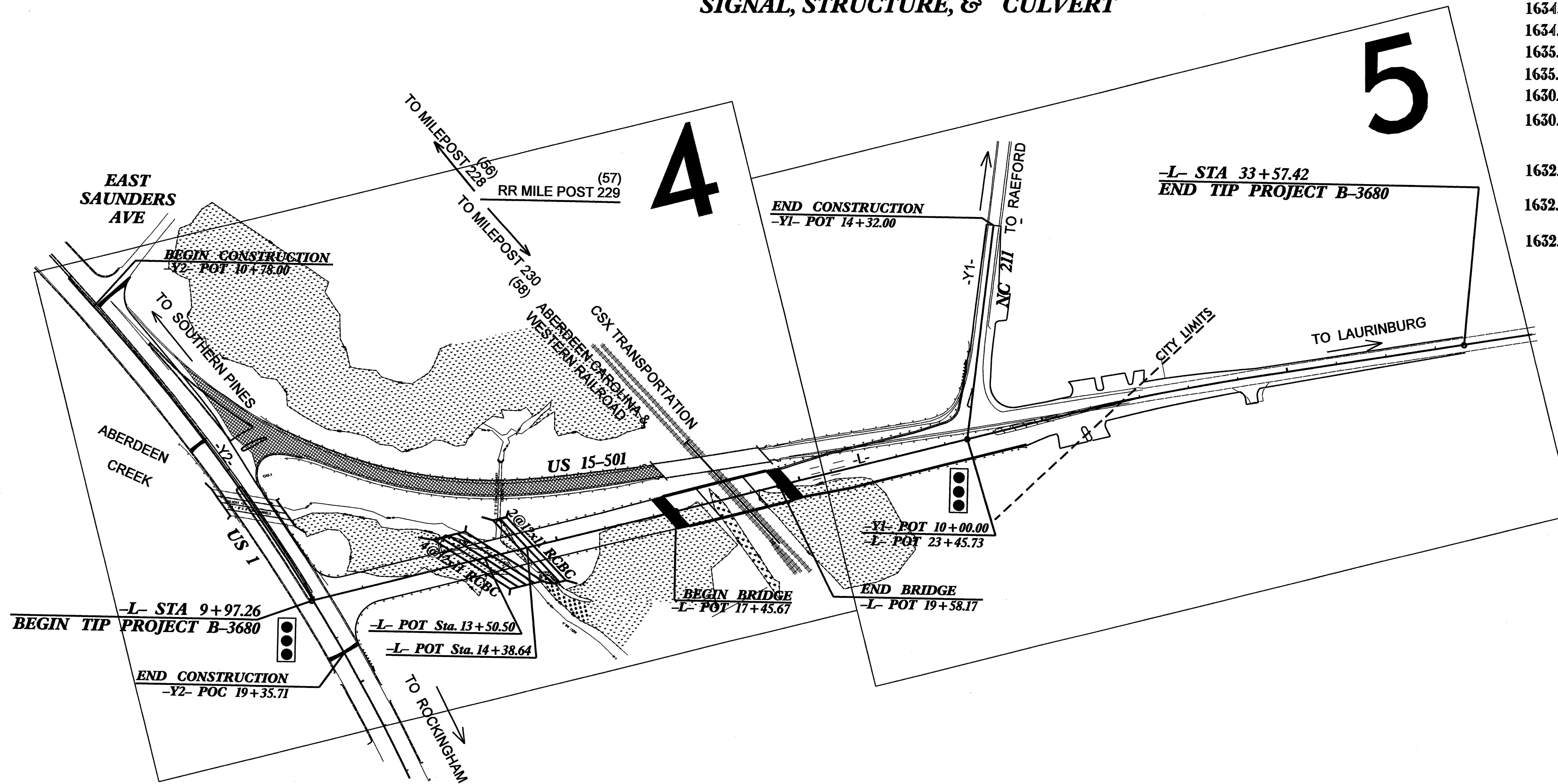
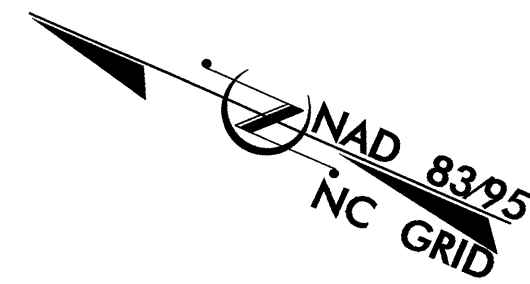


TIP PROJECT: B-3680

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

LOCATION: BRIDGE NO. 2 OVER CSX TRANSPORTATION ON US 15501
**TYPE OF WORK: GRADING, PAVING, DRAINAGE,
SIGNAL, STRUCTURE, & CULVERT**

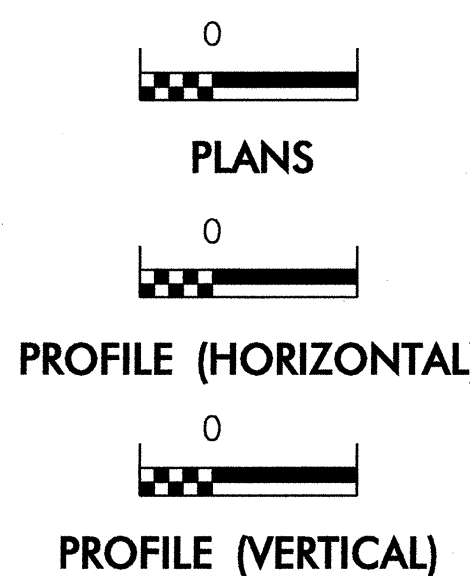


EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	HH HH HH
1606.01	Special Sediment Control Fence	ZZZZZZ
1622.01	Temporary Berms and Slope Drains	—
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
1633.02	Temporary Rock Silt Check Type-B	▨
	Wattle / Coir Fiber Wattle	—
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	—
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	U
1635.02	Rock Pipe Inlet Sediment Trap Type-B	U
1630.04	Stilling Basin	▭
1630.06	Special 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	▭
	Infiltration Basin	▭

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

GRAPHIC SCALE



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:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2012 STANDARD SPECIFICATIONS

