



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

May 20, 2014

MEMORANDUM TO: Mr. Mike Mills, PE
Division 7 Engineer

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

SUBJECT: Guilford County, Neelley Road Intersection, US 421 at SR
3418, Greensboro, FA No: CMNHF-0421(41)
WBS Element 34483.1.1; **TIP R-2612B**

Please find attached the USACE Section 404 Individual Permit and the NCDWR Section 401 Water Quality Certification for the above-referenced project. All environmental permits have been received for the construction of this project.

A copy of this permit package will be posted on the NCDOT website at:
<https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>

Cc: w/o attachment (see website for attachments):
Mr. Randy Garris, P.E. State Contract Officer
Mr. Jerry Parker, Division Environmental Officer
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design Unit
Mr. Dewayne Sykes, P.E. 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. Eric Midkiff, PDEA
Mr. Clarence Coleman, FHWA
Ms. Beth Harmon, EEP
Mr. Phillip Ayscue, Office of Inspector General

PROJECT COMMITMENTS

T.I.P Project No. R-2612B
Interchange Addition at US 421 and SR 3418 (Neelley Road)
Guilford County
Federal Project Number NHF-421(11)
State Project Number 8.1493301
WBS Element 34483.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Hydraulics Unit

- During preliminary plan preparation and prior to Right of Way authorization, a wetland / stream minimization meeting(s) will be held with resource agencies.
 - ❖ *These meetings were held on November 15, 2007, January 16, 2008 and April 17, 2008.*
- The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) for approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR) for each new crossing of a FEMA regulated stream.
 - ❖ *The Hydraulics Unit has coordinated with the NC Floodplain Mapping Program (FMP) and has received approval of a Conditional Letter of Map Revision (CLOMR). The subsequent final Letter of Map Revision (LOMR) for each new crossing of FEMA regulated streams will be coordinated with the NC FMP, upon the construction of R-2612B.*

Roadway Design Unit

- Roadway Design will attempt to avoid or limit the proposed Right of Way encroachment at hazardous waste sites, because of potential environmental liabilities for proper cleanup and remediation, if contamination exists. If the sites cannot be avoided, a “Preliminary Site Assessment” will be performed prior to right of way acquisition to determine the existence and extent of any contamination.
 - ❖ *The gas tanks, associated with the former gas station on Liberty Road, have been removed.*
- Upon completion of the final plans by Roadway Design, the US Army Corps of Engineers Regulatory Branch will have an opportunity to review the plans for permit requirement determinations, including the extent and location of any work within Waters of the United States and Wetlands.
 - ❖ *This action has been completed.*

Roadway Design Unit (cont.)

- Construction of the proposed project will be coordinated to minimize conflict with the Greater Greensboro Open (GGO) golf tournament which is held in April at the Forest Oaks Golf Course, just east of the project. This annual event generates heavy traffic volumes in the project area.

- ❖ *The Greater Greensboro Open (GGO) golf tournament has been moved to a different location.*
- Paved shoulders, four feet in width, will be constructed on Woody Mill Road-Company Mill Road, Neelley Road-Williams Dairy Road and Liberty Road, within the project limits. This action will accommodate future bicycle routes in Guilford County.
 - ❖ *Paved shoulders, four feet in width, will be constructed along Williams Dairy Road-Neelley Road and Liberty Road, within the R-2612B project limits. This traffic volume-required, design will accommodate future bicycle routes in Guilford County.*
- US EPA continues to have environmental concerns due to the unavoidable impacts to Big Alamance Creek and tributaries, as a result of the location and design of the US 421 interchange at Williams Dairy Road and Neelley Road. The Concurrence Point 4A form includes the general environmental commitment to provide 2:1 side slopes at wetlands, where possible. US EPA requests that this avoidance and minimization measure be fully investigated during the final design and hydraulic review stages of the project. US EPA also requests the use of Best Management Practices (BMPs), where appropriate.
 - ❖ *These actions have been completed.*

Roadside Environmental Unit

- Guilford County has designated US 421 as a Scenic Corridor Overlay to limit certain types of development along the corridor. The preservation of significant natural vegetation buffers directly adjacent to major transportation routes is encouraged, as stated in the Southern Guilford Area Plan, adopted April 18, 2002. In addition to preserving natural buffers, the Scenic Corridor Overlay limits outdoor signage and billboards. Berms and tree planting are required for all new construction disturbing the natural buffer 1,500 feet west of the centerline of US 421. The ordinance, including landscape provisions, also applies to roads intersecting US 421.

The construction project will include measures for tree protection fencing and selective undergrowth removal, to best maintain and preserve the natural buffer. The Roadside Environmental Unit Field Operations Engineer will review the project throughout construction to ensure that all available assets are used to minimize construction impacts. The Roadside Environmental Unit and the Highway Division 7 Roadside Engineer will review the project, post-construction, and implement any needed landscape mitigation measures for the re-establishment of natural vegetative buffers.

Highway Division 7

- 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 embankments that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

COMMITMENTS FROM PERMITTING

Division 7 Construction

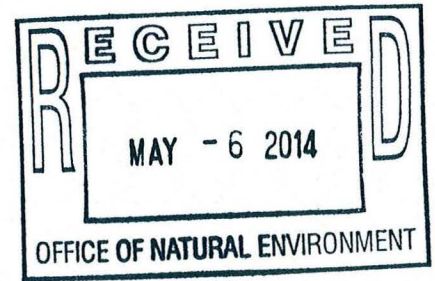
At locations where ponds will be drained, proper measures will be taken to drain the pond with limited impact to upstream and downstream channel stability as well as native aquatic species. Proper measures will be taken to avoid sediment release and/or sediment accumulation downstream as a result of pond draining. If typical pond draining techniques will create significant disturbance to native aquatic species, the NCDOT shall consult with NC Wildlife Resources staff to determine if there are any sensitive species, and the most appropriate measures to limit impacts to these species. The permittee shall observe any natural channel re-establishment, or utilize natural channel construction techniques, to ensure that the jurisdictional stream channel above and below the drained pond remain stable, and that no additional impacts occur within the natural stream channel as a result of draining the pond.



REPLY TO
ATTENTION OF

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

May 5, 2014



Regulatory Division/1200A

Action ID: SAW-2013-01990

Ms. Deborah Barbour, P.E
Preconstruction Director
NC Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Ms. Deborah Barbour:

In accordance with the written request of August 19, 2013, including the revisions submitted on November 13, 2014, and the ensuing administrative record, enclosed is a Department of the Army Permit to authorize the following: 1) Permanent placement of fill material into 1,962 linear feet of jurisdictional stream channel, 4.80 acres of adjacent riparian wetlands, 1.0 acre of jurisdictional open waters and, 2) Temporary placement of fill material into 132 linear feet of jurisdictional stream channel and 0.04 acre of adjacent wetlands. These impacts are associated with the construction of a 0.73 mile, interchange, identified as R-2612B. The project site is located on the southeast side of Greensboro near the community of Pleasant Garden, begins at the intersection of the Talbot Road/SR 3418 intersection and terminates at the proposed interchange, in Guilford County, North Carolina.

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

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

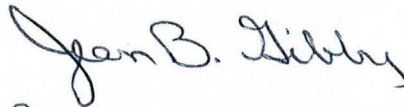
- a. You must complete construction before December 31, 2019.
- b. You must notify this office in advance as to when you intend to commence and complete work.

c. You must allow representatives from this office to make periodic visits to your worksite as deemed necessary to assure compliance with permit plans and conditions.

You should address all questions regarding this authorization to Mr. Andrew Williams in the Raleigh Regulatory Field Office, telephone number (919) 554-4884, extension 26.

Thank you in advance for completing our Customer Survey Form. This can be accomplished by visiting our web-site at <http://regulatory.usacesurvey.com> and completing the survey on-line. We value your comments and appreciate you taking the time to complete a survey each time you interact with our office.

Sincerely,



for Steven A. Baker
Colonel, U.S. Army
District Commander

Enclosures

Copy Furnished (with enclosures):

Chief, Source Data Unit
NOAA/National Ocean Service
Attn: Sharon Tear N/CS261
1315 East-West Hwy., Rm 7316
Silver Spring, MD 20910-3282

Copies Furnished with special conditions and plans:

Mr. Pete Benjamin
U.S. Fish and Wildlife Service
Raleigh Ecological Service Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

Mr. Fritz Rohde
Habitat Conservation Division – Atlantic Branch
101 Pivers Island Road
Beaufort, North Carolina 28516

Mr. William Cox
Wetlands and Marine Regulatory Section
U.S. Environmental Protection Agency – Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8931

Mr. Doug Huggett
Division Coastal Management
N.C. Department of Environment
And Natural Resources
400Commerce Avenue
Morehead City, North Carolina 28557

Dr. Pace Wilber
Habitat Conservation Division – Atlantic Branch
NOAA Fisheries Service
219 Fort Johnston Road
Charleston, South Carolina 29412

Mr. Tony Able
Wetlands Regulatory Section
U.S. Environmental Protection Agency – Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

DEPARTMENT OF THE ARMY PERMIT

Permittee: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION -
ATTN: MS. DEBORAH BARBOUR, P.E.

Permit No: SAW-2013-01990

Issuing Office: USAED, WILMINGTON

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 the office acting under the authority of the commanding officer.

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

Project Description: The project, identified as R-2612B, consists of replacing an at-grade intersection located at SR 3418(Neelley Road) and US 421 with a highway interchange, near Pleasant Garden, Guilford County, North Carolina. R-2612B involves the construction of a bridge and roadway over US 421 and connecting SR 3418 (Neelley Road) to the west with Williams Dairy Road to the east. Entry/exit ramps to US 421 will be constructed on the north and southeastern sides of the interchange. A new intersection at Liberty Road, connecting the proposed interchange to Williams Dairy Road, will be constructed directly to the east of the existing intersection of Liberty Road and Williams Dairy Road. Roadway improvements associated with the construction of the interchange will begin in the vicinity of the intersection of Talbot Road and SR 3418 (Neelley Road) and terminate at the proposed interchange. Total permanent impacts for the construction of this project are 1,962 linear feet of jurisdictional stream channel, 4.80 acres of adjacent wetlands and 1.0 acres of jurisdictional open waters. Total temporary impacts for the construction of this project are 132 linear feet of jurisdictional stream channel and 0.04 acre of adjacent wetlands. All impacts are within the Cape Fear River basin (Hydrologic Categorical Unit 03030002).

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.

Project Location: The project, identified as R-2612B is located southeast of Greensboro, near the community of Pleasant Garden, is 0.73 miles in length, begins at the intersection of the Talbot Road/SR 3418 intersection and terminates at the proposed interchange. Coordinates (in decimal degrees) for the site are 35.9845° N, -79.7362° W (NAD83/WGS84). The site contains a portion of five (5) unnamed tributaries to Big Alamance Creek, a portion of Big Alamance Creek, three (3) adjacent wetland sites and one (1) open water pond site. All jurisdictional waters are located within the Cape Fear River Basin (8-Digit Cataloging Unit 03030002).

Permit Conditions:

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 Conditions 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 eligible for listing in the National Register of Historic Places.

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

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

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

Special Conditions:

SEE ATTACHED SPECIAL CONDITIONS

Further Information:

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

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

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

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

2. Limits of this authorization.

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

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

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

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

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

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

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

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

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

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

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

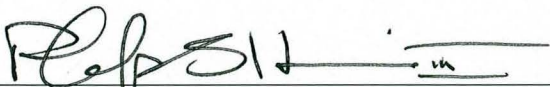
5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33CFR 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 measure 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) NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
ATTN: MS. DEBORAH BARBOUR, P.E.

04/29/2014

(DATE)

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


For (DISTRICT Commander) STEVEN A. BAKER, COLONEL

5 May 2014

(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)

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WORK LIMITS

1. CONSTRUCTION PLANS: All work authorized by this permit must be performed in strict compliance with the attached application received on August 22, 2013 and the updated plans received on November 13, 2013, 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.

2. PLANS: The permittee will 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, Raleigh Regulatory Field Office prior to any active construction in waters or wetlands.

3. 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 excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.

4. 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.

5. DEVIATION FROM PERMITTED PLANS: 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, or shall any activities take place that cause the degradation of waters or wetlands. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and fill activities connected with this project. In addition, except as specified in the plans attached to this permit, no excavation, fill or

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mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.

6. PRECONSTRUCTION MEETING: The permittee shall schedule and attend a preconstruction meeting between its representatives, the contractors representatives, and the Corps of Engineers, Raleigh Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all the terms and conditions contained with this Department of Army Permit. The permittee shall provide the USACE, Raleigh Field Office, NCDOT Project Manager, with a copy of the final permit plans at least two weeks prior to the preconstruction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The permittee shall schedule the preconstruction meeting for a time frame when the USACE, NCDCM, and NCDWR Project Managers can attend. The permittee shall invite the Corps, NCDCM, and NCDWR Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedules and participate in the required meeting.

RELATED LAWS

7. WATER CONTAMINATION: All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

PROJECT MAINTENANCE

8. 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.

9. 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

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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.

10. 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.

11. 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).

12. PERMIT REVOCATION: The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

13. EROSION CONTROL MEASURES IN WETLANDS: The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.

ENFORCEMENT

14. 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, Raleigh Regulatory Field Office, Attn: Mr. Andrew Williams, 3331 Heritage Trade Drive, Wake Forest, NC 27587, and by telephone at: 919-554-4884 extension 26. The Permittee shall reference the following permit number, SAW-2001-21125, on all submittals.

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15. REPORTING VIOLATIONS OF THE CLEAN WATER ACT AND RIVERS AND HARBORS ACT: Violation of these conditions or violation of Section 404 of the Clean Water Act of 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.

16. 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.

17. CULVERTS:

A. Unless otherwise requested in the applicant's application and depicted on the approved work plans, culverts greater than 48 inches in diameter will be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain existing channel slope. The bottom of the culvert must be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions. Destabilizing the channel and head cutting upstream should be considered in the placement of the culvert.

B. Measures will be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a pipe or culvert should not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed opening should be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gauge data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

18. SEDIMENT EROSION CONTROL:

A. 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.

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B. 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.

C. 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.

D. 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.

19. TEMPORARY FILLS: Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

20. BORROW AND WASTE:

A. 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

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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.

