



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

May 2, 2012

U.S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

NC Dept. of Environment and Natural Resources
Division of Water Quality
1560 Mail Service Center
Raleigh, NC 27699-1560

ATTN: Ms. Sarah Elizabeth Hair
NCDOT Coordinator

Mr. Brian Wrenn
Transportation Coordinator

Dear Madam and Sir:

Subject: Revised Individual Permit Application and Request for the lifting of "On Hold" Status for the Section 401 Certification for the upgrade of existing Mallard Creek Road (SR 2467) from H.T. Harris Boulevard (SR 2665) to the intersection of Hubbard Road (SR 2494) and continuing southeast on new location to Sugar Creek Road (SR 2480) with an additional extension from Rumble Road (SR 2501) to Neal Road (SR 2498) in Mecklenburg County. Federal Aid Project No. STPDA-5238 (4) & (5), Division 10, TIP U-2507 A, WBS 34811.2.3.

Reference: Section 404 and 401 Permit Application dated December 16, 2011.
NC DWQ Incomplete Application Notification ("On-hold" Notice) dated Feb. 15, 2012.

This letter is in response to the NC Division of Water Quality's Incomplete "On-Hold" Notification, as well as to revise our application for the inadvertent omission of 16 feet of bank stabilization at Permit Site 6. This increases the overall bank stabilization to 147 linear feet. The impacts to wetlands, temporary stream impacts and mitigation numbers have not changed.

The concerns identified in the February 15, 2012 on hold notification, as well as the NCDOT's response are listed below:

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1548 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000
FAX: 919-250-4224

WEBSITE: WWW.NCDOT.ORG/DOH/PRECONSTRUCT/PE/

LOCATION:
CENTURY CENTER, BUILDING A
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

NCDWQ Request:

1. The plans depict a dissipator pad with Class B riprap at the end of a 30" CSP. This CSP discharges to a relocated, jurisdictional stream. DWQ prefers that all riprap be restricted to the streambanks. If riprap is proposed in the streambed, it must be embedded below the streambed elevation to allow for low flow of water and aquatic passage. Additionally, DWQ would prefer the use of larger riprap so that the riprap will not be moved downstream and into the stream during rain events.

NCDOT Response:

Site 1 has been changed to Class I, and this outlet protection will line the banks only, therefore no burial will be necessary. Permit drawings sheets 4 and 5 have been revised to depict this change and are included in this response.

NCDWQ Request:

2. As part of the relocation of the stream at Site 1, Class B riprap and filter stone rock check dams will be installed to slow the velocity of the water and provide grade control. DWQ would prefer that filter stone be eliminated from the dams as it will usually move downstream in rain events, especially if the discharge rate is high, and that larger riprap be used. DWQ would request that NCDOT investigate the use of larger riprap and coir fiber matting (in lieu of filter stone) to allow sediment to fill voids and promoting a more natural stream environment given the proposed slope of the relocated stream is 1.8%.

NCDOT Response:

The Check Dams were requested by the agencies at the 4B meeting because the topography did not allow for meanders. Detail L has been revised to call for larger, Class I Rip Rap. The purpose of the filter stone is to fill the voids of the larger rip rap. Otherwise the water would move through the riprap, and not provide the "ponding affect" to hopefully reduce velocity and promote weir flow.

NCDWQ Request:

3. [Site 2] Class I riprap is proposed at the outlet of a 7x8 RCBC. DWQ would prefer the use of Class I riprap at the higher end of the specification range or the use of Class II riprap at the outlet of the culvert.

NCDOT Response:

This site has been changed to larger, Class II rip rap. Permit drawings sheets 4 and 5 have been revised to depict this change and are included in this response.

NCDWQ Request:

4. An eroding storm water outfall dischargers to the pond at Permit Site 3. During a site visit, DWQ requested that the storm water outfall be stabilized (within NCDOT's TDE) since a jurisdictional stream runs through the existing pond which is proposed to be temporarily impacted (drained). Provide a detail indicating that the storm water outfall will be stabilized.

NCDOT Request:

This note was added to the plans, "Stabilize drainage ditch with Class "B" Rip Rap from outlet of pipe to pond or channel after pond is drained. The Final Design to be determined by Engineer in the field." This will hopefully ensure a stable transition from this system into the "new" stream that appears once the pond is drained. Permit drawings sheets 10 and 11 have been revised to depict this change and are included in this response.

NCDWQ Request:

5. Based on a site visit, it was determined that the pond at Permit Site 3 is fed by a jurisdictional stream. This stream must be depicted on the plans so as to avoid any impacts to the stream. Impacts have not been requested as part of this application, nor are they authorized.

