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TIP PROJECT: B-5864

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

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

LOCATION: BRIDGE NO. 49 OVER BROWNS CREEK ON NC 80

TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5864	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

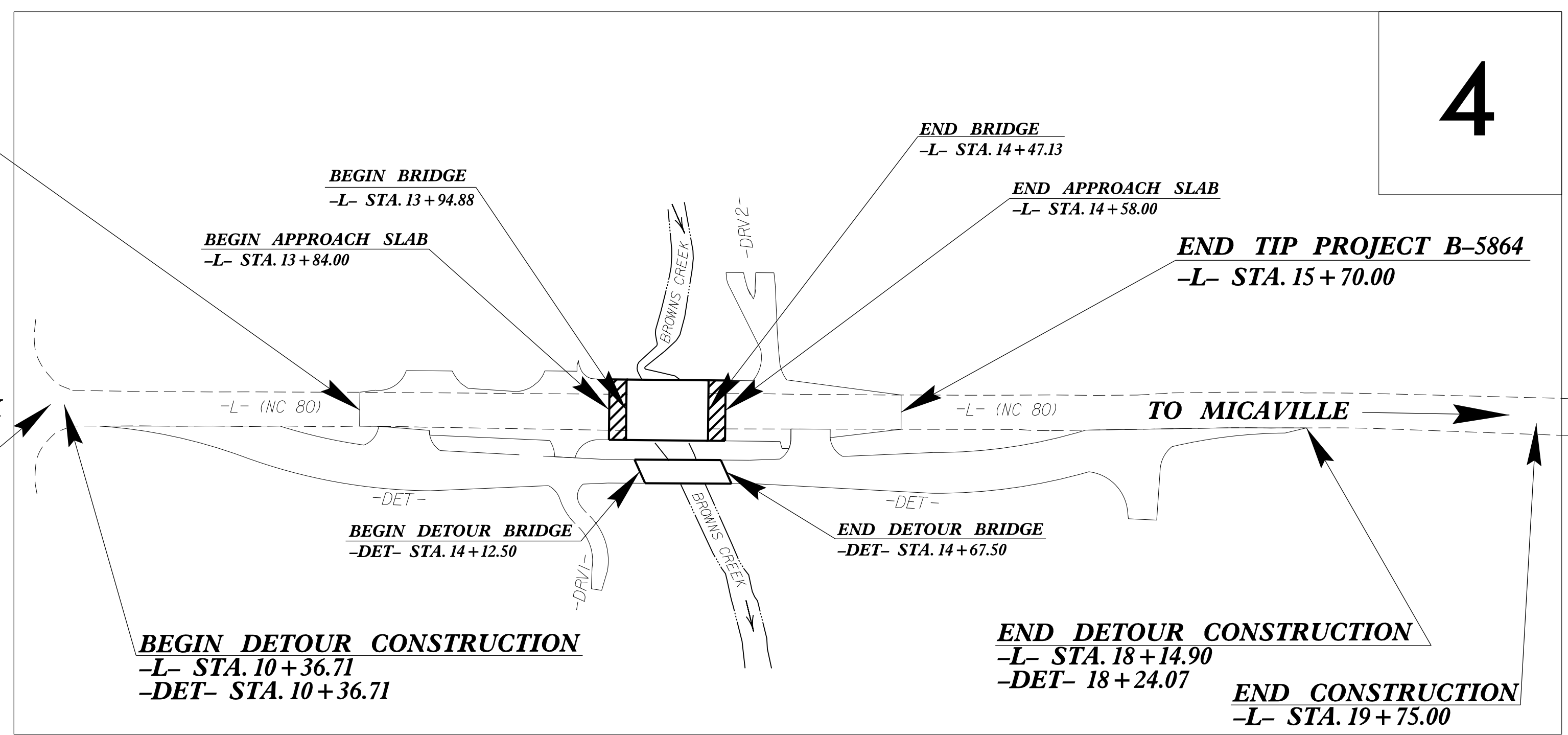
Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	TSF
1606.01	Special Sediment Control Fence	SSCF
1622.01	Temporary Berms and Slope Drains	TBSD
1630.02	Silt Basin Type B	SBS
1633.01	Temporary Rock Silt Check Type-A	TRSCA
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	TRSCA-PAM
1633.02	Temporary Rock Silt Check Type-B	TRSCB
	Wattle / Coir Fiber Wattle	WCFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	WCFW-PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDA-B
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTRA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTRB
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB



BEGIN TIP PROJECT B-5864
-L- STA. 12+25.00

BEGIN CONSTRUCTION
-L- STA. 10+28.00

BEGIN DETOUR CONSTRUCTION
-L- STA. 10+36.71
-DET- STA. 10+36.71



END TIP PROJECT B-5864
-L- STA. 15+70.00

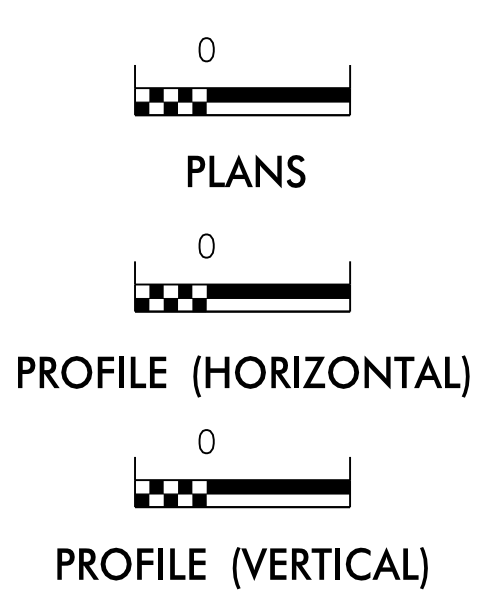
END DETOUR CONSTRUCTION
-L- STA. 18+14.90
-DET- 18+24.07
END CONSTRUCTION
-L- STA. 19+75.00

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

HIGH QUALITY WATER(S) EXIST ON THIS PROJECT
High Quality Water Zone(s) Exist From Sta. BEGIN to Sta. END
Refer To E. C. Special Provisions for Special Considerations.

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 1, 2016 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