B. All jurisdictional wetland delineations on borrow and waste areas shall be verified by the Corps of Engineers and shown on the approved reclamation plans. The permittee shall ensure that all such areas comply with the Special Condition 4 of this permit and shall require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This documentation will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with Special Condition 4. All information will be available to the Corps of Engineers upon request. The permittee shall require its contractors to complete and execute reclamation plans for each waste and borrow site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the Corps of Engineers within 30 days of the completion of the reclamation work.

21. MITIGATION: In Lieu Fee: 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.

22. The final designs will be coordinated with appropriate state and local officials and the Federal Emergency Management Agency (FEMA) to assure compliance with FEMA, state, and local floodway and floodplain regulations.

23. NCDOT's "Best Management Practices for Protection of Surface Waters" will be implemented, where applicable, including hazardous spill catch basins in water supply watershed critical areas where the roadway crosses a water supply.

24. Any underground storage tanks discovered during construction will be reported to the North Carolina Division of Environmental Management.

U.S. ARMY CORPS OF ENGINEERS

Wilmington District

Compensatory Mitigation Responsibility Transfer Form

Permittee: North Carolina Department of Transportation

Action ID: SAW-2013-01990

Project Name: NCDOT/R-2612B/Division 7

County: Guilford

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

Instructions to Sponsor: The Sponsor must verify that the mitigation requirements shown below are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether or not they have received payment from the Permittee. Once the form is signed, the Sponsor must update the appropriate ledger and provide a copy of the signed form to the Permittee and to the USACE Bank/In-Lieu Fee Program Manager. The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

Permitted Impacts and Compensatory Mitigation Requirements:

Permitted Impacts Requiring Mitigation*

8-digit HUC and Basin: 03030002, Cape Fear River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-riverine	Non-Riparian	Coastal
1,532	0	0	0	4.78	0	0

*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: 03030002, Cape Fear River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-riverine	Non-Riparian	Coastal
2,729	0	0	0	9.39	0	0

Mitigation Site Debited: North Carolina Ecosystem Enhancement Program (NCEEP)

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

Section to be completed by the Mitigation Sponsor

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

Mitigation Sponsor Name: _____

Name of Sponsor's Authorized Representative: _____

Signature of Sponsor's Authorized Representative

Date of Signature

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

Conditions for Transfer of Compensatory Mitigation Credit:

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

Comments/Additional Conditions: None.

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

USACE Project Manager: Andy Williams
USACE Field Office: Raleigh Regulatory Field Office
US Army Corps of Engineers
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina 27587

Email: Andrew.e.williams2@usace.army.mil



USACE Project Manager Signature

April 24, 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>.

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

Applicant: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ATTN: MS. DEBORAH BARBOUR, P.E.		File Number: SAW-2013-01990	Date: 04/24/2014
Attached is:		See Section below	
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

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

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

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

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

- 2.
- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
 - **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

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

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

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to

appeal the approved JD.

- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the district engineer. This form must be received by the division engineer within 60 days of the date of this notice.

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

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

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

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

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

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

**District Engineer, Wilmington Regulatory Division,
Attn: Andrew Williams
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina 27587**

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

**Mr. Jason Steele, Administrative Appeal Review Officer
CESAD-PDO
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 10M15
Atlanta, Georgia 30303-8801
Phone: (404) 562-5137**

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

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

**District Engineer, Wilmington Regulatory Division, Attn: Mr. Andrew Williams, Regulatory Project Manager, 3331 Heritage Trade Drive, Suite 105, Wake Forest, North Carolina, 27587
Phone: (919) 5554-4884 ex.26**



North Carolina Department of Environment and Natural Resources

Division of Water Resources
Water Quality Programs
Thomas A. Reeder
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

December 16, 2013

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

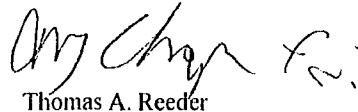
Subject: REVISED 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water with
ADDITIONAL CONDITIONS for Proposed improvements to the US 421 and SR 3418 (Neelley Road)
intersection in Guilford County, TIP R-2612B.
NCDWR Project No. 20130912v1

Dear Mr. Hancock:

Attached hereto is a REVISED copy of Certification No. 003976 issued to The North Carolina Department of
Transportation (NCDOT) dated December 16, 2013.

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

Sincerely,



Thomas A. Reeder

Attachments

cc: Andy Williams, US Army Corps of Engineers, Raleigh Field Office (electronic copy only)
Jerry Parker, Division 7 Environmental Supervisor (electronic copy only)
Chris Militscher, Environmental Protection Agency (electronic copy only)
Travis Wilson, NC Wildlife Resources Commission (electronic copy only)
Beth Harmon, Ecosystem Enhancement Program
TPU, NCDWR Winston-Salem Regional Office
File Copy

Transportation and Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
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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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 4.82 acres of jurisdictional wetlands, 2,094 linear feet of jurisdictional streams, and one acre of open water in Guilford County. The project shall be constructed pursuant to the application dated received August 23, 2013. This revision addresses an error in wetland excavation. The authorized impacts are as described below:

Stream Impacts in the Cape Fear River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)*
I	251	20	--	--	271	0
IA	209	--	--	--	209	0
IB	186	16	--	--	202	0
IC	60	--	--	--	60	0
III	--	--	932	107	1,039	932
IIIA	--	--	265	--	265	265
V	--	--	24	24	48	0
TOTAL	706	36	1,221	131	2,094	1,197

* FONSI was signed prior to Oct. 16, 2009; mitigation not required for intermittent streams (Sites I, IA, IB, and IC)

Total Stream Impact for Project: 2,094 linear feet

Wetland Impacts in the Cape Fear River Basin

Site	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Wetland Impact (ac)	Impacts Requiring Mitigation (ac)
I	1.38	--	<0.01	0.16	--	1.54	1.54
III	2.48	0.01	<0.01	0.25	--	2.74	2.73
IIIA	--	--	--	--	--	0.00	0.00
IV	0.44	0.03	<0.01	0.06	--	0.54	0.51
V	--	--	--	--	--	0.00	0.00
Total	4.30	0.04	0.01	0.47	0.00	4.82	4.78

Total Wetland Impact for Project: 4.82 acres.

Open Water Impacts in the Cape Fear River Basin

Site	Permanent Fill in Open Waters (ac)	Temporary Fill in Open Waters (ac)	Total Fill in Open Waters (ac)
II	1.00	--	1.00
TOTAL	1.00	0.00	1.00

Total Open Water Impact for Project: 1.00 acre

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 August 23, 2013. 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.

Conditions of Certification:

Project Specific Conditions:

1. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams, shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream 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.
2. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
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. Mitigation
 - a. Compensatory mitigation for 1,197 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated August 13, 2013 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the EEP Mitigation Banking Instrument signed July 28, 2010.
 - b. Compensatory mitigation for impacts to 4.78 acres of wetlands is required. We understand that you have chosen to perform compensatory mitigation for impacts to wetlands through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated August 13, 2013 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with EEP's Mitigation Banking Instrument signed July 28, 2010.

- c. The impacts for this project will occur within the Jordan Lake watershed. However, since the FONSI was signed prior to August 11, 2009 no mitigation for impacts to Jordan Lake riparian buffers is required.
5. At locations where ponds will be drained, proper measures will be taken to drain the pond with limited impact to upstream and downstream channel stability as well as to native aquatic species. Proper measures will be taken to avoid sediment release and/or sediment accumulation downstream as a result of pond draining. If typical pond draining techniques will create significant disturbance to native aquatic species, additional measures such as collection and relocation may be necessary to prevent a significant fish kill. NCDOT shall consult with NC Wildlife Resources staff to determine if there are any sensitive species, and the most appropriate measures to limit impacts to these species. The permittee shall observe any natural channel re-establishment, or utilize natural channel construction techniques, to ensure that the jurisdictional stream channel above and below the drained pond remain stable, and that no additional impacts occur within the natural stream channel as a result of draining the pond.

General Conditions:

6. 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 down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required.
7. 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.
8. 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.
9. 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.
10. 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.
11. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
12. Prior to commencing ground disturbing activities, an acceptable monitoring and mitigation plan for the presence of sulfide-bearing rock must be approved by the NCDWR.
13. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
14. 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.
15. 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.
16. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.

17. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
18. 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.
19. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification..
20. 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.
21. 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.
22. 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.
23. 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.
24. 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.
25. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved 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 Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery.

28. 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 NCDWR when all work included in the 401 Certification has been completed.

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:

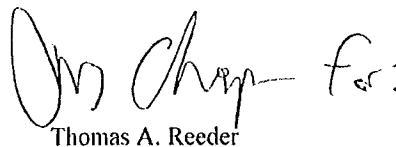
Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919)-431-3000, Facsimile: (919)-431-3100

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 16th day of December 2013

DIVISION OF WATER RESOURCES


Thomas A. Reeder



North Carolina Department of Environment and Natural Resources

Division of Water Resources

Water Quality Programs

Thomas A. Reeder

Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

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, 1650 Mail Service Center, Raleigh, NC, 27699-1650. 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 _____

Transportation and Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604
Phone: 919-807-6300 \ FAX: 919-733-1290
Internet: www.ncwaterquality.org





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



(Version 1.2; Released July 2012)

General Project Information

Project No.:	R-2612B	Project Type:	Roadway Relocation	Date:	10/15/2012
NCDOT Contact:	PAUL ATKINSON	Contractor / Designer:			
Address:	1020 BIRCH RIDGE RD. RALEIGH, NC 27610	Address:			
Phone:	(919)707-6700	Phone:			
Email:	PATKINSON@NCDOT.GOV	Email:			
City/Town:	PLEASANT GARDEN	County(ies):	GUILFORD		
River Basin(s):	CAPE FEAR JORDAN LAKE	CAMA County?	No		
Primary Receiving Water:	BIG ALAMANCE CREEK	NCDWQ Stream Index No.:	16-19-(1)		
NCDWQ Surface Water Classification for Primary Receiving Water	Primary:	Water Supply IV (WS-IV)			
	Supplemental:	Nutrient Sensitive Waters (NSW)			
Other Stream Classification:					
303(d) Impairments:					
Buffer Rules in Effect	N/A				

Project Description



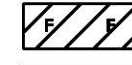
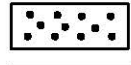


Project Length (lin. Miles or feet):	0.71	Surrounding Land Use:	RESIDENTIAL/WOODS
		Proposed Project	Existing Site
Project Built-Upon Area (ac.)	ac.		ac.
Typical Cross Section Description:	Y Line: 2 12' travel lanes with 17.5' concrete island and 8' shoulders.		L and L1: Divided Highway with variable width median, 3 12' lanes in each direction and 12' shoulders.
Average Daily Traffic (veh/hr/day):	Design/Future: 51,733 (2034)	Existing:	34,067 (2014)

General Project Narrative: R-2612B is the planned interchange with US 421 and the relocation of SR 3418 (Neelley Rd.) near Climax, NC. Two 2@12'X7' reinforced concrete box culverts are planned at the crossing of the Y line (Neelley Rd.), and the alignments of the proposed YLPD and YRPD (loop and ramp) over Big Alamance Creek. In order to maintain existing flow width, each box culvert has one low flow barrel with a 1 ft. sill (buried 1 ft.), and one high flow barrel with a 2 ft. sill. The high flow barrel in each culvert was required in order to satisfy the requirements of the FEMA Limited Detailed Flood Study which encompasses this portion of Big Alamance Creek. This project lies within the Jordan Lake watershed, however was grandfathered in and does not require a buffer permit. BMPs used on the project include utilizing the remaining portion of an existing pond being partially filled as a dry detention basin with riser. Grass-lined ditches are utilized throughout where possible. Storm drain outfalls have been located outside of wetlands where possible.

References

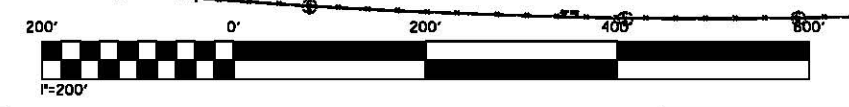
SITE I SITE II

PROJECT NO. _____ SHEET NO. _____
 DATE _____
 DRAWN BY _____ CHECKED BY _____
PRELIMINARY PLANS
 TO BE USED FOR PERMITTING PURPOSES ONLY
PERMIT DRAWING
SHEET 2 OF 23

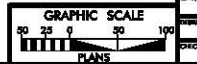
-  DENOTES EXCAVATION IN WETLAND
-  DENOTES IMPACTS IN SURFACE WATER (POND)
-  DENOTES FILL IN WETLAND
-  DENOTES MECHANIZED CLEARING
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE V

