



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY PERDUE
GOVERNOR

EUGENE CONTI
SECRETARY

January 26, 2010

MEMORANDUM TO: Mr. J. Wally Bowman, PE
Division Five Engineer

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

A handwritten signature in black ink, appearing to read "P. S. Harris, III".

SUBJECT: Wake County, Davis Drive (SR 1613/SR 1999) from Morrisville-Capenter Road
(SR 3014) in Wake County to NC 54 in Durham County); T.I.P. Number U-4026;
State Project 9.8051713

Attached is the modification to the U.S. Army Corps of Engineers Section 404 Individual and N.C. Division of Water Quality Section 401 Individual 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:
<http://www.ncdot.gov/doh/preconstruct/pe/neu/permit.html>

PSH/gyb

Attachment

Cc: W/attachment
Mr. Randy Garris, P.E. State Contract Officer
Mr. Chris Murray, Division Environmental Officer

Cc: W/o attachment (see website for attachments)
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design
Dr. David Chang, P.E., Hydraulics
Mr. Art McMillan, P.E., Highway Design
Mr. Tom Koch, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John F. Sullivan, FHWA
Mr. Ron Hancock, P.E., State Roadway Construction Engineer
Mr. Mike Robinson, P.E., State Bridge Construction Engineer
Ms. Beth Harmon, EEP
Mr. Eric Midkiff, P.E., PDEA Central Region Unit Head

PROJECT COMMITMENTS

Davis Drive (SR 1613/SR 1999)
from Morrisville-Carpenter Road (SR 3014) in Wake County
to NC 54 in Durham County
State Project No. 9.8051713
TIP Project No. U-4026

Commitments Developed During Project Development

LIST OF STANDARD AND SPECIAL ENVIRONMENTAL COMMITMENTS

All standard procedures and measures, including North Carolina Department of Transportation's (NCDOT) Best Management Practices for Protection of Surface Waters will be implemented, as applicable, to avoid or minimize environmental impacts.

Additional Special Project Commitments were identified in the Categorical Exclusion for this project; these commitments are listed below, along with their current status, changes, or additions to the list of commitments.

Please note that additional project commitments may be derived from the permitting process and are not listed in this consultation.

Standard Environmental Commitments

Project Development and Environmental Analysis Branch, Design Services Unit and Hydraulics Unit

Wetland impacts will be further minimized during the development of the roadway design plans during the final phase of the project, where practicable.

Highway Division 5

Geodetic control monuments impacted by the project will be relocated in consultation with the US Department of Commerce and National Geodetic Survey. The cost of relocating any impacted monument will be included in funding for the project.

Hydraulics Unit

NCDOT will minimize water quality impacts through the use of NCDOT "Best Management Practices (BMPs) for Protection of Surface Waters" (1991).

The Federal Emergency Management Agency (FEMA) will be contacted during final design to approve any floodway modifications required by construction of the proposed project.

Right of Way Branch

Hazardous waste sites or unrecorded Underground Storage Tanks (USTs) discovered during construction phase of the project will be assessed and remedied in accordance with the Environmental Protection Agency (EPA), the NC Department of Environment and Natural Resources, and local policies regarding cleanup procedures.

Highway Division 5 and Geotechnical Unit

The NCDOT and its contractors will not excavate, fill, or perform land clearing activities within Waters of the United States or any areas under the jurisdiction of the US Army Corps of Engineers (COE), except as authorized by the COE. To ensure that all borrow and waste activities occur on high ground, except as authorized by permit, the NCDOT shall require its contractors to identify all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. Documentation of the location and characteristics of all borrow and disposal sites associated with the project will be available to the COE on request.

Special Environmental Commitments

PDEA Branch

The NCDOT will purchase any required wetland and stream mitigation from the North Carolina Department of Environment and Natural Resources' Wetland Restoration Program (WRP).

Offsite Compensatory Mitigation for Wetlands

NCDOT will provide compensatory mitigation for impacts to 0.22 acres of riverine wetlands through the Ecosystem Enhancement Program (EEP) as outlined in the letter dated October 3, 2005, and in accordance with the Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003.

Offsite Compensatory Mitigation for Streams

NCDOT will provide compensatory mitigation for 987 linear feet of stream applying a replacement ratio of 2:1 for a total of 1,974 linear feet of streams. This will be provided through the Ecosystem Enhancement Program (EEP) as outlined in the letter dated October 3, 2005, and in accordance with the Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003.