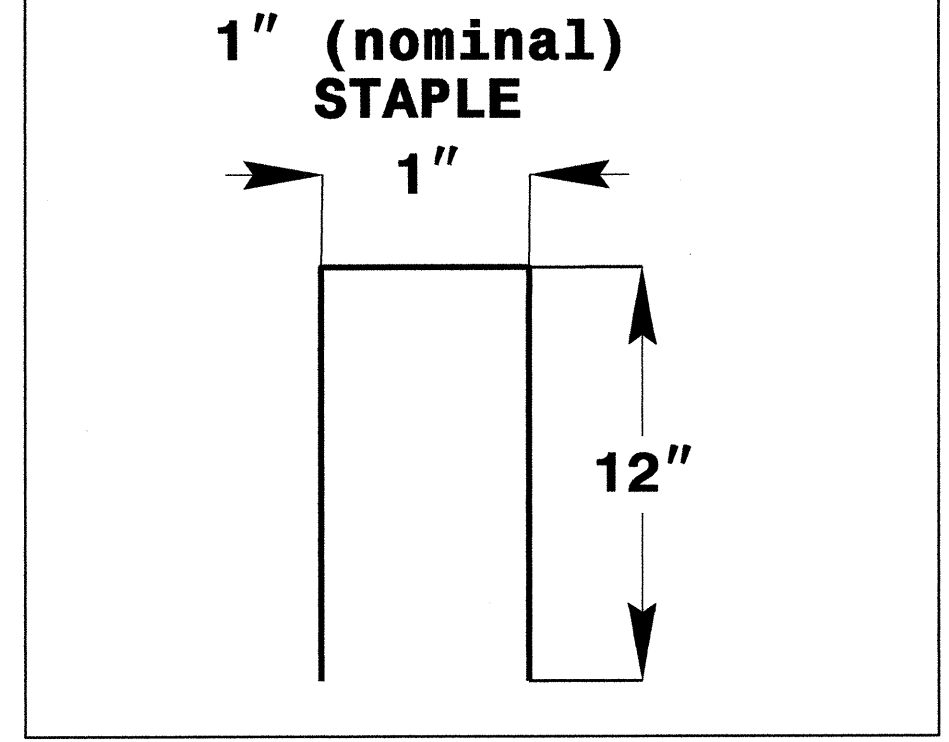
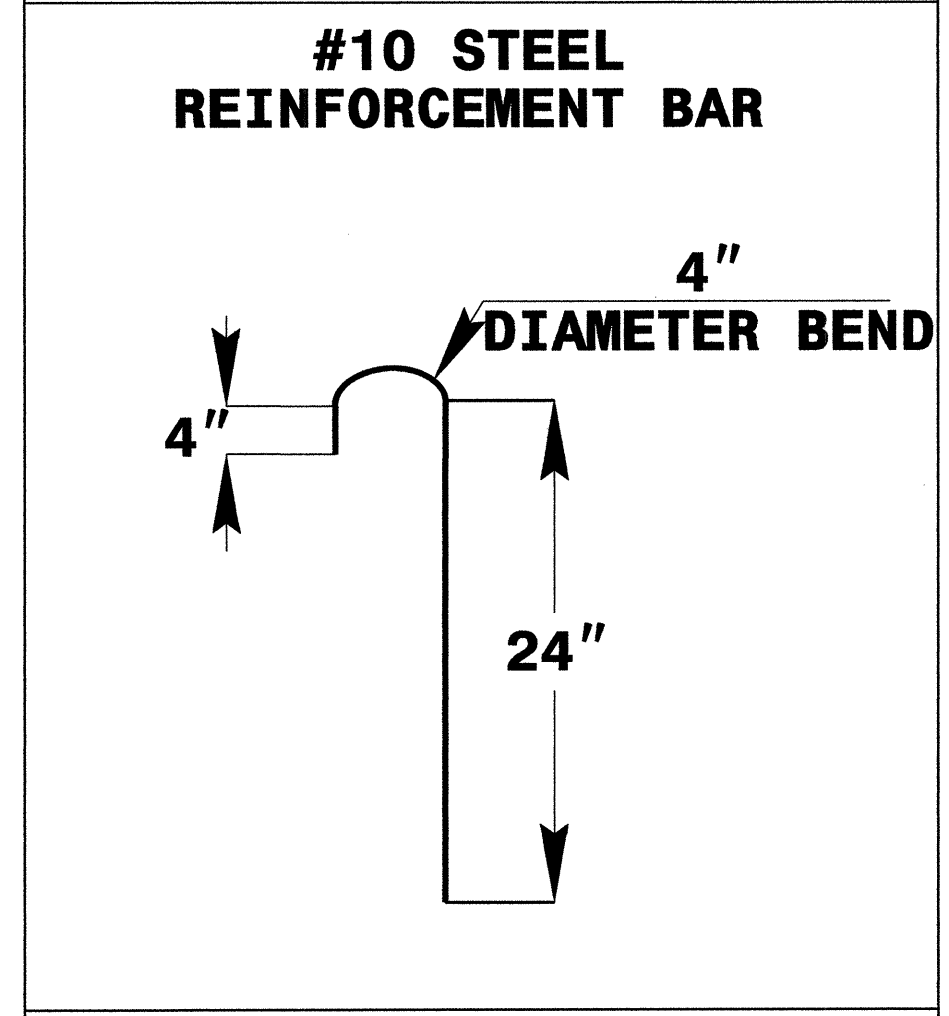
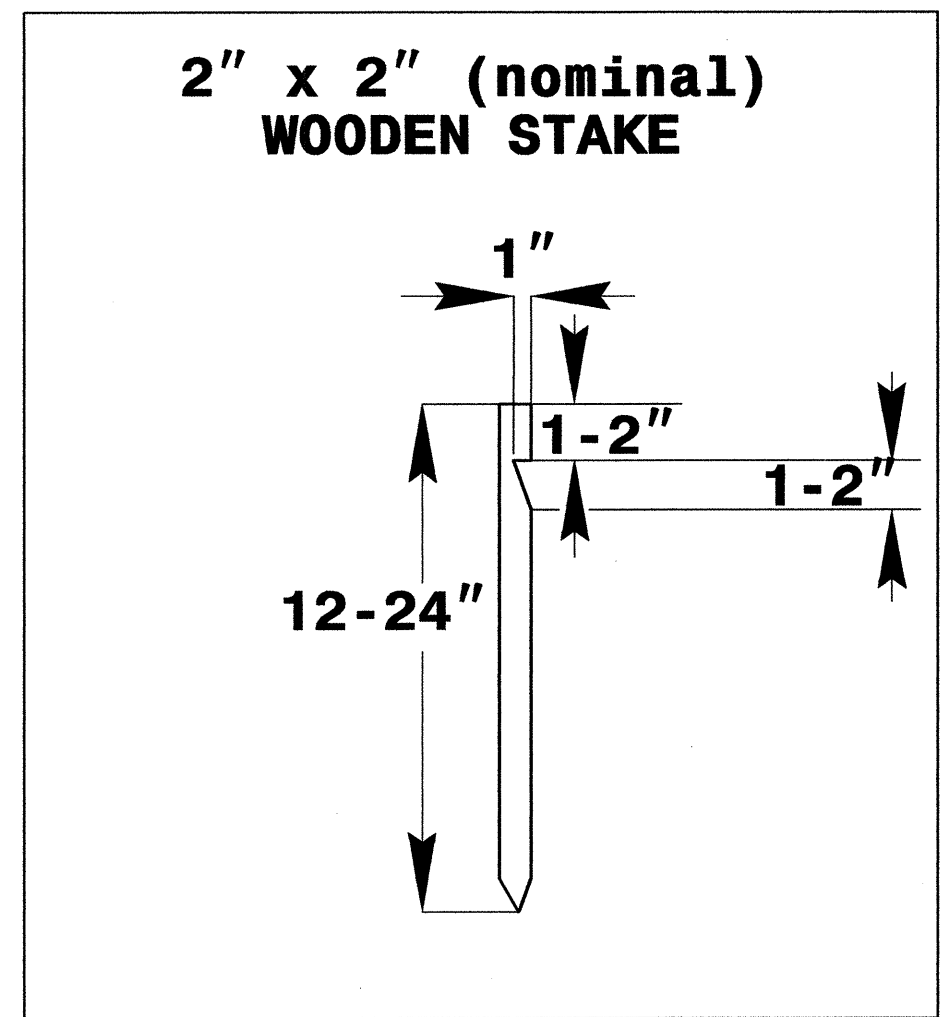
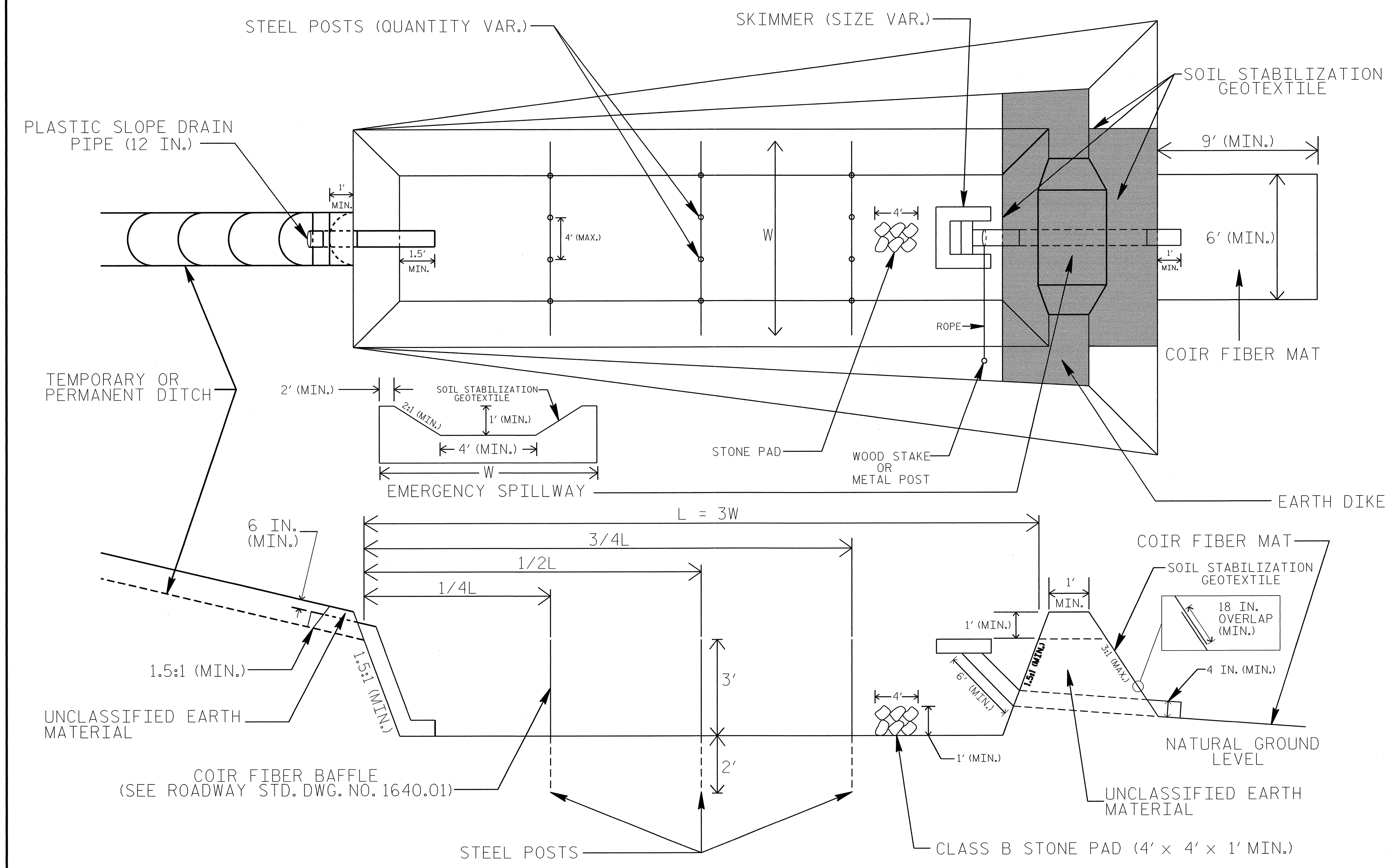
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated 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. B-3680	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

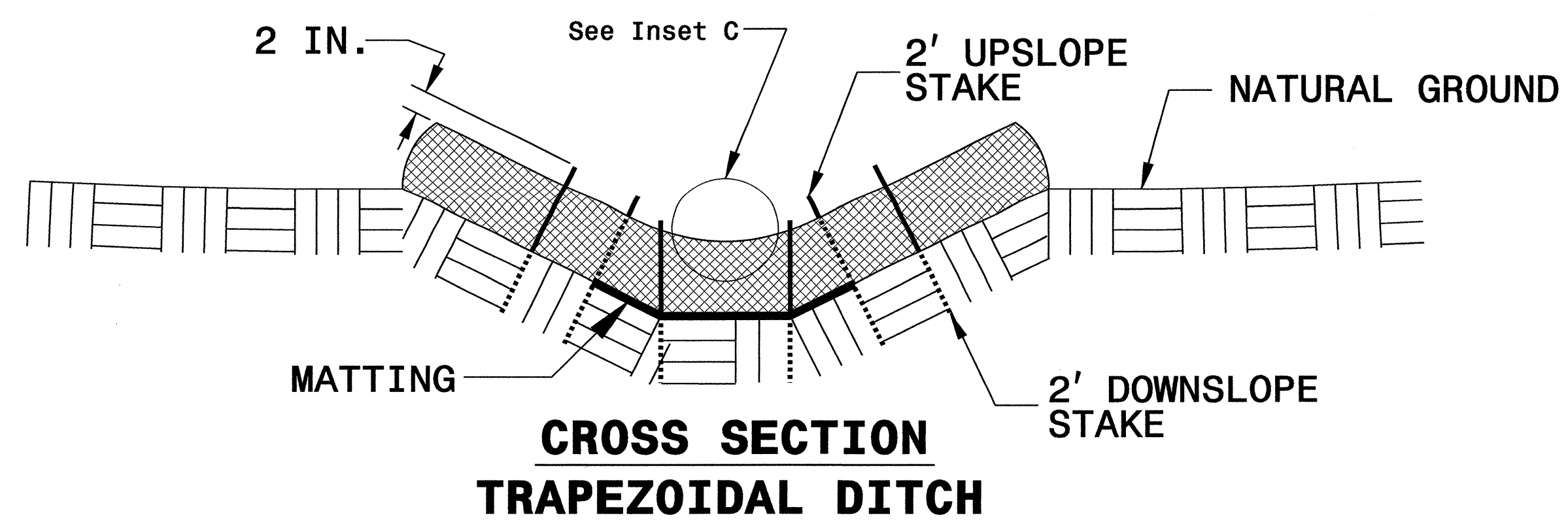
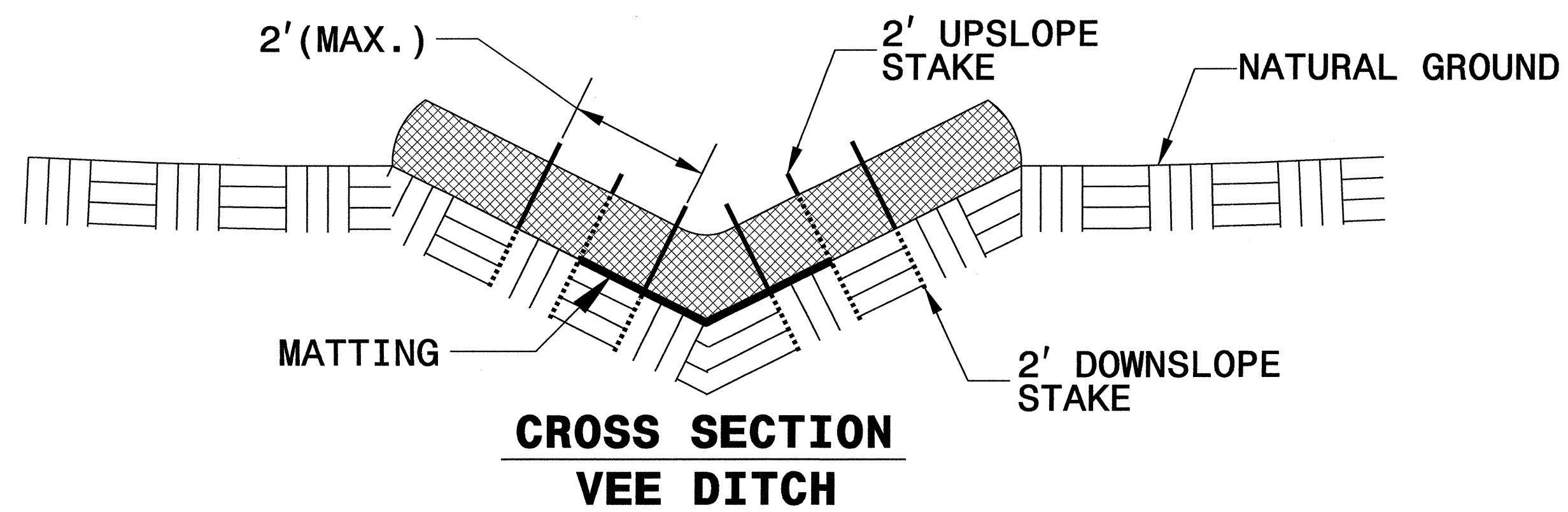
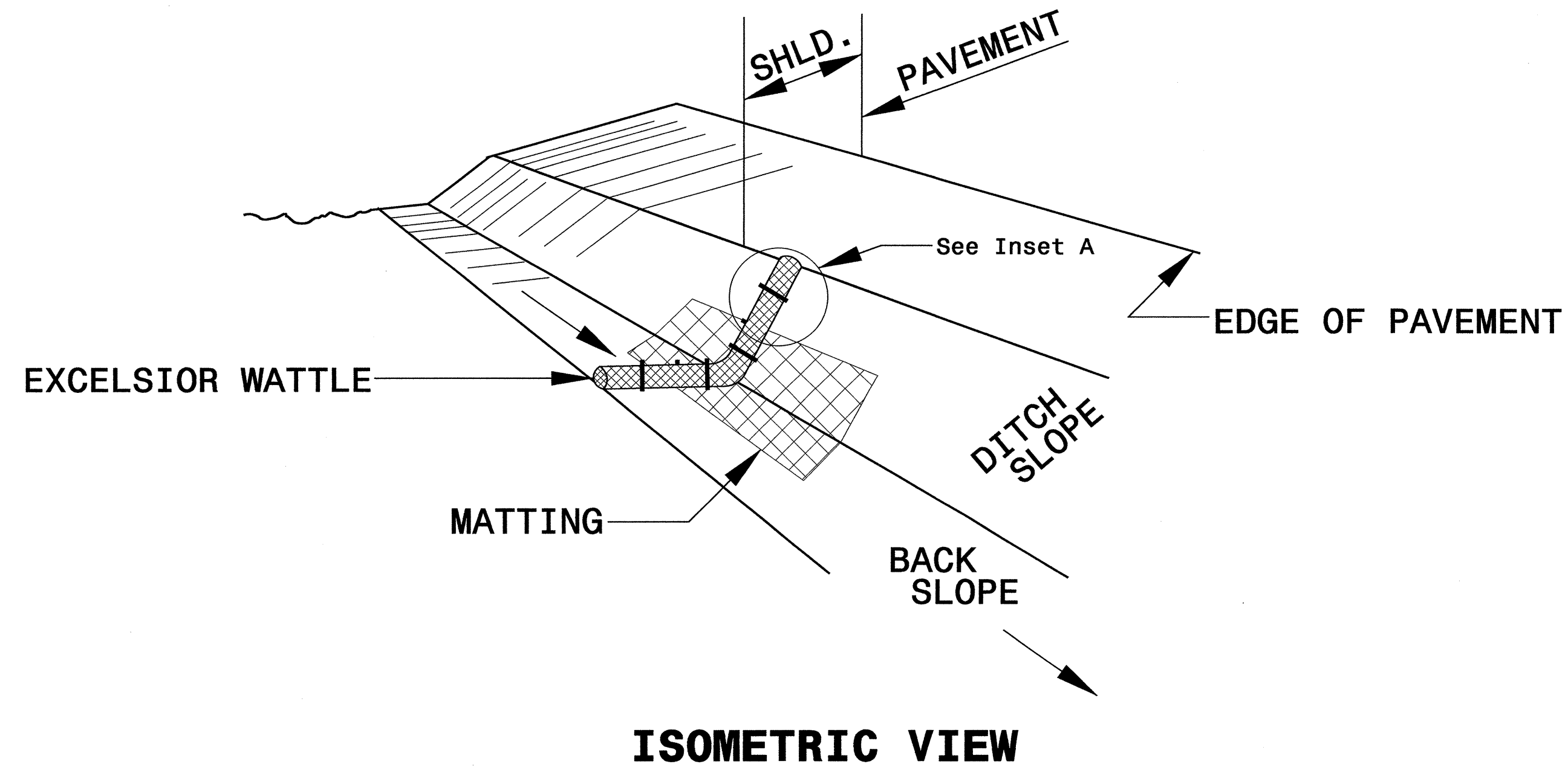
NOTES

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 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 AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO. B-3680	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



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.

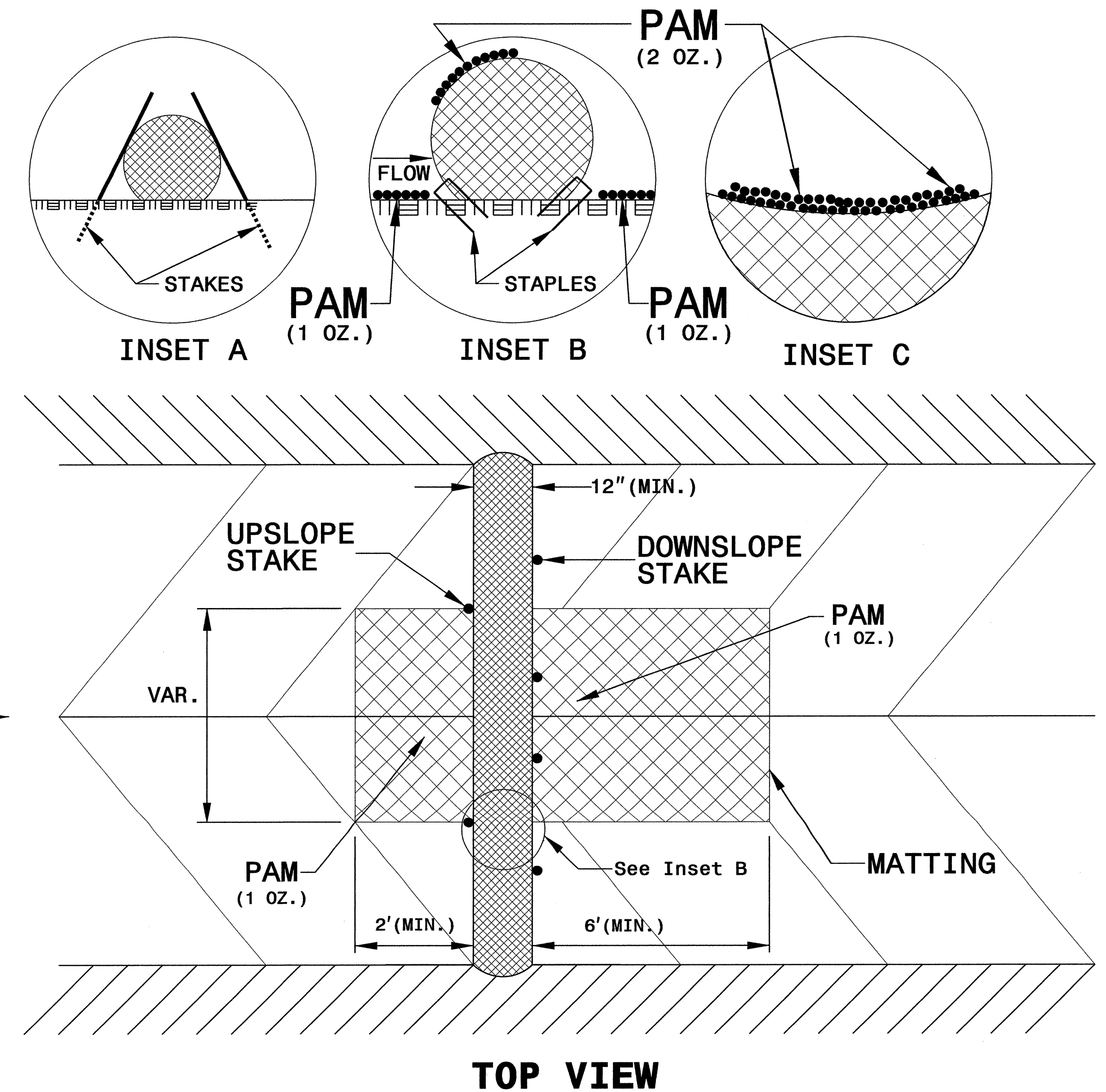
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

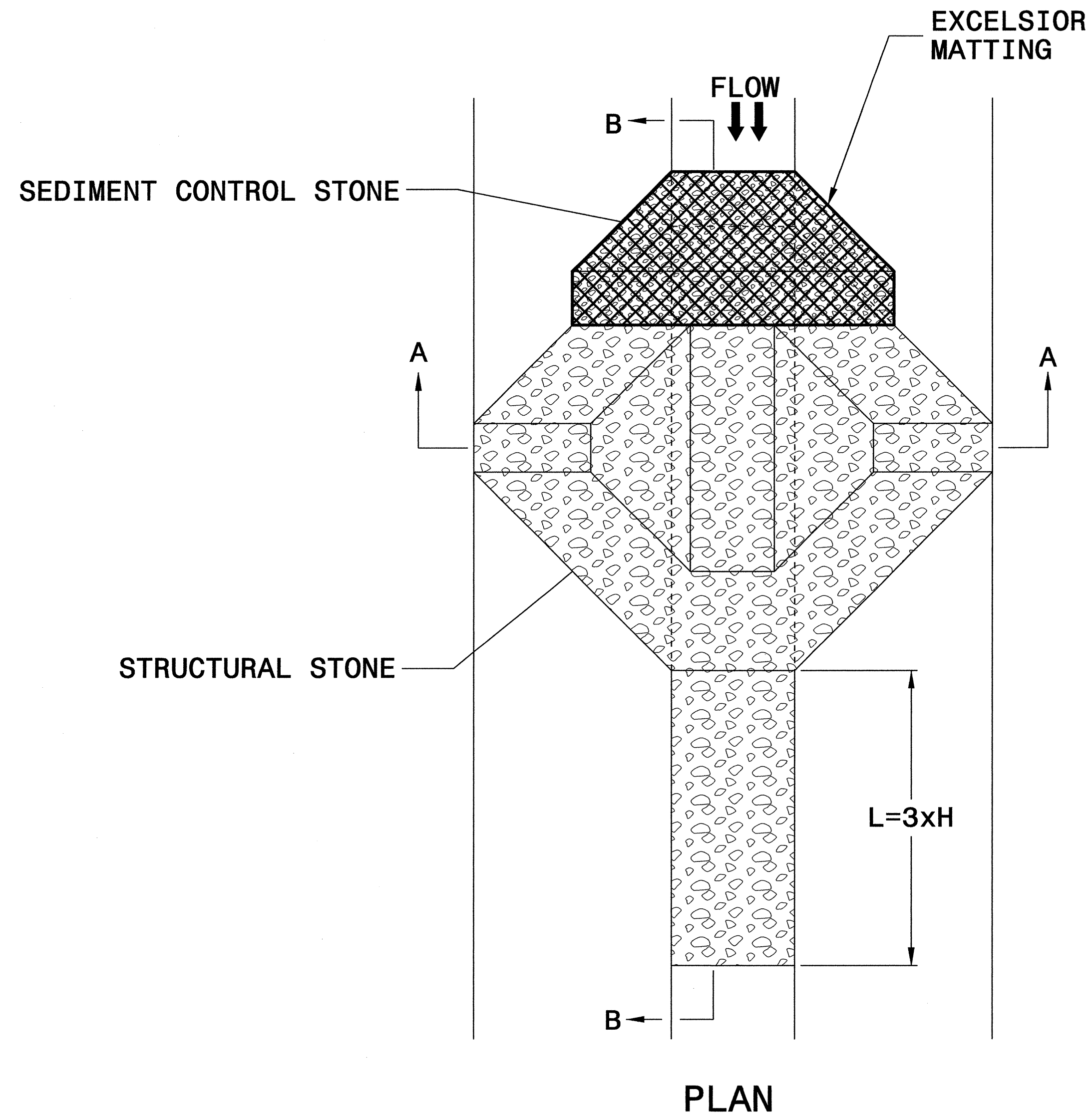
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



PROJECT REFERENCE NO. B-3680	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)

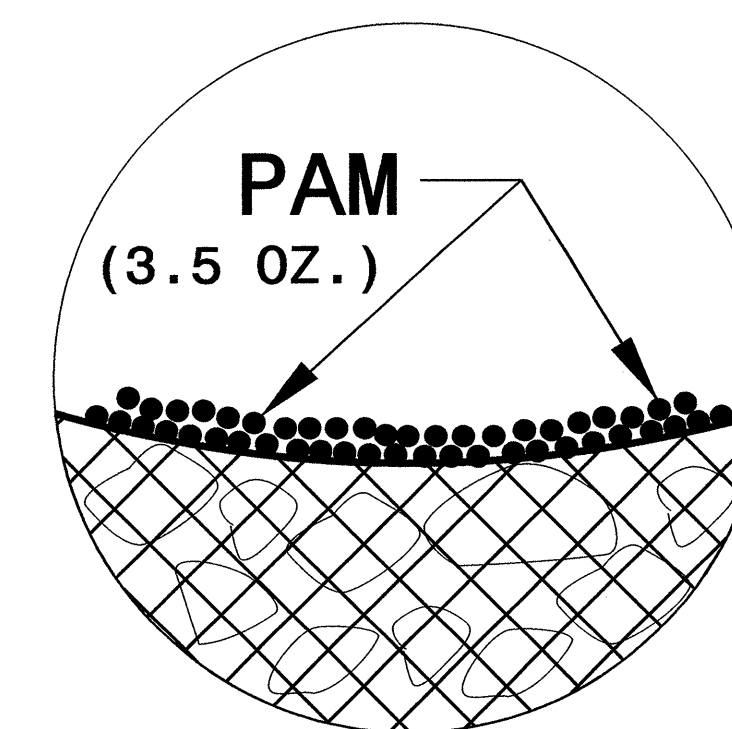


NOTES

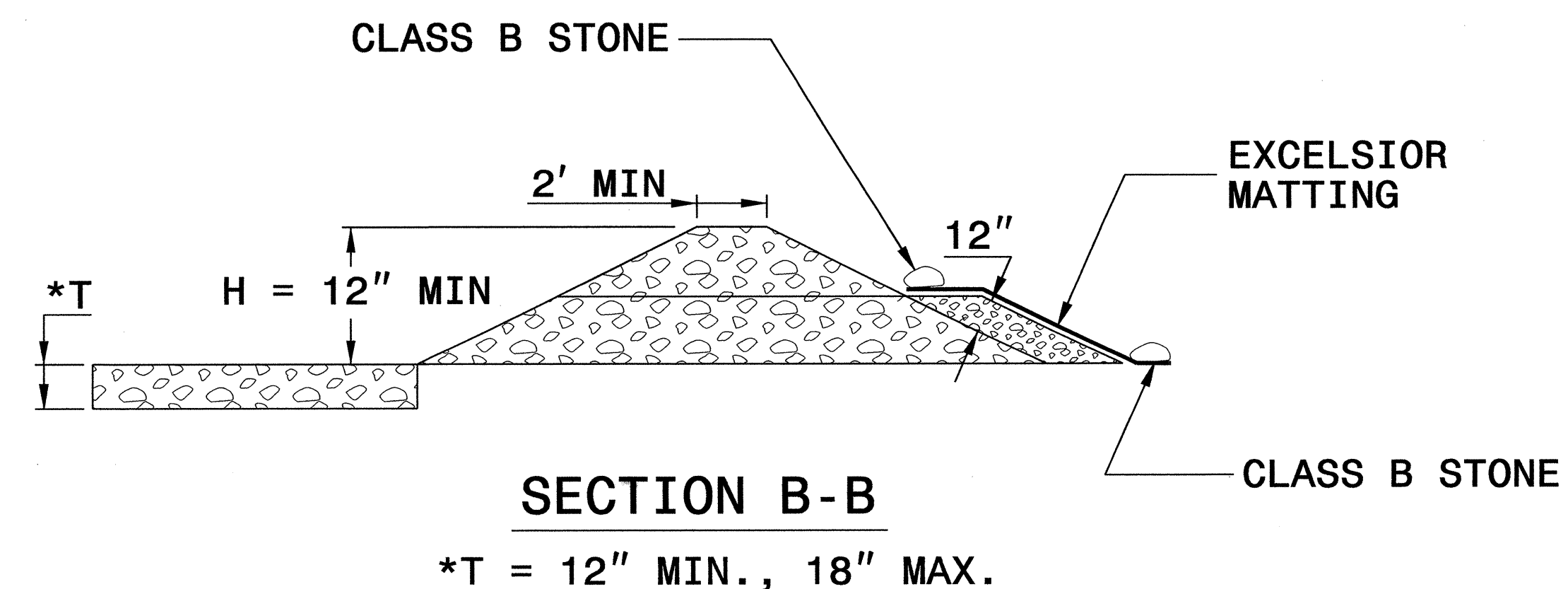
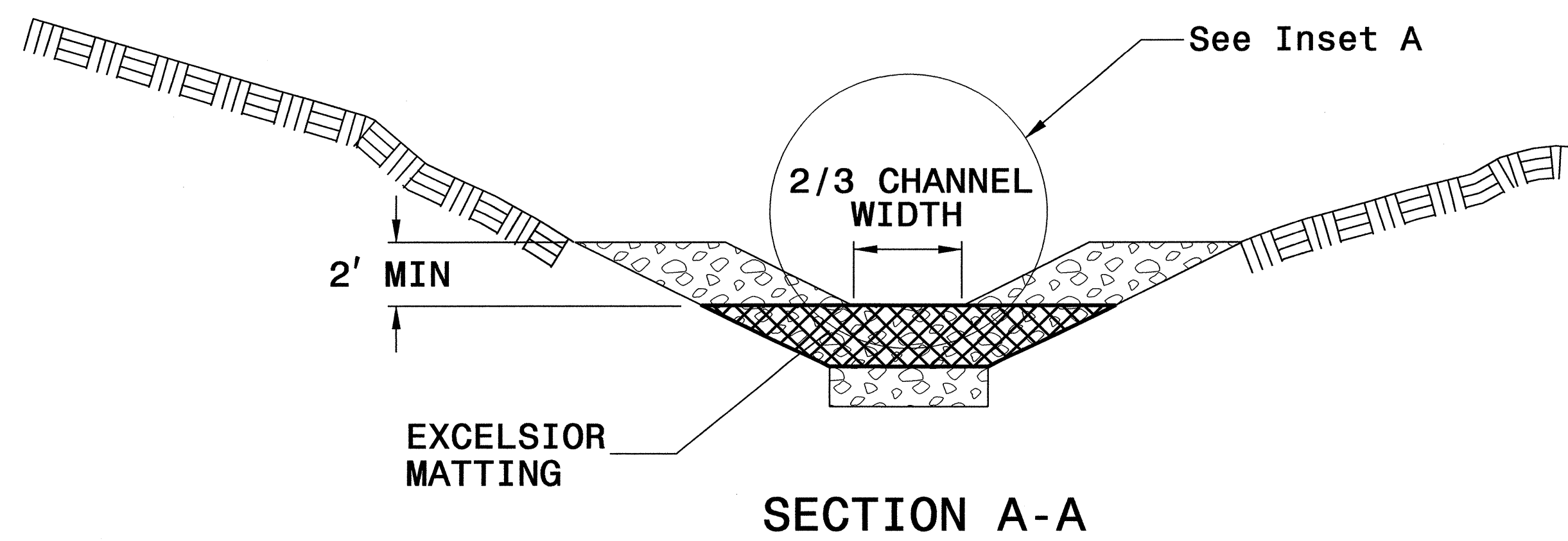
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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 ROCK SILT CHECK.

INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>B-3680</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

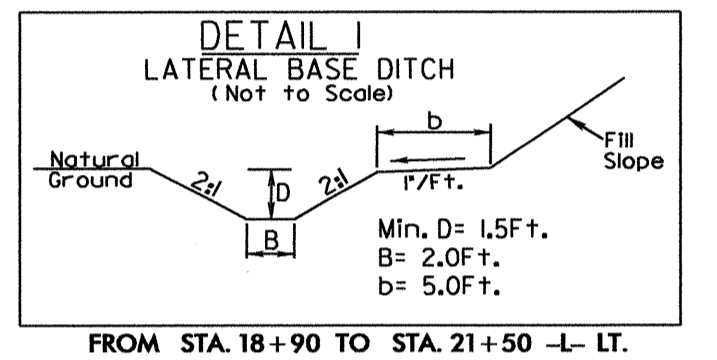
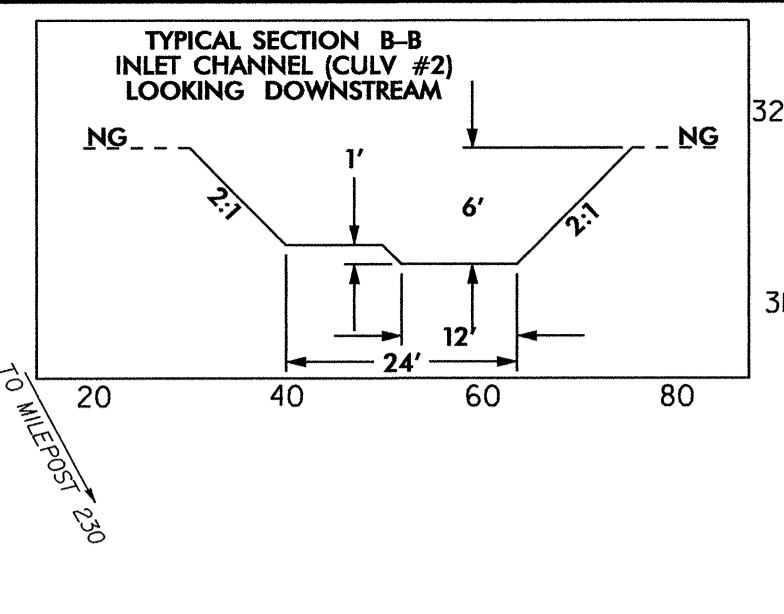
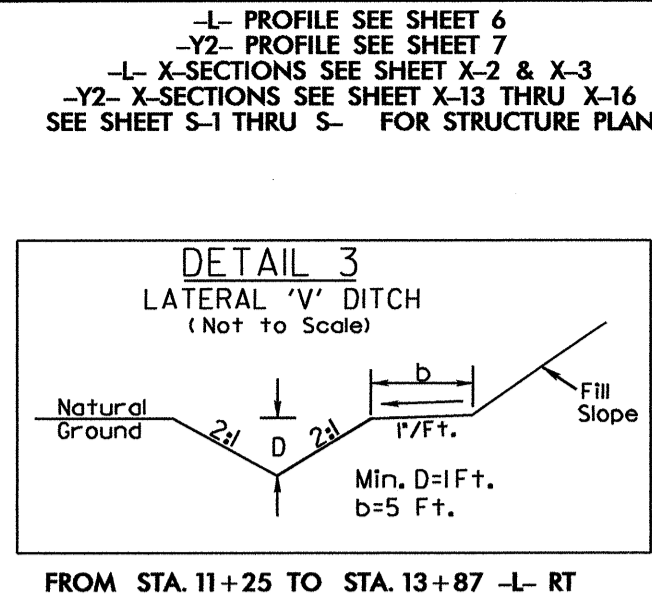
SOIL STABILIZATION TIMEFRAMES

<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.

PROJECT REFERENCE NO.	SHEET NO.
B-3680	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

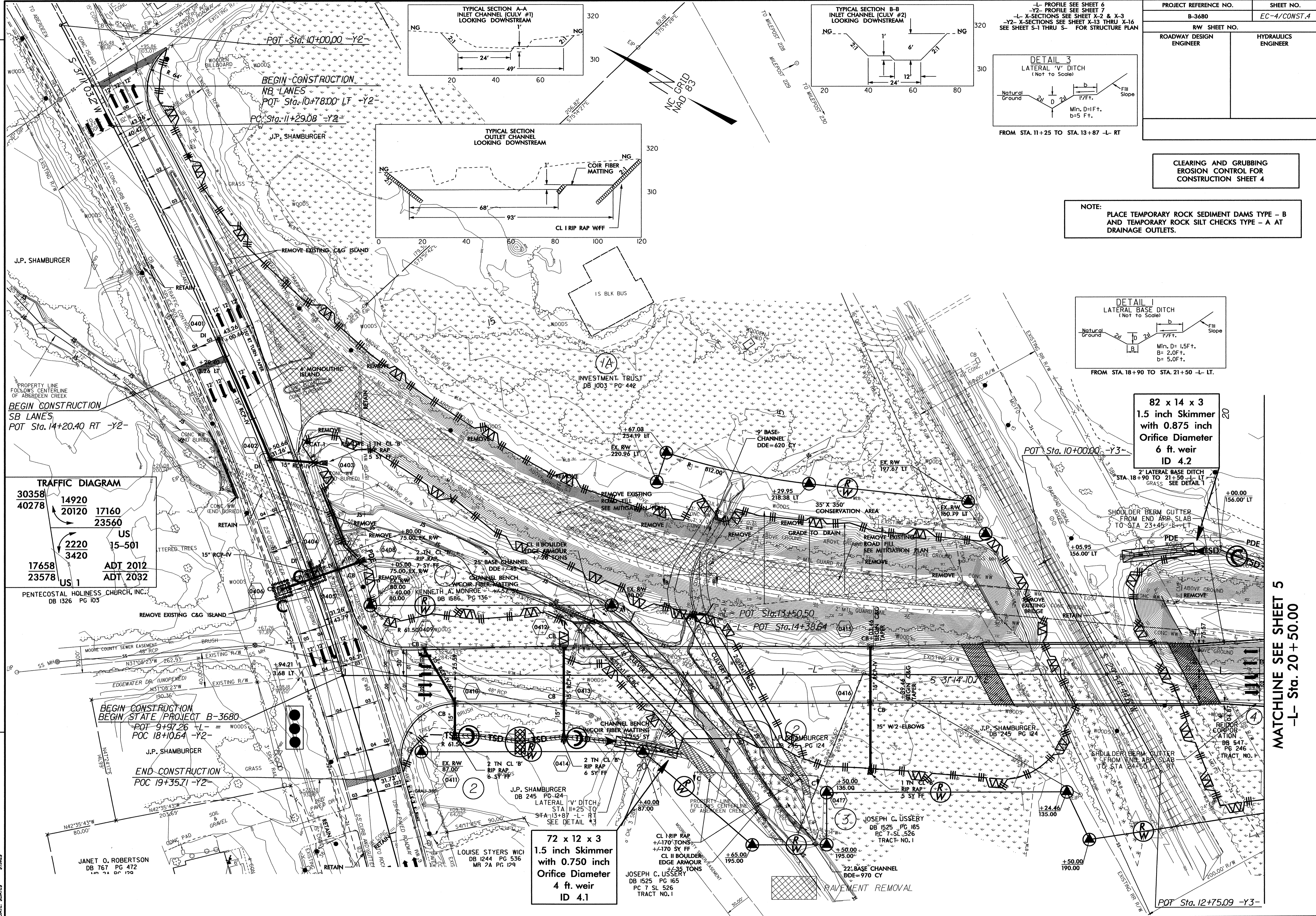
**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4**

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



**82 x 14 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
6 ft. weir
ID 4.2**

**72 x 12 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 4.1**



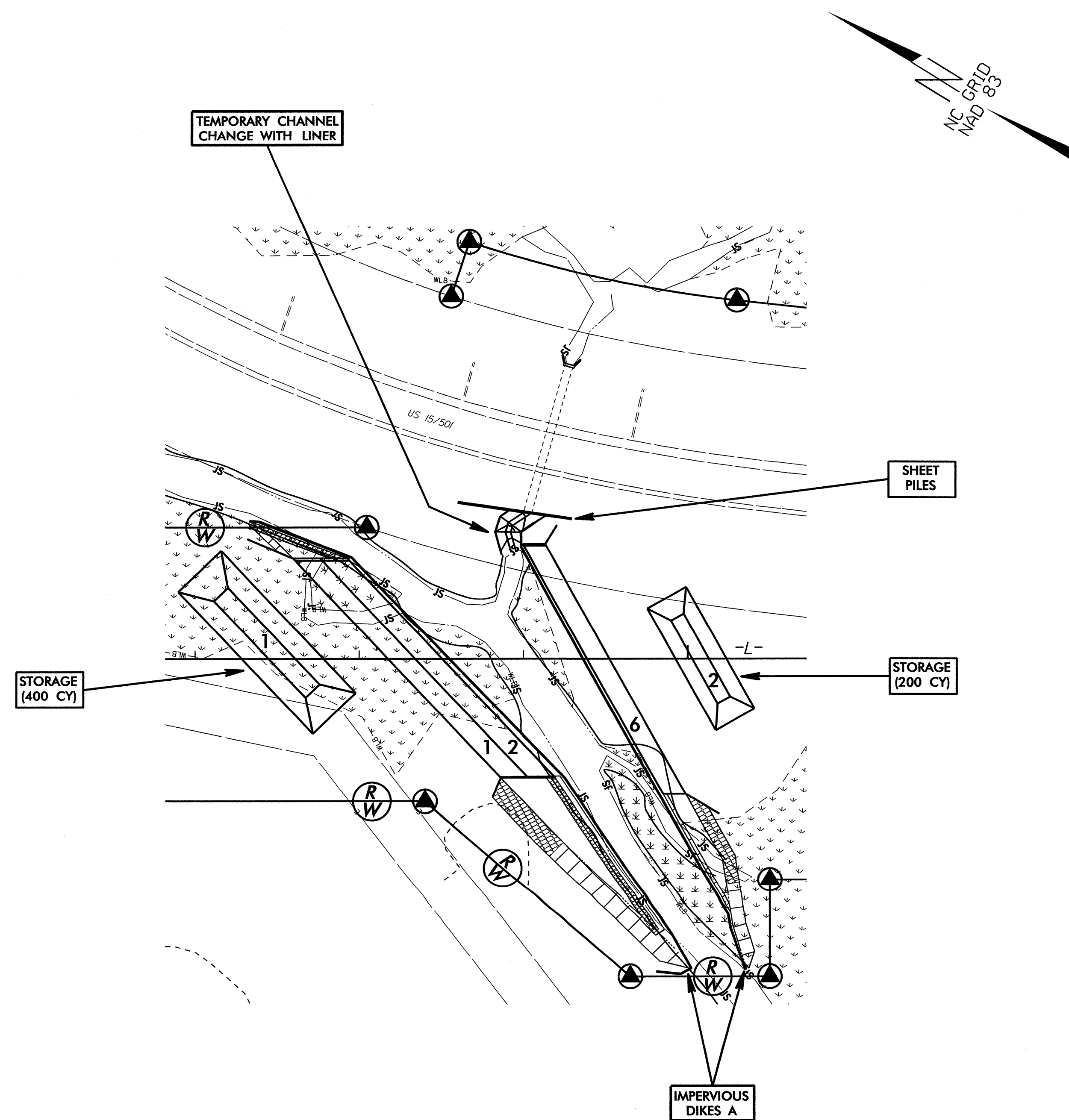
**MATCHLINE SEE SHEET 5
-L- Sta. 20 + 50.00**

CULVERT CONSTRUCTION SEQUENCE STA. 13 + 50.50 AND 14 + 38.64 -L-

PROJECT REFERENCE NO. B-3680	SHEET NO. EC-5/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

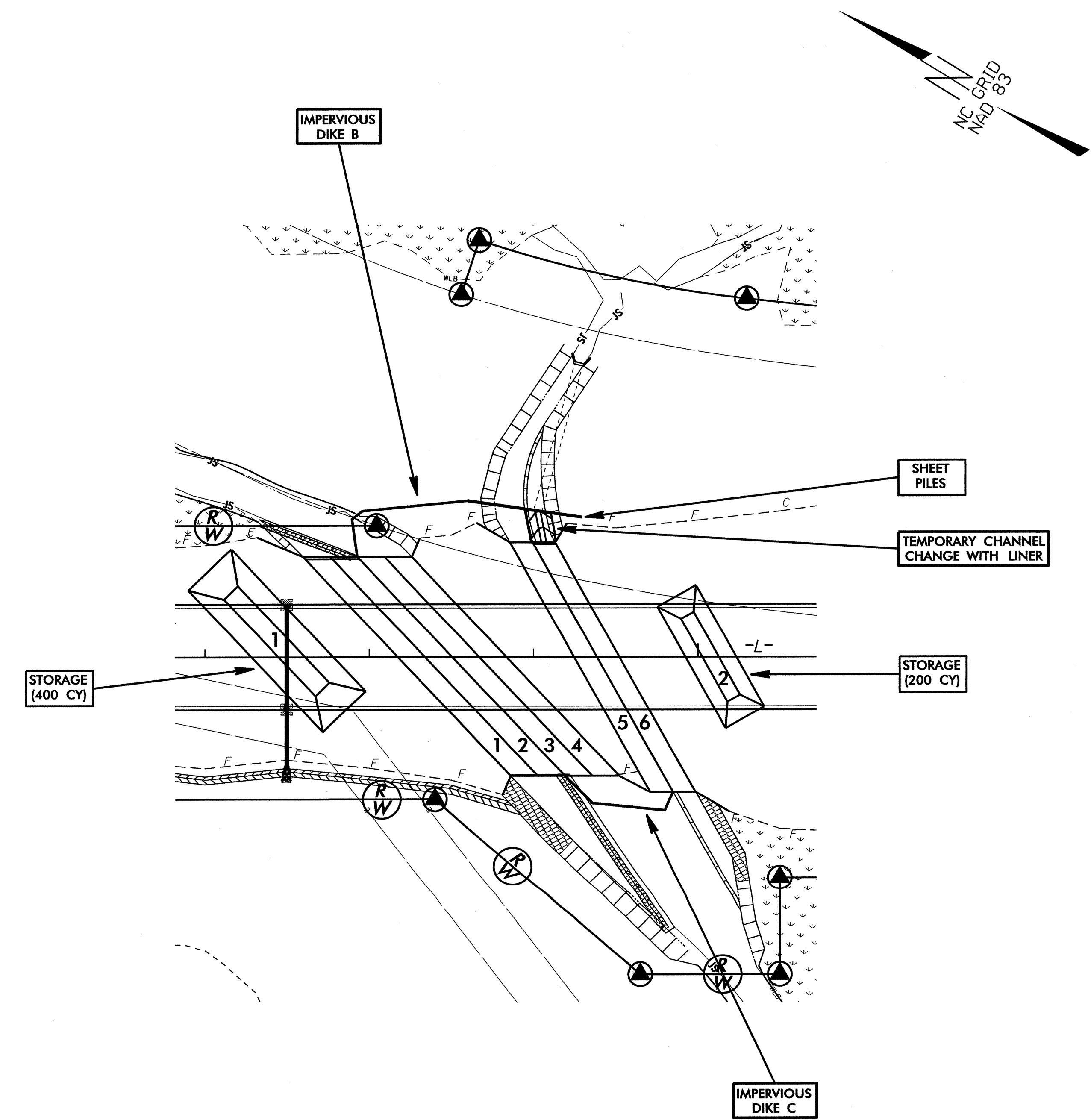
PHASE I

1. CONSTRUCT STILLING BASINS 1 (400 CY) AND 2 (200 CY).
2. INSTALL TEMPORARY SHEET PILES AND REMOVE PORTION OF EXISTING CULVERT BEYOND SHEET PILES.
3. CONSTRUCT IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE WITH LINER (3 FT. BASE, 3 FT. DEEP, 2:1 SIDESLOPES), DIVERTING FLOW.
4. CONSTRUCT BARRELS 1, 2, AND 6 OF THE PROPOSED CULVERTS.
5. CONSTRUCT INLET AND OUTLET CHANNEL IMPROVEMENTS FOR BARRELS 1 AND 2, AND OUTLET CHANNEL IMPROVEMENTS FOR BARREL 6.
6. REMOVE IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE.



PHASE II

7. CONSTRUCT IMPERVIOUS DIKES B AND C AND TEMPORARY CHANNEL CHANGE WITH LINER (3 FT. BASE, 3 FT. DEEP, 2:1 SIDESLOPES), DIVERTING FLOW THROUGH COMPLETED BARRELS 1, 2, AND 6.
8. CONSTRUCT BARRELS 3, 4, AND 5 OF THE PROPOSED CULVERTS.
9. CONSTRUCT REMAINDER OF INLET/OUTLET CHANNEL IMPROVEMENTS.
10. REMOVE TEMPORARY CHANNEL CHANGE, IMPERVIOUS DIKES B AND C, AND STILLING BASINS 1 AND 2.
11. CONSTRUCT NEW ROADWAY AND SHIFT TRAFFIC.
12. REMOVE REMAINDER OF THE EXISTING CULVERT AND TEMPORARY SHEET PILES, AND CONSTRUCT NEW CHANNEL.



PROJECT REFERENCE NO.	SHEET NO.
B-3680	EC-6/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

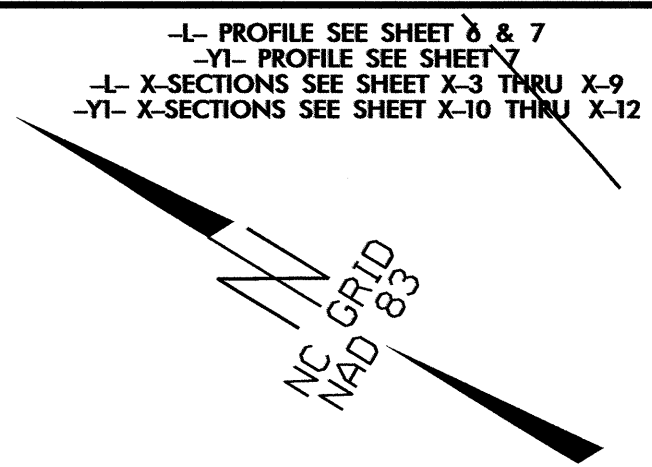
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

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

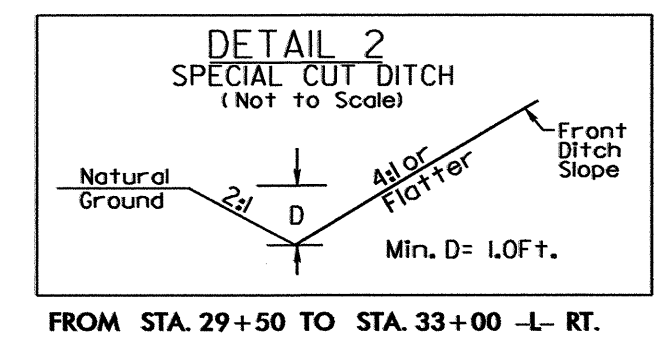
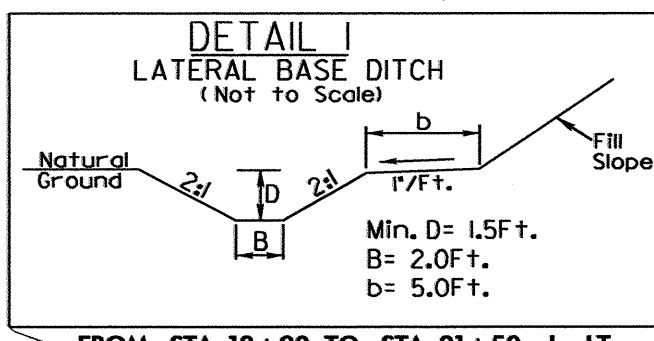
-L-
Pls Sta 25+81.14
θs = 0° 38' 40.5"
Ls = 90.00'
LT = 60.00'
ST = 30.00'

-L-
Pl Sta 27+45.37
Δ = 3° 50' 37.9" (RT)
D = 1° 25' 56.6"
L = 268.35'
T = 134.23'
R = 4,000.00'
SE = .03
R0 = 90
DS = 50mph

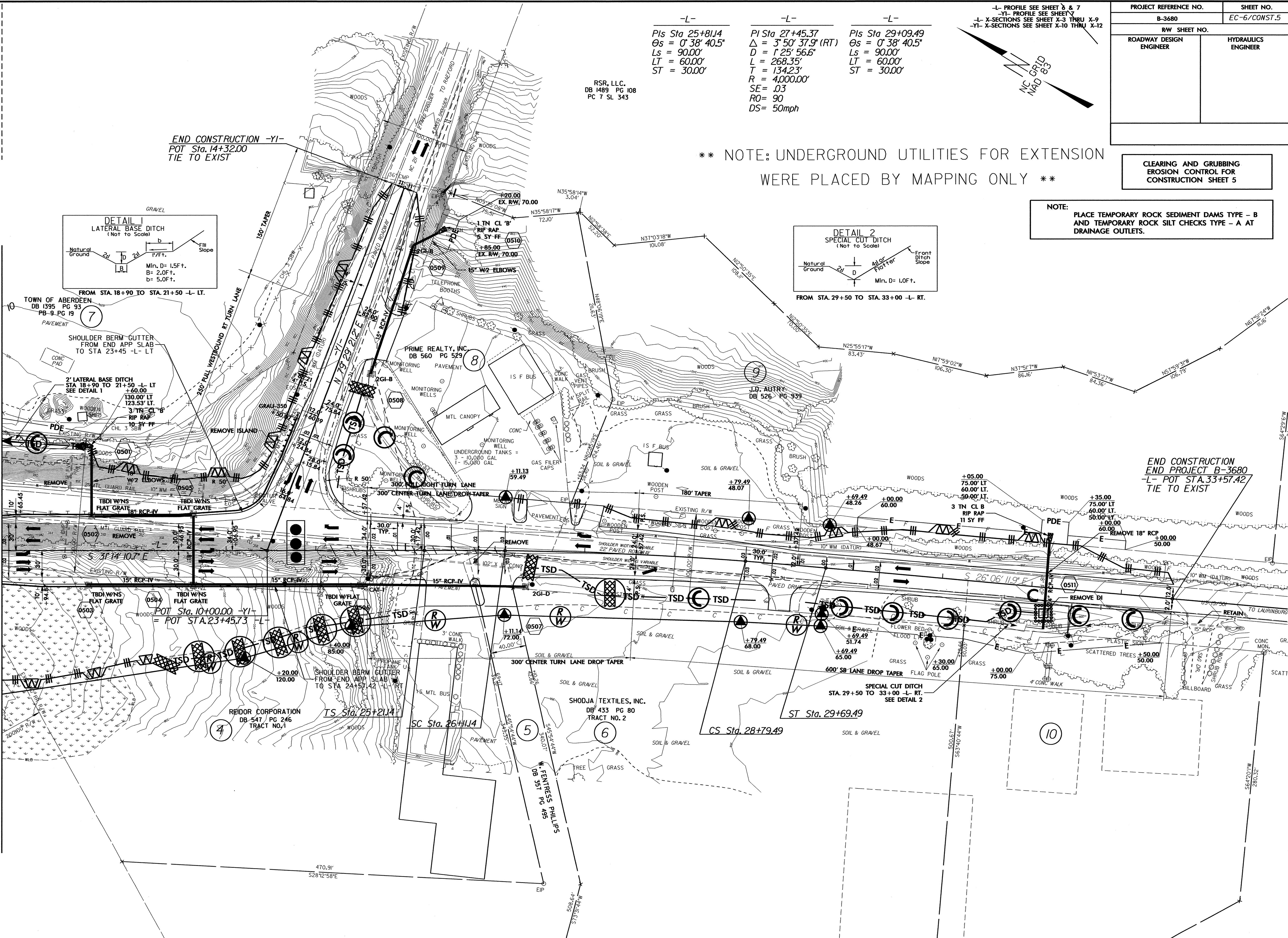
-L-
Pls Sta 29+09.49
θs = 0° 38' 40.5"
Ls = 90.00'
LT = 60.00'
ST = 30.00'



** NOTE: UNDERGROUND UTILITIES FOR EXTENSION
WERE PLACED BY MAPPING ONLY **



MATCHLINE SEE SHEET 4
-L- Sta. 20+50.00

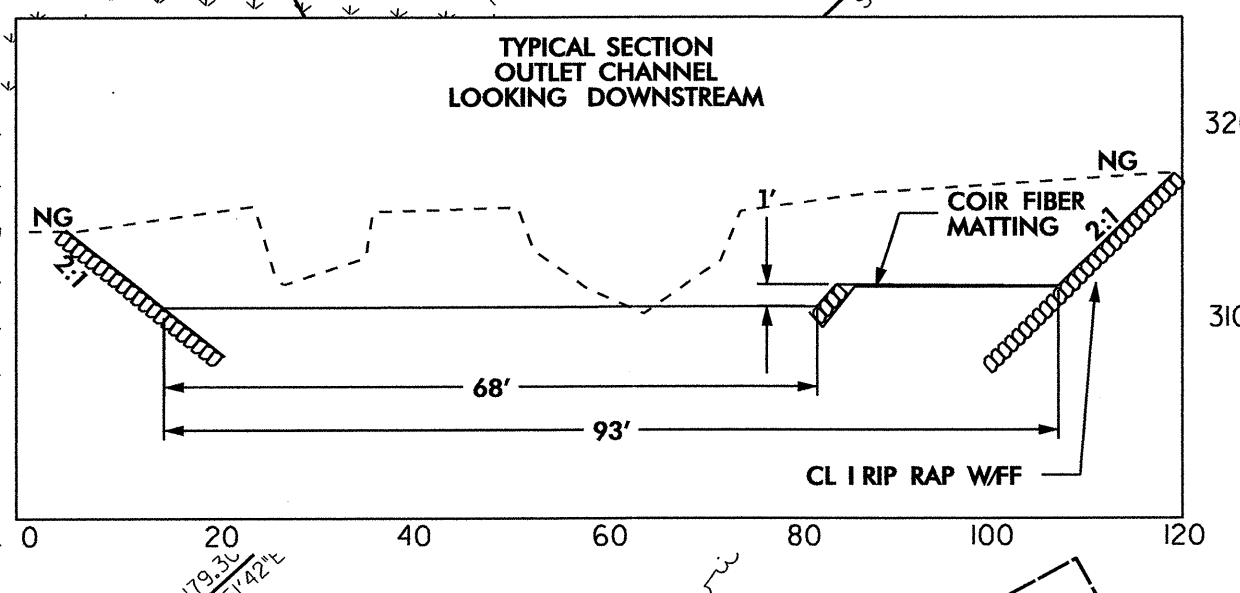
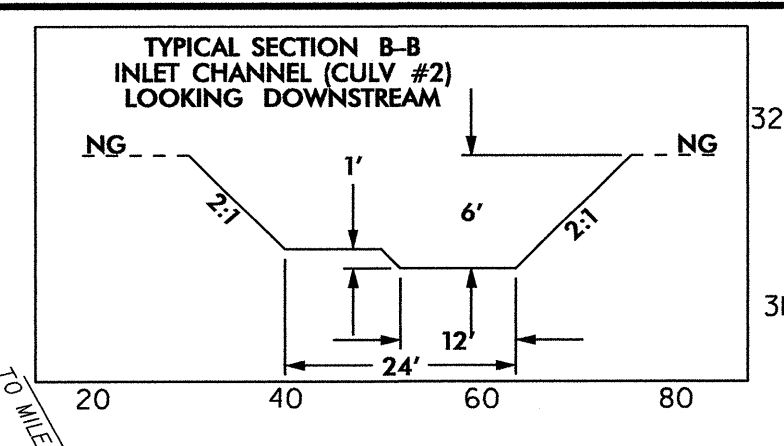
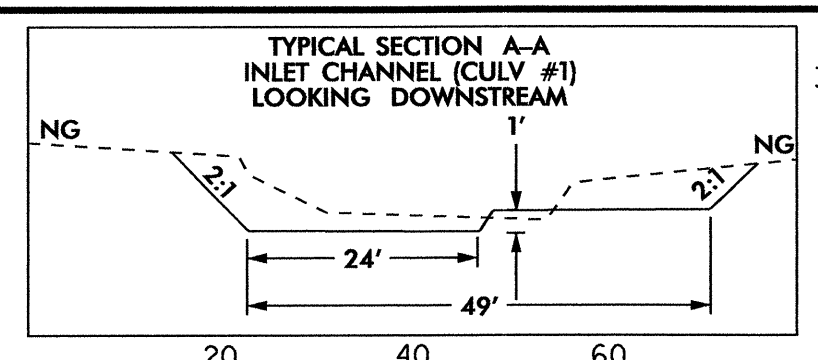
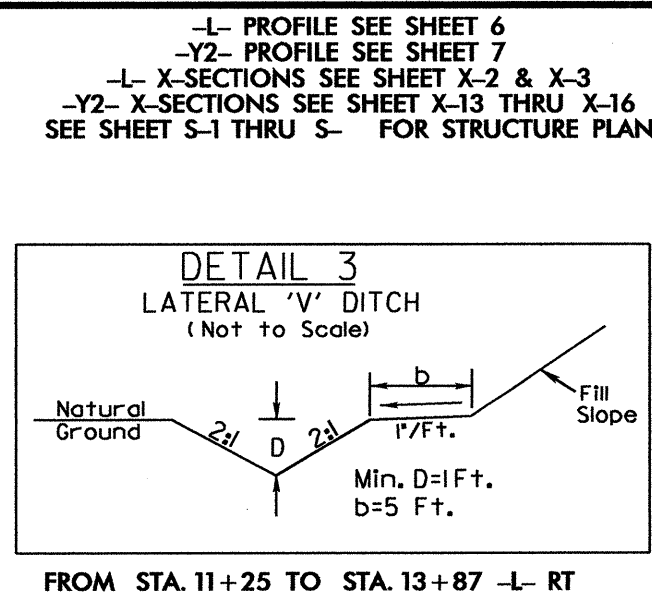


END CONSTRUCTION
END PROJECT B-3680
-L- POT STA 33+57.42
TIE TO EXIST

REVISIONS

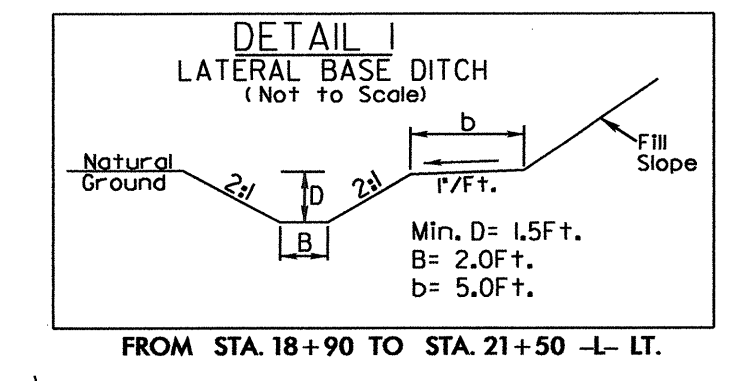
FILE: SFILES
DATE: 04/25/15
STMS

PROJECT REFERENCE NO. B-3680	SHEET NO. EC-7/CONST.4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



Place Matting for Erosion Control
on Slopes Adjacent to Permitted
Wetlands as Work Allows.

Place Matting for Erosion Control
on Slope as Work Allows.

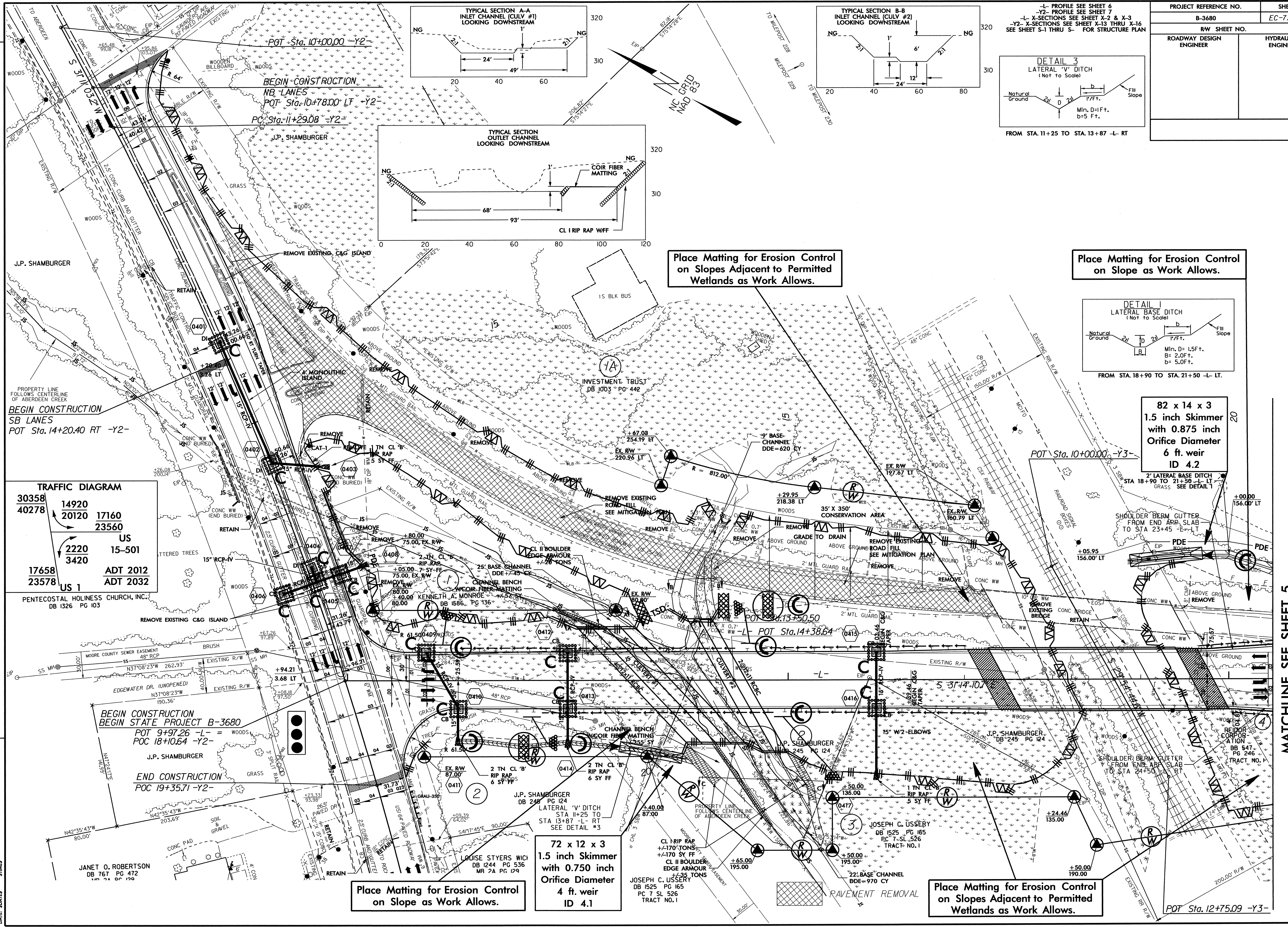


82 x 14 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
6 ft. weir
ID 4.2

72 x 12 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 4.1

Place Matting for Erosion Control
on Slope as Work Allows.

Place Matting for Erosion Control
on Slopes Adjacent to Permitted
Wetlands as Work Allows.



