



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

October 26, 2004

US Army Corps of Engineers  
Raleigh Field Office  
6508 Falls of Neuse Road, Suite 120  
Raleigh, NC 27615-6814

Attn: Mr. Eric Alsmeyer  
NCDOT Coordinator, Division 5

Dear Sir:

**Subject: Supplemental Information for Permit Modification Application to Section 404 and Section 401 permits and Neuse Buffer Certificate** for the Northern Wake Expressway (I-540) from US 1 to US 64 in Wake County, Division 5. State Project No. 8.2401701, Federal Aid Project No. F-123-1(1), **TIP No. R-2000 F&G**; State Project No. 8.2401701, WBS Element No. 34365.1.1. NCDENR-DWQ Water Quality Certification Project No. 030114 and USACE Action ID 199920387.

The North Carolina Department of Transportation (NCDOT) proposes to construct a new controlled-access six-lane, divided highway to be known as the Northern Wake Expressway (I-540). The new location of the project is from US 1 to US 64 in Wake County. NCDOT submitted an individual Section 404 (of the Clean Water Act) Permit Application to the U.S. Army Corps of Engineers (USACE) for the subject project on March 29, 1996. On October 10, 1996, the Section 404 Permit was issued by the USACE (Action ID No. 199601917) and on September 27, 1996, a Section 401 Water Quality Certification was issued by the N.C. Division of Water Quality (DWQ Project 960319). NCDOT submitted a Section 404 and Section 401 Water Quality Certification modification application on January 31, 2003. The USACE issued the Section 404 Permit Modification on June 2, 2003 (Action ID No. 199920387) and The North Carolina Division of Water Quality (DWQ) issued a Section 401 Water Quality Certificate Modification on May 5, 2003 (DWQ Project No. 030114. The project has been let and construction has begun.

The purpose of this submittal is provide additional information to our permit modification application dated September 27, 2004 to the Section 404 permit and Section 401 Water Quality Certification and Neuse Buffer Certificate, specifically for Sections F&G. This information is for changes to a lateral base ditch based on constructability issues.

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

TELEPHONE: 919-715-1500  
FAX: 919-715-1501  
WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**  
2728 CAPITAL BLVD.  
PARKER LINCOLN BUILDING, SUITE 168  
RALEIGH NC 27604

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 are in compliance with all previous issues, including the following:

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

**Change to Lateral Base Ditch**

Permit Drawing 39b and 39c of 50/Plan Sheets 17 and 18/Site 14

The lateral base ditch at this site was constructed to the current plans but during construction it was found to be unstable. The velocities in the current base ditch design exceed the stability limit and that it should have been lined. To stabilize the proposed 0.6m lateral base ditch reflected on plan sheets 17 and 18 (Detail "UU") is to increase the base width to 0.9m (3.0 feet) (2 ft more than current design), hold or maintain the constructed 2:1 front ditch slope, adjust the proposed ditch back slope to 3:1, and line the entire length specified in detail "UU" with permanent soil reinforcement matting (PSRM) to a height of 0.6m (2.0 feet, minimum depth specified in Detail "UU") on the slopes. The construction plans and permit drawings are revised.

No additional jurisdictional or buffer impacts will occur due to the new design of the lateral base ditch at this site. .

**Regulatory Approvals**

We hereby ask that the additional information provided in this letter be added to our Permit Modification Application dated September 27, 2004 to the Section 404 Permit from the USACE and Section 401 Water Quality Certification and Neuse Buffer Certification from the NCDENR-DWQ. No additional jurisdictional or buffer impacts will occur based on this new information.

If you have any questions or need additional information, please call Ms. Rachelle Beaugard at (919) 715-1383.

Sincerely,



Gregory J. Thorpe, Ph.D.