SITE III SITE IV

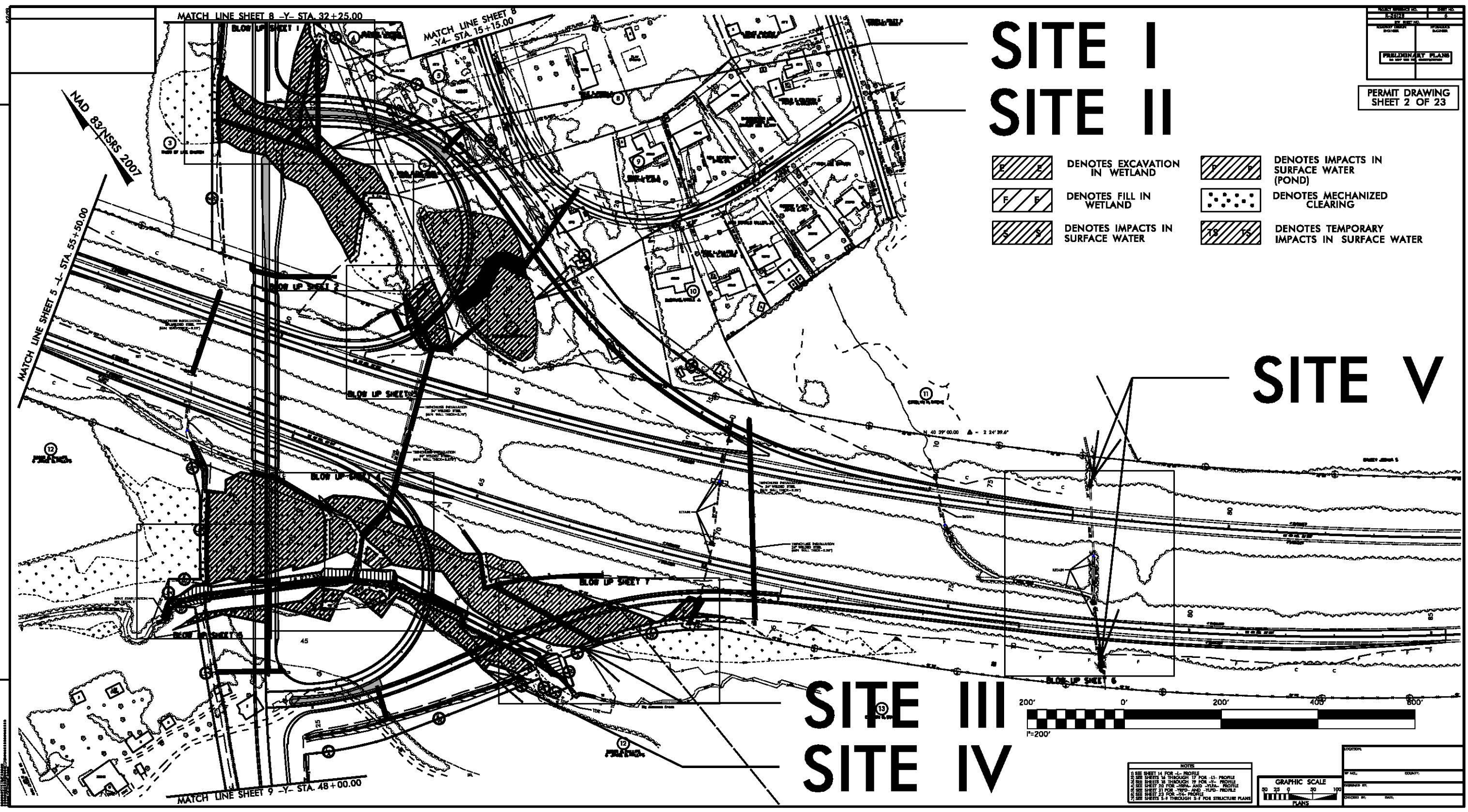


NOTES
 1. SEE SHEET 14 FOR -L- PROFILE
 2. SEE SHEETS 16 THROUGH 17 FOR -L1- PROFILE
 3. SEE SHEET 18 THROUGH 19 FOR -L2- PROFILE
 4. SEE SHEET 20 FOR -RWD- AND -YLD- PROFILE
 5. SEE SHEET 21 FOR -RWD- AND -YLD- PROFILE
 6. SEE SHEET 22 FOR -L- PROFILE
 7. SEE SHEETS 23 THROUGH 27 FOR STRUCTURE PLANS



LOCATION _____
 COUNTY _____
 SHEET NO. _____
 DRAWN BY _____
 CHECKED BY _____


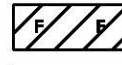


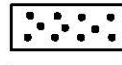

REVISIONS
 05/15/13 - RW REVISION: UPDATED EXISTING RIGHT OF WAY AT -Y4- STA. 20+25 +/- ON PARCELS 7, 9 AND 10. JBW



PROJECT NO.	DATE
DESIGNER	SCALE
CHECKED BY	PROJECT
DATE	NO.
PRELIMINARY PLANS	

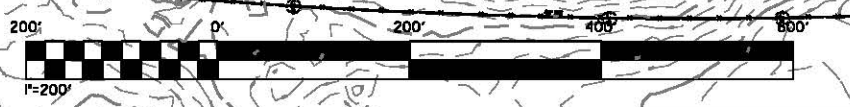
PERMIT DRAWING
SHEET 3 OF 23

SITE I SITE II

-  DENOTES EXCAVATION IN WETLAND
-  DENOTES FILL IN WETLAND
-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES IMPACTS IN SURFACE WATER (POND)
-  DENOTES MECHANIZED CLEARING
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE V

SITE III SITE IV

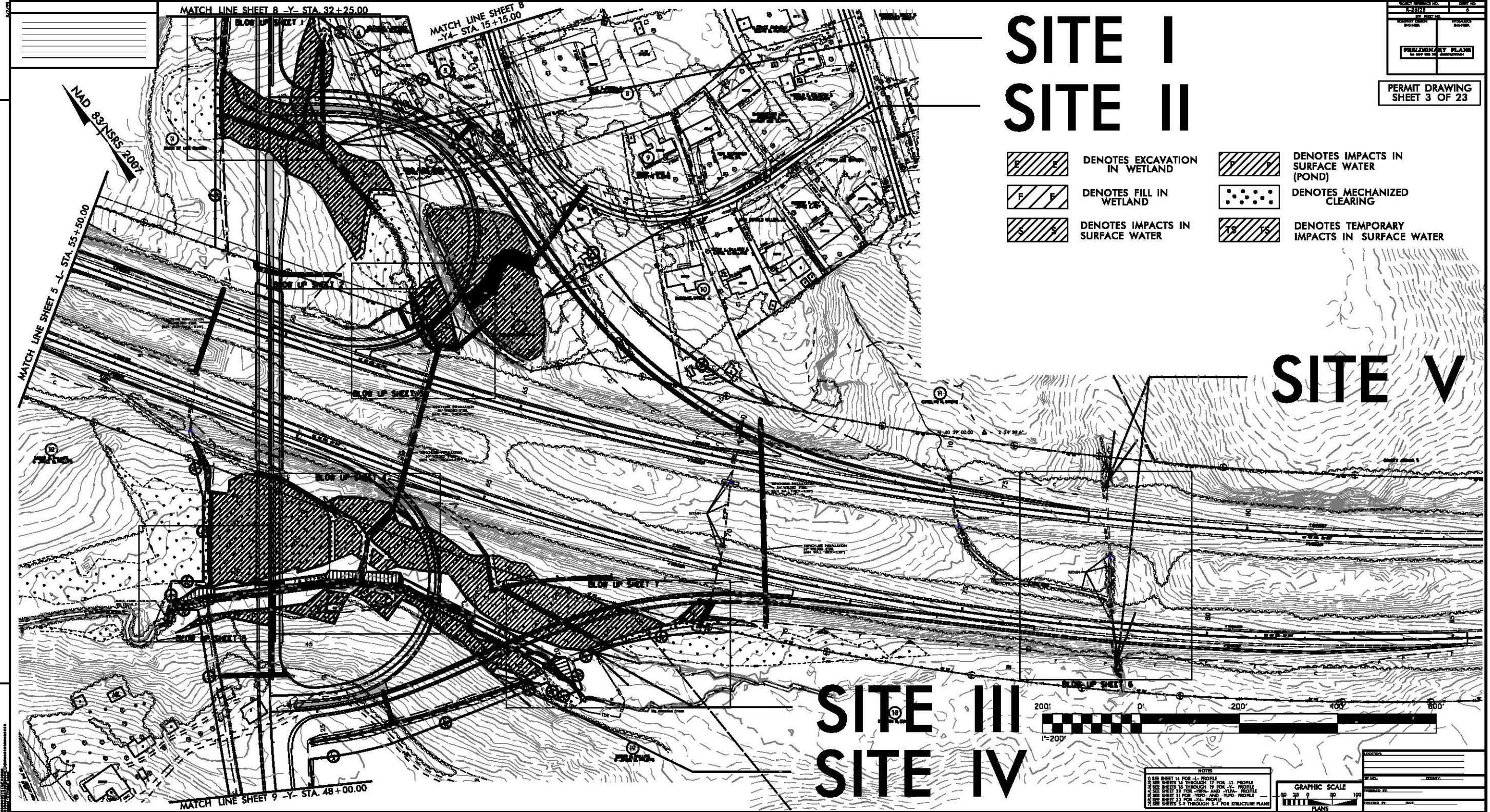




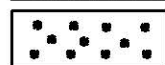

NOTES
 1. SEE SHEET 14 FOR "L" PROFILE
 2. SEE SHEETS 16 THROUGH 17 FOR "L1" PROFILE
 3. SEE SHEET 18 THROUGH 19 FOR "L2" PROFILE
 4. SEE SHEET 20 FOR "H" AND "H1A" PROFILE
 5. SEE SHEET 21 FOR "H2" AND "H2A" PROFILE
 6. SEE SHEET 22 FOR "H3" PROFILE
 7. SEE SHEETS 23 THROUGH 24 FOR STRUCTURE PLANS

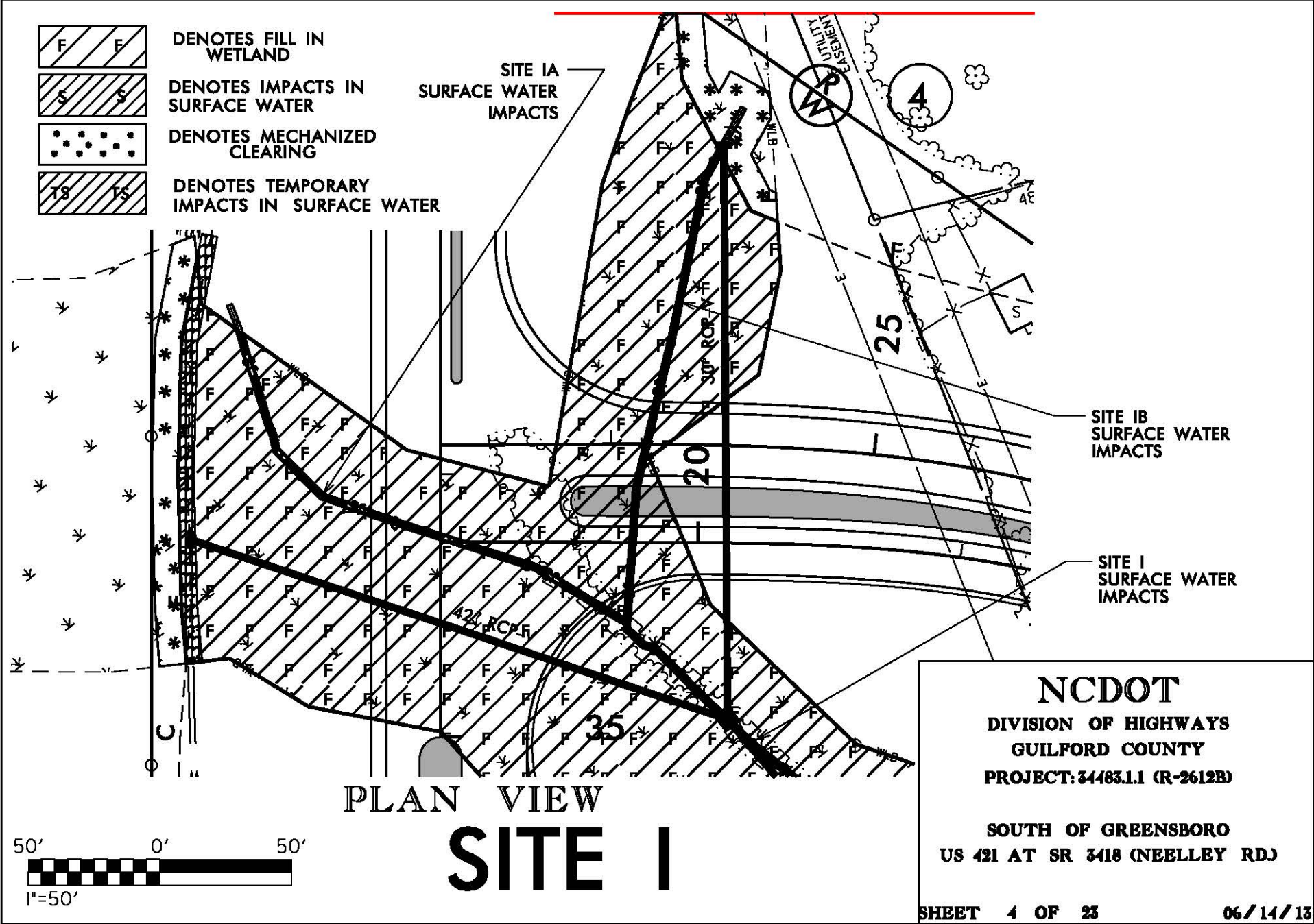


DATE	SCALE
DESIGNER	PROJECT
CHECKED BY	NO.
DATE	NO.

REVISIONS
 05/15/13 - RW REVISION: UPDATED EXISTING RIGHT OF WAY AT -Y4- STA. 20+25 +/- ON PARCELS 7, 9 AND 10. JBW



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



PLAN VIEW
SITE I

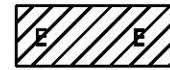
NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 34483.1.1 (R-2612B)

SOUTH OF GREENSBORO
 US 421 AT SR 3418 (NEELLEY RD.)