TRAFFIC DIAGRAM

30358	14920	17160	
40278	20120	23560	
	2220	3420	US
			15-501
17658			ADT 2012
23578			ADT 2032
			US 1

PENTECOSTAL HOLINESS CHURCH, INC.
DB 1326 PG 103

JANET O. ROBERTSON
DB 767 PG 472

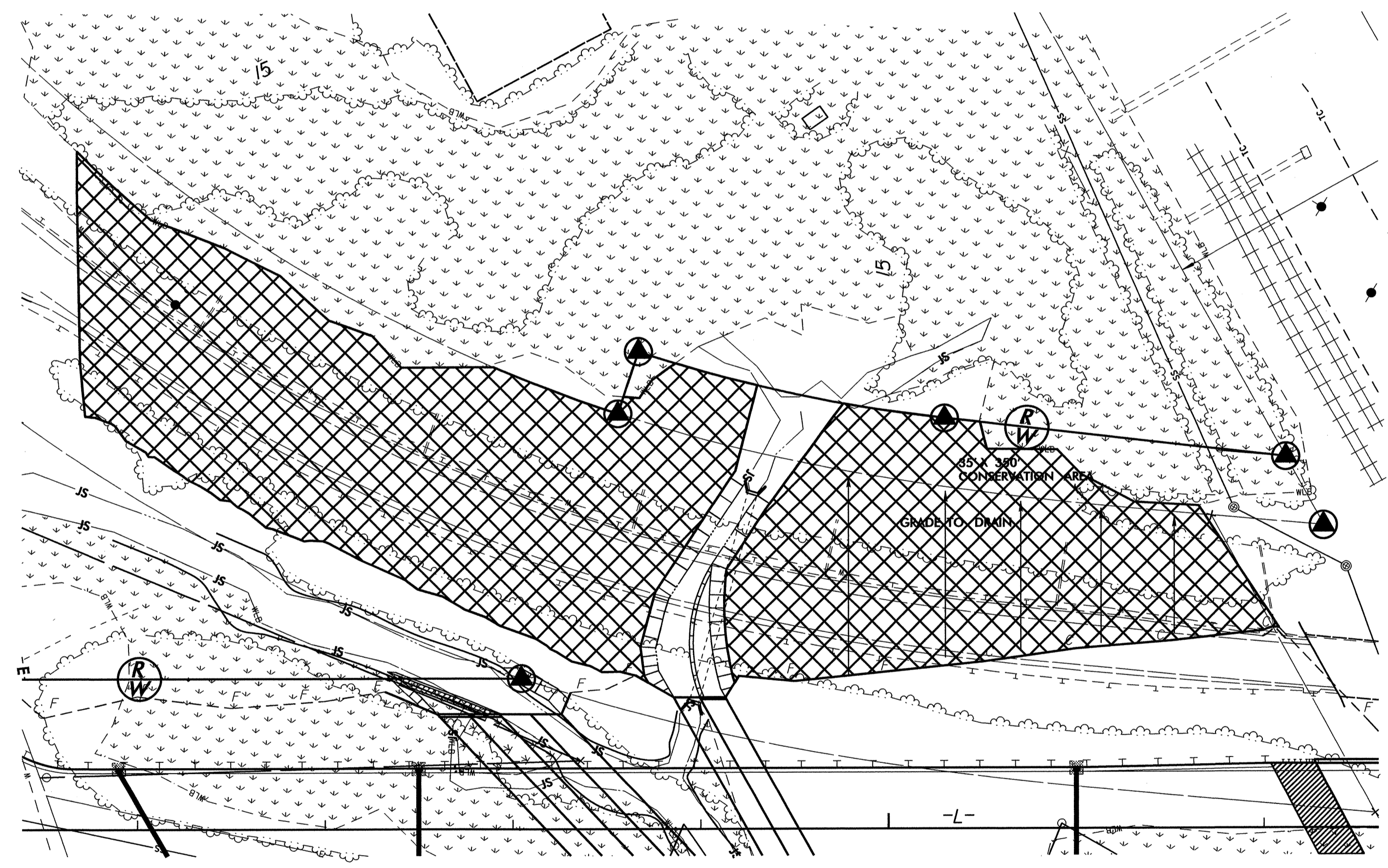
FILE: \$FILES
DATE: \$DATES

MATCHLINE SEE SHEET 5
-L- Sta. 20 + 50.00

PROJECT REFERENCE NO. B-3680	SHEET NO. EC-8/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WETLAND AND STREAM RESTORATION

1.67 ACRES WETLAND REFORESTATION
400 SY LIVE STAKING (ON THE STREAM BANKS)



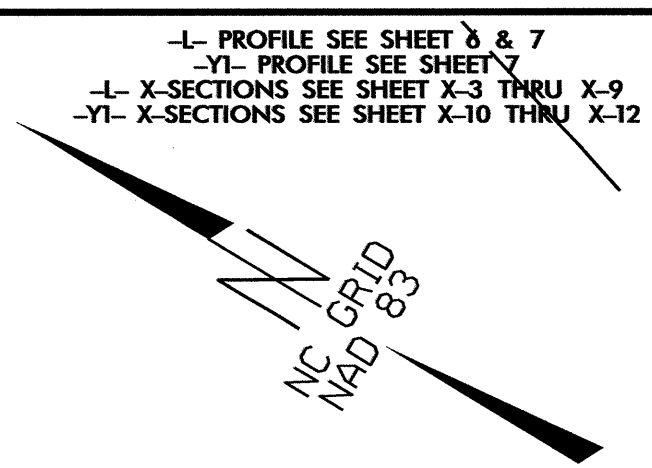
SEE RF-1, RF-2 AND PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
B-3680	EC-9/CONST.5
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

-L-
 Pls Sta 25+81.4
 Os = 0°38'40.5"
 Ls = 90.00'
 LT = 60.00'
 ST = 30.00'

-L-
 Pls Sta 27+45.37
 Δ = 3°50'37.9" (RT)
 D = 1°25'56.6"
 L = 268.35'
 T = 134.23'
 R = 4,000.00'
 SE = .03
 RO = 90
 DS = 50mph

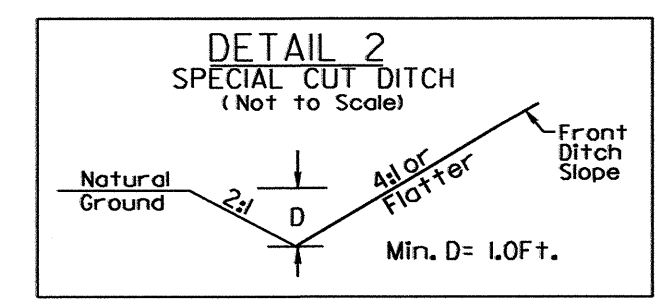
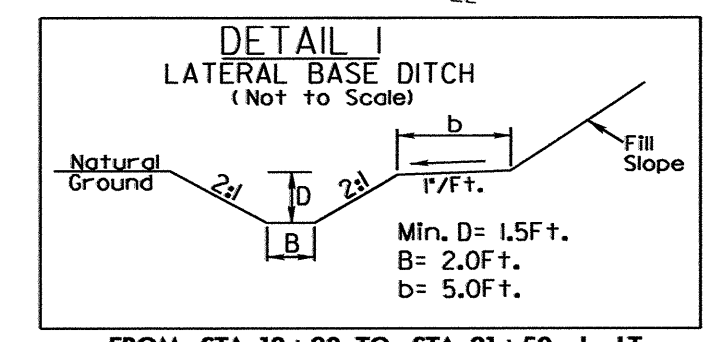
-L-
 Pls Sta 29+09.49
 Os = 0°38'40.5"
 Ls = 90.00'
 LT = 60.00'
 ST = 30.00'



RSR, LLC.
 DB 1489 PG 108
 PC 7 SL 343

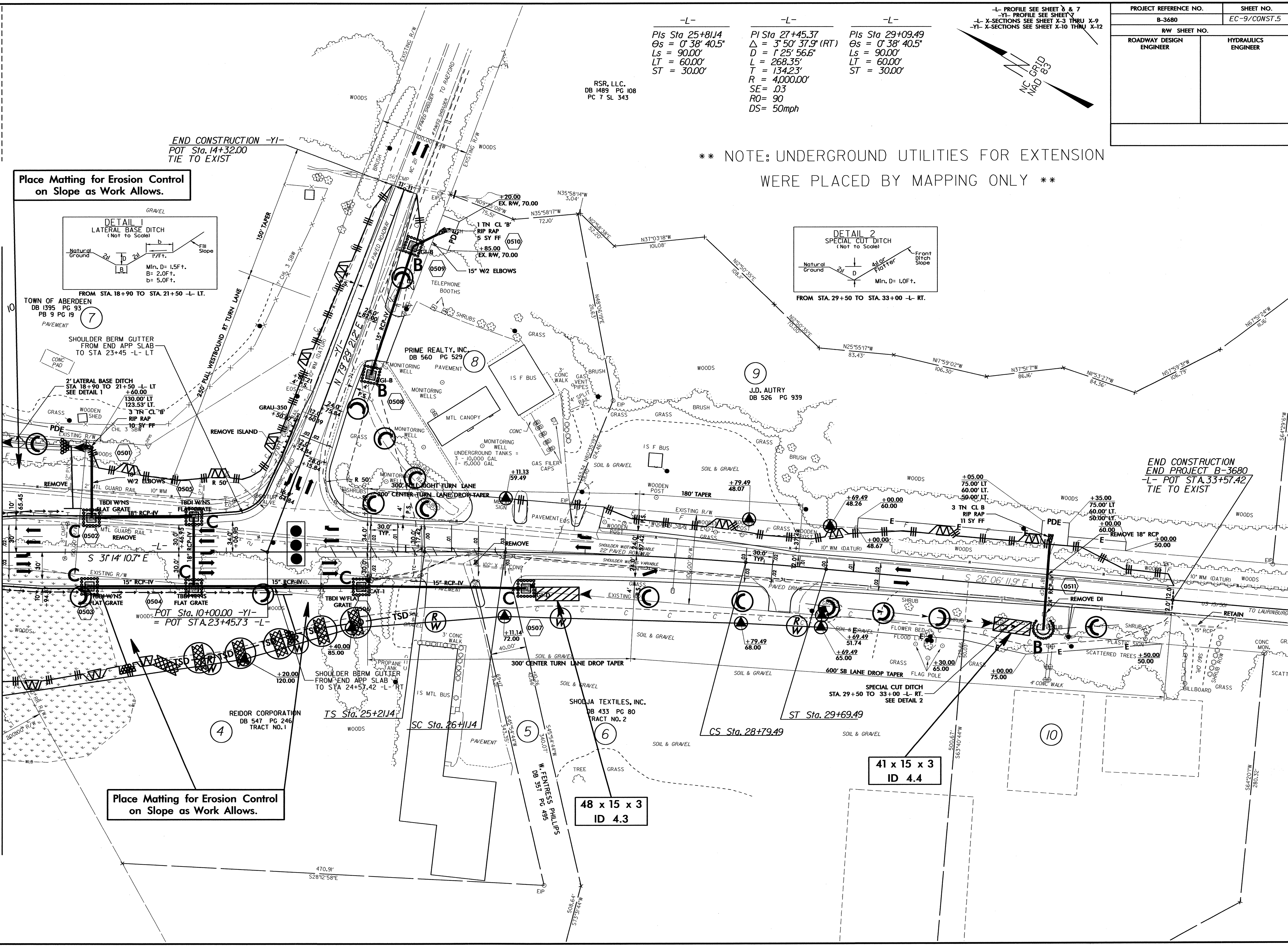
** NOTE: UNDERGROUND UTILITIES FOR EXTENSION WERE PLACED BY MAPPING ONLY **

Place Matting for Erosion Control on Slope as Work Allows.



MATCHLINE SEE SHEET 4
 -L- Sta. 20+50.00

END CONSTRUCTION
 END PROJECT B-3680
 -L- POT STA. 33+57.42
 TIE TO EXIST



Place Matting for Erosion Control on Slope as Work Allows.

41 x 15 x 3
 ID 4.4

48 x 15 x 3
 ID 4.3

REVISIONS

FILE: \$FILES
 DATE: \$DATES
 \$TIMES