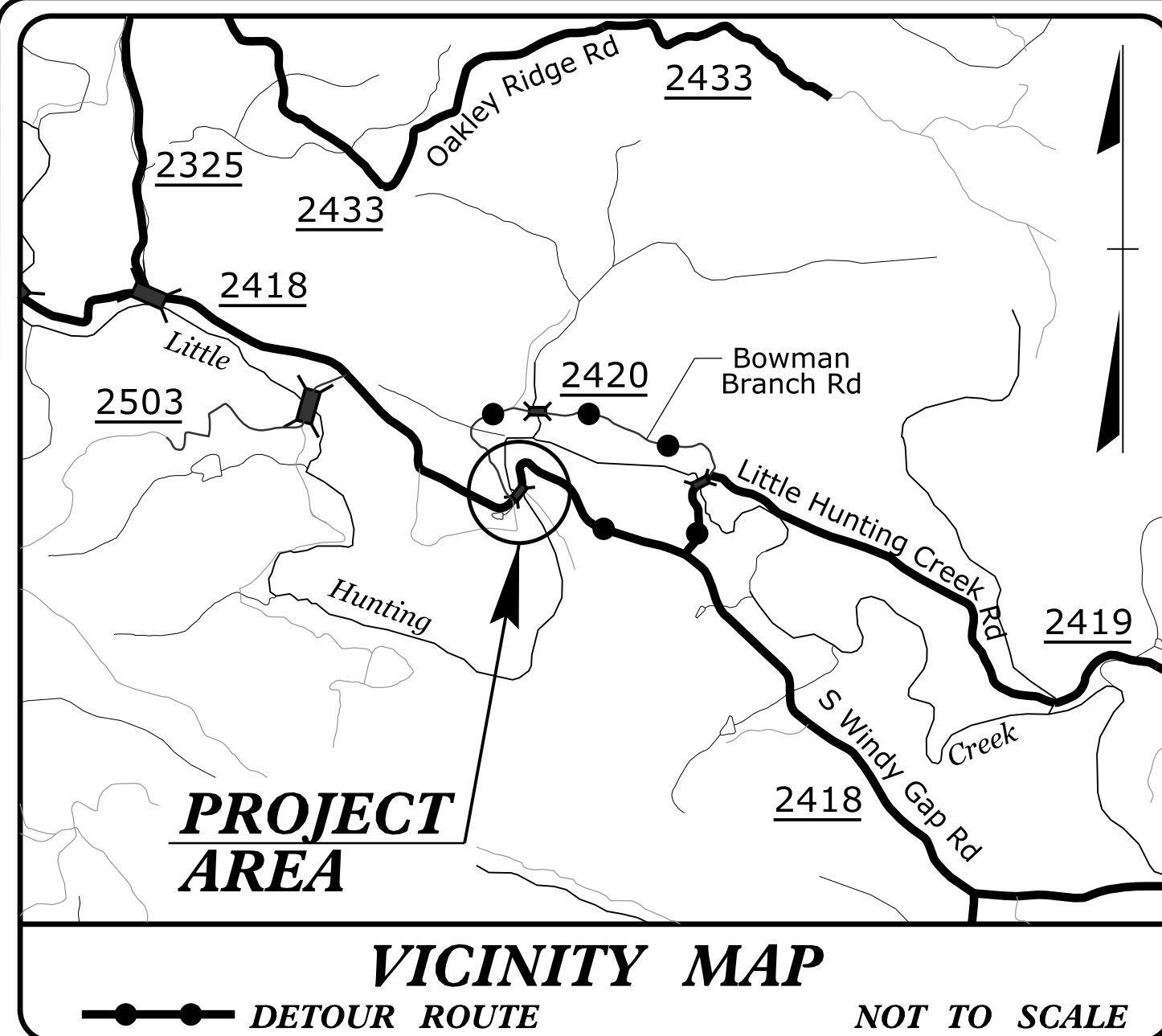


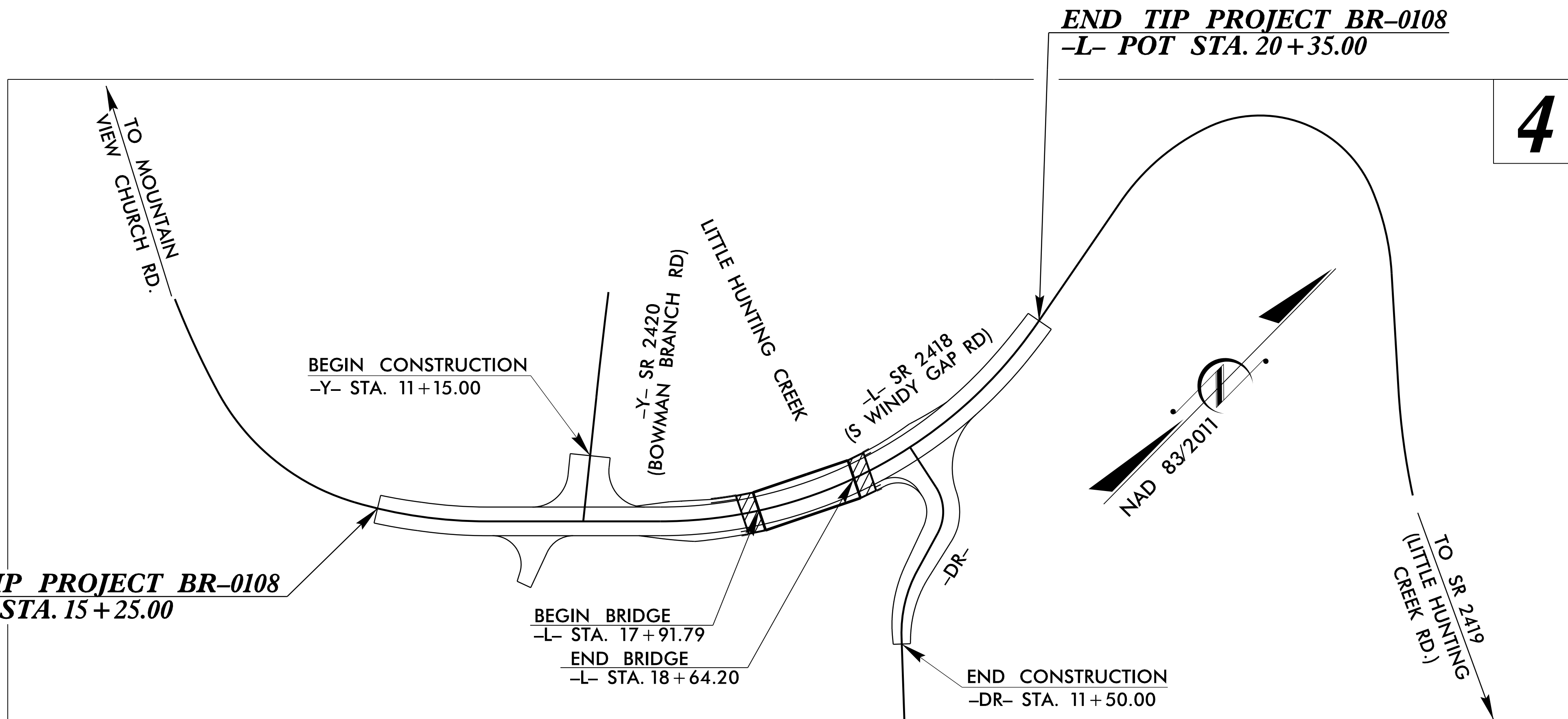
TIP PROJECT: BR-0108



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

LOCATION: REPLACE BRIDGE NO. 4 ON SR 2418 (SOUTH WINDY GAP ROAD) OVER LITTLE HUNTING CREEK

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

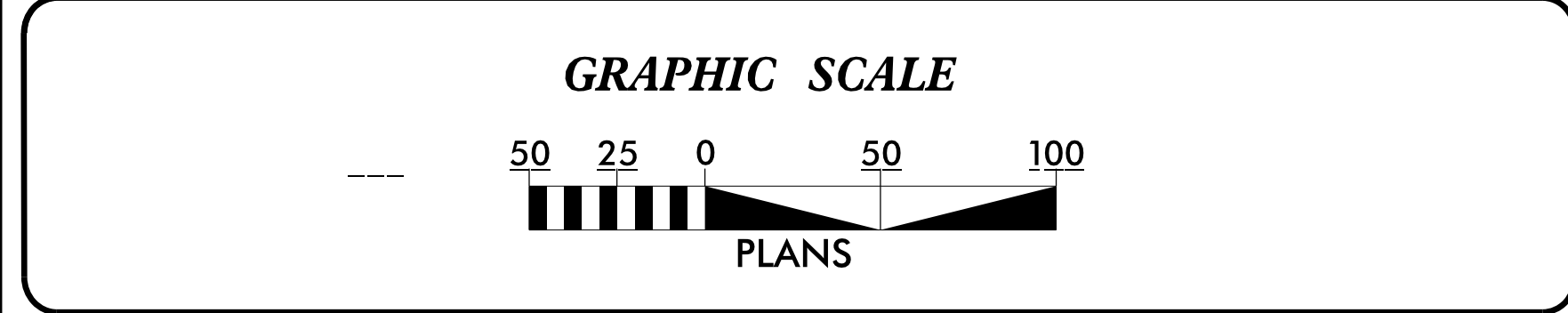


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR-0108	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
67108.1.1		PE	

EROSION AND SEDIMENT CONTROL MEASURES

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

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



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.



Prepared in the Office of:
DEWBERRY
2610 WYCLIFF ROAD, SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. F-0929

Designed by:
STEVEN BONDOR 3077
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

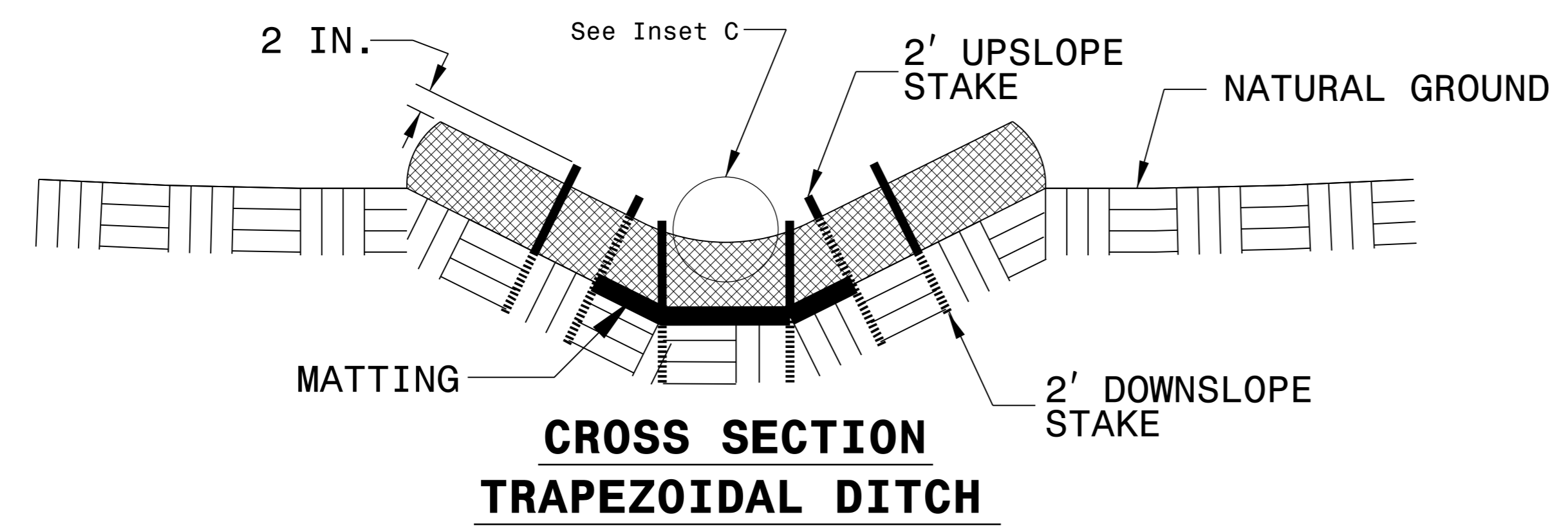
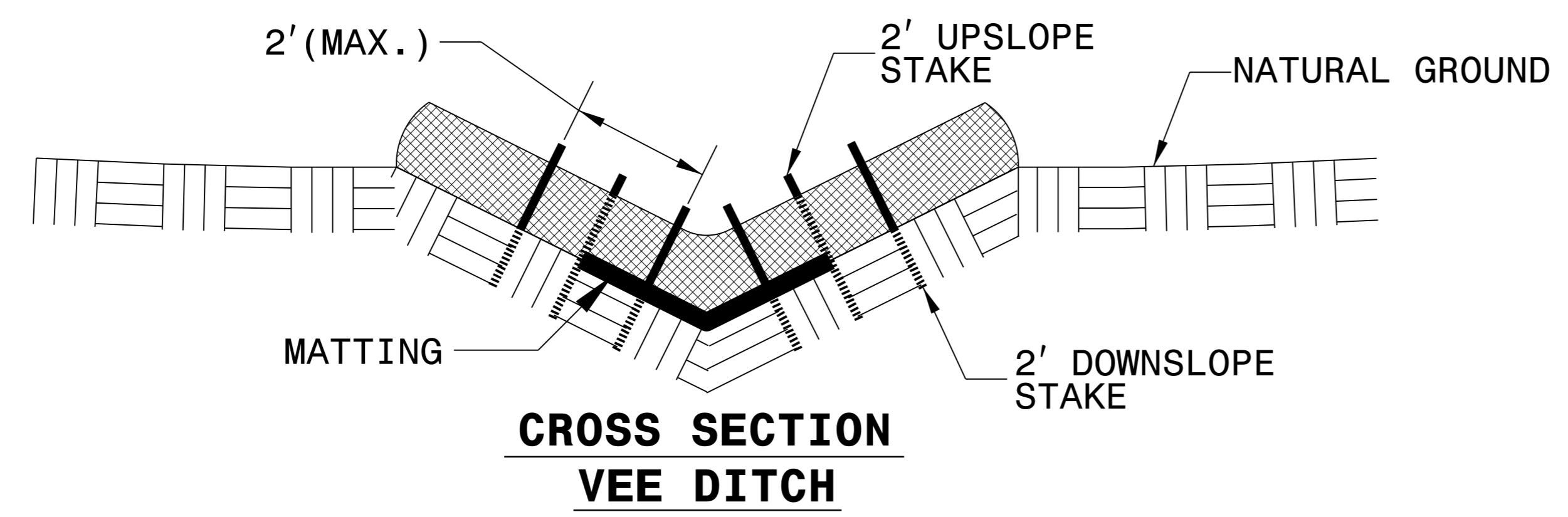
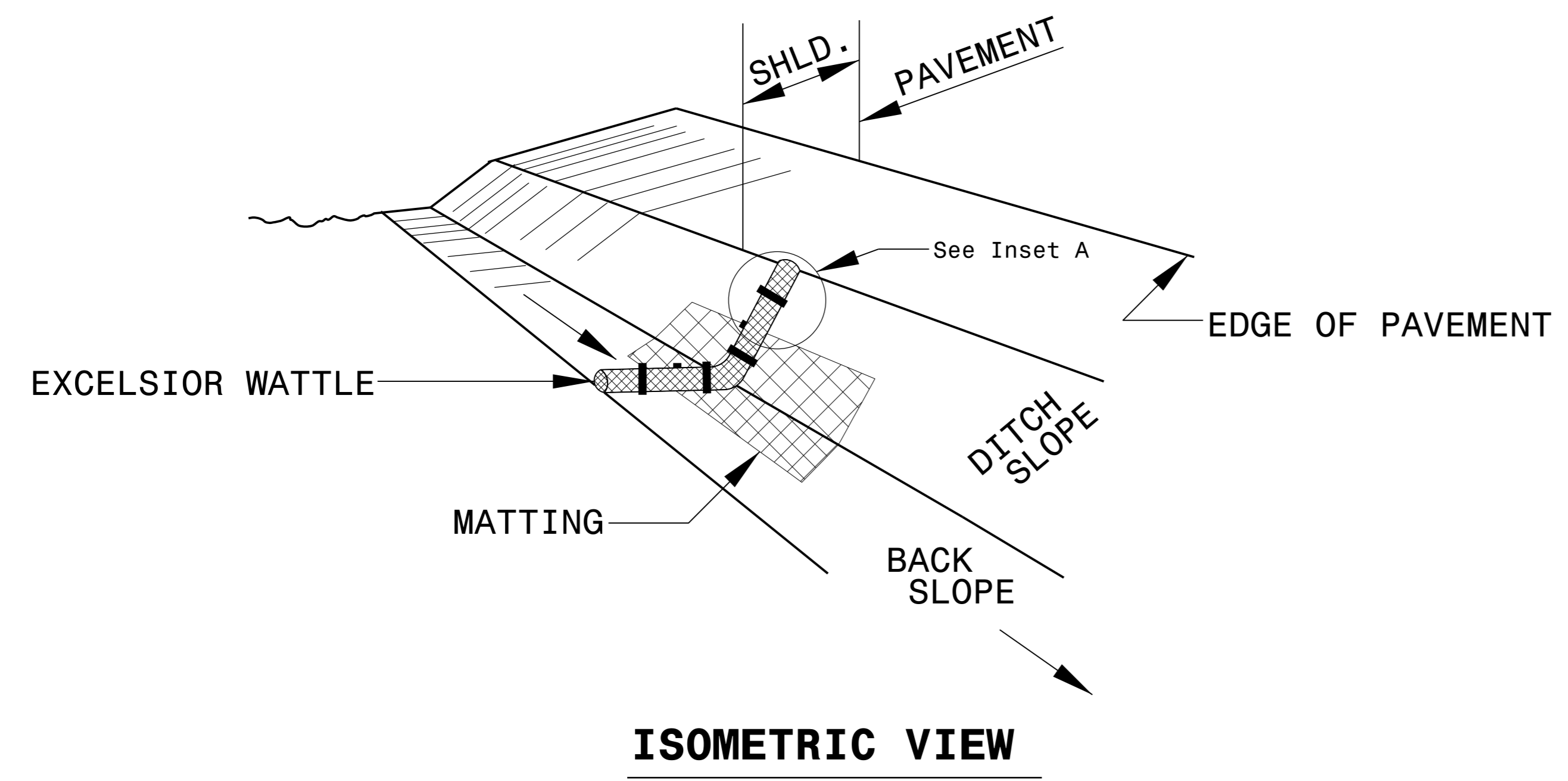
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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 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	

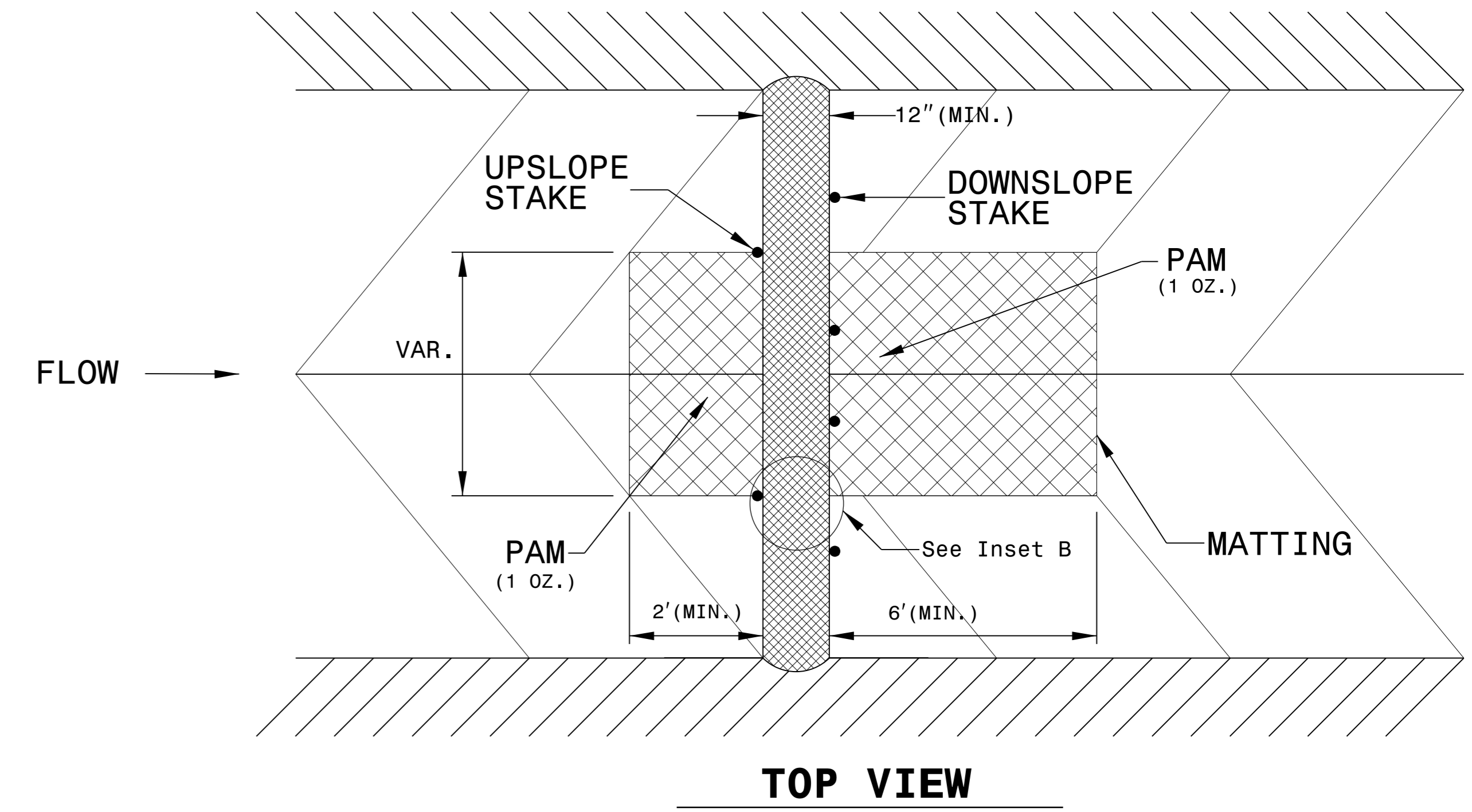
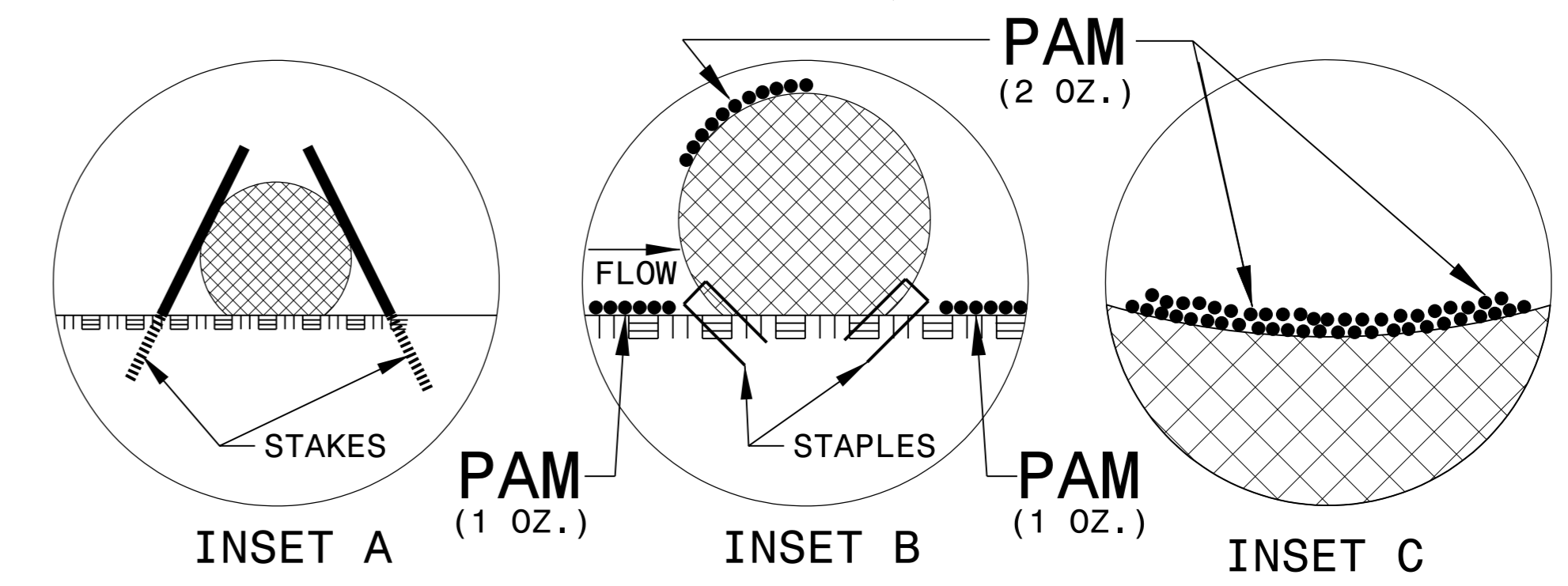
1/13/2021 5:58:24 AM USER: bbr-0108.HYD.EC.TSHdgn

PROJECT REFERENCE NO. <i>BR-0108</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

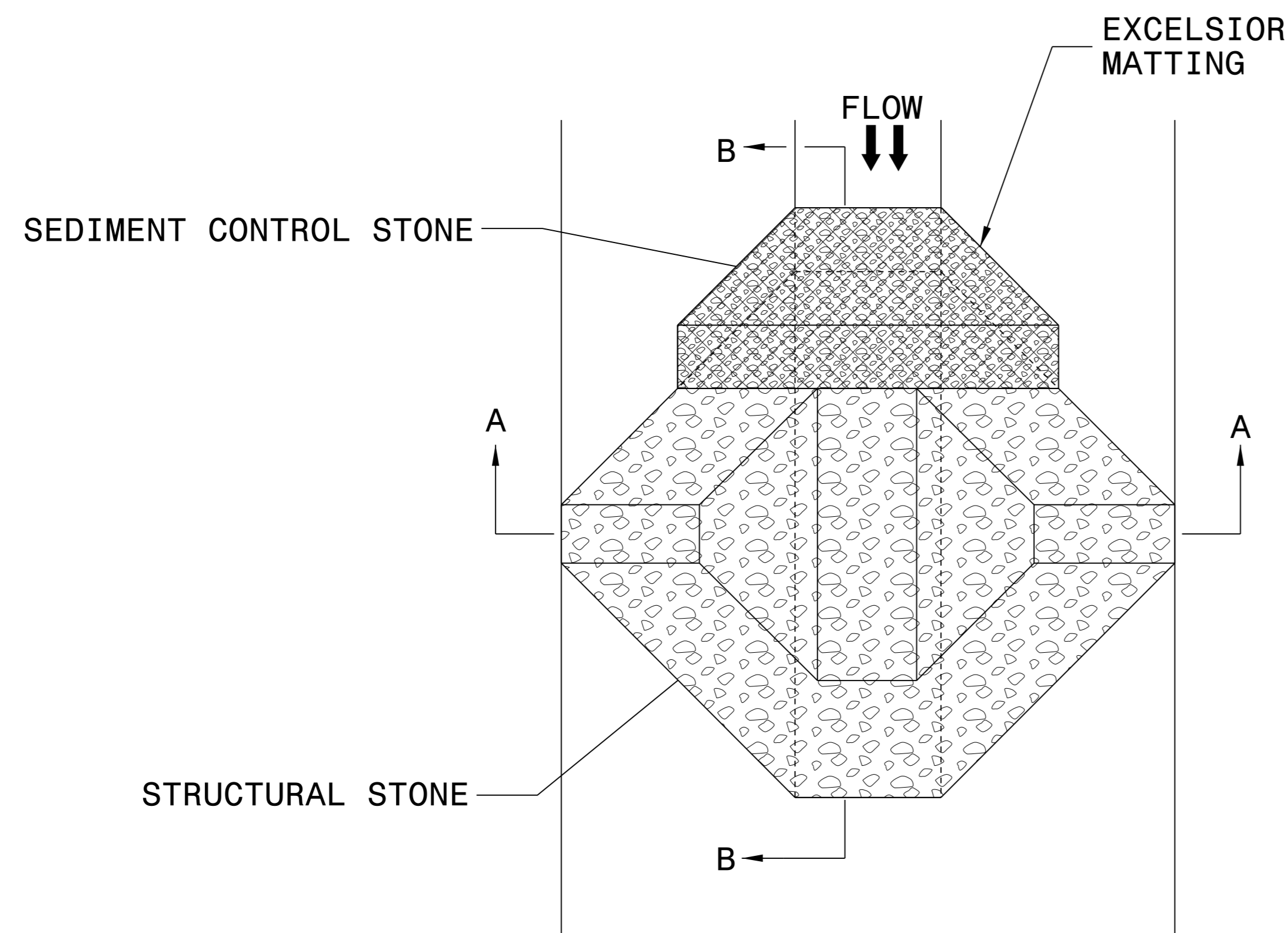


- NOTES:
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE 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. <i>BR-0108</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

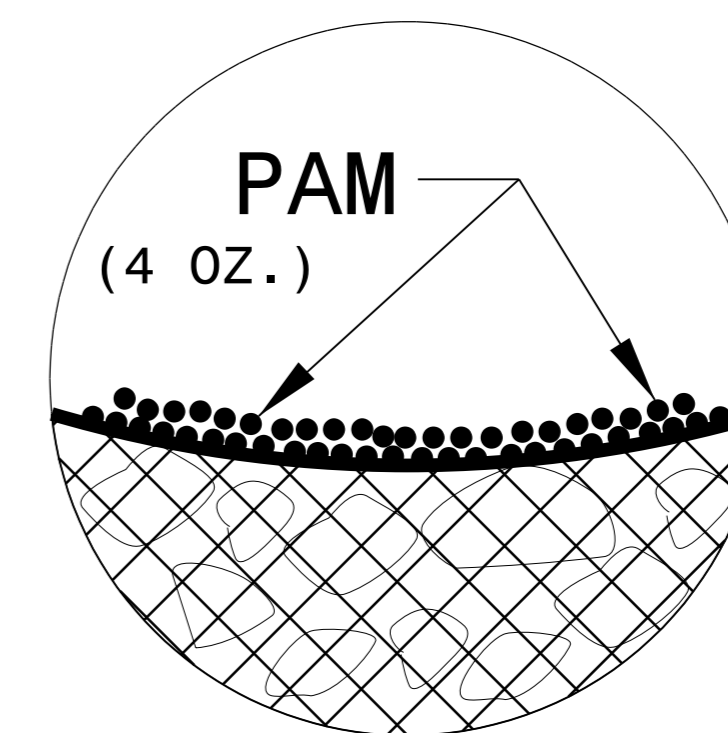
NOTES:

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

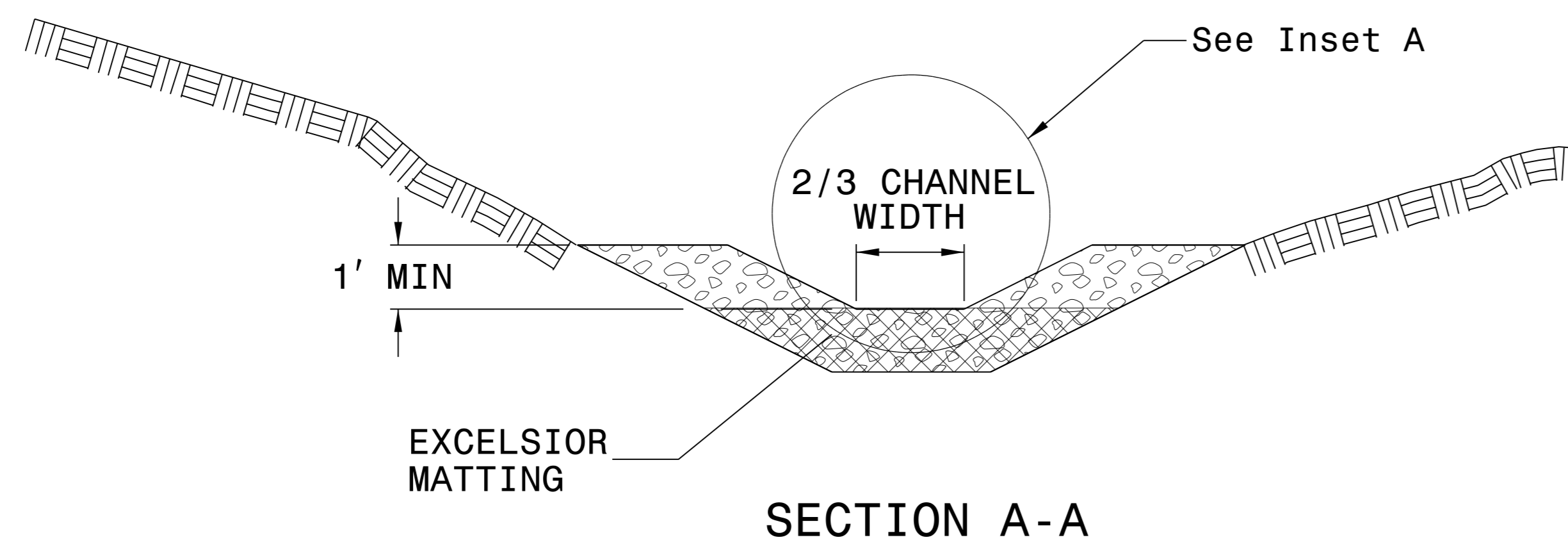
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

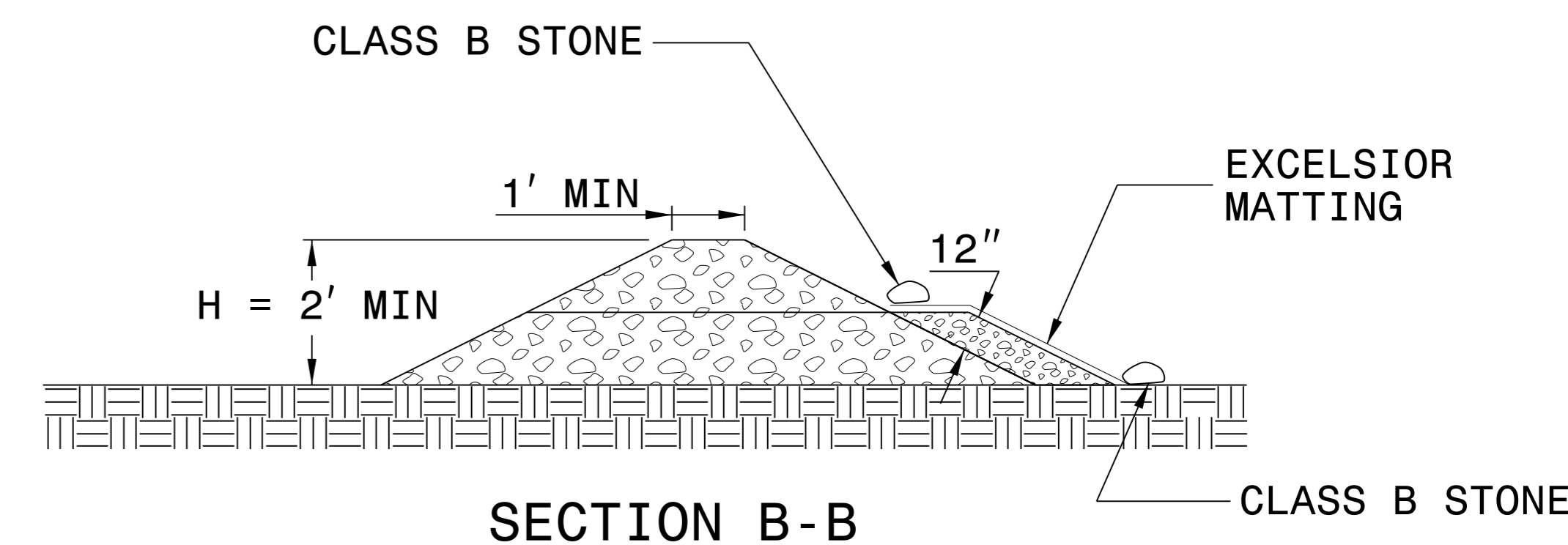
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>BR-0108</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

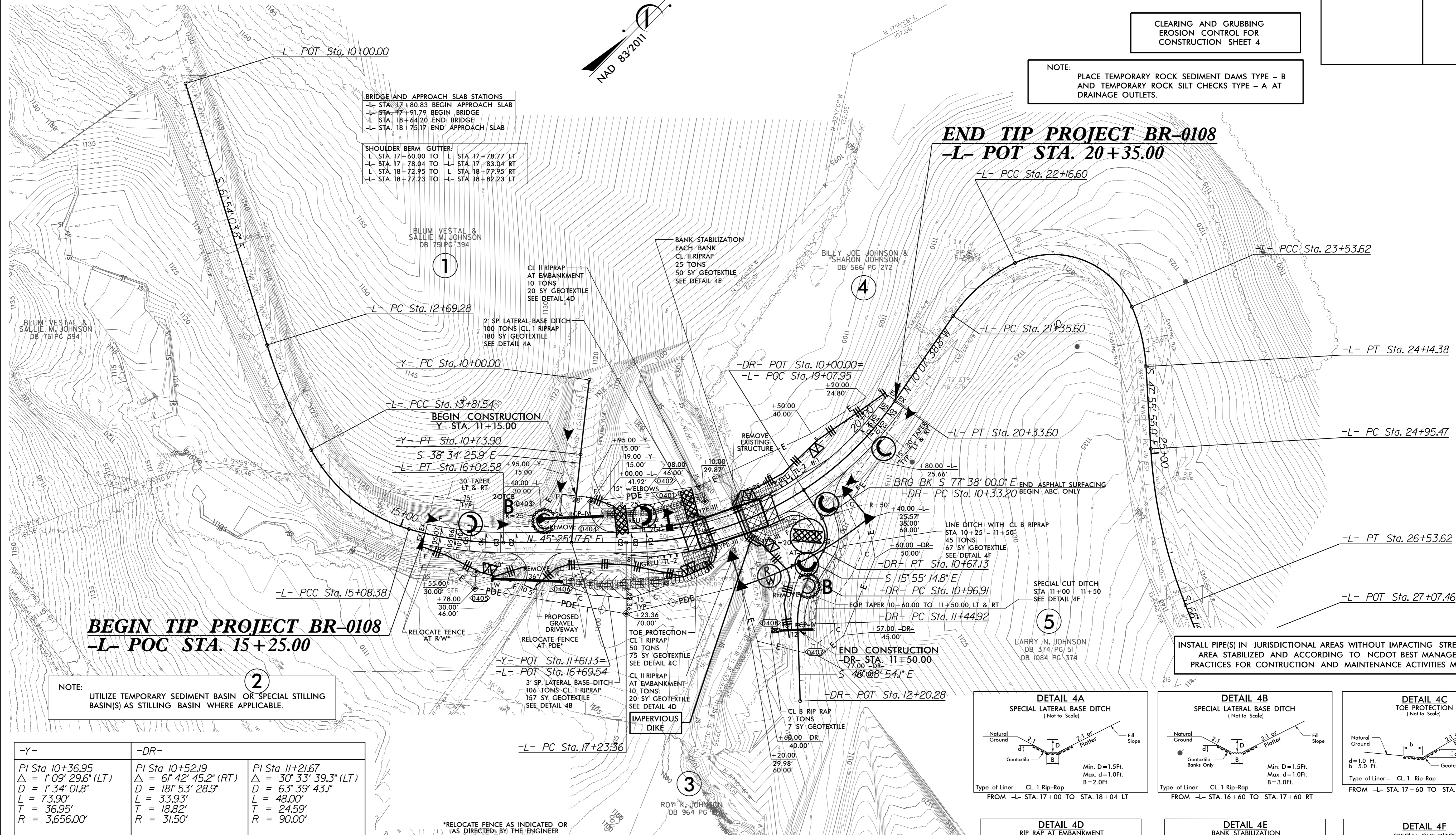
SOIL STABILIZATION TIMEFRAMES

<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. BR-0108	SHEET NO. EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

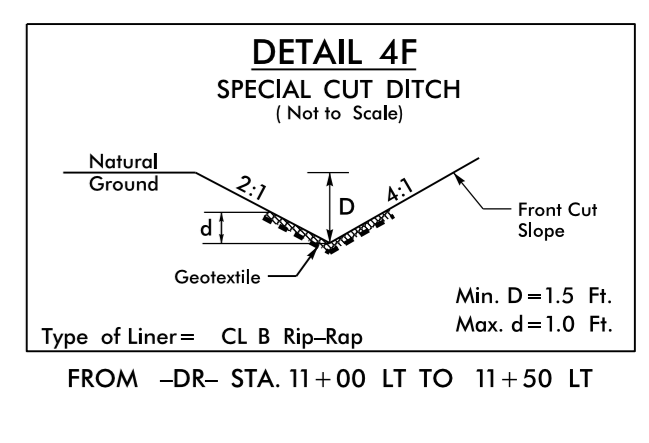
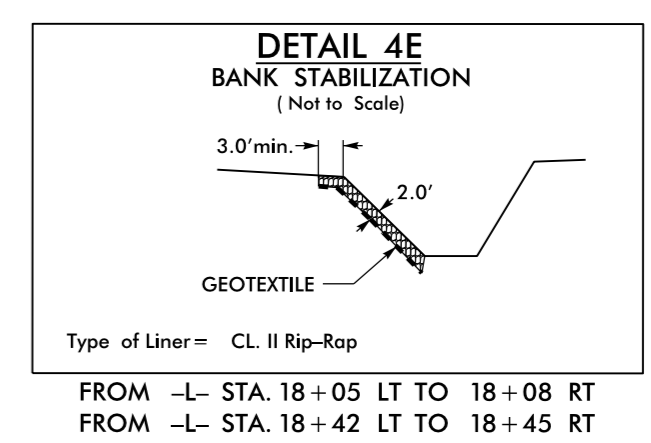
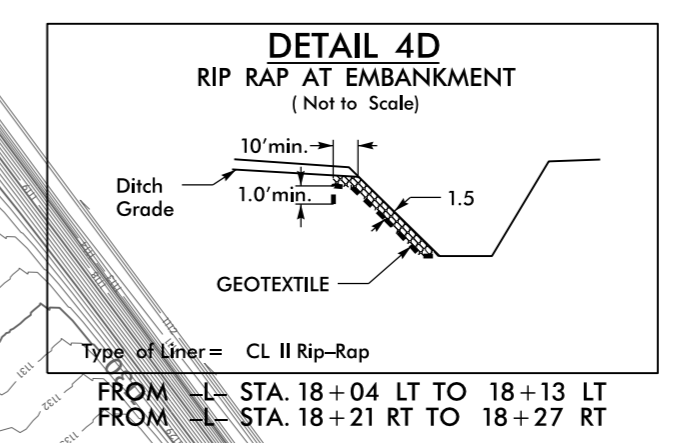
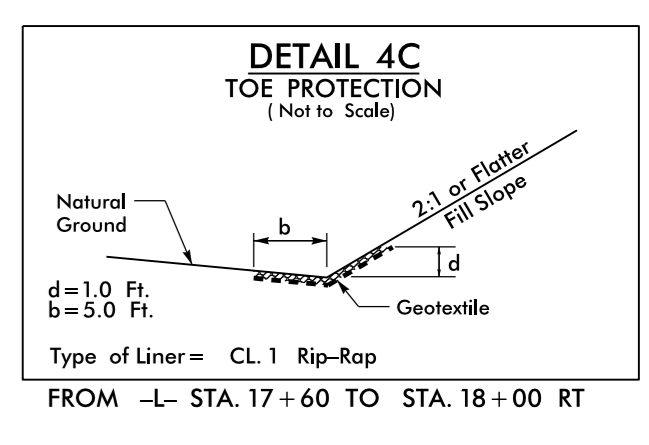
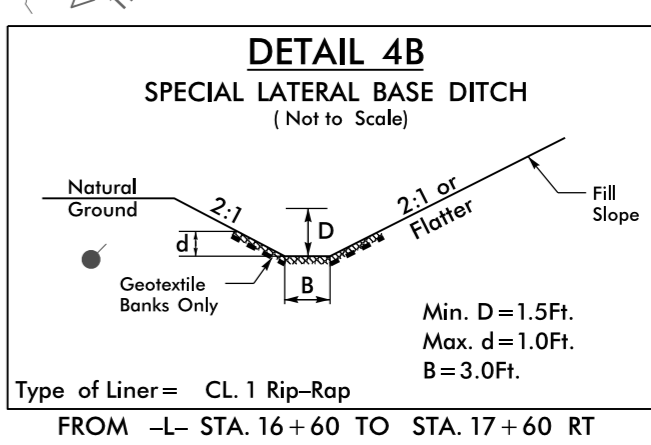
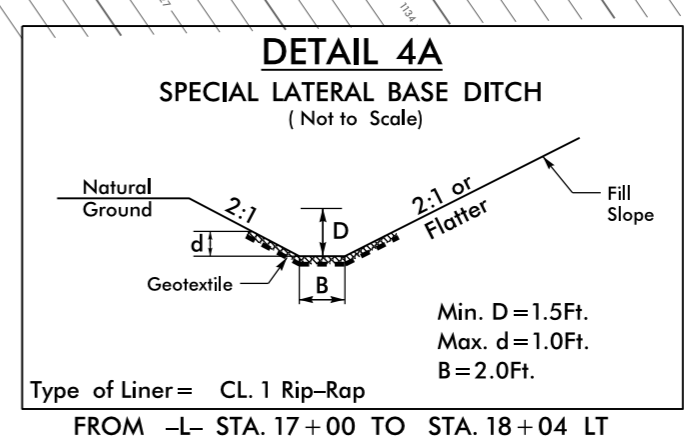
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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



-Y-	-DR-	-L-
PI Sta 10+36.95 $\Delta = 1^{\circ} 09' 29.6" (LT)$ $D = 1^{\circ} 34' 01.8"$ $L = 73.90'$ $T = 36.95'$ $R = 3,656.00'$	PI Sta 10+52.19 $\Delta = 61^{\circ} 42' 45.2" (RT)$ $D = 181^{\circ} 53' 28.9"$ $L = 33.93'$ $T = 18.82'$ $R = 31.50'$	PI Sta 11+21.67 $\Delta = 30^{\circ} 33' 39.3" (LT)$ $D = 63^{\circ} 39' 43.1"$ $L = 48.00'$ $T = 24.59'$ $R = 90.00'$

-L-	-L-	-L-	-L-	-L-	-L-	-L-	-L-
PI Sta 13+25.58 $\Delta = 10^{\circ} 54' 04.4" (LT)$ $D = 9^{\circ} 42' 40.1"$ $L = 112.25'$ $T = 56.30'$ $R = 590.00'$	PI Sta 14+48.50 $\Delta = 45^{\circ} 25' 16.9" (LT)$ $D = 35^{\circ} 48' 35.5"$ $L = 126.84'$ $T = 66.96'$ $R = 160.00'$	PI Sta 15+55.80 $\Delta = 16^{\circ} 21' 17.2" (LT)$ $D = 17^{\circ} 21' 44.5"$ $L = 94.20'$ $T = 47.42'$ $R = 330.00'$ SE = SEE PLANS RO = 60' DS = 30 MPH	PI Sta 18+91.89 $\Delta = 55^{\circ} 32' 56.4" (LT)$ $D = 17^{\circ} 54' 17.8"$ $L = 310.24'$ $T = 168.53'$ $R = 320.00'$	PI Sta 21+77.05 $\Delta = 29^{\circ} 56' 36.5" (RT)$ $D = 36^{\circ} 57' 54.1"$ $L = 81.00'$ $T = 41.45'$ $R = 155.00'$	PI Sta 23+05.18 $\Delta = 92^{\circ} 21' 34.5" (RT)$ $D = 67^{\circ} 24' 24.5"$ $L = 137.02'$ $T = 88.57'$ $R = 85.00'$	PI Sta 23+84.31 $\Delta = 19^{\circ} 53' 32.6" (RT)$ $D = 32^{\circ} 44' 25.6"$ $L = 60.76'$ $T = 30.69'$ $R = 175.00'$	PI Sta 25+75.23 $\Delta = 18^{\circ} 18' 17.3" (LT)$ $D = 11^{\circ} 34' 29.7"$ $L = 158.14'$ $T = 79.75'$ $R = 495.00'$



INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

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

*RELOCATE FENCE AS INDICATED OR AS DIRECTED BY THE ENGINEER

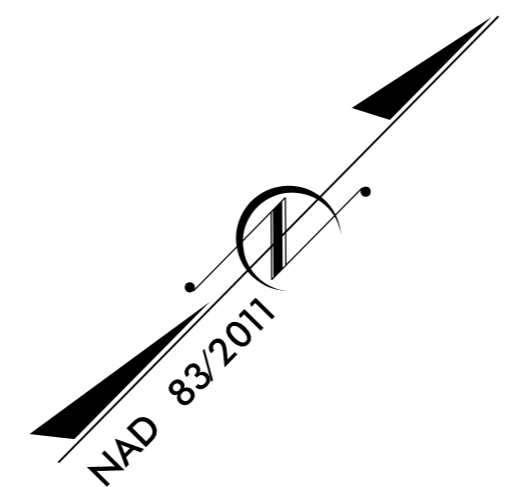
SEE SHEET 5 FOR PROFILES
FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-??

REVISIONS

8/17/99

3/12/02 03:53:35 IPN PSH04.dgn

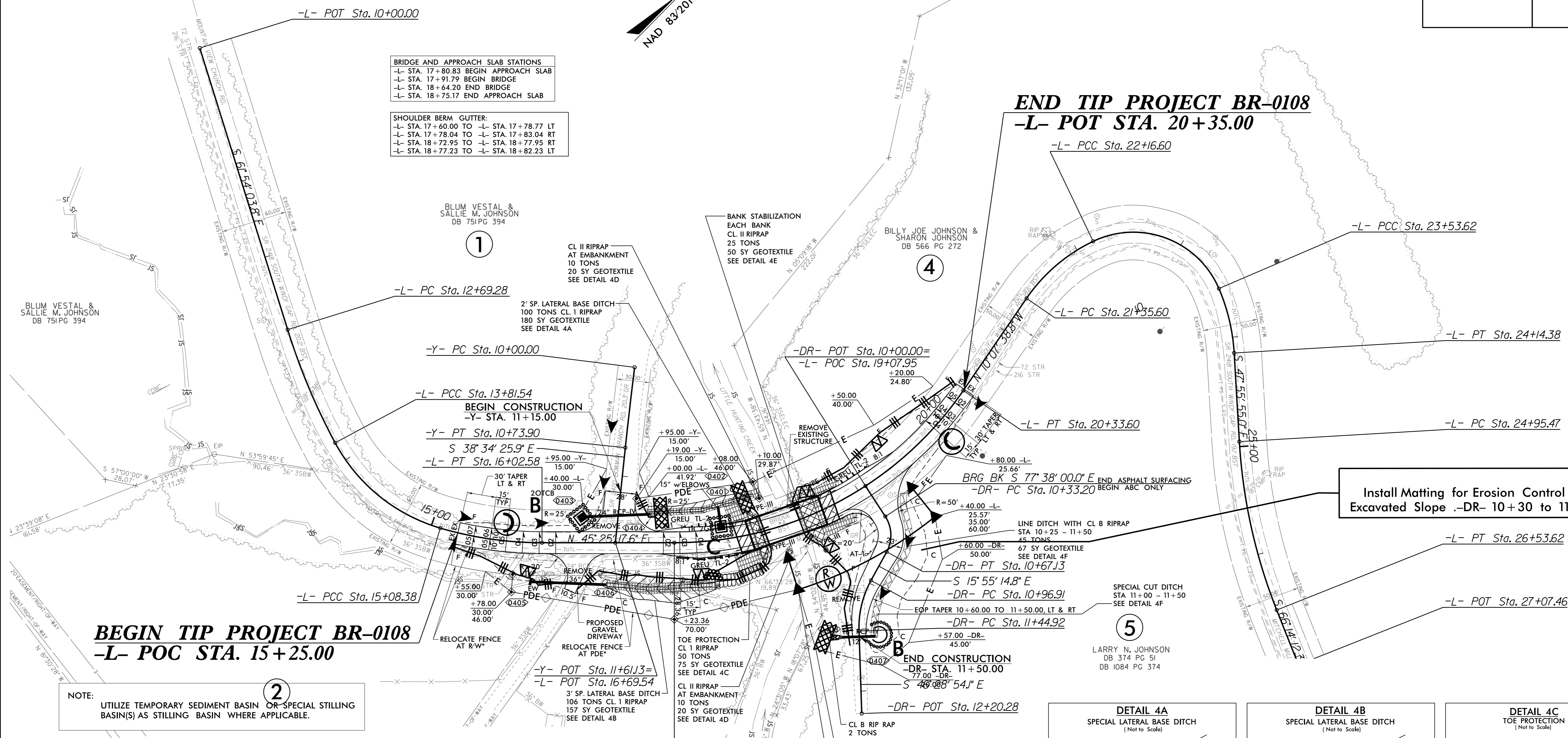
PROJECT REFERENCE NO.	SHEET NO.
BR-0108	EC-05/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BRIDGE AND APPROACH SLAB STATIONS
 -L- STA. 17+80.83 BEGIN APPROACH SLAB
 -L- STA. 17+91.79 BEGIN BRIDGE
 -L- STA. 18+64.20 END BRIDGE
 -L- STA. 18+75.17 END APPROACH SLAB

SHOULDER BERM GUTTER:
 -L- STA. 17+60.00 TO -L- STA. 17+78.77 LT
 -L- STA. 17+78.04 TO -L- STA. 17+83.04 RT
 -L- STA. 18+72.95 TO -L- STA. 18+77.95 RT
 -L- STA. 18+77.23 TO -L- STA. 18+82.23 LT

END TIP PROJECT BR-0108
-L- POT STA. 20+35.00



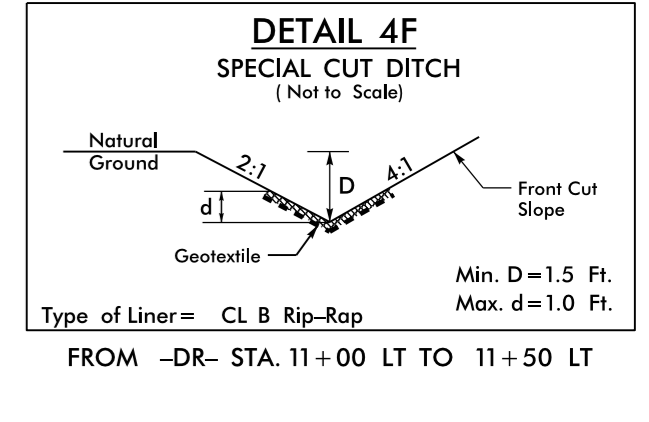
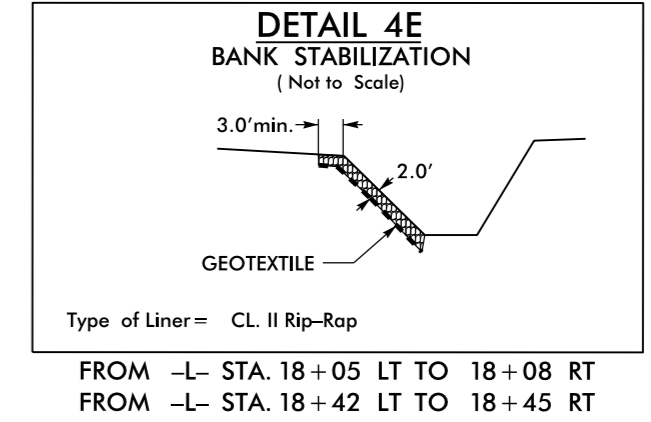
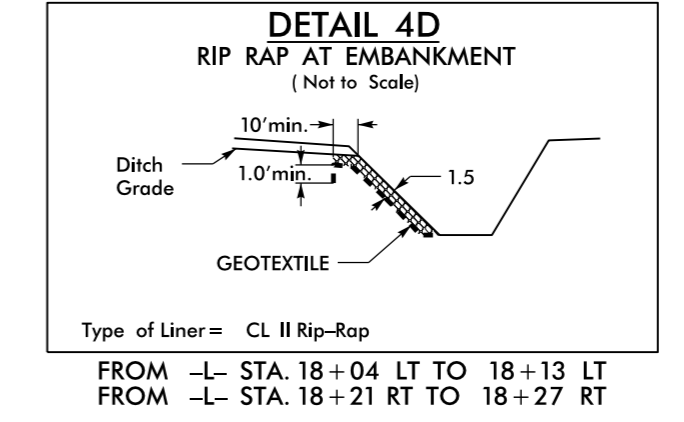
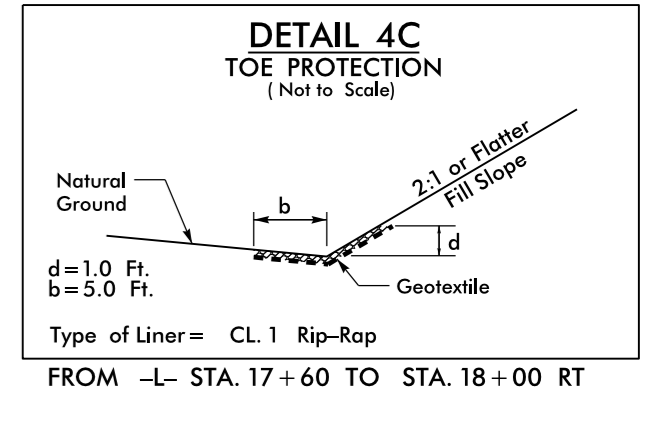
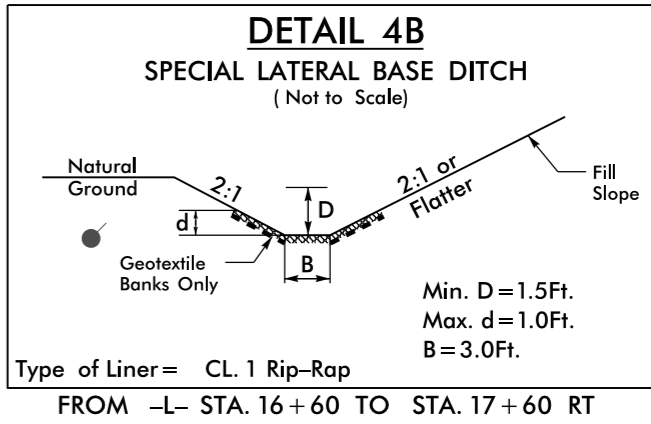
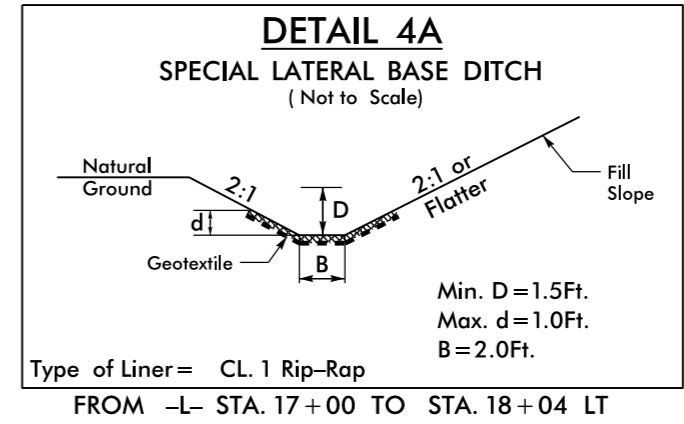
Install Matting for Erosion Control on Excavated Slope -DR- 10+30 to 11+44

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

-Y-	-DR-	-L-
PI Sta 10+36.95 $\Delta = 1^{\circ}09'29.6"$ (LT) $D = 1^{\circ}34'01.8"$ $L = 73.90'$ $T = 36.95'$ $R = 3,656.00'$	PI Sta 10+52.19 $\Delta = 61^{\circ}42'45.2"$ (RT) $D = 18^{\circ}53'28.9"$ $L = 33.93'$ $T = 18.82'$ $R = 31.50'$	PI Sta 11+21.67 $\Delta = 30^{\circ}33'39.3"$ (LT) $D = 6^{\circ}33'43.1"$ $L = 48.00'$ $T = 24.59'$ $R = 90.00'$

-L-	-L-	-L-	-L-	-L-	-L-	-L-	-L-
PI Sta 13+25.58 $\Delta = 10^{\circ}54'04.4"$ (LT) $D = 9^{\circ}42'40.1"$ $L = 112.25'$ $T = 56.30'$ $R = 590.00'$	PI Sta 14+48.50 $\Delta = 45^{\circ}25'16.9"$ (LT) $D = 35^{\circ}48'35.5"$ $L = 126.84'$ $T = 66.96'$ $R = 160.00'$	PI Sta 15+55.80 $\Delta = 16^{\circ}21'17.2"$ (LT) $D = 17^{\circ}21'44.5"$ $L = 94.20'$ $T = 47.42'$ $R = 330.00'$ SE = SEE PLANS RO = SEE PLANS DS = 30 MPH	PI Sta 18+91.89 $\Delta = 55^{\circ}32'56.4"$ (LT) $D = 17^{\circ}54'17.8"$ $L = 310.24'$ $T = 168.53'$ $R = 320.00'$	PI Sta 21+77.05 $\Delta = 29^{\circ}56'36.5"$ (RT) $D = 36^{\circ}57'54.1"$ $L = 81.00'$ $T = 41.45'$ $R = 155.00'$	PI Sta 23+05.18 $\Delta = 92^{\circ}21'34.5"$ (RT) $D = 67^{\circ}24'24.5"$ $L = 137.02'$ $T = 88.57'$ $R = 85.00'$	PI Sta 23+84.31 $\Delta = 19^{\circ}53'32.6"$ (RT) $D = 32^{\circ}44'25.6"$ $L = 60.76'$ $T = 30.69'$ $R = 175.00'$	PI Sta 25+75.23 $\Delta = 18^{\circ}18'17.3"$ (LT) $D = 11^{\circ}34'29.7"$ $L = 158.14'$ $T = 79.75'$ $R = 495.00'$

*RELOCATE FENCE AS INDICATED OR AS DIRECTED BY THE ENGINEER



SEE SHEET 5 FOR PROFILES
 FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-??

REVISIONS

8/17/99

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