SHEET 4 OF 23 06/14/13



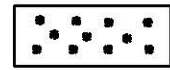
DENOTES FILL IN WETLAND



DENOTES EXCAVATION IN WETLAND



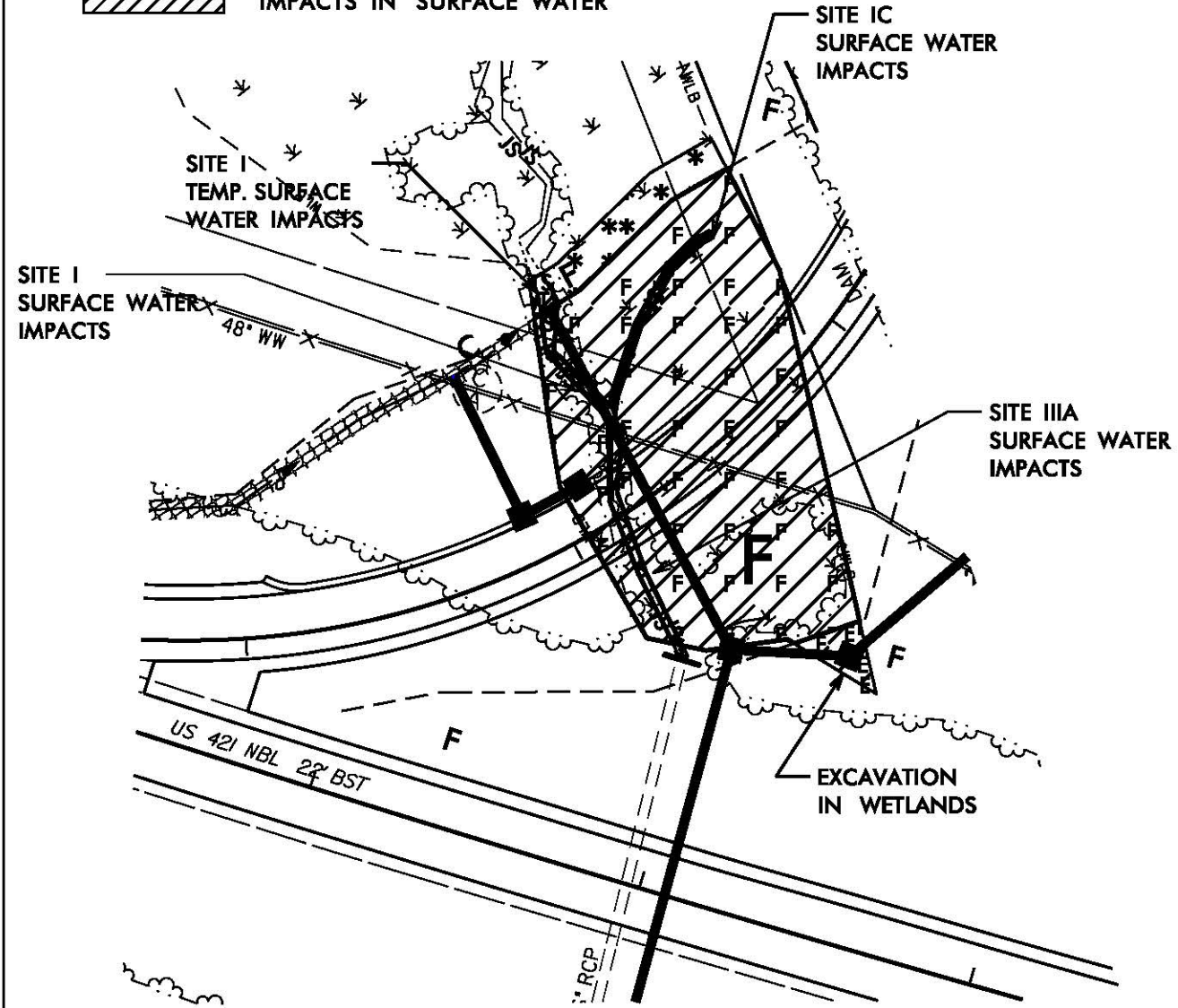
DENOTES IMPACTS IN SURFACE WATER



DENOTES MECHANIZED CLEARING

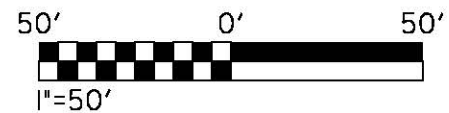


DENOTES TEMPORARY IMPACTS IN SURFACE WATER



PLAN VIEW

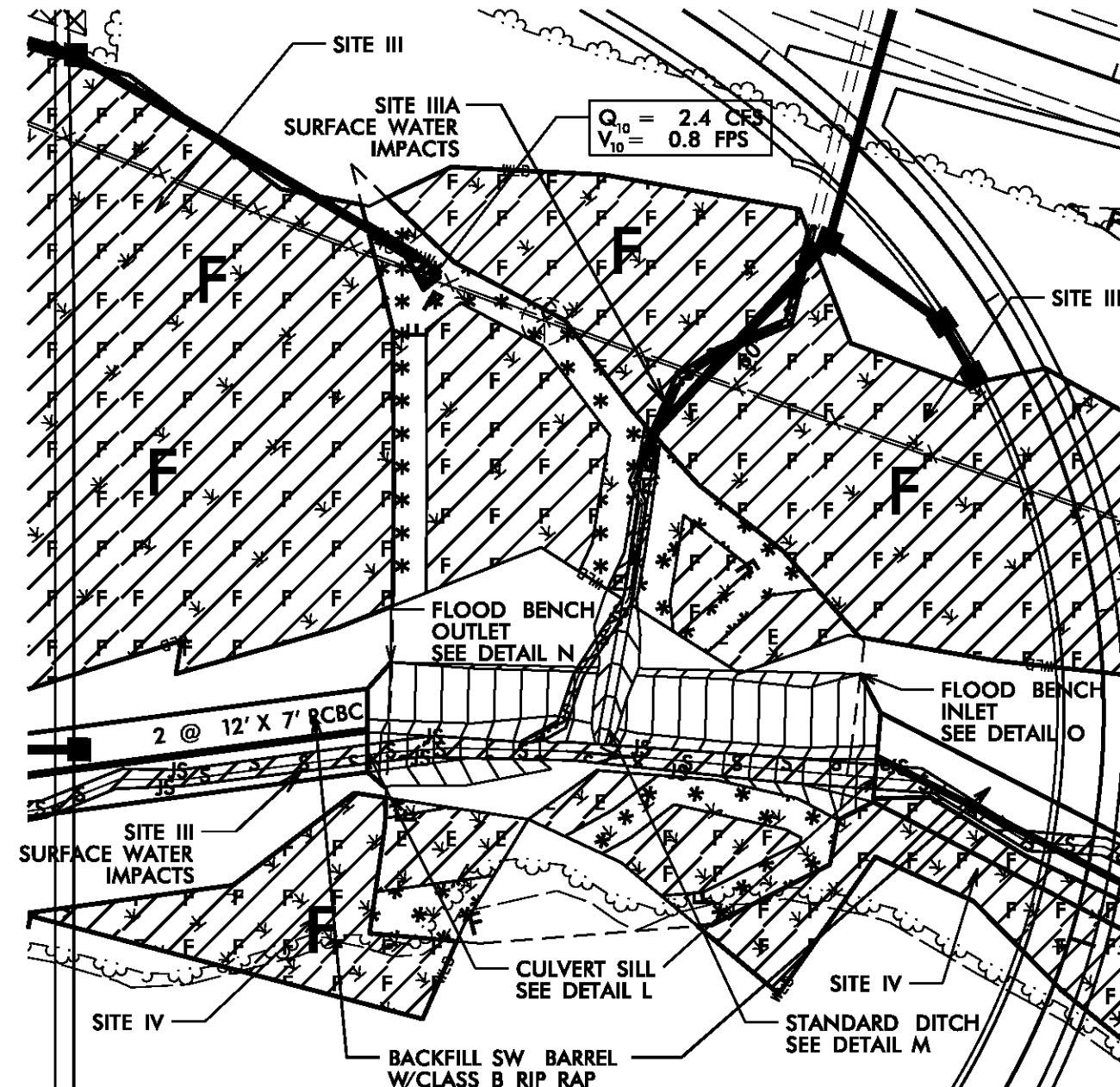
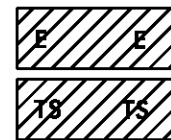
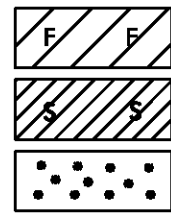
SITE I & III



NCDOT

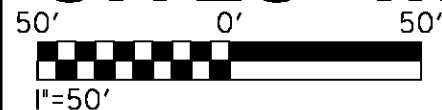
DIVISION OF HIGHWAYS
GUILFORD COUNTY
PROJECT: 34483.1.1 (R-2612B)

SOUTH OF GREENSBORO
US 421 AT SR 3418 (NEELLEY RD.)



PLAN VIEW

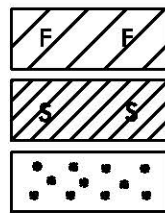
SITES III & IV



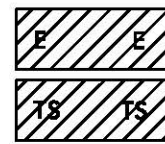
NCDOT

DIVISION OF HIGHWAYS
GUILFORD COUNTY
PROJECT: 34483.1.1 (R-2612B)

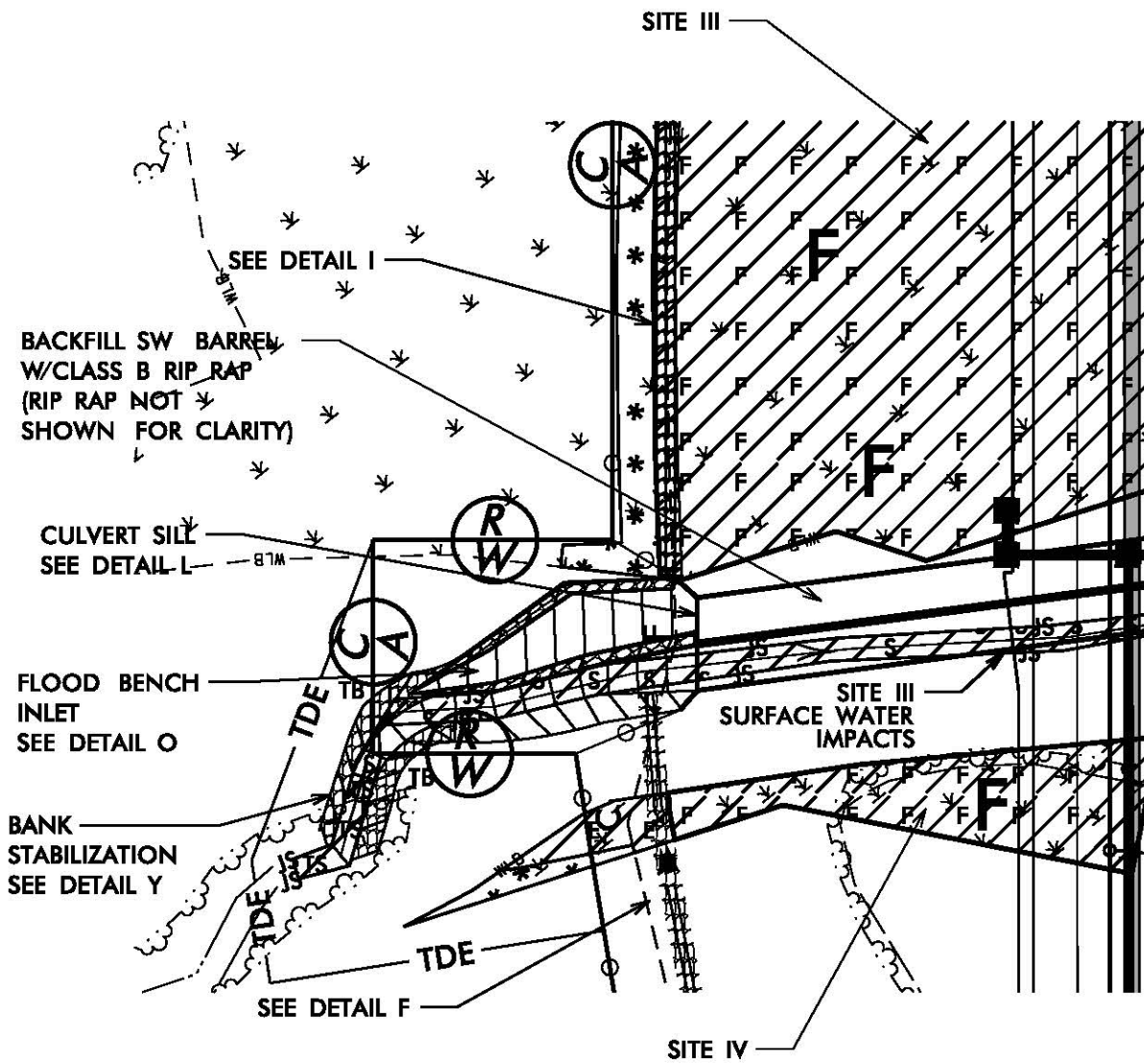
SOUTH OF GREENSBORO
US 421 AT SR 3418 (NEELLEY RD.)



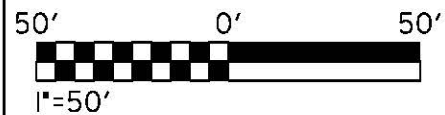
DENOTES FILL IN WETLAND
 DENOTES IMPACTS IN SURFACE WATER
 DENOTES MECHANIZED CLEARING



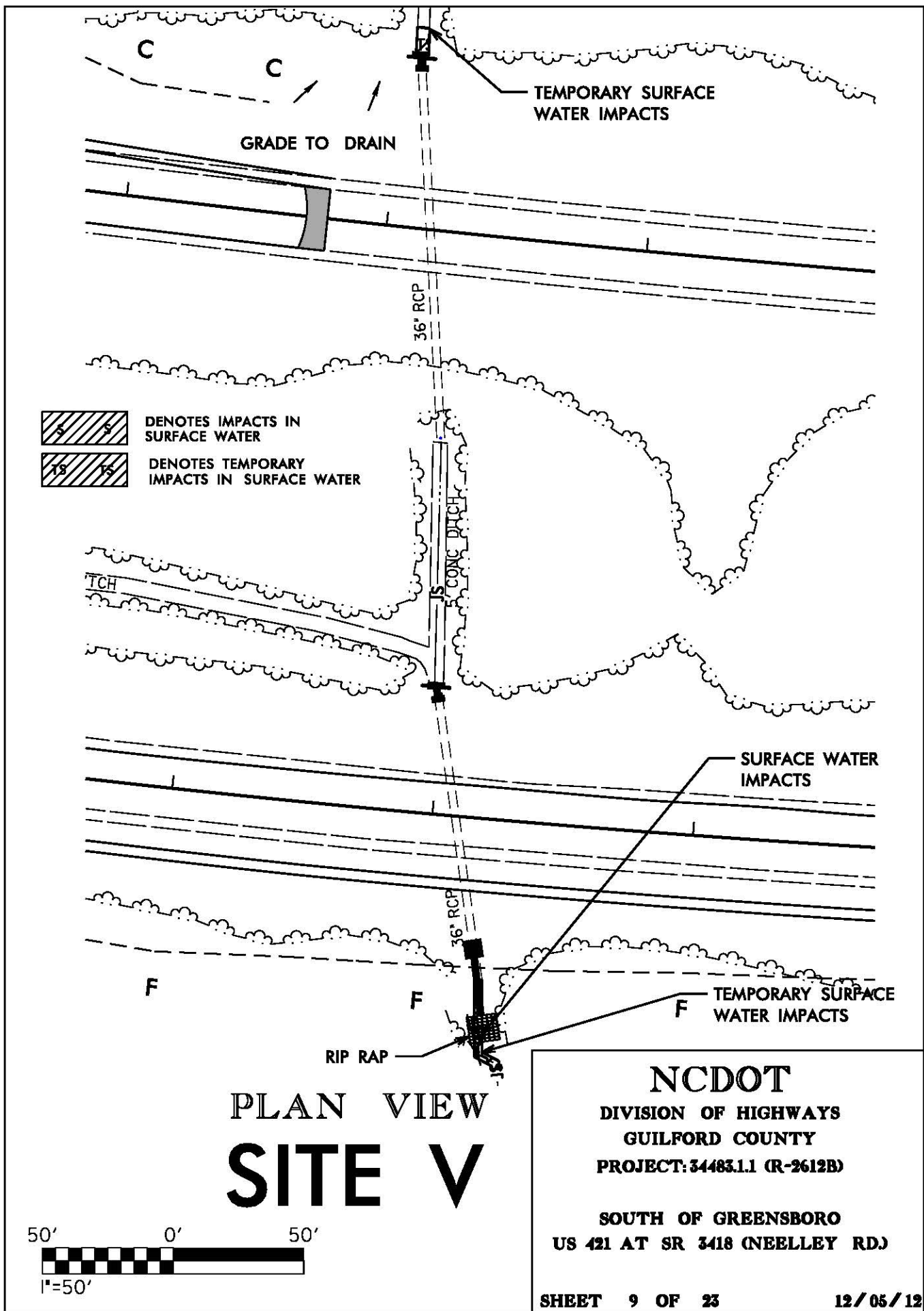
DENOTES EXCAVATION IN WETLAND
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



