STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

DAVID MCCOY
SECRETARY

July 8, 2005

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

ATTN: Mr. Eric Alsmeyer
NCDOT Coordinator

Subject: **Notice of Nationwide 3 Use** for the replacement of Bridge No. 174 over Buffalo Creek on SR 2320 (Riley Hill Road) in Wake County, Division 5, Federal Project No. BRZ-2320 (2), State Project No. 82407701, WBS Element 33138.1.1, T.I.P. No. B-3530.

Dear Sir:

Per our conversation on June 13, 2005, please find enclosed a courtesy copy of the permit drawings and wetland delineation forms. The North Carolina Department of Transportation (NCDOT) is in the process of replacing Bridge No. 174 over Buffalo Creek. The project involves replacing the 40-foot Bridge No. 174 on existing alignment with a new 100-foot bridge. The proposed bridge will consist of two 12-foot travel lanes with 8-foot shoulders, 4 feet of which will be paved. Traffic will be maintained by an off-site detour. The off-site detour will consist of SR 2320, SR 2321, and SR 1003. Buffalo Creek (DWQ Index # 27-57-16-(1)) is a the only jurisdictional stream in the project area.

This project was permitted under DWQ Buffer Certification # 041-720 on November 30, 2004 for buffer impacts only. On May 31, 2005 and June 14, 2005 site visits were made to determine presence or absence of wetlands located within the project area. It was determined that several small wetlands were located adjacent to the bridge within the right of way. The project was already under construction when wetlands were discovered. Partial areas within the wetlands had been filled during development of fill slopes. Therefore, NCDOT took the conservative approach in determining the wetland line by using the original toe of slope and moving outward to project boundary. A total of 0.10 acres of wetland will be impacted by permanent fill for road widening and placement of two 42-foot reinforced concrete pipes to retain the hydraulic connection between the wetlands and the ephemeral stream.

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

LOCATION:
2728 CAPITAL BLVD
PLB SUITE 168
RALEIGH, NC 27604

The NCDOT anticipates that these activities will be authorized by Nationwide Permit No. 3, per our conversation on June 13, 2005. NCDOT will follow the conditions set by a Nationwide Permit No. 3 and by DWQ Water Quality Certification #3494.

NCDOT is providing this notice as a courtesy resource with the understanding that no written concurrence is required and no mitigation is necessary. If you have any questions or need additional information, please contact Deanna Riffey at (919) 715-1409. Thank you in advance for your help in this important matter.

Sincerely,

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

Cc:
w/attachment
- Mr. John Hennessy, NCDWQ (2 Copies)
- Mr. Travis Wilson, NCWRC
- Mr. Gary Jordan, USFWS
- Mr. Michael Street, NCDMF
- Dr. David Chang, P.E., Hydraulics
- Mr. Mark Staley, Roadside Environmental
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Jon Nance, P.E., Division Engineer
- Mr. Chris Murray, DEO

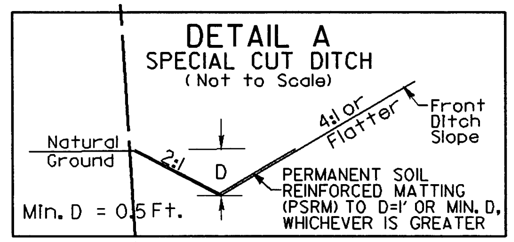
w/o attachment
- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Omar Sultan, Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Mr. David Franklin, USACE, Wilmington
- Mr. John Conforti, PDEA