Onsite Compensatory Mitigation for Streams

NCDOT will relocate 261 linear feet of stream to fulfill onsite compensatory mitigation in accordance with the October 24, 2005 application. Stream relocations will have 50-foot wooded buffers planted on both sides of the stream.

PDEA Branch, Design Services Unit, Hydraulics Unit

The NCDOT will coordinate with the US Army Corps of Engineers (COE), US Fish and Wildlife Service (USFWS), Division of Water Quality (DWQ), and Wildlife Resources Commission (WRC) on stream restorations, relocations, and minimization. The NCDOT commits to (1) site 3A – not clearing the area adjacent to the stream and will indicate on the final design plans as an environmentally sensitive area; (2) site 12 – reconfigure this intermittent stream and plant stream banks with appropriate species where impacted by road widening, and (3) site 15 – investigate the possibility of moving the stream out of the fill slope for minimization and restoration of stream outside of fill for mitigation (see Figure 2 in the CE for site locations).

Site 3A

NCDOT commitment for avoidance of clearing in the adjacent area and denoting the area as environmentally sensitive was rescinded during the Concurrence Point 4B meeting. After a field review of the site by the Merger Team, WRC determined this commitment was not necessary.

Site 12

The design plans denote this area as Site 6 (Sheet 20). The original commitment has been superseded based on a field review by the Merger Team. The channel will be reconfigured per original commitment; however, the banks will be stabilized with Class B rip-rap. The design plans were reviewed during Concurrence Points 4B and 4C, and the project has been permitted with Class B rip-rap.

Site 15

The design plans denote this area as Site 9. The plans include stream relocation and mitigation per the original commitment.

Hydraulics Unit

Runoff from the proposed curb and gutter section will be treated in a reasonable and feasible fashion before directly entering streams.

The northern portion of the project is located within the Cape Fear River Basin. This basin has no established buffer requirements. The southern portion is located within the Neuse River Basin which does have buffer requirements. None of the creeks within the Neuse River Basin and associated with the project are shown on the USDA-SCS soil maps or shown as blue streams on the USGS Quad map; therefore, the buffer requirements do not apply. The project is outside the water protection area for Jordan Lake; therefore, hazardous spill basins will not be required for this project.

Other Special Commitments

Design Services Unit

Coordination with the Research Triangle Park (RTP) will be conducted to determine the status of the South Loop Road and whether a median cut with turn lanes should be included with this project.

The Design Services Unit stated there will be a break in the median at South Loop Road.

Design Services Unit, Hydraulics Unit and Highway Division 5

Coordination with TIP Project R-2000AB will be necessary since mitigation for System 6 is included in the R-2000AB project.

The Design Services Unit stated they are coordinating the efforts for this project with Roadway Design and Hydraulics and their efforts on the R-2000AB project.

R-2000AB is currently under construction (June 2006). Compensatory mitigation for impacts to 98 linear feet of stream was included as part of the permitting of R02000AB.

Bicycle Accommodations

Design Services Unit and Highway Division 5

The proposed cross sections will provide 14-foot (4.2 meter) outside through travel lanes to accommodate bicycles. The proposed cross sections are described in Section 3.3 and shown in Figures 3A-3C of the CE. The existing five-lane curb and gutter section from south of Hopson Road to just north of Hopson Road already has 14-foot (4.2 meter) outside through travel lanes to accommodate bicycles and will be retained.

The Design Service Unit stated the bicycle accommodations as described in the CE are included in the design for the project.

Sidewalk and Greenway Accommodations

PDEA Branch, Design Services Unit and Program Development Branch

According to NCDOT's Pedestrian Policy Guidelines, NCDOT will replace any existing sidewalk disturbed during project construction and participate in the funding of any new sidewalks provided the sidewalk is adjacent to the improvement project and can be incorporated into the project as proposed. The Town of Cary has requested that sidewalks not be constructed along the section of Davis Drive from Morrisville-Carpenter Road north to Koppers Road/McCrimmons Parkway as a part of this project. Any existing sidewalks that are disturbed because of the project construction in this section of Davis Drive will not be replaced. Sidewalks are not proposed on the remaining sections of the Davis Drive project.

