its current location. The project will permanently impact 1,054 linear feet of stream channel and 0.60 acre wetlands.

Proposed impacts (permanent and temporary) to jurisdictional resources are associated with roadway construction practices and include clearing, grubbing, placement of roadway fill, bank stabilization, pipe placement, excavation, utility line installation, and hand clearing of vegetation for overhead power line clearing.

Project Location: R-4903, Interchange at US701 and NC87 Bypass, located in Bladen County, North Carolina.

General Conditions:

1. The time limit for completing the work authorized ends on **December 31, 2019**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

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

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

Special Conditions:

SEE ATTACHED SPECIAL CONDITIONS

Further Information:

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

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

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

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

2. Limits of this authorization.

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

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

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

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

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

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

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

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

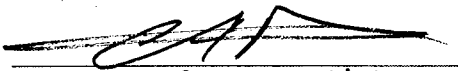
d. Design or construction deficiencies associated with the permitted work.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

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

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

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


(PERMITTEE) RICHARD W. HANCOCK, PE

10-27-2014
(DATE)

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

(DISTRICT ENGINEER) KEVIN P. LANDERS, SR.,
COLONEL, U.S. ARMY
DISTRICT COMMANDER

(DATE)

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

(TRANSFeree)

(DATE)

*U.S. GOVERNMENT PRINTING OFFICE: 1986 - 717-425

SPECIAL CONDITIONS
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
c/o: MR. RICHARD HANCOCK
SAW-2009-00655

Work Limits

- a) Construction Plans: All work authorized by this permit must be performed in strict compliance with the attached plans received on May 20, 2014, which are a part of this permit. Any modification to these plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation.
- b) Unauthorized Dredge or Fill: Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill or mechanized land clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands. This permit does not authorize temporary placement or double handling of fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.
- c) Maintain Circulation and Flow of Waters: Except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within waters or wetlands or to reduce the reach of waters or wetlands.
- e) Deviation From Permitted Plans: The permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Ms. Liz Hair, Wilmington Regulatory Field Office, 69 Darlington Avenue Wilmington, NC 28403, and by telephone at: 910-251-4049 prior to any active construction in waters or wetlands.
- f) Preconstruction Meeting: The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the appropriate Corps of Engineers representative, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all of the terms and conditions contained within this Department of the Army Permit. The permittee shall invite the Corps 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 schedule and participate in the required meeting.

Related Laws

- g) During the clearing phase of the project, heavy equipment must not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodible materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.
- h) No fill or excavation impacts for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless the impacts are included on the plan drawings and specifically authorized by this permit.
- i) The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades on those areas, prior to project completion.
- j) The permittee shall use appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" to assure compliance with the appropriate turbidity water quality standard. 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 assure compliance with the appropriate turbidity water quality standards. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4). Adequate sedimentation and erosion control measures must be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. These measures must be inspected and maintained regularly, especially following rainfall events. All fill material must be adequately stabilized at the earliest practicable date to prevent sediment from entering into adjacent waters or wetlands.
- k) 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 Resources at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

Project Maintenance

- i) 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.
- j) Clean Fill: Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source and will be clean and free of any pollutants except in trace quantities. Metal products, organic materials (including debris from land clearing activities), or unsightly debris will not be used. Soils used for fill shall not be contaminated with any toxic substance in concentrations governed by Section 307 of the Clean Water Act.
- k) 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.
- l) Silt Fencing: The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).
- m) No fill or excavation for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless it is included on the plan drawings and specifically authorized by this permit.
- n) The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

Enforcement

- o) Reporting Address: All reports, documentation and correspondence required by the conditions of this permit shall be submitted to the following address: U.S. Army Corps of Engineers, Regulatory Division, Wilmington

Regulatory Field Office, c/o Ms. Liz Hair, Field office address : 69 Darlington Avenue Wilmington, NC 28403, and by telephone at: 910-251-4049. The Permittee shall reference the following permit number, SAW-2009-00655, on all submittals.

- p) Reporting Violations of the Clean Water Act and Rivers and Harbors Act: Violations of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act 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.
- q) Compliance Inspection: A representative of the Corps of Engineers will periodically and randomly inspect the work for compliance with these conditions. Deviations from these procedures may result in an administrative financial penalty and/or directive to cease work until the problem is resolved to the satisfaction of the Corps.
- r) The permittee shall take measures to prevent live or fresh concrete from coming into contact with any surface waters until the concrete has hardened.
- s) To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent wetlands and streams, 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 USACE with appropriate maps indicating the locations of proposed borrow or waste sites as soon as the permittee has that information. The permittee will coordinate with the USACE before approving any borrow or waste sites that are within 400 feet of any streams or wetlands.

Mitigation

- t) 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.

Concrete Condition

- u) Prohibitions on concrete: The permittee shall take measures to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with any water in or entering into waters of the United States. Water inside coffer dams or casings that has been in contact with concrete shall only be returned

to waters of the United States when it no longer poses a threat to aquatic organisms (concrete is set and cured).

Culverts

v) Installation of culverts: For construction of culverts, measures will be included in the construction that will promote the safe passage of fish and other aquatic organisms. For all culvert construction activities, 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. Culvert inverts will be buried at least one foot below the bed of the stream for culverts greater than 48 inches in diameter. For culverts 48 inches in diameter or smaller, culverts must be buried below the bed of the stream to a depth equal to or greater than 20 percent of the diameter of the culvert.

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

Permittee: NC DOT, Mr. Richard Hancock
Project Name: R-4903, Interchange at US 701 and NC 87 Bypass

Action ID: SAW-2009-00655
County: Bladen

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 (credits) 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 bank ledger and provide a copy of the signed form and the updated bank ledger to the Permittee, the USACE Project Manager, and the Wilmington 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: 03030005, Cape Fear River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
1,054			0.41		0.19	

*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: 03030005, Cape Fear River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
2,108			1.20			

Mitigation Site Debited: Privateer Farms Mitigation Bank

(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: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Name of Sponsor's Authorized Representative: for RICHARD W. HANCOCK, P.E.


Signature of Sponsor's Authorized Representative

10-28-2014
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:

*Impacts to streams and wetlands will be mitigated at a 2:1 ratio

This form is not valid unless signed below by the USACE 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 USACE Project Manager at the address below, and 3) the Wilmington District Mitigation Office, Attn: Todd Tugwell, 11405 Falls of Neuse Road, Wake Forest, NC 27587 (email: todd.tugwell@usace.army.mil).** Questions regarding this form or any of the permit conditions may be directed to the USACE Project Manager below.

USACE Project Manager: Liz Hair
USACE Field Office: Wilmington Regulatory Field Office
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, NC 28403

Email:

**HAIR.SARAH.E
A.1054693512**

Digitally signed by
HAIR.SARAH.EA.1054693512
DN: c=US, o=U.S. Government,
ou=DoD, ou=PKI, ou=USA,
cn=HAIR.SARAH.EA.1054693512
Date: 2014.10.09 14:32:33 -0400

USACE Project Manager Signature

October 9, 2014

Date of Signature

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



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

July 21, 2014

Mr. Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with
ADDITIONAL CONDITIONS for the proposed Interchange at US 701 and 87 Bypass Intersection in
Bladen County, Federal Aid Project No. STP-0005(252), State Project No. 40266.1.1, TIP R-4903.
NCDWR Project No. 20140479

Dear Mr. Hancock:

Attached hereto is a copy of Certification No. 3999 issued to The North Carolina Department of Transportation
(NCDOT) dated July 21, 2014.

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

Sincerely,

Thomas A. Reeder, Director
Division of Water Resources

Attachments

ec: Liz Hair, US Army Corps of Engineers, Wilmington Field Office
Greg Burns, PE, Division 6 Engineer
Jim Rerko, Division 6 Environmental Officer
Cynthia Van Der Wiele, Environmental Protection Agency
Travis Wilson, NC Wildlife Resources Commission
Jason Elliott, NCDOT, Natural Environment Section
Leilani Paugh, NCDOT, Natural Environment Section
Sonia Carrillo, NCDWR Central Regional Office
File Copy

Transportation and Permitting Unit
1617 Mail Service Center, Raleigh, North Carolina 27699-1617
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604
Phone: 919-807-6300 \ FAX: 919-733-1290
Internet: www.ncwaterquality.org

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One
North Carolina
Naturally

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 impact 0.74 acres of jurisdictional wetlands and 1,122 linear feet of jurisdictional streams in Bladen County. The project shall be constructed pursuant to the application dated received May 16, 2014. The authorized impacts are as described below:

Stream Impacts in the Cape Fear River Basin

Site	Station	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)	Bank Stabilization (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
3	20+81 to 23+57 -RT-	0	0	279	10	12	301	291
4	57+20 to 62+51 -L-	0	0	709	20	12	741	721
5	11+40 -DRV1	0	0	10	13	10	33	0
8	299+77 to 299+91 -Y02-RT	0	0	7	10	10	27	0
11	67+46 to 68+35 -L- LT	0	0	5	15	0	20	0
TOTAL				1,010	68	44	1,122	1,012

Total Stream Impact for Project: 1,122 linear feet

Wetland Impacts in the Cape Fear River Basin

Site	Station	Wetland Type*	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)	Impacts Requiring Mitigation (ac)
1	20+61 to 23+57-L-RT	NR	0.11	0	0	0	0.04	0.15	0
3	18+00-RMPD	R	0.32	0	0	0	<0.01	0.32	0
6	67+63 to 68+83 -L-RT	R	0.05	0	0	0	0.01	0.06	0
7	12+41 to 13+24 -RMPB	NR	0.05	0	0.03	0	0.02	0.10	0
9	10+00 -RMPB-RT	R	<0.01	0	0.02	0	0.02	0.05	0
10	41+35 to 41+50 -Y01-RT	NR	0	0	0	0	0.01	0.01	0
12	67+46 to 68+35 -L-LT	R	0	0	0.01	0	0.01	0.02	0
	EC measures in HC areas		0	0.03	0	0	0	0.03	0
TOTAL			0.54	0.03	0.06	0	0.11	0.74	0

Total Wetland Impact for Project: 0.74 acres.

* NR - Non-riparian; R - Riparian

The application provides adequate assurance that the discharge of fill material into the waters of the Cape Fear River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of 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 application dated received May 16, 2014. Should your project change, you are required to 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 any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). 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:

Project Specific Conditions

1. The NCDOT Division Environmental Officer or Environmental Assistant will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the potential issues with stream and pipe alignment at the permitted site. NCDWR staff shall be invited to the pre-construction meeting.
2. The permittee shall provide written verification that the final construction drawings comply with the permit drawings contained in the application dated May 16, 2014. Any deviations from the approved drawings are not authorized unless approved by the NC Division of Water Resources.
3. 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.
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.
5. For the 68 linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.
6. Erosion control matting placed in riparian areas shall not contain a nylon mesh grid, which can impinge and entrap small animals. Matting should be secured in place with staples, stakes, or wherever possible, live stakes of native trees. Riparian areas are defined as a distance 25 feet landward from top of stream bank.
7. As a condition of this 401 Water Quality Certification, the bridge demolition and construction must be accomplished in strict compliance with the most recent version of NCDOT's Best Management Practices for Construction and Maintenance Activities.
8. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from the NCDWR first
9. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly.
10. A turbidity curtain will be installed in the stream if driving or drilling activities occur within the stream channel, on the stream bank, or within 5 feet of the top of bank. This condition can be waived with prior approval from the NCDWR.

11. The project shall be constructed in accordance with the provisions of the NCDOT's National Pollutant Discharge Elimination (NPDES) Stormwater Permit NCS000250, including the applicable requirements of the NCG01000.
12. Compensatory mitigation for 1,012 linear feet of impacts to streams is required. We understand that you have chosen to debit stream mitigation from the Privateer Farm Mitigation Bank at a 1.5:1 ratio. This certification gives you approval to debit 1,518 linear feet of stream mitigation from the Privateer Farm Mitigation Bank to satisfy the mitigation requirements of this certification.

General Conditions

13. 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 the NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required.
14. 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.
15. 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.
16. 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.
17. 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.
18. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
19. 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 the 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.
20. 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.
21. 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.
22. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
23. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
24. 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.

25. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification..
26. 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.
27. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
28. 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.
29. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery.
30. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer 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.
31. 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.
32. 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.
33. 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:
 - 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.
34. Where placement of sediment and erosion control devices in wetlands and/or waters is unavoidable, they shall be removed and the natural grade restored upon completion of the project.