Additionally, the erosion control plans will need to clearly provide for a diversion and/or pump around during construction as the pond that is fed by this stream is proposed to be drained.

NCDOT Response:

Since the stream location is unknown until the pond is drained, a note has been added to the drawings indicating, "Stabilize streams as they appear during dewatering."

The erosion control plans will provide the information regarding the pump around (or appropriate method) with the understanding that the system is jurisdictional.

NCDWQ Request:

6. Class I riprap is being proposed at the outlet of the 72" RCP. DWQ would prefer Class I riprap at the higher end of the specification range or the use of Class II riprap at the outlet of the pipe.

NCDOT Response:

This site has been changed to Class II rip rap. Permit drawings sheets 10 and 11 have been revised to depict this change and are included in this response.

NCDWQ Request

7. Permit Drawing Sheet 15 of 23 depicts indicates the use of "Rip Rap Pad for Jur. Stream" and "Rip Rap on Banks Only". DWQ prefers that all riprap be restricted to the stream banks. If riprap is proposed in the streambed, it must be embedded below the streambed elevation to allow for low flow of water and aquatic passage.

NCDOT Response:

"Rip rap pad for jurisdictional stream" is another term for placing rip rap on the banks only.

NCDWQ Request:

8. A stormwater ditch with a slope of 11% and a discharge angle of 90 degrees is proposed at the outlet end of the 48" PCP at Permit Site 4. DWQ is very concerned with stream stability due to the stormwater discharge in this area. NCDOT is advised that if a streambank destabilization occurs as a result of this discharge, corrective actions to stabilize the stream will be required.

NCDOT Response:

NCDOT Hydraulics is comfortable with the existing design as the proposed ditches match the existing stable ditches alignment. The existing and proposed ditches are rip rapped to prevent erosion. There will be no significant increase in storm water quantity or velocity into the system.

NCDWQ Request:

9. Permit Drawings Sheet 19 of 23 depicts a Class B riprap pad in the jurisdictional stream (Permit Site 6). The application indicates impacts to this stream of 12 linear feet for a pipe extension only. If riprap is proposed, it must be placed on the stream banks only and accounted for the impact table as bank stabilization.

NCDOT Response:

The rip rap is necessary at this site. The revised permit drawings (Sheets 19 and 20) are attached that depict this change as "on banks only". The additional rip rap increases the bank stabilization by 16 feet at Site 6. No additional mitigation is proposed. A revised impact summary table (permit drawings sheet 23 of 23) is also included in this response.

Based on the information above, the Department hereby requests the lifting of the "On Hold" Status and subsequent processing of the application thereof.

A copy of this request and its distribution list 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 contact Michael Turchy at maturchy@ncdot.gov or (919) 707-6157.

Sincerely,



for Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis

cc: NCDOT Permit Application Standard Distribution List



North Carolina Department of Environment and Natural Resources
Division of Water Quality

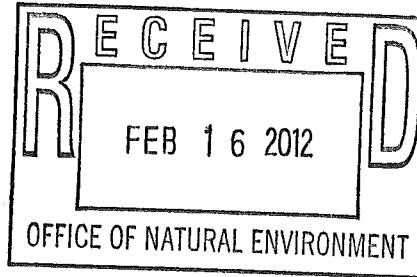
Beverly Eaves Perdue
Governor

Charles Wakild, P. E.
Director

Dee Freeman
Secretary

CERTIFIED MAIL 7009 2250 0004 3265 6698
RETURN RECEIPT REQUESTED

Dr. Gregory J. Thorpe
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699



February 15, 2012

SUBJECT: Proposed Upgrade of Existing Mallard Creek Road (SR 2467) from H.T. Harris Boulevard (SR 2665) to the Intersection of Hubbard Road (SR 2494) and Continuing Southeast on New Location to Sugar Creek Road (SR 2480) with an Additional Extension from Rumble Road (SR 2501) to Neal Road (SR 2498), Federal Aid Project No. STPDA-5238(4) & (5), WBS 34811.2.3, TIP U-2507A, Mecklenburg County, DWQ No. 2011-1102

Dear Dr. Thorpe:

The Division of Water Quality (DWQ) has reviewed your submittal for a 401 Water Quality Certification for the aforementioned project. A review of your request revealed it is lacking the necessary information required for making an informed permit decision. The permit application was deficient in the following areas:

1. The plans depict a dissipator pad with Class B riprap at the end of a 30" CSP. This CSP discharges to a relocated, jurisdictional stream. DWQ prefers that all riprap be restricted to the streambanks. If riprap is proposed in the streambed, it must be embedded below the streambed elevation to allow for low flow of water and aquatic passage. Additionally, DWQ would prefer the use of larger riprap so that the riprap will not be moved downstream and into the stream during rain events.
2. As part of the relocation of the stream at Site 1, Class B riprap and filter stone rock check dams will be installed to slow the velocity of water and provide grade control. DWQ would prefer that filter stone be eliminated from the dams as it will usually move downstream in rain events, especially if the discharge rate is high, and that larger riprap be used. DWQ would request that NCDOT investigate the use of larger riprap and coir fiber matting (in lieu of filter stone) to allow sediment to fill in the voids and promoting a more natural stream environment given that the proposed slope of the relocated stream is 1.8%.
3. Class I riprap is proposed at the outlet of the 7'x8' RCBC. DWQ would prefer the use of Class II riprap at the higher end of the specification range or the use of Class II riprap at the outlet of the culvert.
4. An eroding stormwater outfall discharges to the pond at Permit Site 3. During a site visit, DWQ requested that the stormwater outfall be stabilized (within NCDOT's TDE) since a jurisdictional stream runs through the existing pond which is proposed to be temporarily impacted (drained). Provide a detail indicating that the stormwater outfall will be stabilized.
5. Based on a site visit, it was determined that the pond at Permit Site 3 is fed by a jurisdictional stream. This stream must be depicted on the plans so as to avoid any impacts to the stream. Impacts have not been requested as part of this application, nor are they authorized.

Mooresville Regional Office
Location: 610 East Center Ave., Suite 301 Mooresville, NC 28115
Phone: (704) 663-1699 \ Fax: (704) 663-6040 \ Customer Service: 1-877-623-6748
Internet: <http://portal.ncdenr.org/web/wq>

An Equal Opportunity \ Affirmative Action Employer

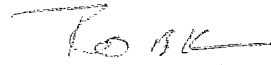
One
North Carolina
Naturally

Additionally, the erosion control plans will need to clearly provide for a diversion and/or pump around during construction as the pond that is fed by this stream is proposed to be drained

6. Class I riprap is proposed at the outlet of the 72" RCP. DWQ would prefer the use of Class I riprap at the higher end of the specification range or the use of Class II riprap at the outlet of the pipe.
7. Permit Drawing Sheet 15 or 23 depicts indicates the use of "Rip Rap Pad for Jur. Stream" and "Rip Rap on Banks Only". DWQ prefers that all riprap be restricted to the streambanks. If riprap is proposed in the streambed, it must be embedded below the streambed elevation to allow for low flow of water and aquatic passage.
8. A stormwater ditch with a slope of 11% and a discharge angle of 90 degrees is proposed at the outlet end of the 48" RCP at Permit Site 4. DWQ is very concerned with stream stability due to the stormwater discharge in this area. NCDOT is advised that if streambank destabilization occurs as a result of this discharge, corrective actions to stabilize the stream will be required.
9. Permit Drawing Sheet 19 of 23 depicts a Class B riprap pad in the jurisdictional stream (Permit Site 6). The application indicates impacts to this stream of 12 linear feet for a pipe extension only. If riprap is proposed, it must be placed on the streambanks only and accounted for the impact table as bank stabilization.

Therefore, pursuant to 15A NCAC 2H .0507(a)(5), we will have to place the permit modification request on hold until we are supplied with the necessary information. You have 21 days to respond in writing with the requested information or notification to this office that the information is forthcoming. If, at the end of the 21 days, this office has not received this information in writing, we will assume you are withdrawing your application and it will be returned. Furthermore, until the information is received by the NC Division of Water Quality, we request, by copy of this letter, that the US Army Corps of Engineers place the permit modification request on hold. If you have any questions or require additional information, please contact Polly Lespinasse at (704) 663-1699.

