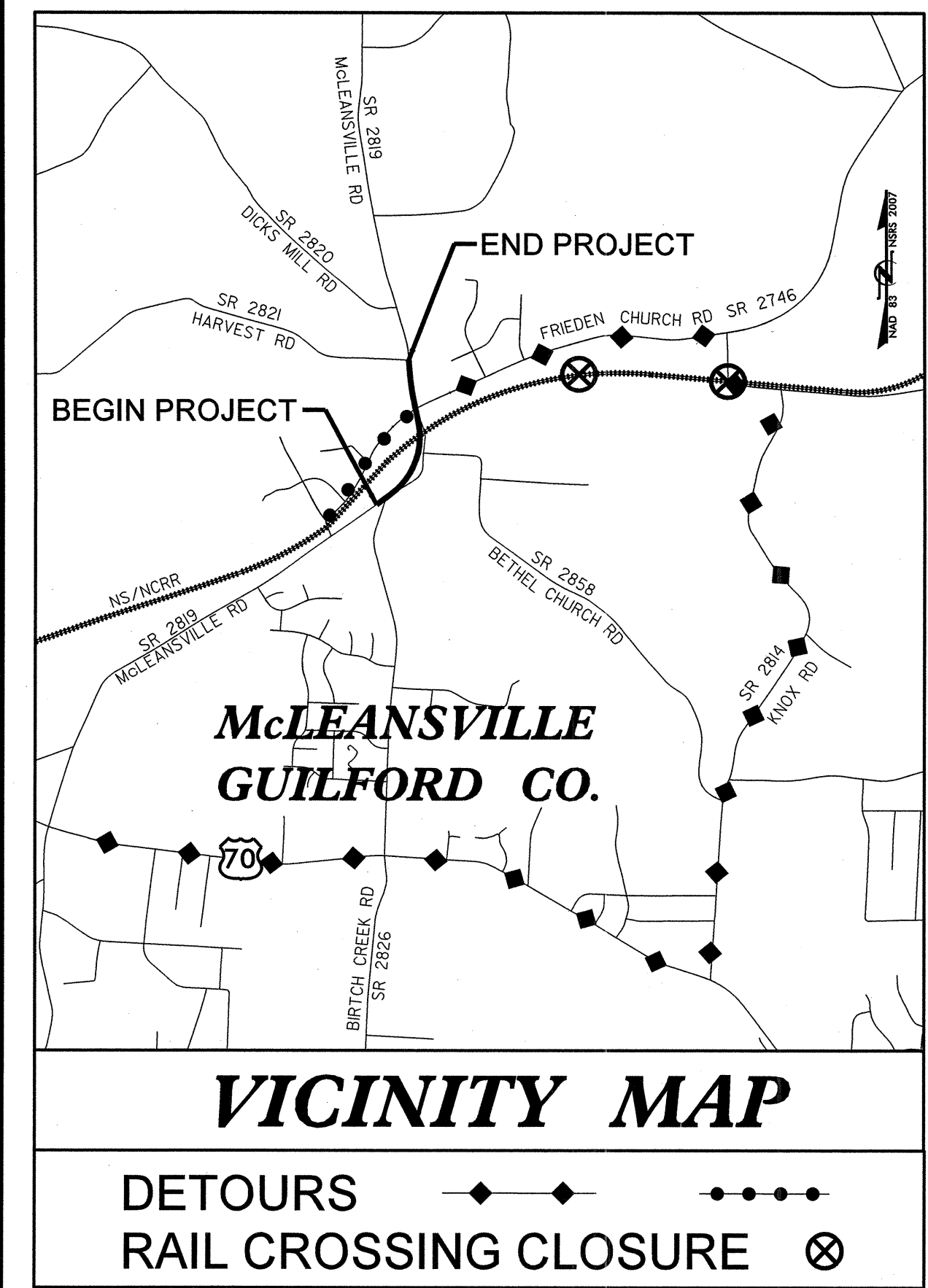


TIP PROJECT: P-5204



NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

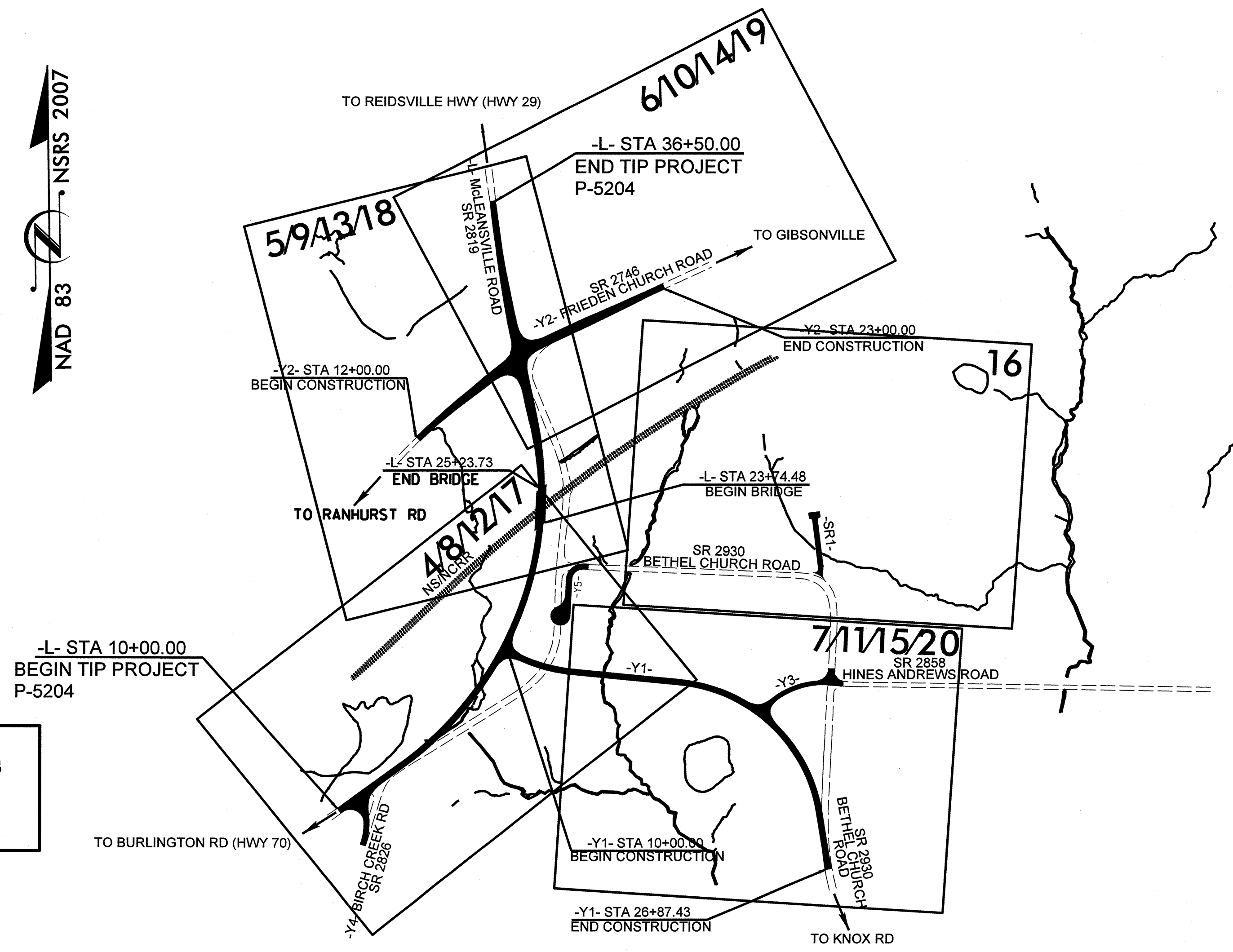
THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR INTERMEDIATE AND FINAL PHASE OF CONSTRUCTION.

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
GUILFORD COUNTY
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

SR 2819 (McLEANSVILLE ROAD) GRADE SEPARATION OVER NSNCRR RAILROAD FROM SR 2826 TO NORTH OF SR 2746



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	P-5204	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
52400.1.STRO3TIB	FRA-FR-HSR-0006-10-01-00	RAIL DIVISION	

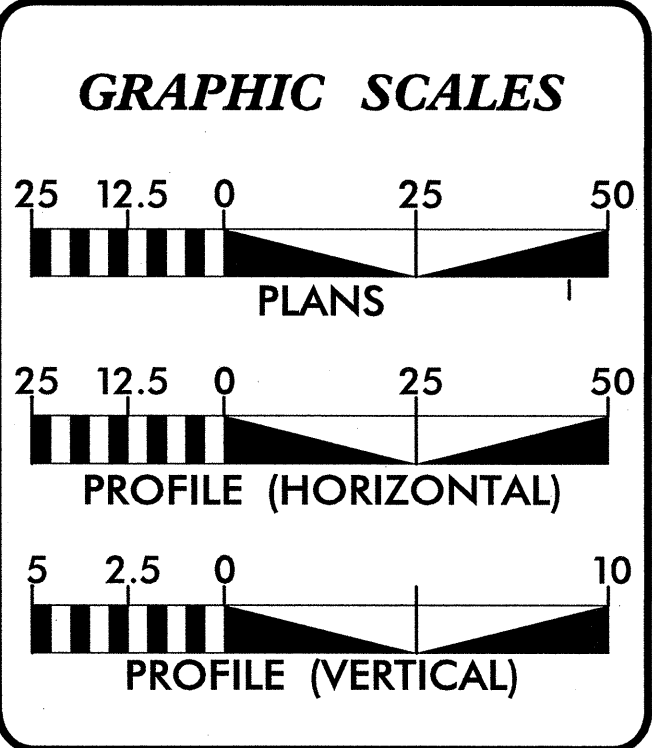
EROSION AND SEDIMENT CONTROL MEASURES

Seq. #	Description	Symbol
1630.03	Temporary Silt Ditch	[Symbol]
1630.05	Temporary Diversion	[Symbol]
1605.01	Temporary Silt Fence	[Symbol]
1606.01	Special Sediment Control Fence	[Symbol]
1622.01	Temporary Berms and Slope Drains	[Symbol]
1630.02	Silt Basin Type B	[Symbol]
1633.01	Temporary Rock Silt Check Type-A	[Symbol]
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	[Symbol]
1633.02	Temporary Rock Silt Check Type-B	[Symbol]
	Wattle / Coir Fiber Wattle	[Symbol]
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	[Symbol]
1634.01	Temporary Rock Sediment Dam Type-A	[Symbol]
1634.02	Temporary Rock Sediment Dam Type-B	[Symbol]
1635.01	Rock Pipe Inlet Sediment Trap Type-A	[Symbol]
1635.02	Rock Pipe Inlet Sediment Trap Type-B	[Symbol]
1630.04	Stilling Basin	[Symbol]
1630.06	Special Stilling Basin	[Symbol]
	Rock Inlet Sediment Trap:	
1632.01	Type A	[Symbol]
1632.02	Type B	[Symbol]
1632.03	Type C	[Symbol]
	Skimmer Basin	[Symbol]
	Tiered Skimmer Basin	[Symbol]
	Infiltration Basin	[Symbol]

EROSION CONTROL DRAWINGS

INDEX OF SHEETS

EC-1	TITLE SHEET/LEGEND
EC-2	DETAIL: COIR WATTLE W/PAM
EC-2A	DETAIL: SKIMMER BASIN
EC-3	SOIL STABILIZATION SUMMARY
EC-3A	SOIL STABILIZATION TIMEFRAMES
EC-4 - EC-7	CLEAR & GRUB PLAN (PSH 4-7)
EC-8 - EC-11	INTERMEDIATE PLAN (PSH 4-7)
EC-12 - EC-16	FINAL PLAN (PSH 4-8)
EC-17 - EC-21	PLANTING PLAN (PSH 4-8)
RF-1 - RF-2	DETAIL: REFORESTATION



ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-8888 NCBEES #F-0326

JOHN F. OGLESBY, PE, CPESC
LEVEL III DESIGNER NAME

3308
LEVEL III CERTIFICATION NO.

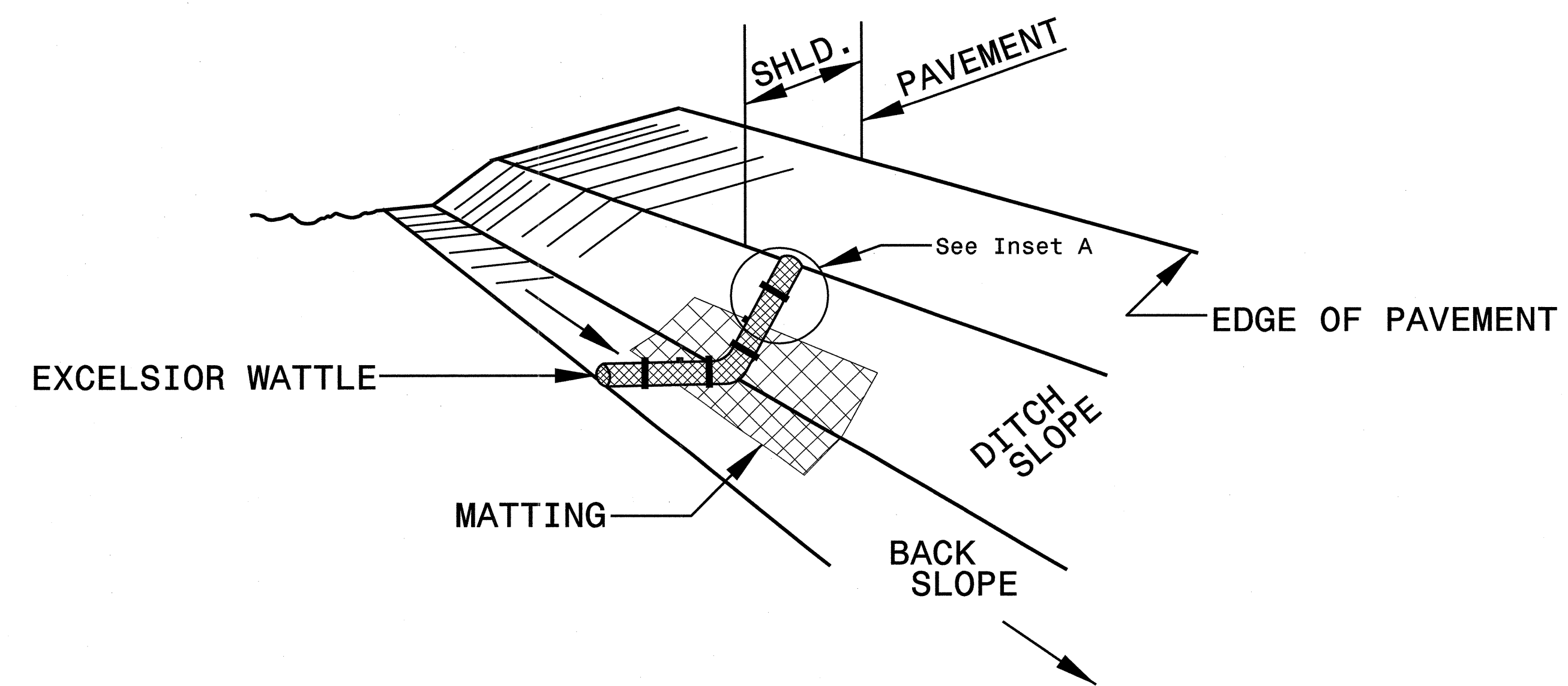
Roadway Standard Drawings

The following roadway English standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

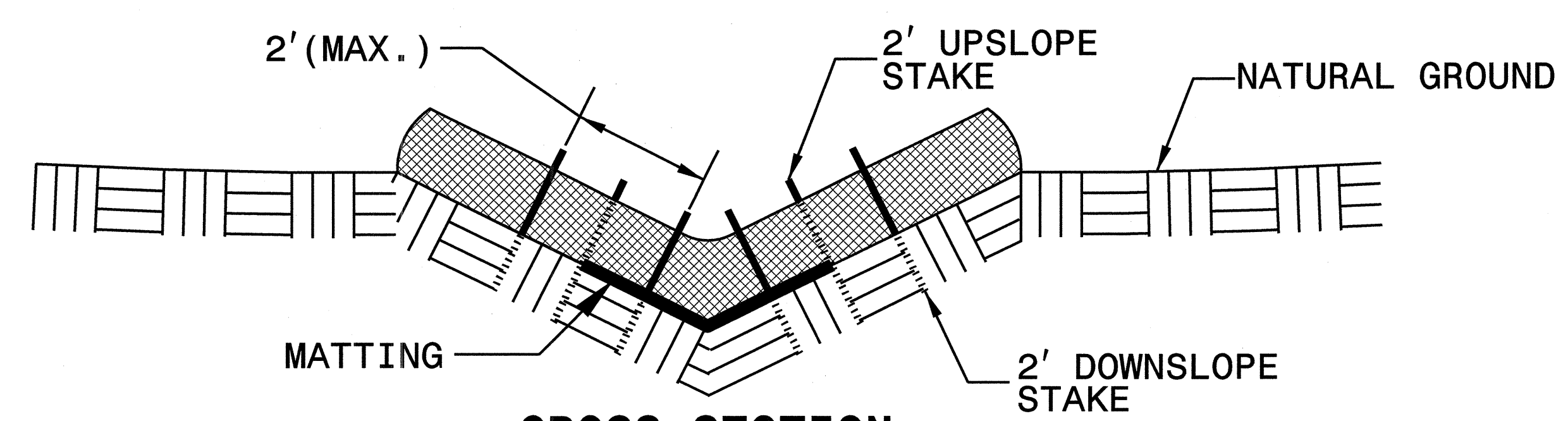
1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

PROJECT REFERENCE NO. <i>P-5204</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

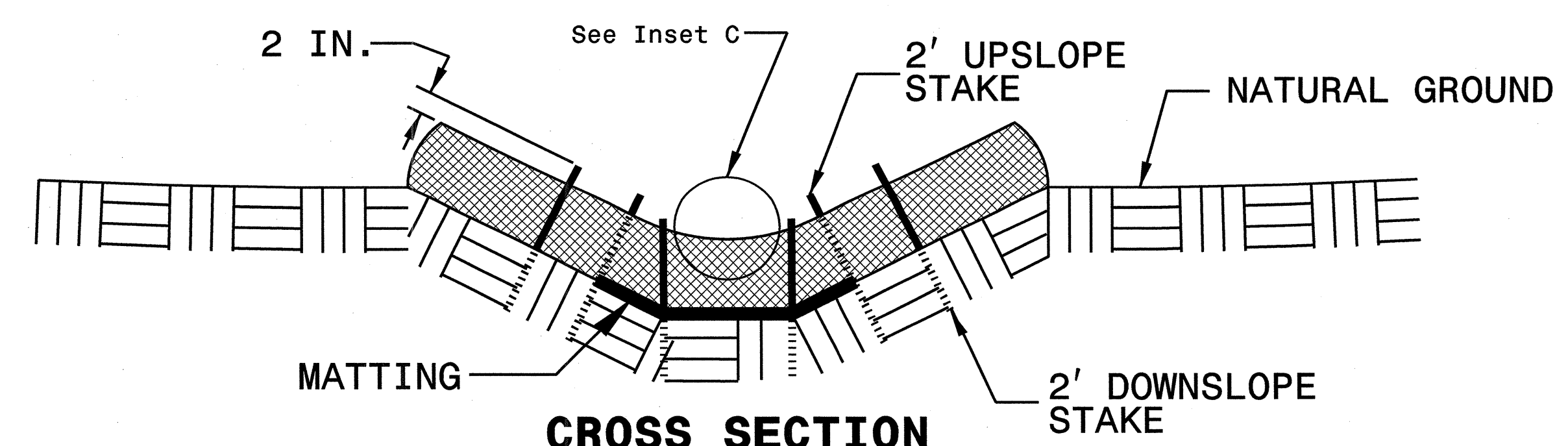
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