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 or CAMA 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
Raleigh, NC 27699-6714
Telephone: (919)-431-3000, Facsimile: (919)-431-3100

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

Mr. Lacy Presnell, General Counsel
Department of Environment and Natural Resources
1601 Mail Service Center

This the 21st day of July 2014

DIVISION OF WATER RESOURCES

A handwritten signature in black ink, appearing to read 'Thomas A. Reeder', is written over a horizontal line.

Thomas A. Reeder, Director
Division of Water Resources

WQC No. 3999

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
United States Coast Guard
Fifth Coast Guard District

431 Crawford Street
Portsmouth, Va. 23704-5004
Staff Symbol: dpb
Phone: (757) 398-6222
Fax: (757) 398-6334
Email:
Waverly.W.Gregoryjr@uscg.mil

16591
4 APR 2014

Mr. Richard W. Hancock, P.E., Manager
NC Department of Transportation
Project Development and Environmental Analysis Unit
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Mr. Hancock:

This responds to your request regarding reaffirmation of the Coast Guard Authorization Act determination granted by our letter of April 9, 2009 involving the proposed replacement of the B-4710, Bridge No. 3 over Browns Creek on US 701 in Baden County, NC.

In the aforesaid letter, this office had initially determined that the waterway at this proposed bridge site crosses no-tidal waters. Upon further review, we have found that this bridge site is in fact over a navigable waterway subject to tidal influence. Based on this information, the project will now be placed in our Advance Approval category as per Title 33 Code of Federal Regulations Part 115.70. Advance approval waterways are those that are navigable by law, but not actually navigated by other than canoes and small boats or listed as an Advance Approval waterway. The Commandant of the Coast Guard has given his advance approval to the construction or repairs of bridges across such waterways.

This Advance Approval determination is for the location and proposed replacement of the above mentioned bridge, will not require a Coast Guard Bridge Permit and is **exempt for an additional three years from the date of this letter**. If the replacement does not commence within this time period, you must contact this office for reaffirmation of this authorization.

In addition, the requirement to display navigational lighting at the bridge is hereby waived, as per Title 33 Code of Federal Regulations, Part 118.40 (b). This waiver may be rescinded at anytime in the future should nighttime navigation through the proposed bridge be increased to a level determined by the District Commander to warrant lighting.

Please contact me if you should have any further questions.

Sincerely,

A handwritten signature in black ink that reads "Waverly W. Gregory, Jr." in a cursive style.

WAVERLY W. GREGORY, JR.
Bridge Program Manager
By direction of the Commander
Fifth Coast Guard District

Copy: Coast Guard Sector North Carolina, Waterways Management

09/08/19

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols
See Sheets 1-C and 1-D for Survey Control Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BLADEN COUNTY

LOCATION: NC 87 AT US 701 INTERSECTION

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE, AND PAVING

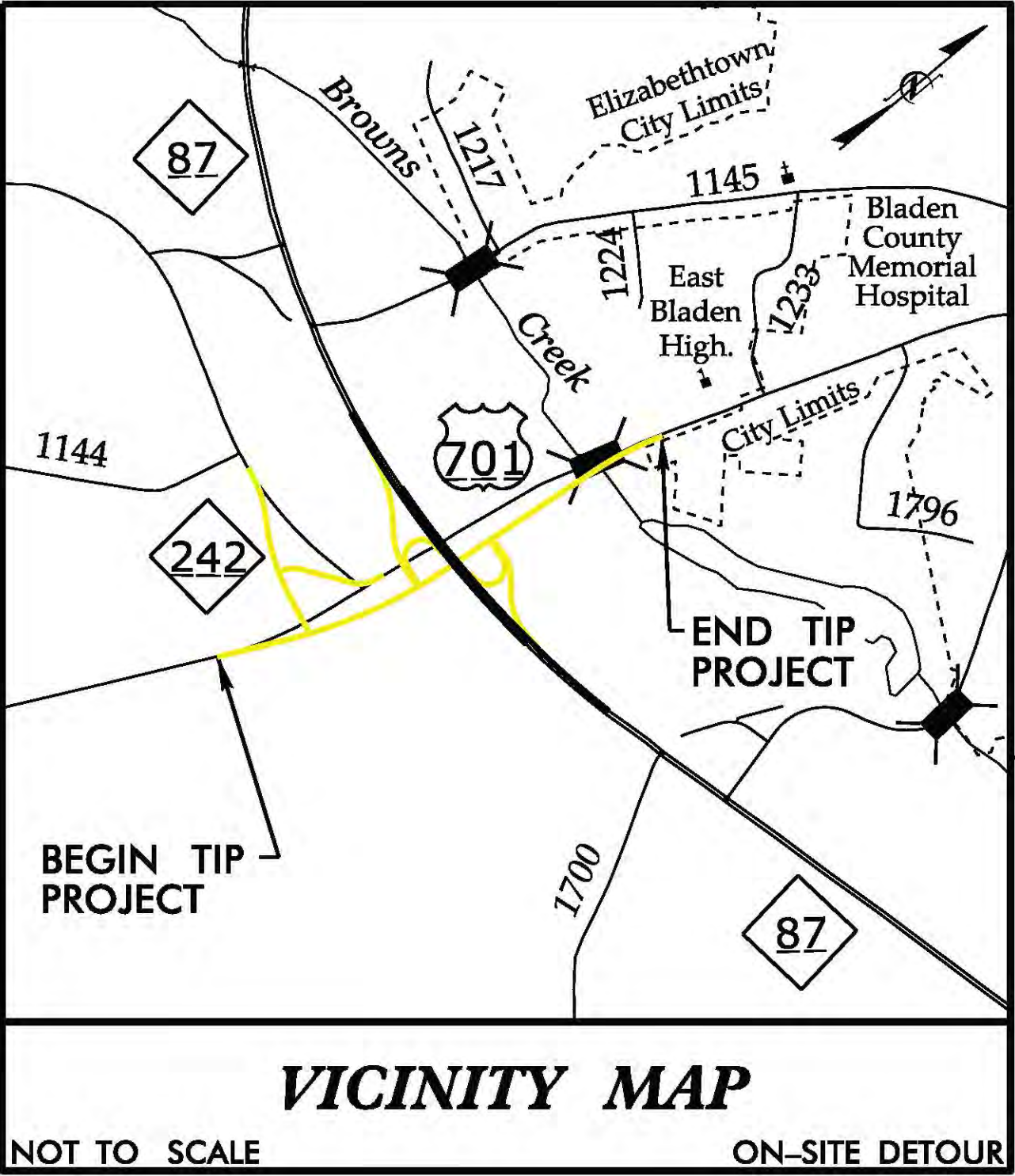
WETLAND AND SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4903	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
40226.1.1	NHF-0087(15)	P.E.	
40226.2.FS1	NHF-0087(15)	RIGHT OF WAY	
40226.2.UFS1	NHF-0087(15)	UTILITIES	

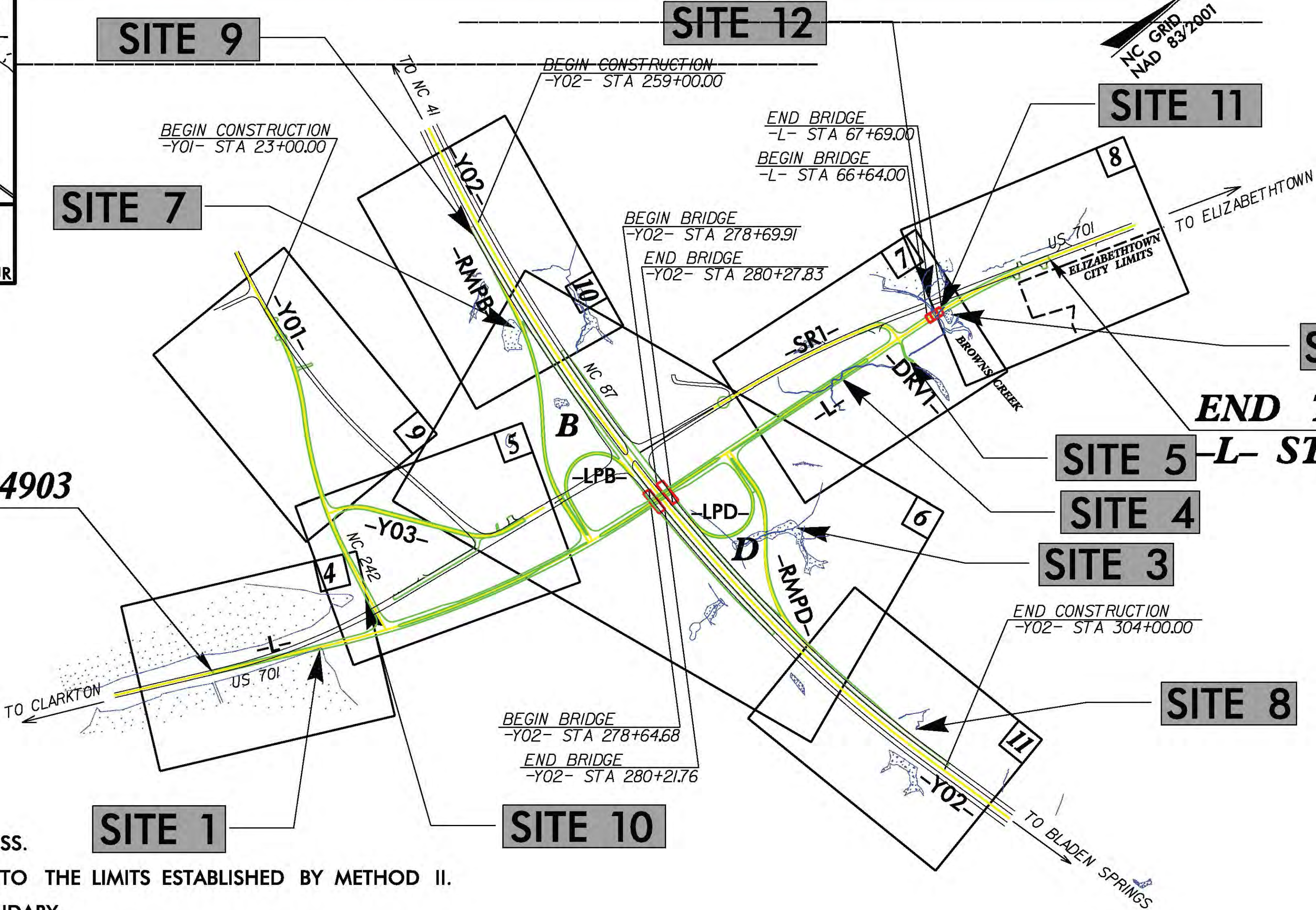


PERMIT DRAWING
SHEET 1 OF 31

TIP PROJECT: R-4903



BEGIN TIP PROJECT R-4903
-L- STA 16+60.00

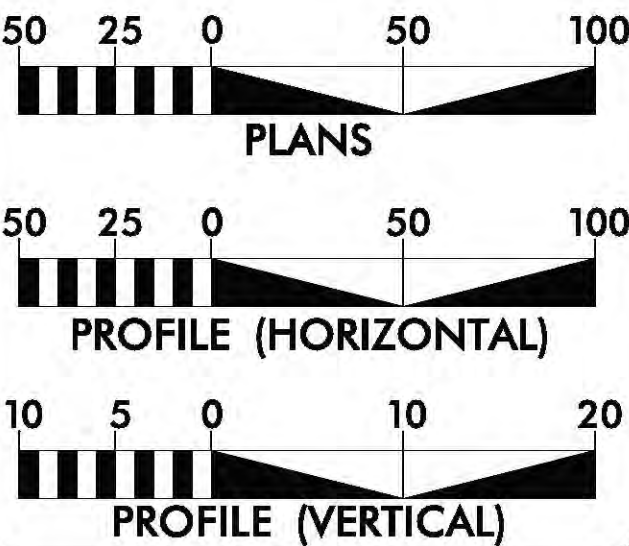


- NOTES:
1. A PORTION OF THIS PROJECT IS CONTROLLED ACCESS.
 2. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
 3. THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARY.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2014 = 11,700
ADT 2034 = 17,600
K = 11 %
D = 60 %
T = 14 % *
V = 50 MPH
* TTST = 9% DUAL 5%
FUNC CLASS =
RURAL MINOR ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT R-4903 = 1.088 MILES
LENGTH OF STRUCTURE TIP PROJECT R-4903 = 0.020 MILES
TOTAL LENGTH OF TIP PROJECT R-4903 = 1.108 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh, NC 27610