2018 STANDARD SPECIFICATIONS
Designed by:
Noelle Ring 3456
NAME LEVEL III CERTIFICATION NO.

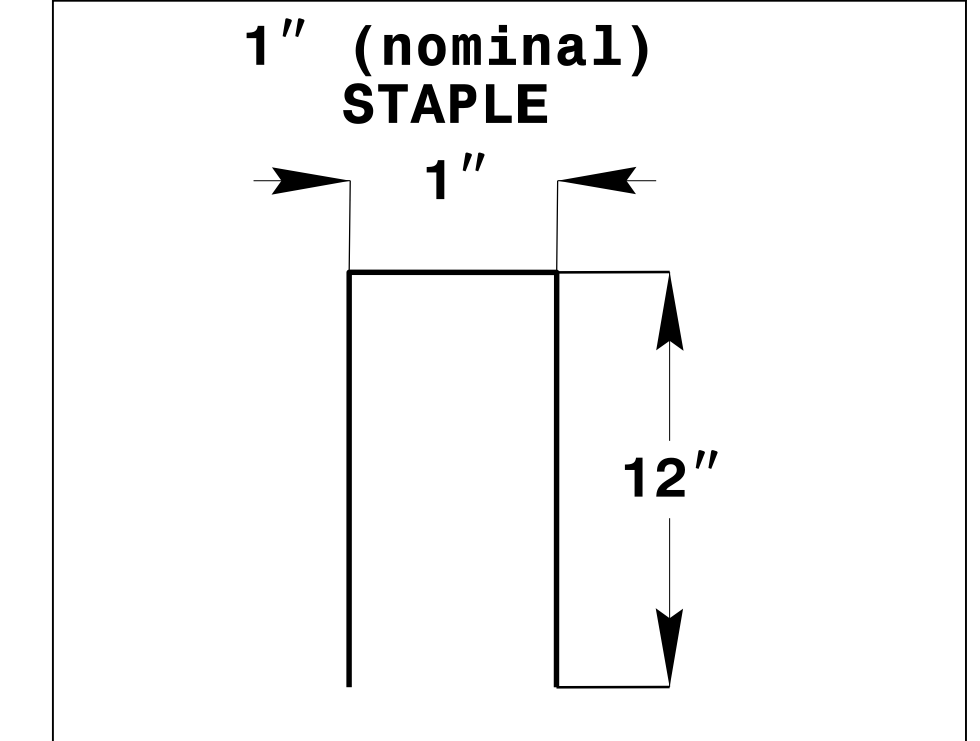
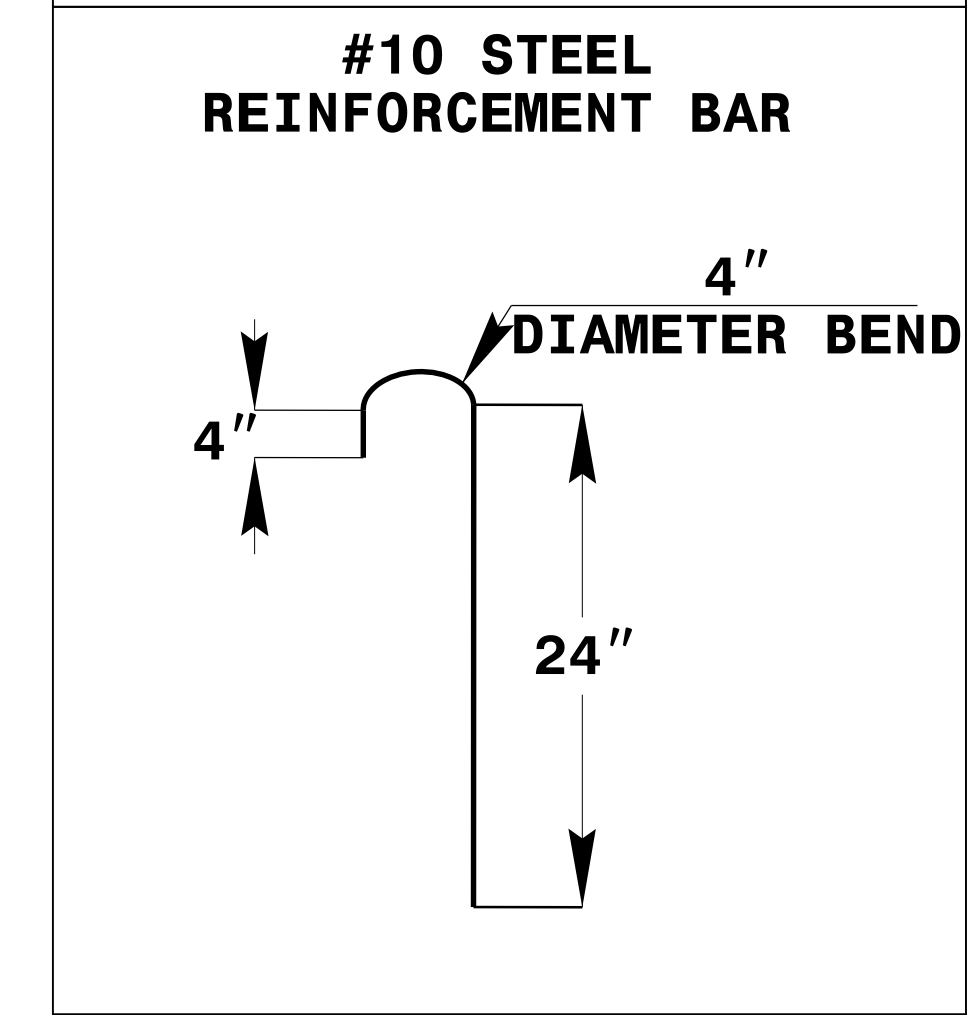
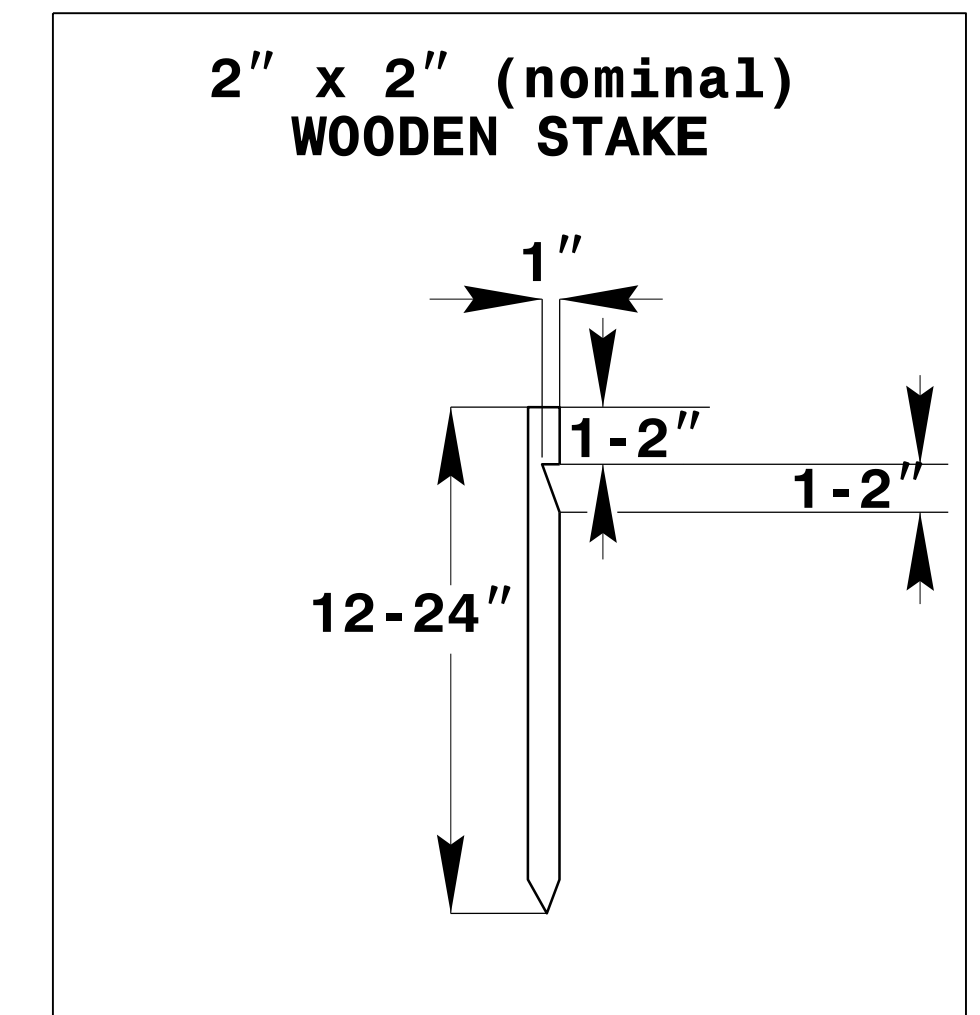
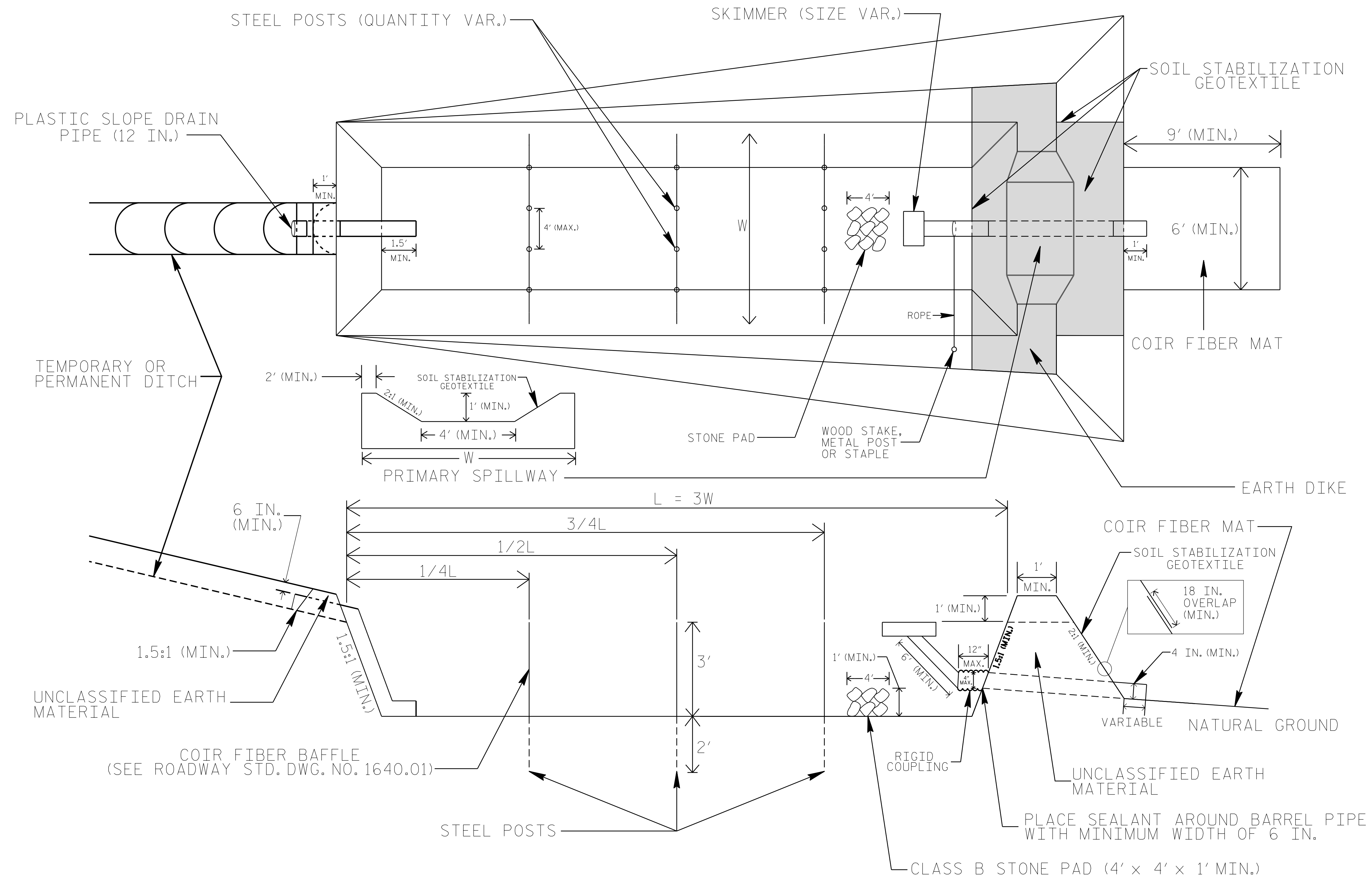
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 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 J
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 J
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type J	1634.02 Temporary Rock Sediment Dam Type J
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 J
1630.05 Temporary Diversion	1640.01 Coir Fiber Wattle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

PROJECT REFERENCE NO. B-5864	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

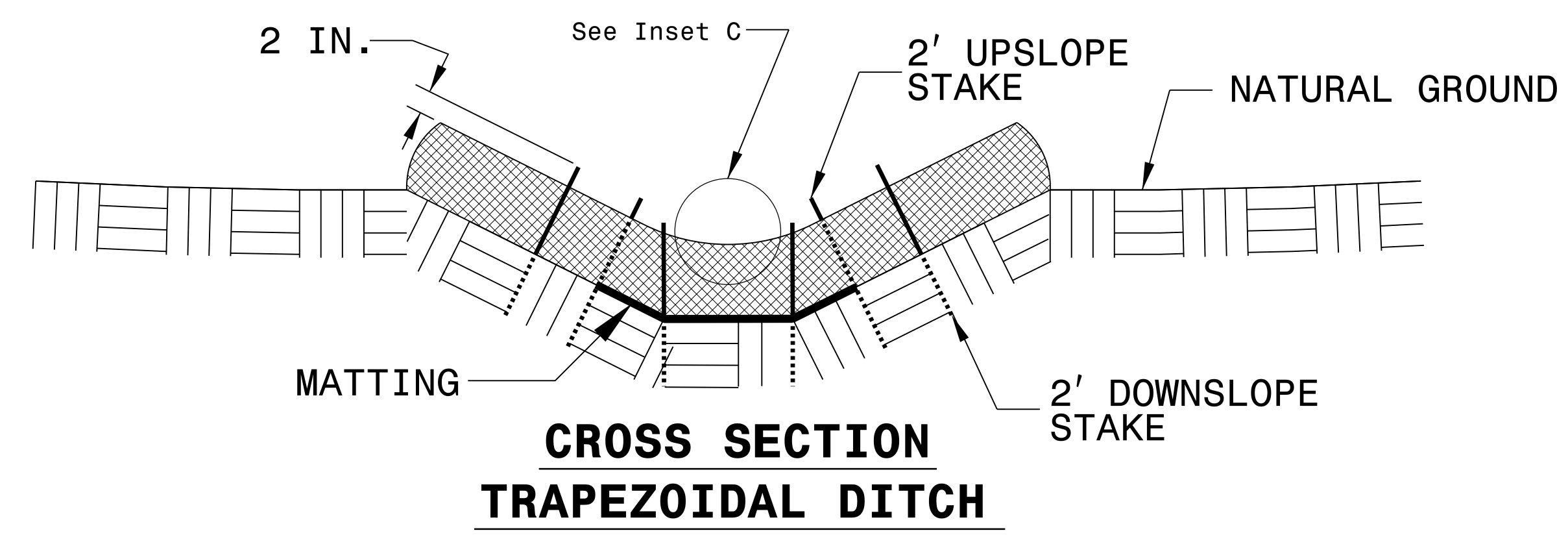
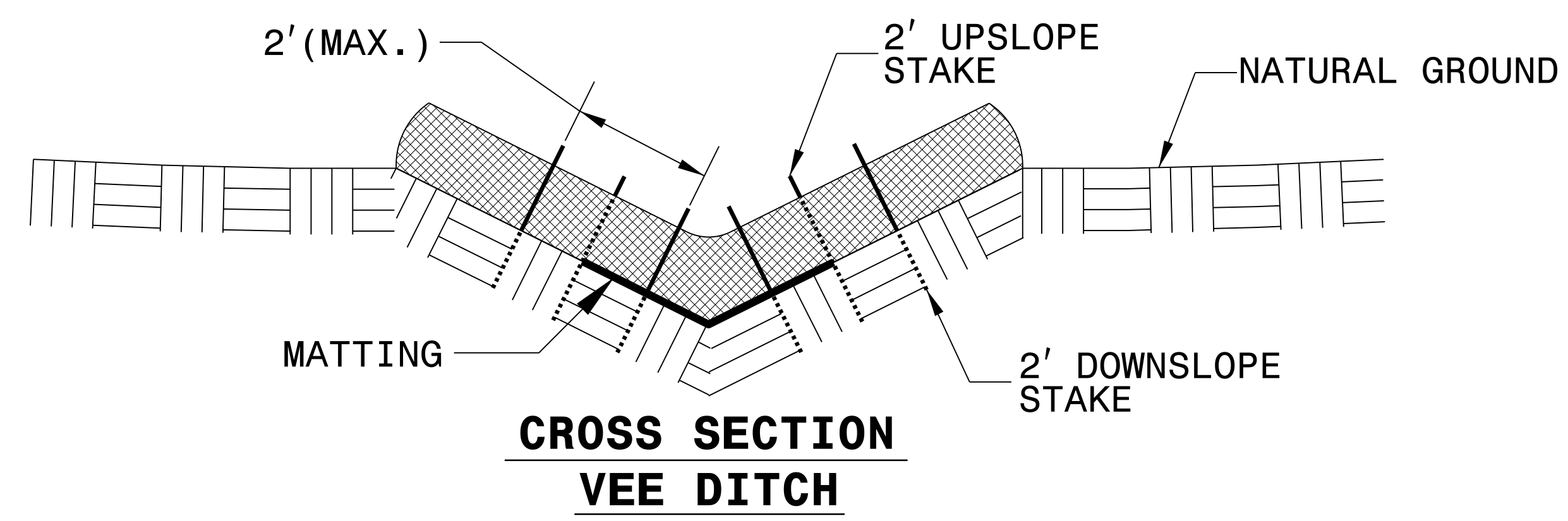
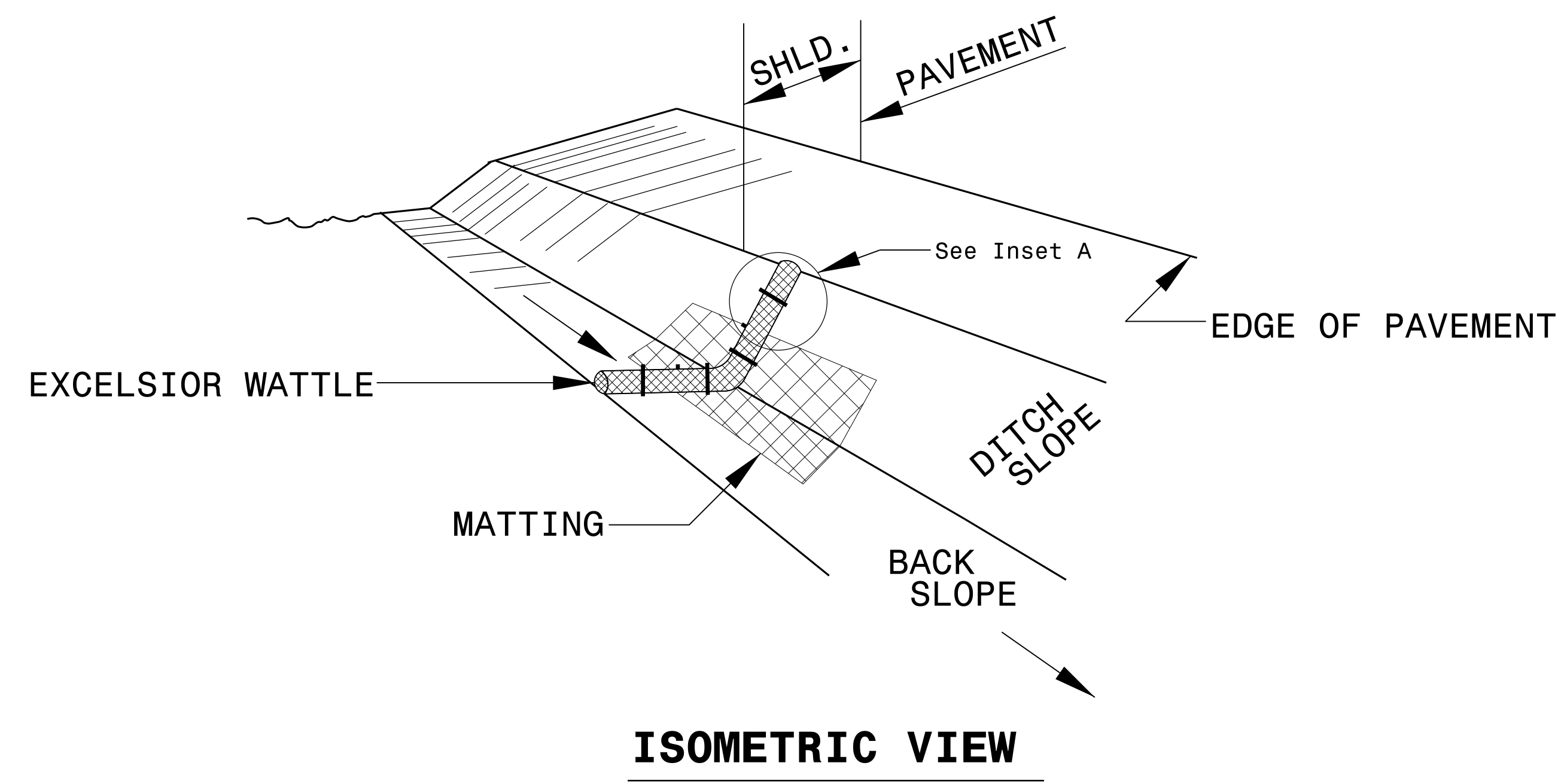
NOTES

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 PRIMARY 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 PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

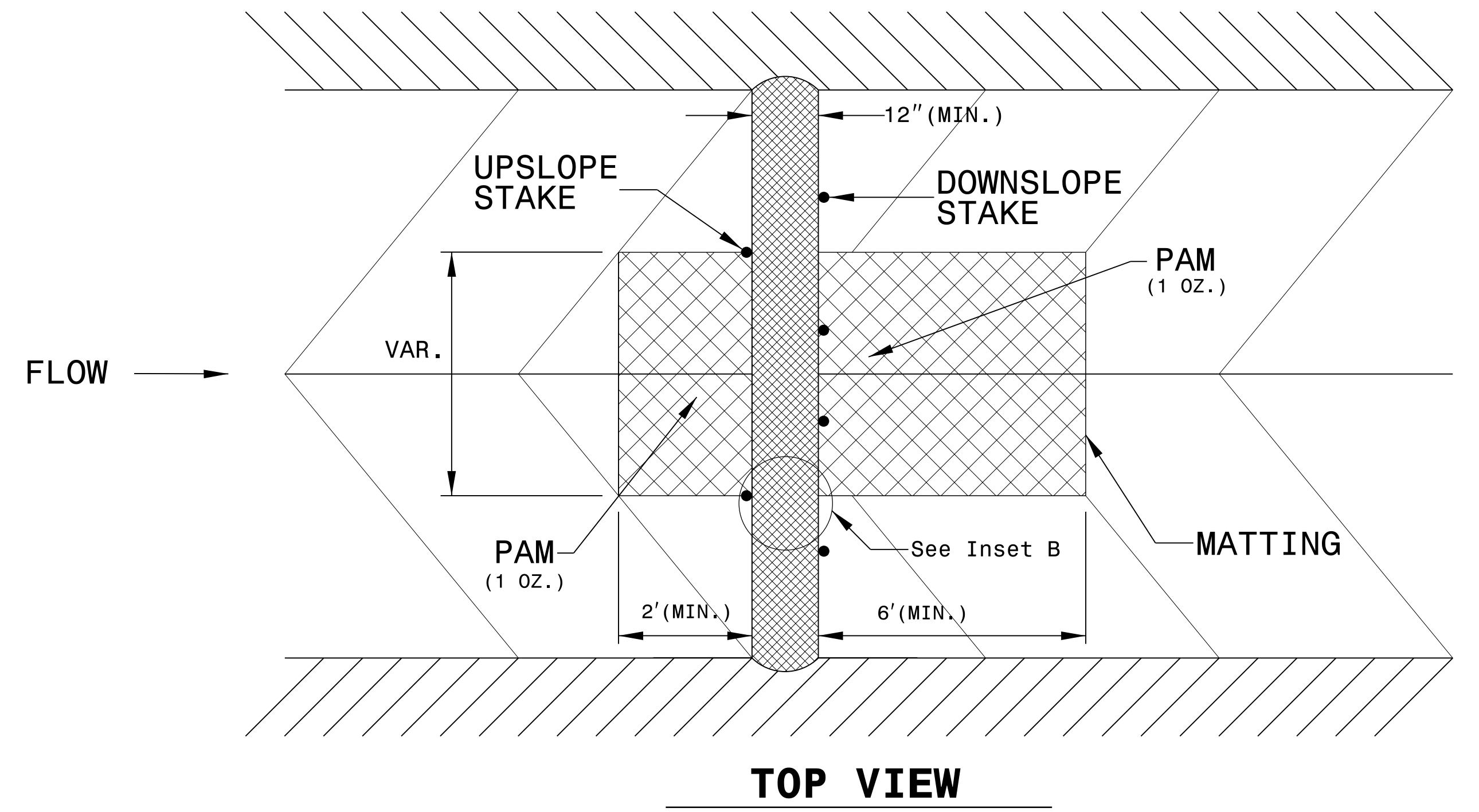
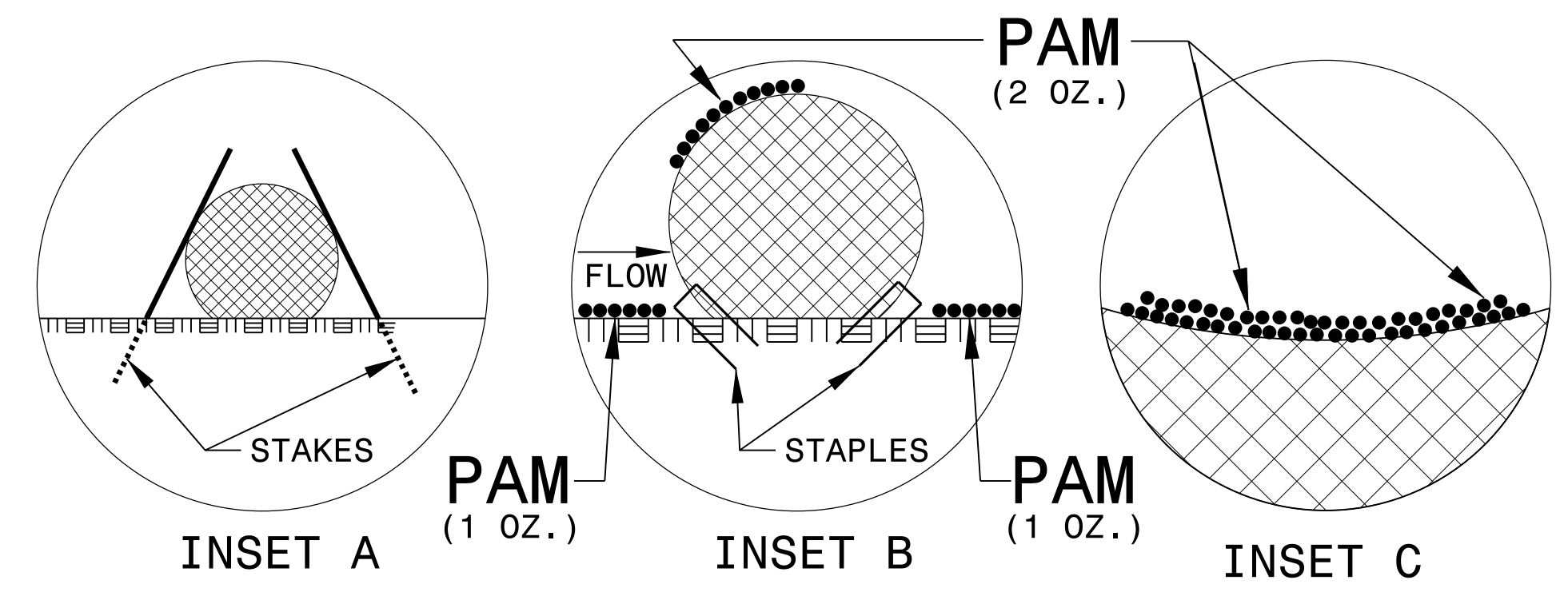
NOT TO SCALE