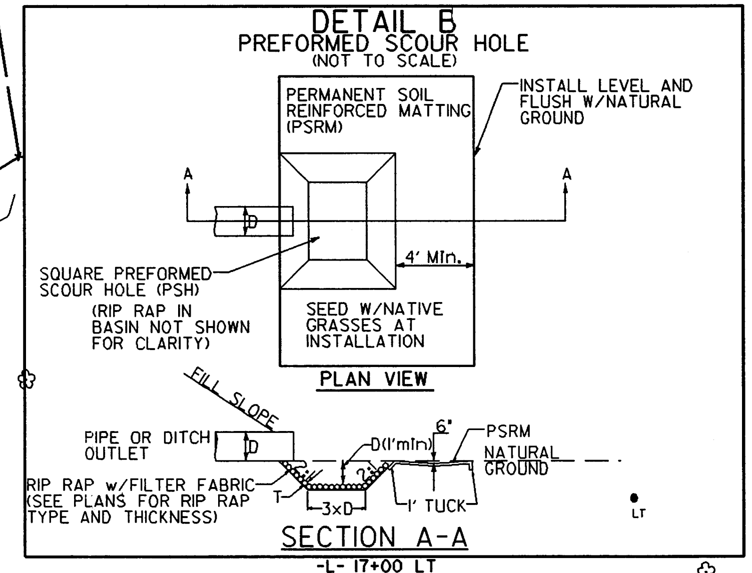
PROJECT REFERENCE NO.	SHEET NO.
B-3530	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

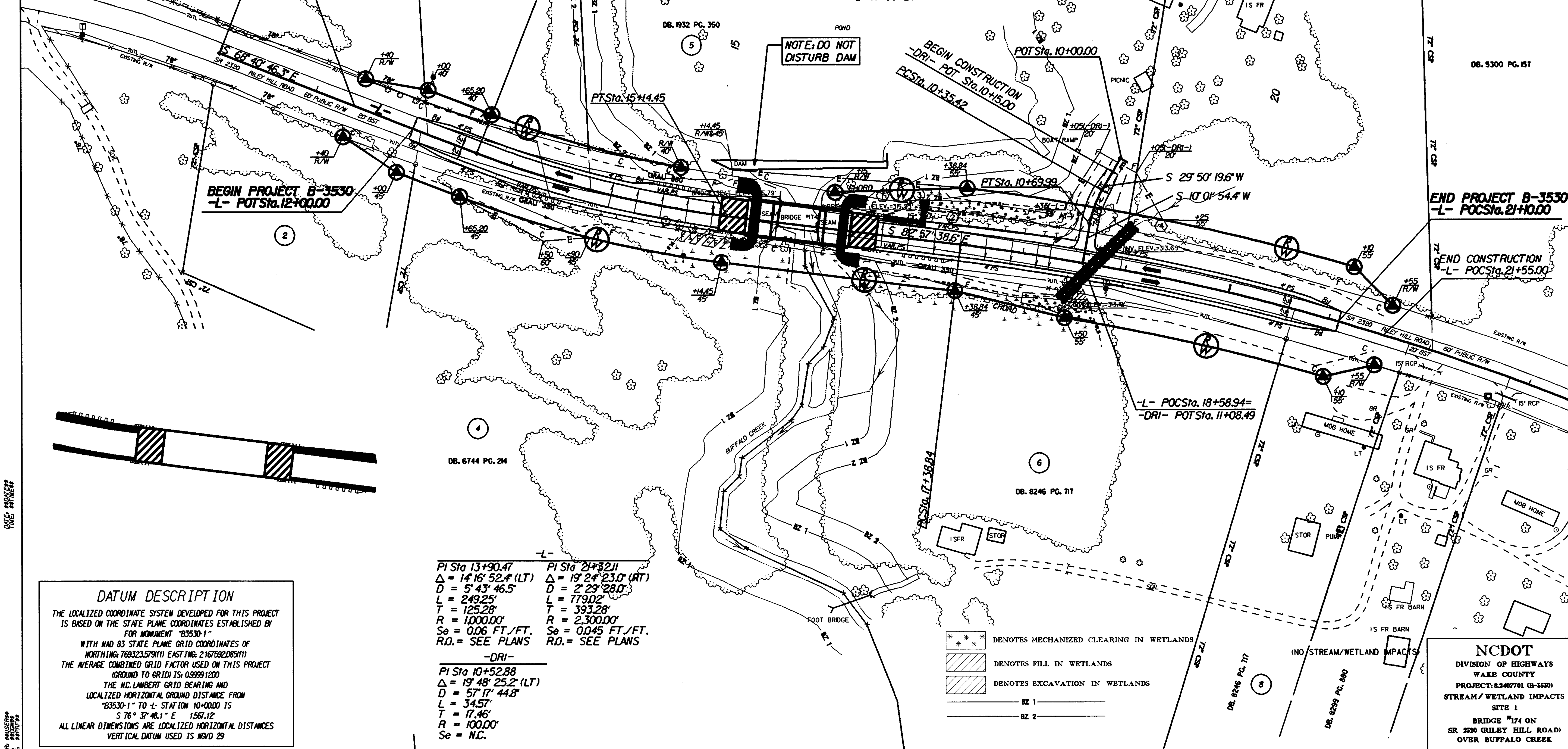
Prepared in the Office of: EARTHTECH
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

