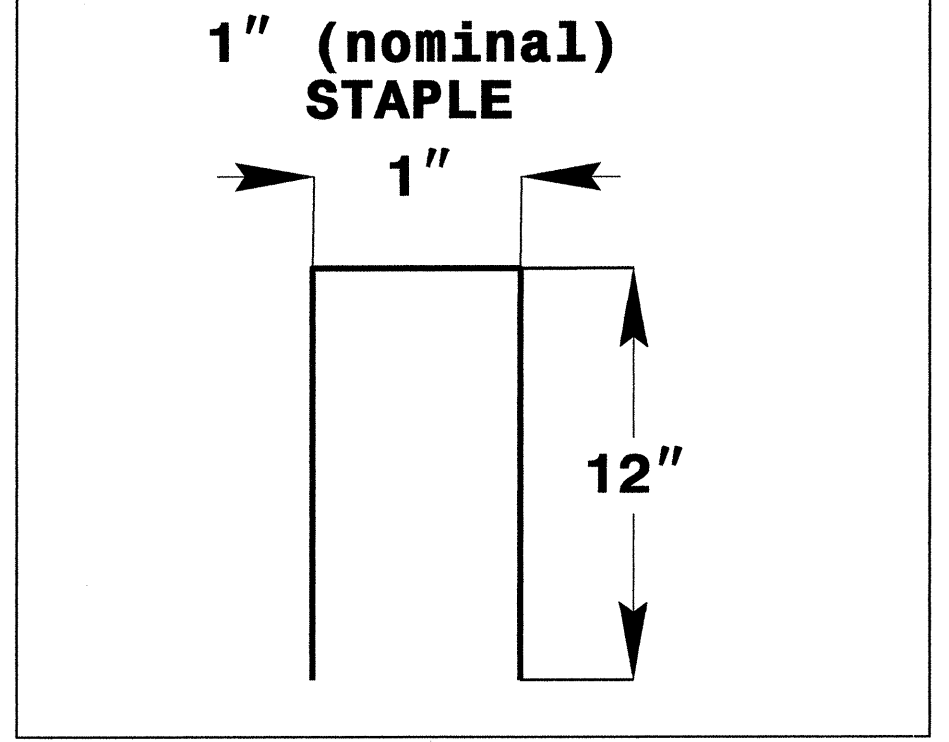
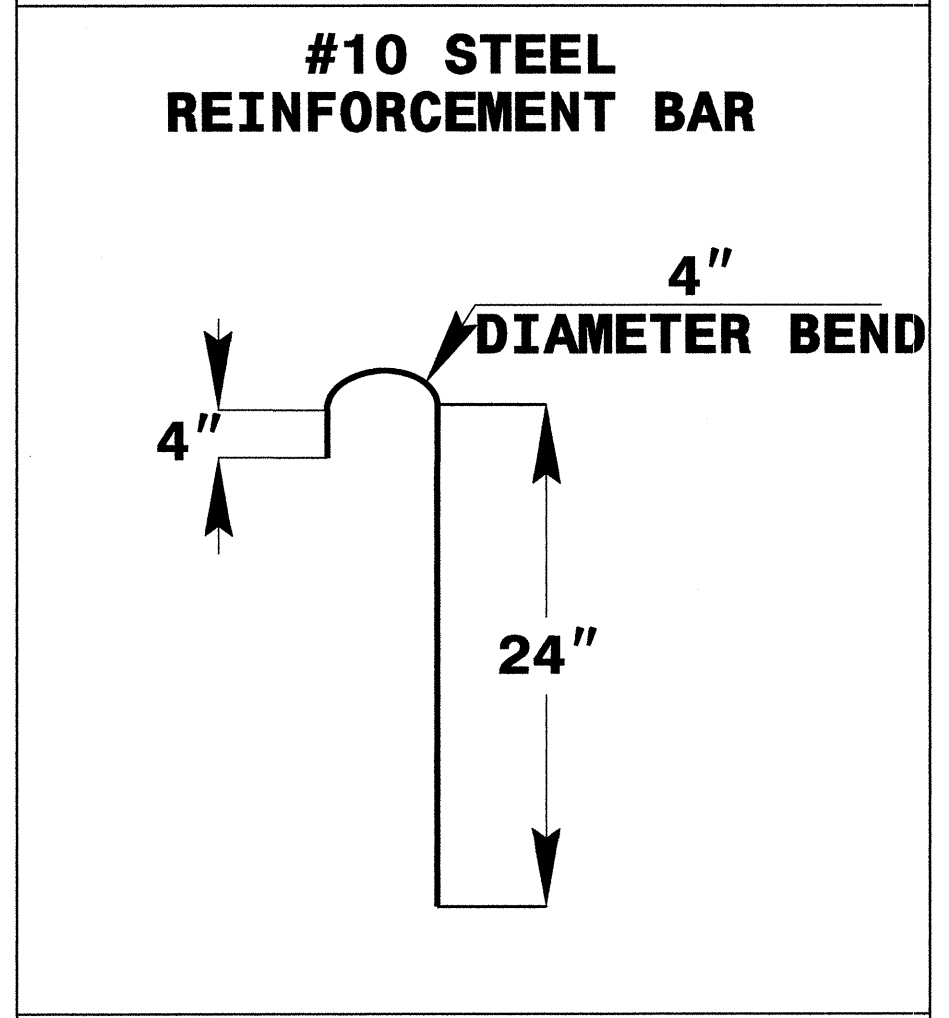
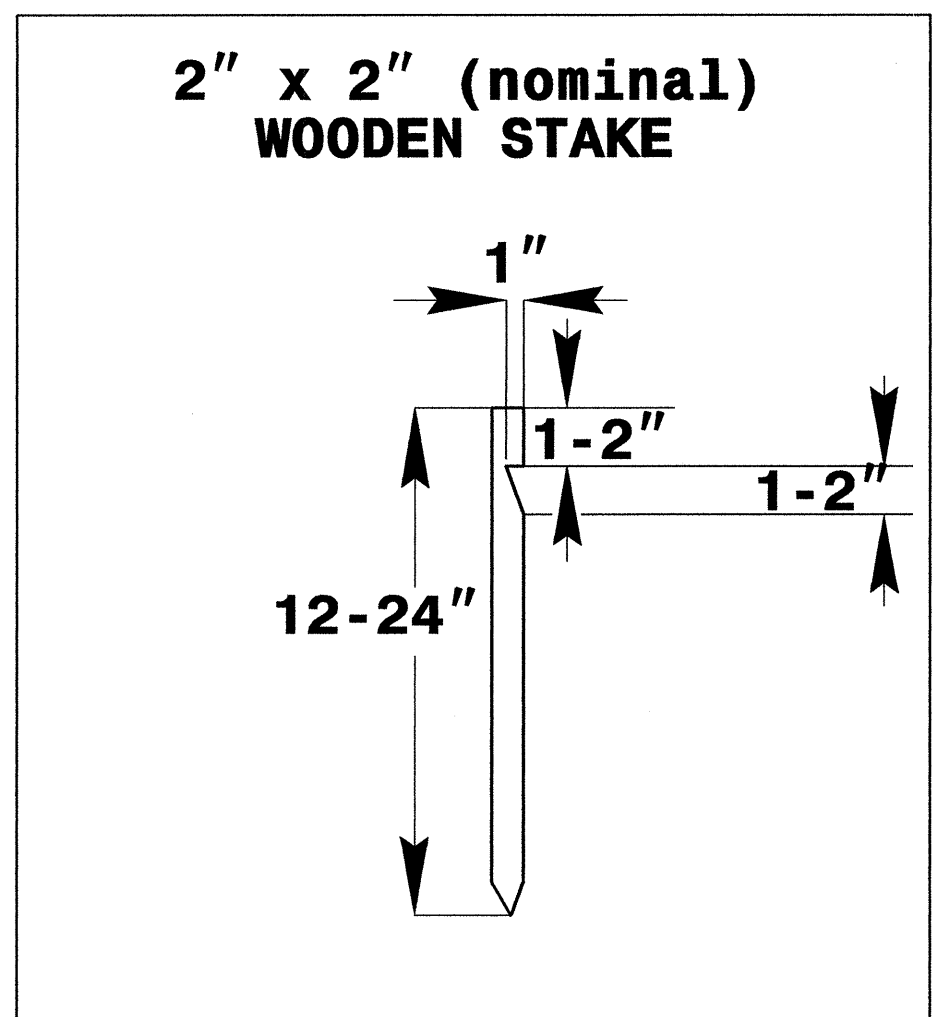
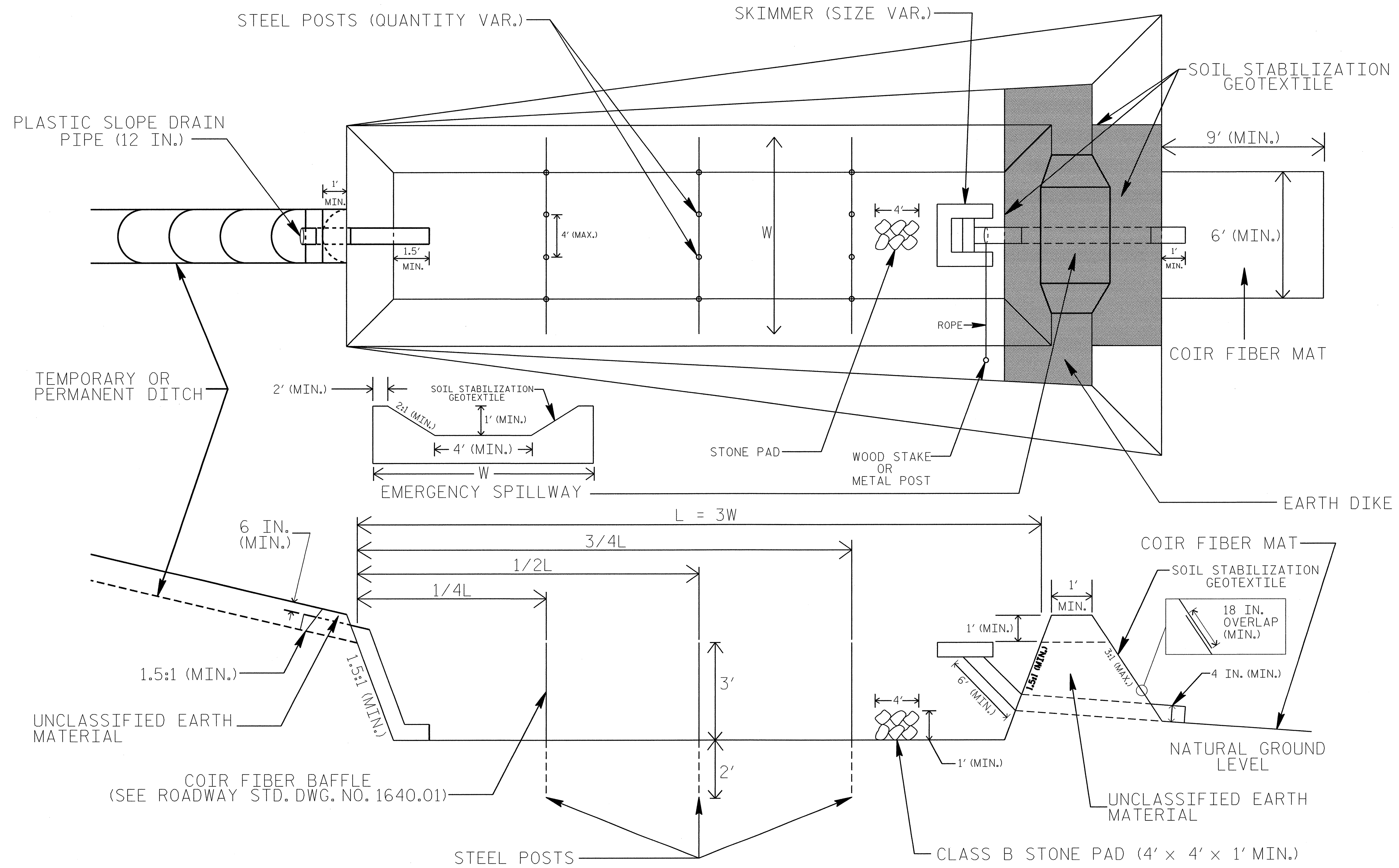


