



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

January 17, 2008

U. S. Army Corps of Engineers  
Regulatory Field Office  
6508 Falls of the Neuse Road  
Suite 120  
Raleigh, NC 27615

ATTN:Mr. Eric Alsmeyer  
NCDOT Coordinator

**SUBJECT:** Request For NW 23/33 Permit Modification and NW 13 for the replacement of Bridge No. 122 over Sandy Creek and Bridge No. 217 over a tributary to Sandy Creek on SR 1116 in Durham County, Federal Project No. BRSTP-1116 (4), State Project No. 8.2353001, Division 5, WBS Element 33070.1.1, T.I.P. No. B-3450.

**REFERENCE:** 1) USACE 404 NW 23/ 33 Permit, Action ID Number 200021134 and 200420932, dated May 17, 2004  
2) USACE 404 NW 23 Permit Modification, dated December 16, 2004  
3) USACE 404 NW 23/33 Renewal, dated October 18, 2006  
4) USACE 404 NW 23/33 Renewal, dated July 18, 2007

Dear Sir:

The North Carolina Department of Transportation (NCDOT) proposes to modify the Section 404 Nationwide Permits (NWP) previously issued for construction of this project and add a NWP 13. This proposed permit modification application specifically reflects construction revisions at Bridge 217 over an Unnamed Tributary (UT) to Sandy Creek on SR 1116 (Garrett Road) in Durham County. The project is located in the Cape Fear River basin. Please note that Revised Permit Drawings 3, 4 and 8 of 8 are attached to this submittal.

**Summary of Changes**

**Mainline of Bridge 217 and SR 1116**

Background: The Department has determined that pre-formed scour holes (PFSHs) located at Stations 13+30 Lt and 15+57 Lt must be re-sized due to changes in the hydraulic design. The

**MAILING ADDRESS:**

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

TELEPHONE: 919-715-1334 or  
919-715-1335

FAX: 919-715-5501

WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**

2728 CAPITAL BLVD. SUITE 240  
RALEIGH NC 27604

PFSH located at 13+30 Lt will be increased from a 6' x 6' device to a 12' x 12' device. The PFSH located at 15+57 Lt will be increased from a 4' x 4' devices to a 6' x 6' device. The construction of the devices will result in additional impacts to wetlands.

Jurisdictional changes: The construction revision will result in new impacts of 0.003 excavation in wetlands and an increase of 0.02 acres mechanized clearing in wetlands.

### **Temporary detour of Bridge 217 and SR 1116**

Background: The design of the temporary detour includes the installation of four pipe structures to convey water through the roadway. A total of three pipes (3 @ 84" CMPs) will be installed on the floodplain and one pipe (1 @ 142" x 91" CMPA) will be installed in the flow line of the Unnamed Tributary to Sandy Creek. A recent site visit by Division 5 construction personnel revealed that the width of Sandy Creek (within the footprint of the detour) ranges from 8 feet wide to 15 feet wide. Thus, the installation of the 142" x 91" CMPA in the stream will necessitate excavation of the streambanks and adjacent wetlands. Note that the temporary excavation in wetland is located entirely within the existing footprint of temporary fill in wetland. The excavation material will be stockpiled and then later placed back in the wetland area. The wetland will be restored to its natural state including any necessary reforestation.

Jurisdictional changes: The construction revision will result in a decrease of 0.02 acre temporary fill in wetland, new impacts of 0.02 temporary excavation in wetland, an increase of 0.01 acre temporary stream impacts for dewatering and 95 linear feet of permanent streambank impacts due to bank stabilization. Please note the proposed new temporary excavation of wetland at the detour is offset by the decrease of temporary fill in wetland.

### **Mitigation**

NCDOT has avoided and minimized impacts to jurisdictional resources to the greatest extent possible by:

- Stockpiling the excavated wetland soil and then placing it back in the footprint of excavated wetland areas to match existing ground
- Installing coir fiber matting on top of natural ground in the "restored" wetland area
- Reforestation in the temporarily impacted wetlands and along the streambanks.

The project will have additional permanent riverine wetland impacts associated with installation of the PFSHs and stream impacts from bank stabilization. However, NCDOT does not propose compensatory mitigation for the additional 0.02 acres of riverine wetland impacts because impacts are minimal. NCDOT also does not propose mitigation for the 95 feet of stream impacts because impacts are only for bank stabilization and the stream will not incur a loss of aquatic use.

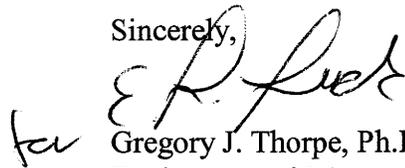
## **REGULATORY APPROVALS**

Section 404 Permit: The NCDOT requests that the referenced 404 Nationwide Permits (NWP) 23 and 33 be modified to reflect the revisions outlined in the letter and that the streambank stabilization be issued under a NW 13.