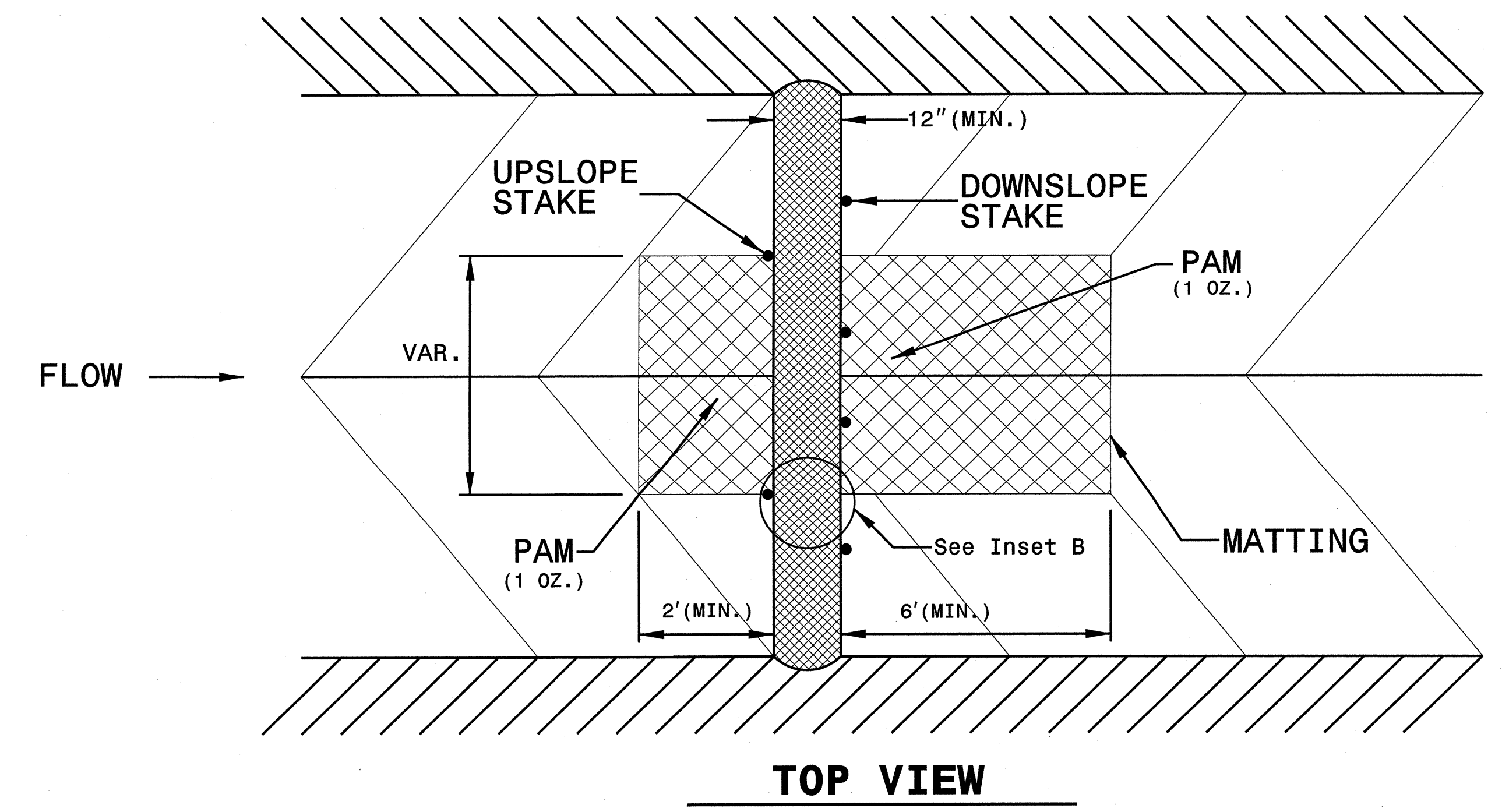
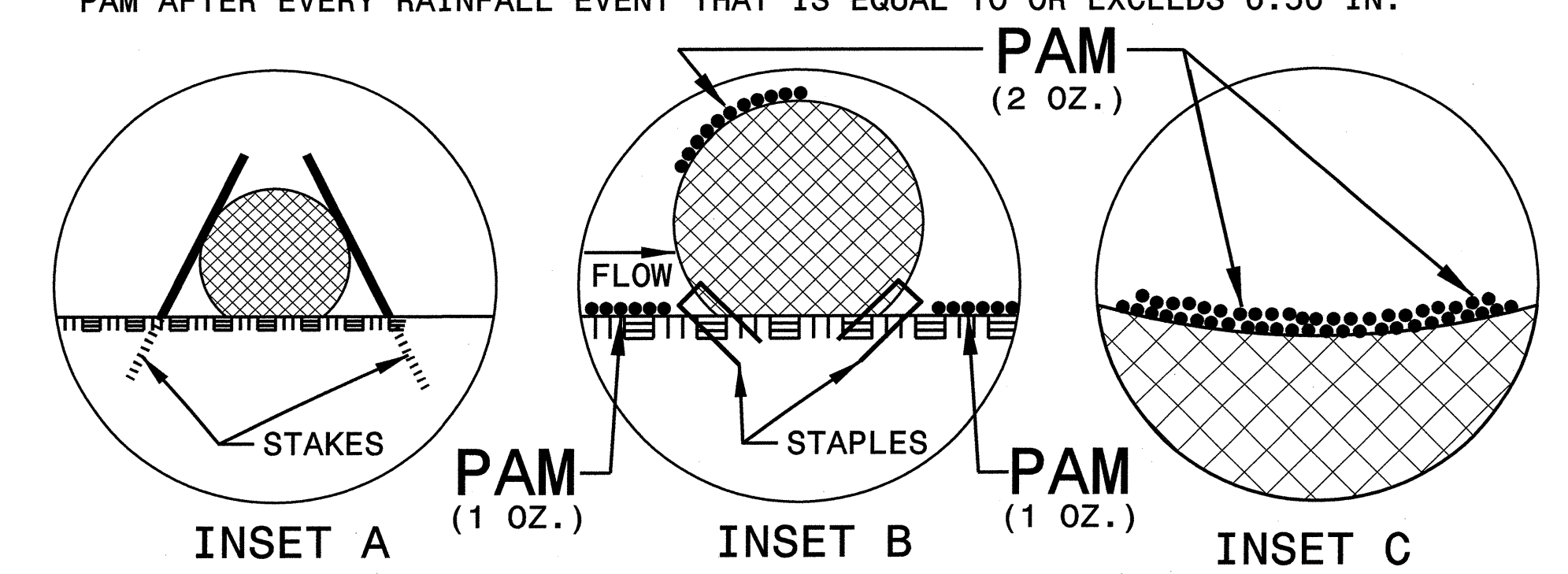
CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

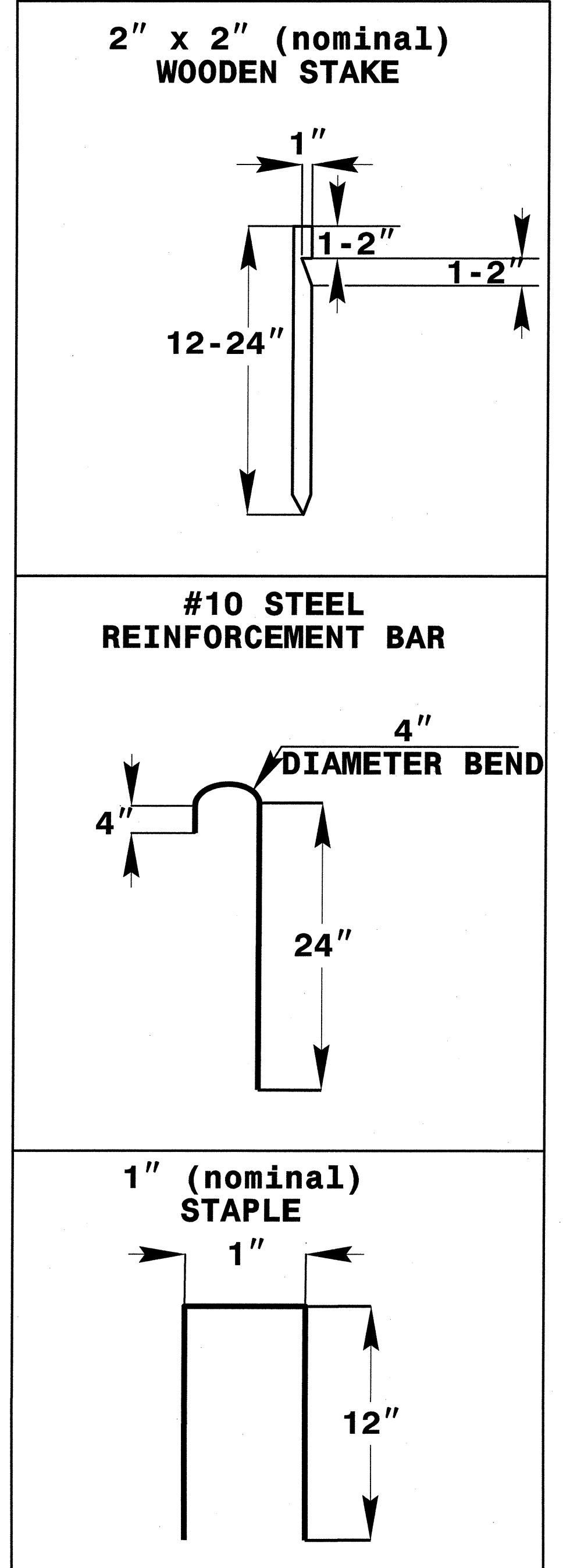
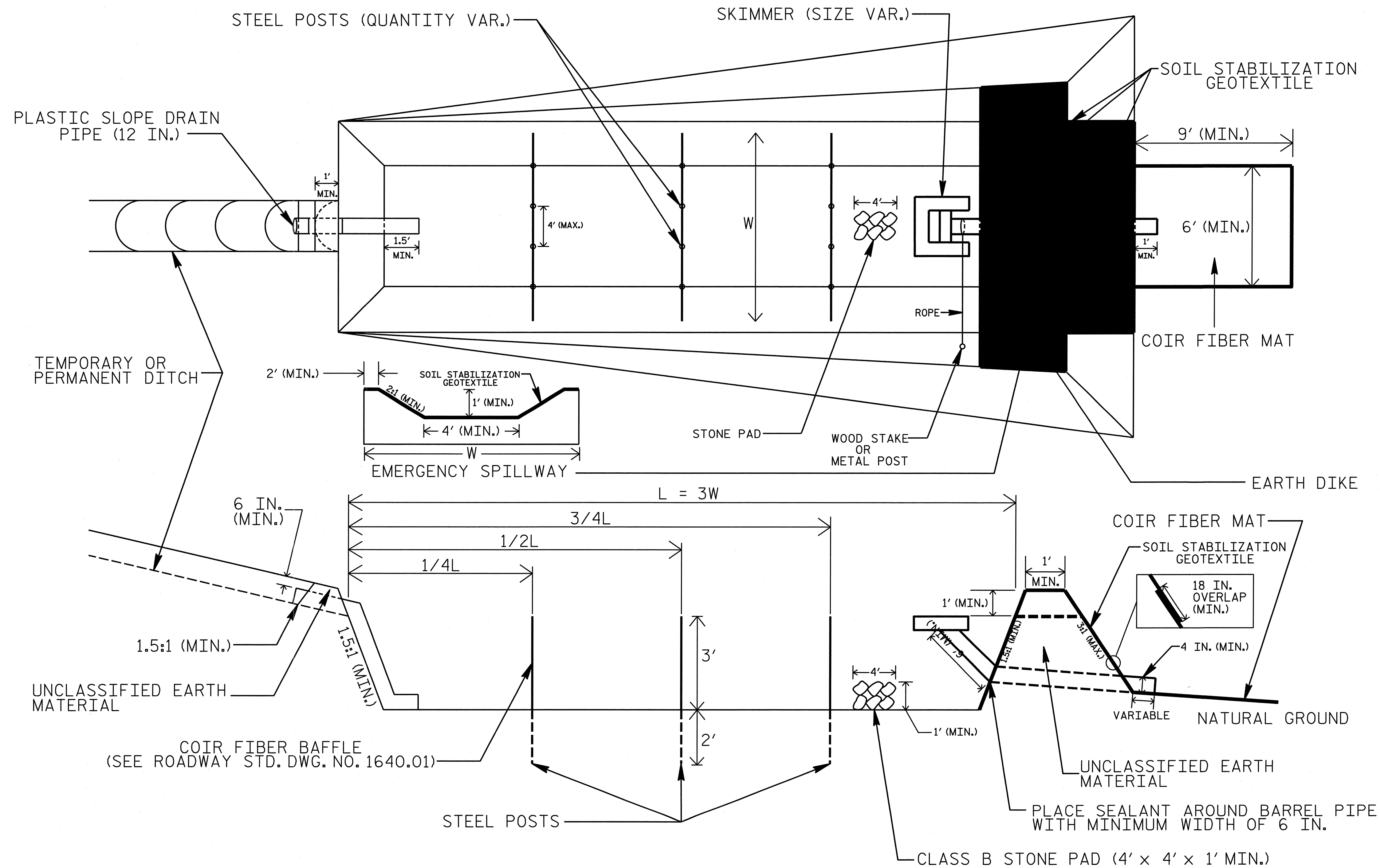
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



TOP VIEW

SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. P-5204	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY WEIR LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

0353DEL_P15

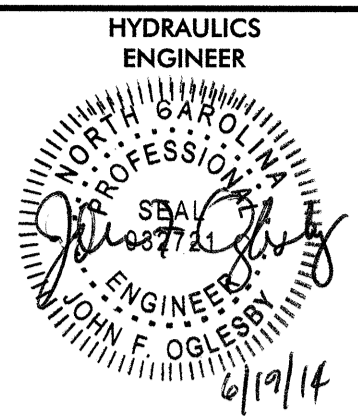
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>P-5204</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET
MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	L	10+00	13+00	LT	305
4	L	10+00	10+45	RT	35
4	Y4	10+80	12+00	LT	175
4	Y4	10+80	12+50	RT	150
4	L	11+35	13+68	RT	208
4	L	12+55	13+08	RT	56
4	L	13+68	18+00	RT	3785
4	L	16+00	22+80	LT	1300
4	Y1	11+40	12+25	LT	66
5	Y2	12+32	13+30	LT	100
5	Y2	14+45	15+20	LT	75
5	L	30+80	32+00	LT	93
5	L	33+00	36+30	LT	333
5	L	31+50	32+78	RT	99
5	L	33+35	36+40	RT	237
5,6	Y2	18+00	20+67	LT	238
6	Y2	19+00	20+15	RT	103
6	Y2	20+40	22+22	RT	162
7	Y1	14+40	14+62	LT	16
7	Y1	17+50	19+77	LT	175
7	Y1	17+50	20+63	RT	279
7	Y1	20+61	21+26	LT	50
7	Y1	20+63	22+00	RT	107
7	Y1	21+26	23+67	LT	189
7	Y1	24+00	26+87	LT	327
7	Y3	10+48	12+50	RT	146
7	Y3	10+35	12+60	LT	200
			SUBTOTAL		9009
			MISC. MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER		22200
				TOTAL	31209
				SAY	31290

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

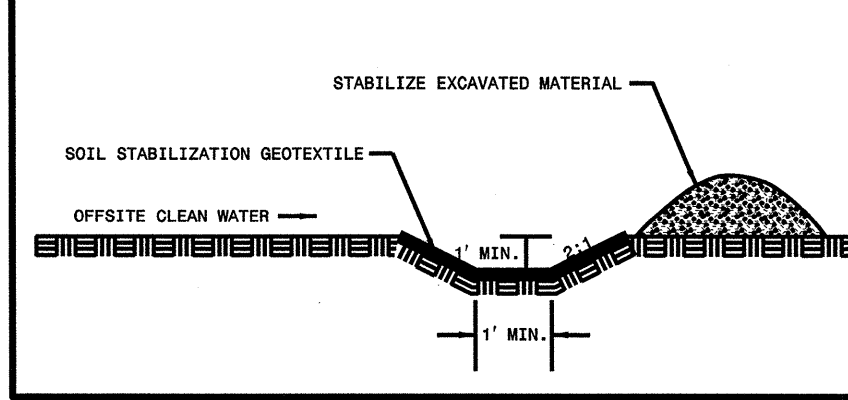
PROJECT REFERENCE NO. <i>P-5204</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER 

SOIL STABILIZATION TIMEFRAMES

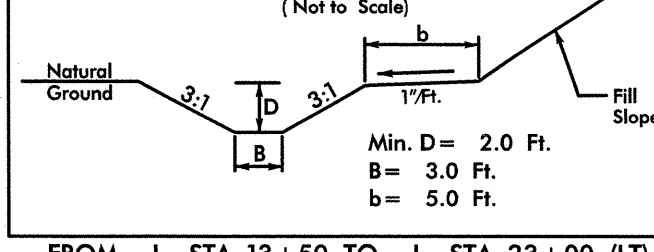
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

CLEAN WATER DIVERSION

CWD - CWD - CWD - CWD
(Not to Scale)

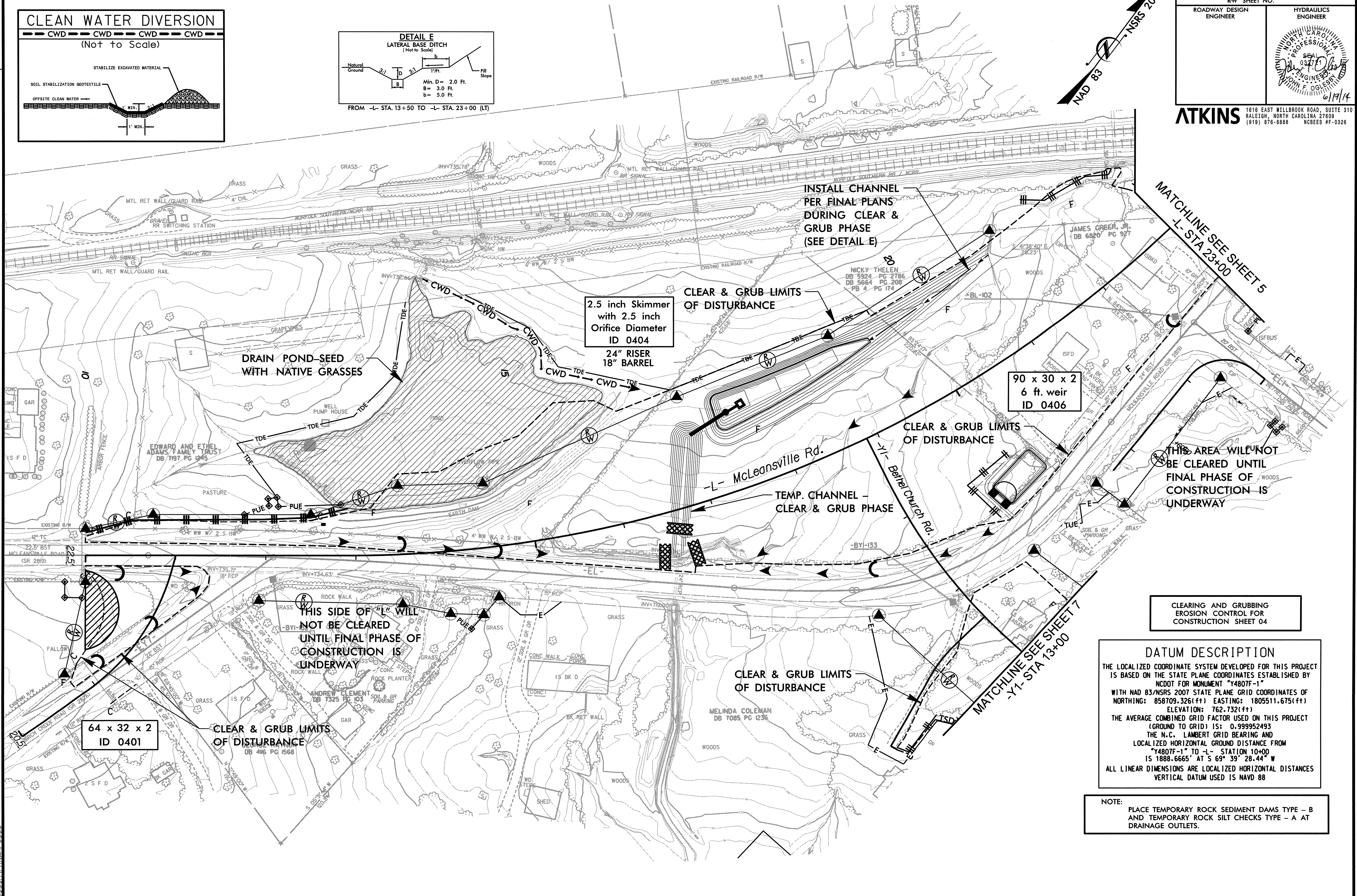
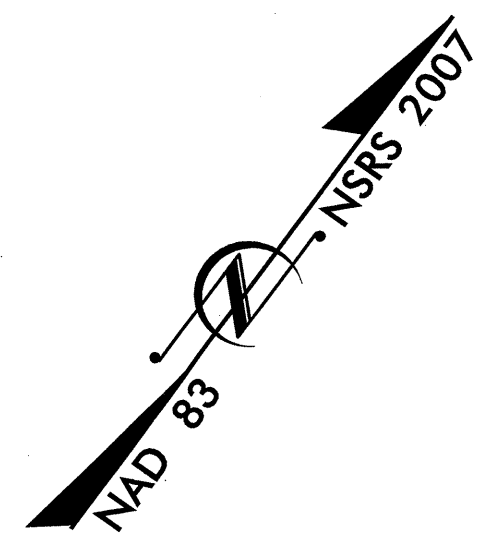


