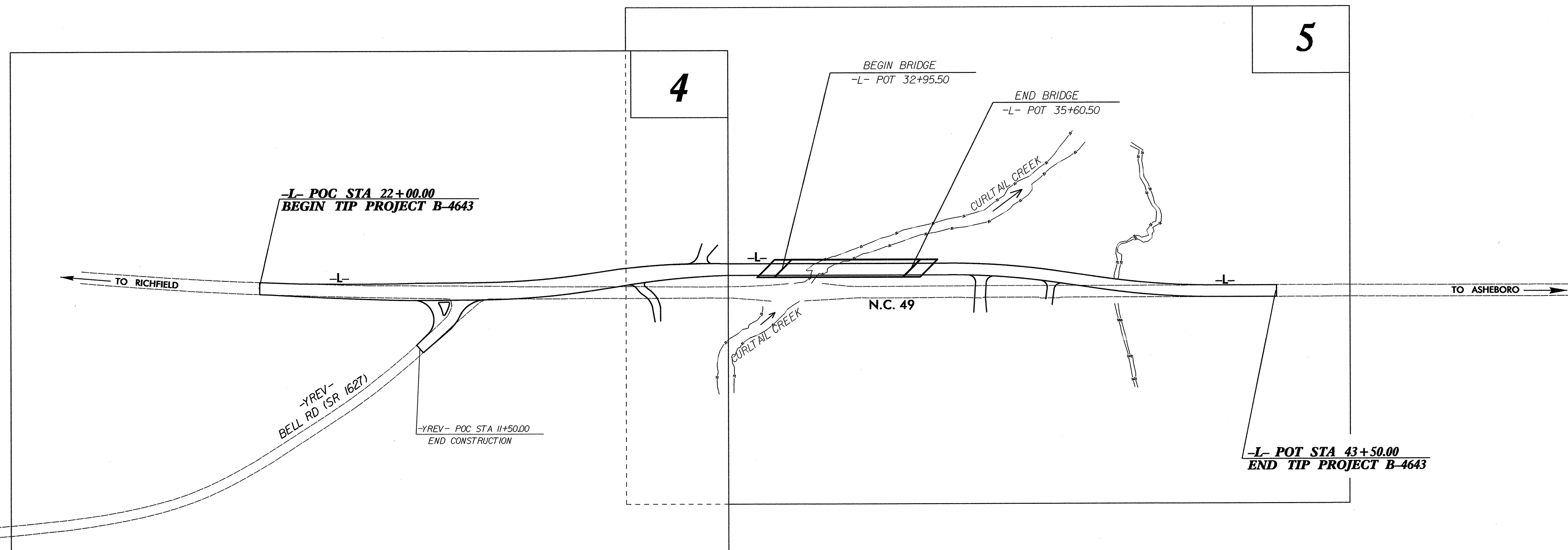
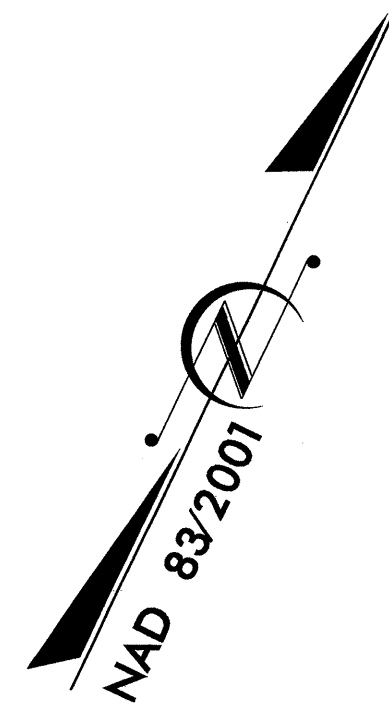


TIP PROJECT: B-4643

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

**LOCATION: BRIDGE 24 AND APPROACHES ON NC 49
 OVER CURL TAIL CREEK**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURES



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4643	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	△△△△△
1622.01	Temporary Berms and Slope Drains	T
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)	⊗
1635.02	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	⊗
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⊗
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.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT
Refer To E. C. Special Provisions for Special Considerations.

GRAPHIC SCALE

0

PLANS

0

PROFILE (HORIZONTAL)

0

PROFILE (VERTICAL)

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

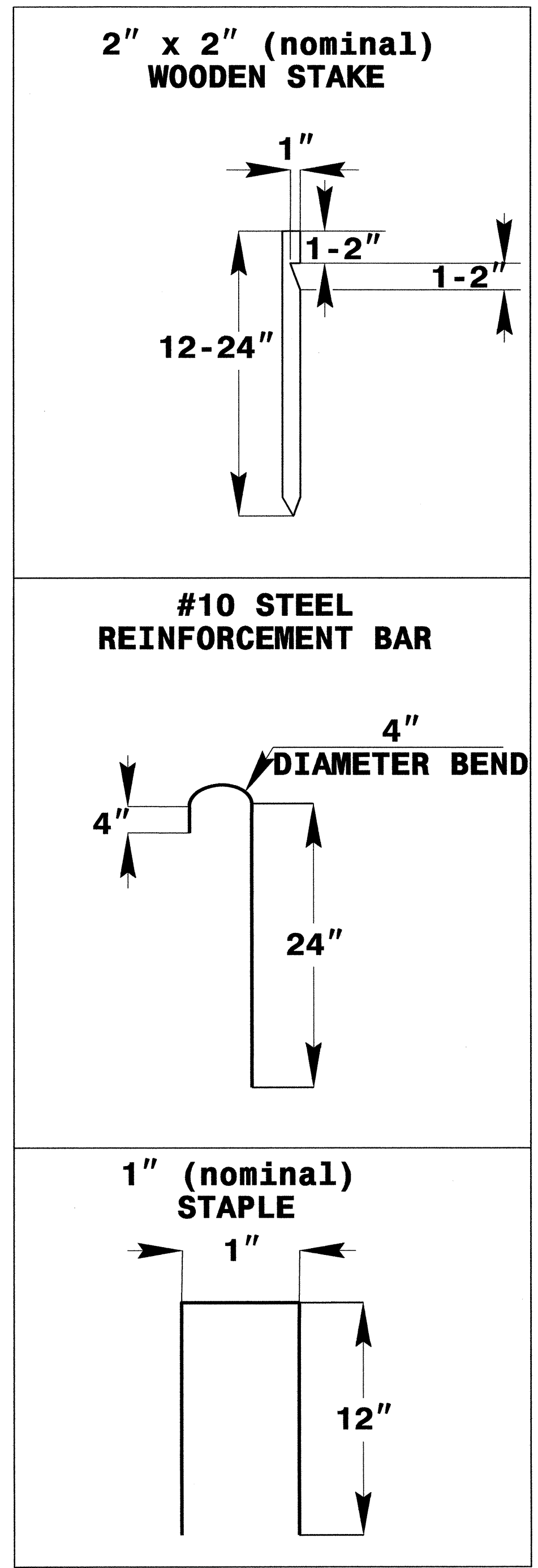
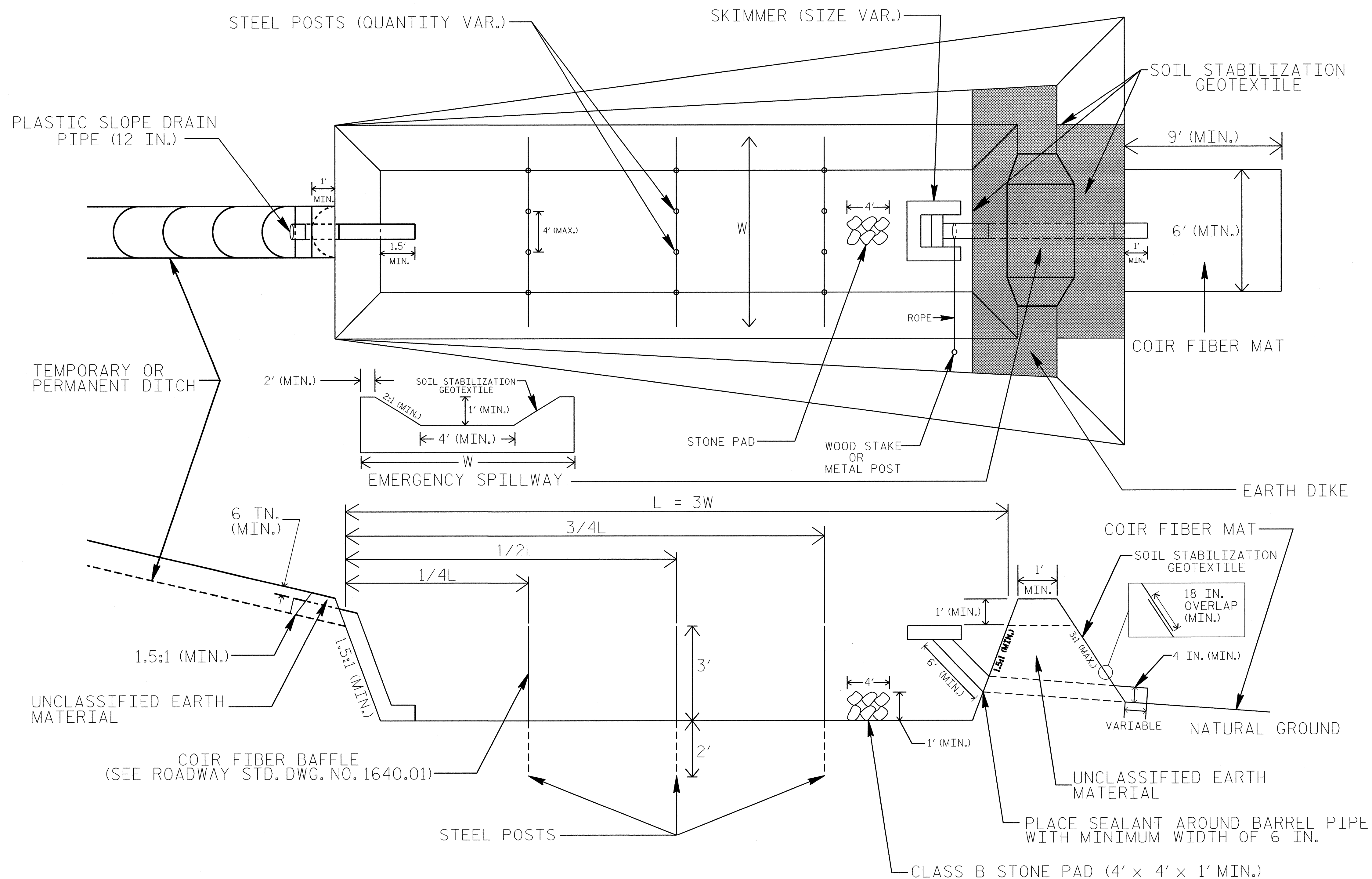
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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 Wattle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

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 1503101.dwg
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PROJECT REFERENCE NO. B-4643	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

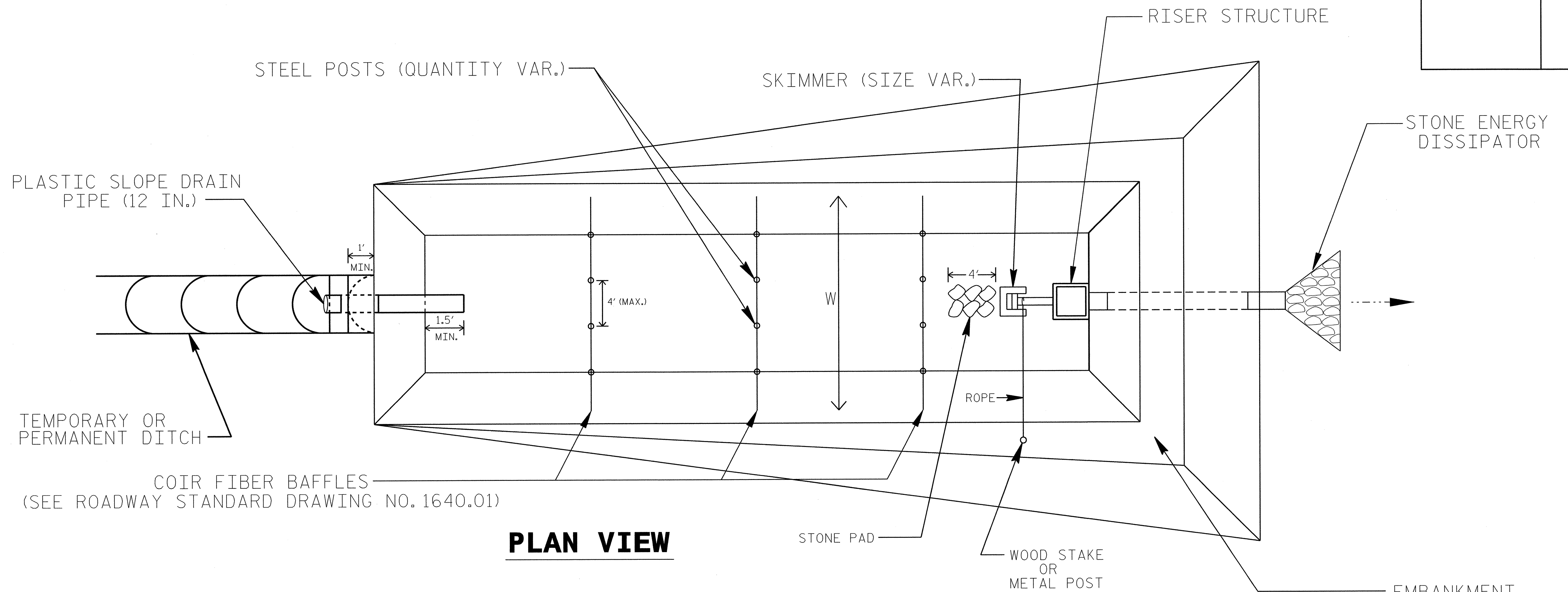
NOTES

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 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.).

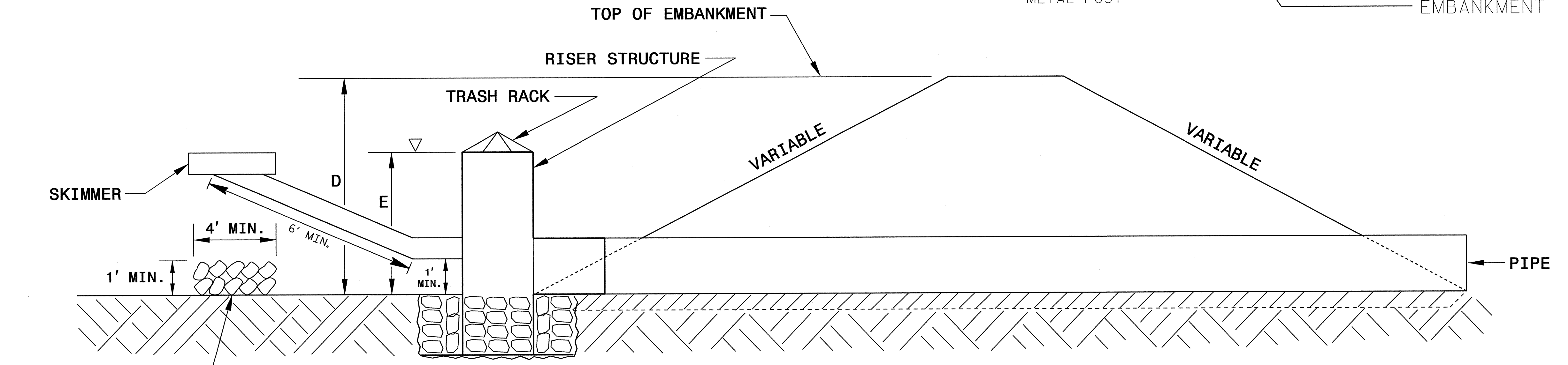
NOT TO SCALE

PROJECT REFERENCE NO. B-4643	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STORMWATER BASIN WITH SKIMMER



PLAN VIEW



SECTIONAL VIEW

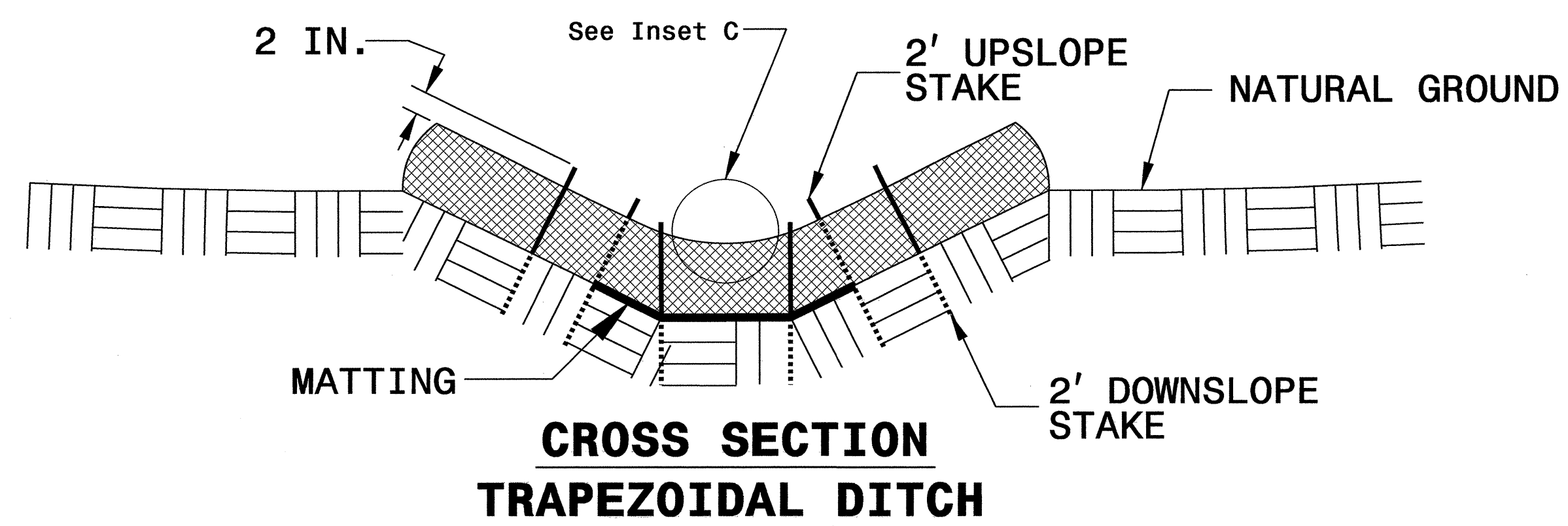
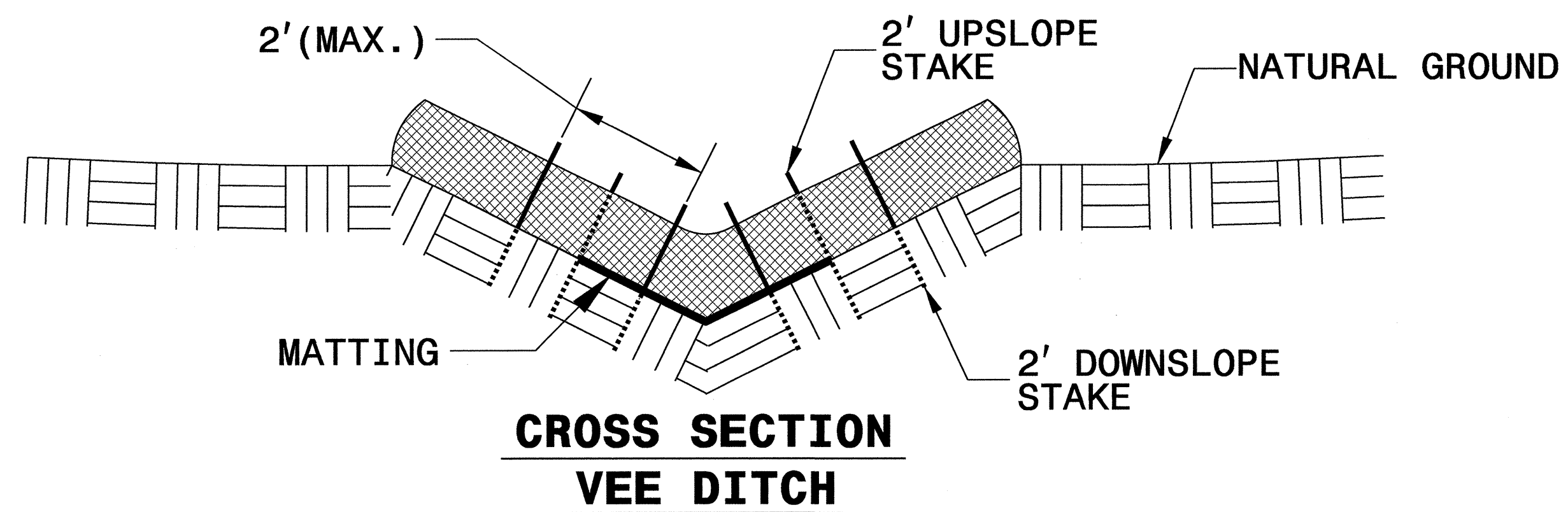
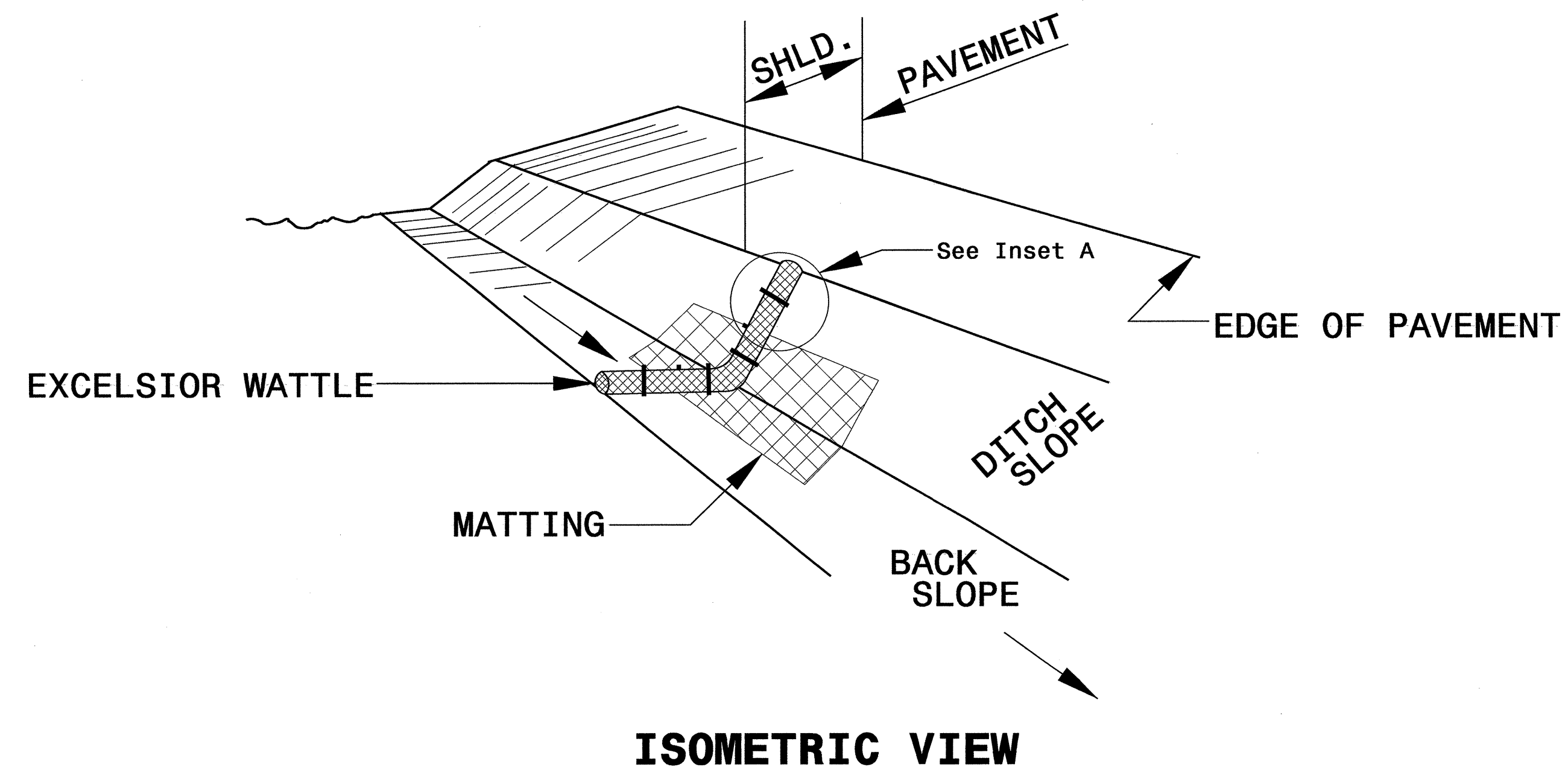
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. INSTALL A MINIMUM OF 3 COIR FIBER BAFFLES IN ACCORDANCE WITH ROADWAY STD. DRAWING 1640.01.
3. INSTALL SKIMMER AND COUPLING TO RISER STRUCTURE OR DIRECTLY INTO EMBANKMENT 1 FT. FROM BOTTOM OF BASIN.
4. THE ARM PIPE SHALL HAVE A MINIMUM LENGTH OF 6 FT. BETWEEN THE SKIMMER AND COUPLING.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE AS DIRECTED.
6. THE DIFFERENCE BETWEEN LENGTHS "D" AND "E" REPRESENT THE FREEBOARD AND SHOULD BE 1 FT. MINIMUM.

NOT TO SCALE

PROJECT REFERENCE NO. B-4643	SHEET NO. EC-2B
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.

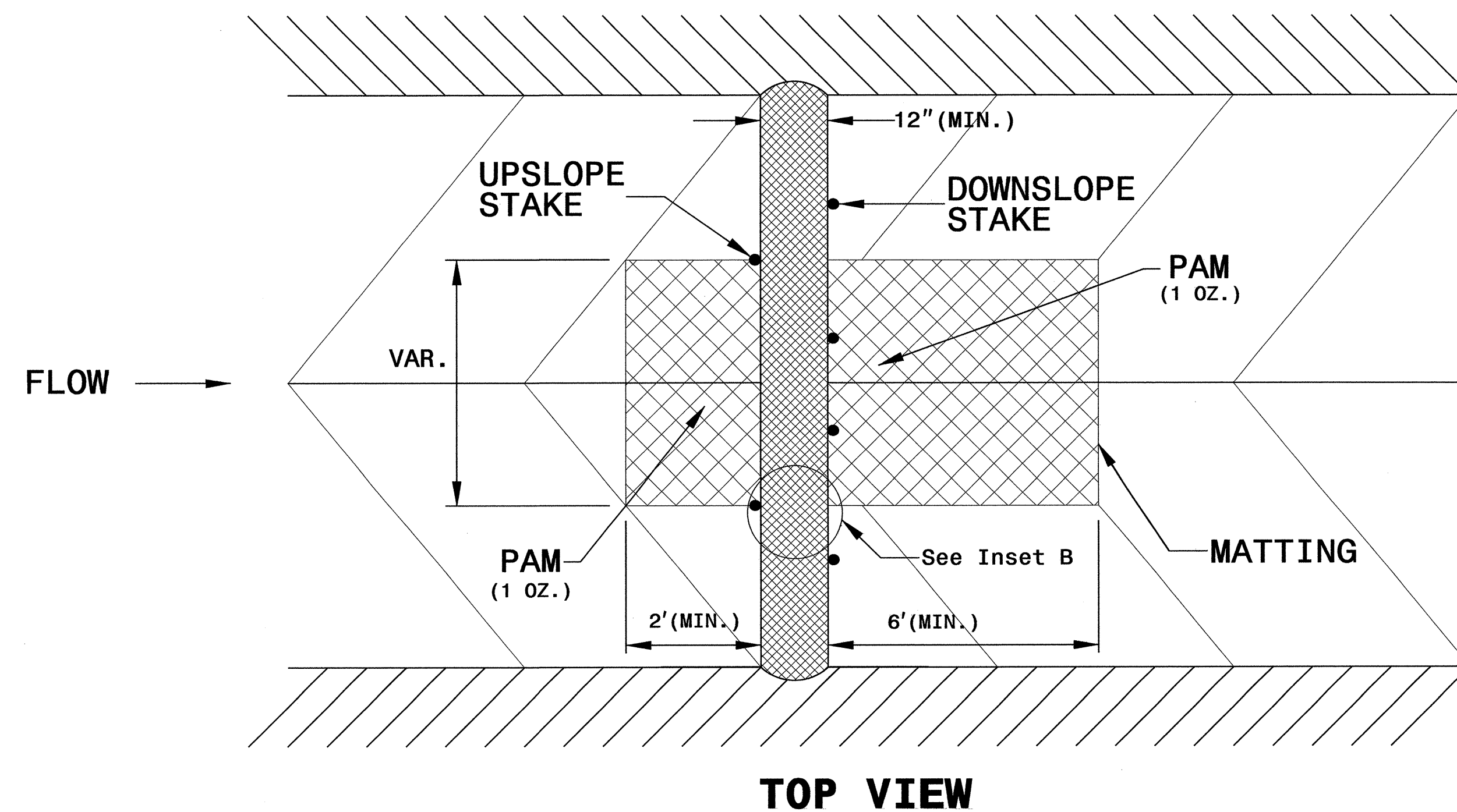
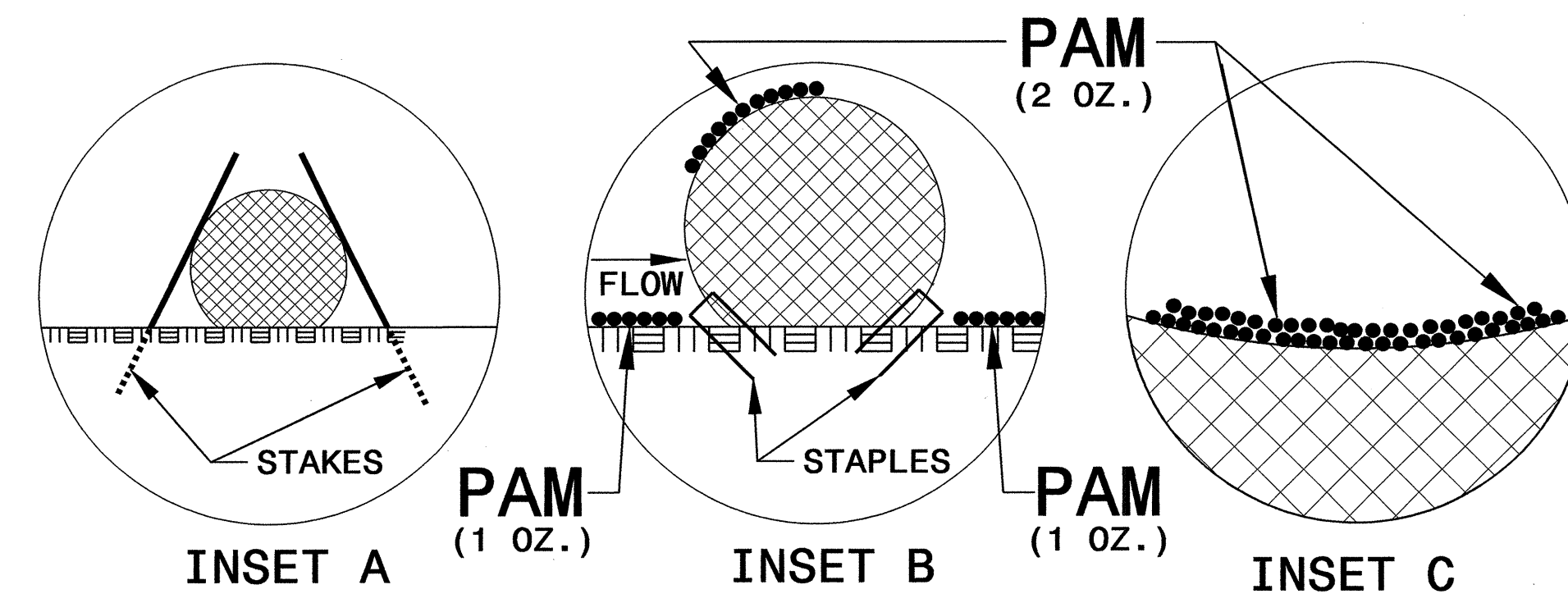
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

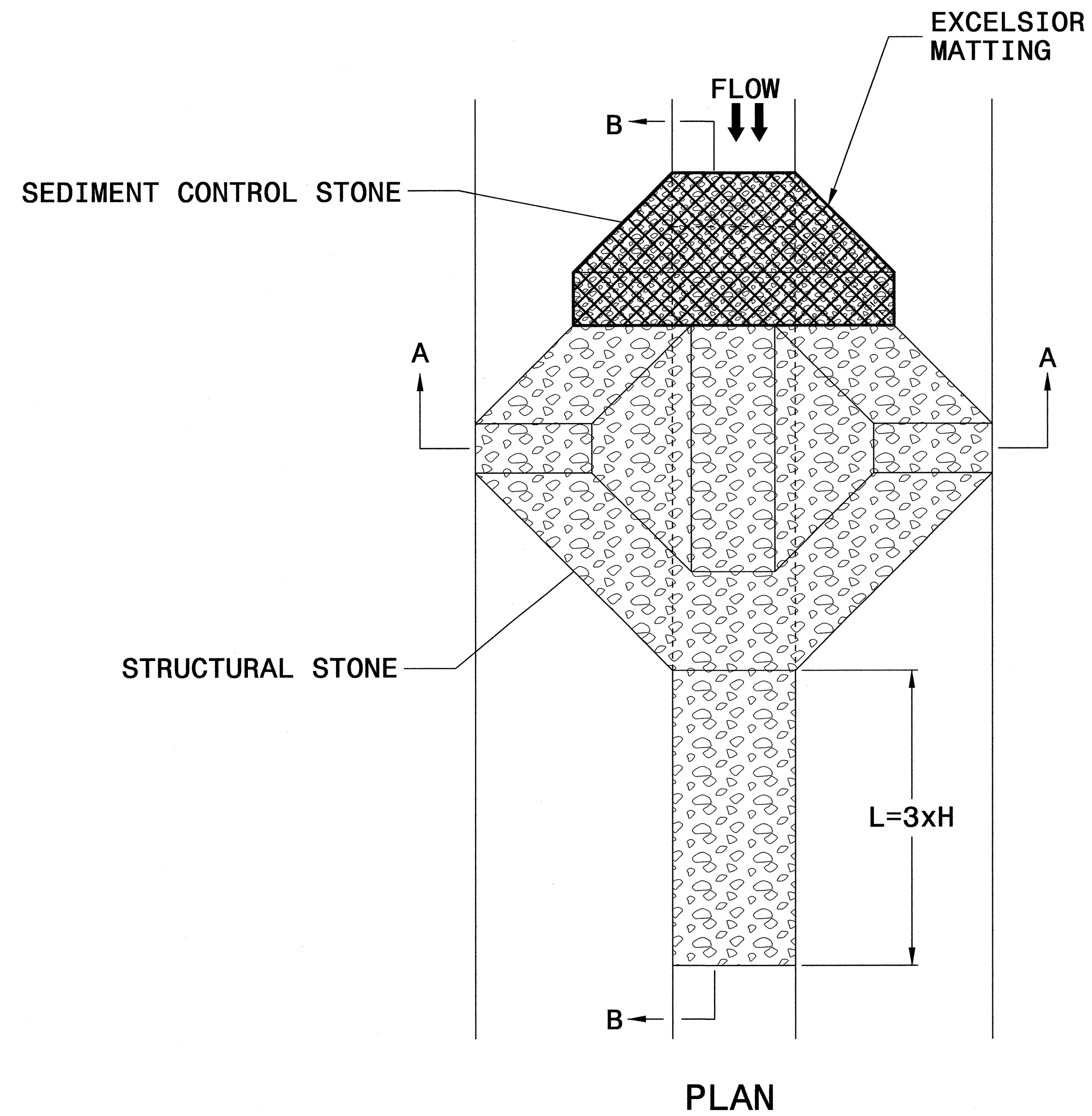
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

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



PROJECT REFERENCE NO. B-4643	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

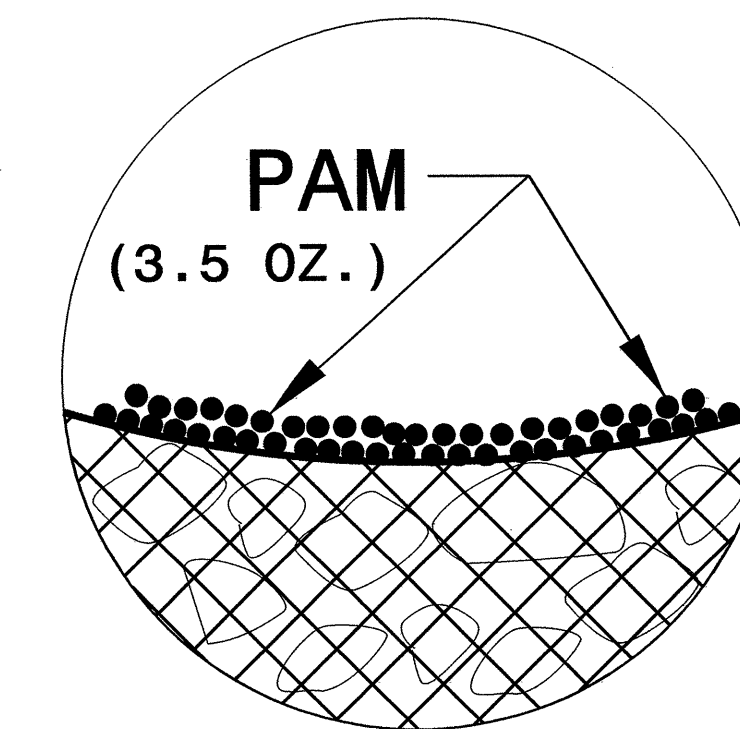


NOTES

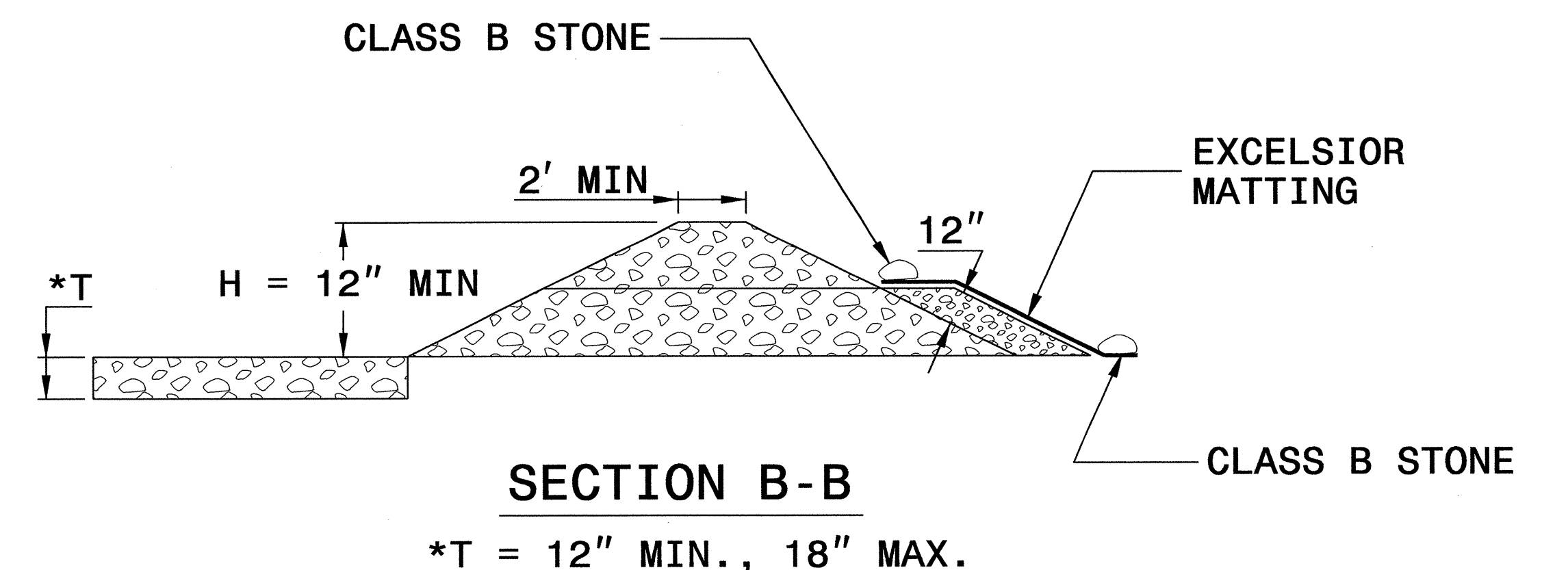
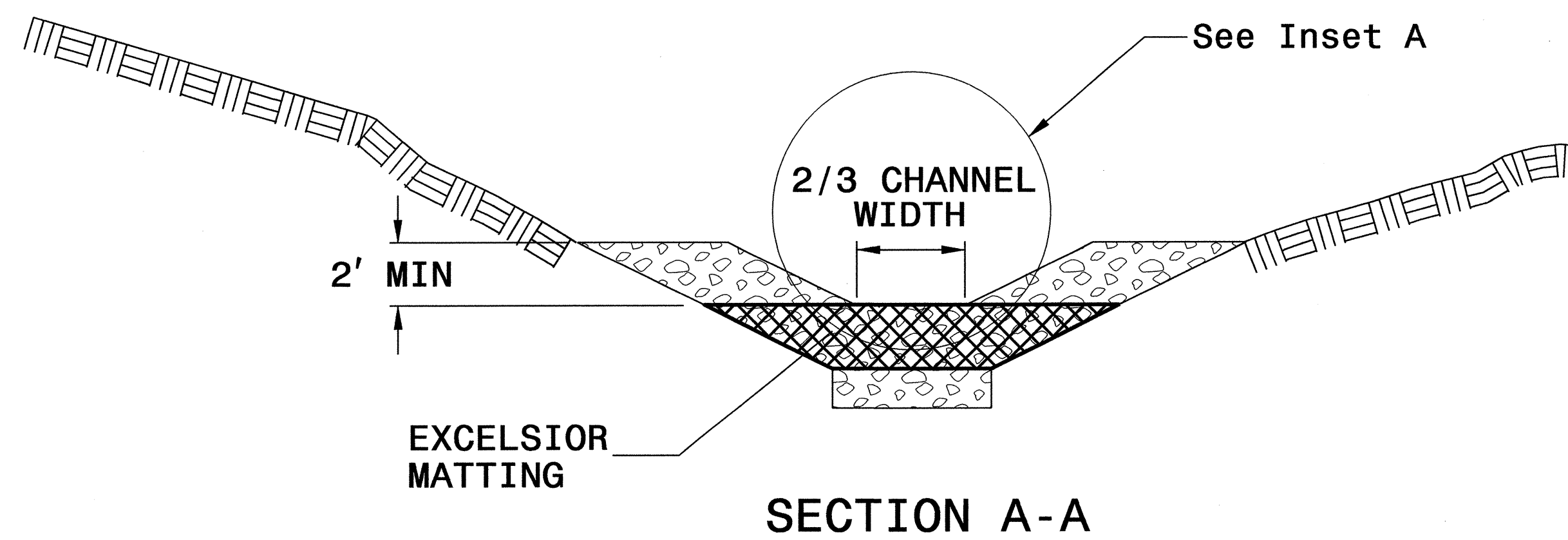
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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-4643</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

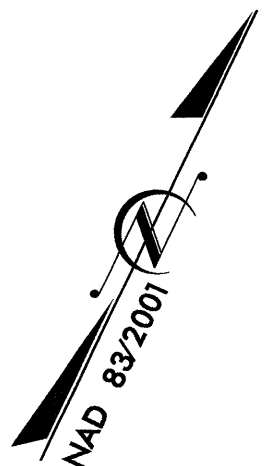
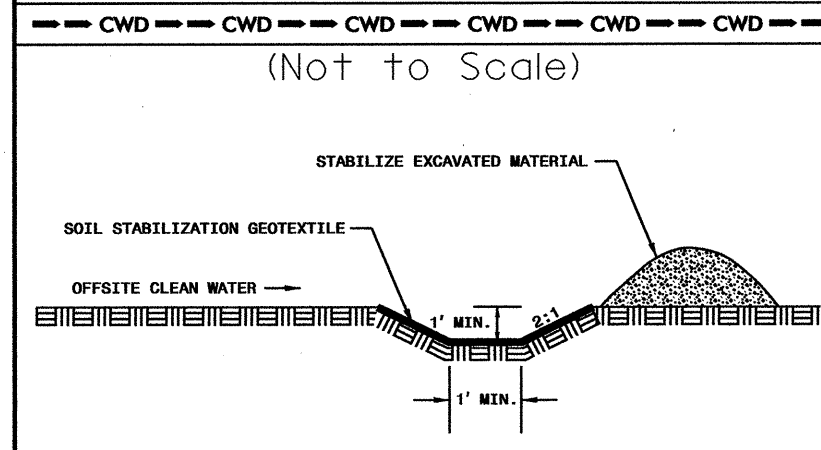
SOIL STABILIZATION TIMEFRAMES

<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.

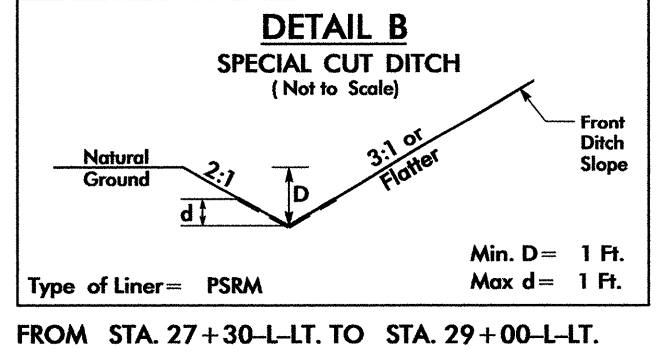
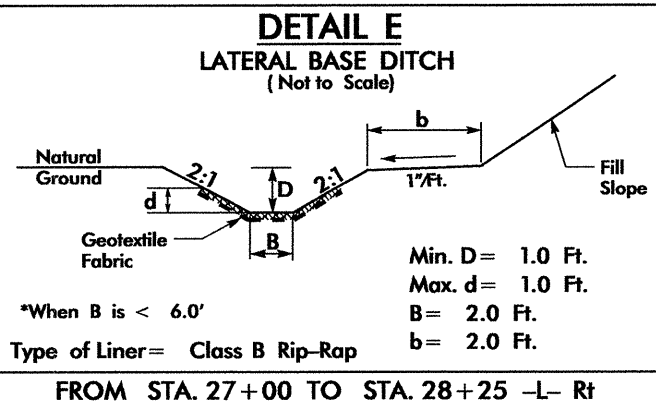
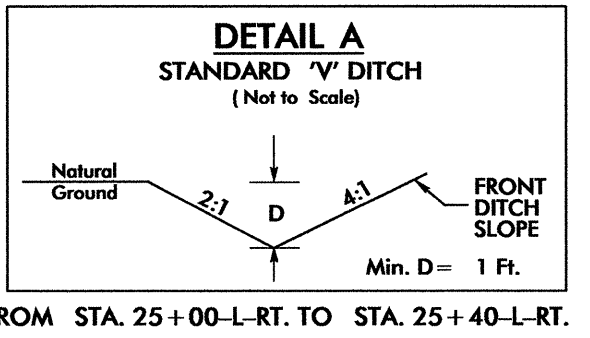
* NOTE: USE 6' PAVED SHOULDER FOR TEMPORARY MAINTENANCE OF TRAFFIC DURING CONSTRUCTION.

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

CLEAN WATER DIVERSION



1
TODD SHAD
DB III PG 648



77 x 17 x 3
ID 4.2

55 x 14 x 3
ID 4.3

4
DONNIE G. SMITH
DORIS E. SMITH
DB 354 PG 810

-DRIVE-
PI Sta 10+31.55
 $\Delta = 14' 10'' 06.6''$ (RT)
 $D = 114' 35'' 29.6''$
 $L = 12.36'$
 $T = 6.21'$
 $R = 50.00'$

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

-L-PT Sta. 17+55.83

BEGIN TIP PROJECT B-4643
-L- POC STA 22+00.00

-L-PC Sta. 19+35.81

-YREV- POT 10+00.00=
-L- POC 26+26.94

POT Sta. 10+00.00

N 69°00' 34.0" E
TO RICHFIELD

-YREV-
PI Sta 12+76.84
 $\Delta = 9' 16'' 45.4''$ (RT)
 $D = 4' 32'' 50.2''$
 $L = 204.06'$
 $T = 102.25'$
 $R = 1,260.00'$

PI Sta 10+51.24
 $\Delta = 42' 28'' 43.6''$ (RT)
 $D = 76' 23'' 39.7''$
 $L = 55.60'$
 $T = 29.15'$
 $R = 75.00'$

-YREV- PT Sta. 13+78.65

74 x 18 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
10 ft. weir
ID 4.1

9
CARL E. BELL
JANE L. BELL
CARL EDWARD BELL, JR.
ELIZABETH BELL BOYD
DB 601 PG 946
DB 1156 PG 305
DB 1214 PG 053

3
HAZEL MORTON GRIFFIN
DB 318 PG 474
DB 167 PG 487
DB 344 PG 799

MATCHLINE -L- STA. 30+50 SEE SHEET 5

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8/17/99

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.

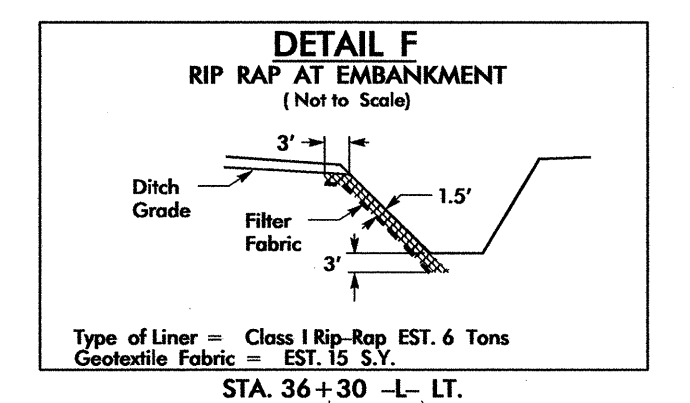
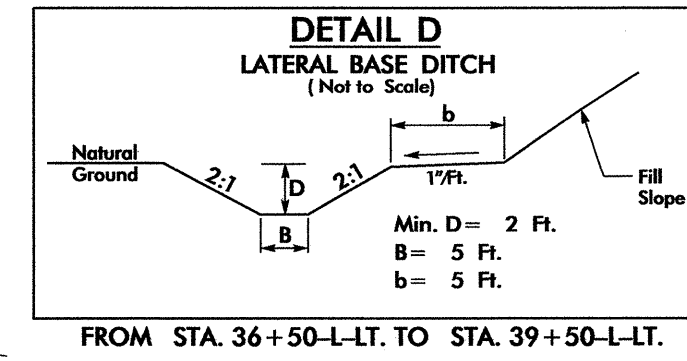
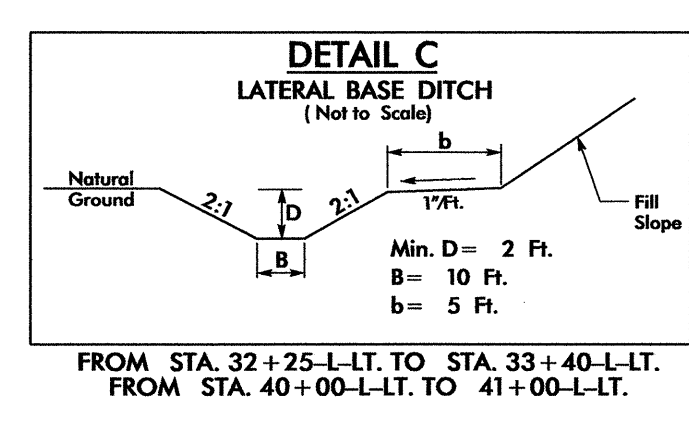
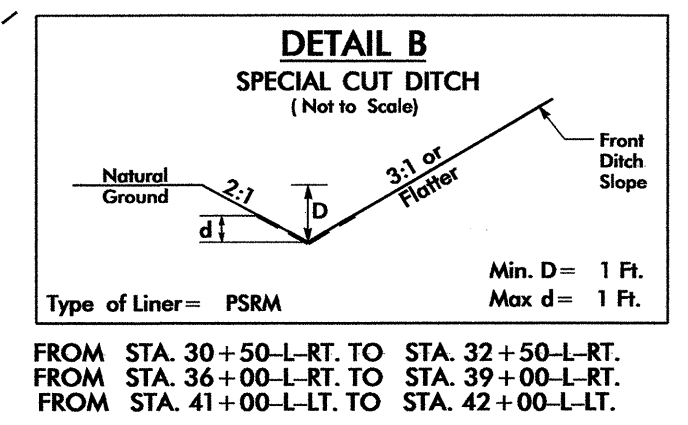
 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NOTE: MAINTAIN TRAFFIC DURING CONSTRUCTION
UTILIZING EXISTING ROADWAY

47 x 22 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
14 ft. weir
ID 5.1

55 x 20 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
12 ft. weir
ID 5.3

 TEMPORARY SHORING
(SEE PMP PLANS)

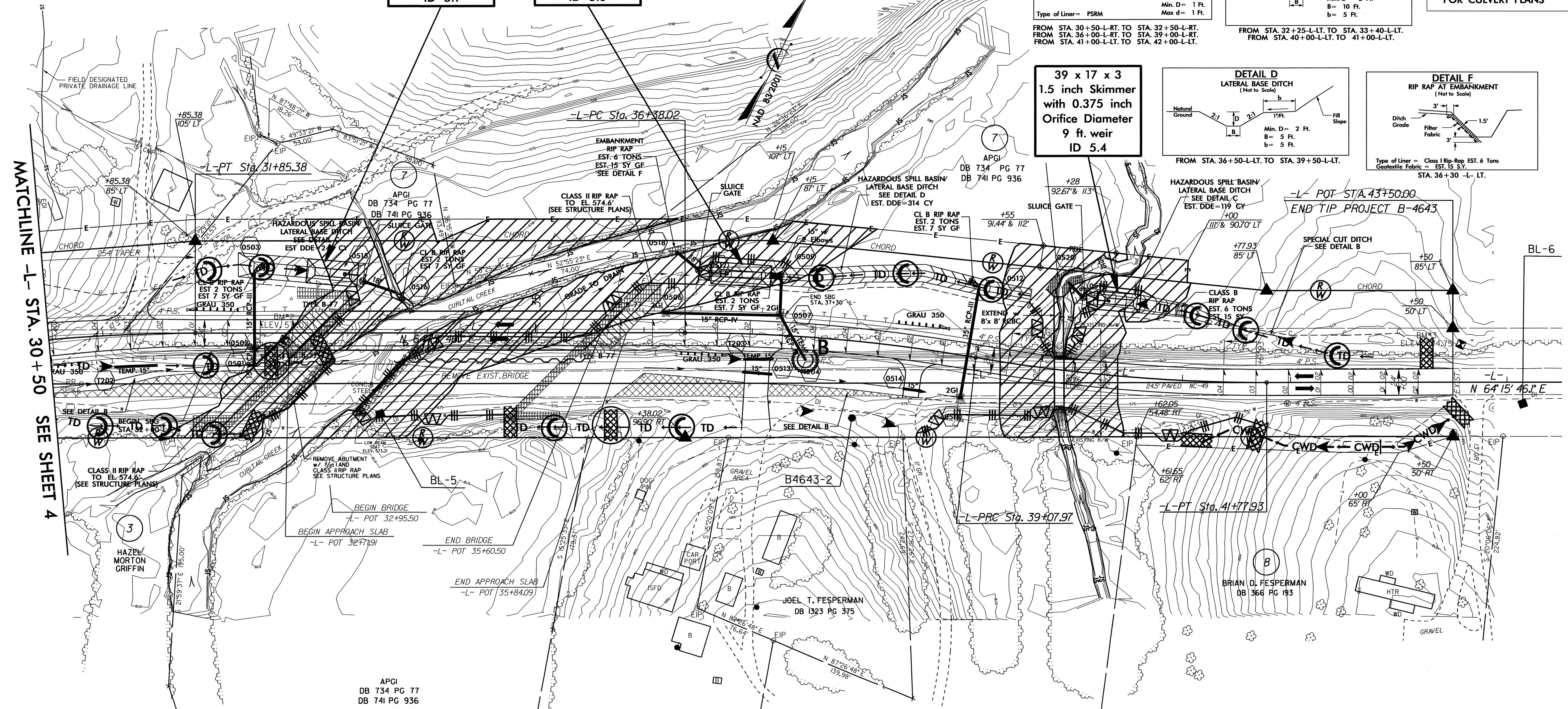


39 x 17 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
9 ft. weir
ID 5.4

SEE SHEETS S-1 THRU S-37
FOR STRUCTURE PLANS

SEE SHEETS C-1 THRU C-3
FOR CULVERT PLANS

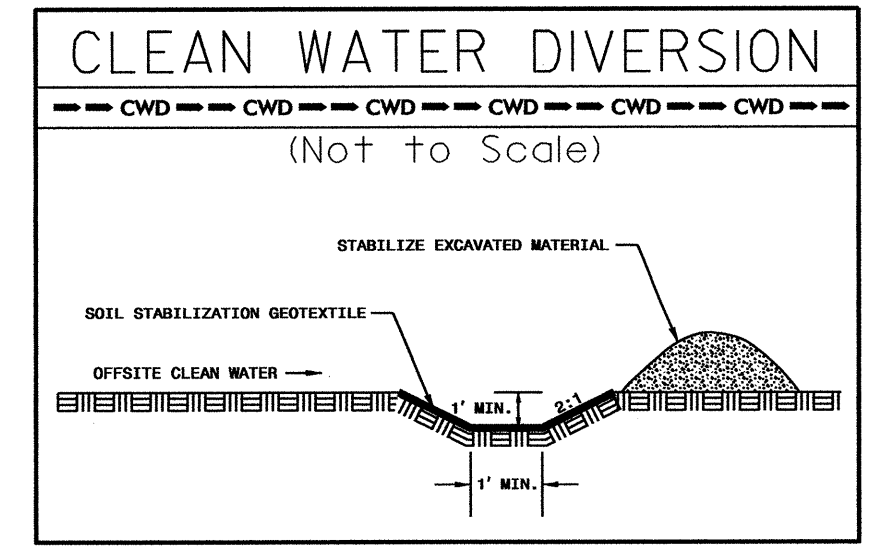
SEE SHEET 6 FOR PROFILE OF -L-



MATCHLINE -L- STA. 30+50 SEE SHEET 4

BL-6

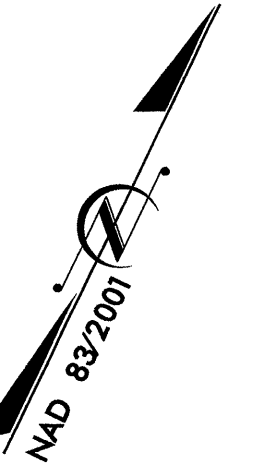
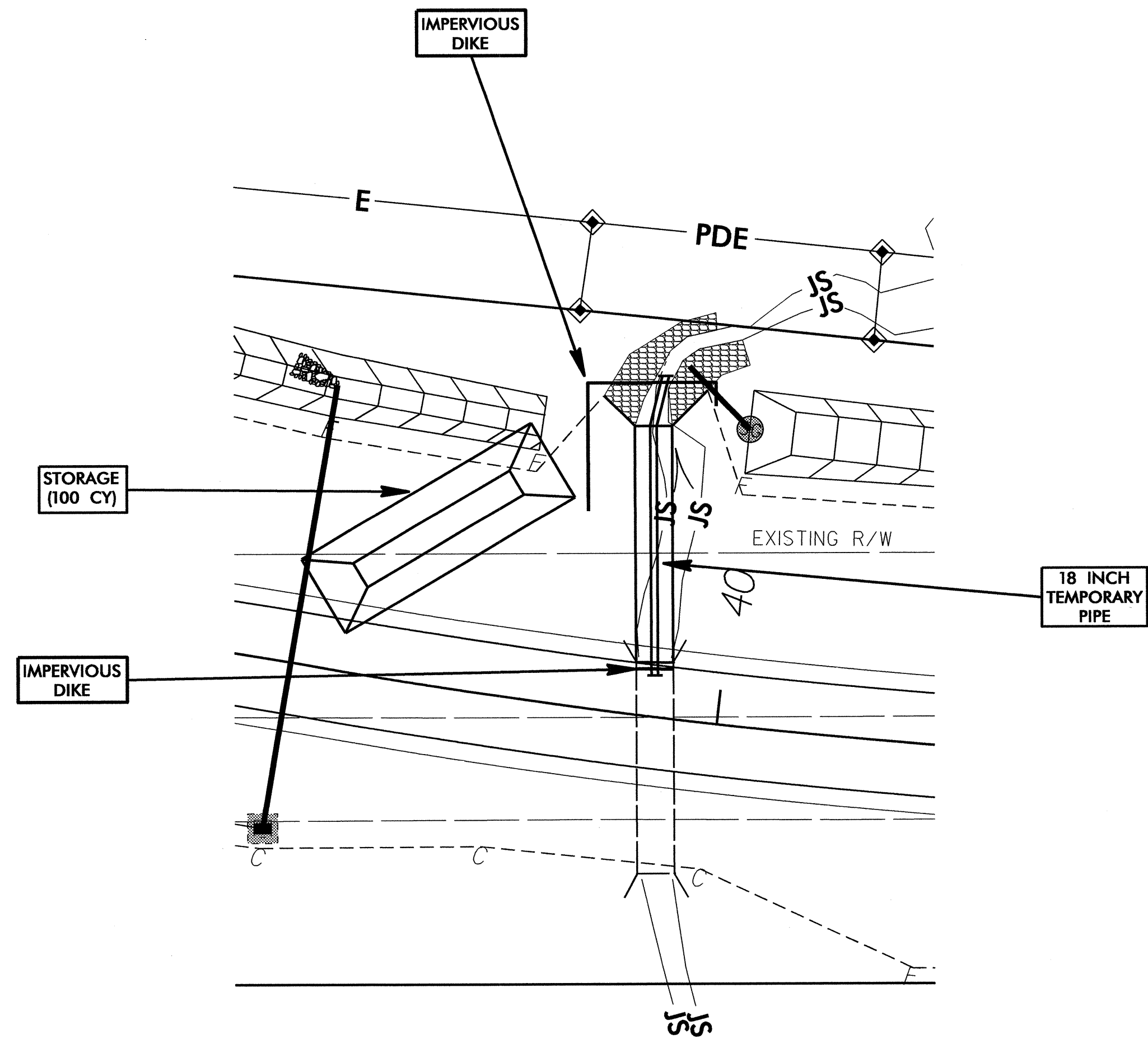
NOTE:
UTILIZE SPECIAL STILLING BASIN WHERE APPLICABLE.



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CULVERT CONSTRUCTION SEQUENCE STA. 39 + 86 -L-

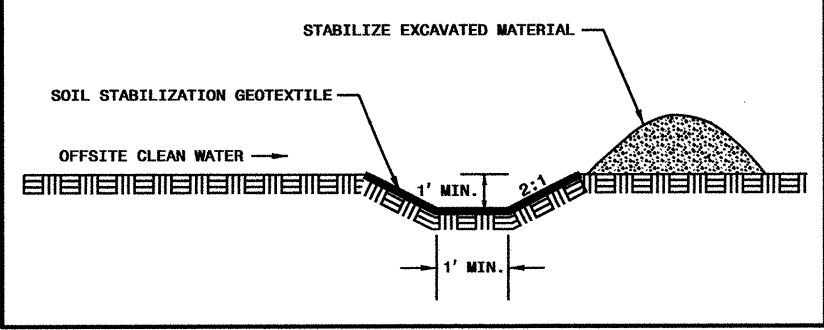
1. CONSTRUCT STILLING BASIN (100 CY).
2. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 18 INCH TEMPORARY PIPE.
3. CONSTRUCT PROPOSED CULVERT EXTENSION AND OUTLET CHANNEL IMPROVEMENTS.
4. REMOVE TEMPORARY PIPE AND IMPERVIOUS DIKES, ALLOWING NORMAL FLOW THROUGH CULVERT.
5. REMOVE STILLING BASIN.
6. COMPLETE ROADWAY.



8/17/99

CLEAN WATER DIVERSION

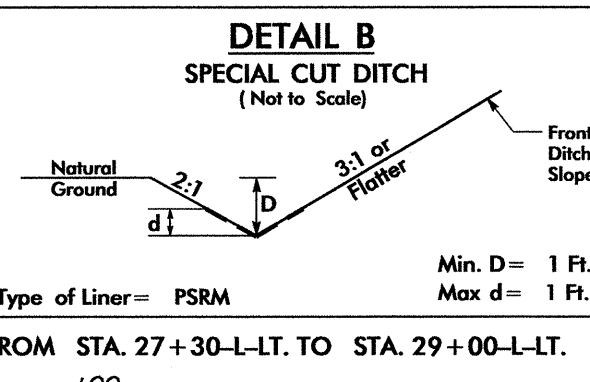
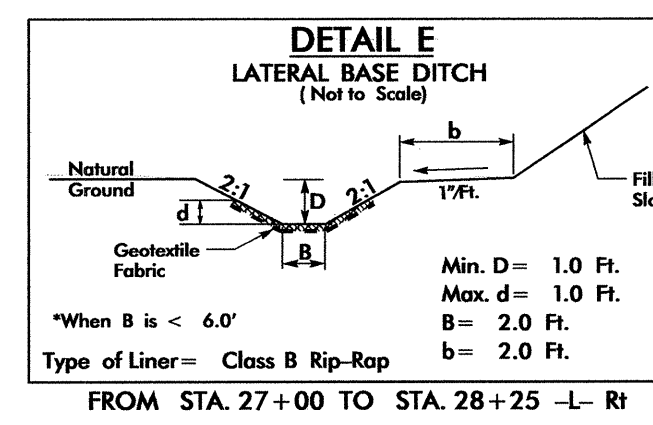
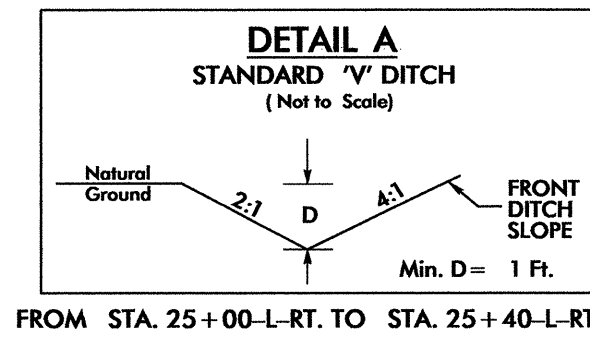
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(Not to Scale)



* NOTE: USE 6' PAVED SHOULDER FOR TEMPORARY MAINTENANCE OF TRAFFIC DURING CONSTRUCTION.

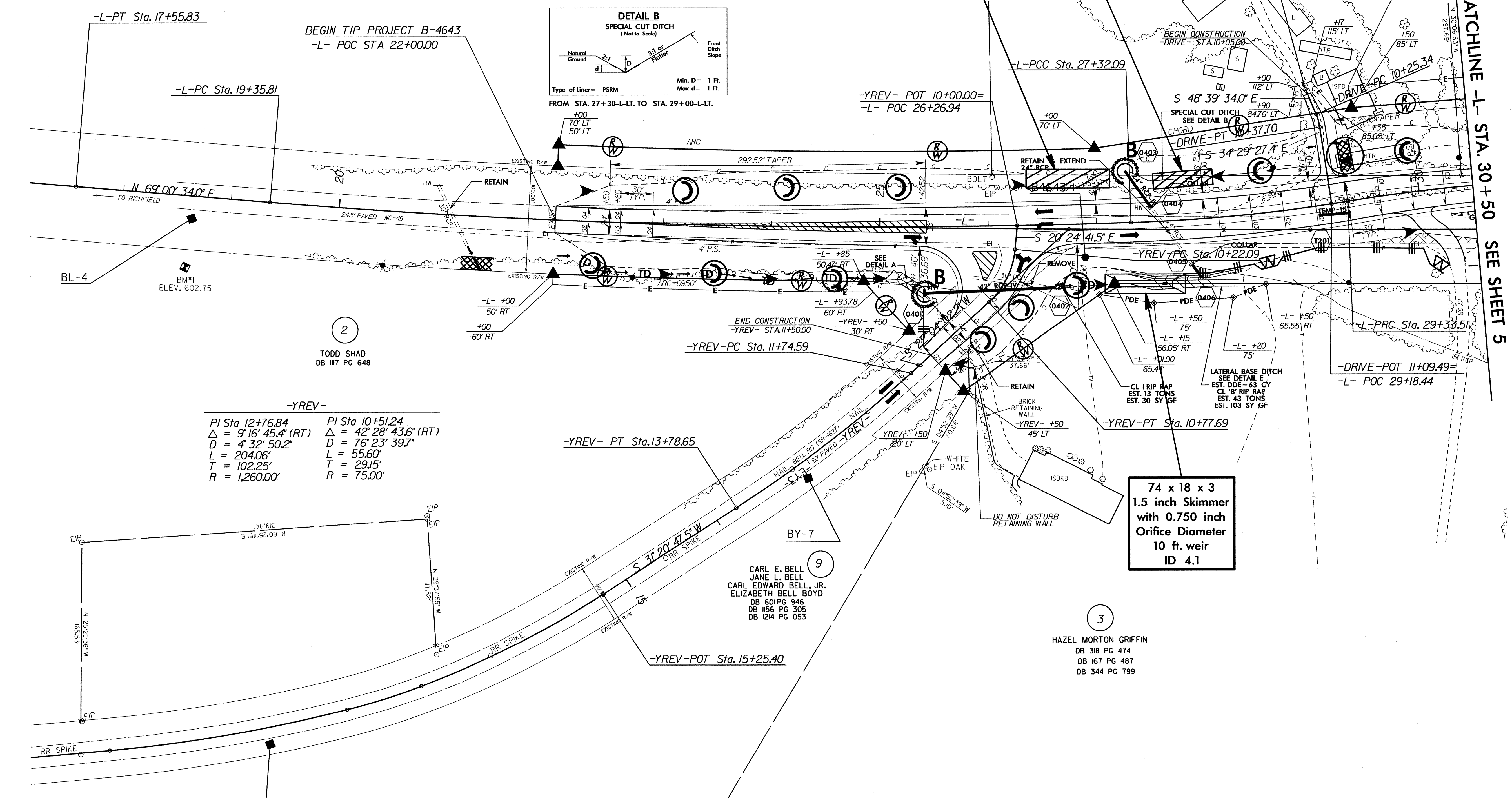
PROJECT REFERENCE NO. B-4643	SHEET NO. EC-7/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