PLAN VIEW
SITES III & IV

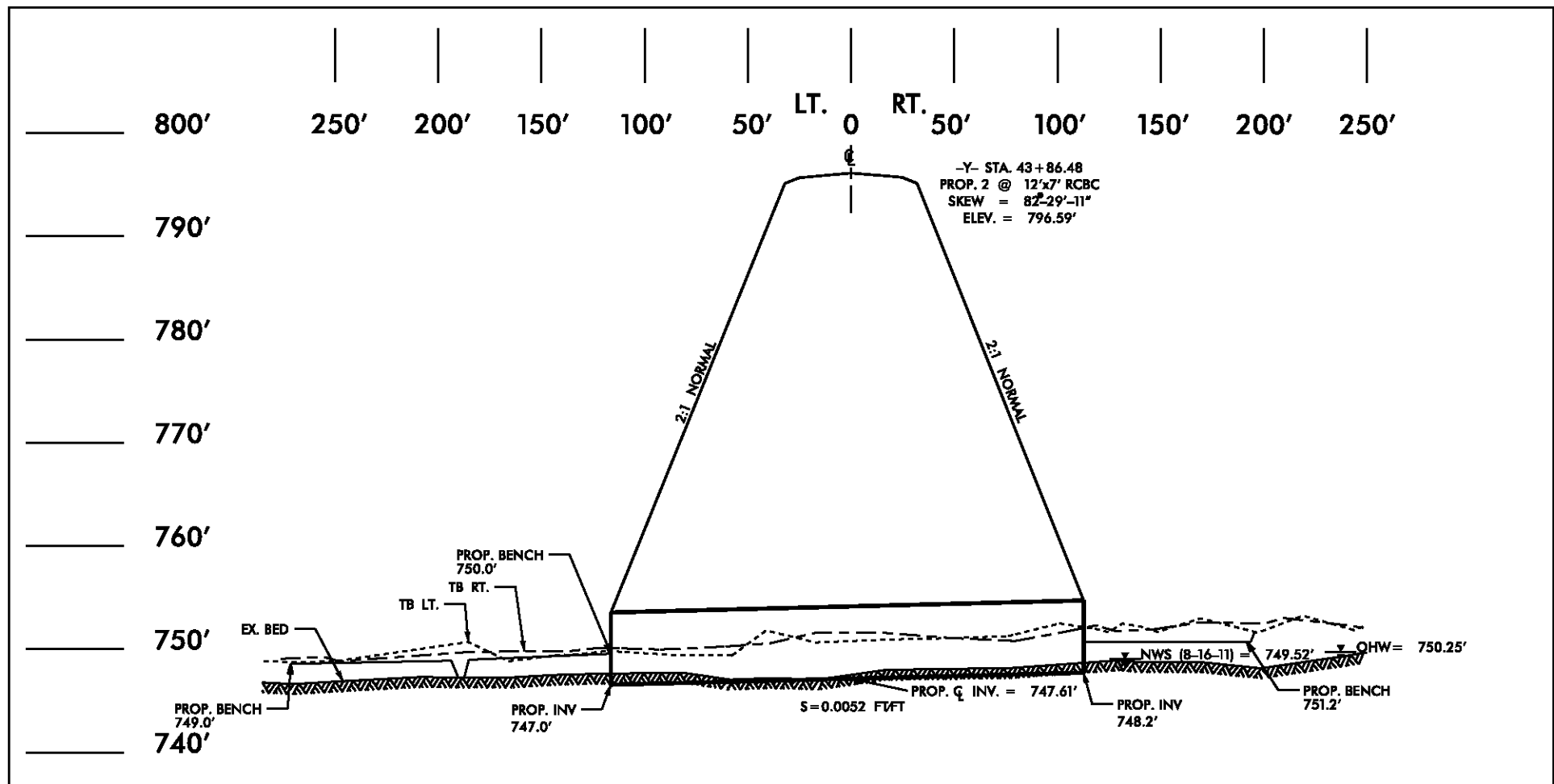


NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 34483.1.1 (R-2612B)
 SOUTH OF GREENSBORO
 US 421 AT SR 3418 (NEELLEY RD.)
 SHEET 8 OF 23 06/13/13



PLAN VIEW
SITE V

NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 34483.1.1 (R-2612B)
 SOUTH OF GREENSBORO
 US 421 AT SR 3418 (NEELLEY RD.)
 SHEET 9 OF 23 12/05/12

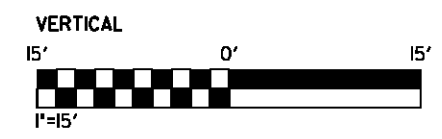
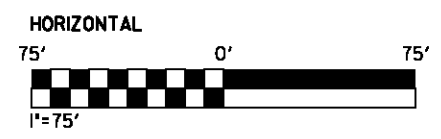


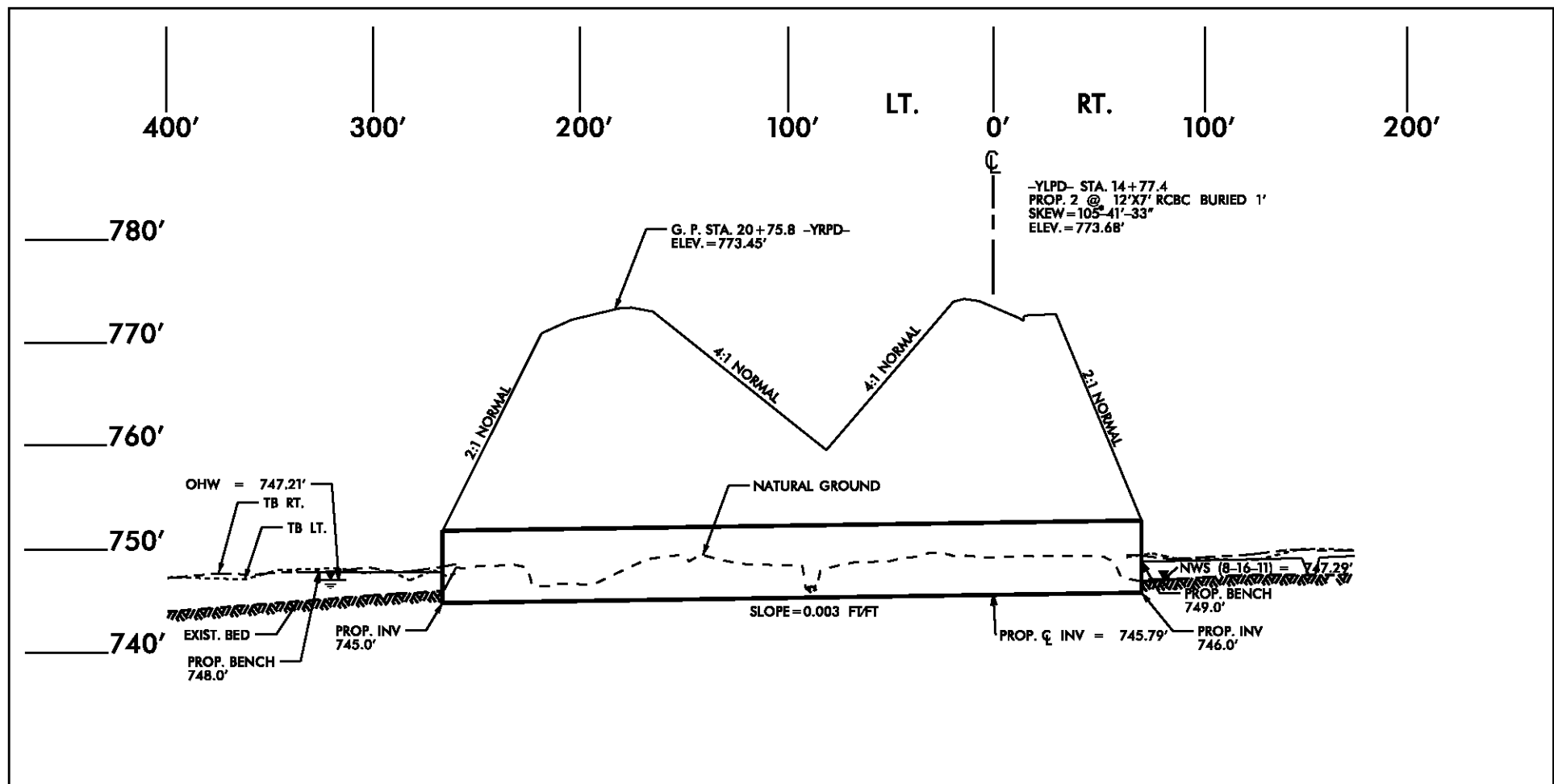
**PROFILE
-Y- CULVERT**

NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 34483.1.1 (R-2612B)

SOUTH OF GREENSBORO
 US 421 AT SR 3418 (NEELLEY RD.)

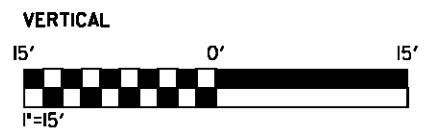
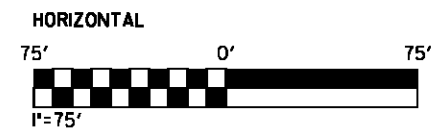
SHEET 11 OF 23 **05 / 01 / 13**





PROFILE
-YLPD- CULVERT

NCDOT
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 34483.1.1 (R-2612B)
 SOUTH OF GREENSBORO
 US 421 AT SR 3418 (NEELLEY RD.)
 SHEET 12 OF 23 04/29/13

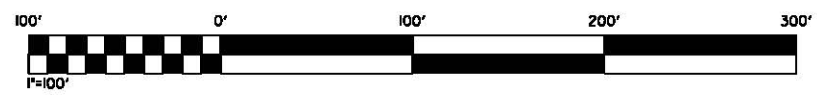


PROJECT REFERENCE NO. R-2612B	SHEET NO. 8
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

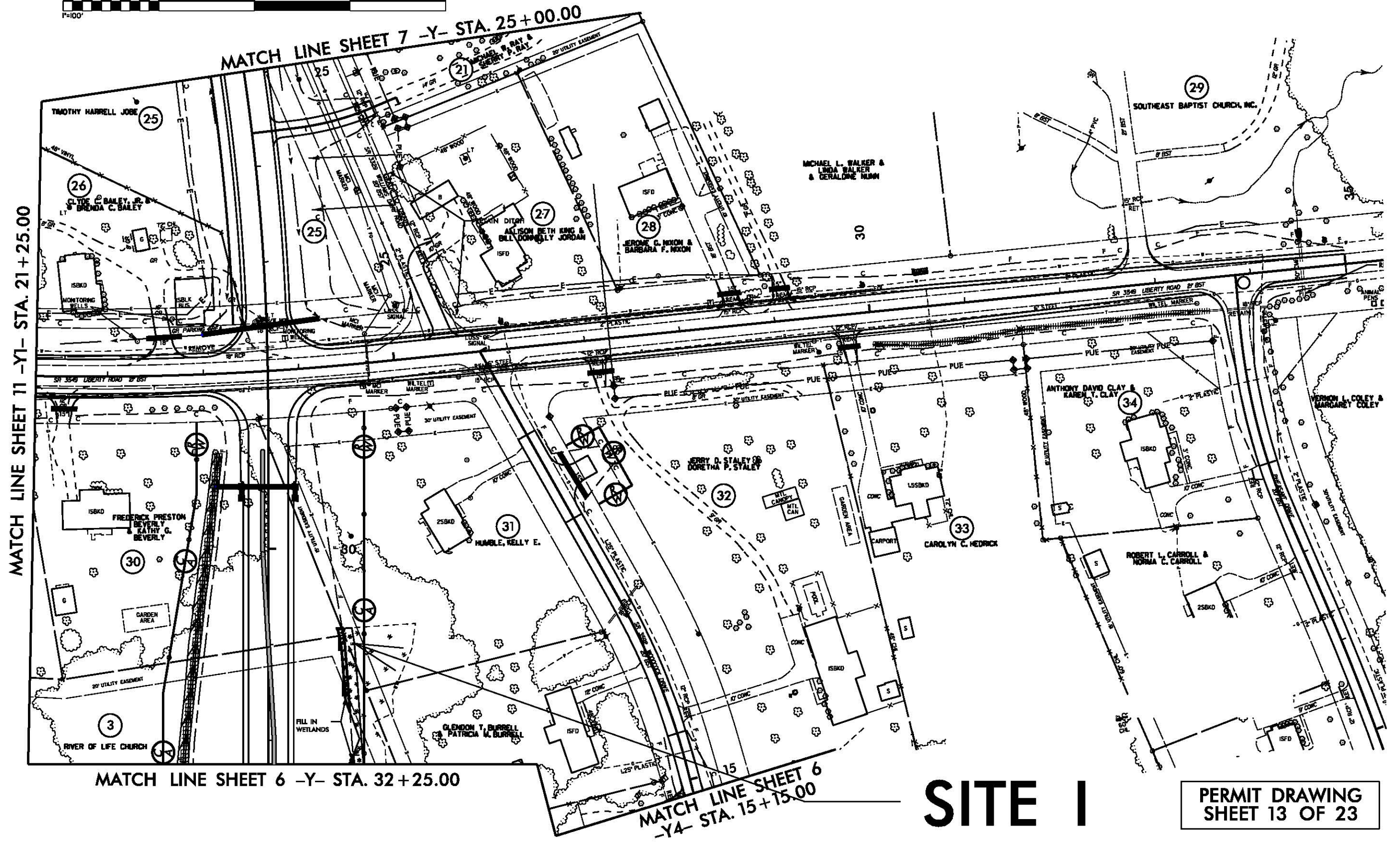
NAD 83/NSRS 2007

 DENOTES FILL IN WETLAND

 DENOTES MECHANIZED CLEARING



REVISIONS
 02/22/13 - RW REVISION: CHANGED TEMPORARY CONSTRUCTION EASEMENT TO PROPOSED RIGHT OF WAY ON PARCEL 32 - TEM.