**DETAIL E
LATERAL BASE DITCH**
(Not to Scale)



PROJECT REFERENCE NO. P-5204	SHEET NO. EC-04/CONST.04
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	SEAL 6/17/14

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-8888 NCBEES #F-0326



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

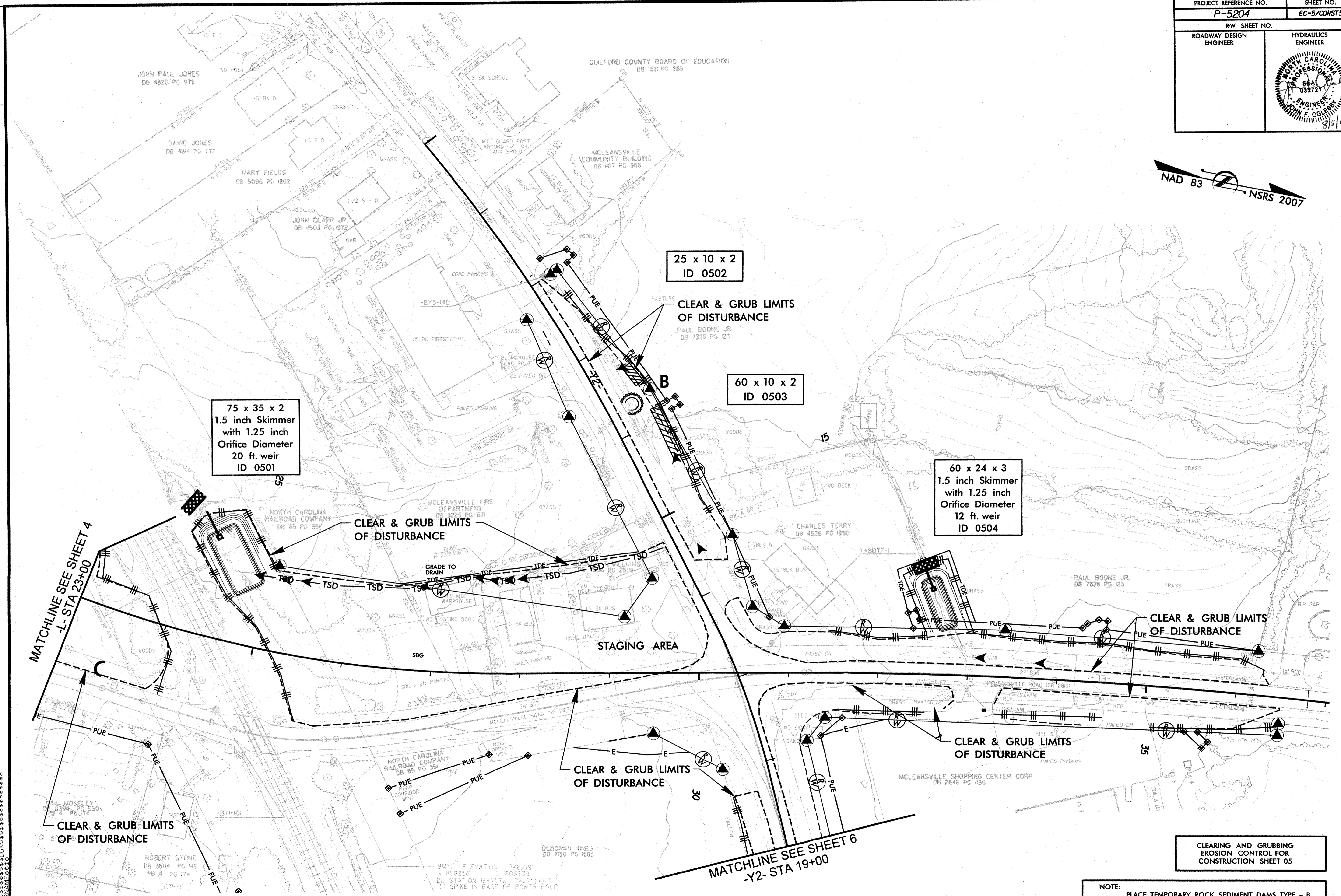
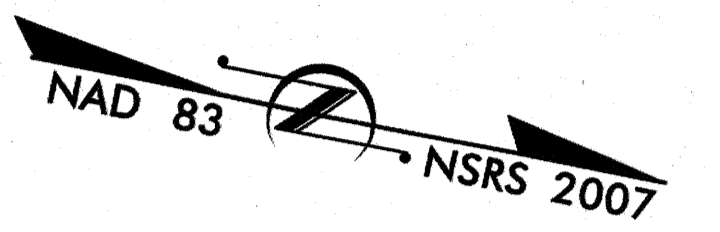
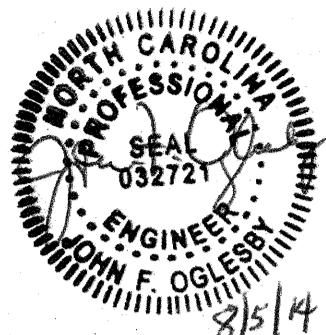
DATUM DESCRIPTION
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "Y4807F-1" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 858709.326(ft) EASTING: 1805511.675(ft) ELEVATION: 762.732(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999952493
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND BEARING DISTANCE FROM "Y4807F-1" TO -L- STATION 10+00 IS 1888.6665' AT S 69° 39' 28.44" W
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

DATE PLOTTED: 6/17/14 10:00 AM

0353DEL_P15

PROJECT REFERENCE NO. P-5204	SHEET NO. EC-5/CONST5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 05

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

SYSTEMS DESIGN
 4444 LITTLEMEADOW DRIVE
 RALEIGH, NC 27617
 TEL: 919-871-1100
 FAX: 919-871-1101
 WWW.SDENGINEERING.COM

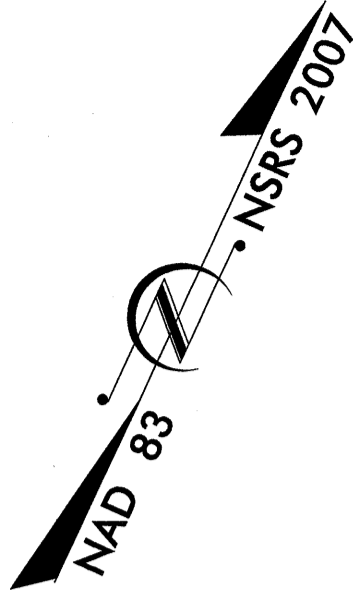
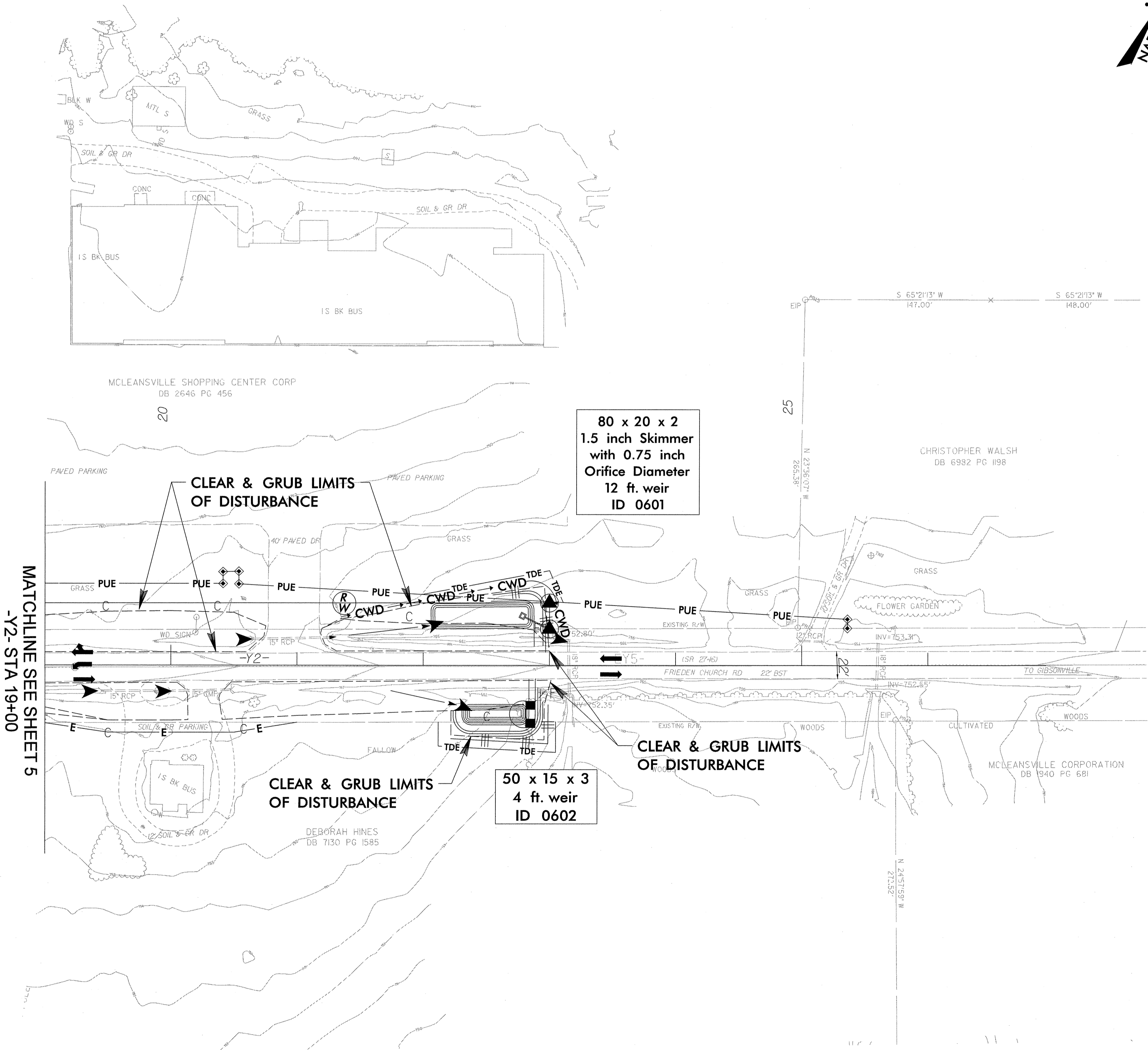
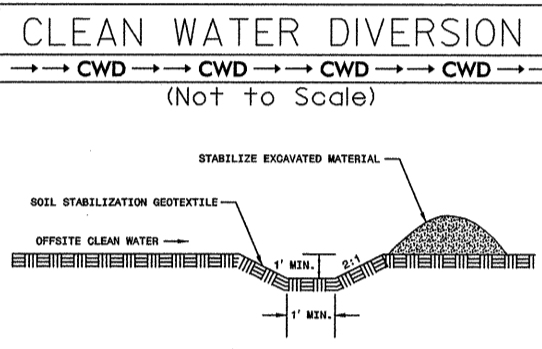
BM#1 ELEVATION = 748.09'
 N 858256 E 1806739
 BL STATION 18+71.76 74.17' LEFT
 RR SPIKE IN BASE OF POWER POLE

PROJECT REFERENCE NO. P-5204	SHEET NO. EC-06/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCEES #F-0328

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



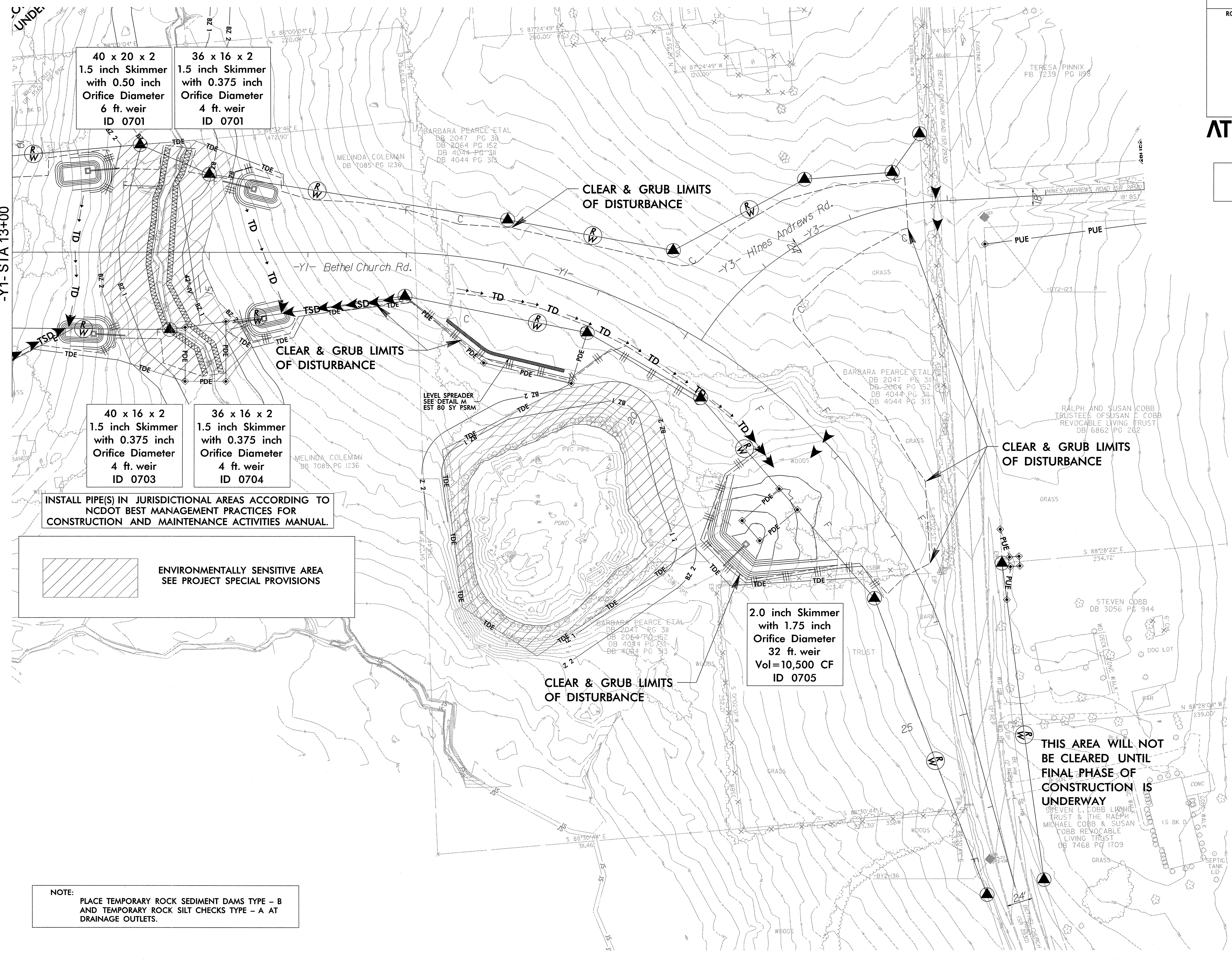
PLANNED AND DESIGNED BY
JULY 15, 2008
CHECKED BY
AUGUST 15, 2008
APPROVED BY
SEPTEMBER 15, 2008
DATE

PROJECT REFERENCE NO. P-5204		SHEET NO. EC-07/CONST.07	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER		

ATKINS 1616 EAST HILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27608
(919) 876-8888 NCBEES #F-0326

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

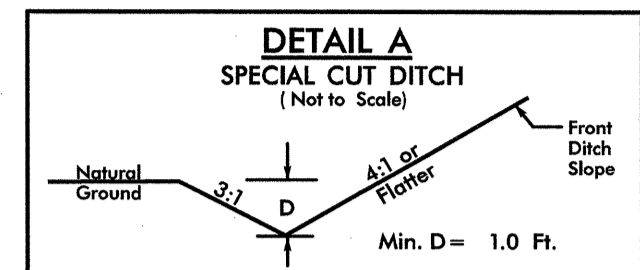
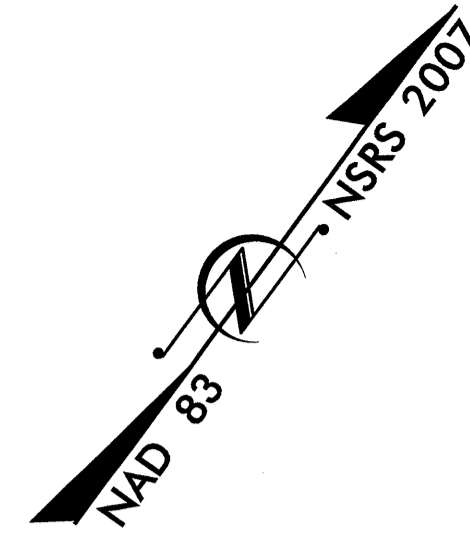
MATCHLINE SEE SHEET 4
-Y1- STA 13+00



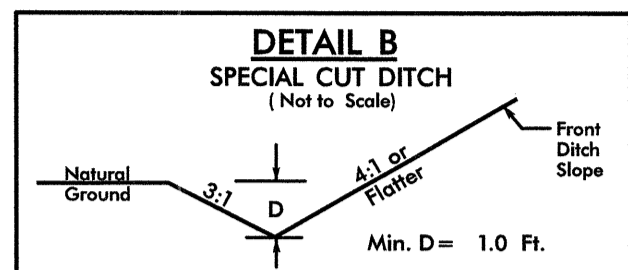
DATE: 05/05/2009 11:45 AM
BY: JMD/MSK
CHECKED: JMD/MSK
DATE: 05/05/2009 11:45 AM

PROJECT REFERENCE NO. P-5204	SHEET NO. EC-08/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

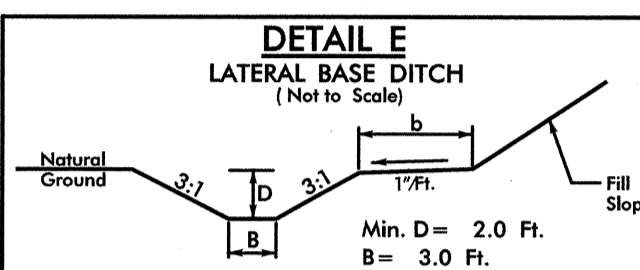
ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326



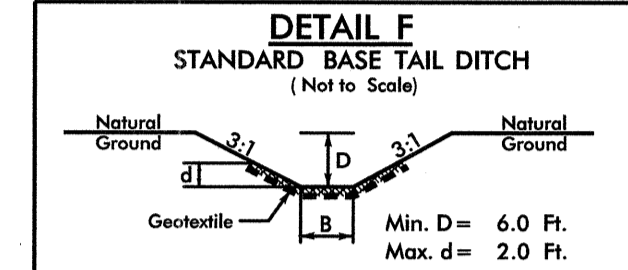
FROM -L- STA. 12+00 TO -L- STA. 13+00 (LT)
FROM -Y4- STA. 10+80 TO -Y4- STA. 12+00 (LT)
FROM -Y4- STA. 10+80 TO -Y4- STA. 11+50 (RT)