Environmental Management Director, PDEA

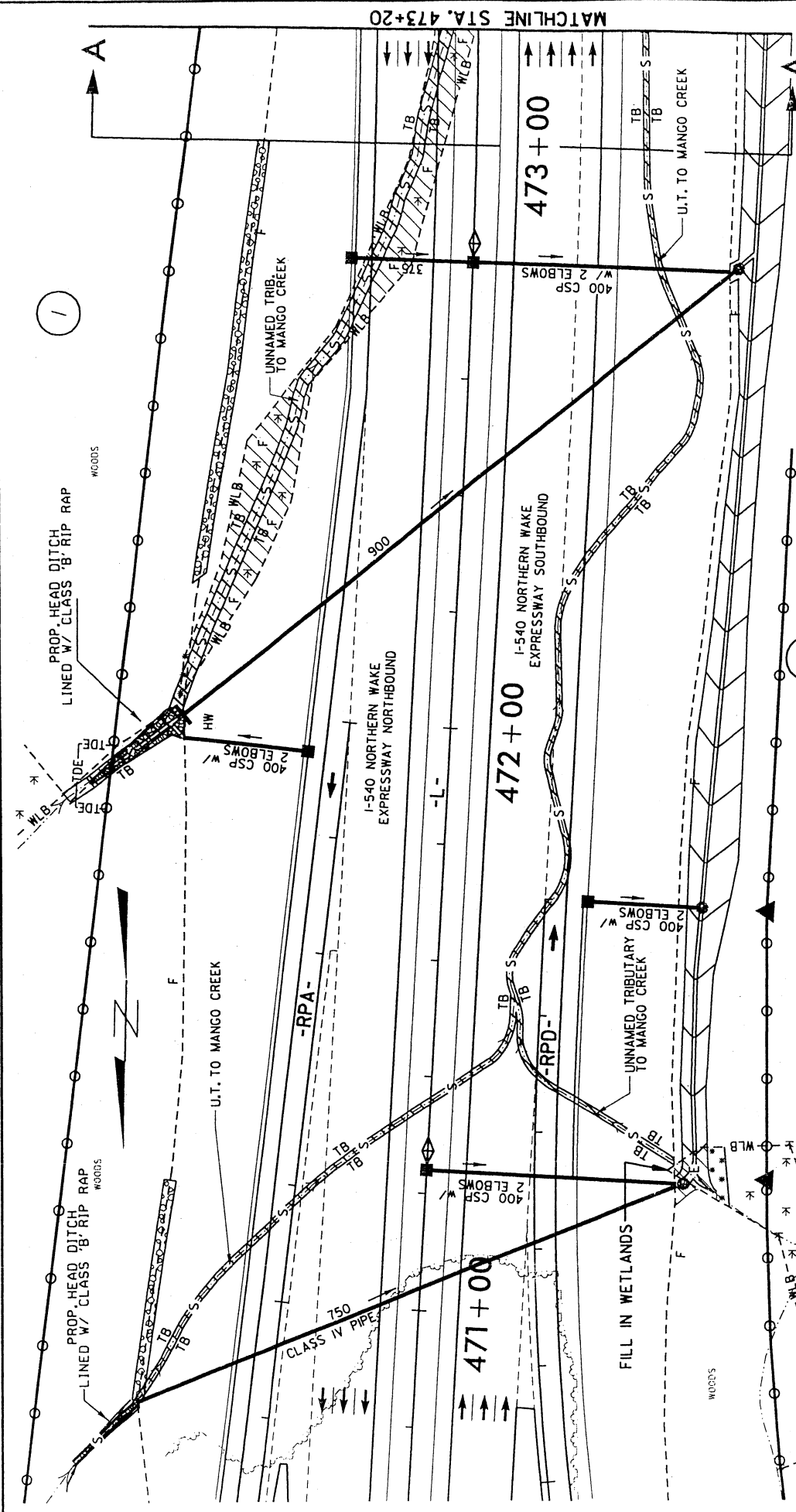


cc: w/attachment

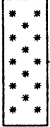



- Mr. John Hennessy, NCDWQ (7 copies)
- Mr. Travis Wilson, NCWRC
- Ms. Becky Fox, USEPA – Whittier, NC
- Mr. Ronald Mikulak, USEPA – Atlanta, GA
- Mr. Gary Jordan, USFWS
- Mr. David Chang, P.E., Hydraulics
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Jon Nance, P.E., Division 5 Engineer
- Mr. Reese Briley, Division 5 Resident Engineer
- Mr. Chris Murray, Division 5 Environmental Officer

w/o attachment

- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Omar Sultan, Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Mr. Mark Staley, Roadside Environmental
- Mr. David Franklin, USACE, Wilmington
- Mr. Brian Yamamoto, PDEA Project Planning Engineer



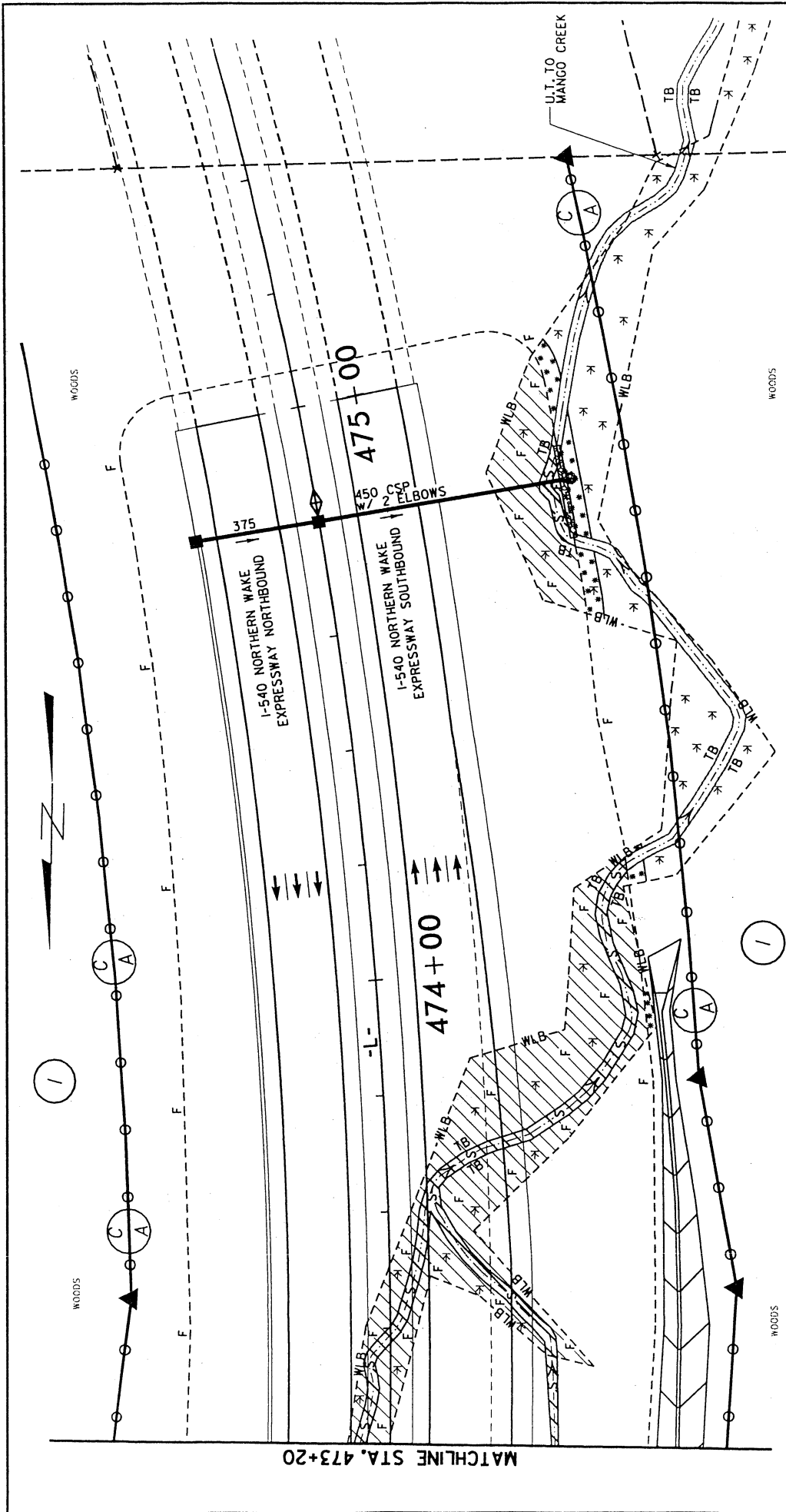
N.C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT:  
 SHEET 39c OF 50  
 REV. 05/14/04  
 7/3/03  
 REVISED 10/25/04

-  DENOTES MECHANIZED CLEARING
-  DENOTES EXCAVATION IN WETLANDS
-  DENOTES FILL IN WETLANDS
-  DENOTES FILL IN SURFACE WATERS

PLAN VIEW  
 SITE 14

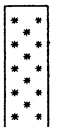


NOTE: LATERAL BASE DITCH RIGHT OF  
 -L- TO BE LINED WITH PERMANENT  
 SOIL REINFORCEMENT MATTING (PSRM)





# PLAN VIEW SITE 14

NOTE: LATERAL BASE DITCH RIGHT OF  
 -L- TO BE LINED WITH PERMANENT  
 SOIL REINFORCEMENT MATTING (PSRM)

-  DENOTES MECHANIZED CLEARING
-  DENOTES FILL IN WETLANDS
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N.C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

WAKE COUNTY

PROJECT:

SHEET 37b OF 50

7/3/03

REVISED 10/25/04