MATCH LINE SHEET 11 -Y1- STA. 21+25.00

MATCH LINE SHEET 7 -Y- STA. 25+00.00

MATCH LINE SHEET 6 -Y- STA. 32+25.00

MATCH LINE SHEET 6 -Y4- STA. 15+15.00

SITE I

**PERMIT DRAWING
SHEET 13 OF 23**

8/17/99

*****SYTIME*****
*****UN*****
*****UN*****

5/28/99

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING
SHEET 15 OF 23

PIPE HYDRAULIC DATA
CL ELEV. = 772.93' STA. 51+83

DRAINAGE AREA	= 988	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 15	CFS
DESIGN HW ELEVATION	= 776.50	FT
100 YEAR DISCHARGE	= 16	CFS
100 YEAR HW ELEVATION	= 776.60	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 19+	CFS
OVERTOPPING ELEVATION	= 787.67	FT

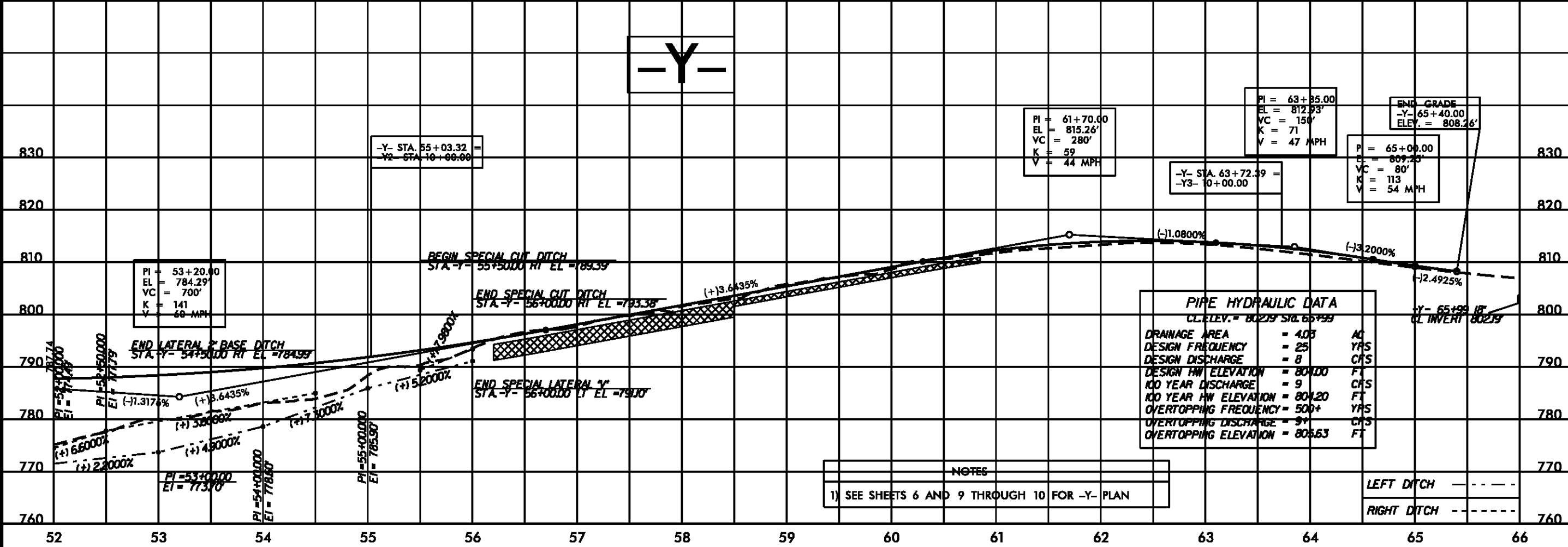
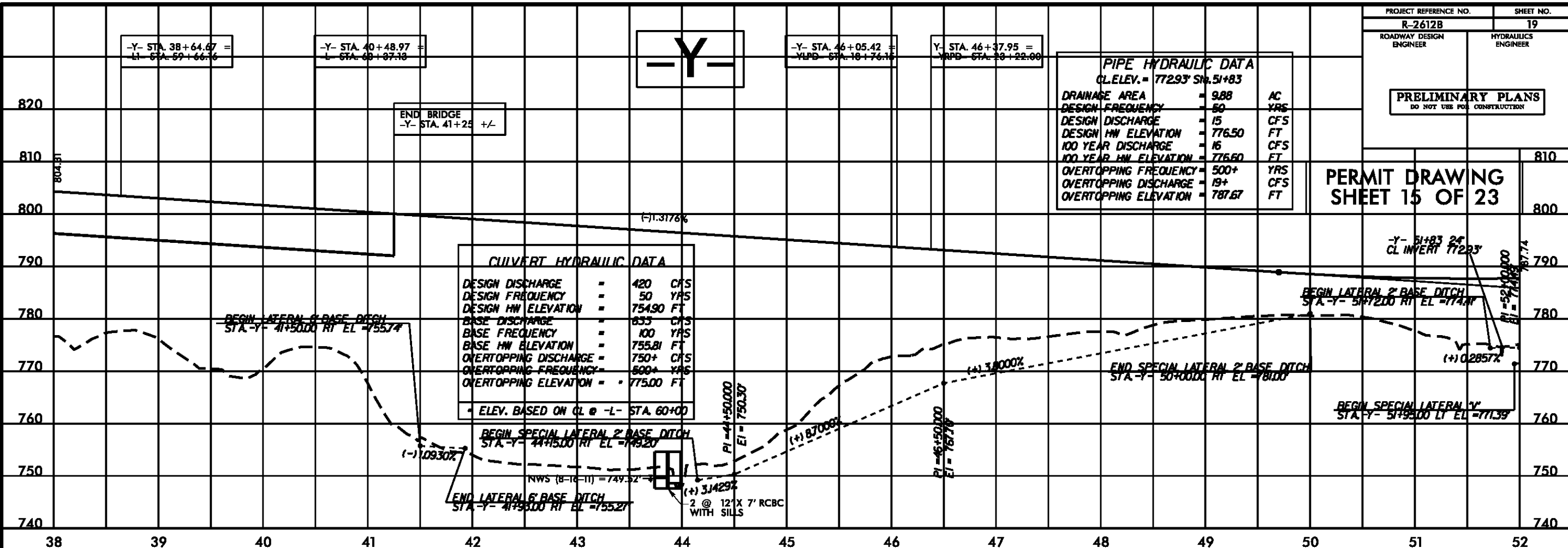
CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 420	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 754.90	FT
BASE DISCHARGE	= 833	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 755.81	FT
OVERTOPPING DISCHARGE	= 750+	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 775.00	FT

ELEV. BASED ON CL @ -L- STA. 60+00

PIPE HYDRAULIC DATA
CL ELEV. = 802.19' STA. 65+99

DRAINAGE AREA	= 403	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 8	CFS
DESIGN HW ELEVATION	= 804.00	FT
100 YEAR DISCHARGE	= 9	CFS
100 YEAR HW ELEVATION	= 804.20	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 9+	CFS
OVERTOPPING ELEVATION	= 806.63	FT



NOTES
1) SEE SHEETS 6 AND 9 THROUGH 10 FOR -Y- PLAN

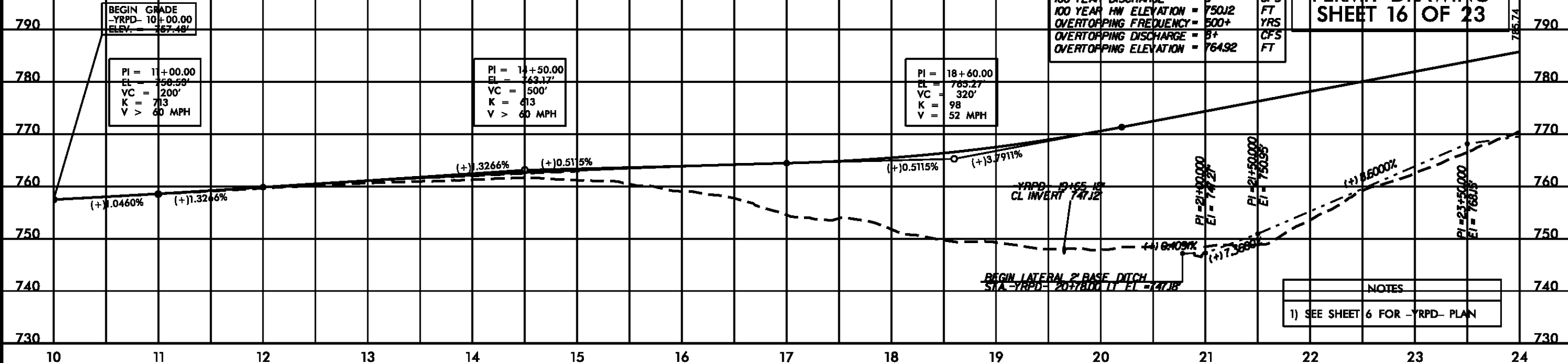
SYSTEMS

5/28/99

-YRPD-

PIPE HYDRAULIC DATA	
CL ELEV. = 747.12'	Sta. 19+65
DRAINAGE AREA = 2.78	AC
DESIGN FREQUENCY = 50	YRS
DESIGN DISCHARGE = 7	CFS
DESIGN HW ELEVATION = 750.02	FT
100 YEAR DISCHARGE = 8	CFS
100 YEAR HW ELEVATION = 750.12	FT
OVERTOPPING FREQUENCY = 500+	YRS
OVERTOPPING DISCHARGE = 8+	CFS
OVERTOPPING ELEVATION = 764.92	FT

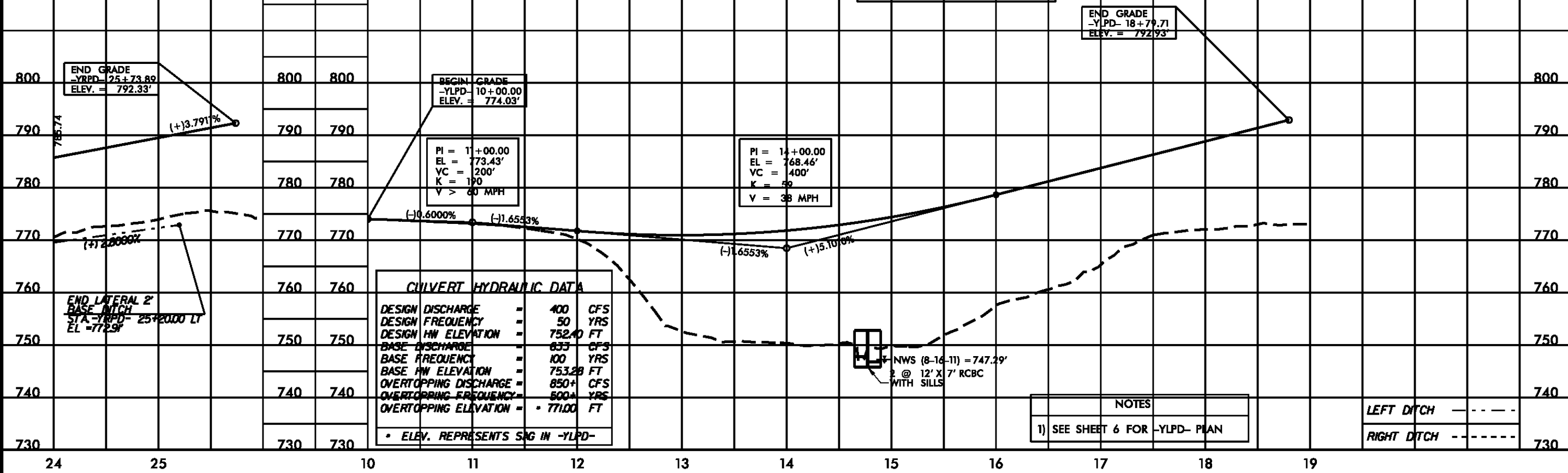
PERMIT DRAWING SHEET 16 OF 23



NOTES
1) SEE SHEET 6 FOR -YRPD- PLAN

-YRPD-

-YLPD-



CULVERT HYDRAULIC DATA	
DESIGN DISCHARGE = 400	CFS
DESIGN FREQUENCY = 50	YRS
DESIGN HW ELEVATION = 752.40	FT
BASE DISCHARGE = 633	CFS
BASE FREQUENCY = 100	YRS
BASE HW ELEVATION = 753.28	FT
OVERTOPPING DISCHARGE = 850+	CFS
OVERTOPPING FREQUENCY = 500+	YRS
OVERTOPPING ELEVATION = 771.00	FT