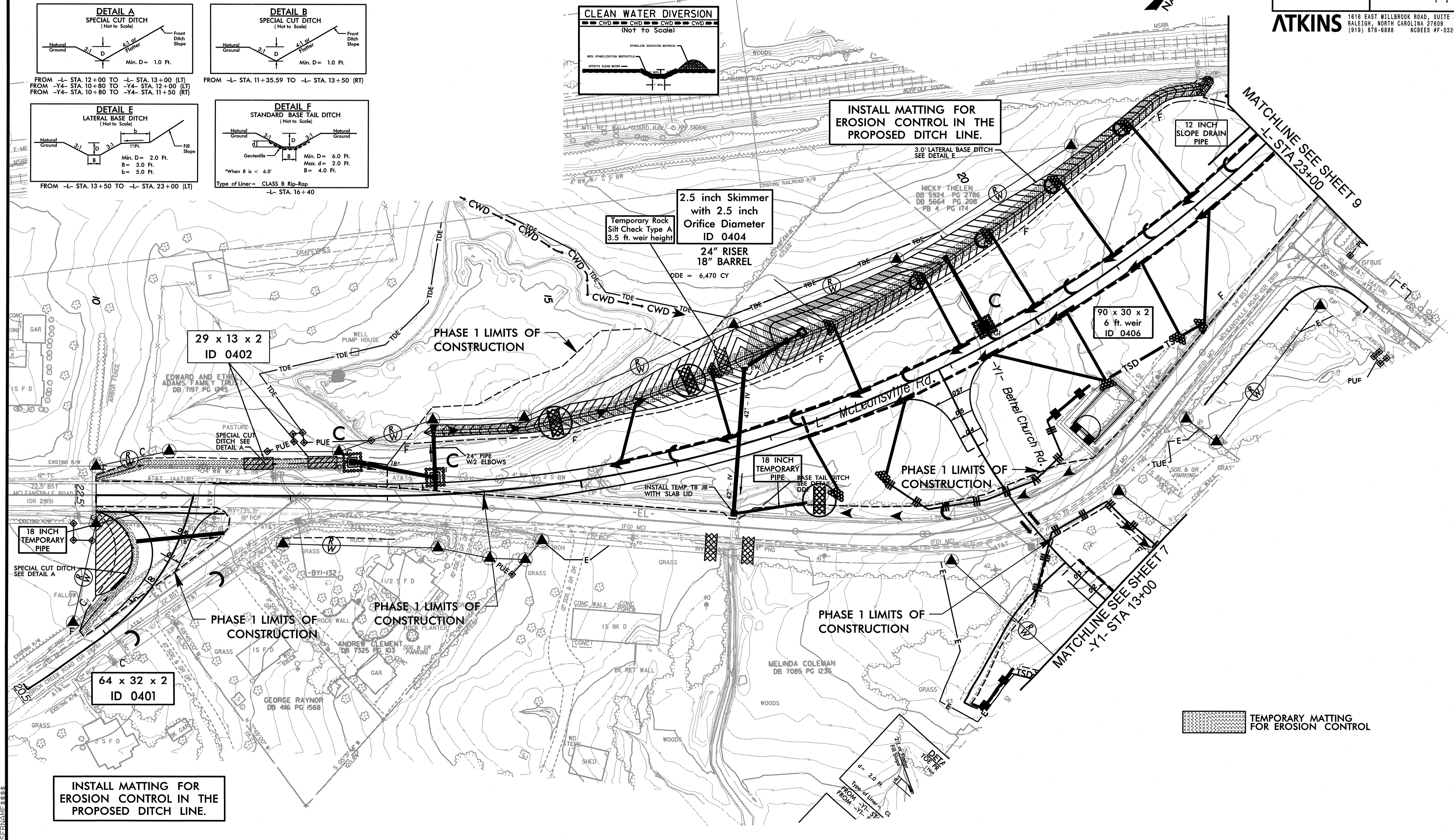
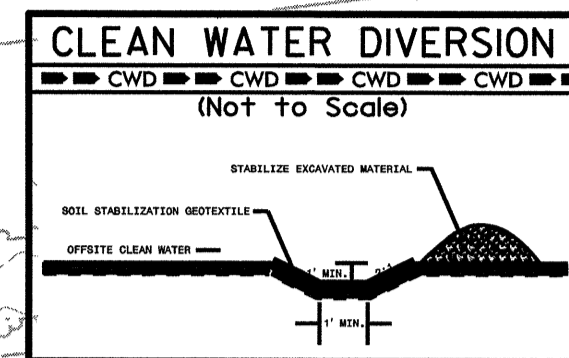
FROM -L- STA. 11+35.59 TO -L- STA. 13+50 (RT)



FROM -L- STA. 13+50 TO -L- STA. 23+00 (LT)



Type of Liner = CLASS B Rip-Rap
-L- STA. 16+40



INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

TEMPORARY MATTING
FOR EROSION CONTROL

MATCHLINE SEE SHEET 9
-L- STA. 23+00

MATCHLINE SEE SHEET 7
-Y1- STA. 13+00

INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

2.5 inch Skimmer
with 2.5 inch
Orifice Diameter
ID 0404
24" RISER
18" BARREL
DDE = 6,470 CY

29 x 13 x 2
ID 0402

64 x 32 x 2
ID 0401

18 INCH
TEMPORARY
PIPE

90 x 30 x 2
6 ft. weir
ID 0406

PHASE 1 LIMITS OF
CONSTRUCTION

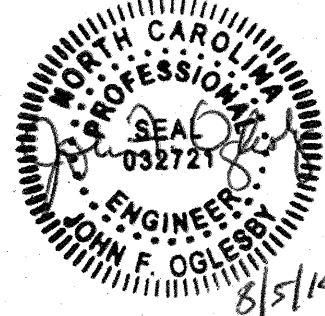
PHASE 1 LIMITS OF
CONSTRUCTION

PHASE 1 LIMITS OF
CONSTRUCTION

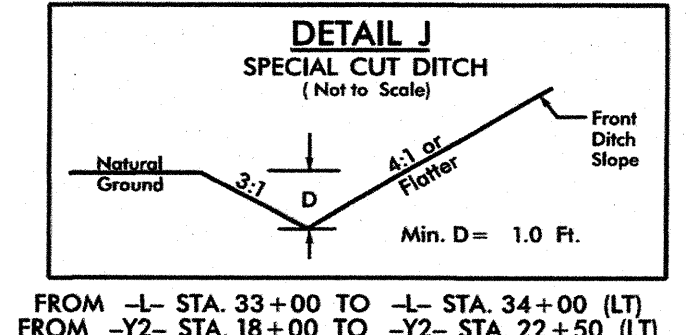
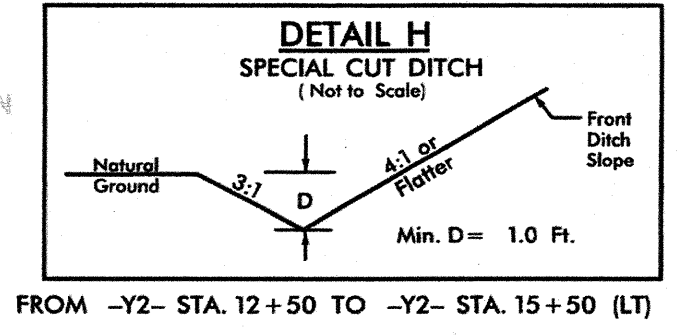
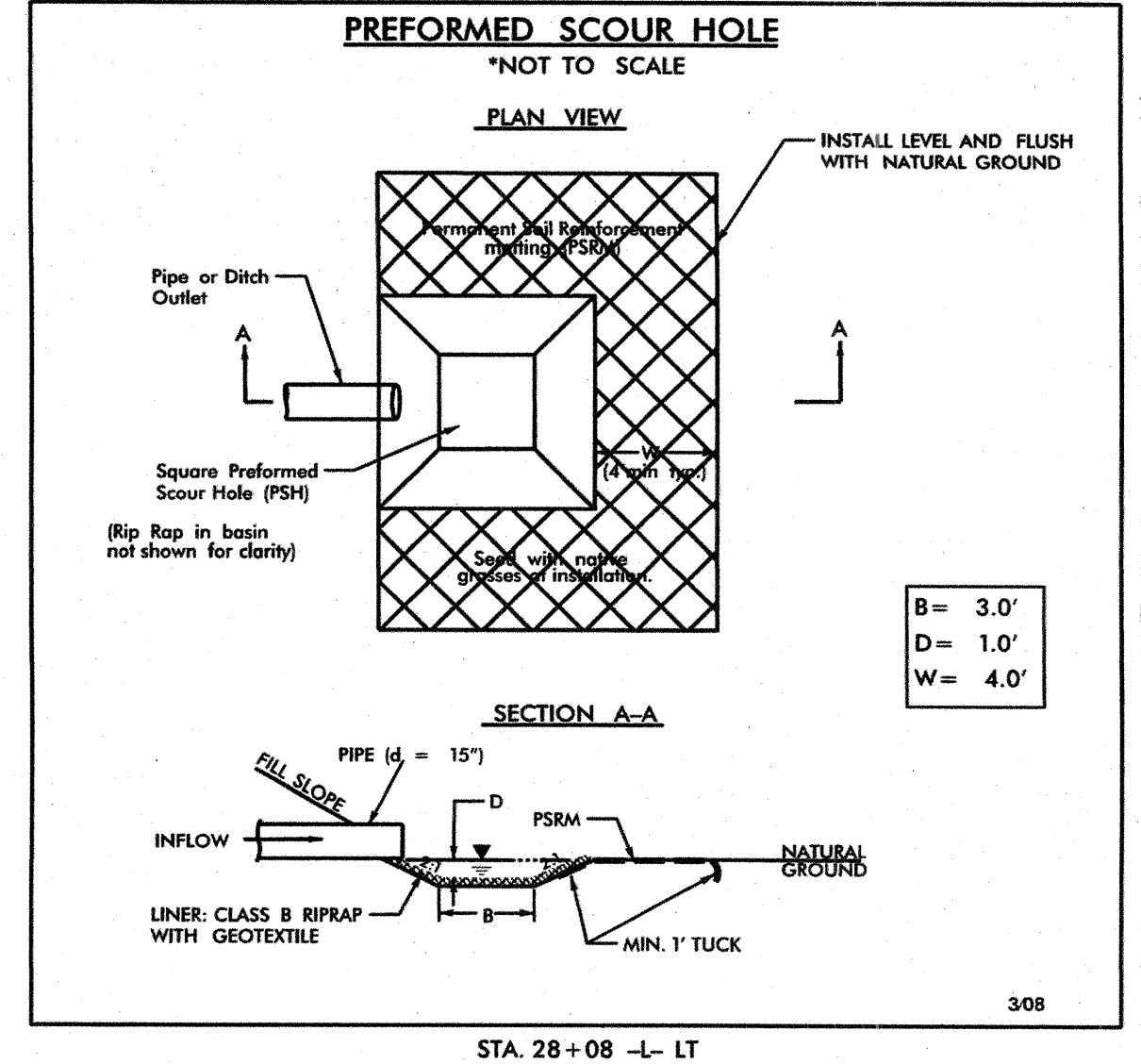
PHASE 1 LIMITS OF
CONSTRUCTION

PHASE 1 LIMITS OF
CONSTRUCTION

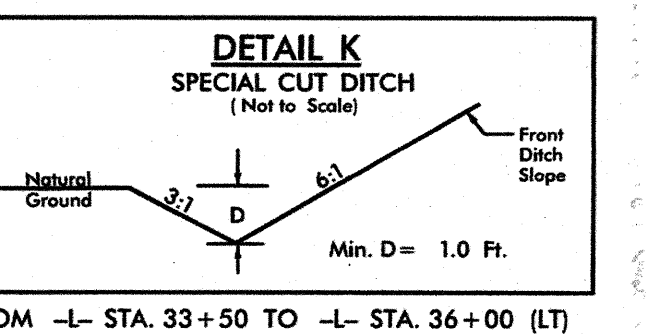
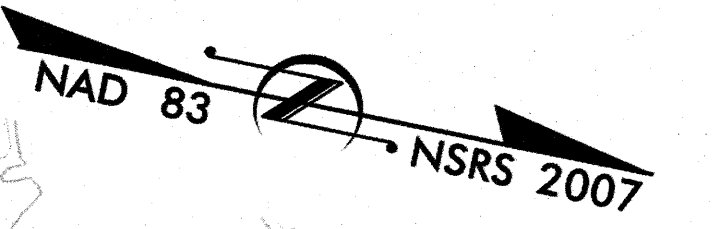
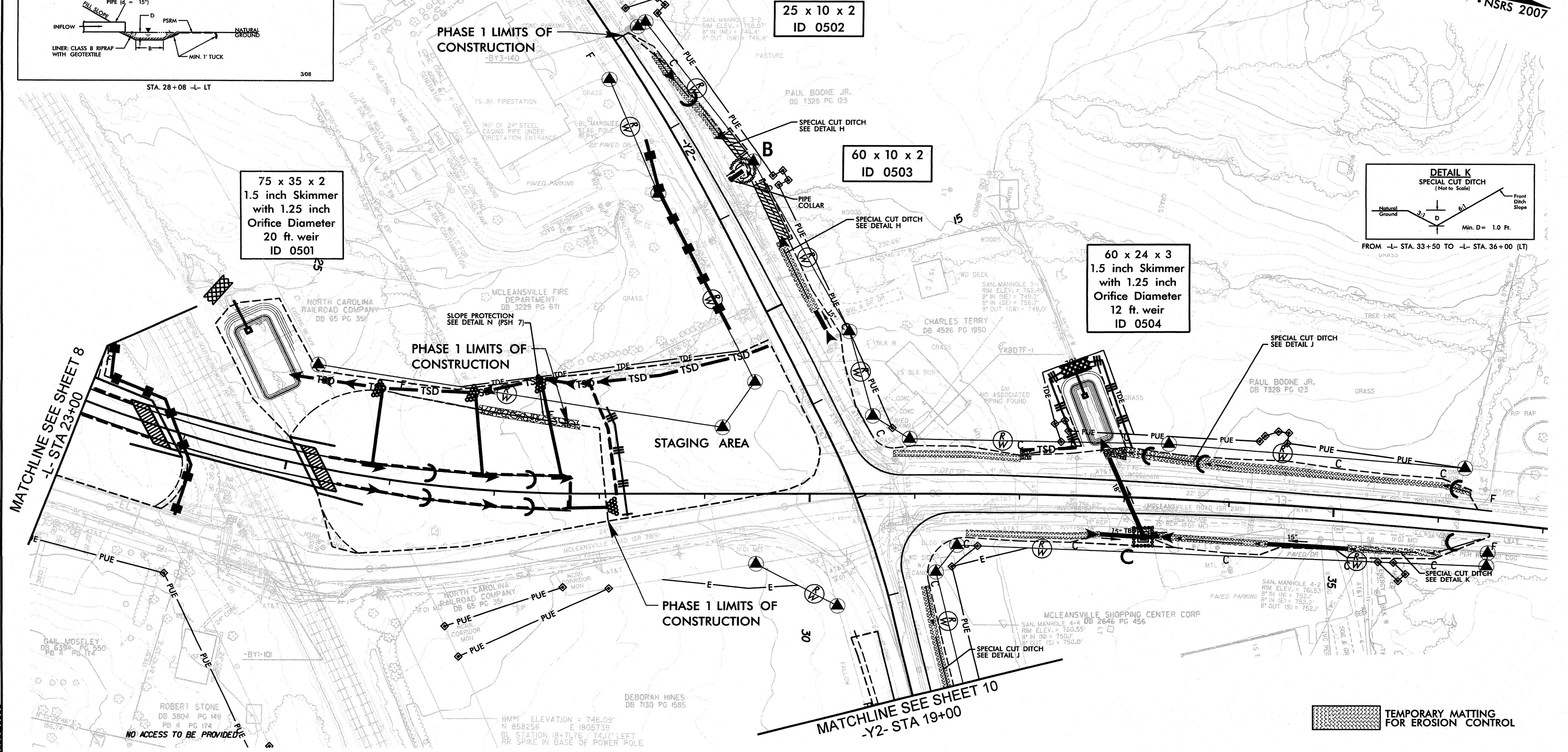
DATE PLOTTED: 11/14/14 10:58 AM

PROJECT REFERENCE NO. P-5204		SHEET NO. EC-09/CONST.05	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			

ATKINS 1616 EAST WILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-8888 NCBEES #F-0326



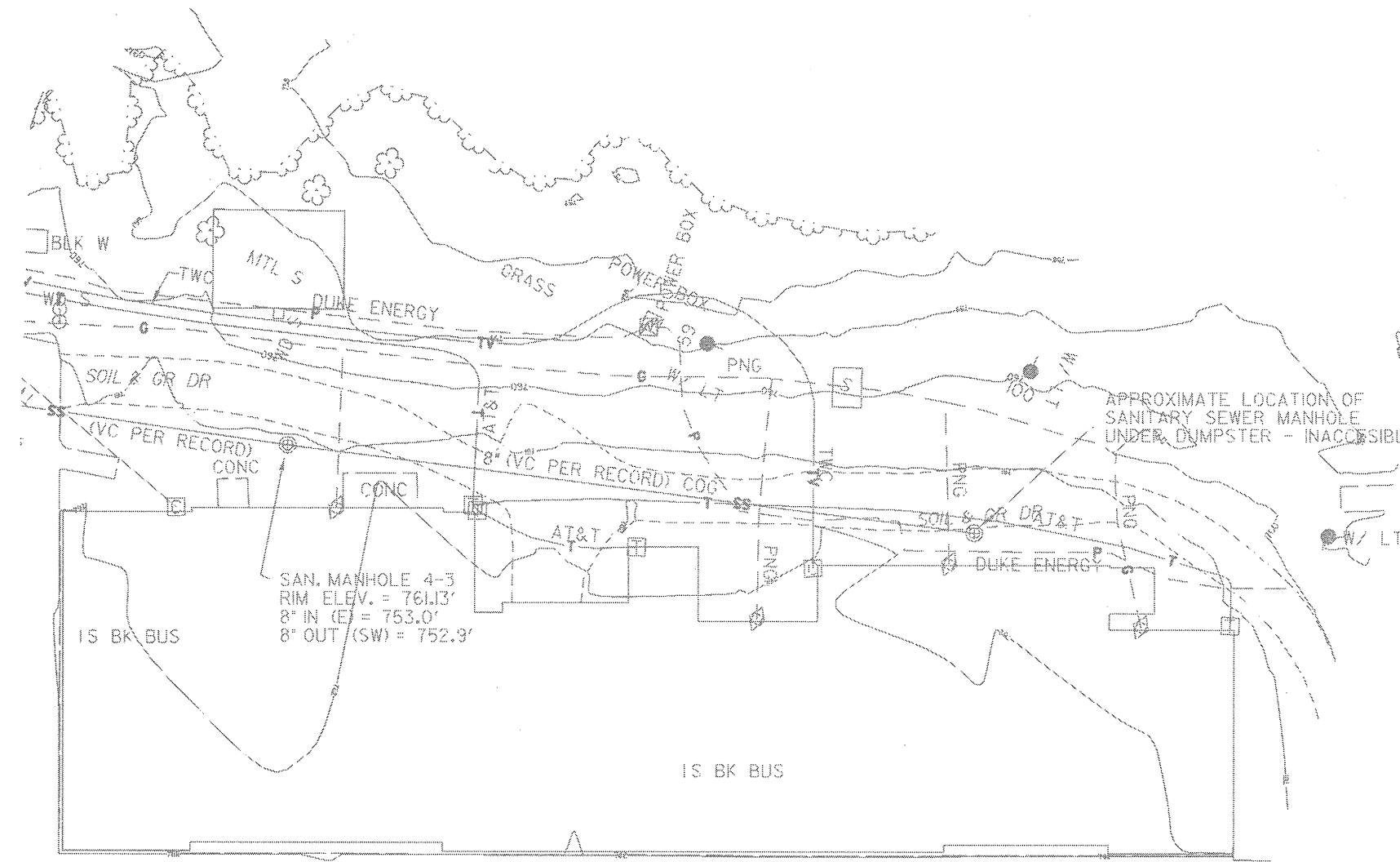
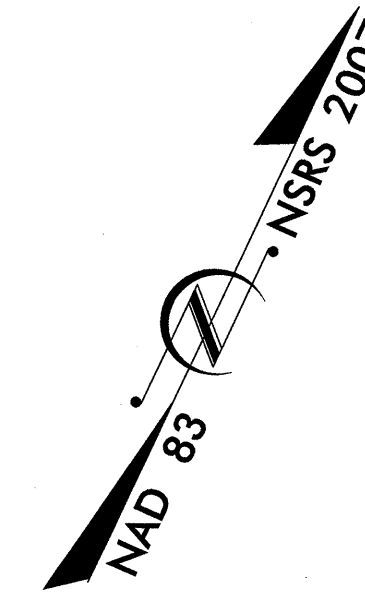
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.