PROJECT REFERENCE NO. B-5864	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

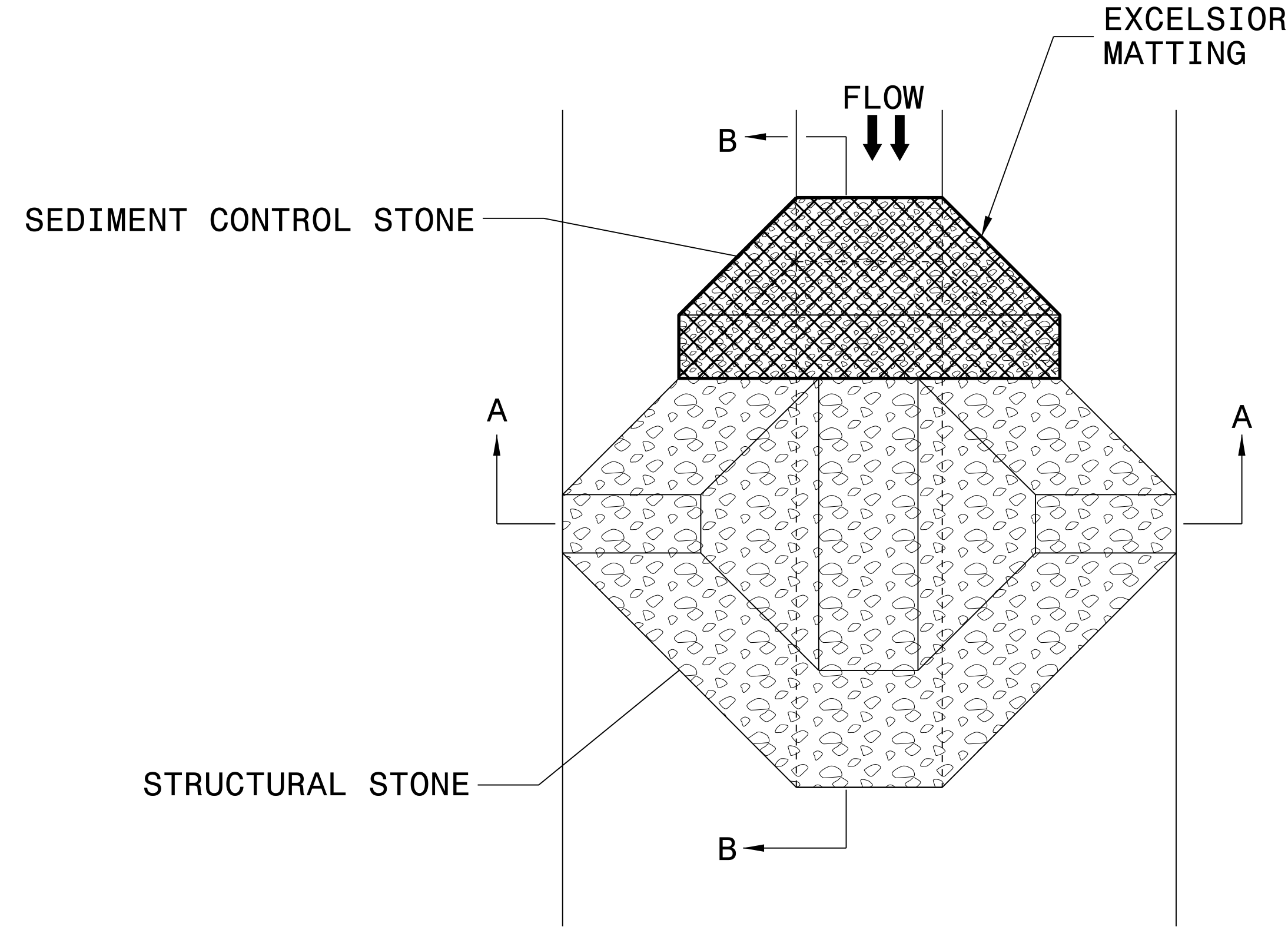


- NOTES:**
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 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-5864	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

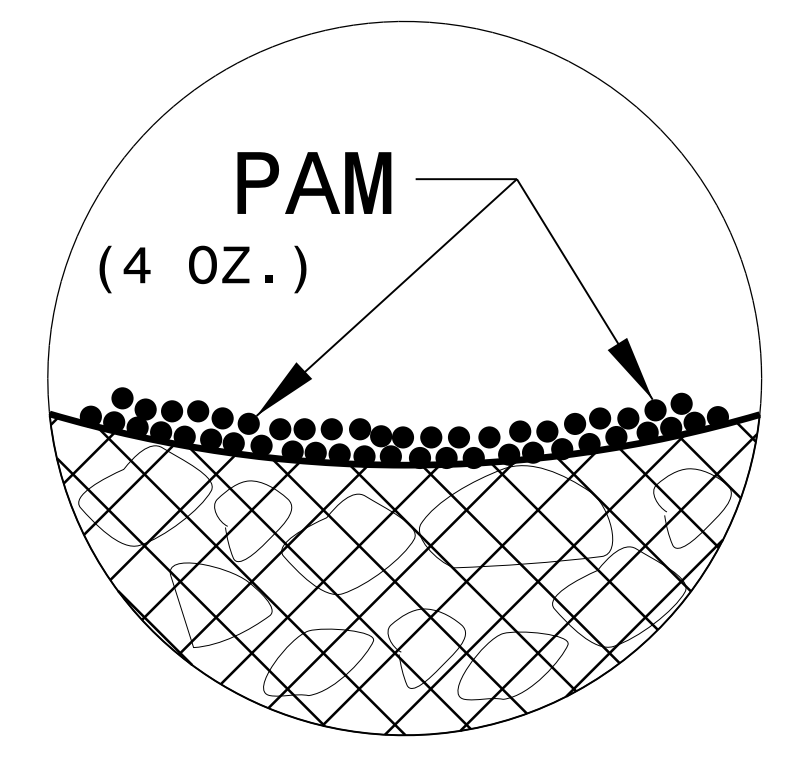
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

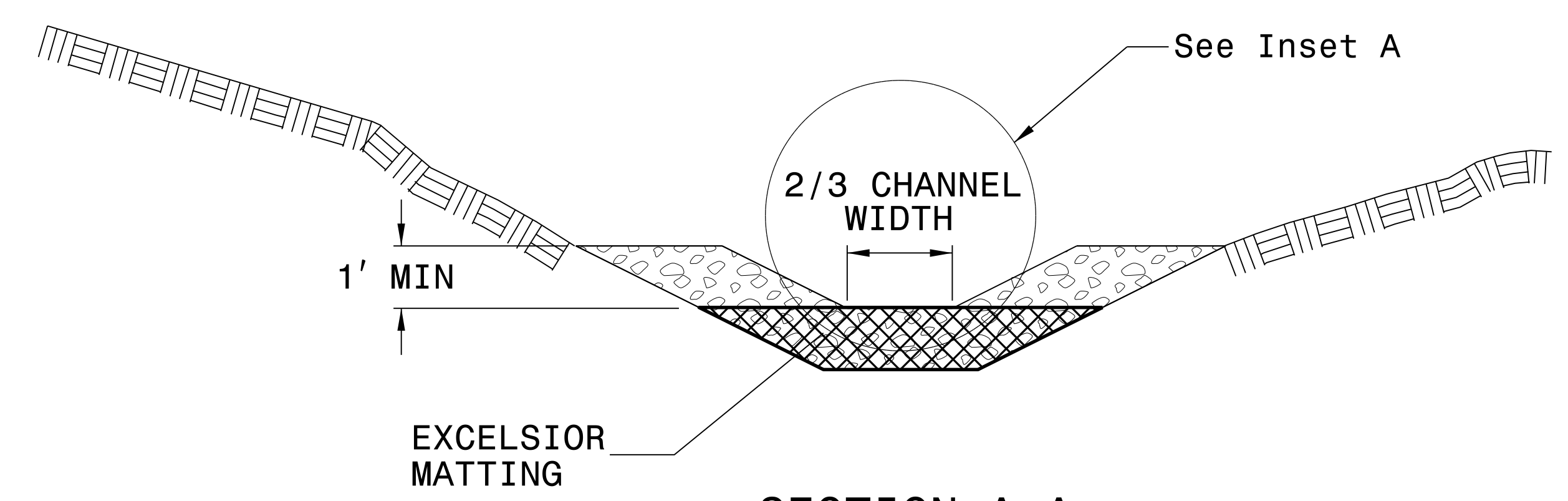
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