PROJECT REFERENCE NO. B-4291	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

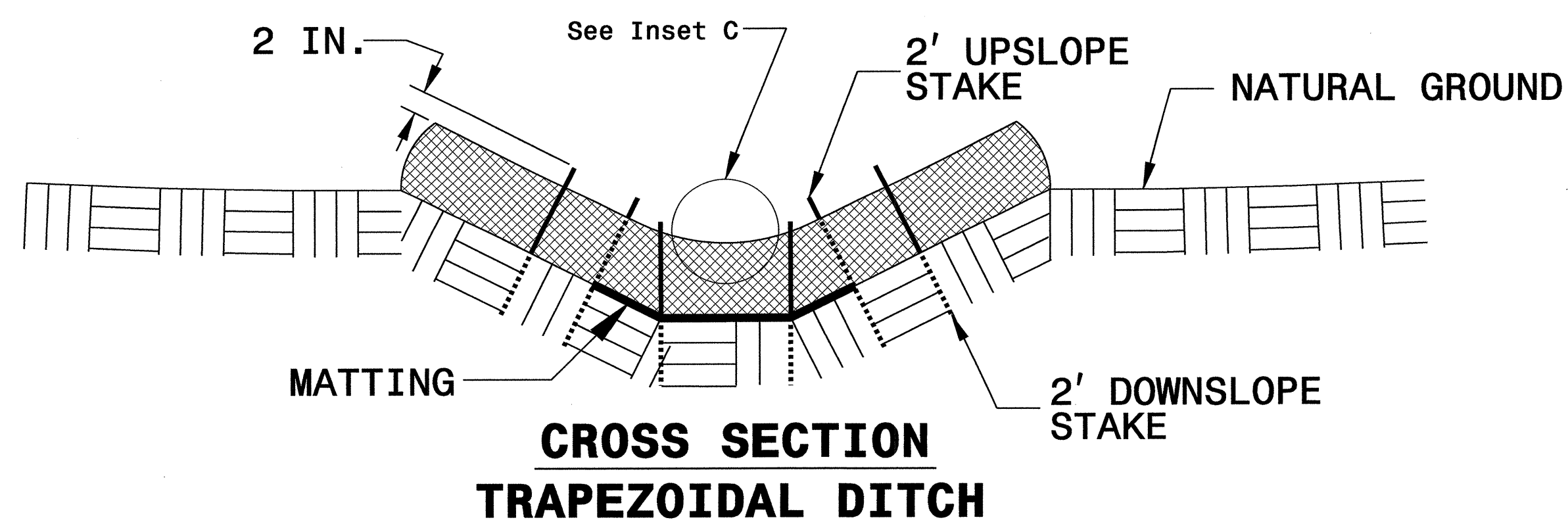
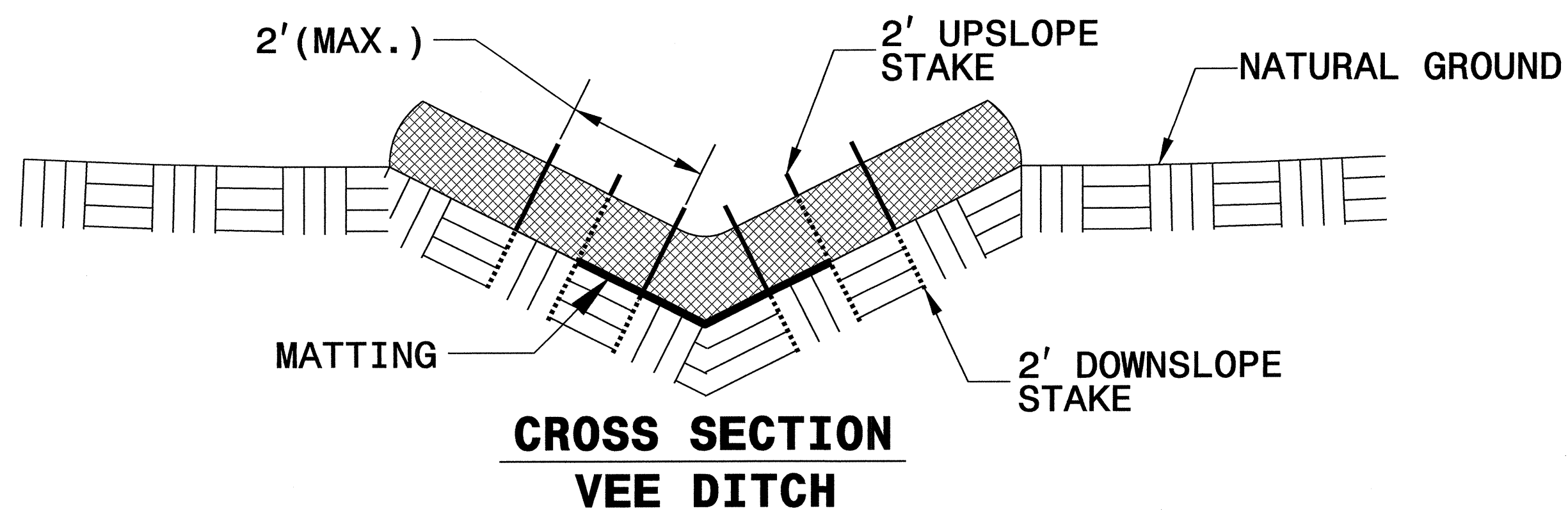
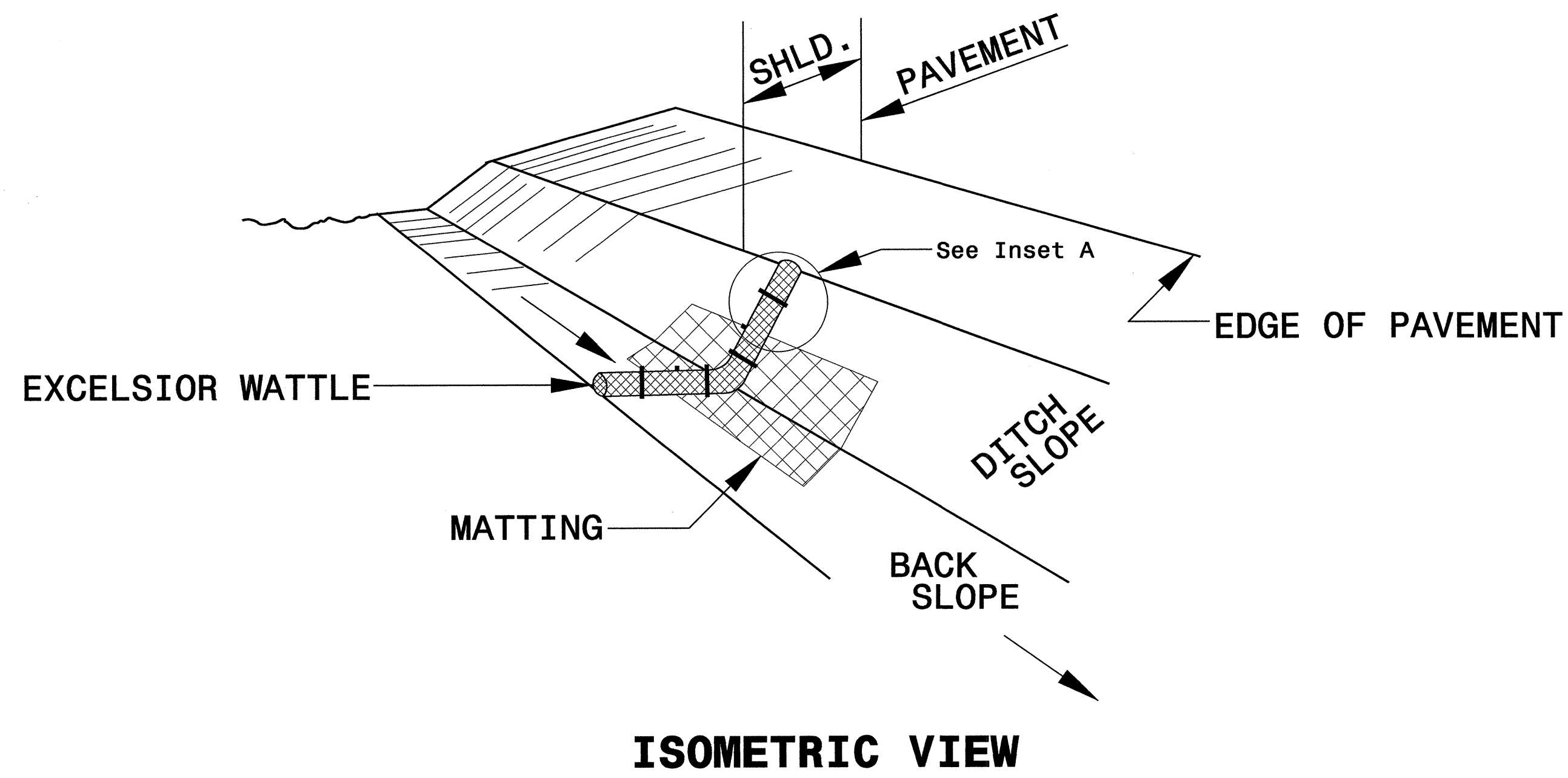
NOTES