2012 STANDARD SPECIFICATIONS
RIGHT OF WAY DATE:
SEPTEMBER 30, 2013

LETTING DATE:
DECEMBER 16, 2014

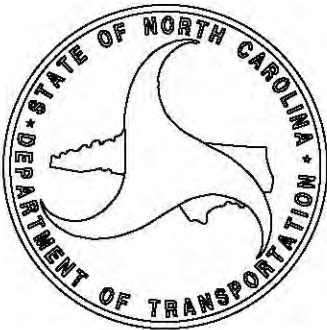
GARY LOVERING, PE
PROJECT ENGINEER

SUSAN C. LANCASTER, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.
ROADWAY DESIGN ENGINEER

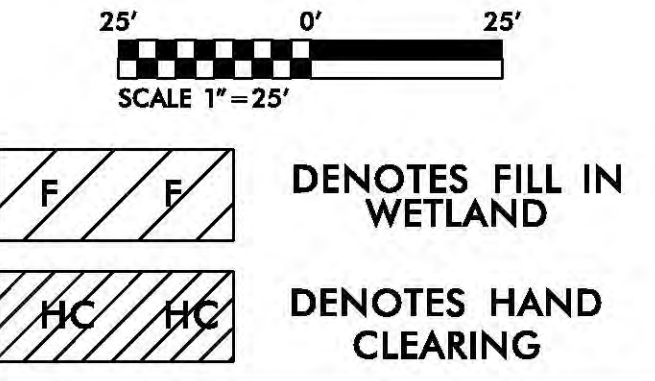
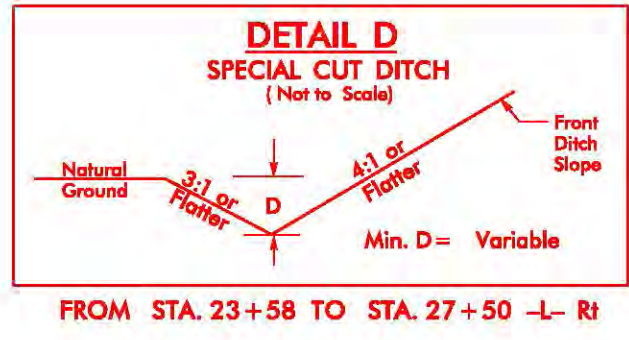
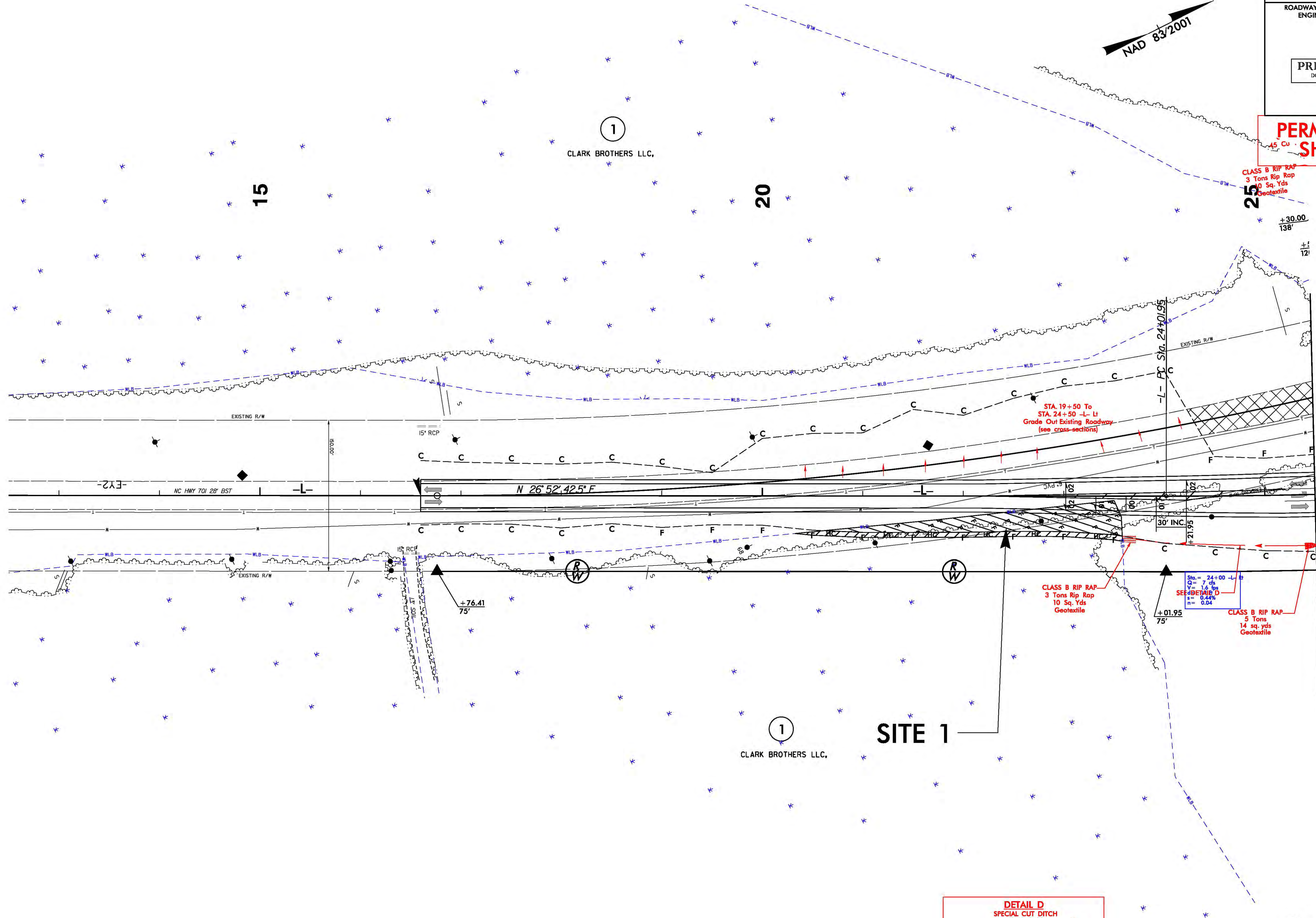
SIGNATURE: P.E.



11/26/2013
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\$\$\$\$\$DGN\$\$\$\$\$
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PROJECT REFERENCE NO.		SHEET NO.
<u>R-4903</u>		<u>4</u>
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
<div>PRELIMINARY PLANS</div> <div>DO NOT USE FOR CONSTRUCTION</div>		


PERMIT DRAWING
SHEET 2 OF 31



PERMIT DRAWING
SHEET 3 OF 31



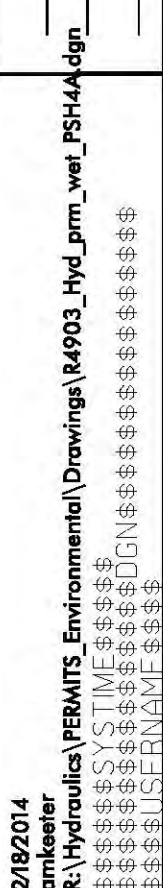
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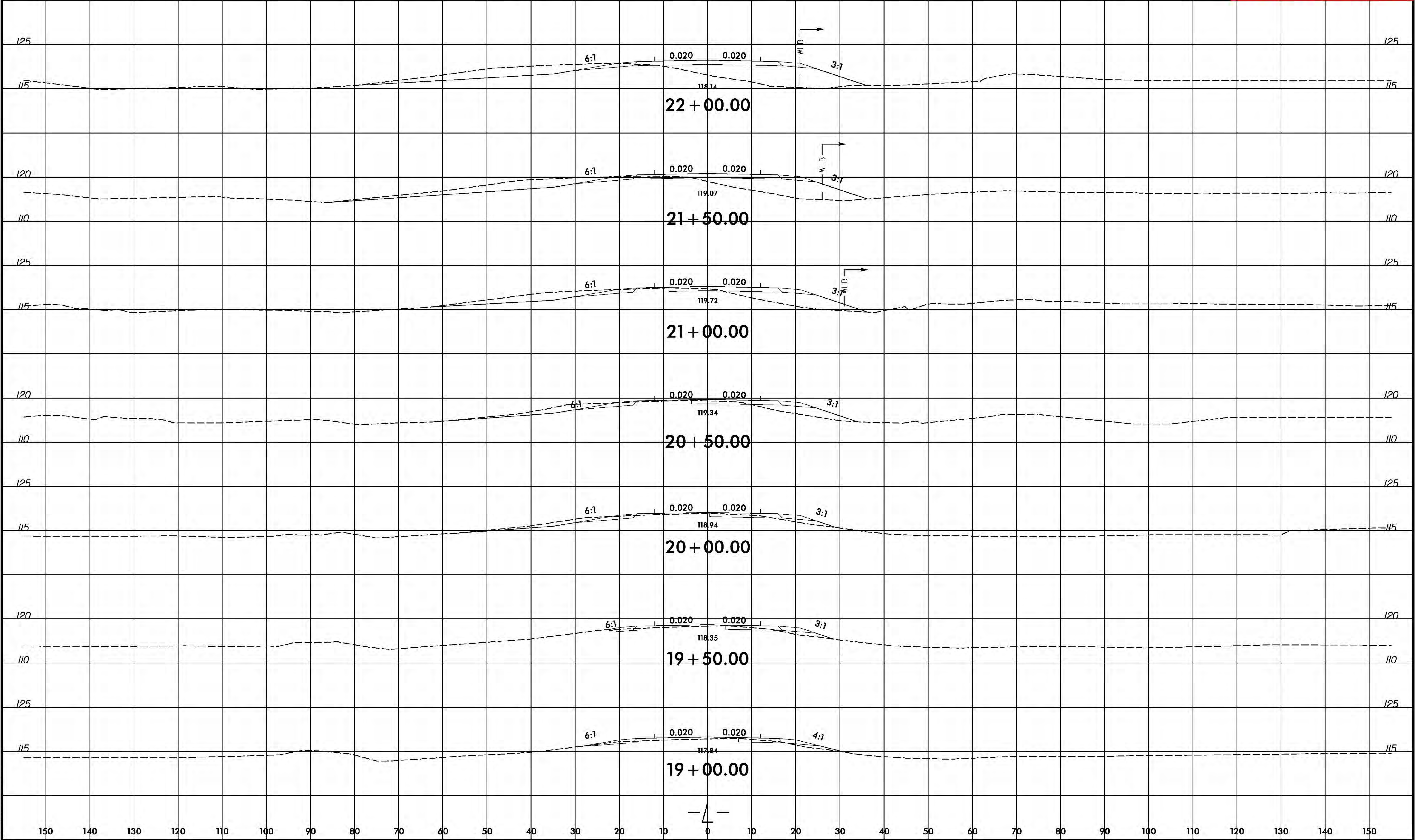
SCALE 1"=25'