GRAPHIC SCALE
50 25 0 50 100
PLANS

REVISIONS







DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY FOR MONUMENT "B3530-1"
WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 769323.579(ft) EASTING: 2167692.085(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99991200
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B3530-1" TO -L- STATION 10+00.00 IS
S 76° 37' 48.1" E 1,567.12'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NGVD 29

-L-

PI Sta 13+90.47	PI Sta 21+32.11
Δ = 14° 16' 52.4" (LT)	Δ = 19° 24' 23.0" (RT)
D = 5° 43' 46.5"	D = 2° 29' 28.0"
L = 249.25'	L = 779.02'
T = 125.28'	T = 393.28'
R = 1,000.00'	R = 2,300.00'
Se = 0.06 FT./FT.	Se = 0.045 FT./FT.
R.O. = SEE PLANS	R.O. = SEE PLANS

-DRI-

PI Sta 10+52.88
Δ = 19° 48' 25.2" (LT)
D = 57° 17' 44.8"
L = 34.57'
T = 17.46'
R = 100.00'
Se = N.C.

DENOTES MECHANIZED CLEARING IN WETLANDS
DENOTES FILL IN WETLANDS
DENOTES EXCAVATION IN WETLANDS
BZ 1
BZ 2

NCDOT
DIVISION OF HIGHWAYS
WAKE COUNTY
PROJECT: 8.2407701 (B-3530)
STREAM/ WETLAND IMPACTS
SITE 1
BRIDGE #174 ON SR 2320 (RILEY HILL ROAD) OVER BUFFALO CREEK
SHEET OF 6/10/2005

USER: $$USER$$
DGN: $$DGN$$
PRF: $$PRF$$
DATE: $$DATE$$
TIME: $$TIME$$

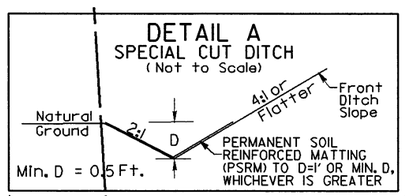
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
B-3530	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

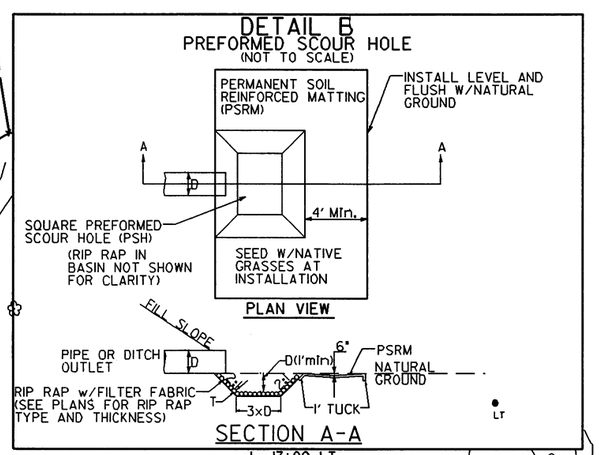
Prepared in the Office of: EARTH TECH
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