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-4291	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.

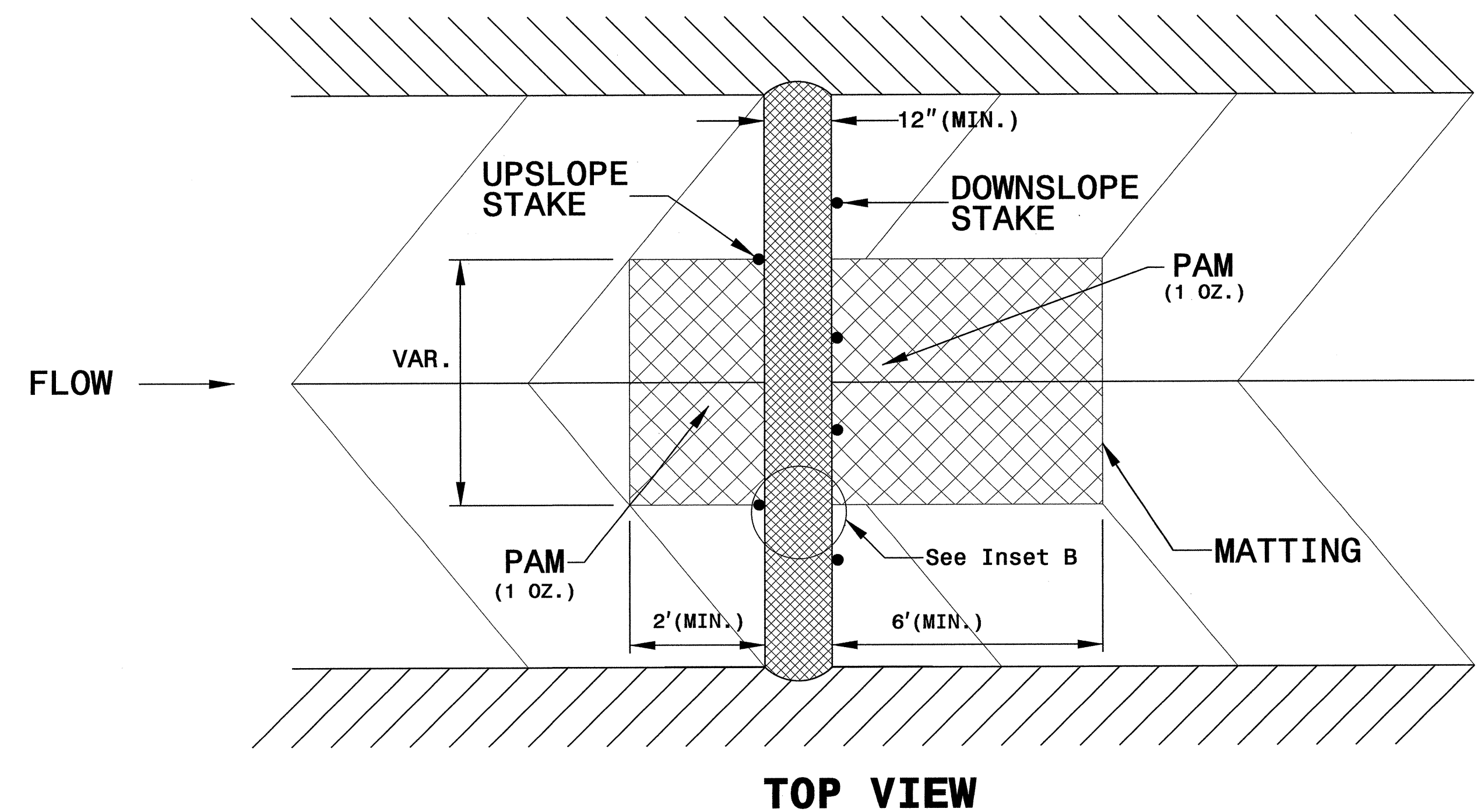
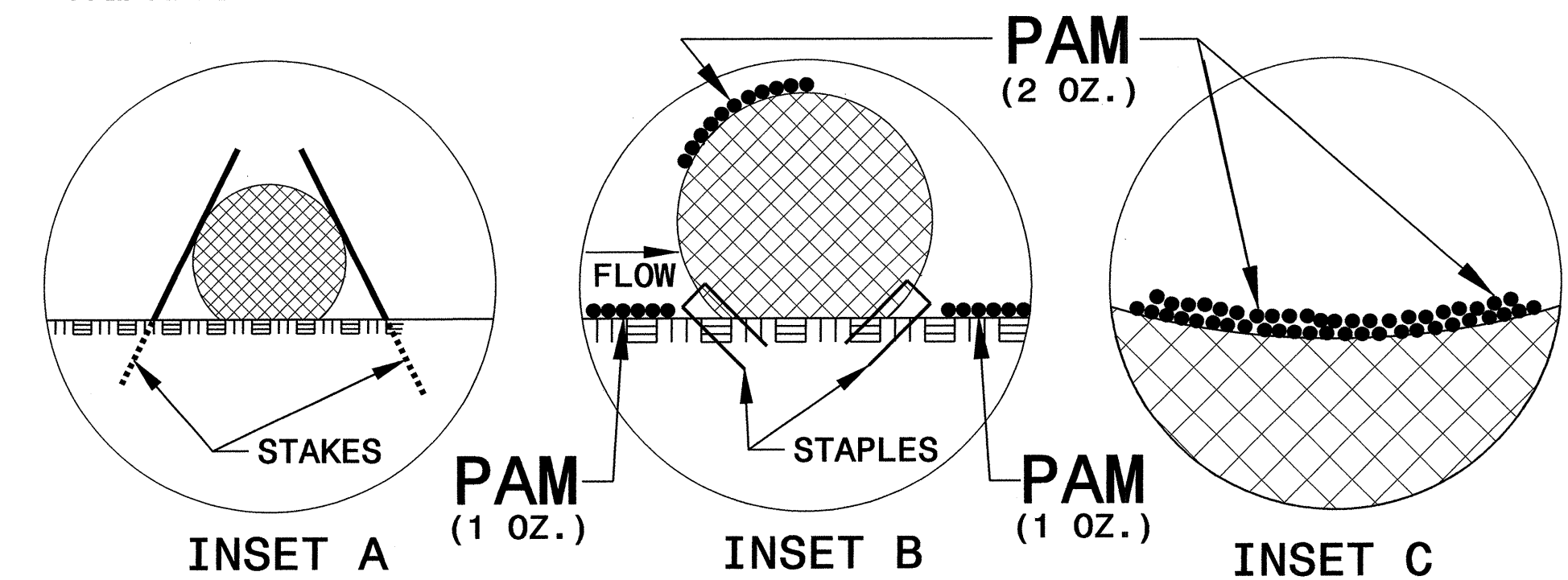
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