* ELEV. REPRESENTS SNG IN -YLPD-

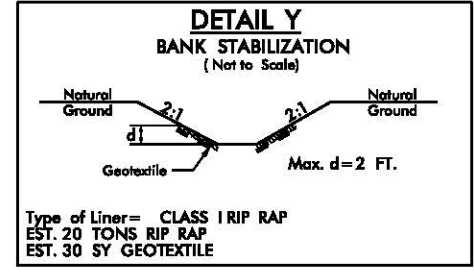
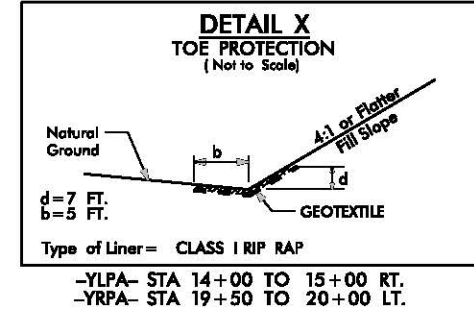
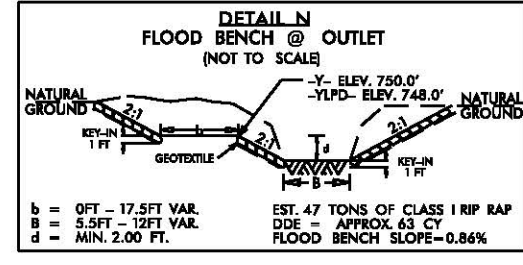
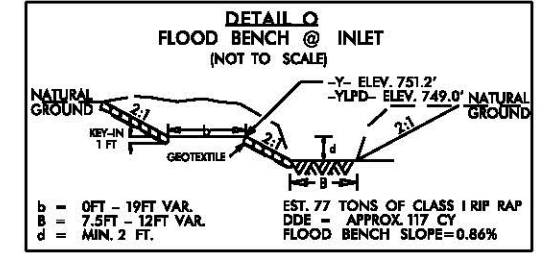
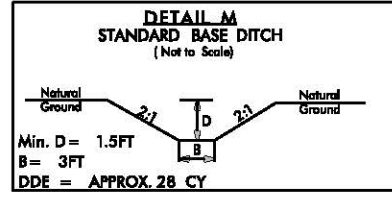
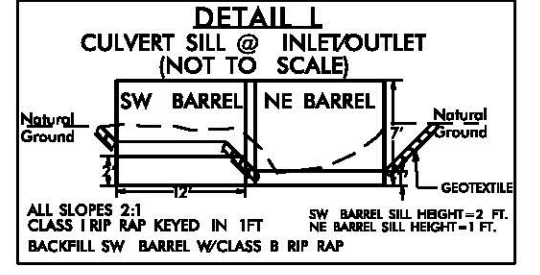
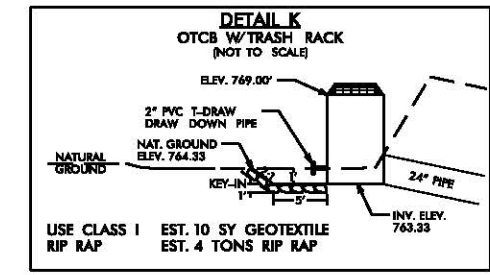
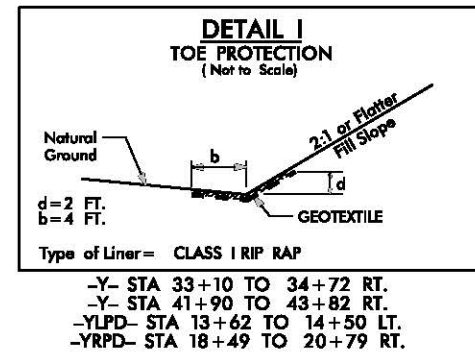
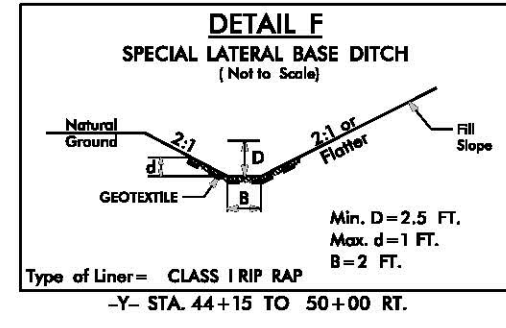
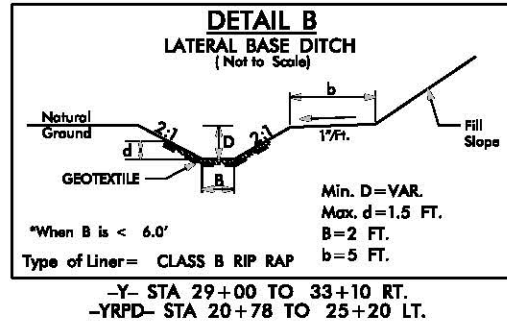
NOTES
1) SEE SHEET 6 FOR -YLPD- PLAN

LEFT DITCH - - - - -
RIGHT DITCH - - - - -

*****SYTIME*****
*****DGN*****
*****RWD*****

PROJECT REFERENCE NO. R-2612B	SHEET NO. 2-E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

**PERMIT DRAWING
SHEET 17 OF 23**

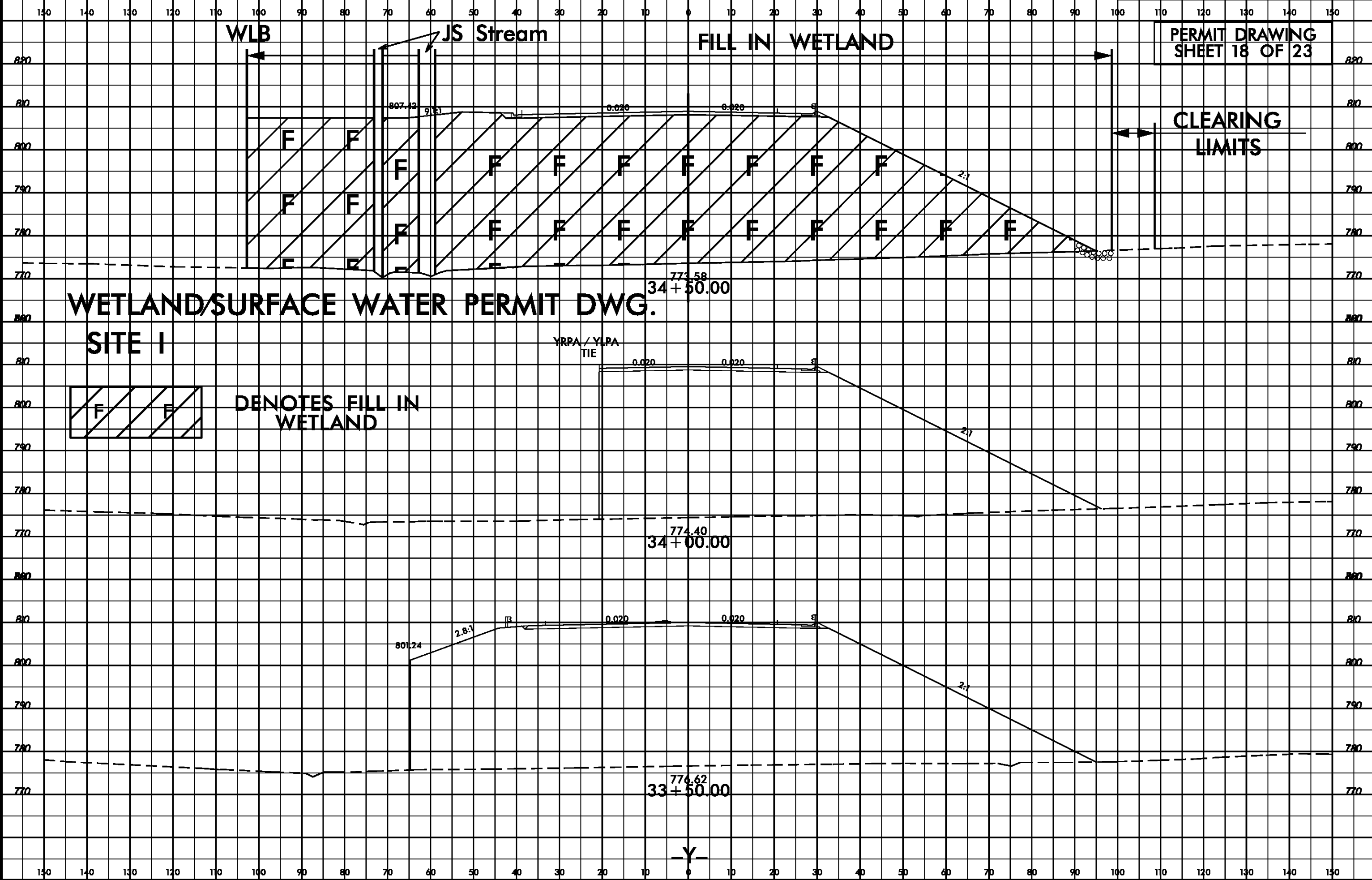


REVISIONS

8/17/99

*****SYTIME*****
*****DUN*****

8/23/99



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

8/23/99

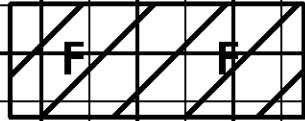


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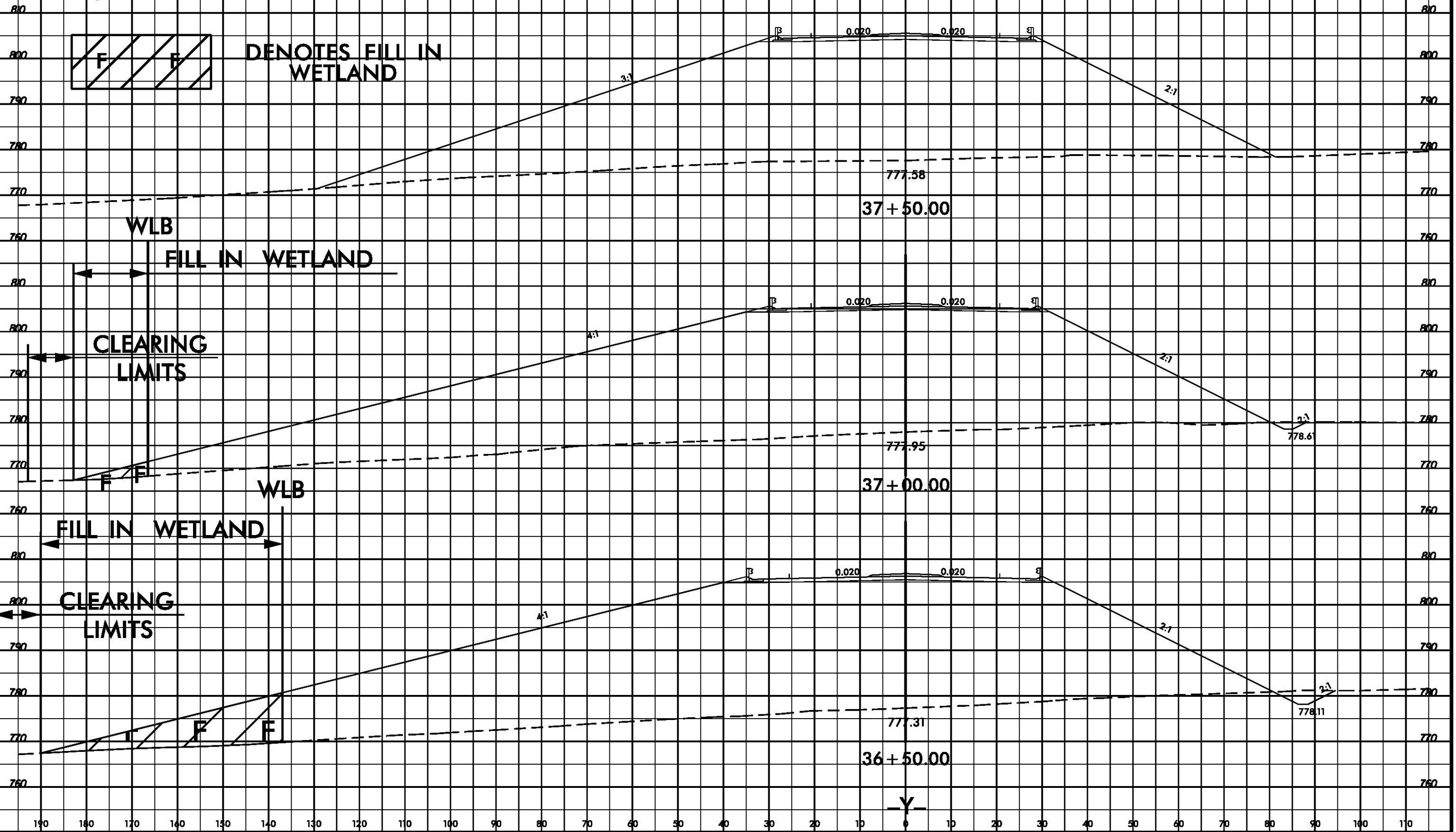
WETLAND/SURFACE WATER PERMIT DWG.