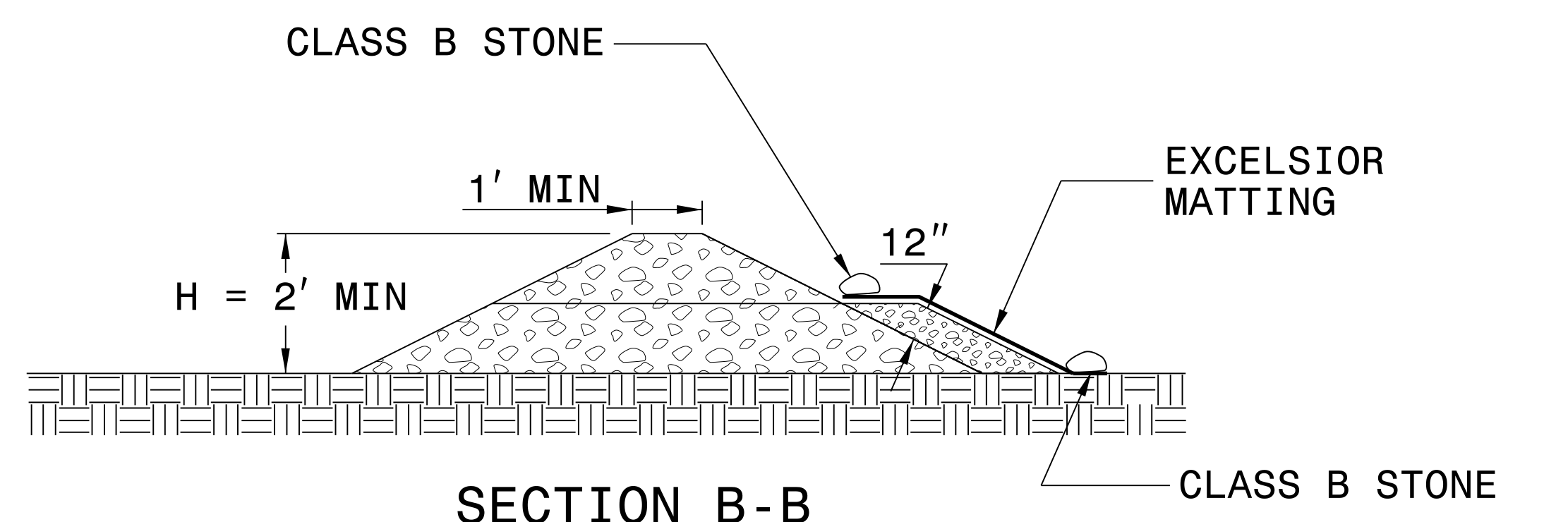
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>B-5864</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.

DETOUR

PROJECT REFERENCE NO. B-5864	SHEET NO. EC-4/CONST. 2B-1
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

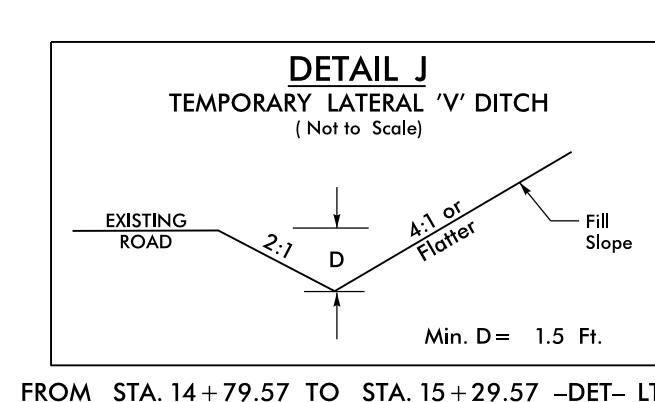
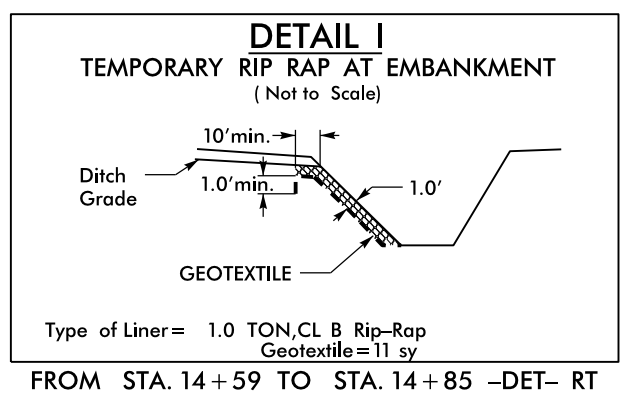
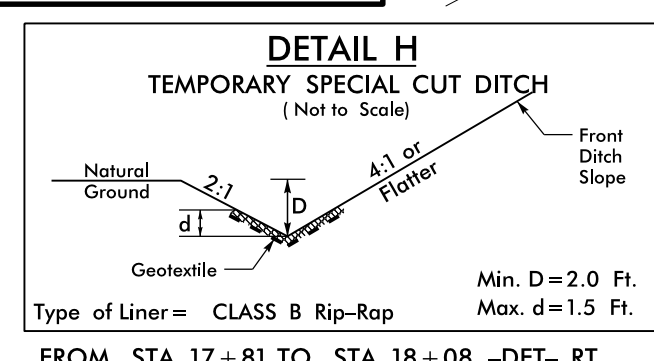
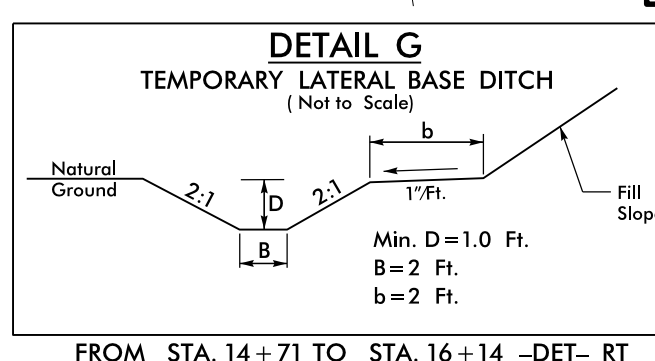
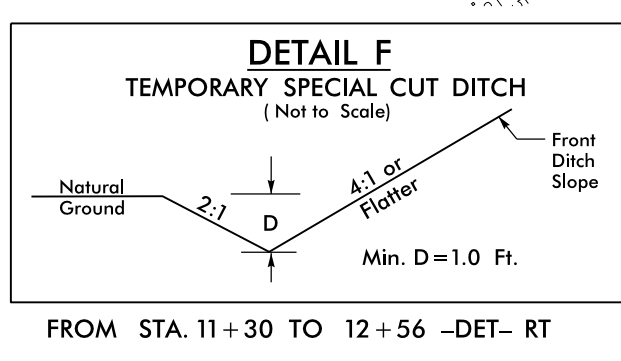
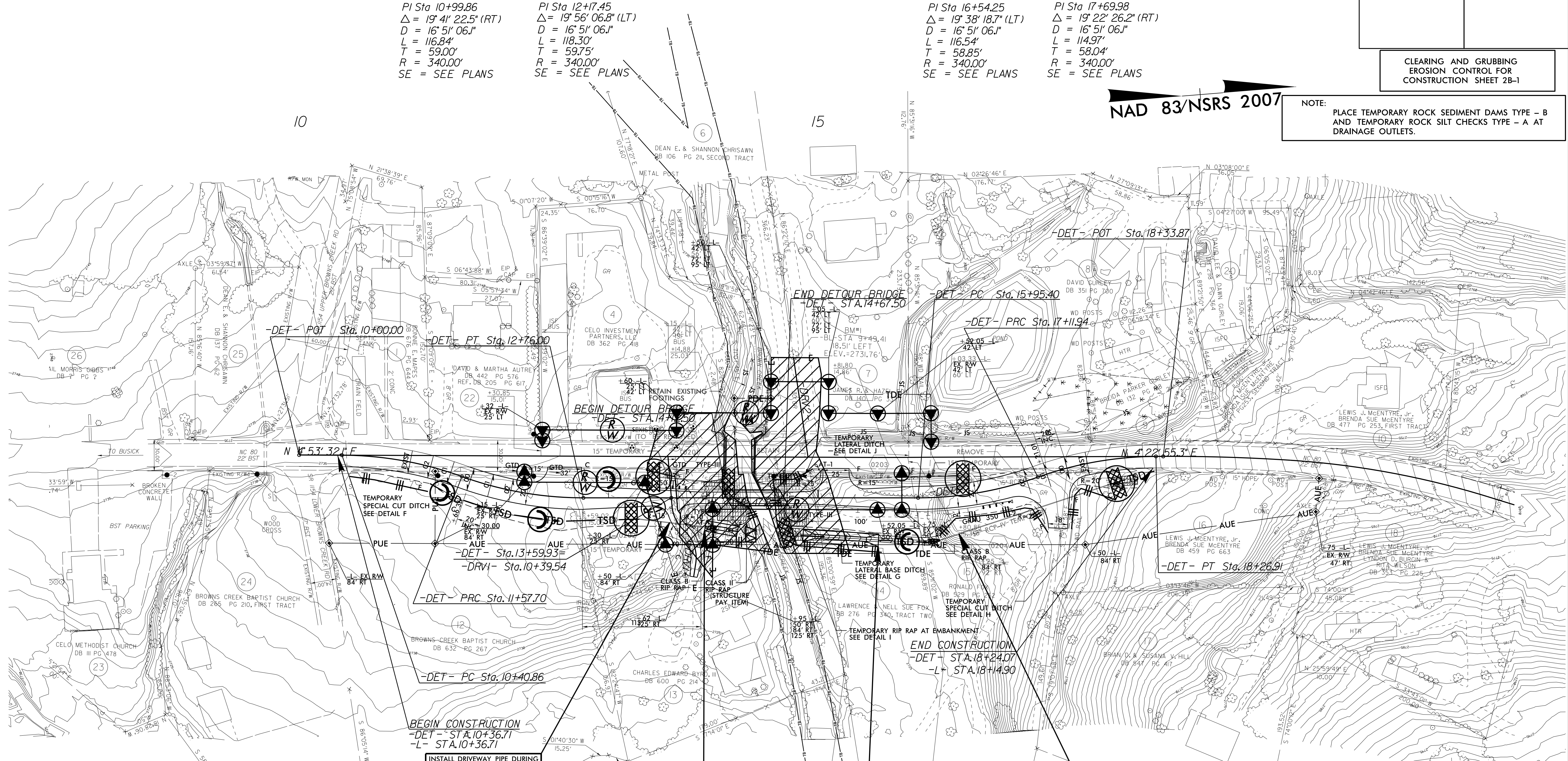
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 2B-1

-DET-

PI Sta 10+99.86 $\Delta = 19^\circ 41' 22.5" (RT)$ $D = 16' 51" 06.1"$ $L = 116.84'$ $T = 59.00'$ $R = 340.00'$ SE = SEE PLANS	PI Sta 12+17.45 $\Delta = 19^\circ 56' 06.8" (LT)$ $D = 16' 51" 06.1"$ $L = 118.30'$ $T = 59.75'$ $R = 340.00'$ SE = SEE PLANS	PI Sta 16+54.25 $\Delta = 19^\circ 38' 18.7" (LT)$ $D = 16' 51" 06.1"$ $L = 116.54'$ $T = 58.85'$ $R = 340.00'$ SE = SEE PLANS	PI Sta 17+69.98 $\Delta = 19^\circ 22' 26.2" (RT)$ $D = 16' 51" 06.1"$ $L = 114.97'$ $T = 58.04'$ $R = 340.00'$ SE = SEE PLANS
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NAD 83/NSRS 2007

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

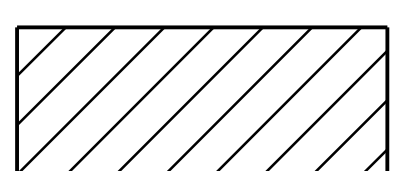


31 x 10 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 4.1

72 x 12 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 4.2

INSTALL DRIVEWAY PIPE DURING
CLEARING & GRUBBING PHASE

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING
BASIN(S) AS STILLING BASIN WHERE APPLICABLE.