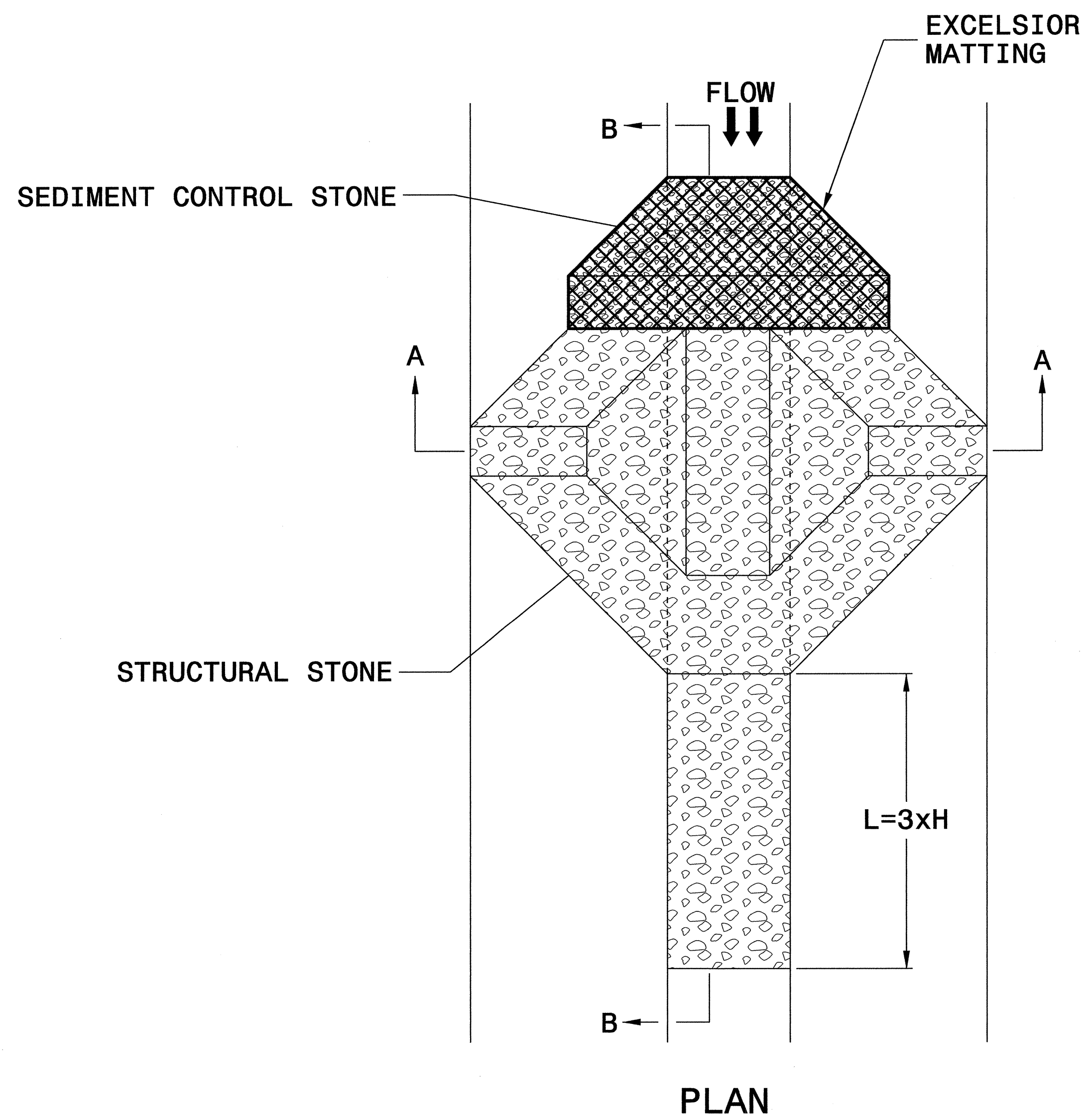
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON 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-4291	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

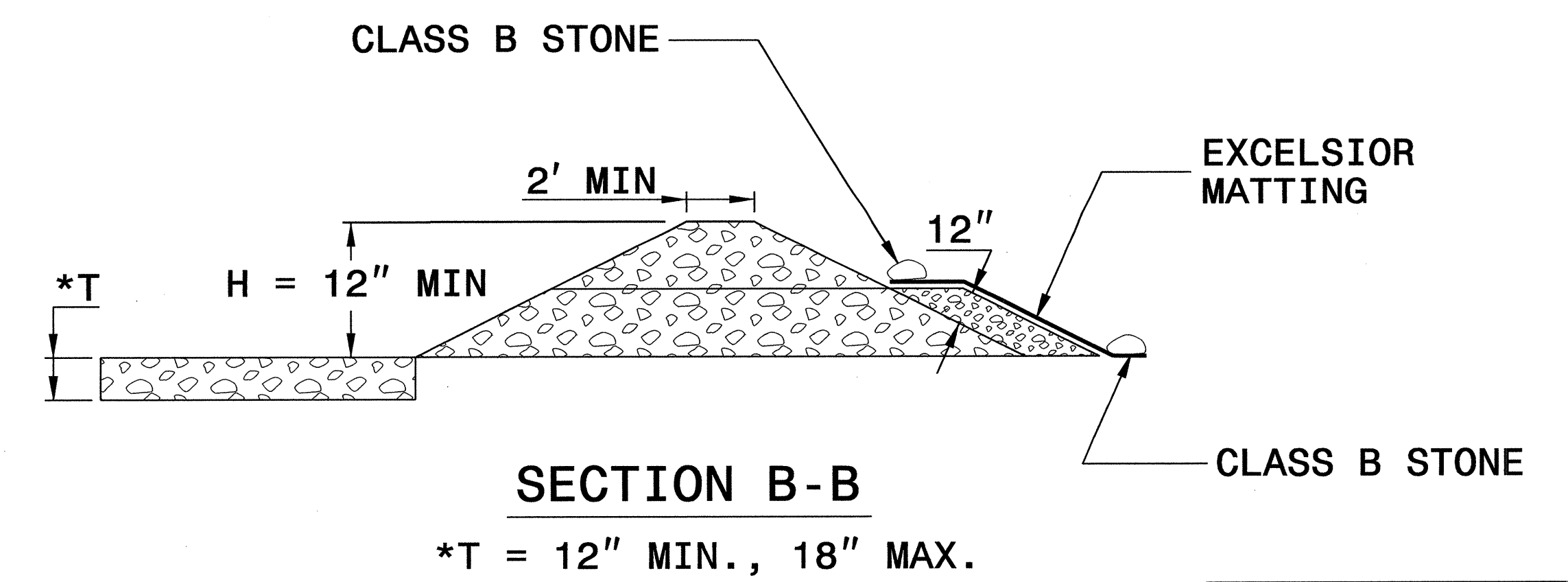
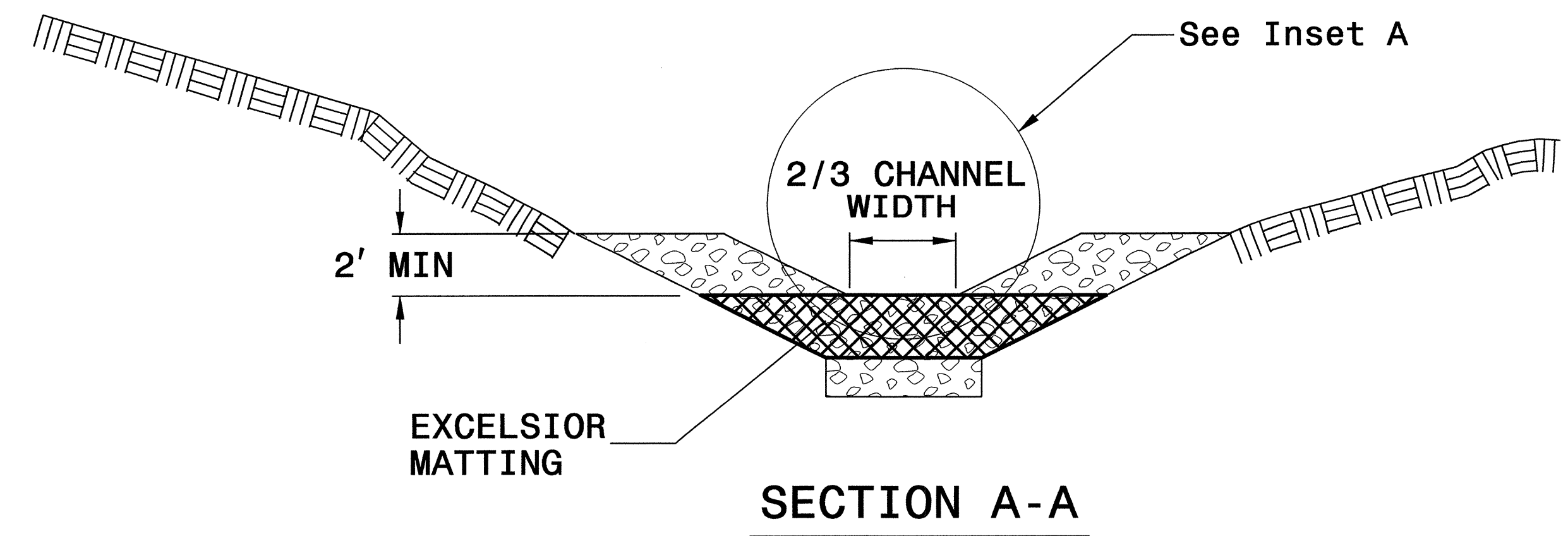
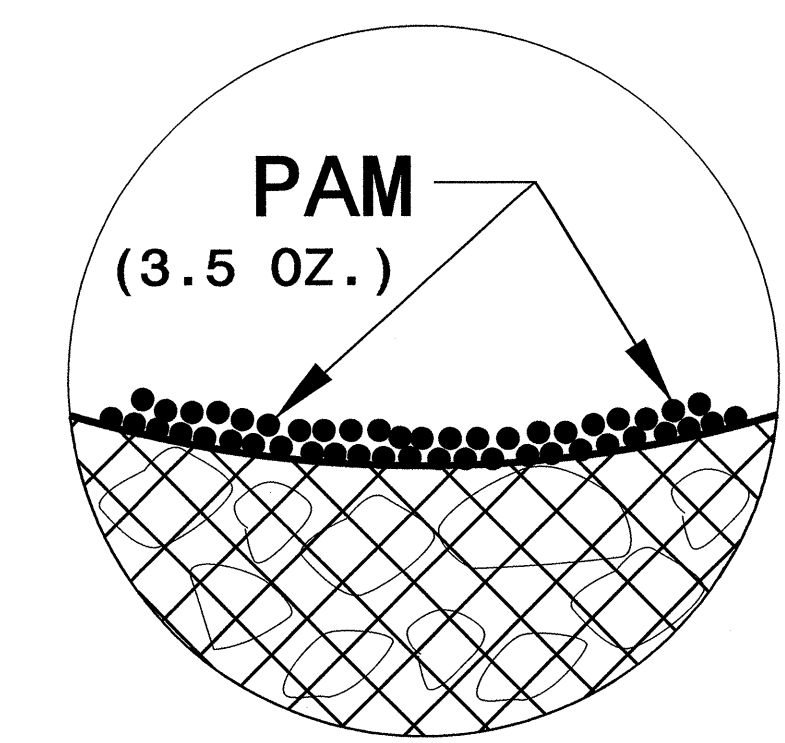


NOTES

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.



NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>B-4291</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	14+50	15+00	RT	55
4	-L-	15+00	15+79	RT	30
4	-L-	15+00	15+69	LT	25
4	-L-	18+50	19+55	LT	35
4	-L-	20+50	21+00	LT	35
			SUBTOTAL		180
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				15000
			TOTAL		15180
			SAY		15200

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	15+85	15+85	RT	215
			SUBTOTAL		215
			ADDITIONAL PSRM TO BE INSTALLED		0
			TOTAL		215
			SAY		225

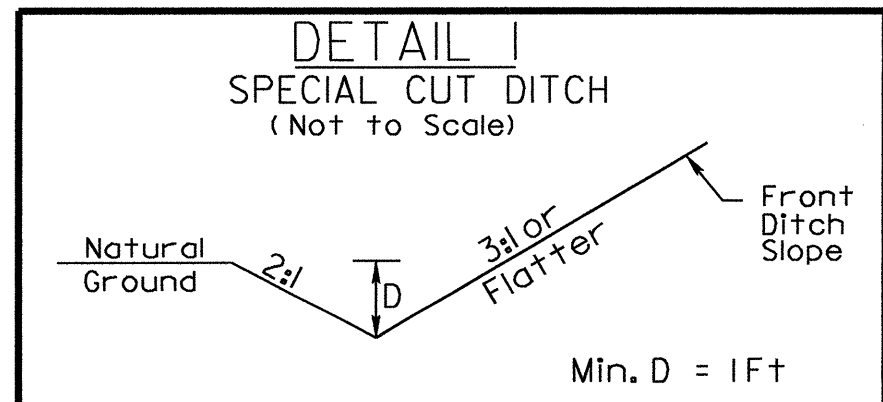
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>B-4291</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

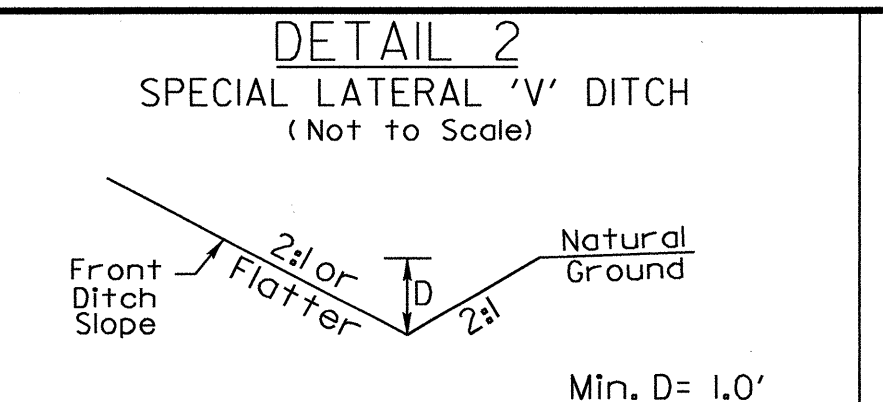
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 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-4291	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

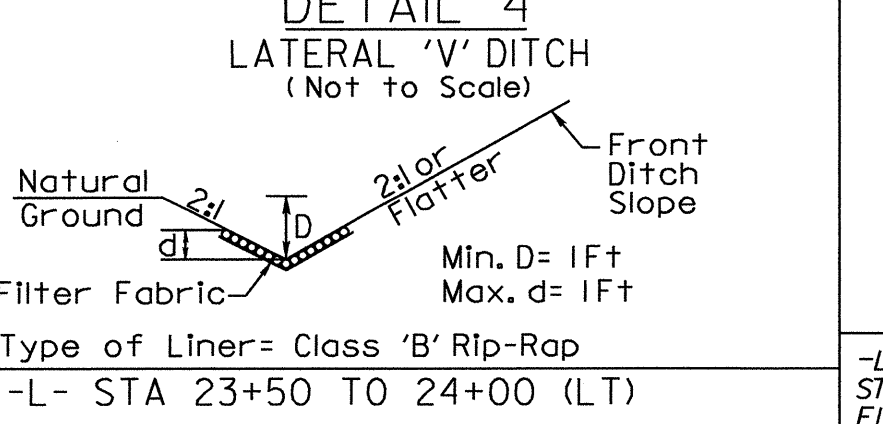


Min. D = 1 Ft

-L- STA 15+00 TO 15+69 (LT)
 -L- STA 14+50 TO 15+00 (RT)
 -L- STA 16+50 TO 18+00 (LT)
 -L- STA 18+00 TO 19+82 (RT)
 -L- STA 18+50 TO 19+55 (LT)
 -L- STA 20+50 TO 21+00 (LT)
 -L- STA 22+50 TO 23+50 (LT)



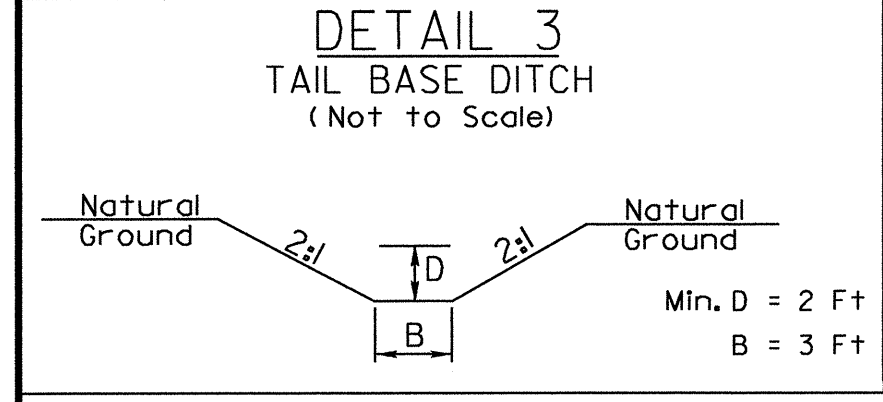
Min. D = 1.0'