REVISIONS

2/17/2014
amkeeteer
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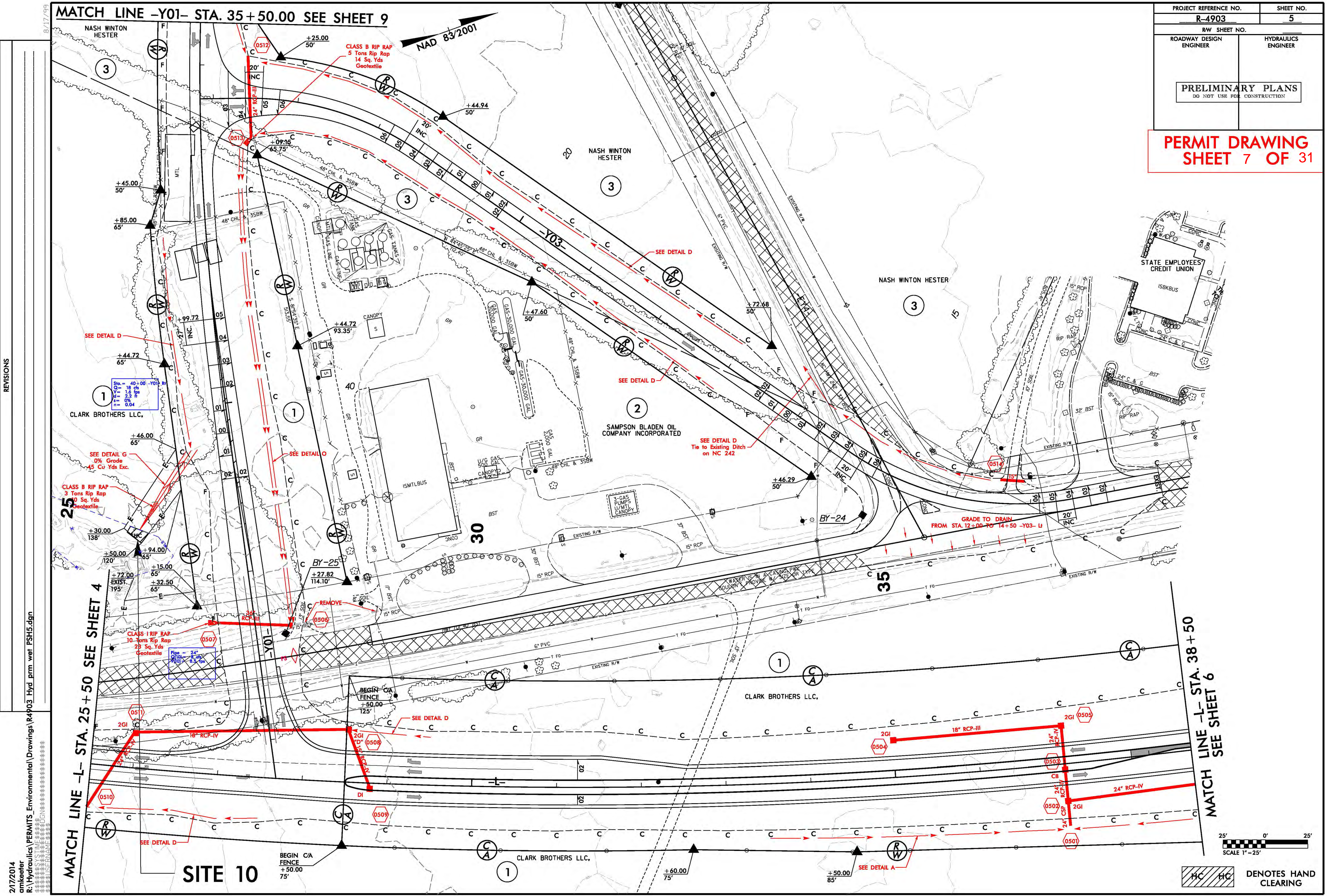


PERMIT DRAWING
SHEET 5 OF 31





2/17/2014
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PROJECT REFERENCE NO.	SHEET NO.
R-4903	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 7 OF 31

REVISIONS

2/7/2014
amkeefe
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25' 0' 25'
SCALE 1"=25'
HC HC
DENOTES HAND
CLEARING

30

SITE 10

CLASS B RIP RAP -
3 Tons Rip Rap
10 Sq. Yds
Geotextile


SEE DETAIL G —
0% Grade
45 Cu Yds Exc.

CLASS I RIP RAP —
10 Tons Rip Rap
23 Sq. Yds
Geotextile


BEGIN C/A
FENCE
+ 50.00
125'

SEE DETAIL D

25' 0' 25'

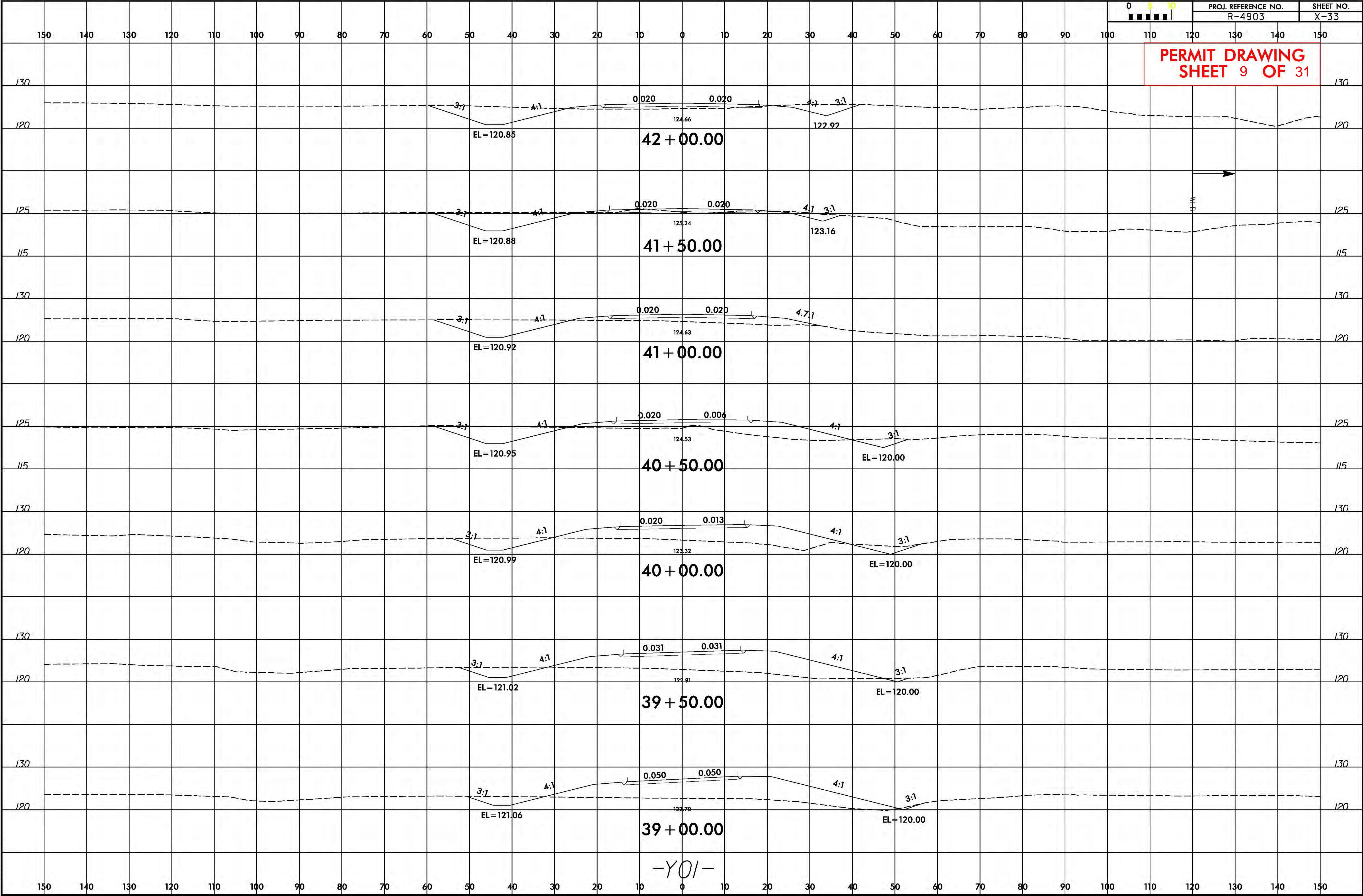


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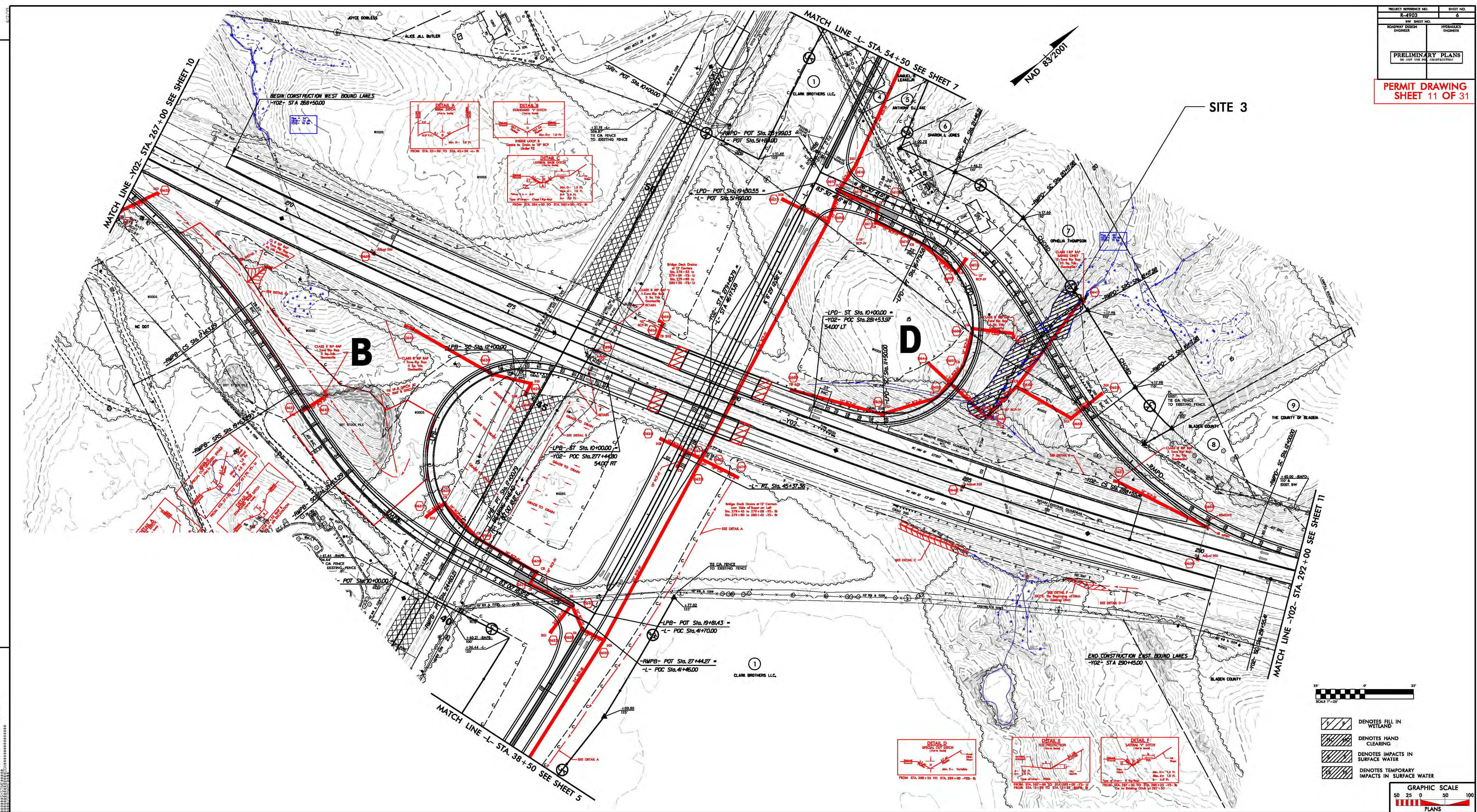
 DENOTES HAND CLEARING