RTP has plans for a greenway (eight-foot [2.4-meters] wide off-road asphalt trail) on the west side of Davis Drive from RTP's boundary just south of George Watts Hill Drive north to RTP's boundary in the vicinity of the five-lane curb and gutter section south of Hopson Road. Portions of this greenway are already built. RTP plans to tie their greenway to the existing sidewalk along Davis Drive at the Keystone Development near Hopson Road. The RTP has a greenway on the west side of Davis Drive from NCD 54 south to the entrance to Northern Telecom. The RTP would like to extend this greenway south to Hopson Road but does not own the property in the area. Durham County may participate in the funding of this greenway section and will be contacted.

The Town of Morrisville has requested a multiuse asphalt trail along Davis Drive in their jurisdiction similar to the one in RTP. The Town of Morrisville will have to participate in 20 percent of the construction cost and 100 percent of any additional right of way cost necessary to contain any new sections of multiuse trail, and they must commit to all future maintenance costs. The Town of Morrisville has also requested pedestrian crossing at McCrimmons Parkway and Parkside Valley Drive. The locations of the multiuse trails along the project and pedestrian crossing will be designated during the final design phase of the project. An agreement that outlines the cost sharing and maintenance responsibilities for proposed multiuse trails will be required between NCDOT and the involved jurisdictions.

On June 10, 2002, letters were sent to the Town of Morrisville, the Town of Cary, Durham County and the Research Triangle Foundation with the approximate location and cost estimates for the above-mentioned pedestrian accommodations along the project. The Town of Cary responded in a June 14, 2002 letter indicating they are not interested in including pedestrian accommodations along the section of Davis Drive in Cary as part of this project. The Research Triangle Foundation responded in a September 26, 2002 letter requesting the multi-use trail along the west side of Davis Drive from Hopson Road to the existing trail at Nortel's entrance be included in this project; and they will participate in the cost for this section of the trail. The Research Triangle Foundation will donate the needed right of way along the frontage of the property it owns for the trail. The Town of Morrisville did not respond to the June 10, 2002 letter.

The Design Services Unit stated they will include the section of multi-use trail along the west side of Davis Drive from Hopson Road to the existing trail at Nortel's entrance as part of the project.

The Design Services Unit indicated the pedestrian crossings at McCrimmons Parkway and Parkside Valley Drive, requested by the Town of Morrisville, would be considered during final design if the crossings will connect to existing pedestrian accommodations.

Bus System Accommodations

Design Services Unit

Provisions for bus queue-jumper lanes and/or bus bay pull-outs will be provided at ten locations. These ten locations are in general agreement with the request made by the Triangle Transit Authority in their February 13, 2001 letter included in Appendix B (see Section 3.16 of the CE).

The Design Services Unit stated the bus system accommodations as described in the CE are included in the design for the project.

Additional Intersections Capacity Analysis

Traffic Engineering and Safety Systems Branch, Design Services Unit and PDEA Branch

All major driveways and intersecting roadways (including the five major intersections discussed in Section 2.3 of the CE and Parkside Valley Drive/Summer Sky Drive, the entrance to Delta Products and Biogen, Development Drive, and Park Knoll Road) will be analyzed using the Synchro/Sim Traffic software to establish a signal timing plan for the proposed project and to establish queue lengths for all turn lanes for the 95th percentile traffic volumes.

The Design Services Unit stated the major driveways and intersecting roadways listed above have been analyzed using Synchro/Sim Traffic software and that additional turn lanes at some intersections will be provided.

Hazardous Materials

Design Services Unit, Geotechnical Unit and Right of Way Branch

No hazardous waste problematic sites (underground storage tanks, regulated or unregulated landfills or dumpsites, or superfund sites) were identified along the project. If during the final design of the project any sites are discovered, preliminary site assessments will be performed as soon as possible so that the degree and extent of contamination can be assessed prior to right of way acquisition.

Anticipated Design Exceptions

Design Services Unit

No design exceptions are anticipated as a part of the project. If during the final design process, any design exceptions are determined to be necessary, they will be addressed in accordance with the FHWA-NCDOT Design Exception Policy.

Commitments Developed During Project Permitting

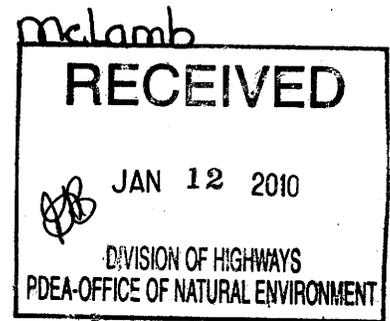
Standard conditions are contained in the permit

No additional conditions are contained in the permit modification.