Sincerely,

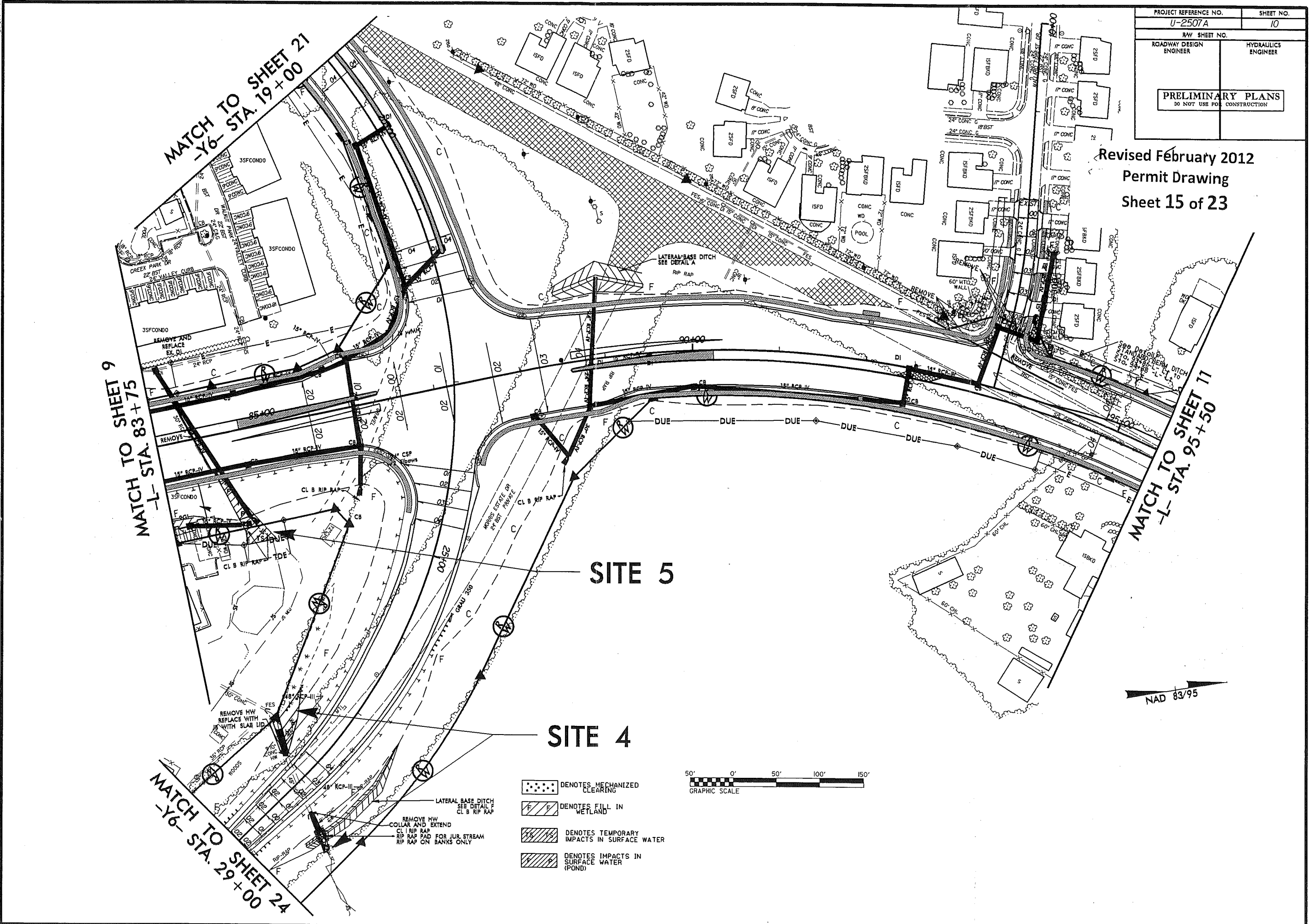


for Charles Wakild, P.E.
Director

cc: Sarah Hair, US Army Corps of Engineers, Asheville Field Office
Michael Turchy, NCDOT PDEA
Sonia Carrillo, NCDWQ Transportation Permitting Unit
File Copy

PROJECT REFERENCE NO. U-2507A	SHEET NO. 10
RAW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Revised February 2012
Permit Drawing
Sheet 15 of 23



MATCH TO SHEET 9
-L- STA. 83+75

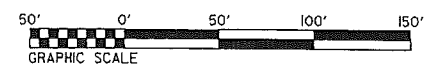
MATCH TO SHEET 24
-Y6- STA. 29+00

MATCH TO SHEET 11
-L- STA. 95+50

SITE 5

SITE 4

- DENOTES MECHANIZED CLEARING
- DENOTES FILL IN WETLAND
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES IMPACTS IN SURFACE WATER (POND)



NAD 83/95

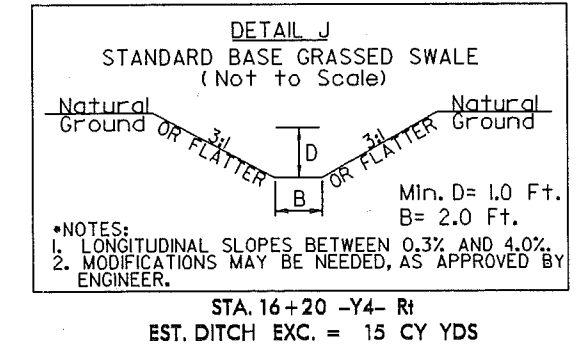
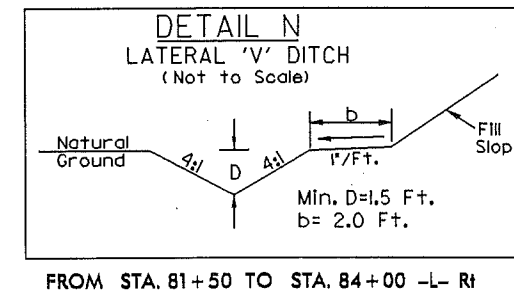
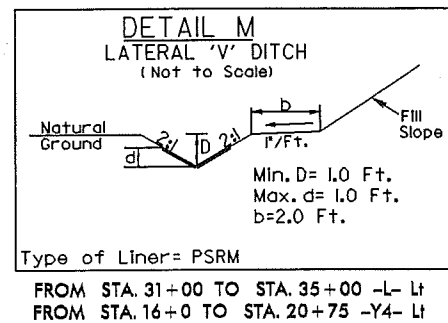
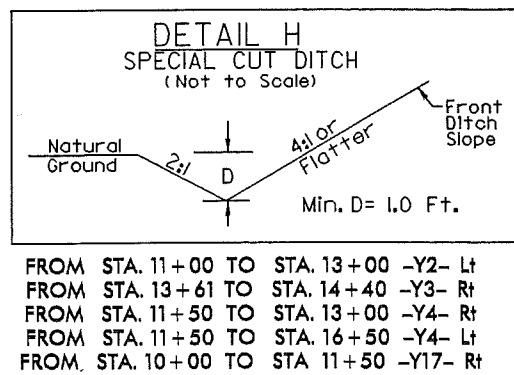
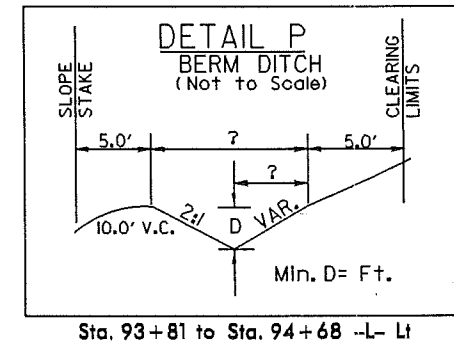
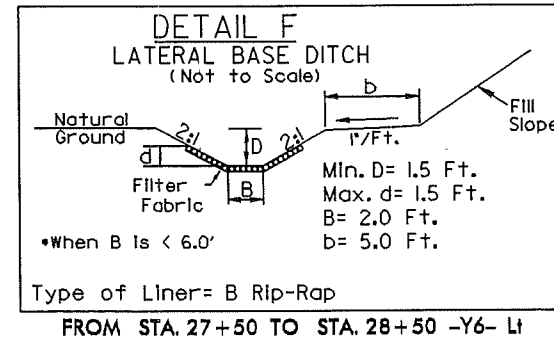
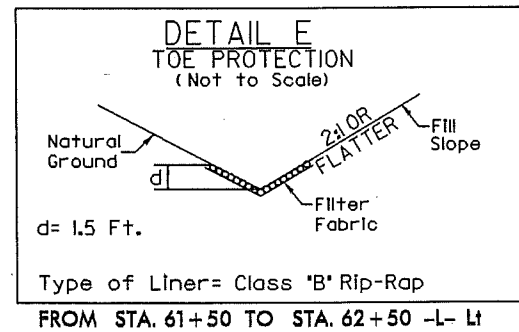
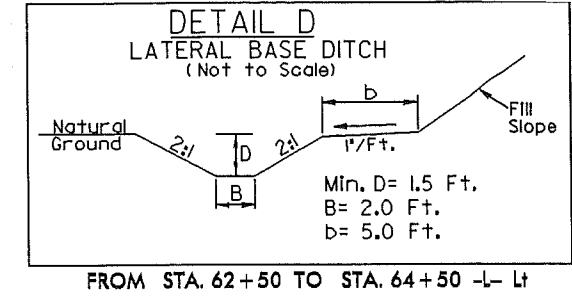
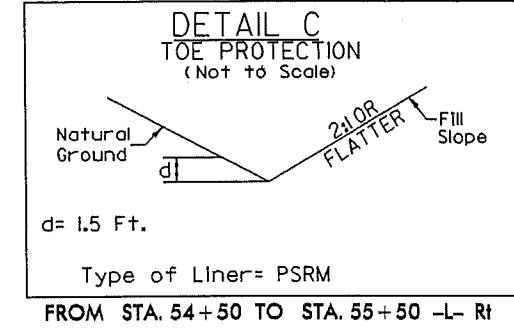
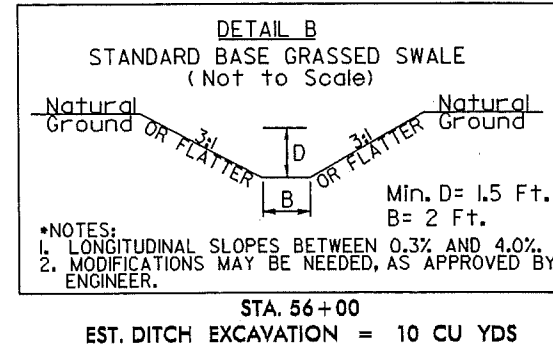
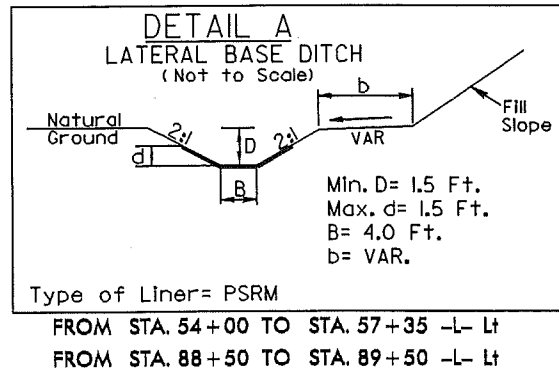
8/17/95
SYSTEMS ENGINEERING

6/2/99
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100

DRAINAGE DITCH DETAILS

PROJECT REFERENCE NO. U-2507A	SHEET NO. 2-K
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small>	
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	

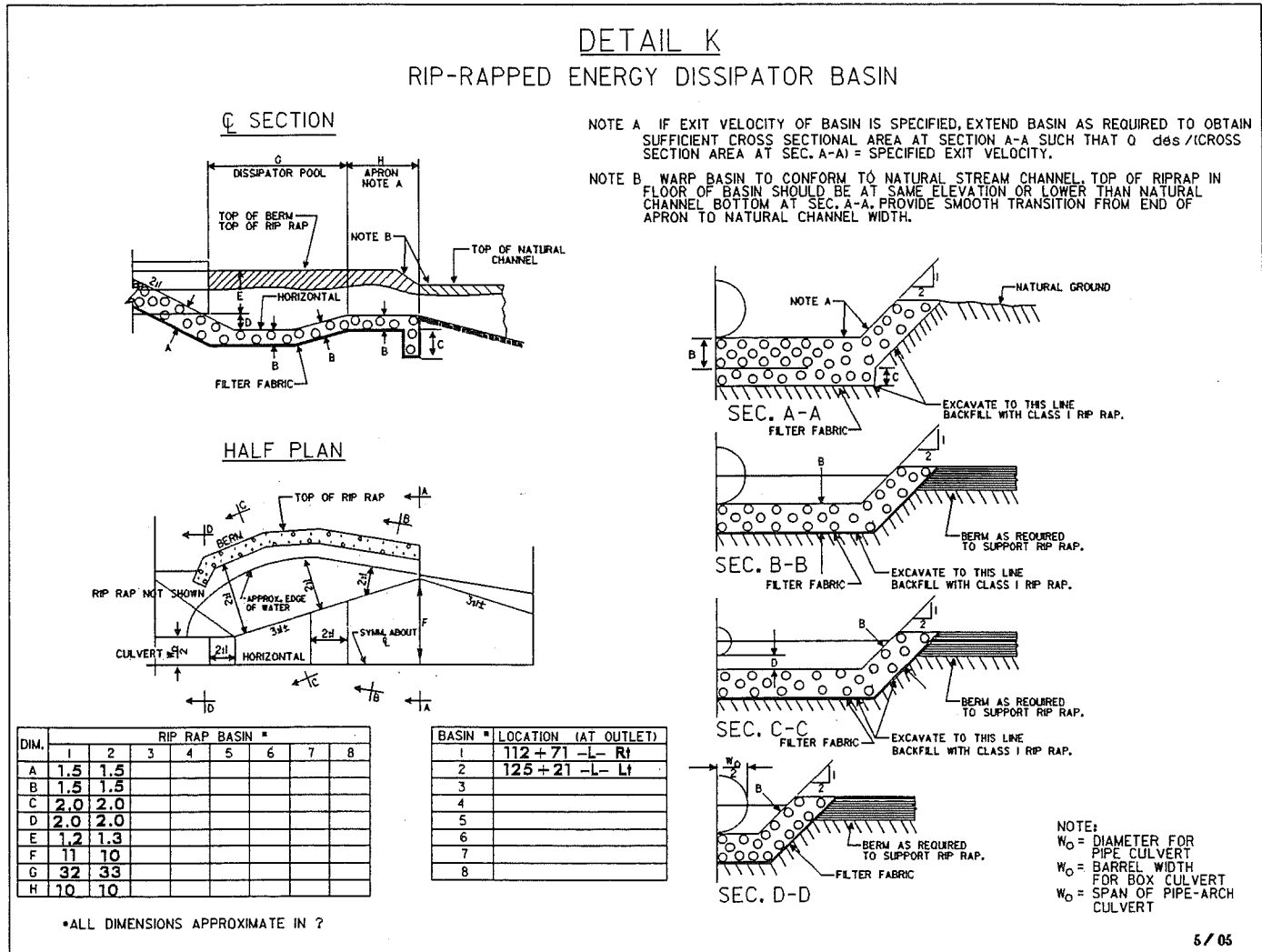
Revised February 2012
 Permit Drawing
 Sheet 2 of 23



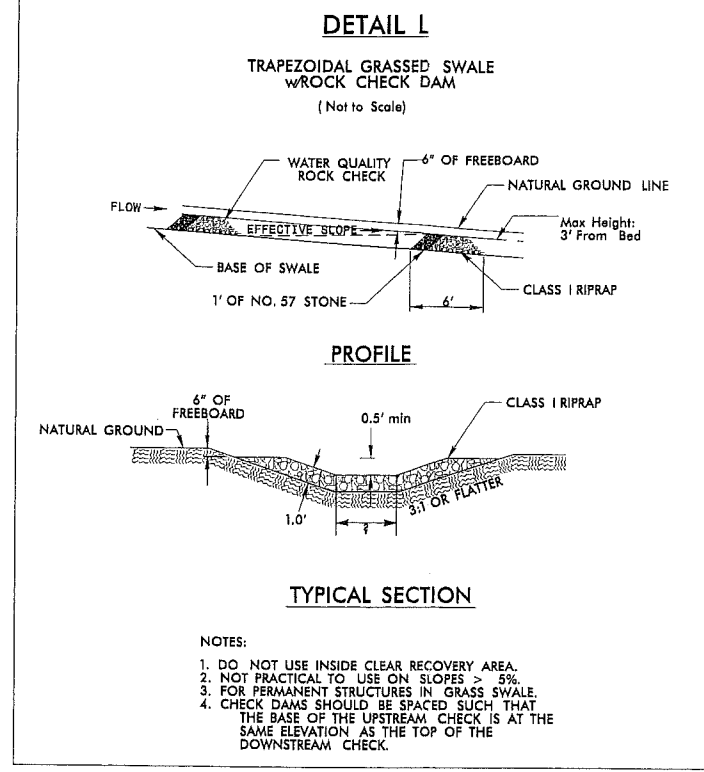
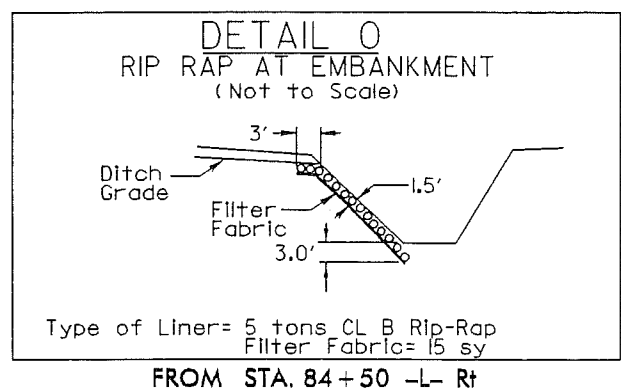
DRAINAGE DITCH DETAILS

PROJECT REFERENCE NO. U-2507A	SHEET NO. 2-L
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