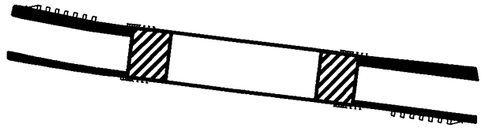
GRAPHIC SCALE
50 25 0 50 100
PLANS

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



DETAIL B
PREFORMED SCOUR HOLE
(NOT TO SCALE)





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ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NGVD 29

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R = 1,000.00'
Se = 0.06 FT./FT.
R.O. = SEE PLANS

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Δ = 19° 24' 23.0" (RT)
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R = 100.00'
Se = N.C.

DENOTES MECHANIZED CLEARING IN WETLANDS
DENOTES FILL IN WETLANDS
DENOTES EXCAVATION IN WETLANDS
BZ 1
BZ 2

(NO STREAM/WETLAND IMPACTS)

NCDOT
DIVISION OF HIGHWAYS
WAKE COUNTY
PROJECT: 8.2407701 (B-3530)
STREAM/WETLAND IMPACTS
SITE 1
BRIDGE #174 ON
SR 2320 (RILEY HILL ROAD)
OVER BUFFALO CREEK
SHEET OF 6/10/2005

DATE: ##DATE##
FILE: ##FILE##
USER: ##USER##
DGN: ##DGN##
REF: ##REF##

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS				SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Mechanized Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Fill In SW (Pond) (ac)	Temp. Fill In SW (ac)	Existing Channel Impacted (ft)	Natural Stream Design (ft)
1	-L- Sta 15+33	100' LONG BRIDGE							0	0	
	TO 16+33	(36' WIDE)									
	15+00-L- Rt	Roadway Fill	0.017								
	17+50 -L- Lt	Roadway Fill (Total Take)	0.004			0.050					
	18+70-L- Rt	2 @ 42" RCP	0.006		0.004	0.019					
TOTALS:			0.027	0	0.004	0.069	0	0	0	0	0

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

REPLACE BRIDGE No 174
OVER BUFFALO CREEK
ON SR 2320
WAKE COUNTY
PROJECT 8.2407701 B-3530

SHEET OF 6/10/2005

Form Revised 3/22/01

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: B-3530 Applicant/Owner: NCDOT Investigator: D. Riffey and C Murray	Date: 5/31/05 County: Wake State: NC
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: Upland

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Quercus prinus	T	FacU	9.		
2. Ulmus americana	T	FacW	10.		
3. Liriodendron tulipifera	T	Fac	11.		
4. Carpinus caroliniana	T	Fac	12.		
5. Quercus stellata	T	FacU	13.		
6. Smilax sp.	V	Fac	14.		
7. Microstegium vimineum	H	Fact	15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 57%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

Depth to Free Water in Pit: 0 (in.)

Depth to Saturated Soil: 7/2 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Applying gravelly sandy loam

Drainage Class: Well drained

Taxonomy (Subgroup): Typic Hapludults

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR 3/3			Loam
6-7		10YR 5/6	10YR 3/3		Loam
8-12		10YR 6/6			Clay Loam

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: B-3530 Applicant/Owner: NCDOT Investigator: D. Lifsey and C. Murray	Date: 5/31/05 County: Wake State: NC
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: Wetland

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Taxodium distichum	T	OBL
2. Saururus cernuus	H	OBL
3. Impatiens capensis	H	FacW
4. Carex sp.	H	FacW
5. Myriophyllum aquaticum	H	OBL
6. Juncus effusus	H	FacW+
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 1 (in.)

Depth to Free Water in Pit: 0 (in.)

Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- X Inundated
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- X FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Wehadkee and Bibb

Drainage Class: Poorly drained (P)

Taxonomy (Subgroup): Fluvaquentic Haplaquepts

Field Observations Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-1		10YR 3/2			SA SLT
1-10		10YR 5/1			SA CM
10-10+		10YR 6/1			SA CM

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- X Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- X Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)

Wetland Hydrology Present? (Yes) No

Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: