TIP PROJECT: B-3814

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

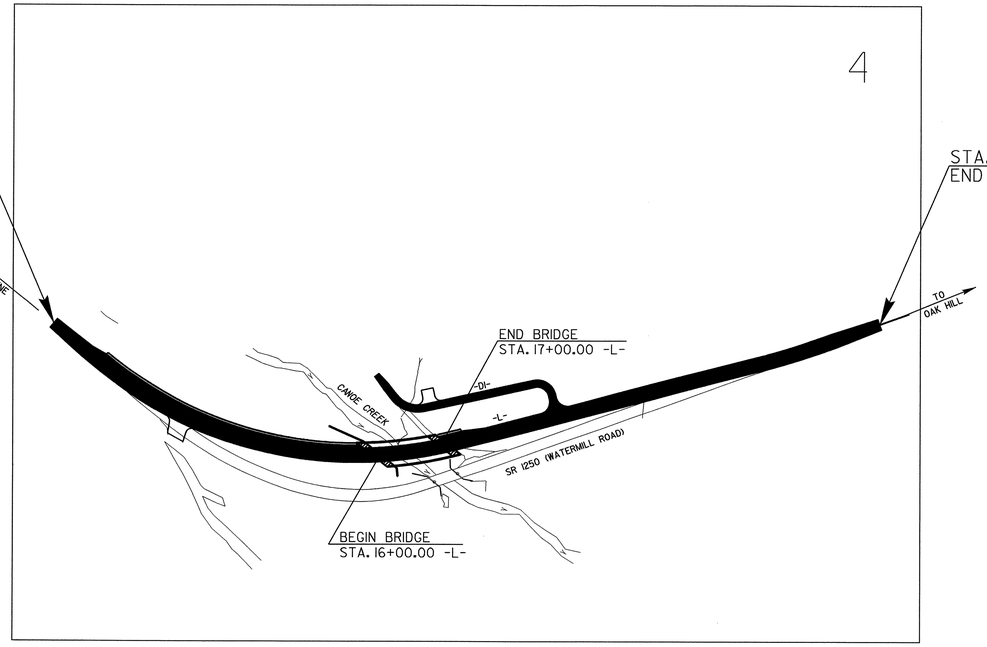
BURKE COUNTY

LOCATION: BRIDGE NO. 56 OVER CANOE CREEK ON SR 1250
TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURES.

NAD 83
NC GRID

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3814	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	

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

GRAPHIC SCALE

0
PLANS
0
PROFILE (HORIZONTAL)
0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2006 STANDARD SPECIFICATIONS

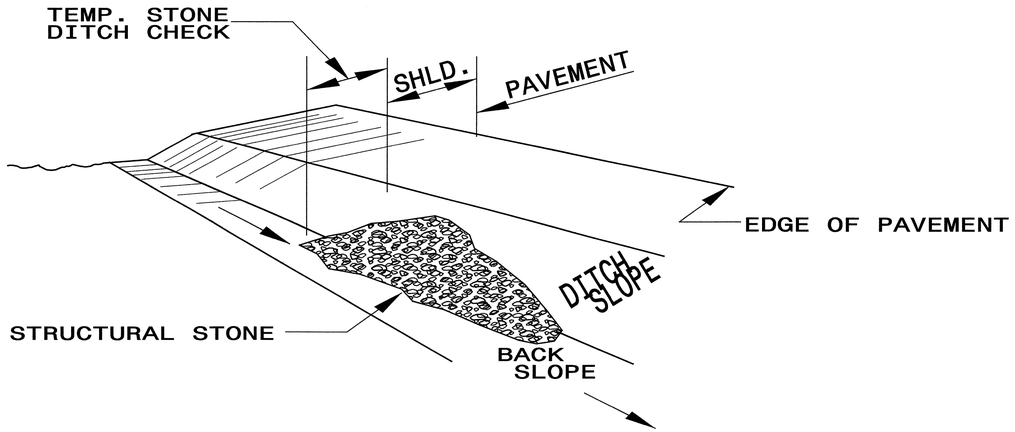
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated July 18, 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

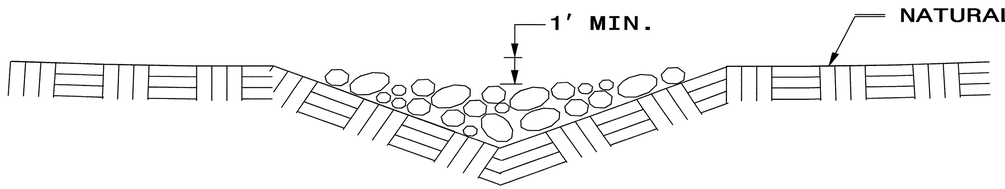
1605.01 Temporary Silt Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1634.02 Temporary Rock Sediment Dam Type B
1630.02 Silt Basin Type B	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.03 Temporary Silt Ditch	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	

PROJECT REFERENCE NO.	SHEET NO.
B-3814	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

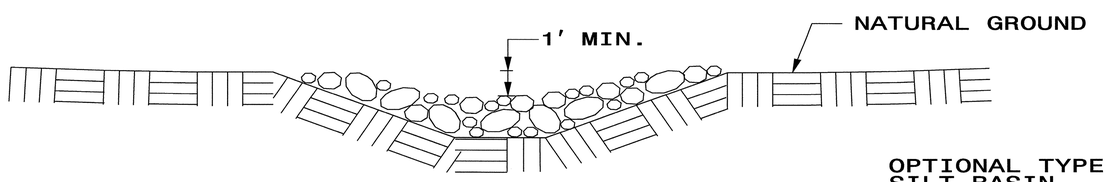
TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH

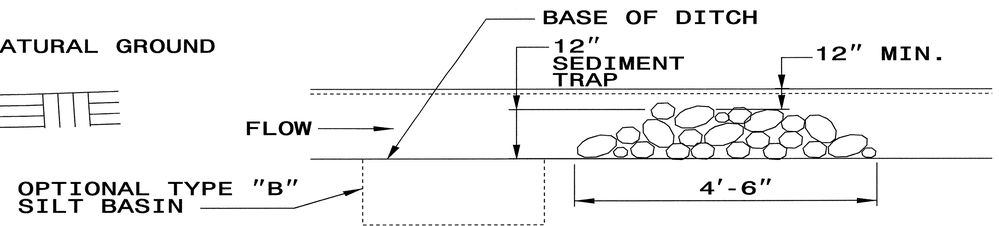


CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

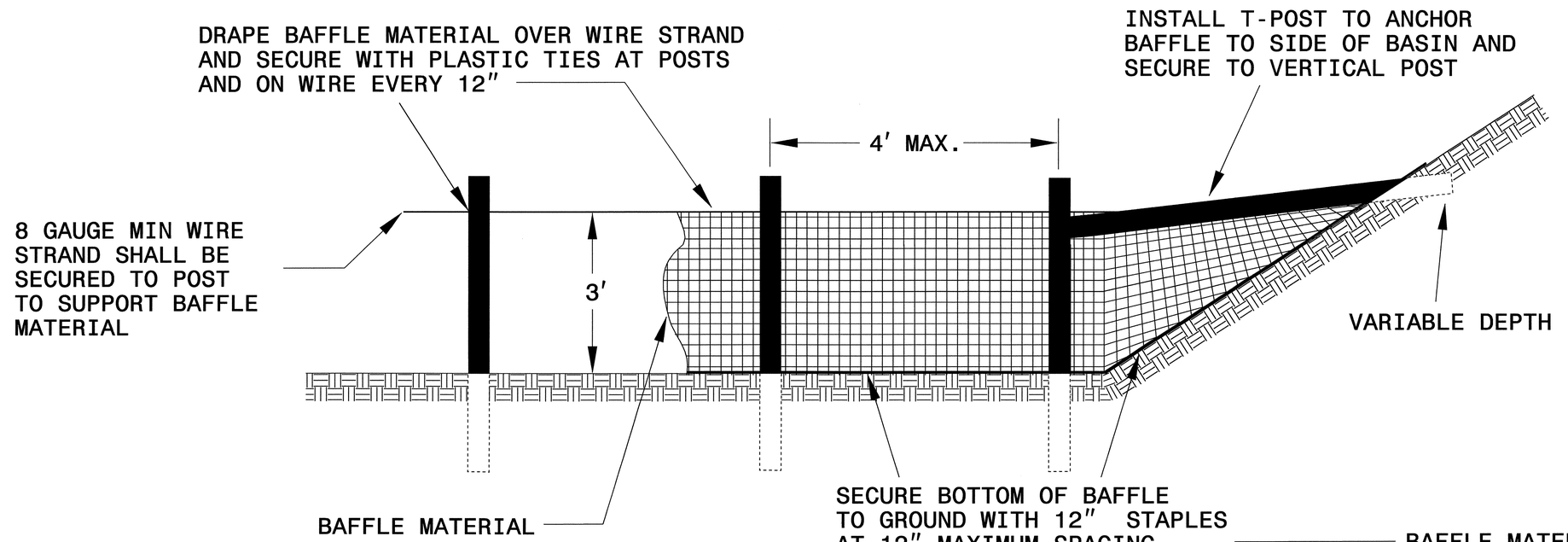
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



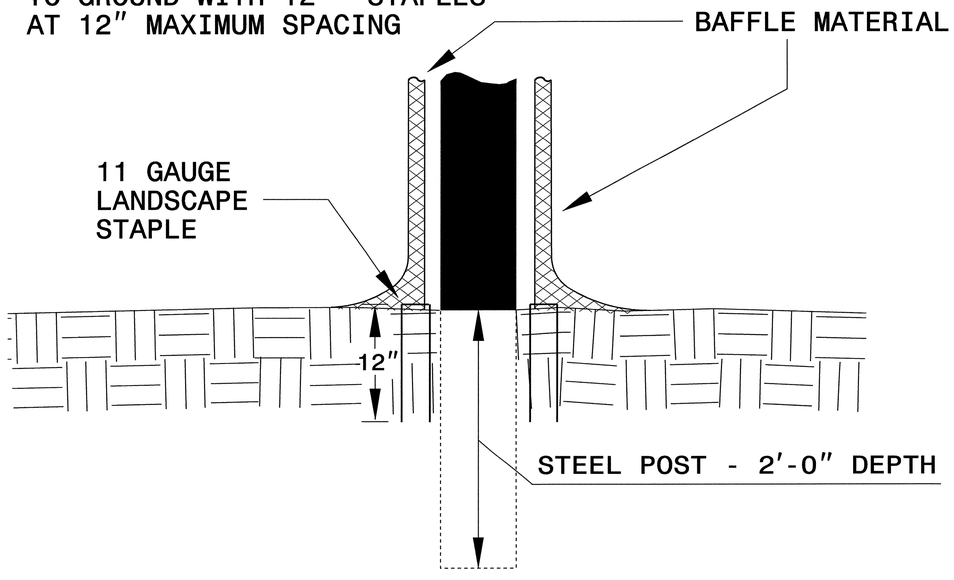
ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
B-3814	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



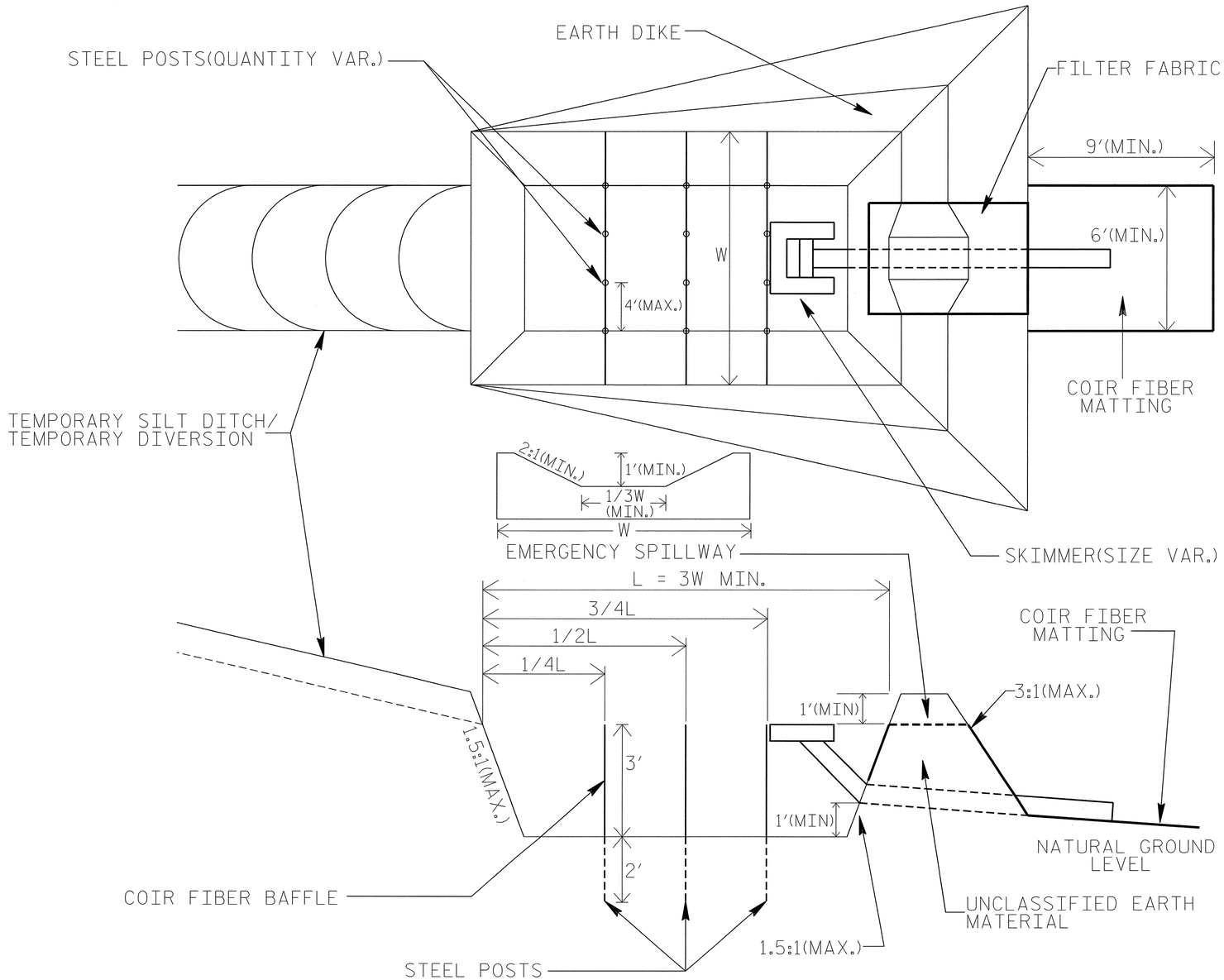
NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF 1/4 THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.



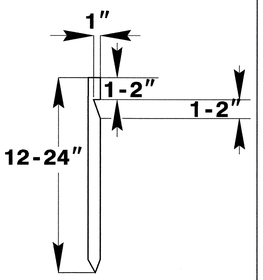
BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12″ LANDSCAPE STAPLES

SKIMMER BASIN WITH BAFFLES DETAIL

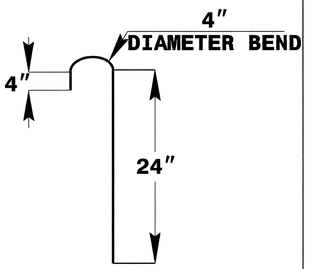
PROJECT REFERENCE NO.	SHEET NO.
B-3814	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



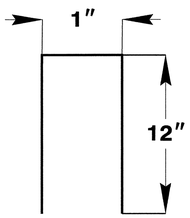
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

PROJECT REFERENCE NO.	SHEET NO.
B-3814	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

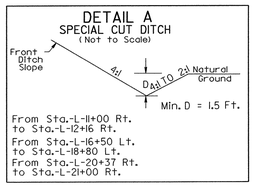
MATTING FOR EROSION CONTROL

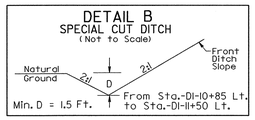
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	1200	1300	RT	50
4	-L-	1300	1350	RT	25
4	-L-	1000	1200	RT	280
4	-D1-	1000	1000	LT	35
4	-D1-	1000	1050	LT	25
				SUBTOTAL	415
	ADDITIONAL PSRM TO BE INSTALLED				825
				TOTAL	1240
				SAY	1250

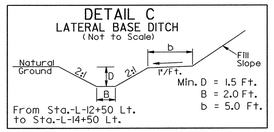
PERMANENT SOIL REINFORCEMENT MAT

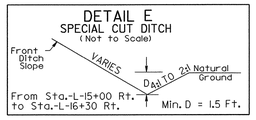
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	1000	1200	LT	90
4	-L-	1750	1885	LT	190
4	-L-	1950	2040	LT	130
4	-L-	2110	2350	LT	240
4	-L-	1050	1150	RT	140
4	-L-	1100	1200	RT	50
4	-L-	1350	1400	RT	25
4	-L-	1400	1500	RT	50
4	-L-	1500	1650	RT	210
4	-L-	1240	1400	RT	260
4	-L-	1500	1600	RT	100
4	-L-	2090	2400	RT	305
4	-D1-	1160	1270	LT	155
			SUBTOTAL		1945
	ADDITIONAL PSRM TO BE INSTALLED				0
			TOTAL		1945
			SAY		1950

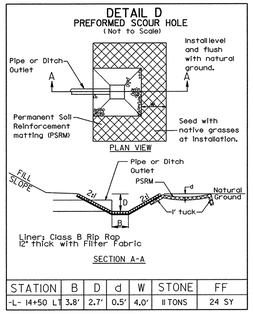
PROJECT REFERENCE NO.	SHEET NO.
B-3814	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



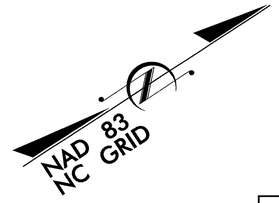




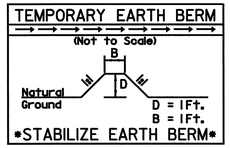




STATION	B	D	d	W	STONE	FF
-L- 14+50 LT	3.8'	2.7'	0.5'	4.0'	11 TONS	24 SY



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

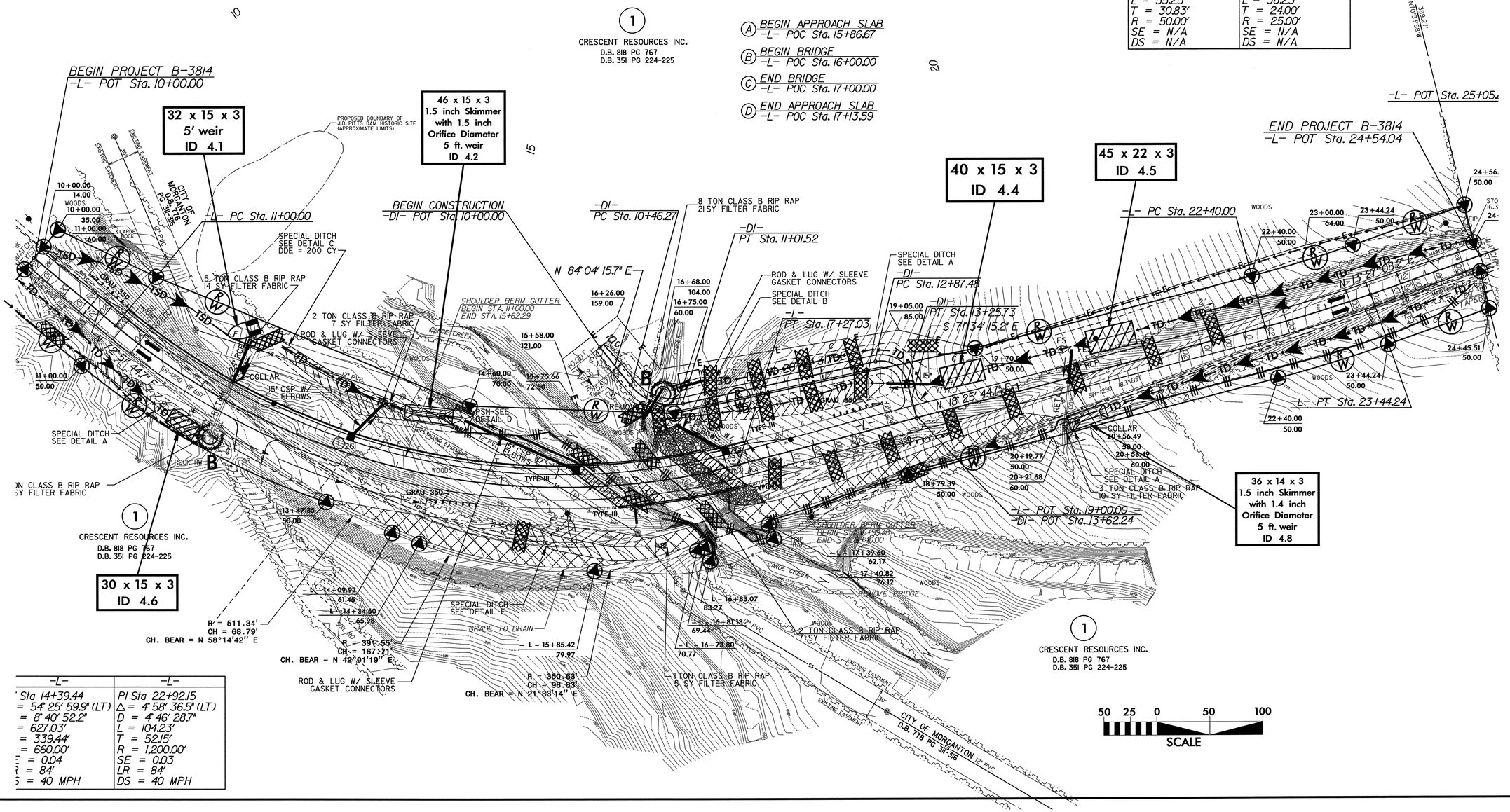


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE:
UTILIZE TEMPORARY ROCK SILT CHECK TYPE – A AND/OR SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

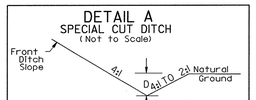
-DI-	-DI-
PI Sta 10+77.09	PI Sta 13+11.48
Δ = 63° 18' 44.0" (LT)	Δ = 87° 40' 13.1" (RT)
D = 114° 35' 29.6"	D = 229° 10' 59.2"
L = 55.25'	L = 38.25'
T = 30.83'	T = 24.00'
R = 50.00'	R = 25.00'
SE = N/A	SE = N/A
DS = N/A	DS = N/A

-L-	-L-
PI Sta 14+39.44	PI Sta 22+92.15
Δ = 54° 25' 59.9" (LT)	Δ = 4° 58' 36.5" (LT)
D = 8° 40' 52.2"	D = 4° 46' 28.7"
L = 627.03'	L = 104.23'
T = 339.44'	T = 52.15'
R = 660.00'	R = 1,200.00'
SE = 0.04	SE = 0.03
LR = 84'	LR = 84'
DS = 40 MPH	DS = 40 MPH



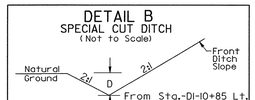
PROJECT REFERENCE NO.	SHEET NO.
B-3814	EC-5/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



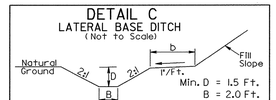
From Sta.-L-11+00 Rt. to Sta.-L-12+16 Rt.
From Sta.-L-16+50 Lt. to Sta.-L-18+80 Lt.
From Sta.-L-20+37 Rt. to Sta.-L-21+00 Rt.

DETAIL B
SPECIAL CUT DITCH
(Not to Scale)



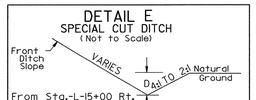
From Sta.-DI-10+85 Lt. to Sta.-DI-11+50 Lt.

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



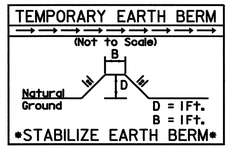
From Sta.-L-12+50 Lt. to Sta.-L-14+50 Lt.

DETAIL E
SPECIAL CUT DITCH
(Not to Scale)



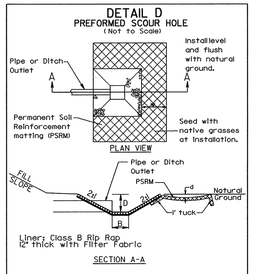
From Sta.-L-15+00 Rt. to Sta.-L-16+30 Rt.

TEMPORARY EARTH BERM
(Not to Scale)



STABILIZE EARTH BERM

DETAIL D
PREFORMED SCOUR HOLE
(Not to Scale)



STATION	B	D	d	W	STONE	FF
-L- 14+50 LT	3.8'	2.7'	0.5'	4.0'	11 TONS	24 SY

NAD 83 NC GRID

NOTE:
UTILIZE TEMPORARY ROCK SILT CHECK TYPE – A AND/OR SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

-DI-	-DI-
PI Sta 10+77.09	PI Sta 13+11.48
△ = 63° 18' 44.0" (LT)	△ = 87° 40' 13.1" (RT)
D = 114° 35' 29.6"	D = 229° 10' 59.2"
L = 55.25'	L = 38.25'
T = 30.83'	T = 24.00'
R = 50.00'	R = 25.00'
SE = N/A	SE = N/A
DS = N/A	DS = N/A

-L-	-L-
' Sta 14+39.44	PI Sta 22+92.15
= 54° 25' 59.9" (LT)	△ = 4° 58' 36.5" (LT)
= 8° 40' 52.2"	D = 4° 46' 28.7"
= 627.03'	L = 104.23'
= 339.44'	T = 52.15'
= 660.00'	R = 1,200.00'
= 0.04	SE = 0.03
= 84'	LR = 84'
= 40 MPH	DS = 40 MPH

BEGIN PROJECT B-3814
-L- POT Sta. 10+00.00

32 x 15 x 3
5' weir
ID 4.1

46 x 15 x 3
1.5 inch Skimmer with 1.5 inch Orifice Diameter
5 ft. weir
ID 4.2

40 x 15 x 3
ID 4.4

45 x 22 x 3
ID 4.5

36 x 14 x 3
1.5 inch Skimmer with 1.4 inch Orifice Diameter
5 ft. weir
ID 4.8

30 x 15 x 3
ID 4.6

45 x 15 x 3
1.5 inch Skimmer with 1.5 inch Orifice Diameter
5 ft. weir
ID 4.7

(1) CRESCENT RESOURCES INC.
D.B. 818 PG 767
D.B. 351 PG 224-225

(A) BEGIN APPROACH SLAB
-L- POC Sta. 15+86.67
(B) BEGIN BRIDGE
-L- POC Sta. 16+00.00
(C) END BRIDGE
-L- POC Sta. 17+00.00
(D) END APPROACH SLAB
-L- POC Sta. 17+13.59

LUTHER & DARLENE
D.B. 825 PG 761

-L- POT Sta. 25+05.

END PROJECT B-3814
-L- POT Sta. 24+54.04

-L- PC Sta. 11+00.00
-L- PC Sta. 22+40.00
-L- PT Sta. 23+44.24
-DI- POT Sta. 10+00.00
-DI- PC Sta. 10+46.27
-DI- PT Sta. 11+01.52
-DI- PC Sta. 12+87.48
-DI- PT Sta. 13+25.73
-L- PT Sta. 17+27.03
-L- POT Sta. 19+00.00 = -DI- POT Sta. 13+62.24

BEGIN CONSTRUCTION

SPECIAL DITCH SEE DETAIL C DDE = 200 CY
5 TON CLASS B RIP RAP 14 SY FILTER FABRIC
2 TON CLASS B RIP RAP 7 SY FILTER FABRIC
8 TON CLASS B RIP RAP 21SY FILTER FABRIC
3 TON CLASS B RIP RAP 10 SY FILTER FABRIC
2 TON CLASS B RIP RAP 7 SY FILTER FABRIC
ITON CLASS B RIP RAP 5 SY FILTER FABRIC
ROD & LUG W/ SLEEVE GASKET CONNECTORS
SPECIAL DITCH SEE DETAIL A
SPECIAL DITCH SEE DETAIL B
SPECIAL DITCH SEE DETAIL E
GRADE TO DRAIN
REMOVE BRIDGE
SHOULDER BERM GUTTER BEGIN STA.11+00.00 END STA.15+62.29
SHOULDER BERM GUTTER BEGIN STA.16+99.78 END STA.17+40.00
CANOE CREEK
COLLAR
15" CSP W/ ELBOWS
24" RCP
18" RCP
CSH-SEE DETAIL D
GRAU 350
TYPE-III
SR-1250 18' BST
SR-1250 18.3' BST
RET. WALL
CONC. CURB
WOODS
CITY OF MORGANTON D.B. 778 PG 316
12" PVC
30" EXISTING EASEMENT
N 84° 04' 15.7" E
N 20° 31' 17" E
N 18° 25' 44.7" E
N 13° 21' 08.2" E
S 71° 34' 15.2" E
N 72° 51' 44.7" E
R = 511.34'
CH = 68.79'
CH. BEAR = N 58°14'42" E
R = 391.55'
CH = 167.71'
CH. BEAR = N 42°01'19" E
R 350.63'
CH = 98.83'
CH. BEAR = N 21°33'14" E
389.27' N 75°35'58" W

50 25 0 50 100
SCALE