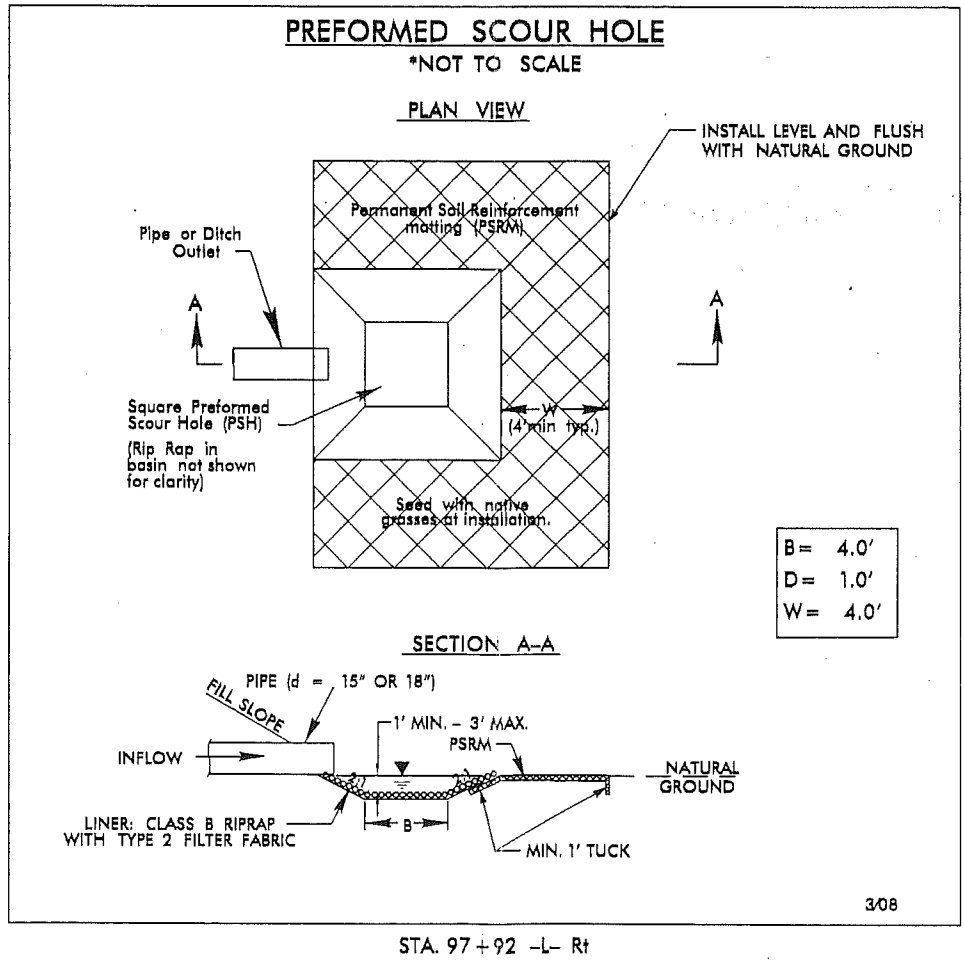
Revised February 2012
 Permit Drawing
 Sheet 3 of 23



Sta 112+71 -L- Rt Est 175 cu yds excavation Est 80 tons Class #1 Rip Rap
 Sta 125+21 -L- Lt Est 150 cu yds excavation Est 70 tons Class #1 Rip Rap



FROM STA. 54+00 TO STA. 57+35 -L- Lt
 2 Tons of Class "B" Rip Rap per check dam
 0.5 Tons of 57 stone per check dam
 Min of 4 check dams required



WETLAND PERMIT IMPACT SUMMARY												
Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	50+59 to 52+15-L- RT	Fill	0.07			0.04						
	51+50 to 53+23-L-LT	Fill					<0.01	<0.01	152	10		
	53+75 to 58+49 -L-	Fill					0.04	<0.01	552	10		
	53+75 to 53+90-L-LT	Bank Stabilization					<0.01		22			
2	57+19 to 57+58-L-	Bank Stabilization					0.01	0.01	72	76		
	57+44 to 58+30-L-	7' x 8" RCBC					0.03		214			
3 *	63+89 to 67+58-L- LT	Fill					0.26	0.82				
	63+88 to 64+23-L- RT	Fill	0.01									
	63+20 to 63+21-L-RT	Bank Stabilization					<0.01	<0.01	19			
4	27+14 to 27+83-Y6-RT	Pipe Extension	0.01			0.01	<0.01		44			
		Bank Stabilization					<0.01	<0.01	34	10		
5 *	84+64-L- RT	Fill					0.01	0.02				
6	17+66 to	Fill				0.01	<0.01		28			
	17+98-Y13- LT											
TOTALS:			0.09			0.06		0.35	0.85	1137	106	

* Pond/Basin

Revised February 2012
 Permit Drawing
 Sheet 23 of 23

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

COUNTY
 WBS - 34811.1.1 (U-2507A)