Section 401 Permit: We anticipate the 401 General Water Quality Certifications (WQCs) 3632 and 3634 still applies to this project. This project will also fall under a WQC 3626 for bank stabilization, which does not require written concurrence for this project. The NCDOT will adhere to all general conditions of the WQCs. Therefore, written concurrence from the NCDWQ is not required. In accordance with 15A NCAC 2H 0.0501(a) and 15A NCAC 2B 0.200 we are providing two copies of this application to the North Carolina Department of Environment and Natural Resources, Division of Water Quality, as notification.

A copy of this permit application will be posted on the NCDOT Website at: <http://www.ncdot.org/doh/preconstruct/pe/neu/Permit.html>. If you have any questions or need additional information, please call Deanna Riffey at (919) 715-1409.

Sincerely,

A handwritten signature in black ink, appearing to read "G. J. Thorpe". To the left of the signature, the word "for" is written in a cursive script.

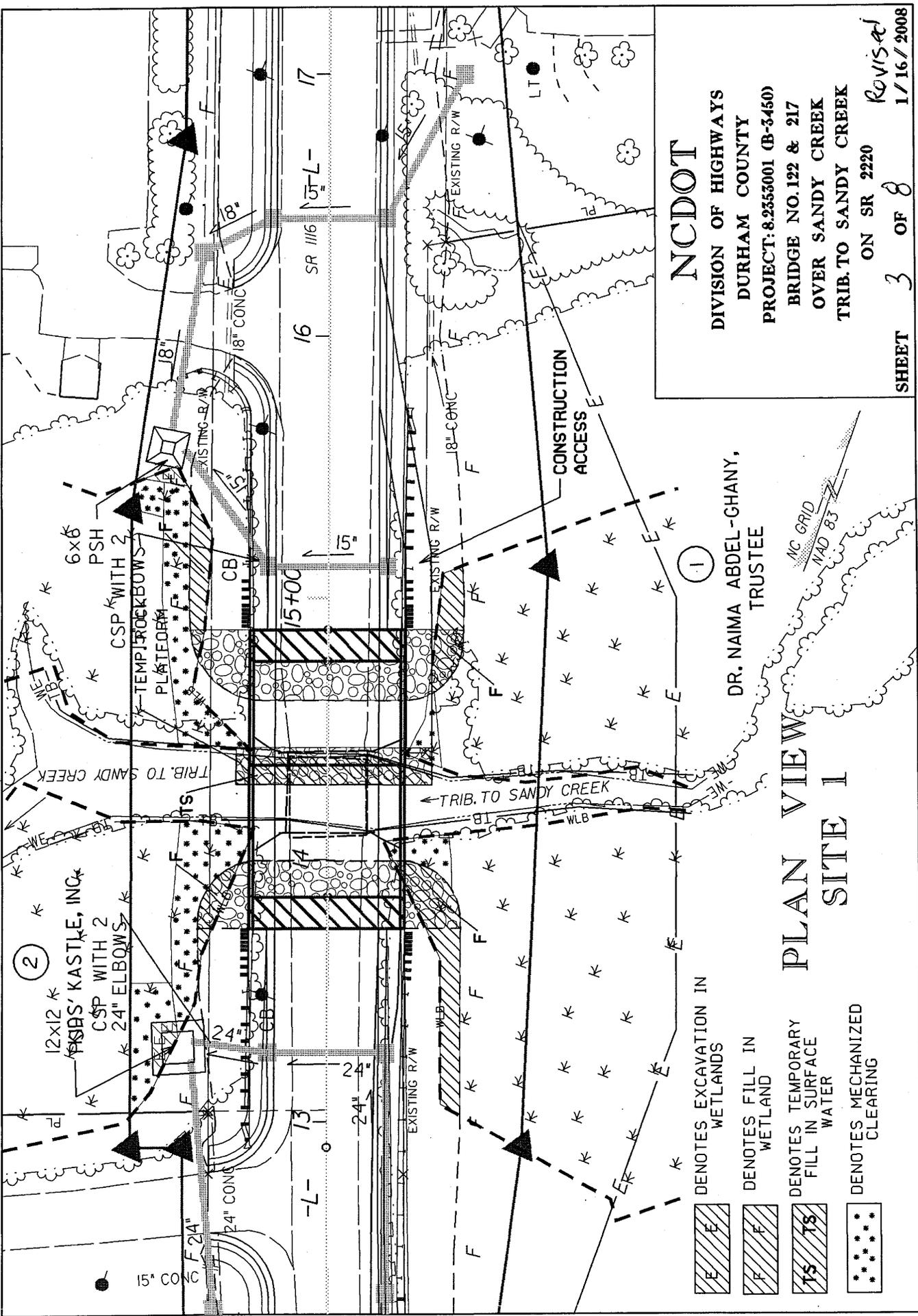
Gregory J. Thorpe, Ph.D.  
Environmental Management Director, PDEA

Cc: w/attachment

Mr. Brian Wrenn, NCDWQ (2 Copies)  
Mr. Travis Wilson, NCWRC  
Mr. Gary Jordan, USFWS

W/o attachment (see Website for attachments)

Mr. 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, P.E., 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. Ahmad-Al-Sharawneh, PDEA Project Engineer  
File B-3450



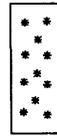
**NCDOT**

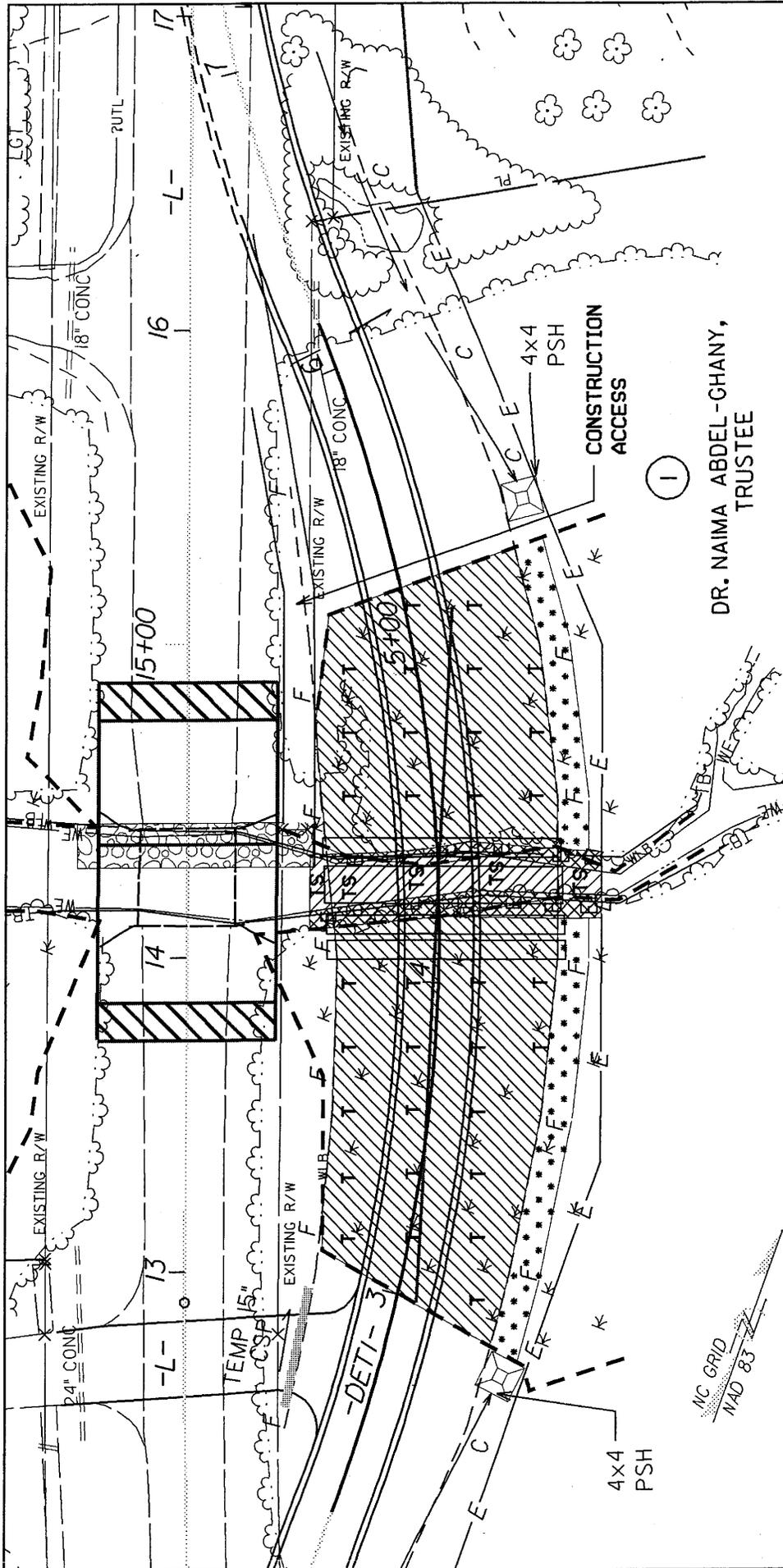
**DIVISION OF HIGHWAYS  
 DURHAM COUNTY  
 PROJECT: 8.2353001 (B-3450)  
 BRIDGE NO. 122 & 217  
 OVER SANDY CREEK  
 TRIB. TO SANDY CREEK**

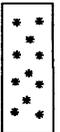
**ON SR 2220** *Revised*  
**SHEET 3 OF 8** **1/16/2008**

**DR. NAIMA ABDEL-GHANY,  
 TRUSTEE**

**PLAN VIEW  
 SITE 1**

-  DENOTES EXCAVATION IN WETLANDS
-  DENOTES FILL IN WETLAND
-  DENOTES TEMPORARY FILL IN SURFACE WATER
-  DENOTES MECHANIZED CLEARING



-  DENOTES TEMPORARY EXCAVATION IN WETLANDS TO BE STOCK PILED AND RESTORED
-  DENOTES MECHANIZED CLEARING
-  DENOTES TEMPORARY FILL IN WETLAND
-  DENOTES TEMPORARY FILL IN SURFACE WATER

## PLAN VIEW SITE 1

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