REPLY TO
ATTENTION OF:

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



January 6, 2010

Regulatory Division

SUBJECT: Action ID 2008-02065; TIP No. U-4026

Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA
N.C. Department of Transportation
1598 Mail Service Center
Raleigh, NC 27699-1598

Dear Dr. Thorpe:

Reference the Department of the Army (DA) permit issued on May 18, 2006 (Action ID 200120448), subsequently modified on July 8, 2008 (Action ID 2008-02065), to authorize the discharge of fill material into the waters of United States, for construction of improvements to Davis Drive (SR1613/SR 1999; T.I.P. No. U-4026), crossing unnamed tributaries to Kit Creek and Burdens Creek, and adjacent wetlands, from Morrisville-Carpenter Road (SR 3014) in Wake County, to NC 54 in Durham County, North Carolina. Reference also your December 21, 2009 letter requesting modification of the permit to authorize the addition of 25 linear feet of riprap on one side of the stream at Permit Site 3 to repair and prevent stream bank scour, and e-mails dated January 4 and 5, 2010, requesting an additional 10 linear feet of riprap because of additional scour.

We have reviewed the proposed modifications, and determined that they are minor, that neither an additional public notice nor compensatory mitigation will be necessary. Therefore, the permit is hereby modified to include the riprap work as shown on the enclosed revised drawing. It is understood that all other conditions of the permit, including the permit expiration date of December 31, 2011, remain applicable.

If you have questions, please contact Eric Alsmeyer of the Raleigh Regulatory Field Office, at telephone (919) 554-4884, extension 23.

Sincerely,

Jefferson M. Ryscavage
Colonel, U.S. Army
District Commander

Enclosure

Copies Furnished: (with enclosure)

Federal Highway Administration
310 New Bern Ave., Rm. 410
Raleigh, North Carolina 27601-1442

Mr. Brian Wrenn
Division of Water Quality
North Carolina Department of
Environment and
Natural Resources
1650 Mail Service Center
Raleigh, NC 27699-1650

Mr. Chris Murray
NCDOT, Division of Highways
Division 5
2612 Duke Street
Durham, North Carolina 27704



20051972 v.4

North Carolina Department of Environment and Natural Resources

Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

North Carolina Division of Water Quality
Transportation Permitting Unit

In-Field Minor 401 Water Quality Certification, Buffer Certification and Isolated Waters Permit
Modification

Project Name/TIP Project No.: Davis Drive / U-4026 Date: 12/17/09
DOT Division: 5 County: Wake & Durham DWQ Project No./Permit Type: 051972 v.4 / I.P.
DOT Staff: Chris Murray DWQ Staff: Rob Ridings
ACE Staff: _____ DWQ Regional Office: C.O.

Modification Description:

⇒ See attached

Modification Sketch:

⇒ See attached

This in-field modification is required for the following reason(s):

The information contained in the application or presented in support thereof is incorrect in the following manner:

Conditions under which the original certification was issued have changed in the following manner:

Area between PSH and Stream is eroding - needs to be stabilized.

This in-field modification is valid only if issued by an authorized agent of the NC Division of Water Quality, Transportation Permitting Unit¹.

This in-field modification authorizes the NCDOT to

Slightly modify outfall @ Permit Site 3 on Davis Drive Project

in Wake/Durham County. The project shall be constructed as described in the Modification Description and Sketch on Page 1 of this document dated 12-17-09 to improve/construct the section of Davis Dr. that extends from NC 54 to Morrisville-Carpenter Rd.. The approved design is that described in the Modification Description and Modification Sketch on Page 1 of this document dated 12-17-09. Any further changes to the original Water Quality Certification dated 1-26-06 may require a formal written modification request.

The description of the proposed action provides adequate assurance that the proposed action in 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. Should your project change, you are required to notify the DWQ 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. 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 Modification Approval shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Condition(s) of Modification Approval:

1. As-built drawings of the proposed action shall be submitted to the NC DWQ Transportation Permitting Unit within 30-days of the completion of the action.
2. All the authorized activities and conditions of the certification associated with the original Water Quality Certification dated 1-26-06 and all other corresponding modifications still apply except where superseded by this certification.