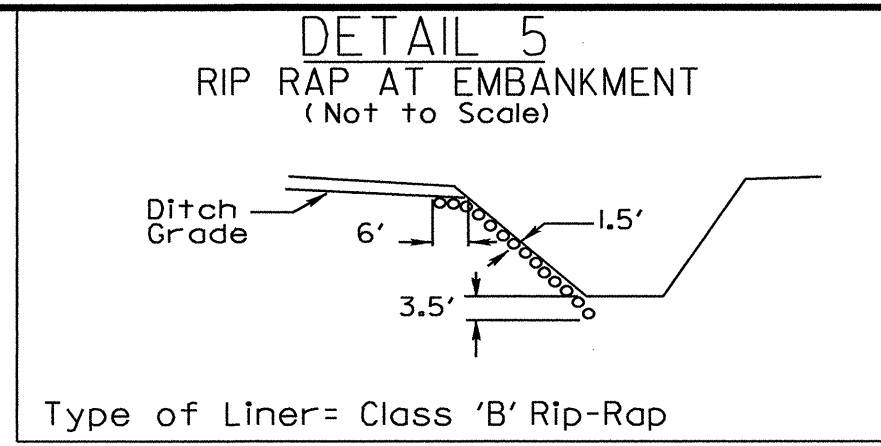
Min. D = 1 Ft
 Max. d = 1.5 Ft

Type of Liner = Class 'B' Rip-Rap

-L- STA 23+50 TO 24+00 (LT)

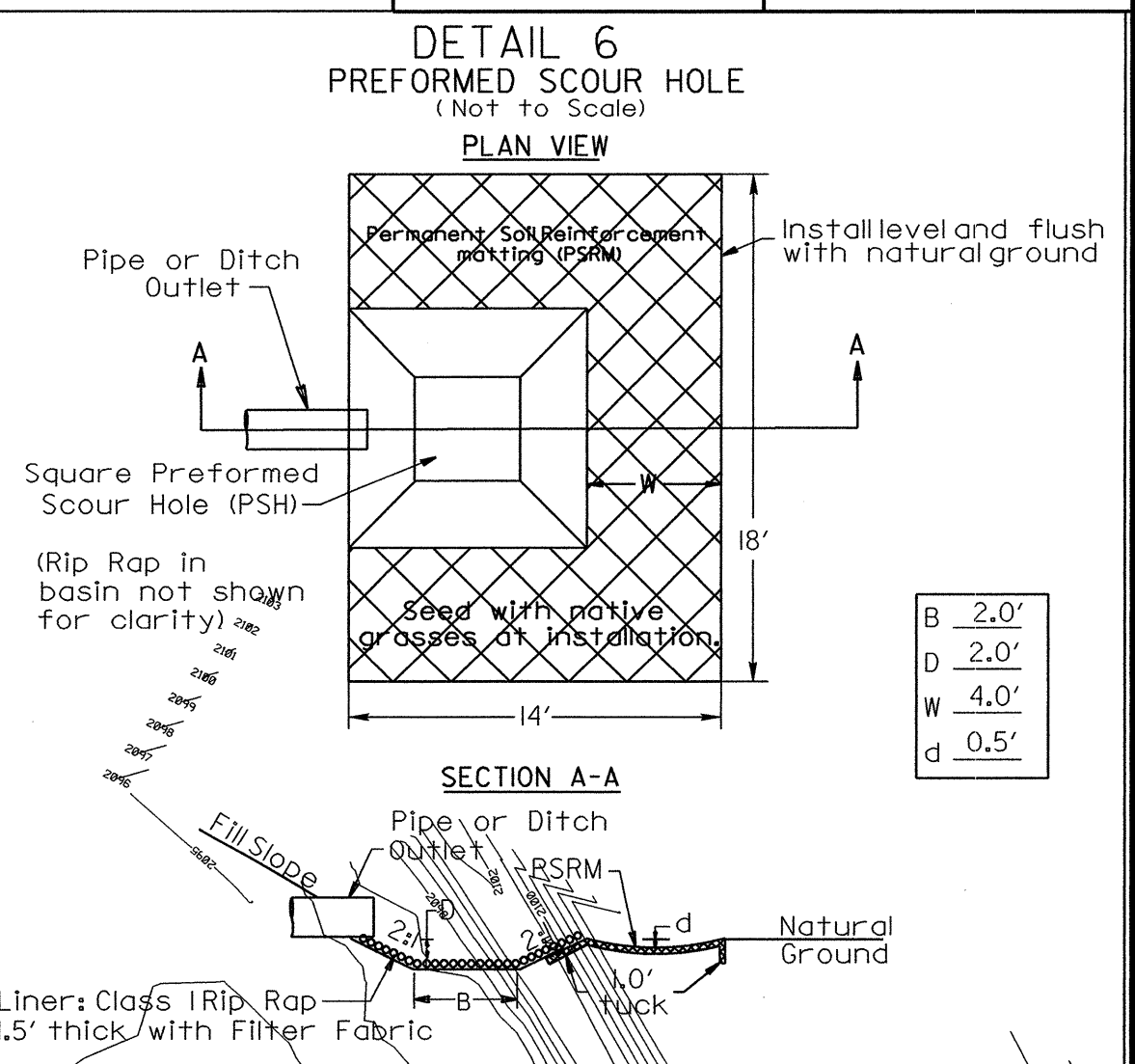


Min. D = 2 Ft
 B = 3 Ft



Type of Liner = Class 'B' Rip-Rap

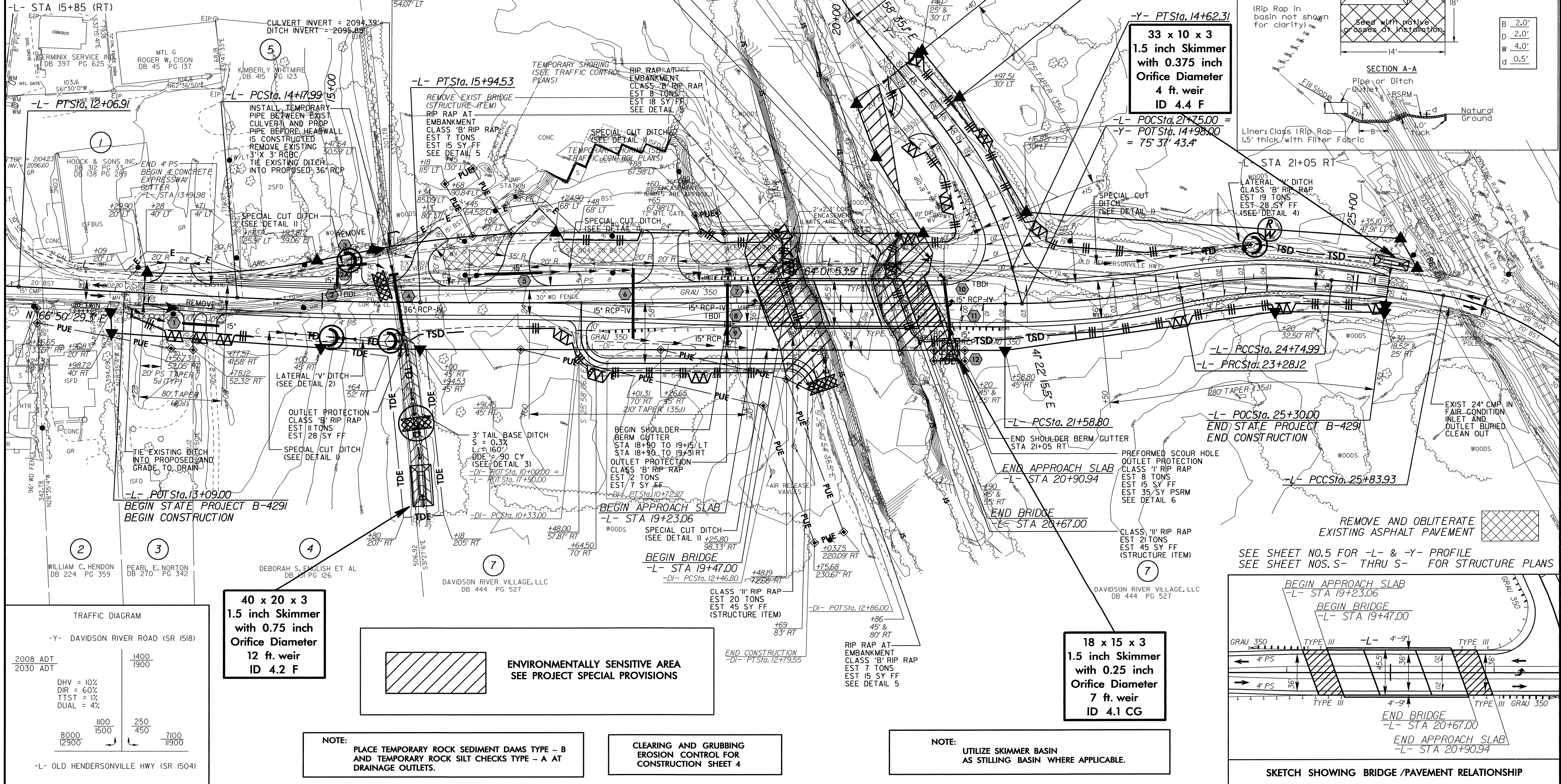
-L- STA 19+55 LT
 -L- STA 20+50 LT
 -L- STA 19+82 RT



Install level and flush with natural ground

33 x 10 x 3
 1.5 inch Skimmer
 with 0.375 inch
 Orifice Diameter
 4 ft. weir
 ID 4.4 F

Liner: Class 'B' Rip-Rap
 1.5' thick with Filter Fabric



TRAFFIC DIAGRAM

-Y- DAVIDSON RIVER ROAD (SR 1518)

2008 ADT	1400
2030 ADT	1900

DHV = 10%
 DIR = 60%
 TTST = 1%
 DUAL = 4%

1100	250
12900	450
	7100
	11900

-L- OLD HENDERSONVILLE HWY (SR 1504)

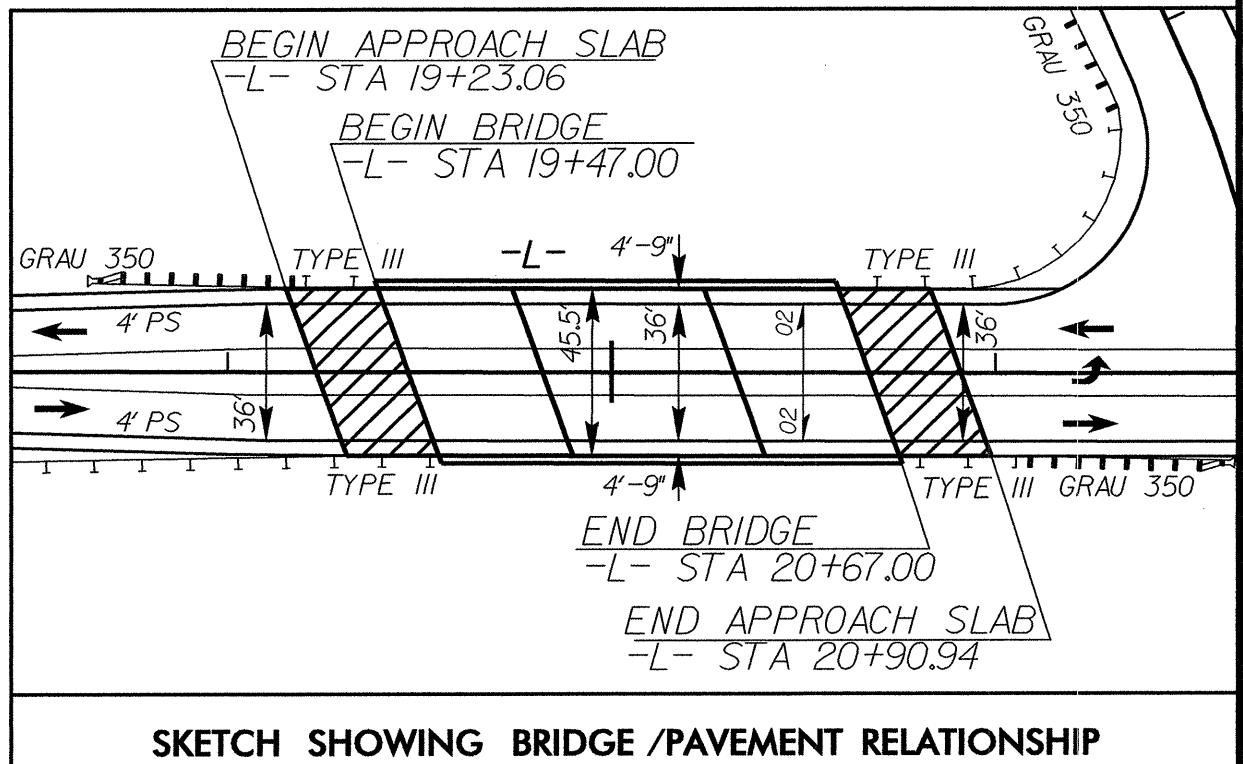
40 x 20 x 3
 1.5 inch Skimmer
 with 0.75 inch
 Orifice Diameter
 12 ft. weir
 ID 4.2 F