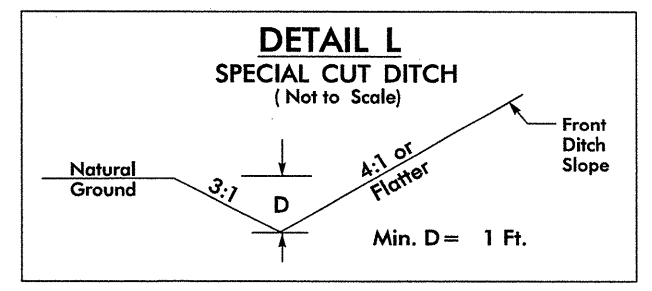
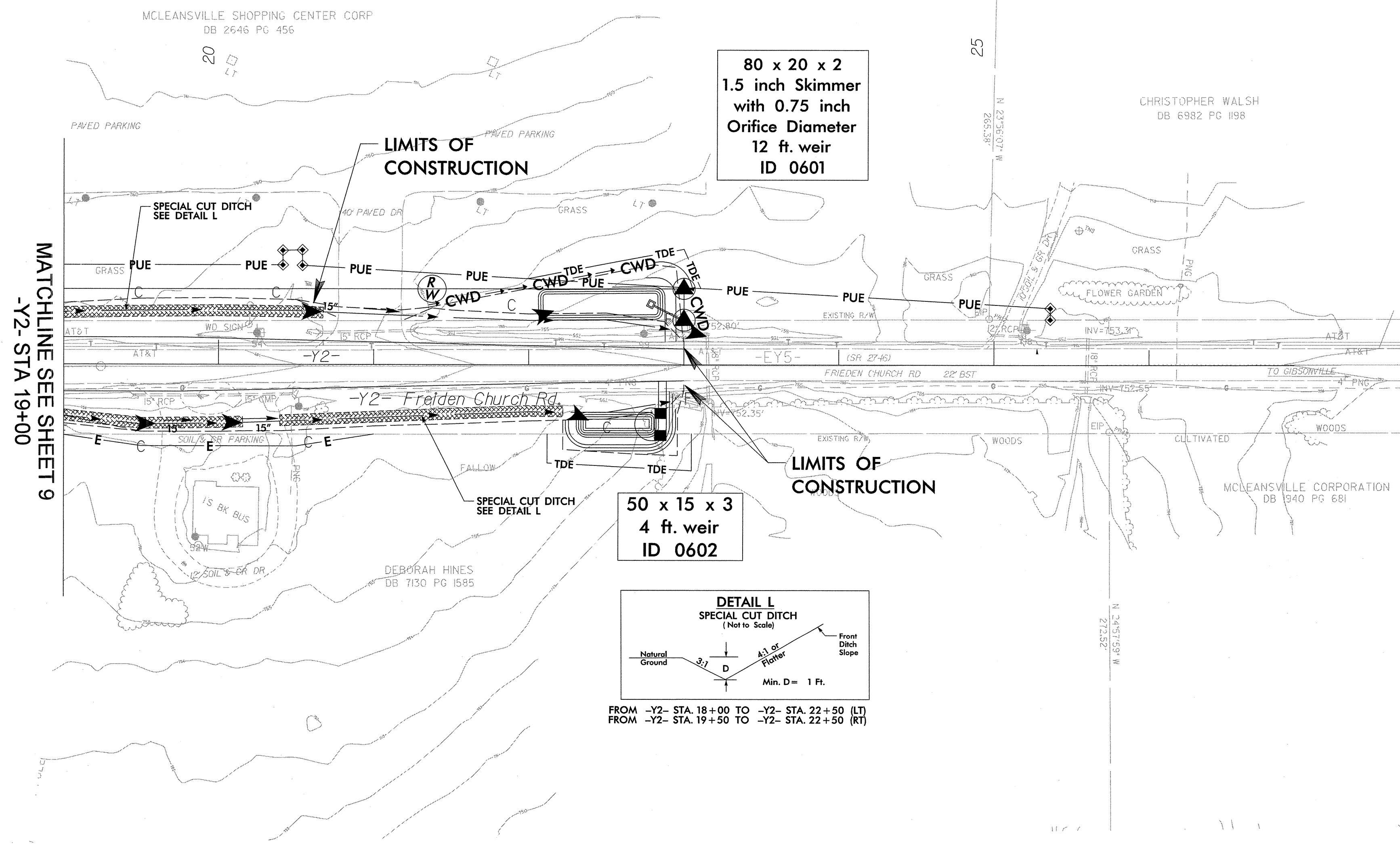
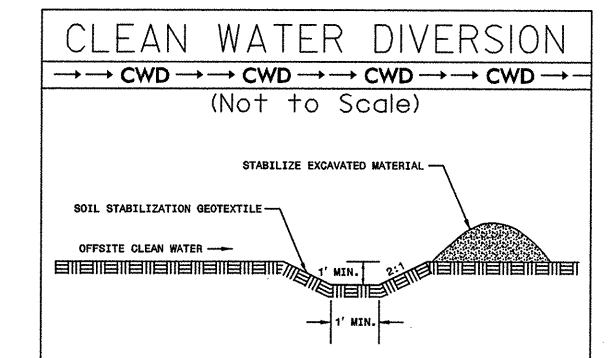
 **TEMPORARY MATTING FOR EROSION CONTROL**

PROJECT REFERENCE NO. P-5204		SHEET NO. EC-10/CONST.06	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCEES #F-0326



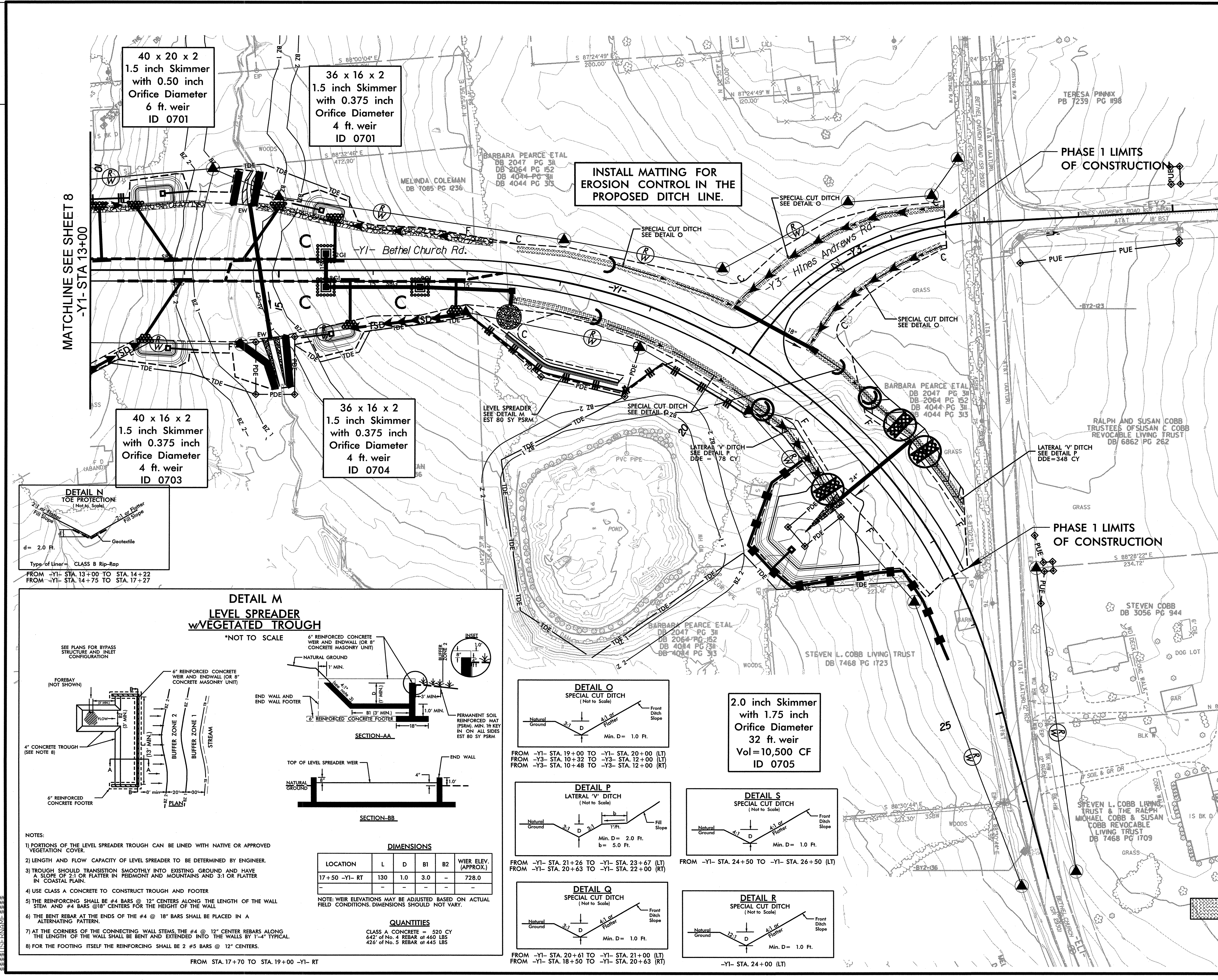
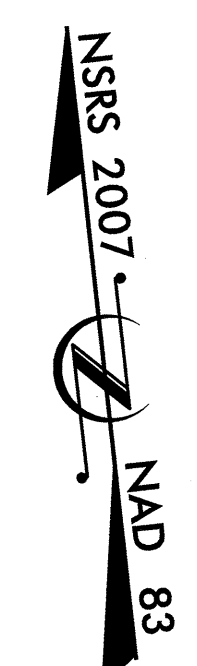
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.



FROM -Y2- STA. 18+00 TO -Y2- STA. 22+50 (LT)
FROM -Y2- STA. 19+50 TO -Y2- STA. 22+50 (RT)

TEMPORARY MATTING FOR EROSION CONTROL

SYSTEMS DESIGN
 CIVIL ENGINEERING
 SURVEYING
 ENVIRONMENTAL
 PLANNING
 ARCHITECTURE
 INTERIOR DESIGN
 LANDSCAPE ARCHITECTURE
 PLANNING
 ENGINEERING
 CONSULTING
 GROUP
 INC.



40 x 20 x 2
1.5 inch Skimmer
with 0.50 inch
Orifice Diameter
6 ft. weir
ID 0701

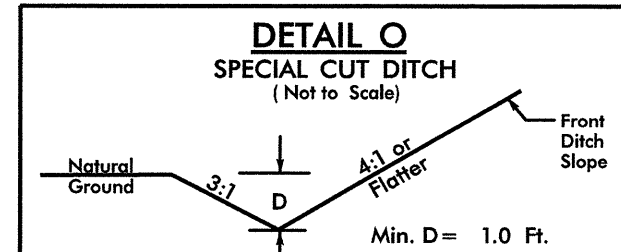
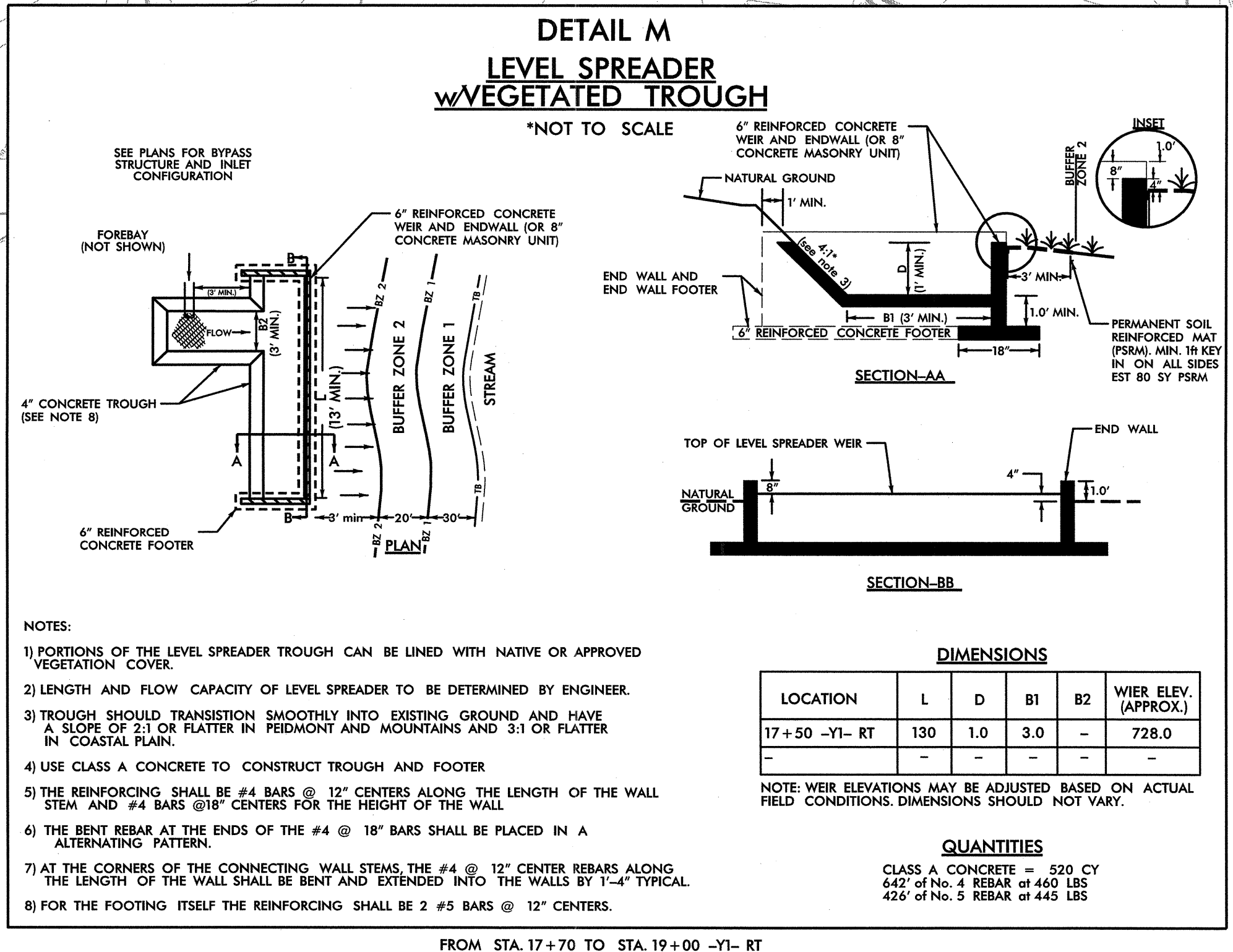
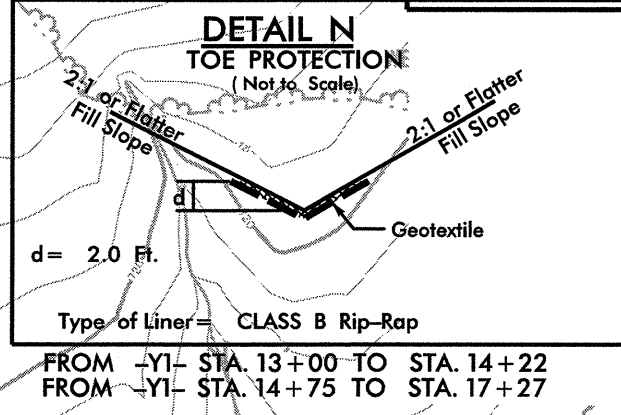
36 x 16 x 2
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 0701

INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

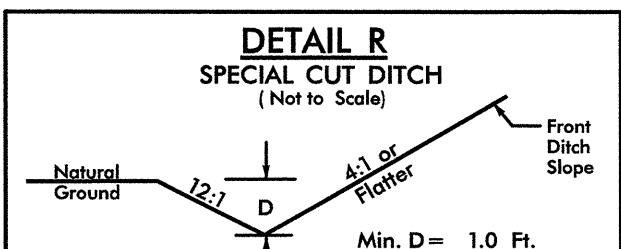
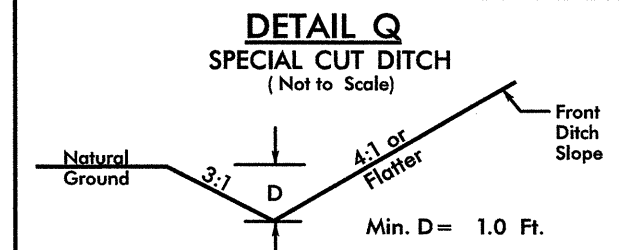
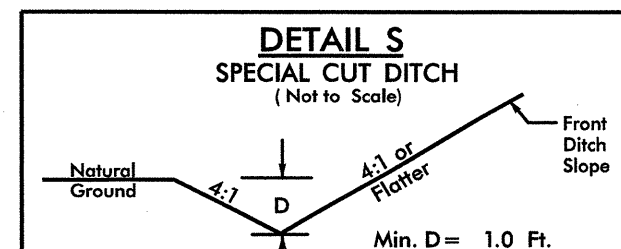
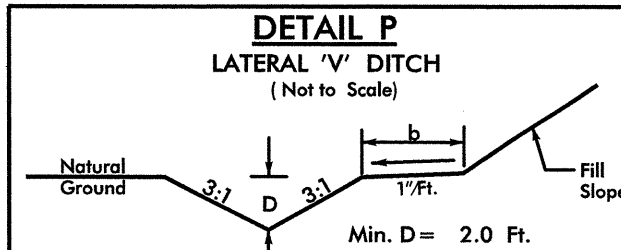
MATCHLINE SEE SHEET 8
-Y1- STA 13+00

40 x 16 x 2
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 0703

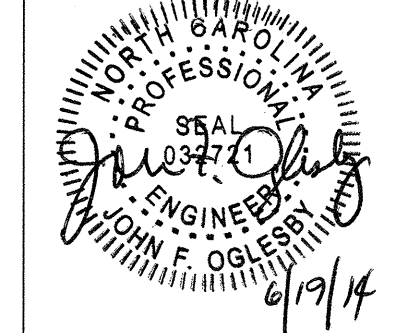
36 x 16 x 2
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 0704