1
TODD SHAD
DB III7 PG 648



4
DONNIE G. SMITH
DORIS E. SMITH
DB 354 PG 810

-DRIVE-
PI Sta 10+31.55
 $\Delta = 14' 10'' 06.6'' (RT)$
 $D = 114' 35'' 29.6''$
 $L = 12.36'$
 $T = 6.21'$
 $R = 50.00'$



-YREV-
PI Sta 12+76.84 PI Sta 10+51.24
 $\Delta = 9' 16'' 45.4'' (RT)$ $\Delta = 42' 28'' 43.6'' (RT)$
 $D = 4' 32'' 50.2''$ $D = 76' 23'' 39.7''$
 $L = 204.06'$ $L = 55.60'$
 $T = 102.25'$ $T = 29.15'$
 $R = 1,260.00'$ $R = 75.00'$

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PROJECT REFERENCE NO. B-4643		SHEET NO. EC-8/CONST.5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTE: MAINTAIN TRAFFIC DURING CONSTRUCTION UTILIZING EXISTING ROADWAY

SEE SHEET 6 FOR PROFILE OF -L-

SEE SHEETS S-1 THRU S-37 FOR STRUCTURE PLANS

SEE SHEETS C-1 THRU C-3 FOR CULVERT PLANS

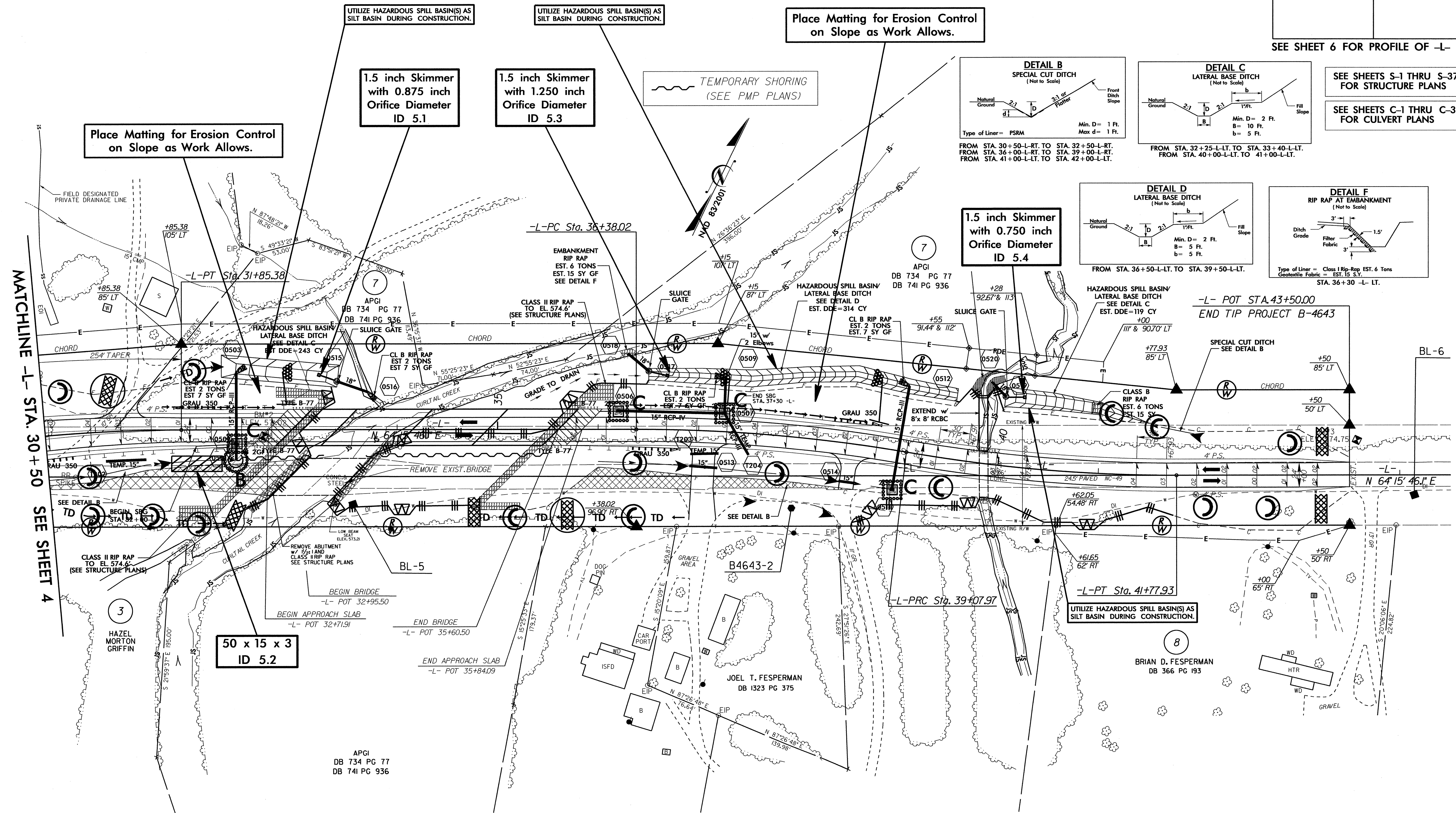
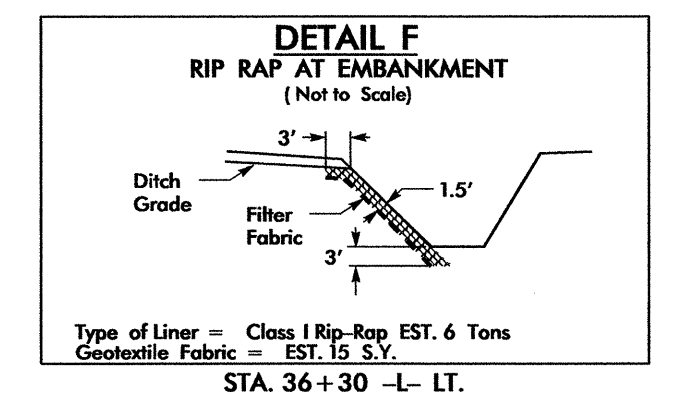
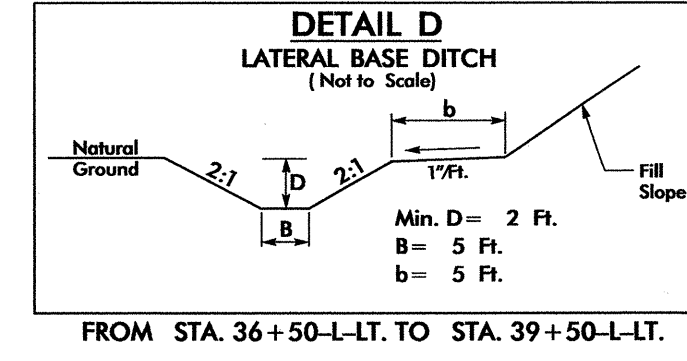
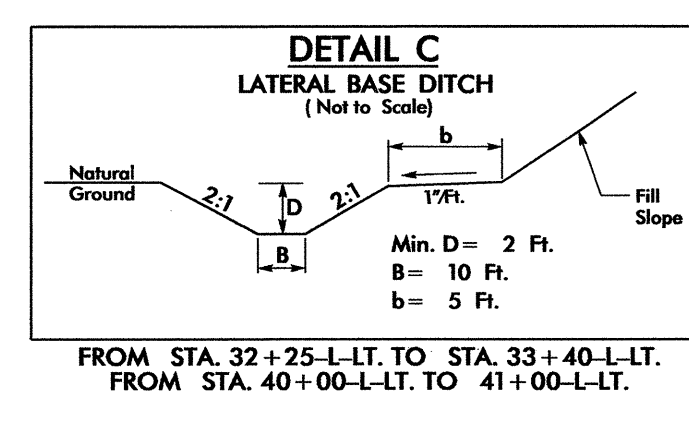
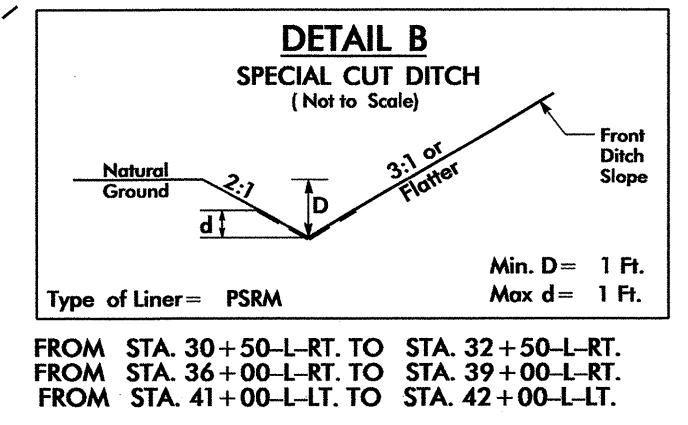
Place Matting for Erosion Control on Slope as Work Allows.

1.5 inch Skimmer with 0.875 inch Orifice Diameter ID 5.1

1.5 inch Skimmer with 1.250 inch Orifice Diameter ID 5.3

Place Matting for Erosion Control on Slope as Work Allows.

1.5 inch Skimmer with 0.750 inch Orifice Diameter ID 5.4



MATCHLINE -L- STA. 30+50 SEE SHEET 4

NOTE: UTILIZE SPECIAL STILLING BASIN WHERE APPLICABLE.

8/17/99
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AL REVISED 2/20/13