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

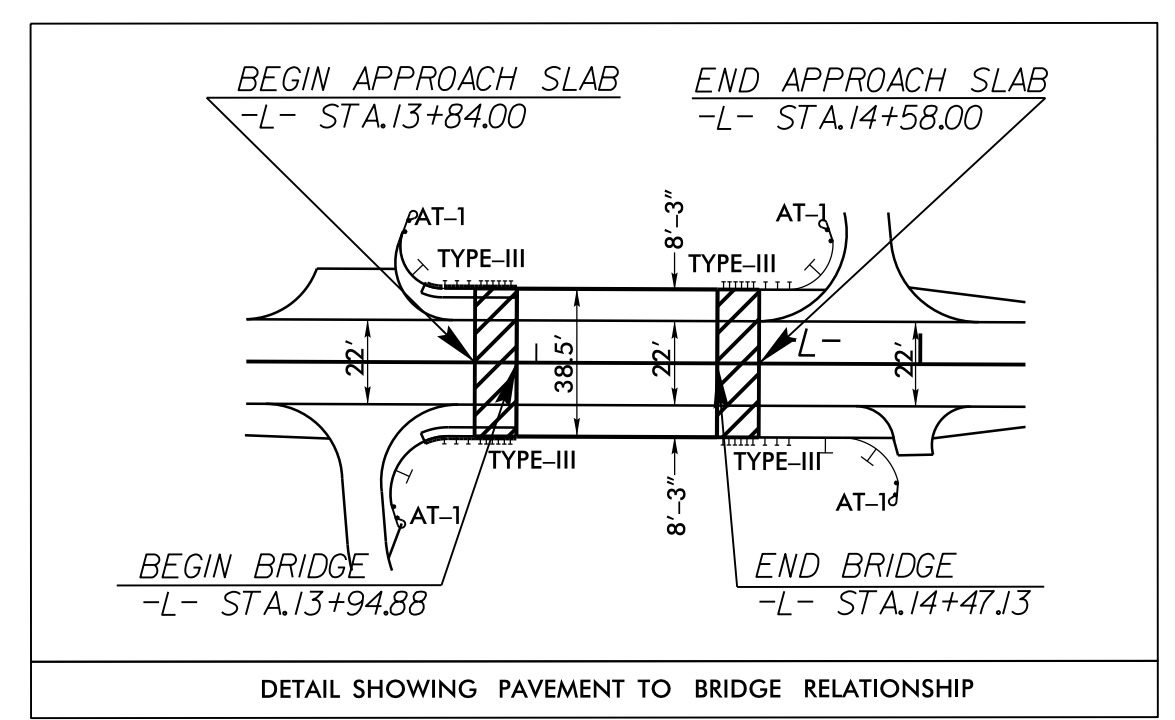
REVISIONS

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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.



-DRVI-

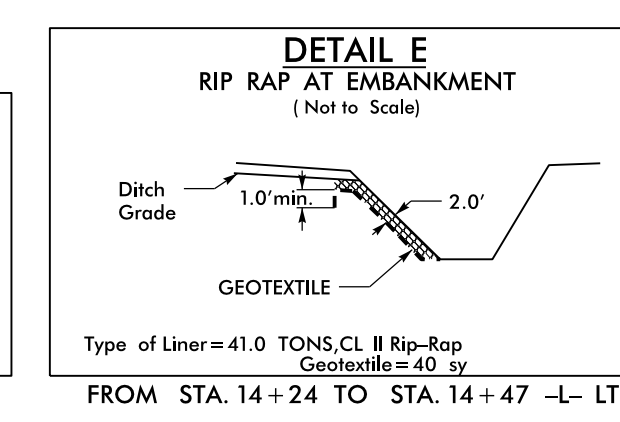
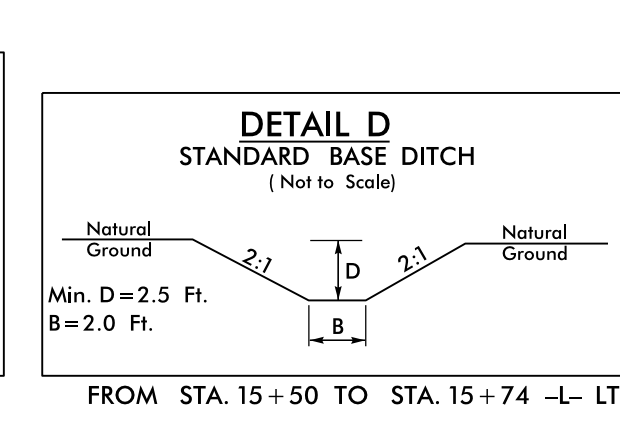
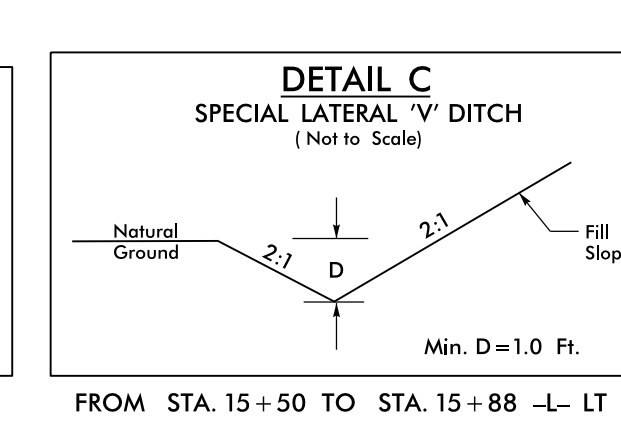
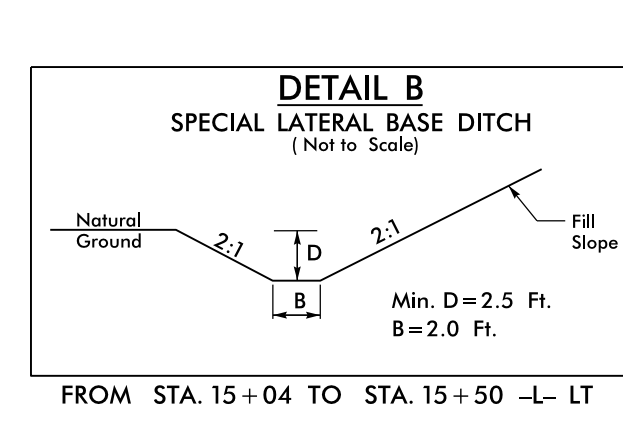
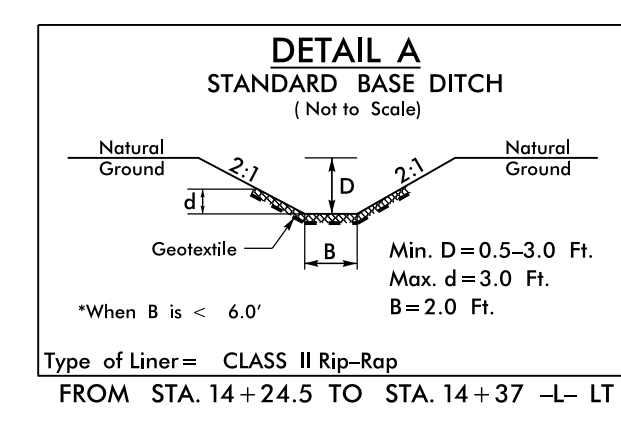
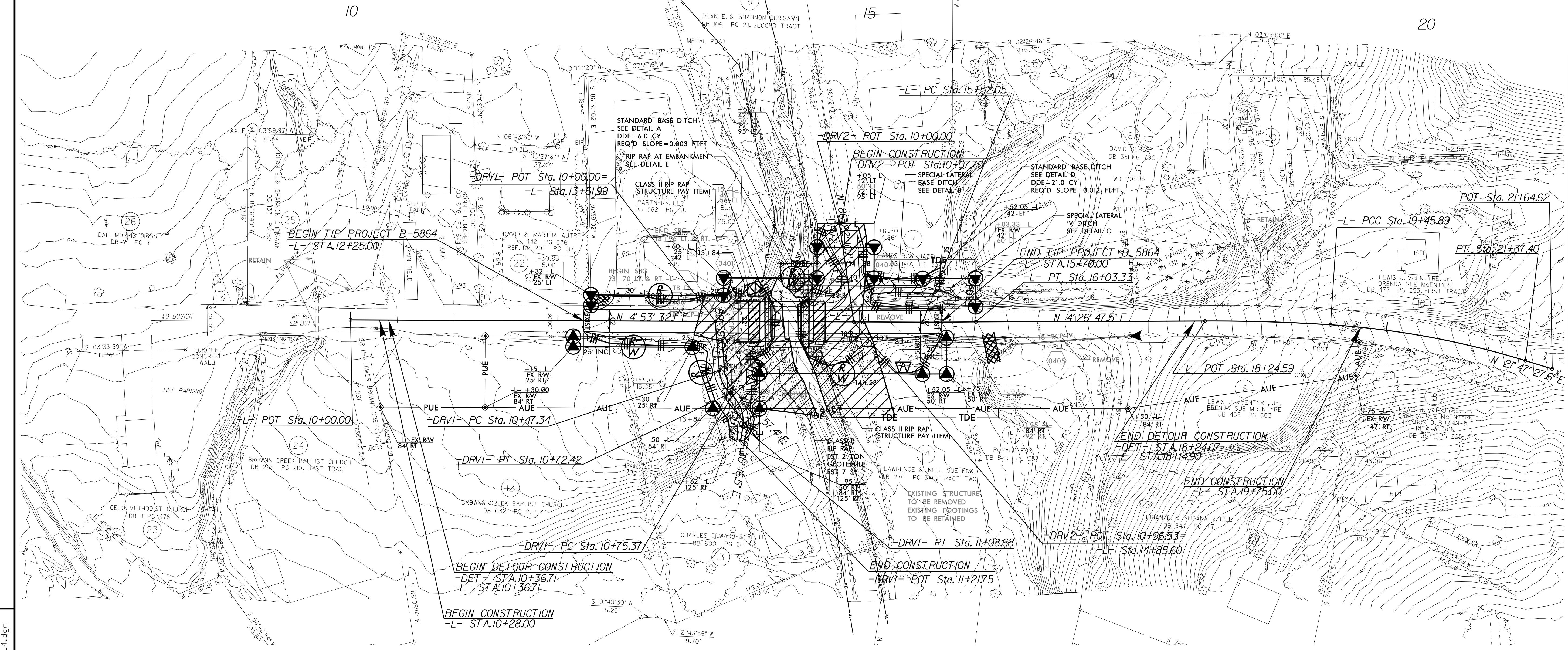
PI Sta 10+60.44 Δ = 41' 03" 01.3" (LT) D = 163' 42" 08.0" L = 25.08' T = 13.10' R = 35.00' SE = SEE PLANS	PI Sta 10+93.40 Δ = 54' 31" 46.1" (RT) D = 163' 42" 08.0" L = 33.31' T = 18.04' R = 35.00' SE = SEE PLANS
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-L-

PI Sta 15+77.69 Δ = 0' 30" 46.0" (LT) D = 0' 59" 59.7" L = 51.28' T = 25.64' R = 57.30.00' SE = SEE PLANS	PI Sta 18+85.27 Δ = 4' 00" 10.7" (RT) D = 3' 18" 00.6" L = 121.30' T = 60.67' R = 1.736.14'	PI Sta 20+42.09 Δ = 13' 24" 21.7" (RT) D = 7' 00" 00.0" L = 191.51' T = 96.20' R = 818.51'
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NAD 83/NSRS 2007

REVISIONS



NOTE:
UTILIZE SPECIAL STILLING BASIN WHERE APPLICABLE.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

8/17/99
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PROJECT REFERENCE NO.	SHEET NO.
B-5864	EC-6/CONST. 2B-1
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

DETOUR

-DET-

-DET-

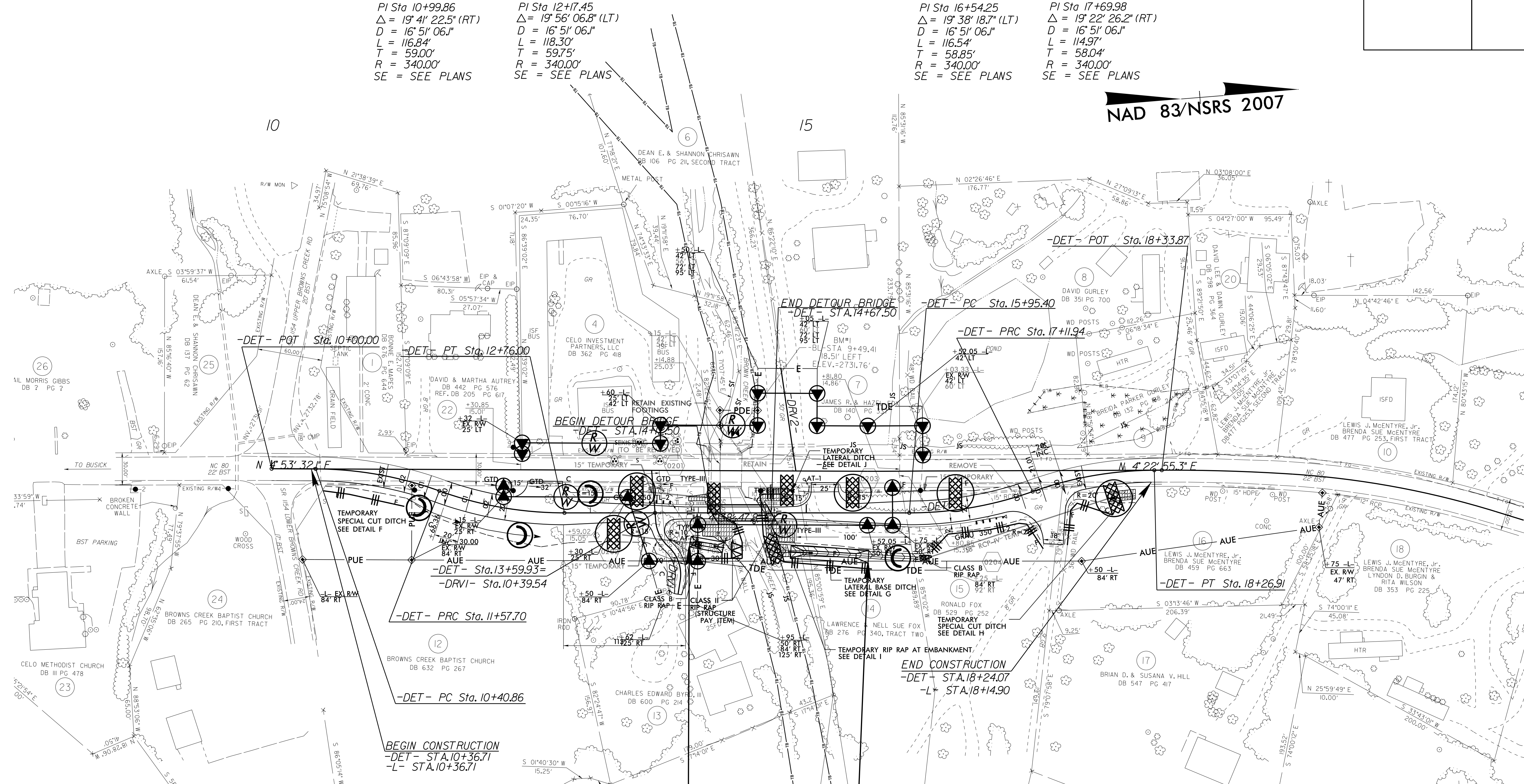
PI Sta 10+99.86
 $\Delta = 19' 4" 22.5" (RT)$
 $D = 16' 51" 06.1"$
 $L = 116.84'$
 $T = 59.00'$
 $R = 340.00'$
 SE = SEE PLANS

PI Sta 12+17.45
 $\Delta = 19' 56" 06.8" (LT)$
 $D = 16' 51" 06.1"$
 $L = 118.30'$
 $T = 59.75'$
 $R = 340.00'$
 SE = SEE PLANS

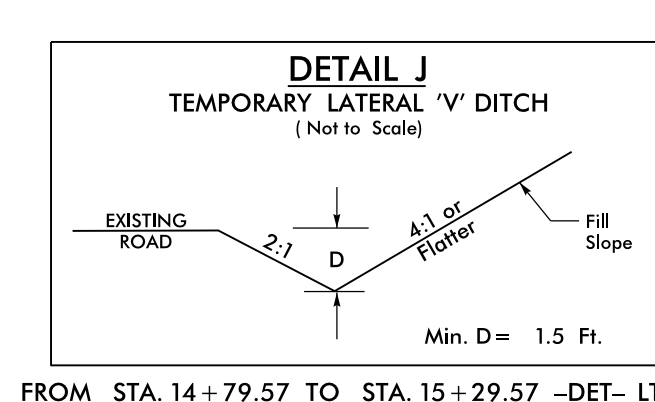
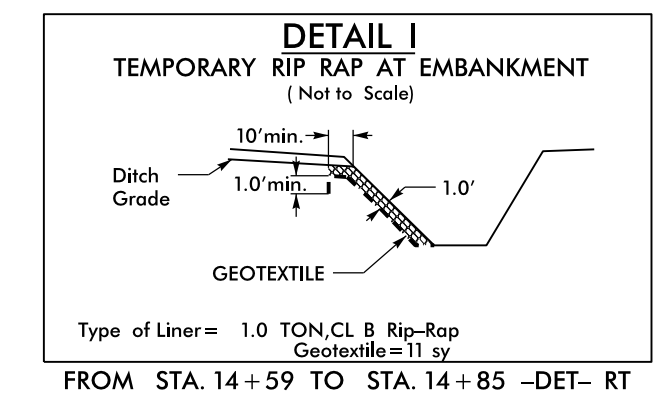
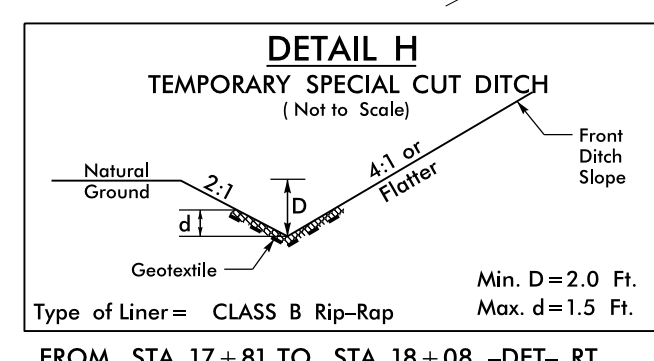
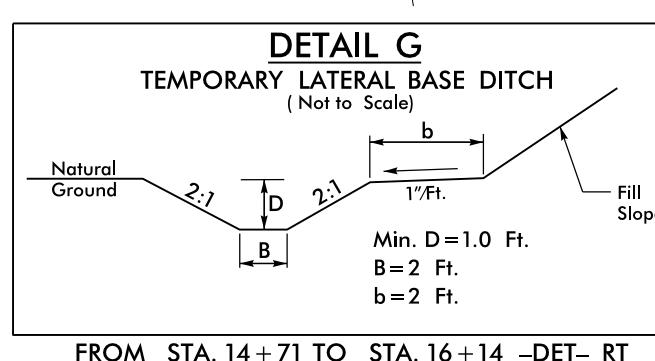
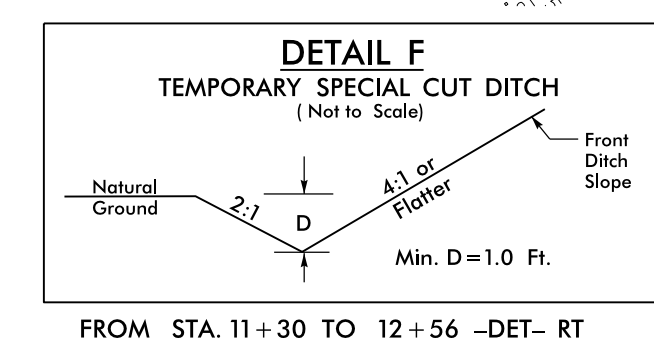
PI Sta 16+54.25
 $\Delta = 19' 38" 18.7" (LT)$
 $D = 16' 51" 06.1"$
 $L = 116.54'$
 $T = 58.85'$
 $R = 340.00'$
 SE = SEE PLANS

PI Sta 17+69.98
 $\Delta = 19' 22" 26.2" (RT)$
 $D = 16' 51" 06.1"$
 $L = 114.97'$
 $T = 58.04'$
 $R = 340.00'$
 SE = SEE PLANS

NAD 83/NSRS 2007



REVISIONS



31 x 10 x 3
 1.5 inch Skimmer
 with 0.375 inch
 Orifice Diameter
 4 ft. weir
 ID 4.1