3. Additional Conditions:

N/A

Failure to construct the proposed action as described in the Modification Description and Sketch on Page 1 of this document and/or violations of any condition herein set forth may result in revocation of this modification approval and may result in criminal and/or civil penalties. This modification approval shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. If the Corps of Engineers requires a formal written modification to the 404 permit for the proposed action, then NC DWQ must require a formal written modification to the 401 WQC, and therefore, this in-field modification is invalid. If additional (**wetland, stream, buffer**) impacts for this project (now or in the future) exceed (**one acre, 150 linear feet, or one-third of an acre/150 linear feet, respectively**), or if mitigation is required above and beyond the current mitigation requirements for this project, this in-field modification is invalid and a formal written modification is required.

This in-field modification is effective upon the date the last party signs this document. This in-field modification is made upon mutual agreement between DOT and DWQ as indicated by the signatures below and is, therefore, not subject to appeal by either party. Appeals by third parties must be made within sixty (60) days of notification pursuant to the contested case provisions of the Administrative Procedure Act, N.C. Gen. Stat. § 150B-23 et seq.

DWQ Staff Signature:

Robert Pindling

Date:

12-17-09

DOT Staff Signature:

Chris A Murray

Date:

12/17/09

Staff Signature:

Date:

¹ – An authorized agent of the Transportation Permitting Unit is defined as DWQ staff that are DOT-funded and review and issue 401 Water Quality Certifications for DOT projects. These staff include Central Office and Regional Office personnel.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

December 17, 2009

NCDENR-DWQ
Transportation Permitting Unit
2321 Crabtree Boulevard, Suite 250
Raleigh, NC 27604

Attention: Rob Ridings
NCDOT Coordinator

Subject: Widening of Davis Drive (SR 1613/SR 1999) from Morisville-Carpenter Road in Wake County to NC 54 in Durham County. TIP No. U-4026.

Reference: NCDENR-DWQ Project No. 20051972

The North Carolina of Transportation (NCDOT) is currently constructing this project in Durham and Wake Counties. A stabilization issue has been observed at Station 132+10 Lt- L- (Permit Site No. 3, Permit Drawing Sheet 10 of 65). This issue is addressed below:

Construction Issue:

A pre-formed scour (PFSH) hole has been constructed at this location. The outer-most edge of the device is almost directly adjacent to an unnamed tributary to Kit Creek in the Cape Fear Basin (Jordan Lake Watershed). Runoff from the PFSH has caused formation of a scour on the streambank of the unnamed tributary. The Department proposes to place appropriate fill material into the scour and then construct a small, shallow, rip rap-lined swale that would extend from the outer-most berm of the PFSH to below the ordinary high water mark on the adjacent unnamed tributary. This will require the installation of up to 25 linear feet of Class I rip rap on the streambank. This activity is depicted on the attached sketch.

Jurisdictional Evaluation:

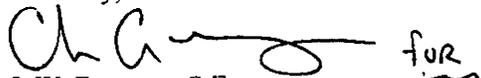
- Placement of the rip rap on the streambank below the ordinary high water mark will result in 25 linear feet of permanent stream impacts.
- Installation of this rip rap will occur on the streambank and will not affect aquatic life.
- Note that the stream has slightly shifted since the permit drawings were originally completed. The stream currently extends into the NCDOT right-of-way.
- Note that the icon depicting the PFSH is not to scale. Construction of the PFSH per the dimensions provided in Detail DD extends the outer-most edge of the device to the full extent of the PDE.
- The project is located in the Cape Fear River Basin (Jordan Watershed). Note that clearing of vegetation in the PDE was conducted in 2007.
- The proposed action does not involve additional impervious surface or additional runoff.

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DEC 17 2009

DENR - WATER QUALITY
WETLANDS AND STORMWATER BRANCH

The Department is requesting a tear-sheet modification to cover these impacts. If you have any questions or need additional information, please contact Mr. Chris Murray at (919) 220-4633.