217/2014
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P. \ Hydraulic

PERMIT DRAWING
SHEET 9 OF 31



-Y01-







PROJECT REFERENCE NO.	SHEET NO.
R-4903	6
M/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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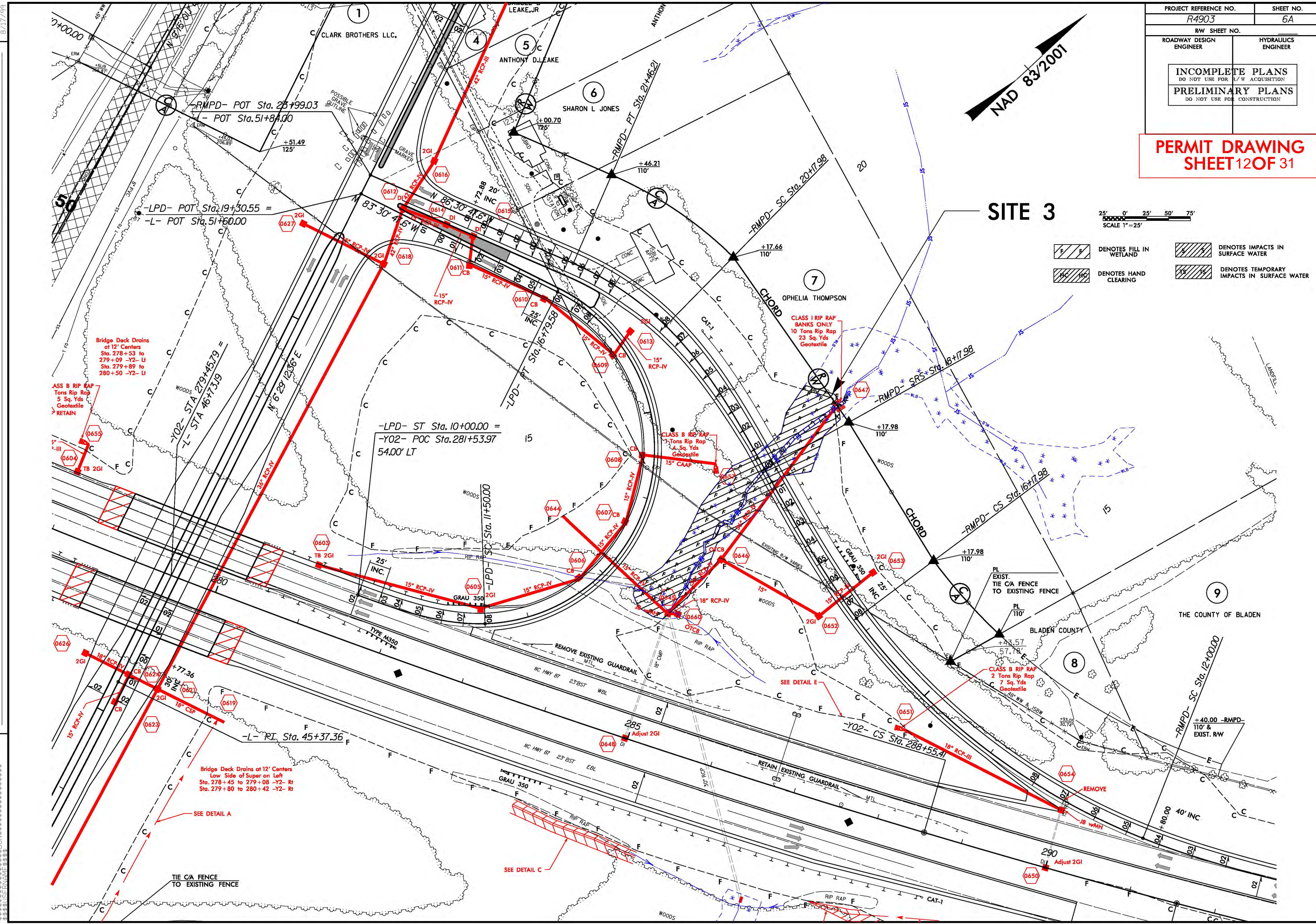
PERMIT DRAWING

SHEET 11 OF 31

25' 0' 25' 50' 75'
SCALE 1" = 25'

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

2/17/2014
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PROJECT REFERENCE NO.	SHEET NO.
R-4903	7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 14 OF 31

BLADEN COUNTY
BOARD OF
EDUCATION

NAD 83/2001

JESSIE O INMAN

SITE 12

MATCH LINE -L- STA. 68+00 SEE SHEET 8

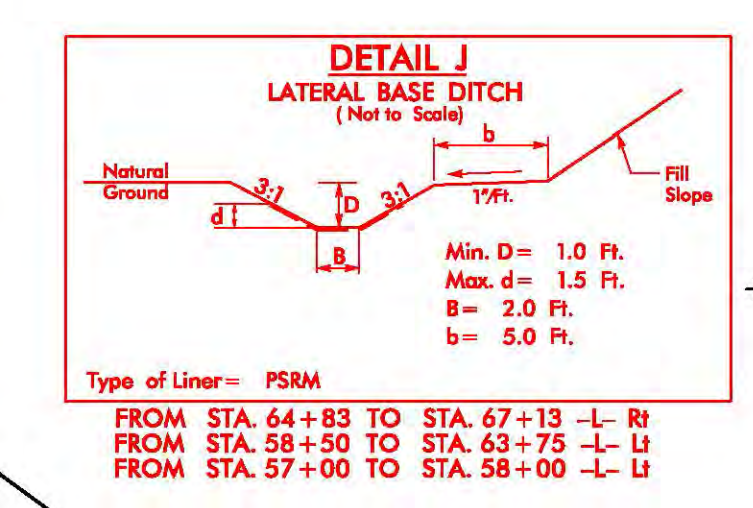
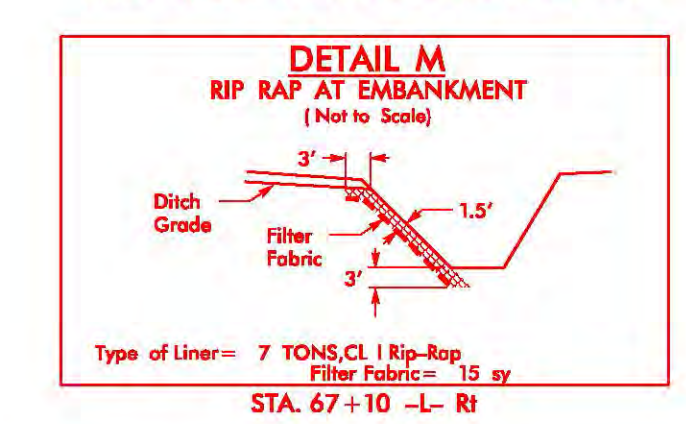
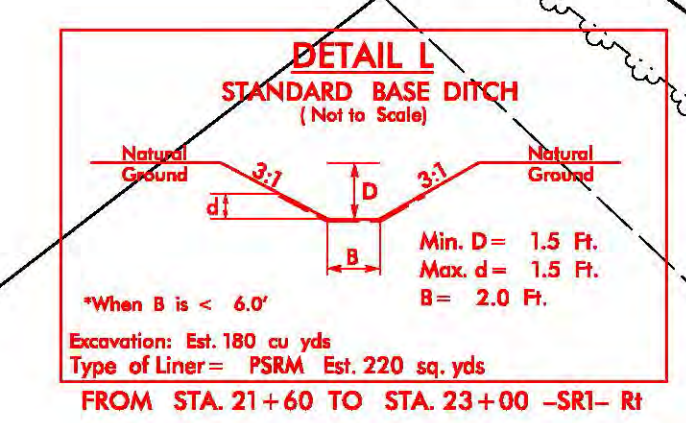
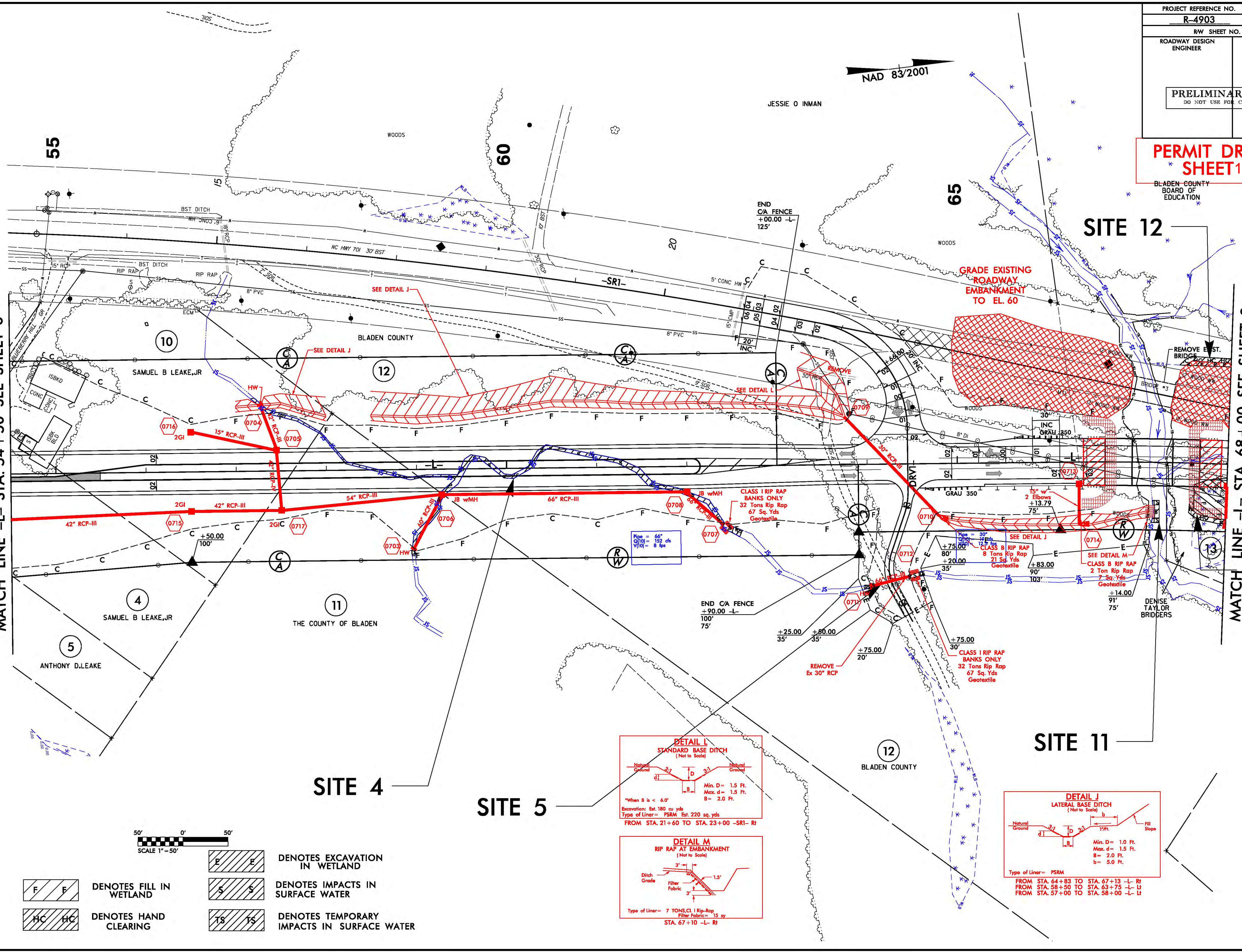
SITE 6

SITE 11

SITE 5

SITE 4

MATCH LINE -L- STA. 54+50 SEE SHEET 6



- 50' 0' 50'
SCALE 1"=50'
- | | | | |
|--|-------------------------|--|--|
| | DENOTES FILL IN WETLAND | | DENOTES EXCAVATION IN WETLAND |
| | DENOTES HAND CLEARING | | DENOTES IMPACTS IN SURFACE WATER |
| | | | DENOTES TEMPORARY IMPACTS IN SURFACE WATER |

