



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

December 21, 2009

US Army Corps of Engineers  
Raleigh Field Office  
3331 Heritage Trace Drive, Suite 105  
Wake Forest, NC 27587

Attn: Mr. Eric Alsmeyer  
NCDOT Coordinator, Division 5

Subject: **Application for Modification to Section 404 Individual Permit and 401 Water Quality Certification** for the widening of Davis Drive (SR 1613/SR 1999) from Morrisville-Carpenter Road in Wake County, State Project No. 9.8051713, WBS Element: 35018.1.1, Division 5, TIP U-4026.

Reference: NCDOT Individual Permit application dated October 24, 2005  
Individual Permit, USACE Action ID 200120448, issued May 18, 2006  
NCDWQ Water Quality Certificate, issued January 26, 2006  
NCDOT Individual Permit Modification application dated May 14 2008  
Individual Permit Modification, USACE Action ID 2008-02065, issued July 8, 2008  
NCDDWQ Water Quality Certification Modification, issued May 29, 2008  
NCDWQ Water Quality Certification Modification, issue December 17, 2009

Dear Sir:

The purpose of this submittal is to request a modification to the Section 404 Individual Permit and Section 401 Water Quality Certification. The North Carolina Department of Transportation (NCDOT) has commenced construction of the subject project. Stability issues at one location on the project will require permit modifications from USACE and NCDWQ. The changes are summarized in the description below.

**Permit Site No. 3 (Sheet 11 of 65) at 132+10 Lt -L-  
Construction Issue:**

A pre-formed scour hole (PFSH) has been constructed at this location, as indicated in the original permit application. Note that the icon depicting the PFSH is not to scale and construction of the

MAILING ADDRESS:  
NC DEPARTMENT OF TRANSPORTATION  
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS  
NATURAL ENVIRONMENT UNIT  
1598 MAIL SERVICE CENTER  
RALEIGH NC 27699-1598

TELEPHONE: 919-431-2000  
FAX: 919-431-2001  
WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

LOCATION:  
4701 Atlantic Ave.,  
Suite 116  
Raleigh, NC 27604

PFSH per the dimensions provided in Detail DD extends the outer-most edge of the device to the full extent of the PDE.

The stream has shifted slightly since the permit drawings were originally completed and currently extends into the NCDOT right of way; as a result, 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.

NCDOT 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 (see attached sheet). This will require the installation of up to 25 linear feet of Class I rip rap for the purpose of streambank stabilization.

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. The rip rap will not extend across the stream bed, therefore there will not be a loss of stream function. NCDOT does not propose mitigation for these additional impacts. Per the tear sheet modification issued by NCDWQ on December 17, 2009, NCDWQ will not require mitigation for this impact.

The project is located in the Cape Fear River Basin (Jordan Watershed). Clearing of vegetation in the PDE was conducted in 2007 before the Jordan Lake Riparian Buffer Regulations were implemented, therefore an authorization for impacts to riparian buffers is not required.

The proposed action does not involve additional impervious surface or additional runoff.

The revised design does not compromise NCDOT's compliance with the existing permit conditions. The revision has been evaluated for compliance with the avoidance/minimization criteria and is in compliance with all previous issues, including the following:

- Protected Species
- Aquatic Life passage
- FEMA compliance
- Cultural Resources.

**Regulatory Approvals**

Application is hereby made for the modification of the USACE Section 404 Individual Permit.

NCDOT notified NCDWQ of the above construction issues and the impact on jurisdictional resources in a memo dated December 17, 2009. NCDWQ issued a tear sheet modification for the proposed impact on December 17, 2009. Therefore, a copy of this application will be provided for their records, however, no further written concurrence is required.

A copy of this permit application will be posted on the NCDOT website at:  
<http://www.ncdot.org/doh/preconstruct/pe/>. If you have any questions or need additional information, please call Erica McLamb at (919) 431-1595.

Sincerely,



*GR* Gregory J. Thorpe, Ph.D.  
Environmental Management Director, PDEA

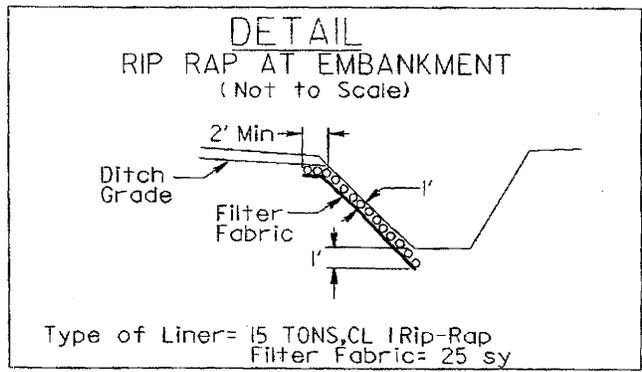
w/attachment

- Mr. Brian Wrenn, NCDWQ (5 Copies)
- Mr. Travis Wilson, NCWRC
- Ms. Kathy Matthews, USEPA
- Mr. Clarence W. Coleman, P.E., FHWA
- Mr. Gary Jordan, USFWS

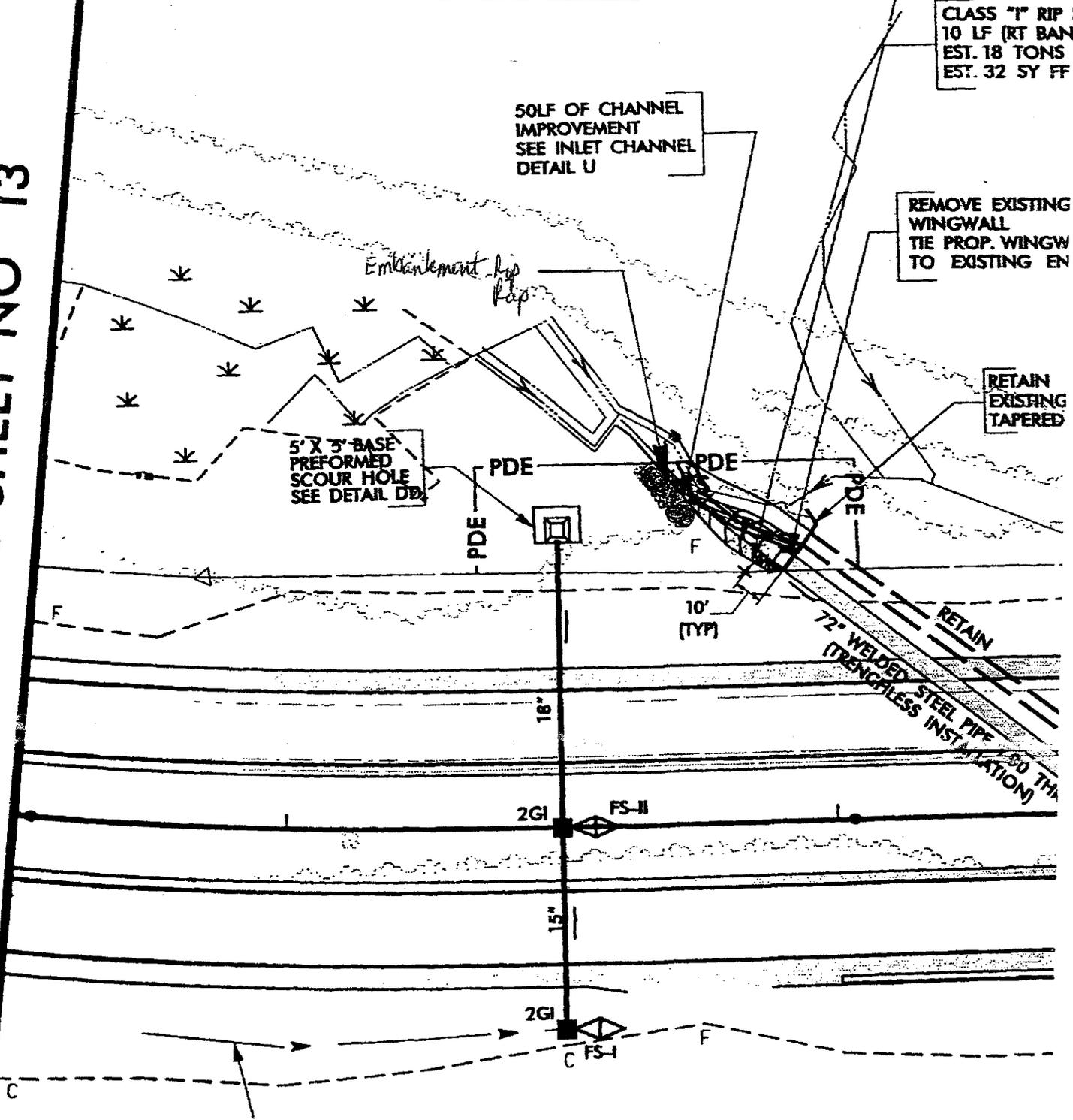
W/o attachment (see website for attachments)

- Dr. David Chang, P.E., Hydraulics
- Mr. Mark Staley, Roadside Environmental
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Victor Barbour, P.E., Project Services Unit
- Mr. J. Wally Bowman, PE., Division Engineer
- Mr. Chris Murray, DEO
- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Majed Alghandour, P. E., Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Mr. Scott McLendon, USACE, Wilmington
- Mr. Brian Yamamoto, PDEA
- Mr. Drew Joyner, PE, Human Environment Unit Head

E- SIA. 130+00.00 SEE SHEET NO 13



Site 3  
sheet 11 of 65



CLASS 7" RIP 10 LF (RT BAN) EST. 18 TONS EST. 32 SY FF

50LF OF CHANNEL IMPROVEMENT SEE INLET CHANNEL DETAIL U

REMOVE EXISTING WINGWALL TIE PROP. WINGW TO EXISTING EN

RETAIN EXISTING TAPERED

5' X 3' BASE PREFORMED SCOUR HOLE SEE DETAIL DB

RETAIN 72" WELDED STEEL PIPE 20 TH (TRENCHLESS INSTALLATION)

2GI FS-II

2GI FS-I

C

F