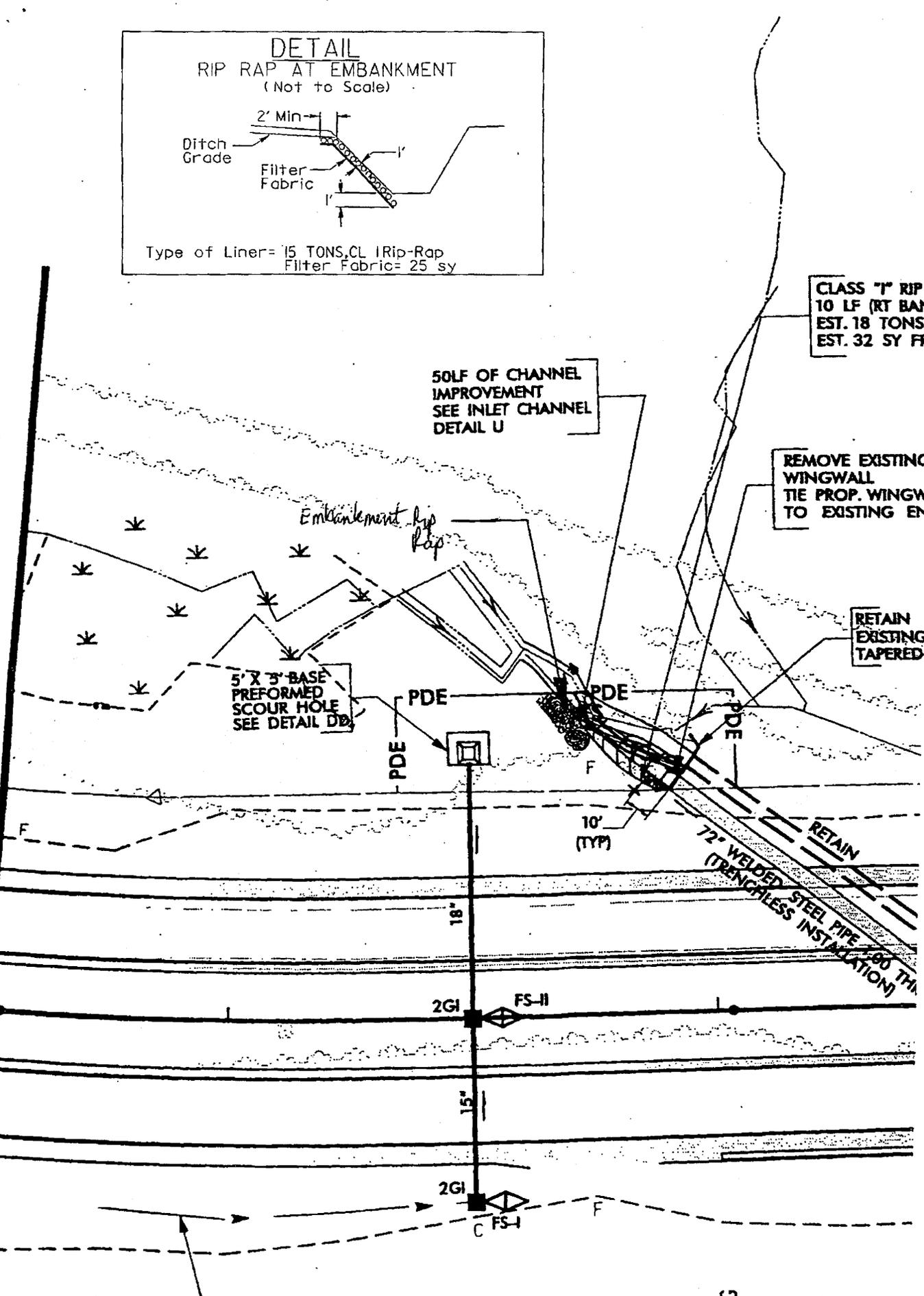
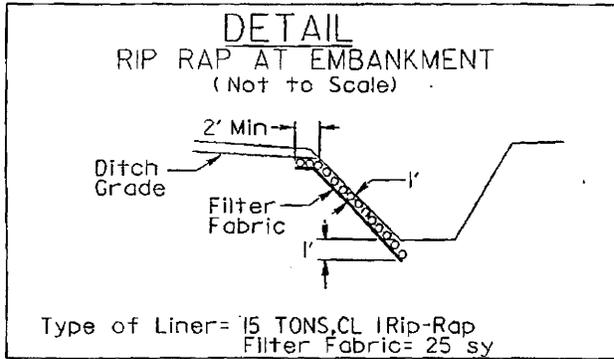
Sincerely,

A handwritten signature in black ink, appearing to read "J. W. Bowman", followed by the word "for" written in a smaller, cursive script.

J. W. Bowman, P.E.
Division Engineer

c: Division 5 file, NCDOT

IE- SIA. 130+00.00 SEE SHEET NO 13



CLASS 7" RIP
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(TRENCHLESS INSTALLATION)

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2GI FS-I