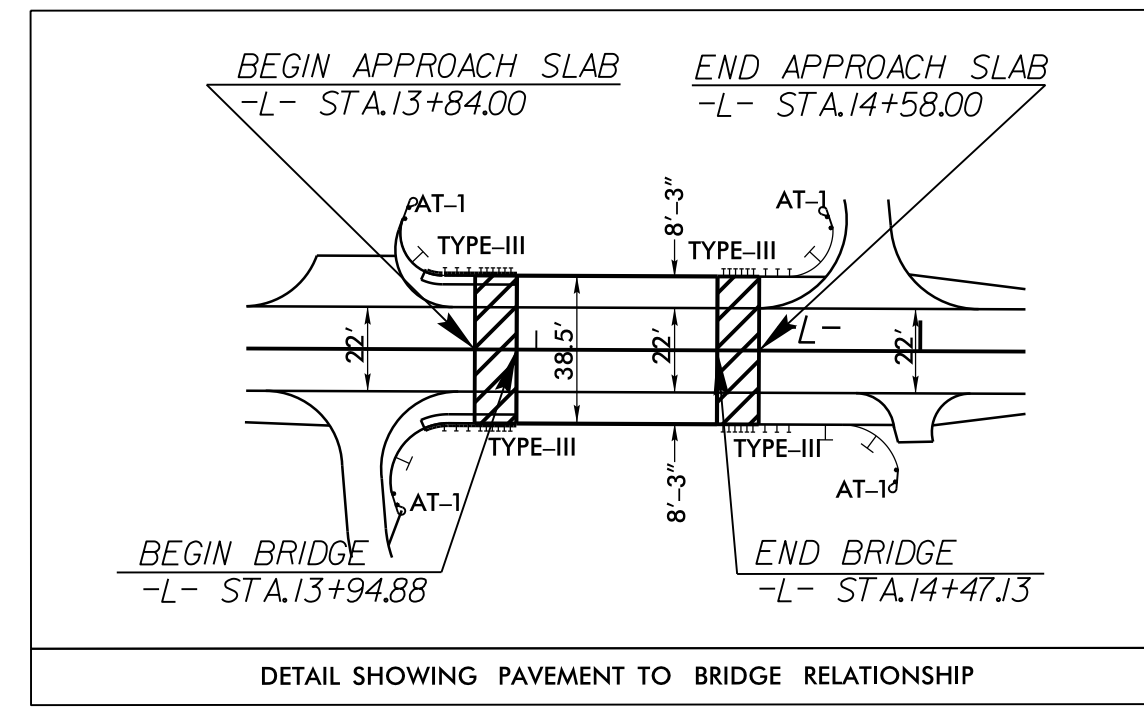
72 x 12 x 3
 1.5 inch Skimmer
 with 0.75 inch
 Orifice Diameter
 4 ft. weir
 ID 4.2

NOTE:
 UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING
 BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

8/17/99

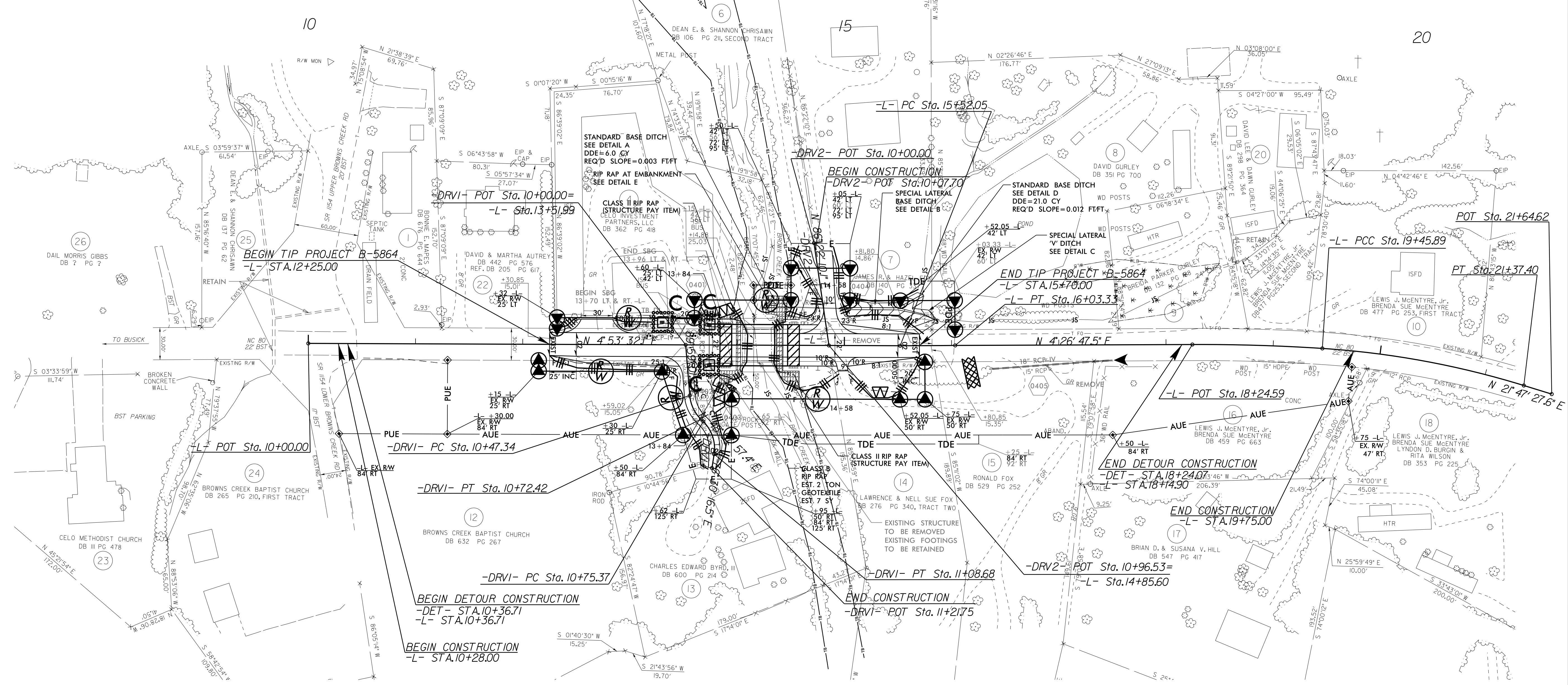
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PROJECT REFERENCE NO.	SHEET NO.
B-5864	EC-7/CONST.4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

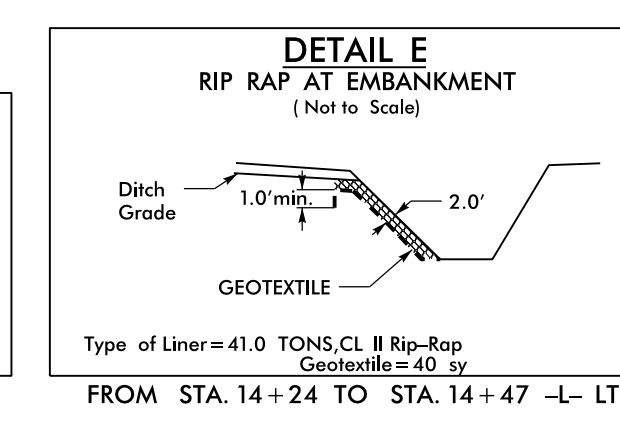
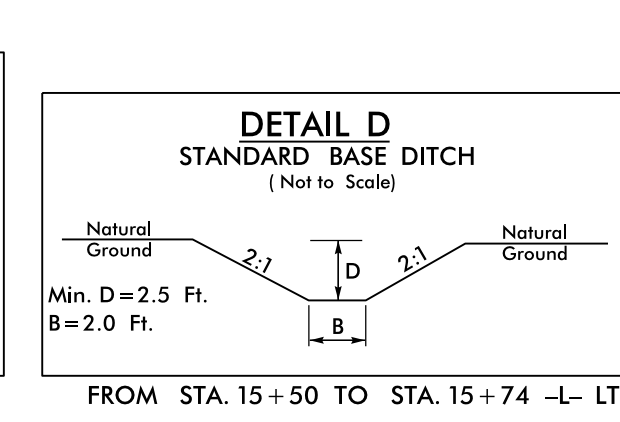
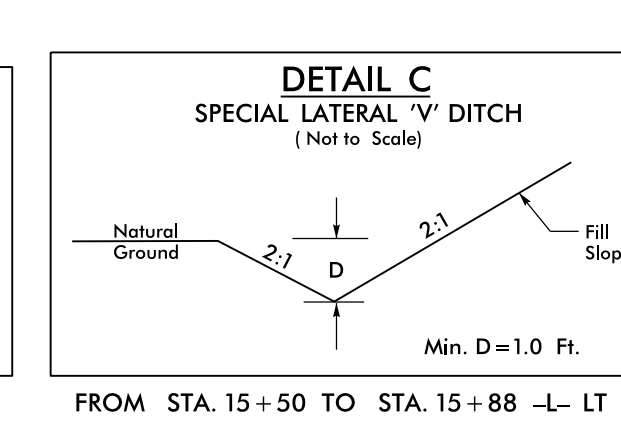
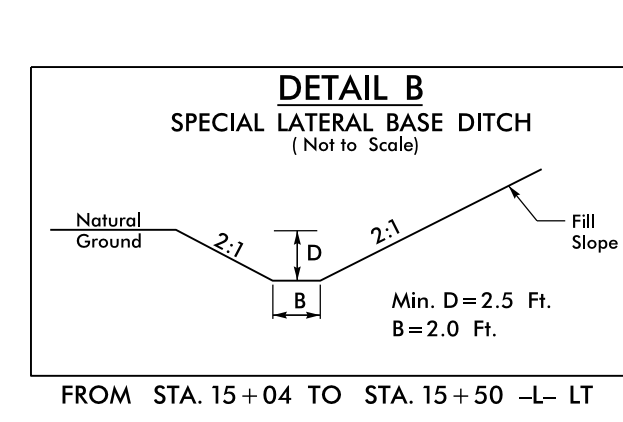
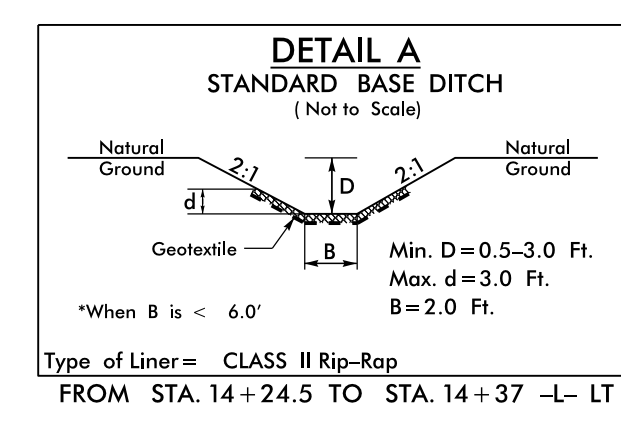


-DRVI-		-L-	
PI Sta 10+60.44	PI Sta 10+93.40	PI Sta 15+77.69	PI Sta 18+85.27
$\Delta = 41' 03" 01.3" (LT)$	$\Delta = 54' 31" 46.1" (RT)$	$\Delta = 0' 30" 46.0" (LT)$	$\Delta = 4' 00" 10.7" (RT)$
D = 163' 42" 08.0"	D = 163' 42" 08.0"	D = 0' 59" 59.7"	D = 3' 18" 00.6"
L = 25.08'	L = 33.31'	L = 51.28'	L = 121.30'
T = 13.10'	T = 18.04'	T = 25.64'	T = 60.67'
R = 35.00'	R = 35.00'	R = 57.30.00'	R = 1.736.14'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS

NAD 83/NSRS 2007



REVISIONS



Place Matting for Erosion Control on Slope as Work Allows. Sta. 14+50 to Sta. 15+75

NOTE: UTILIZE SPECIAL STILLING BASIN WHERE APPLICABLE.

8/17/99
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