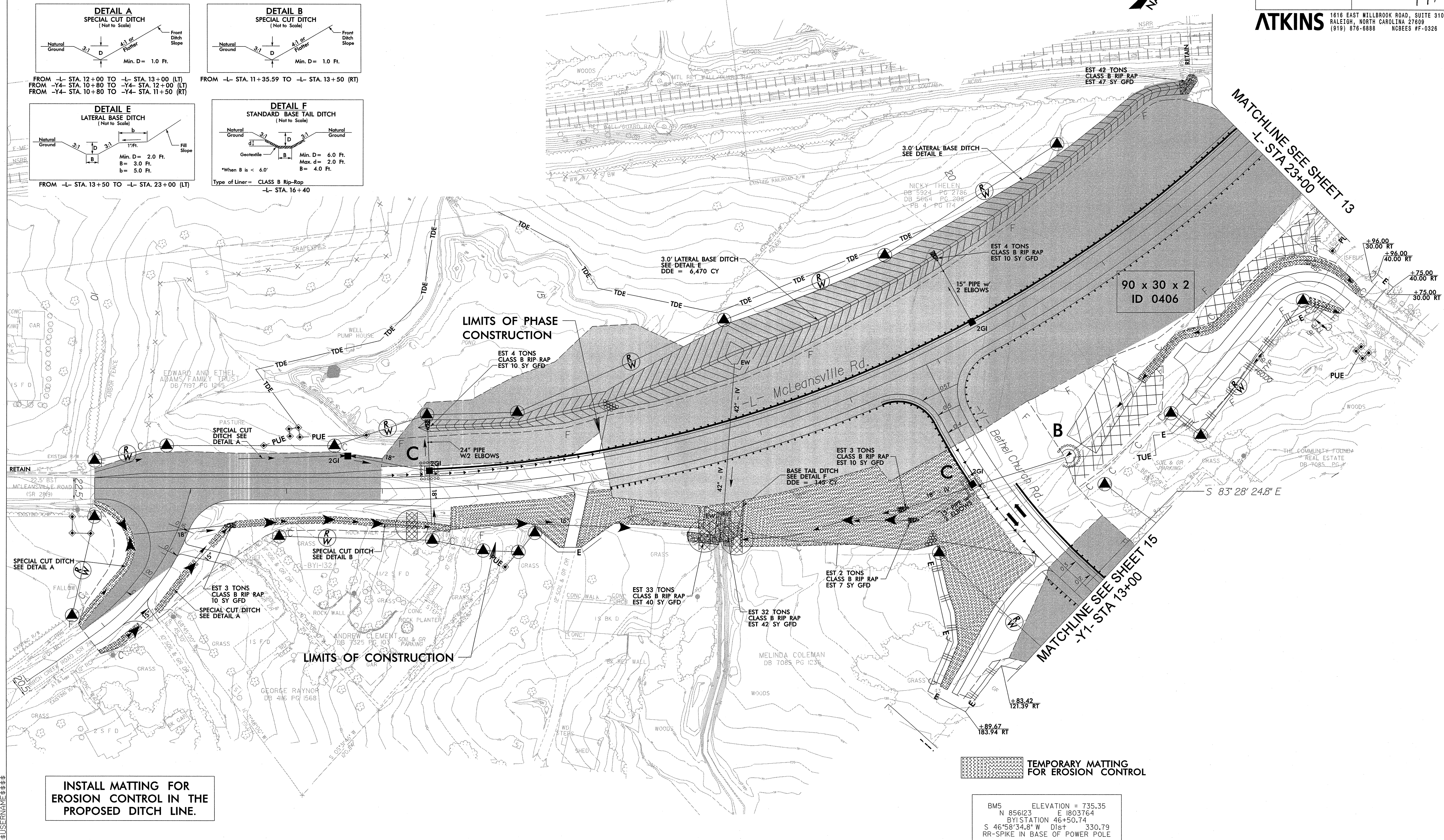
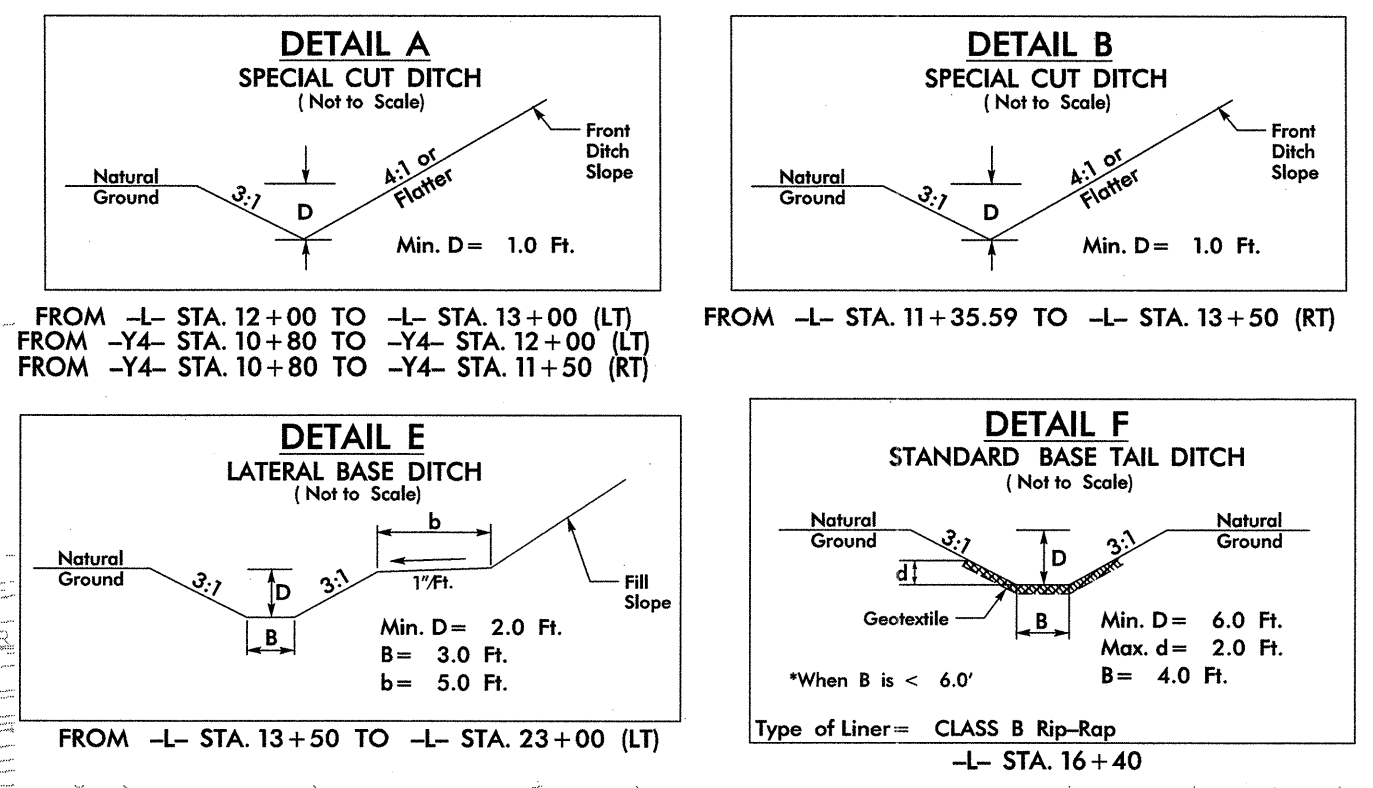
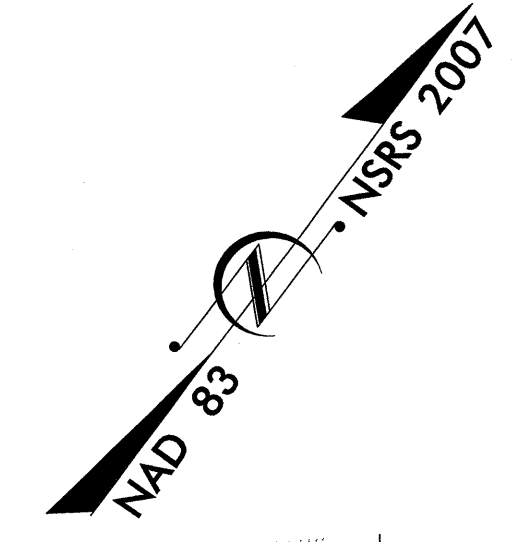
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
32 ft. weir
Vol=10,500 CF
ID 0705



TEMPORARY MATTING
FOR EROSION CONTROL

PROJECT REFERENCE NO. P-5204		SHEET NO. EC-12/CONST.04	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-8888 NOBES #F-0326



INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

 **TEMPORARY MATTING FOR EROSION CONTROL**

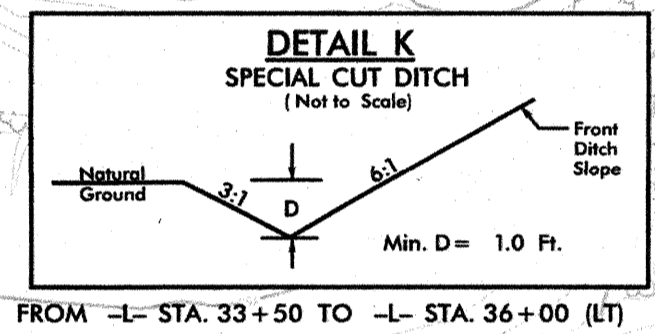
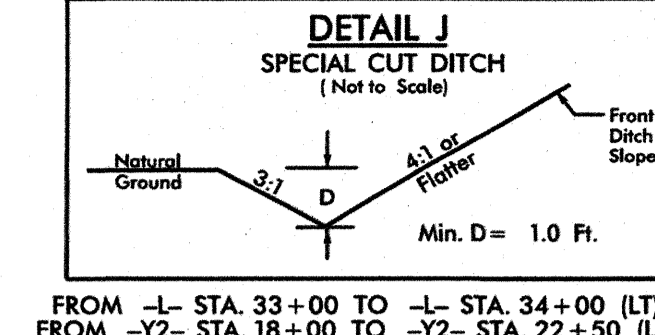
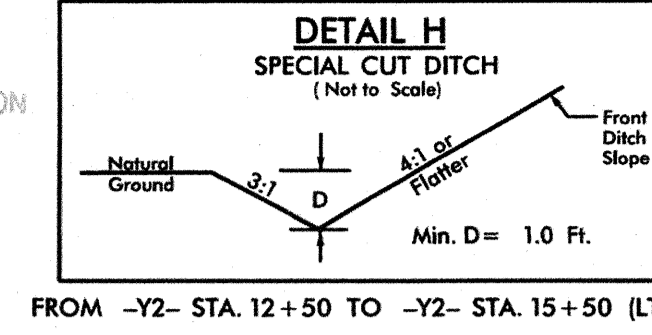
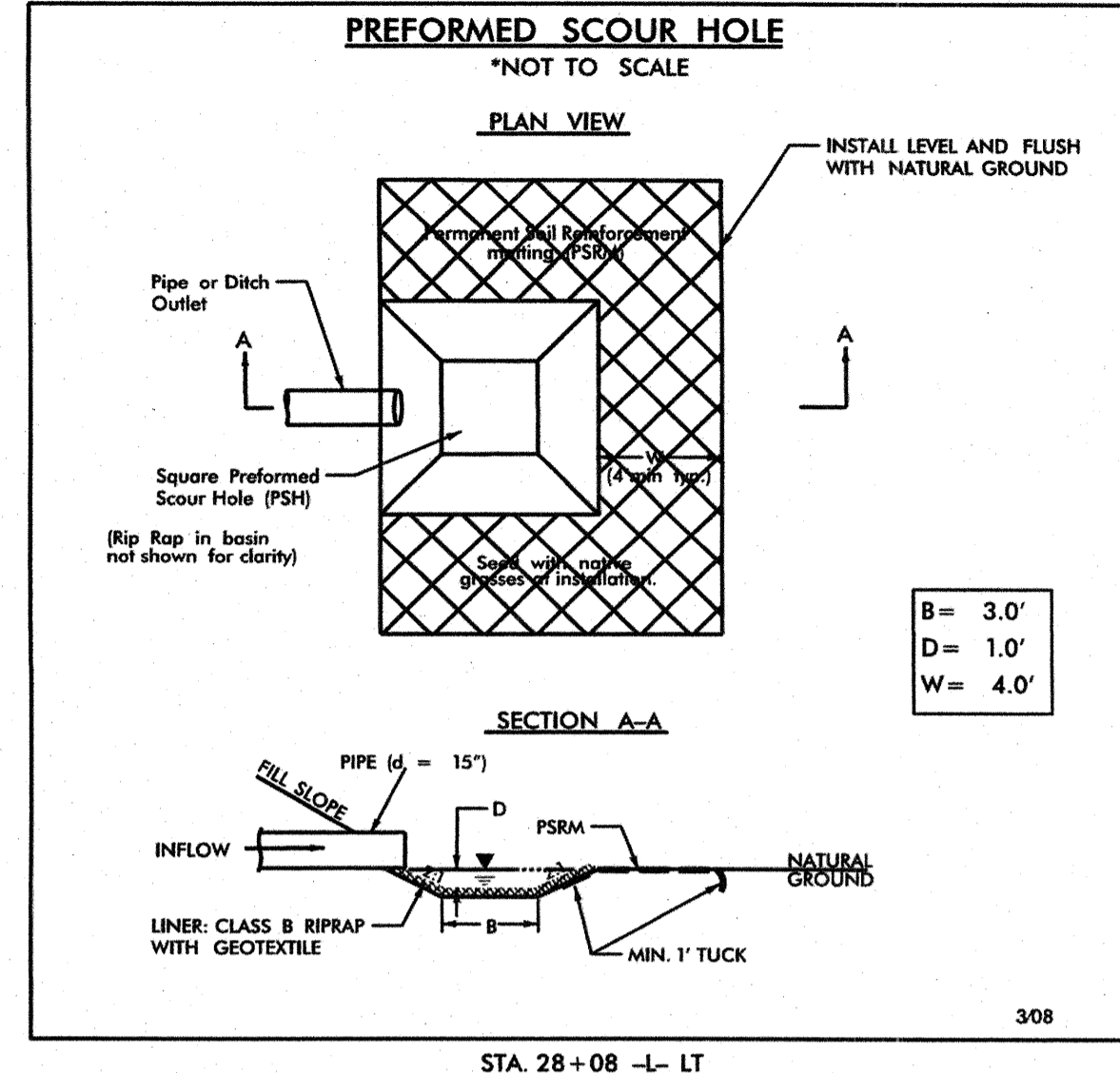
BMS ELEVATION = 735.35
N 856123 E 1803764
BY STATION 46+50.74
S 46°58'34.8" W Dist = 330.79
RR-SPIKE IN BASE OF POWER POLE

MATCHLINE SEE SHEET 13
-L- STA. 23+00

MATCHLINE SEE SHEET 15
-Y1- STA 13+00

PROJECT REFERENCE NO. P-5204		SHEET NO. EC-13/CONST.05	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

1616 EAST WILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

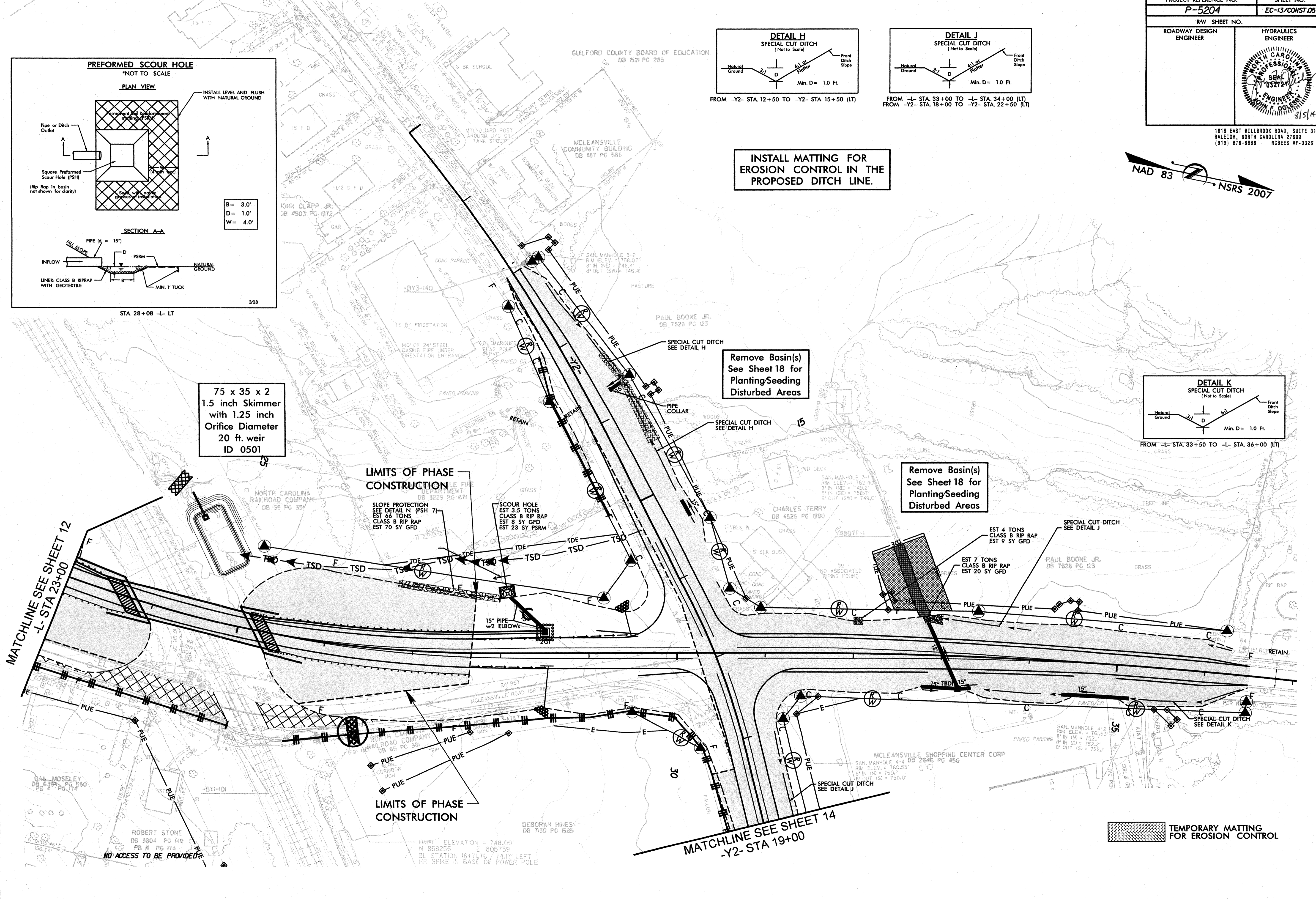


INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

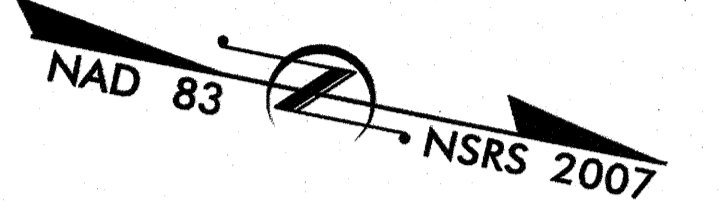
Remove Basin(s) See Sheet 18 for Planting/Seeding Disturbed Areas