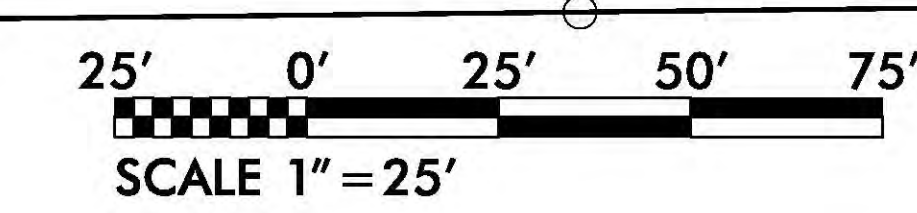
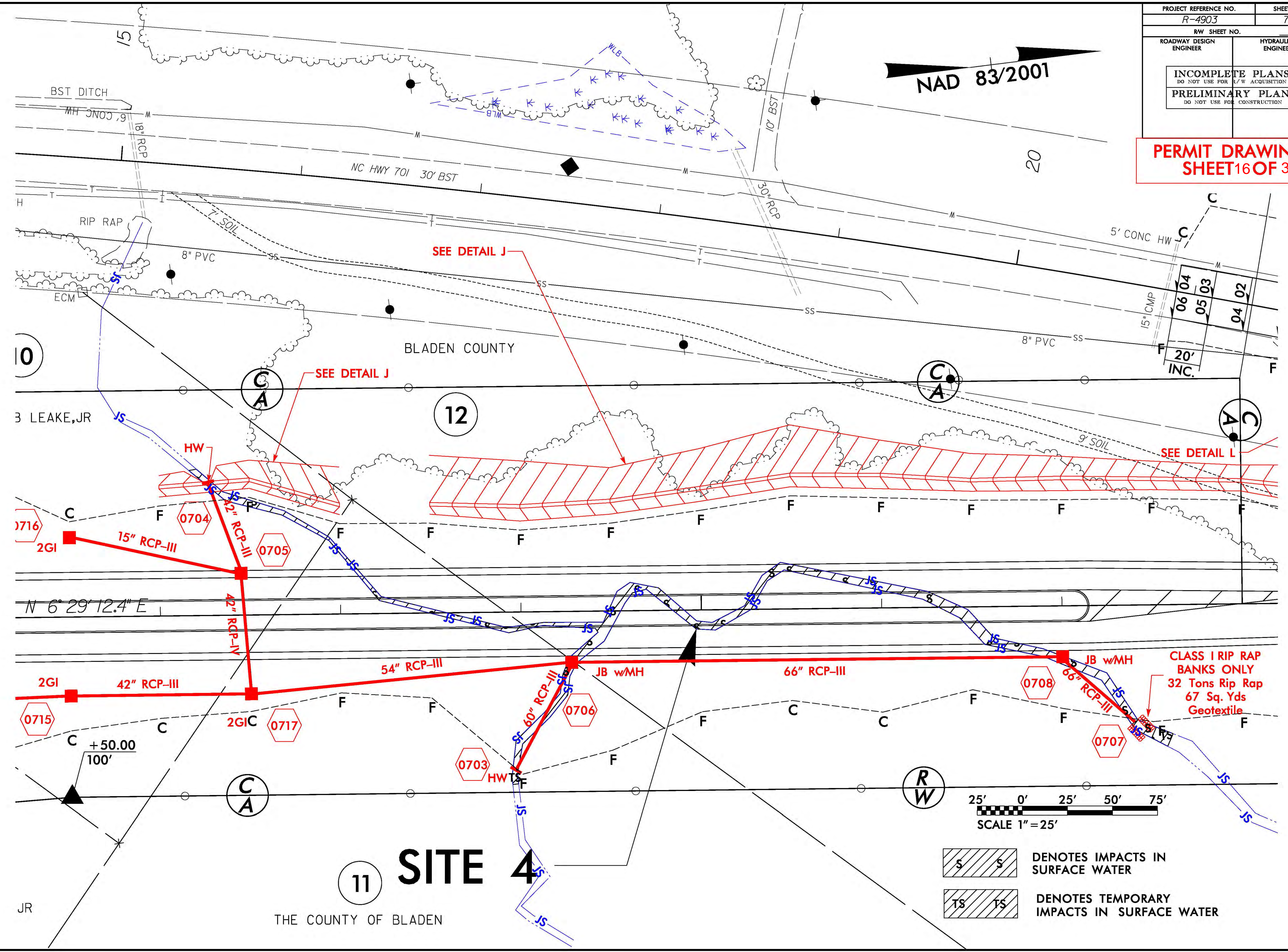
REVISIONS

2/2/2014
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PROJECT REFERENCE NO.	SHEET NO.
R-4903	7A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 16 OF 31

NAD 83/2001



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

11 SITE 4
THE COUNTY OF BLADEN

REVISIONS

2/7/2014
R:\Hydraulics\PERMITS\Environmental\Drawings\R4903_Lyde_prm_wet_psh7A.dgn

PROJECT REFERENCE NO.	SHEET NO.
R4903	7C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 18 OF 31

NAD 83/2001
SITE 12

BLADEN COUNTY
BOARD OF
EDUCATION

65

WOODS

GRADE EXISTING
ROADWAY
EMBANKMENT
TO EL. 60

REMOVE EXIST.
BRIDGE

WOODS

GRADE TO DRAIN

GRADE TO

GRAU 350

24" RCP

GRAU 350

15" w/
2 Elbows

CLASS B RIP RAP
1 Tons Rip Rap
5 Sq. Yds
Geotextile

TIE TO ROADWAY
DITCH

SCALE 1" = 25'

DENOTES FILL IN
WETLAND

SITE 6

DENOTES EXCAVATION
IN WETLAND

DENOTES HAND
CLEARING

DENISE
TAYLOR
BRIDGERS

SITE 11

CLASS B RIP RAP
8 Tons Rip Rap
21 Sq. Yds
Geotextile

CLASS B RIP RAP
2 Ton Rip Rap
7 Sq. Yds
Geotextile

SEE DETAIL J

SEE DETAIL M

+75.00
80'
+20.00
35'

+83.00
90'
103'

+14.00
91'
75'

REVISIONS

2/12/2014
R:\Hydraulics\PERMITS\Environmental Drawings\R4903_hyd_prm_wet_PSH7.dgn

5/26/99

PROJECT REFERENCE NO.
R-4903

SHEET NO.
14

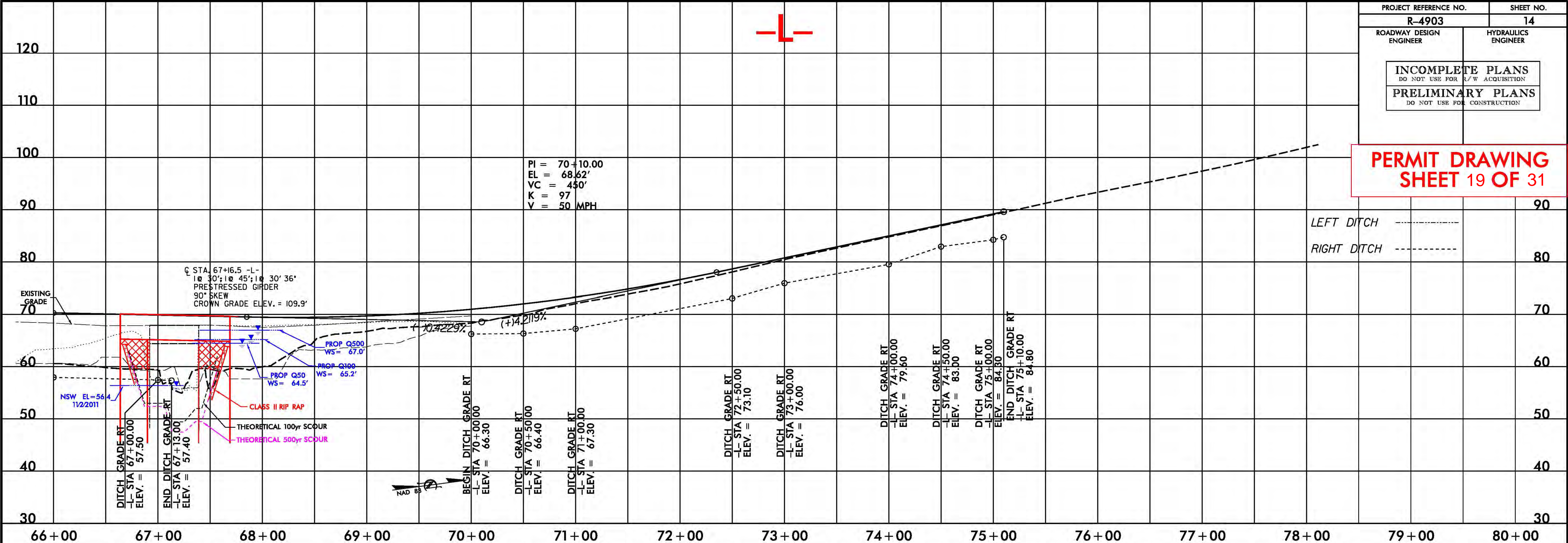
ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

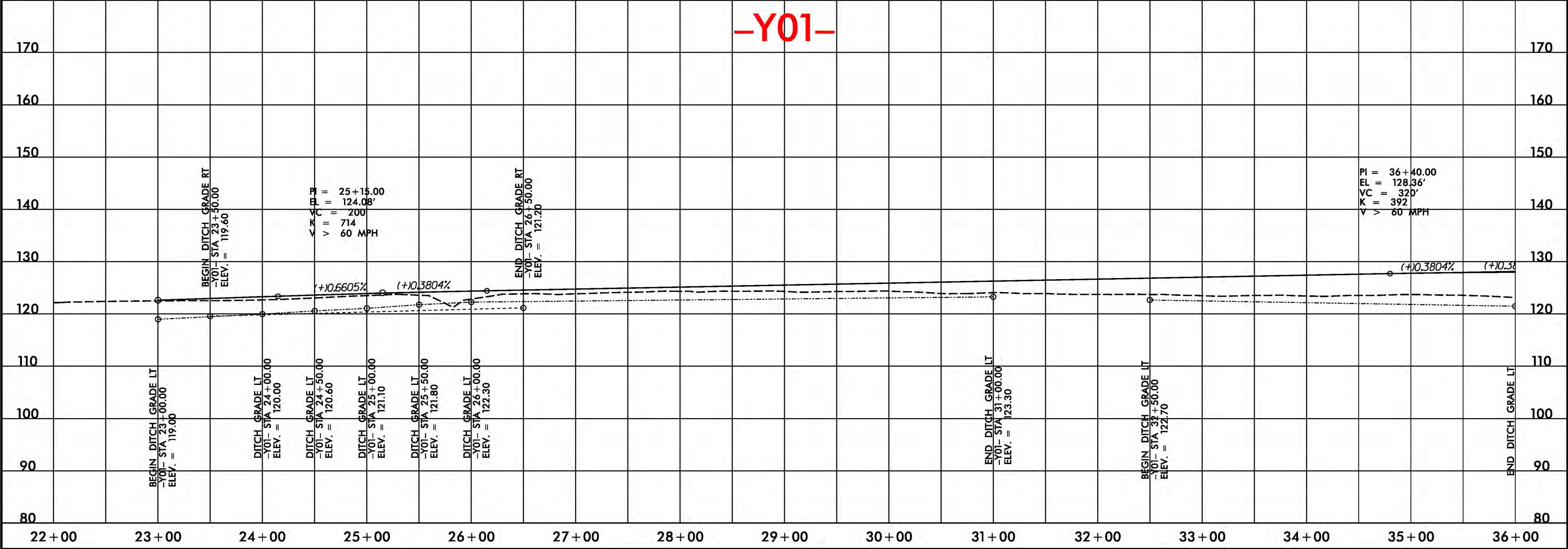
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

**PERMIT DRAWING
SHEET 19 OF 31**

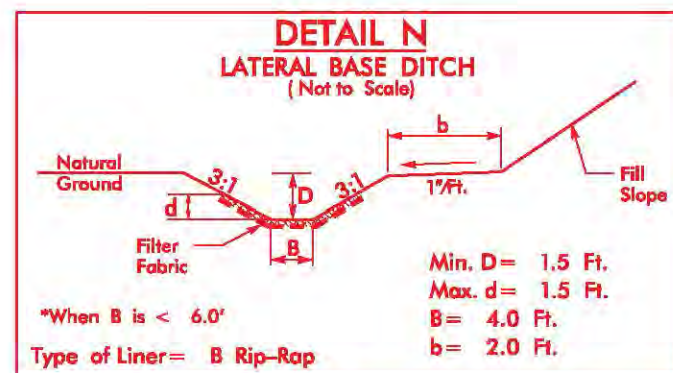
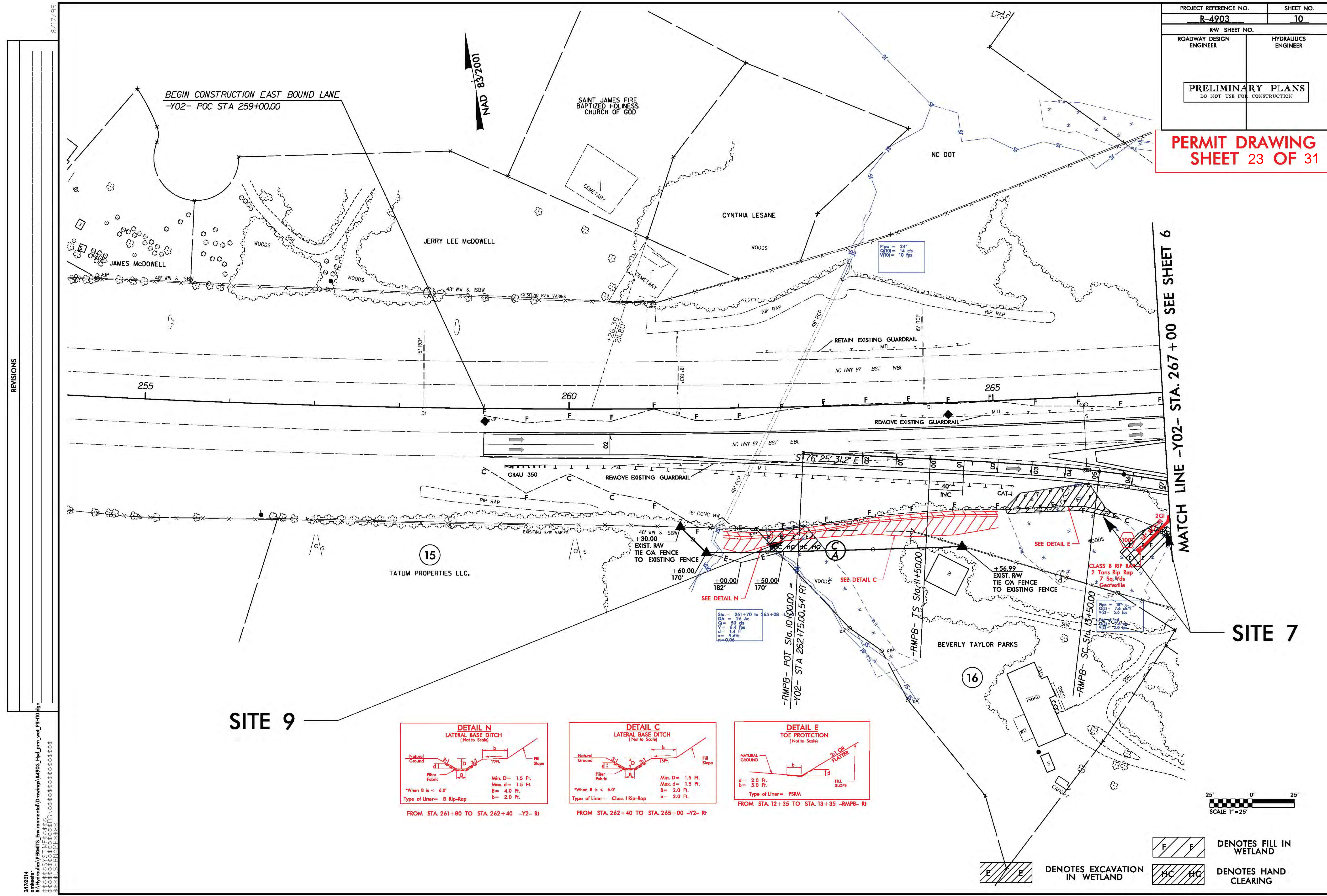