PERMIT DRAWING SHEET 19 OF 23

SITE I



DENOTES FILL IN
WETLAND



*****SYTIME*****
*****DIGN*****
*****USERNAM*****

8/23/99



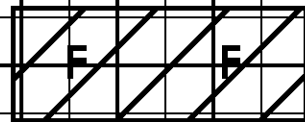
PROJ. REFERENCE NO.
R-2612B

SHEET NO.
X-43

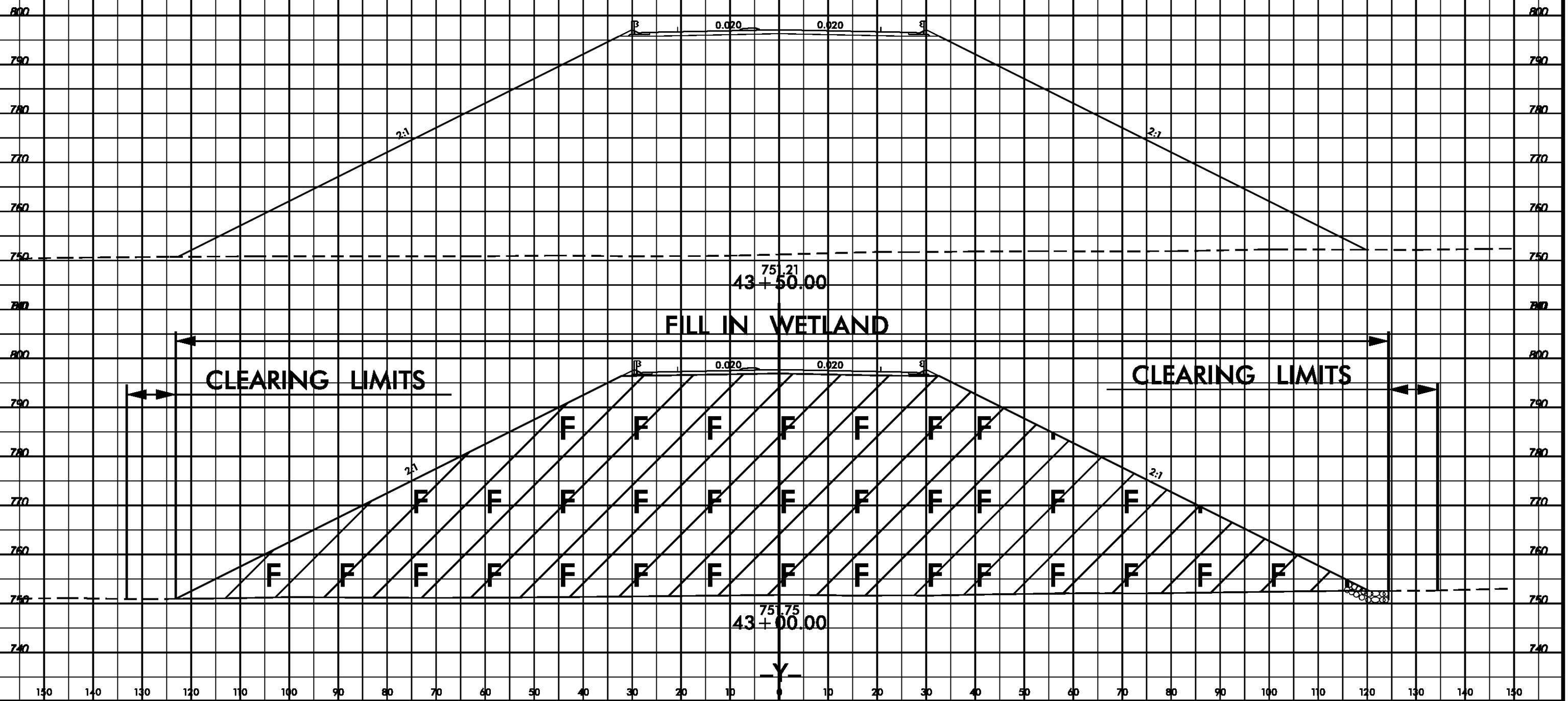
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PERMIT DRAWING
SHEET 20 OF 23

WETLAND/SURFACE WATER PERMIT DWG. SITE III



DENOTES FILL IN
WETLAND



*****SYTIME*****
*****DIGN*****
*****USERNAM*****

8/23/99

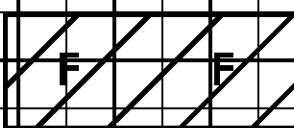


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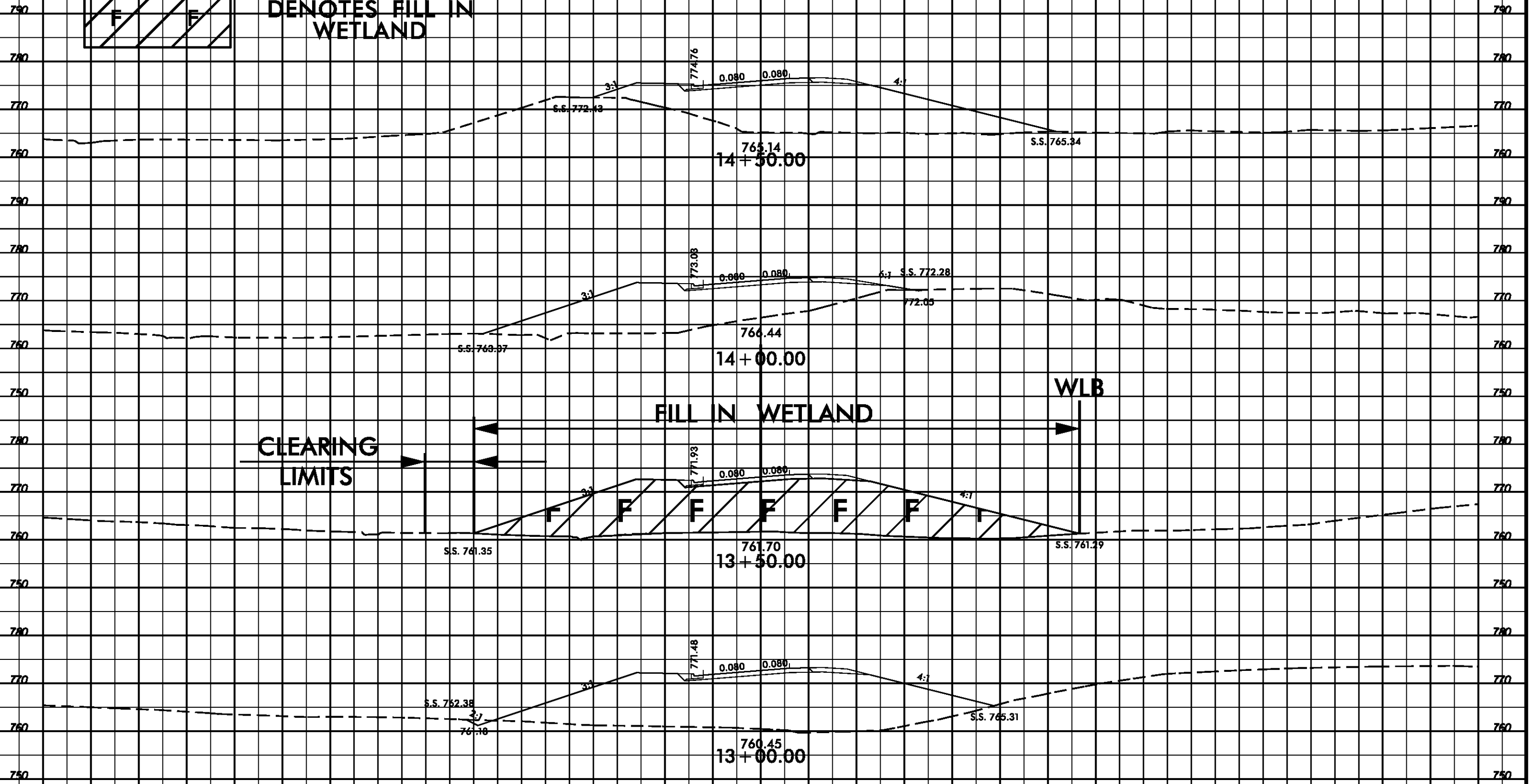
WETLAND/SURFACE WATER PERMIT DWG.

PERMIT DRAWING SHEET 21 OF 23

SITE I



DENOTES FILL IN WETLAND



FILL IN WETLAND

CLEARING
LIMITS

WLB

YLPA

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

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

8/23/99



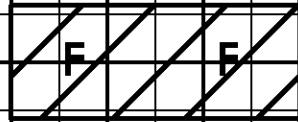
PROJ. REFERENCE NO.
R-2612B

SHEET NO.
X-70

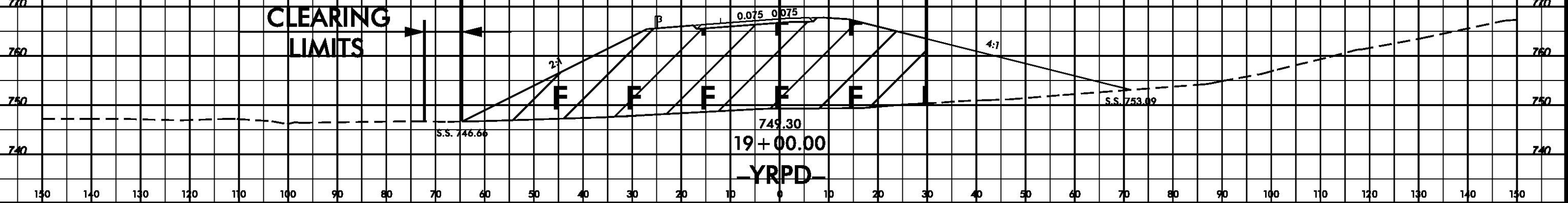
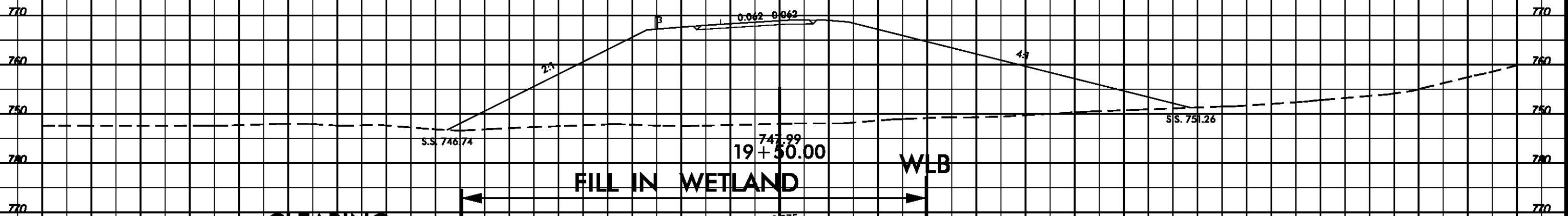
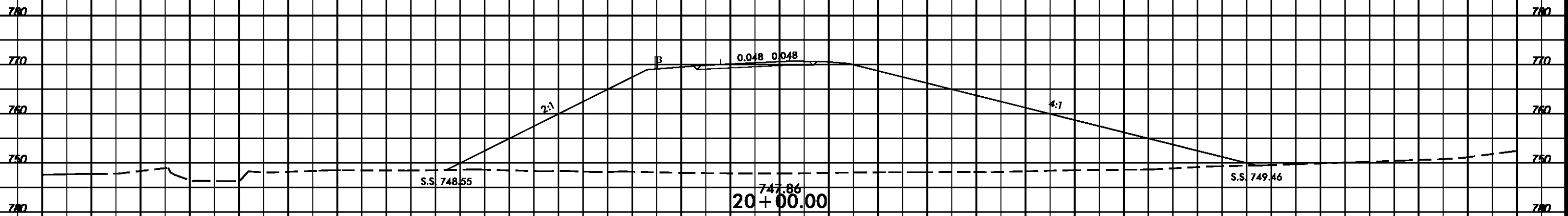
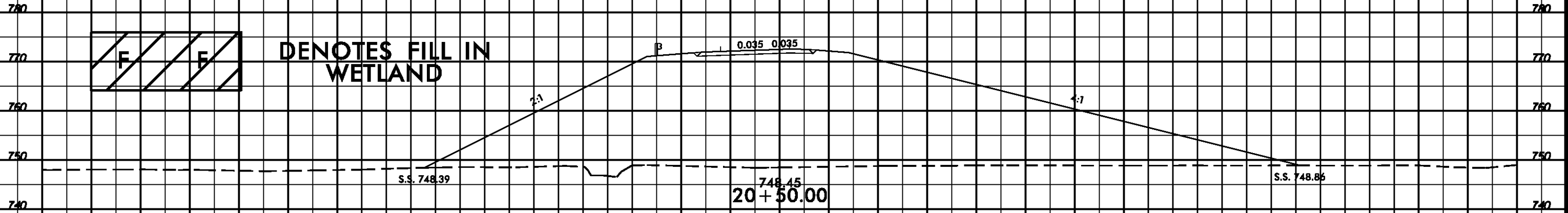
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WETLAND/SURFACE WATER PERMIT DWG. SITE III

PERMIT DRAWING
SHEET 22 OF 23



DENOTES FILL IN
WETLAND



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

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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)
I	Y STA. 30+82 to 39+10	42" Pipe	1.38		<0.01	0.16		0.01	<0.01	251	20	
IA	Y STA. 33+36 to 34+56	42" Pipe						<0.01		209		
IB	Y STA. 32+61 to 34+56 LT.	30" Pipe						<0.01	<0.01	186	16	
IC	YLPA STA. 13+32 to 13+99 LT.	42" Pipe						<0.01		60		
II	YRPA STA. 18+25 TO 21+90							1.00				
III	L STA. 59+63 to 70+54 RT.	2@12'X7' RCBC	*2.48	*0.01	<0.01	0.25		0.12	<0.01	932	72	
		Bank Stabilization							<0.01		35	
IIIA	YLPA STA. 13+16 LT.	42" Pipe						0.01		265		
IV	L STA. 60+09 to 67+07 RT.		*0.44	*0.03	<0.01	0.06						
V	L STA. 77+71 LT. & RT.	36" Pipe						<0.01	<0.01	24	24	
TOTALS:			*4.30	*0.04	0.01	0.47	0	1.17	0.02	1927	167	0

NOTES: * TEMPORARY FILL IN WETLANDS IS DUE TO TEMPORARY EXCAVATION FOR CULVERT CONSTRUCTION.
 *EXISTING GROUND TO BE REESTABLISHED UPON COMPLETION OF CULVERTS.
 *STOCKPILE MATERIAL REMOVED.
 *ROUNDED TOTALS ARE SUM OF ACTUAL IMPACTS
 *SITE III - 0.15 ACRES OF IMPACT TOTAL ARE FROM INDIRECT IMPACTS TO THE WETLAND.
 *SITE IV - 0.02 ACRES OF IMPACT TOTAL ARE FROM INDIRECT IMPACTS TO THE WETLAND.

N.C.D.O.T.
 DIVISION OF HIGHWAYS
 GUILFORD COUNTY
 PROJECT: 34483.1.1 (R-2612B)
 US 421 AT SR 3418 (NEELLEY ROAD)
 SOUTH OF GREENSBORO