Remove Basin(s) See Sheet 18 for Planting/Seeding Disturbed Areas

**75 x 35 x 2
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
20 ft. weir
ID 0501**



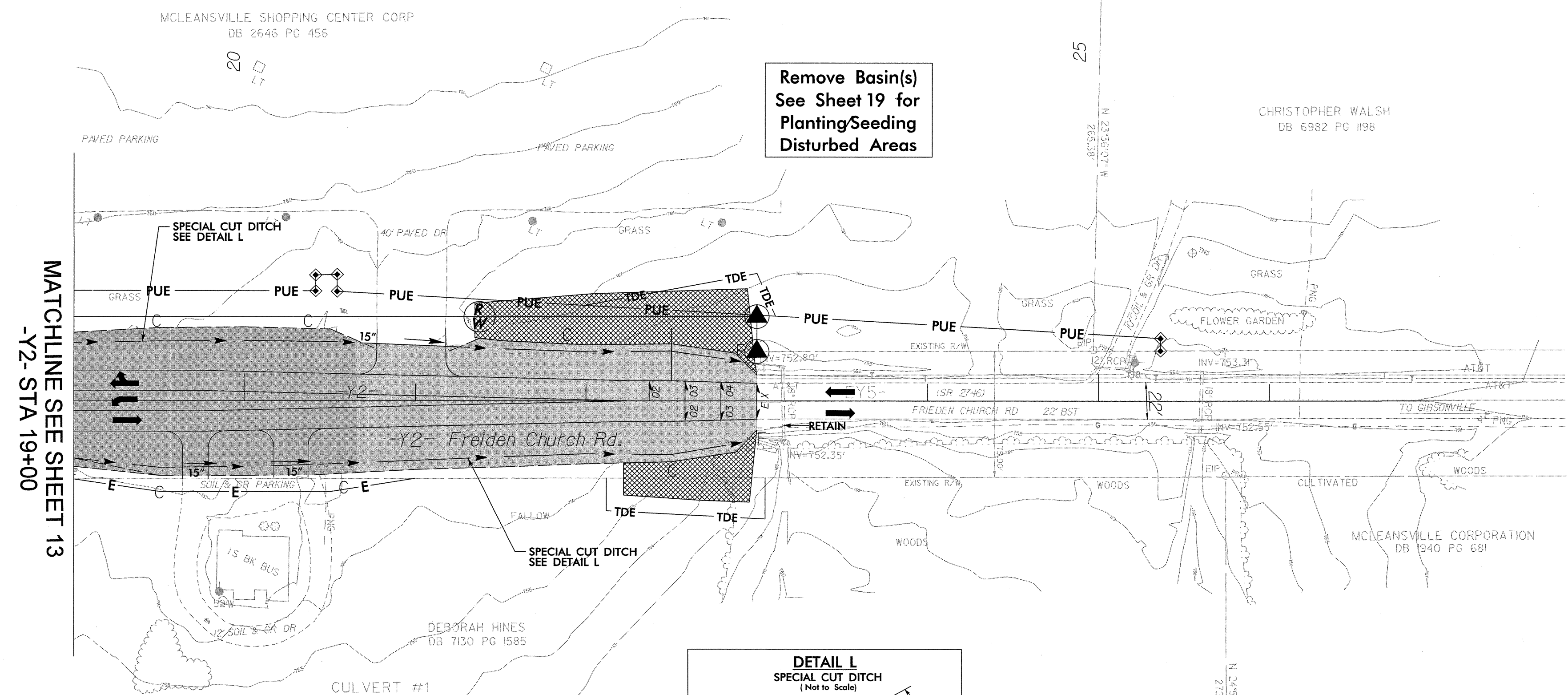
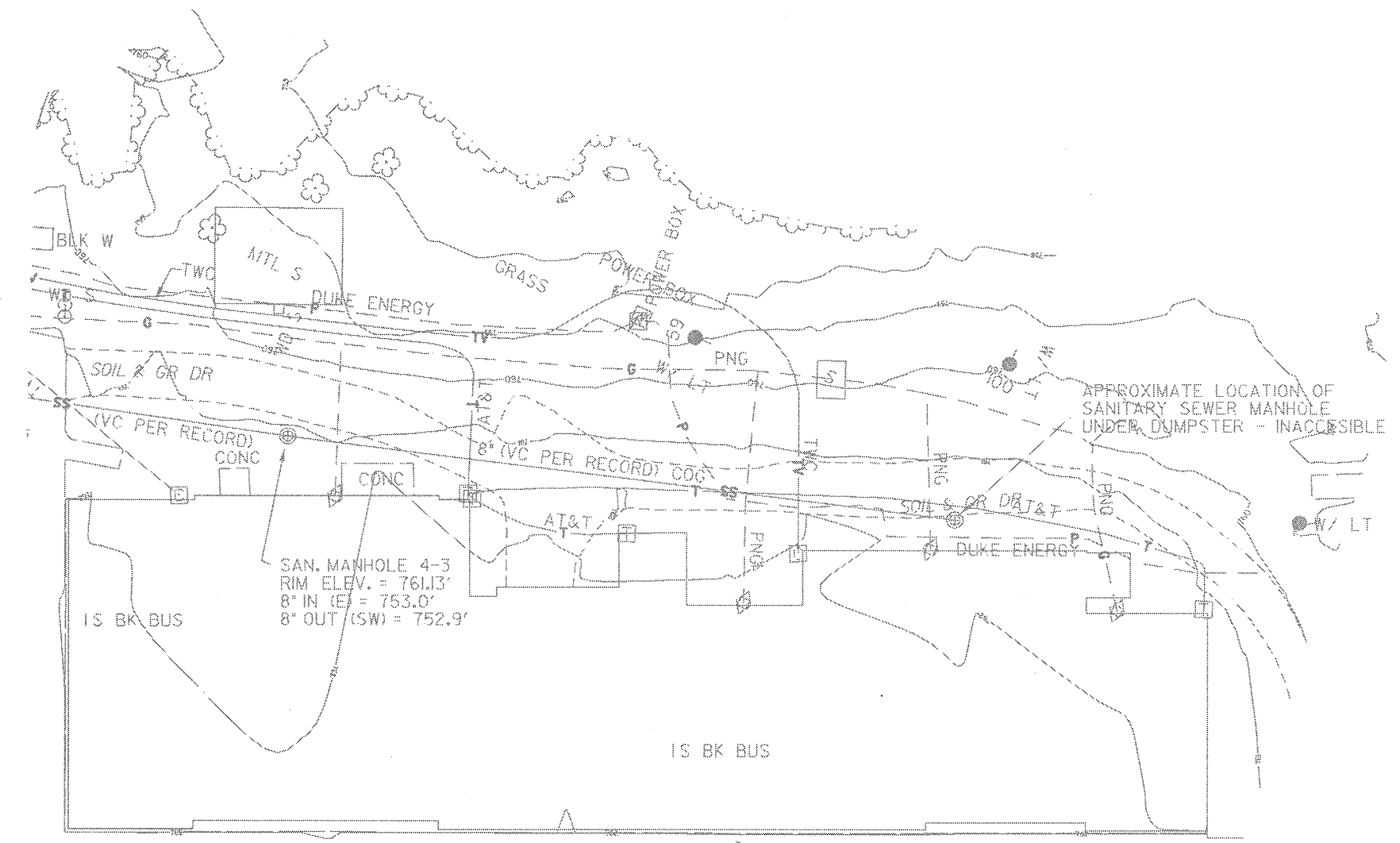
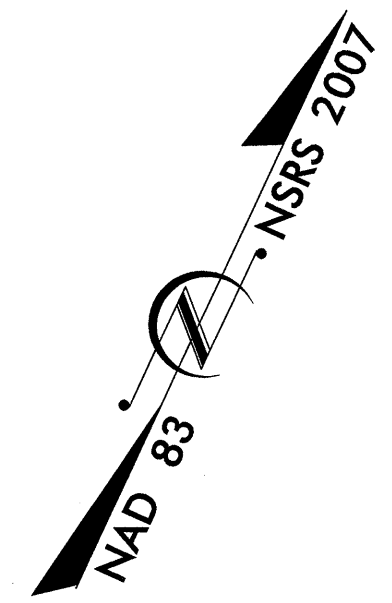
TEMPORARY MATTING FOR EROSION CONTROL



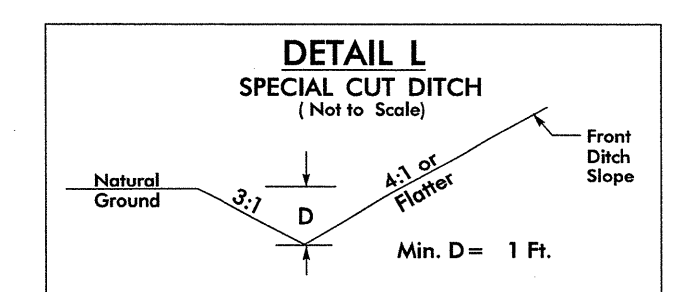
SYSTEMS
 DESIGN
 GROUP
 INC.
 1000
 W. HARRIS
 BLVD.
 SUITE 100
 RALEIGH, NC 27609
 (919) 876-6888
 WWW.SDGI.COM

PROJECT REFERENCE NO. P-5204	SHEET NO. EC-14/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

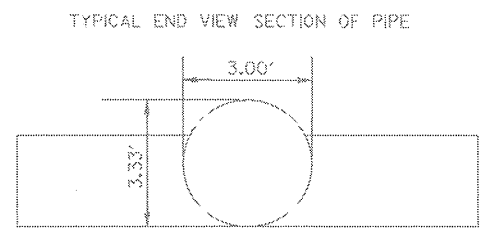
ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 676-8888 NCBEES #F-0326



	NORTH	EAST	ELEV.
CUL1	858529.45	1806230.07	742.10
CUL2	858530.42	1806231.74	742.13
CE1	858529.87	1806230.84	744.08
HW1	858529.83	1806230.85	745.34
CUL3	N/A	N/A	N/A
CUL4	N/A	N/A	N/A
CE2	N/A	N/A	N/A
HW2	N/A	N/A	N/A



FROM -Y2- STA. 18+00 TO -Y2- STA. 22+50 (LT)
FROM -Y2- STA. 19+50 TO -Y2- STA. 22+50 (RT)

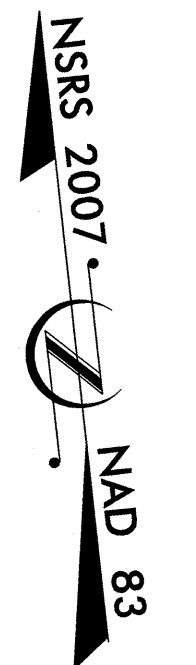


TEMPORARY MATTING FOR EROSION CONTROL

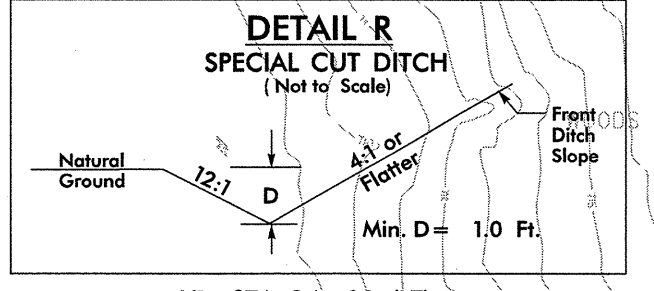
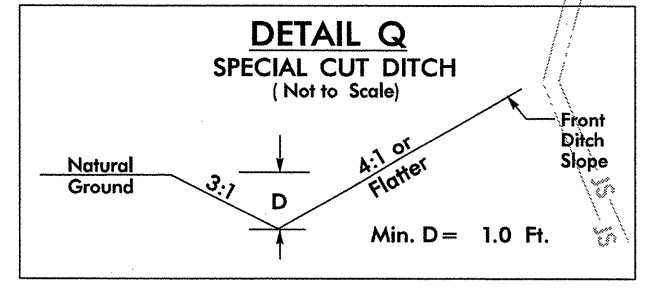
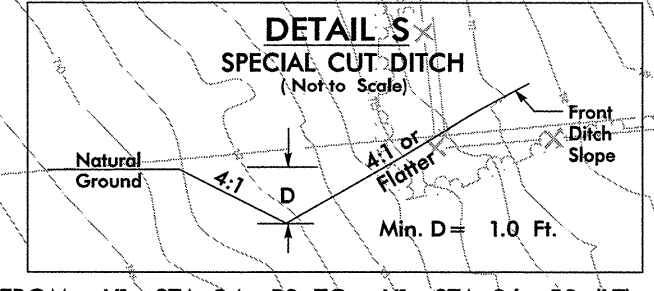
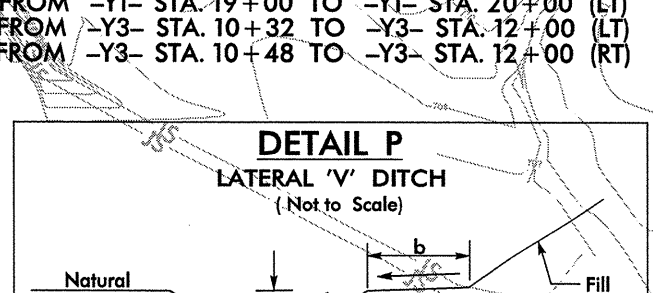
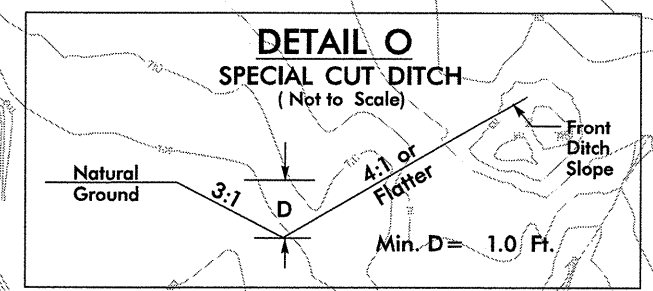
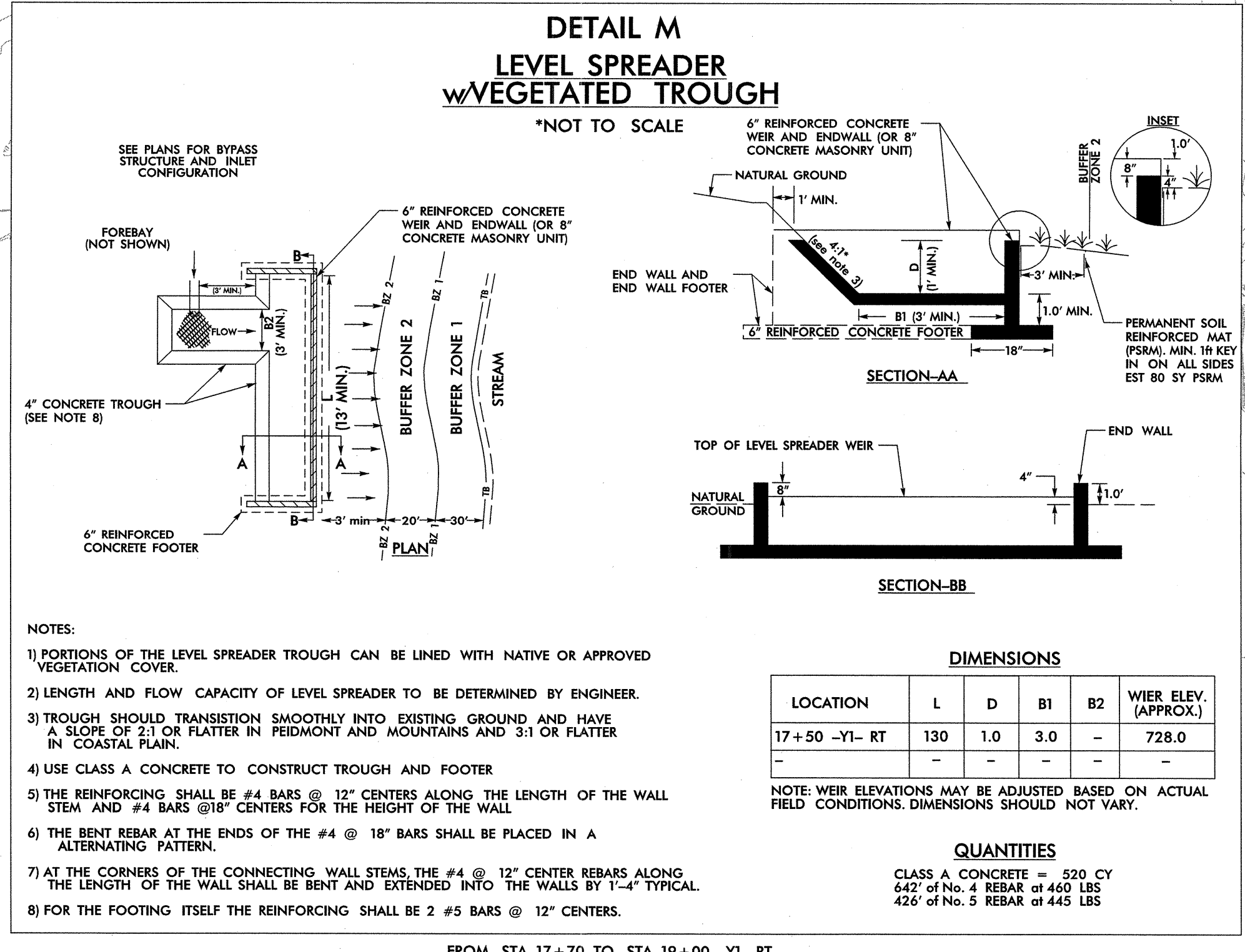
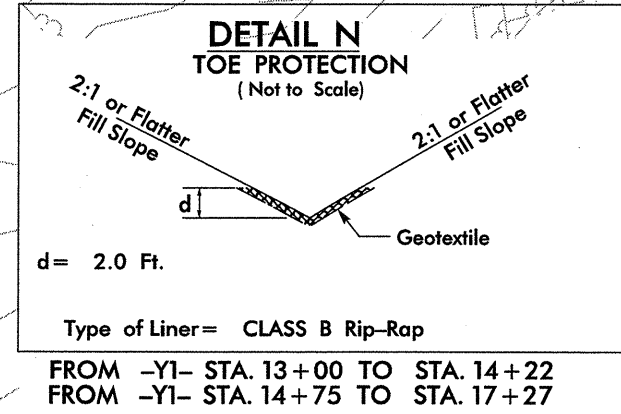
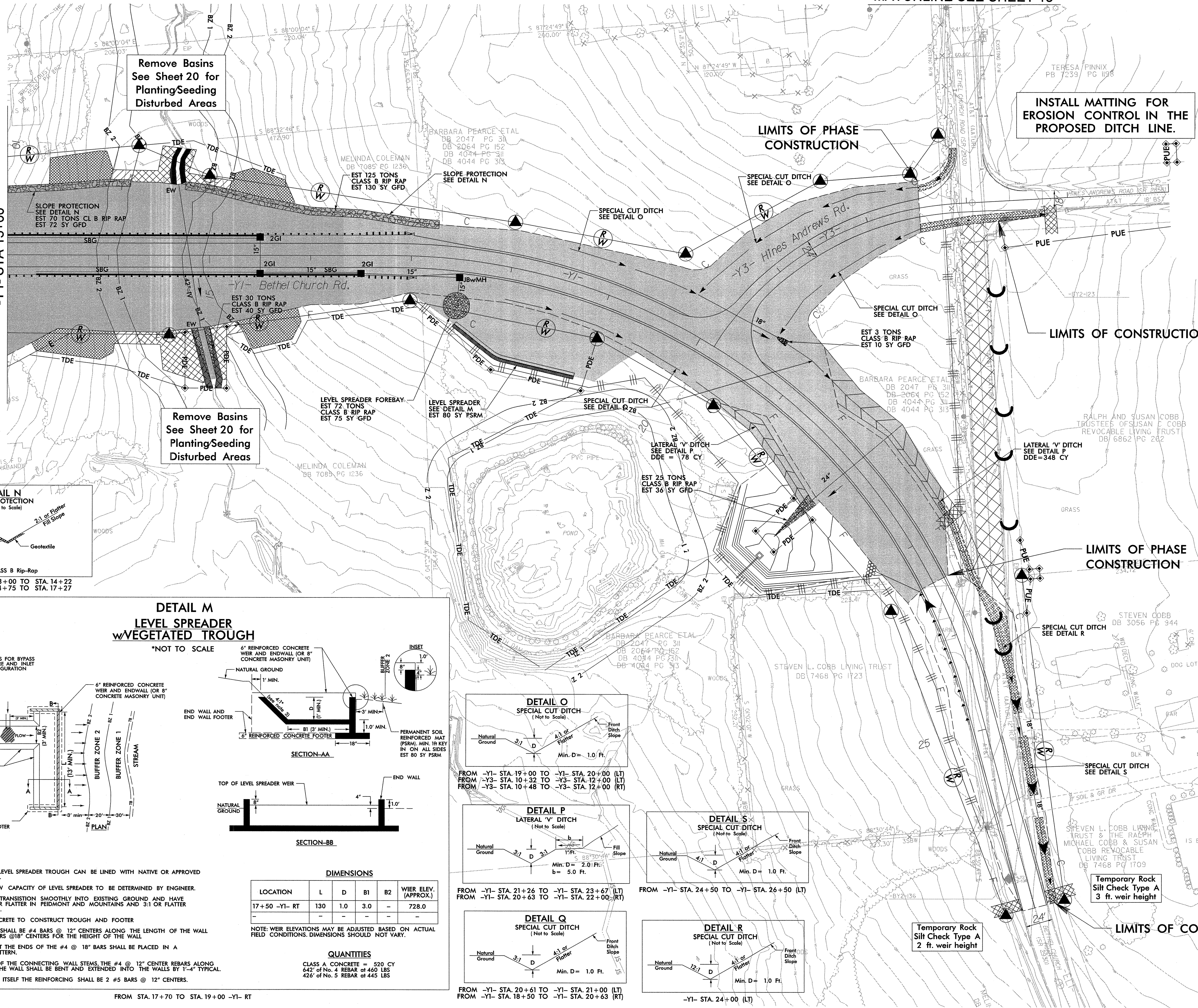
PROJECT REFERENCE NO. P-5204	SHEET NO. EC-15/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6886 NCBEES #F-0326