-Y01-

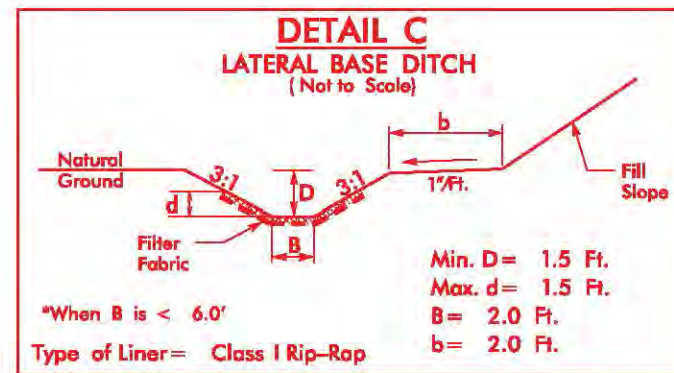


PROJECT REFERENCE NO.	SHEET NO.
R-4903	10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

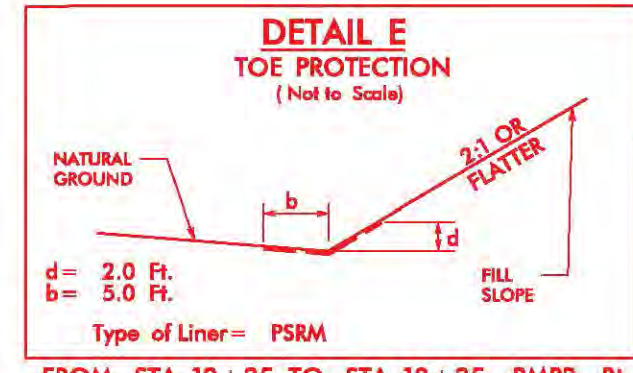
PERMIT DRAWING
SHEET 23 OF 31



FROM STA. 261+80 TO STA. 262+40 -Y2- R1



FROM STA. 262+40 TO STA. 265+00 -Y2- R1

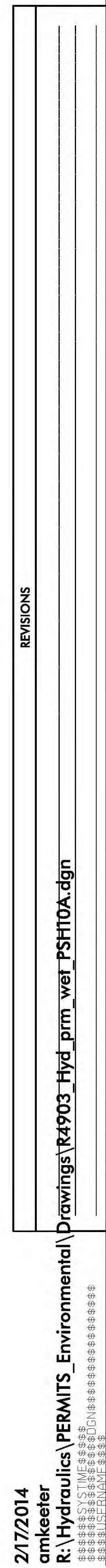


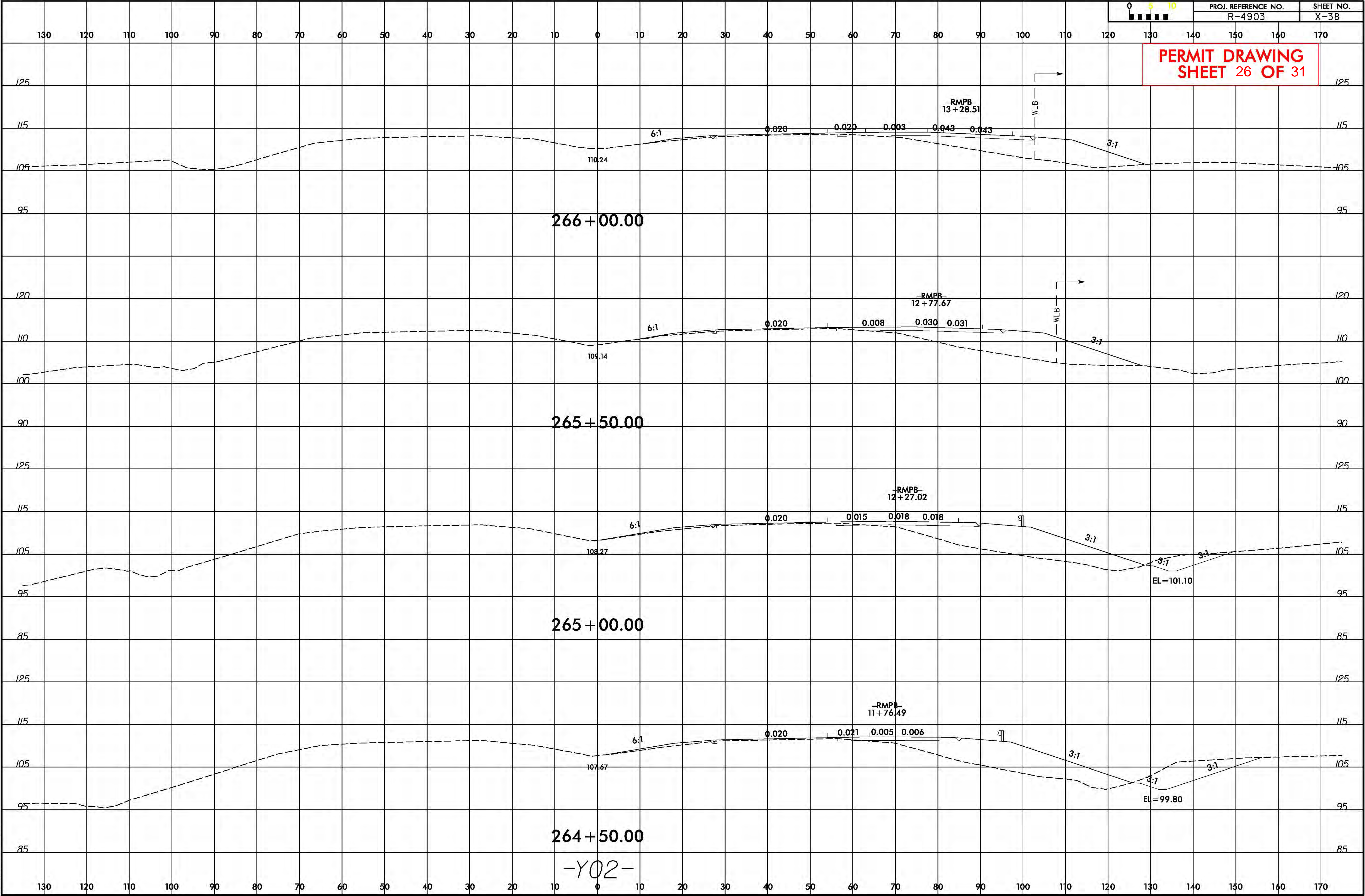
FROM STA. 12+35 TO STA. 13+35 -RMPB- R1

F	F	DENOTES FILL IN WETLAND
HC	HC	DENOTES HAND CLEARING

REVISIONS

2/7/2014
R:\Hydraulic\PERMITS\Environmental Drawings\R4903_Hyd_Prm_wet_PSH10.dgn
J:\Hydraulic\PERMITS\Environmental Drawings\R4903_Hyd_Prm_wet_PSH10.dgn





PERMIT DRAWING
SHEET 26 OF 31

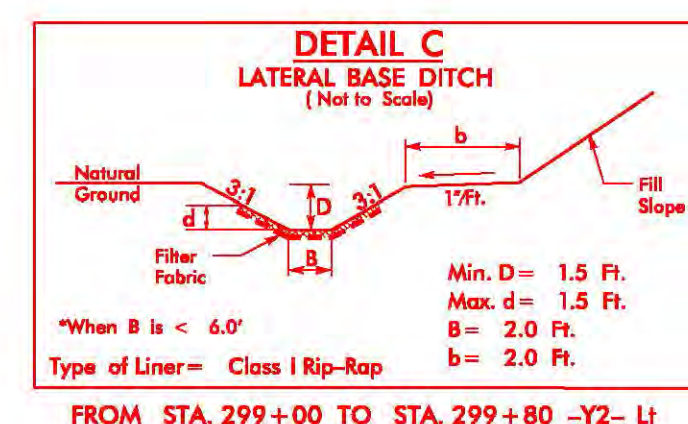
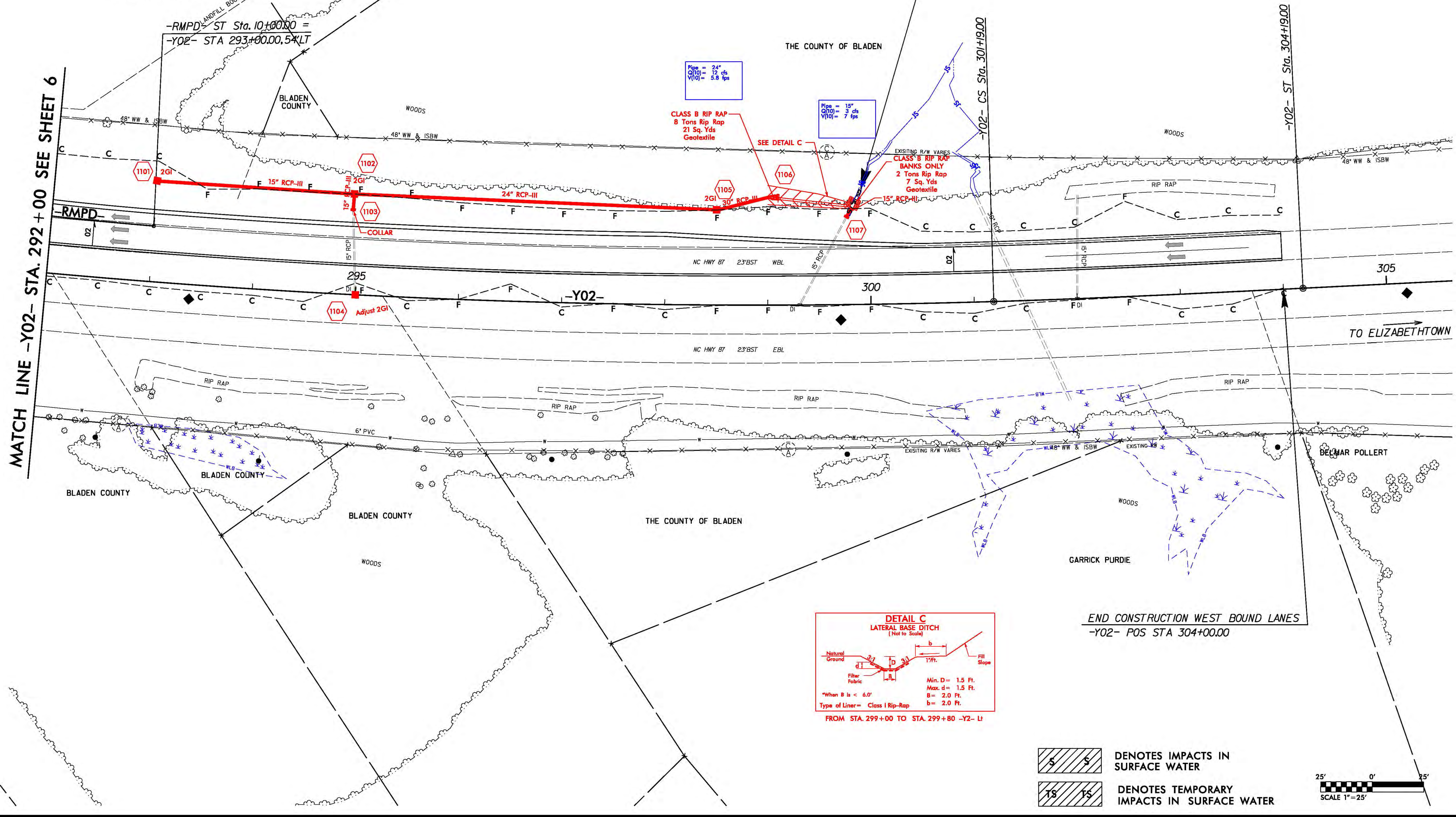
PROJECT REFERENCE NO.	SHEET NO.
R-4903	11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 27 OF 31

SITE 8

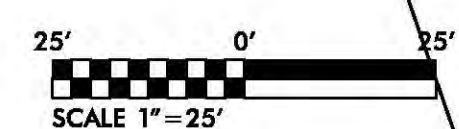
NAD 83/2007

MATCH LINE -Y02- STA. 292+00 SEE SHEET 6



END CONSTRUCTION WEST BOUND LANES
-Y02- POS STA 304+00.00

DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



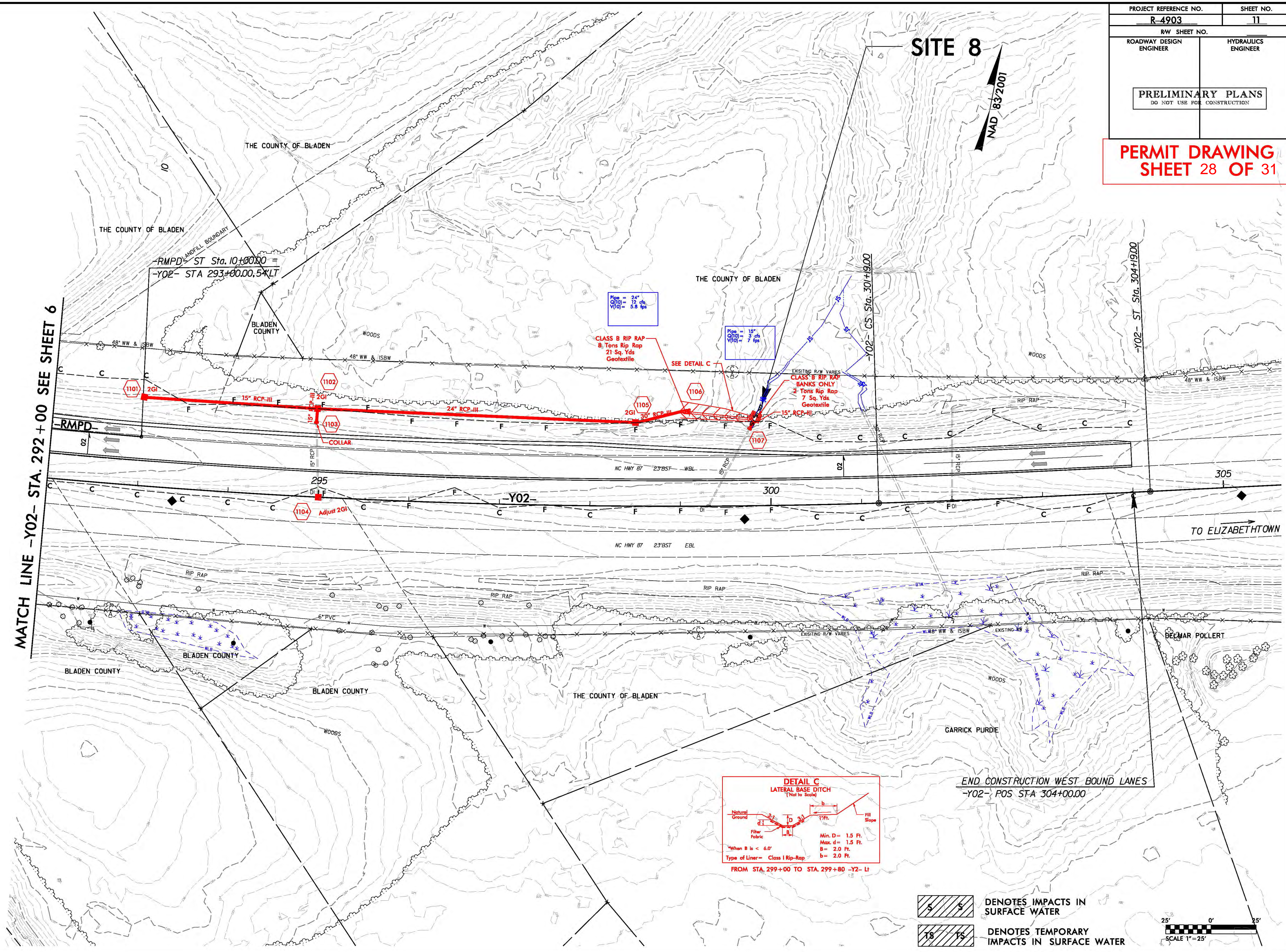
REVISIONS

2/12/2014
R:\Hydraulics\PERMITS\Environmental\Drawings\R4903_Hyd_prm_wet_PSH11.dgn
G:\PROJECTS\2014\20140214\20140214_PSH11.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-4903	11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 28 OF 31



REVISIONS

2/17/2014
R:\Hydraulics\PERMITS\Environmental Drawings\R4903 Hyd_prm_wet_P8H11.dgn
S:\STATIONING\STATIONING.DGN

DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

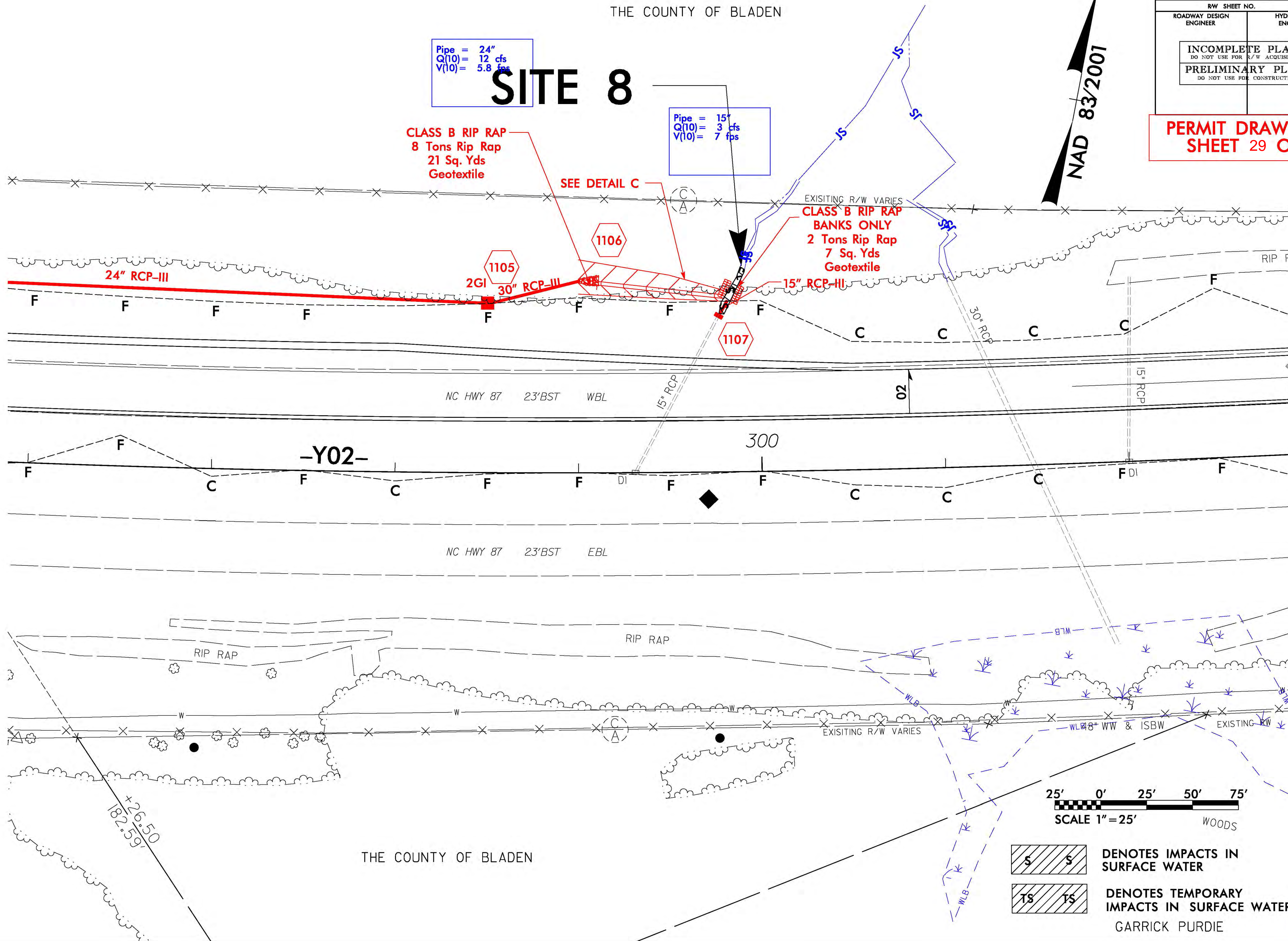
25' 0' 25'
SCALE 1"=25'

8

Pipe = 24"
Q(10) = 12 cfs
V(10) = 5.8 fps

Pipe = 15"
Q(10) = 3 cfs
V(10) = 7 fps

NAD 83/2007



REVISIONS

2/17/2014
amkceeter
R:\Hydraulics\PERMITS Environmental\Drawings\R4903_Hyd_prm_wet_PSH1A.dgn

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	20+61 to 23+57-L-RT	FILL	0.11				0.04					
3	18+00-RMPD	FILL	0.32				<0.01					
	20+61 to 23+57-L-RT	36" RCP						0.02		279		
	20+61 to 23+57-L-RT	BANK STABILIZATION						<0.01	<0.01	12	10	
4	57+20 to 62+51-L-	RCP						0.06	<0.01	709	10	
		BANK STABILIZATION						<0.01	<0.01	12	10	
5	11+40-DRV1	66" RCP						<0.01	<0.01	10	8	
		BANK STABILIZATION						<0.01	<0.01	10	5	
6	67+63 to 68+83 -L-RT	FILL	0.05				0.01					
7	12+41 to 13+24-RMPB	FILL	0.05		0.03		0.02					
8	299+77 to 299+91-Y02-LT	15" RCP						<0.01		7		
		BANK STABILIZATION						<0.01	<0.01	10	10	
9	10+00-RMPB-RT	FILL	<0.01		0.02		0.02					
10	41+35 TO 41+50-Y01-RT	FILL					0.01					
			0.54		0.05		0.10	0.08	<0.01	1049	53	

SITE 2 HAS BEEN REMOVED FROM PLANS

0.03 acres of Temporary Fill in Wetlands in the Hand Clearing areas for erosion control measures.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

BLADEN COUNTY
WBS - 40226.1.1 (R-4903)

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)
11	67+16 to 67+23-L-RT	BANK STABLIZATION						<0.01	<0.01	5	15	
12	67+46 TO 68+35-L-LT	FILL			0.01		0.01					
					0.01		0.01	0.00	<0.01	5	15	

GRAND TOTAL

0.54

0.06

0.11

0.08

<0.01

1054

68

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

BLADEN COUNTY
WBS - 40226.1.1 (R-4903)