TEMPORARY MATTING FOR EROSION CONTROL



MATCHLINE SEE SHEET 12
-Y1- STA 13+00



INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

LIMITS OF PHASE CONSTRUCTION

LIMITS OF CONSTRUCTION

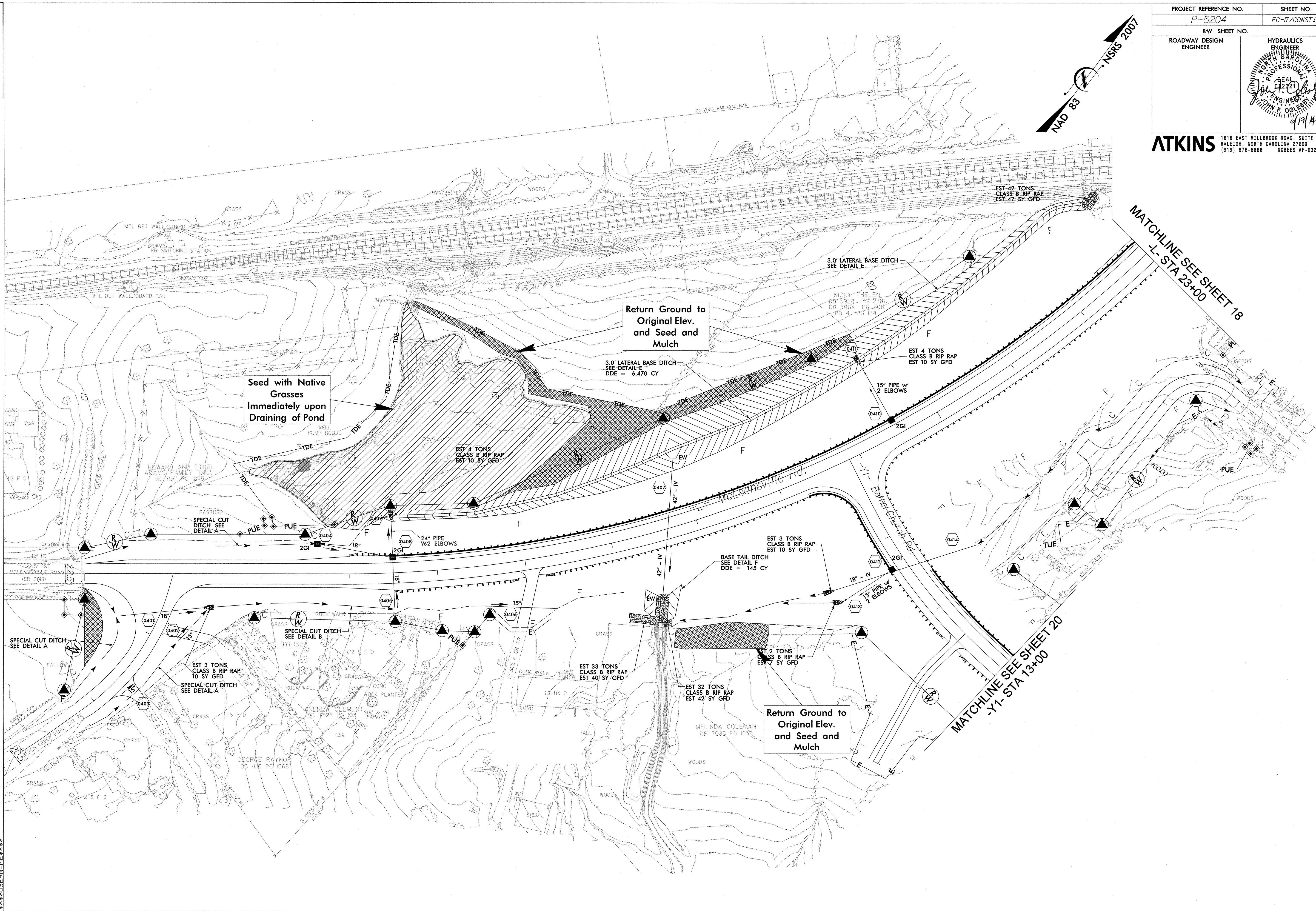
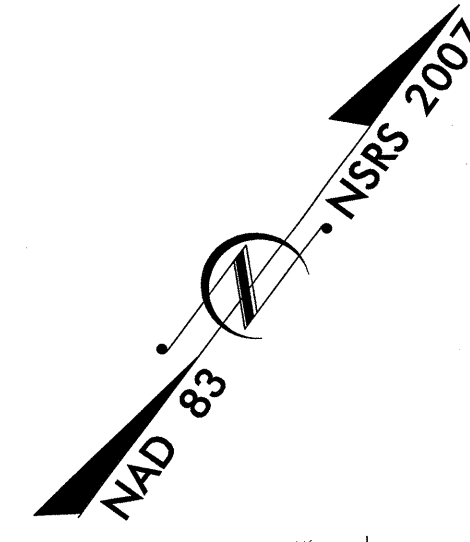
LIMITS OF CONSTRUCTION

Temporary Rock Silt Check Type A
2 ft. weir height

Temporary Rock Silt Check Type A
3 ft. weir height

PROJECT REFERENCE NO. <i>P-5204</i>	SHEET NO. <i>EC-17/CONST.04</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326



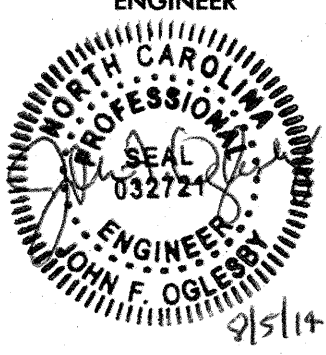
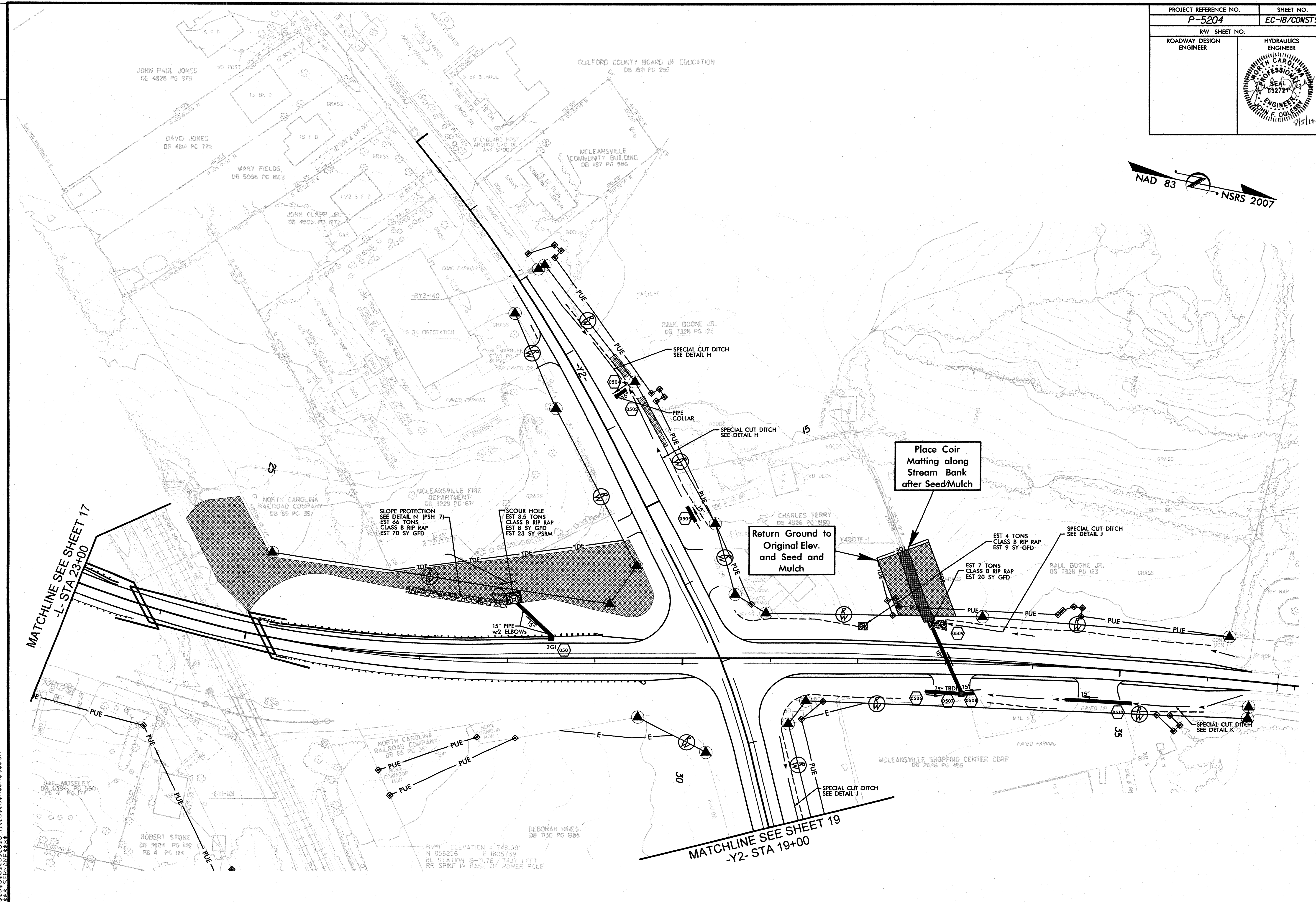
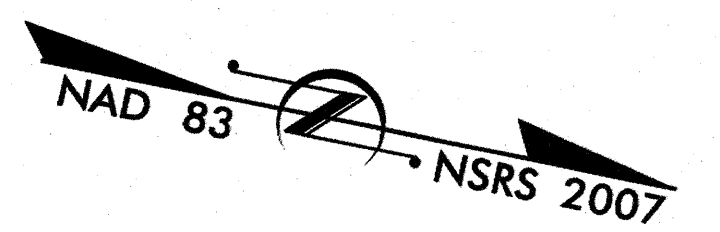
MATCHLINE SEE SHEET 18
-L- STA 23+00

MATCHLINE SEE SHEET 20
-Y1- STA 13+00

SECTION

0353DEL_P15

PROJECT REFERENCE NO.	SHEET NO.
P-5204	EC-18/CONST5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE SEE SHEET 17
-L- STA 23+00

MATCHLINE SEE SHEET 19
-Y2- STA 19+00

Place Coir
Matting along
Stream Bank
after Seed/Mulch

Return Ground to
Original Elev.
and Seed and
Mulch

SLOPE PROTECTION
SEE DETAIL N (PSH 7)
EST 66 TONS
CLASS B RIP RAP
EST 70 SY GFD

SCOUR HOLE
EST 3.5 TONS
CLASS B RIP RAP
EST 9 SY GFD
EST 23 SY PSRM

EST 4 TONS
CLASS B RIP RAP
EST 9 SY GFD

EST 7 TONS
CLASS B RIP RAP
EST 20 SY GFD

NORTH CAROLINA
RAILROAD COMPANY
DB 65 PG 354

MCLEANSVILLE SHOPPING CENTER CORP
DB 2648 PG 456

BM#1 ELEVATION = 748.09'
N 858256 E 1805739
BL STATION 18+71.76 74.17' LEFT
RR SPIKE IN BASE OF POWER POLE

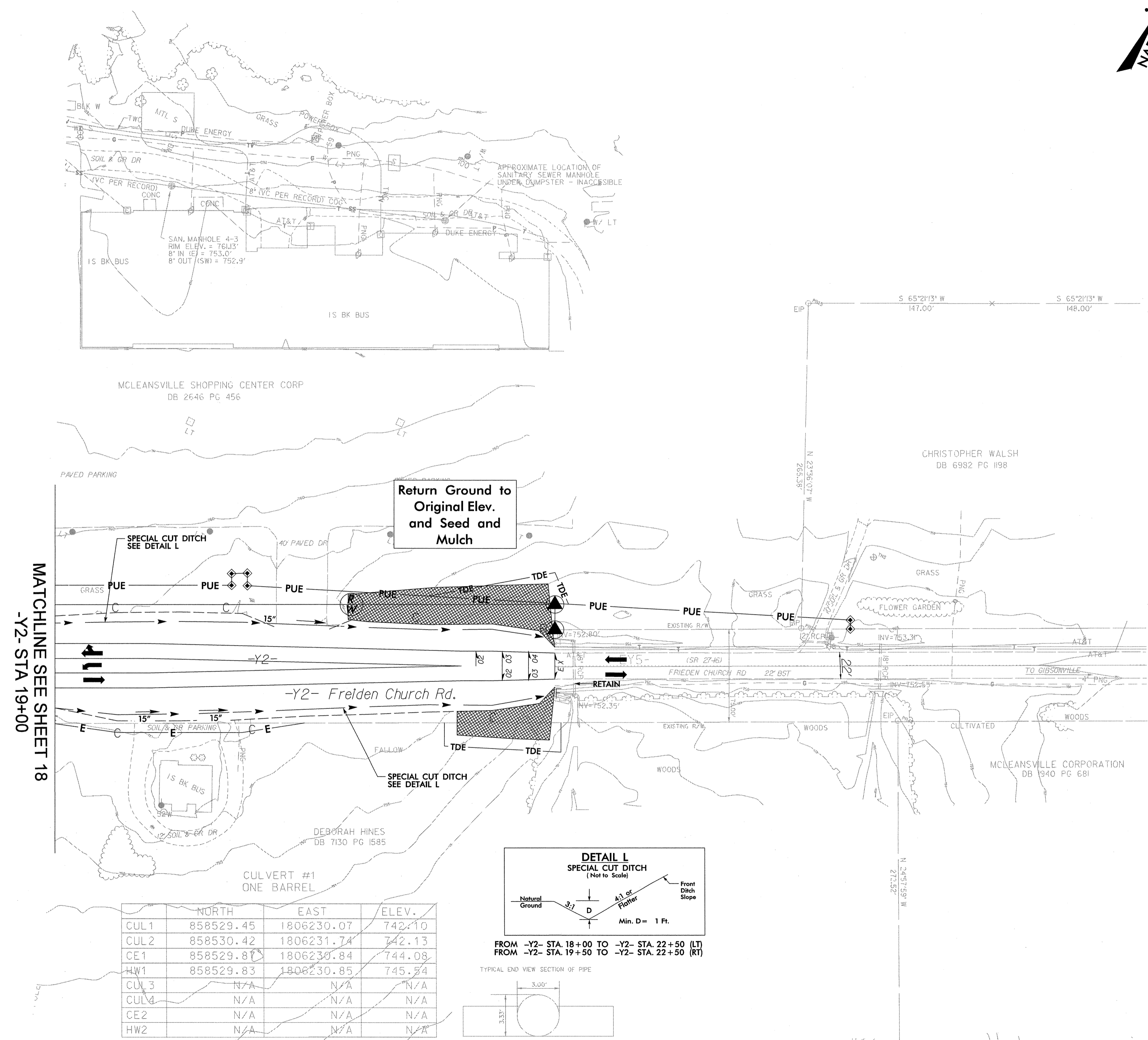
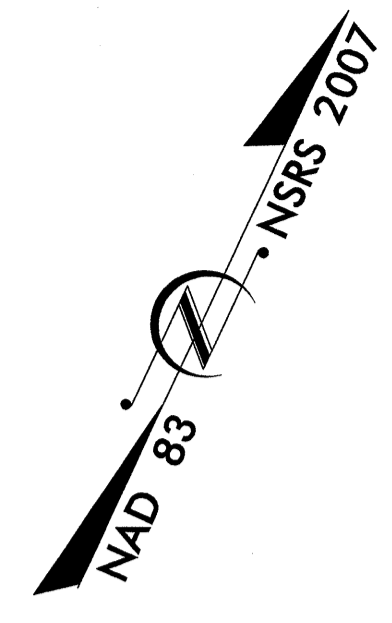
SYSTEMS & DESIGN
PLANNING & ENGINEERING

0353DEL_P15

PLAN

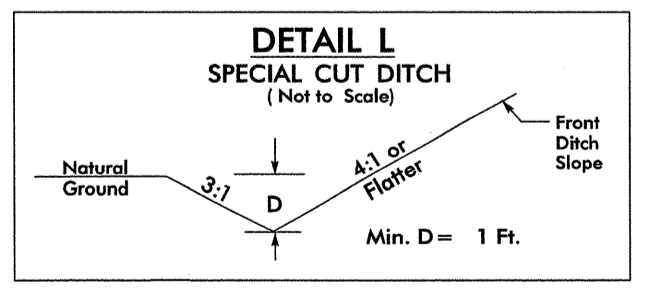
PROJECT REFERENCE NO.	SHEET NO.
P-5204	EC-19/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 676-6688 NCBEES #F-0326

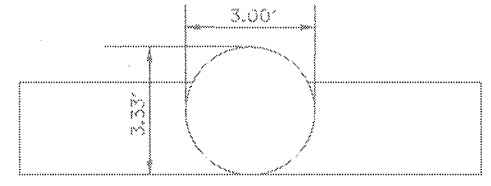


MATCHLINE SEE SHEET 18
-Y2- STA 19+00

Return Ground to Original Elev. and Seed and Mulch



FROM -Y2- STA. 18+00 TO -Y2- STA. 22+50 (LT)
FROM -Y2- STA. 19+50 TO -Y2- STA. 22+50 (RT)

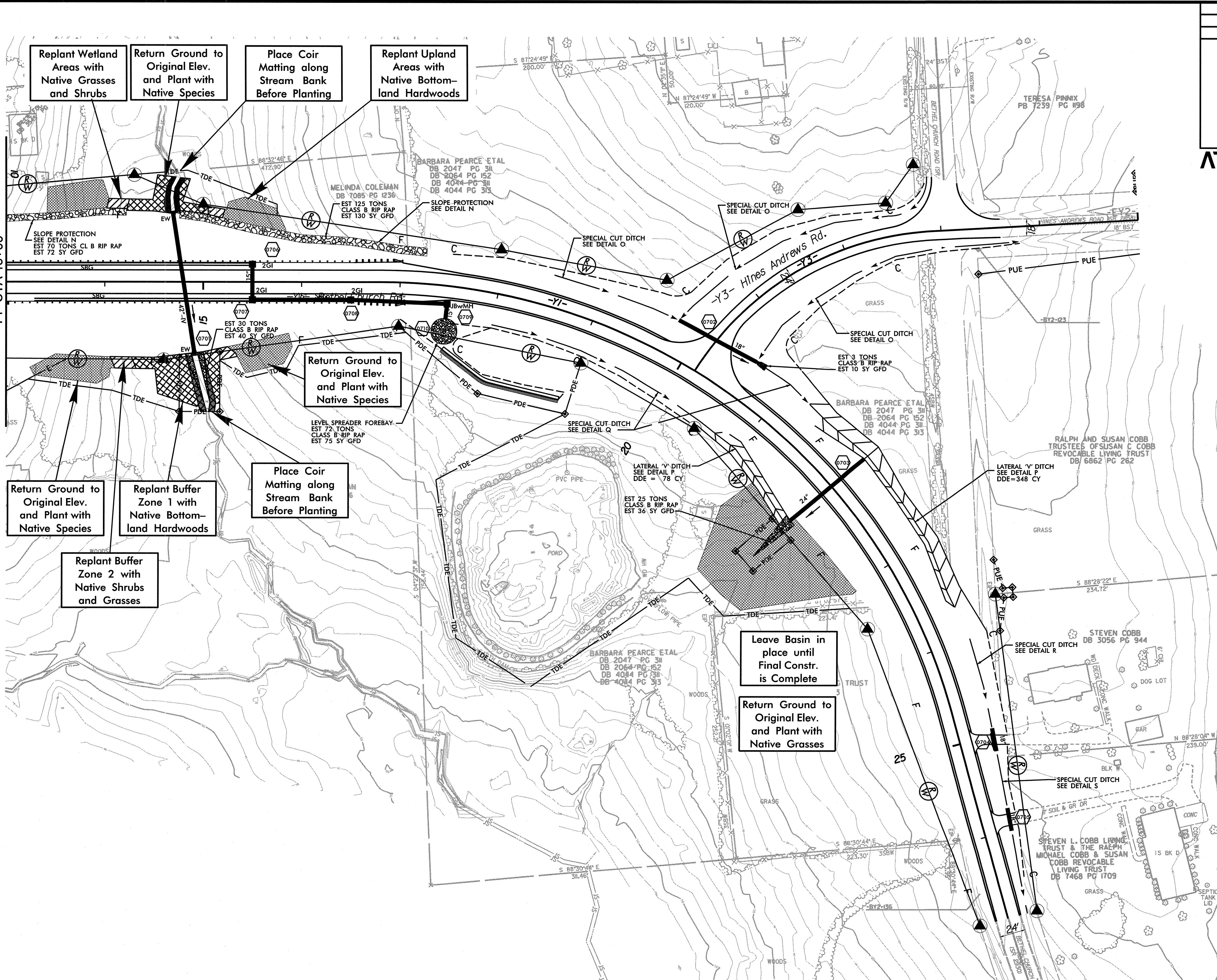


	NORTH	EAST	ELEV.
CUL 1	858529.45	1806230.07	742.10
CUL 2	858530.42	1806231.74	742.13
CE 1	858529.87	1806230.84	744.08
HW 1	858529.83	1806230.85	745.54
CUL 3	N/A	N/A	N/A
CUL 4	N/A	N/A	N/A
CE 2	N/A	N/A	N/A
HW 2	N/A	N/A	N/A

CULVERT #1
ONE BARREL

\$\$\$SYTIME\$\$\$
\$\$\$SUN\$\$\$
\$\$\$CON\$\$\$
\$\$\$STRU\$\$\$
\$\$\$ENR\$\$\$

MATCHLINE SEE SHEET 17
-Y1- STA 13+00



PROJECT REFERENCE NO.		SHEET NO.			
P-5204		EC-20/CONST 07			
RW SHEET NO.					
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER			

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-8888 NCBEES #F-0326



\$\$\$SYTIME\$\$\$
\$\$\$COUNTRIES\$\$\$
\$\$\$LINES\$\$\$
\$\$\$CIRCLES\$\$\$
\$\$\$TEXT\$\$\$