ENVIRONMENTALLY SENSITIVE AREA
 SEE PROJECT SPECIAL PROVISIONS

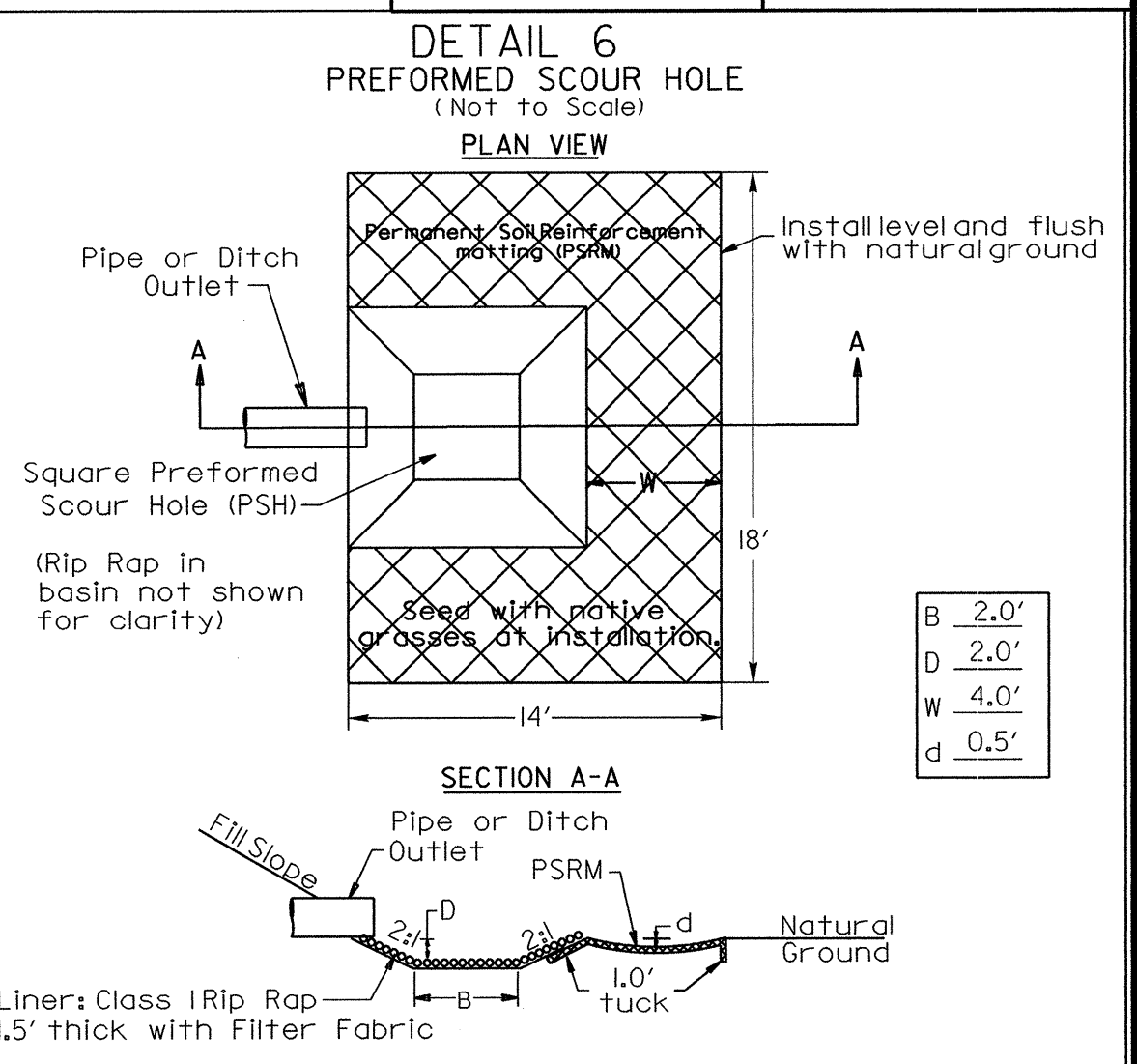
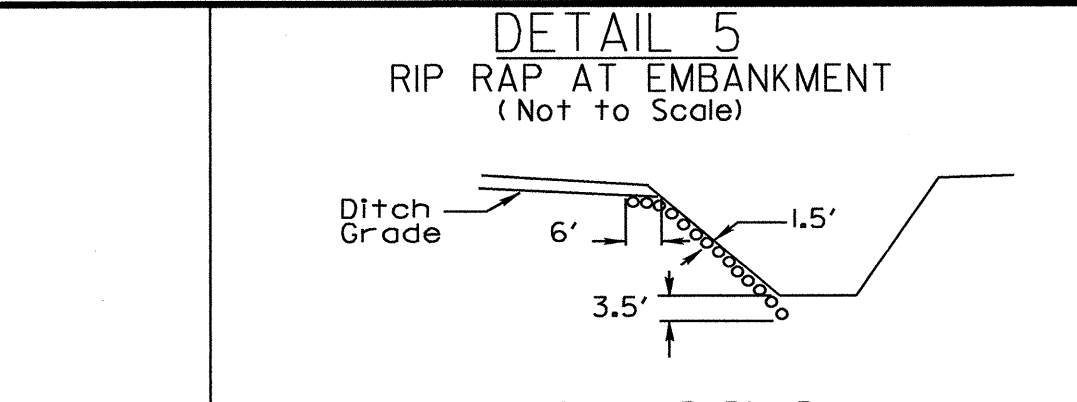
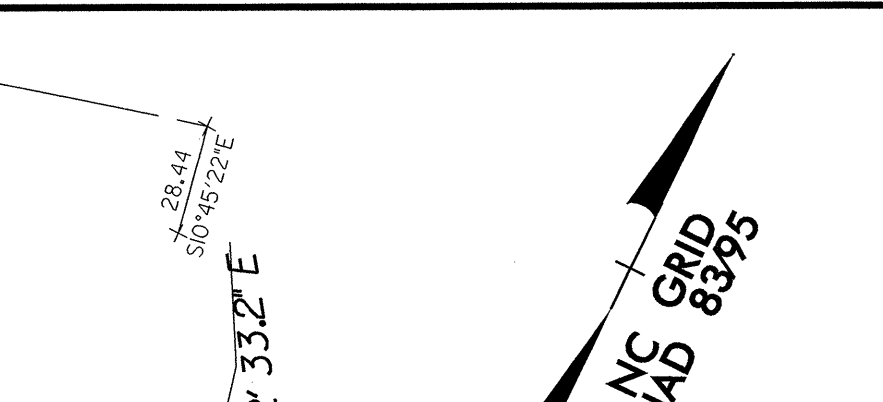
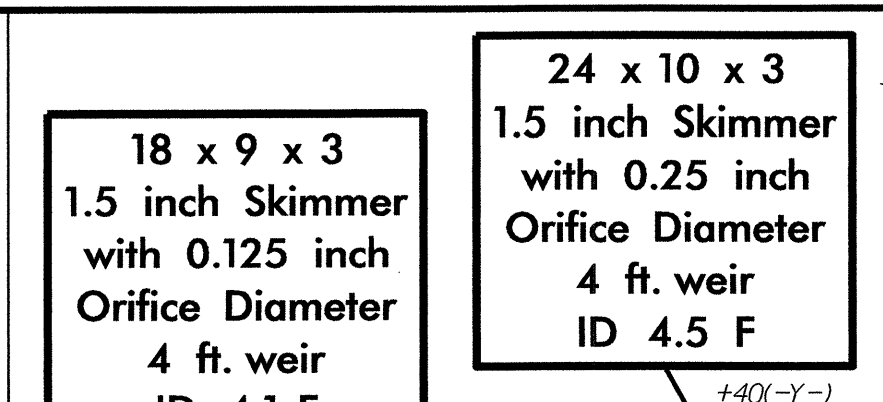
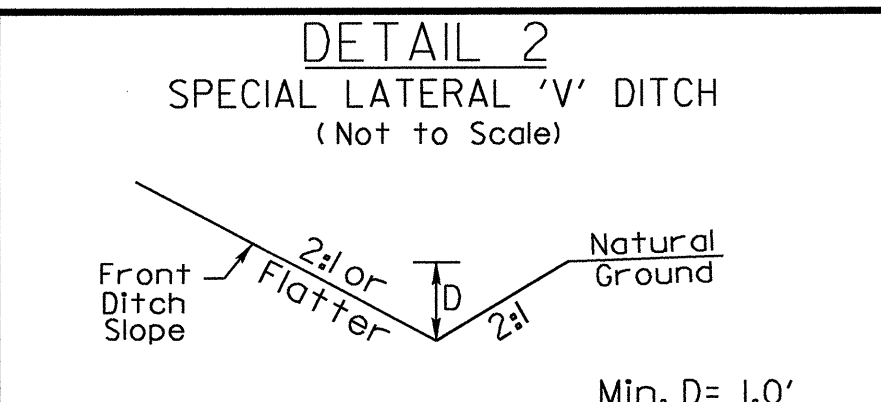
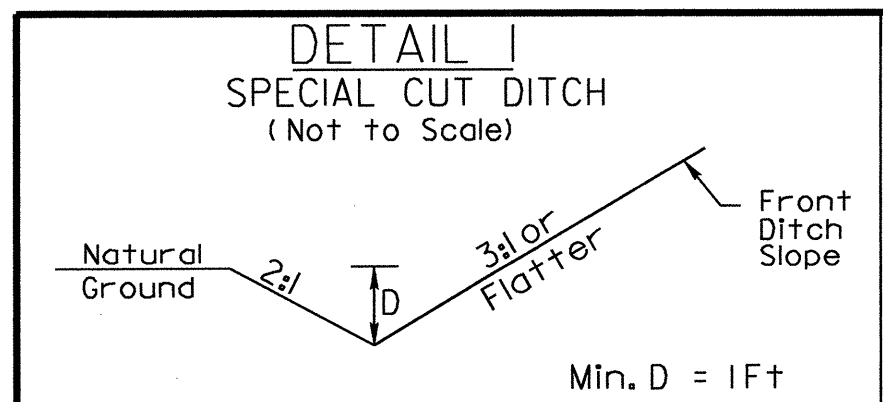
NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
 DRAINAGE OUTLETS.

NOTE:
 CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 4

NOTE:
 UTILIZE SKIMMER BASIN
 AS SITUATION WHERE APPLICABLE.

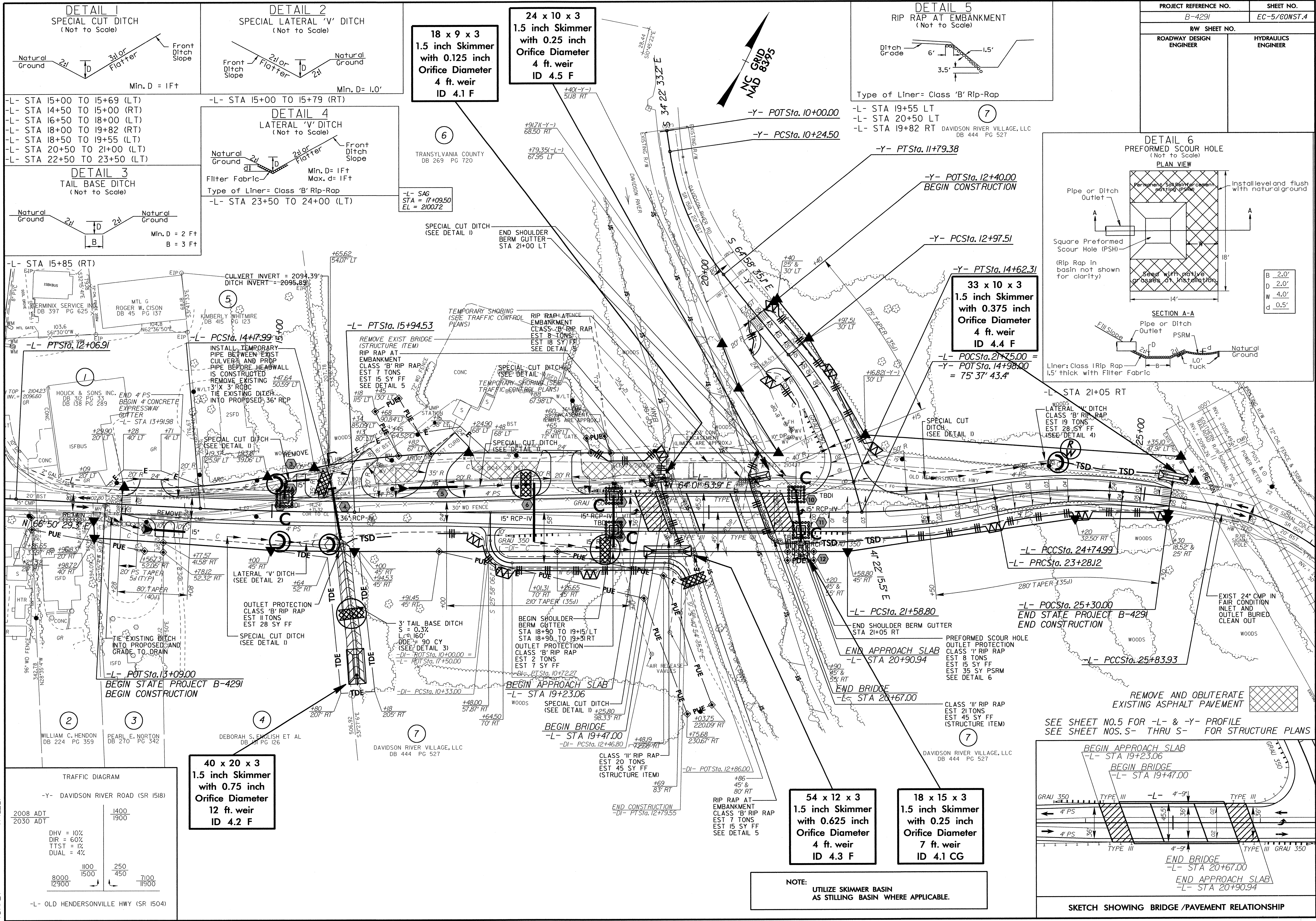
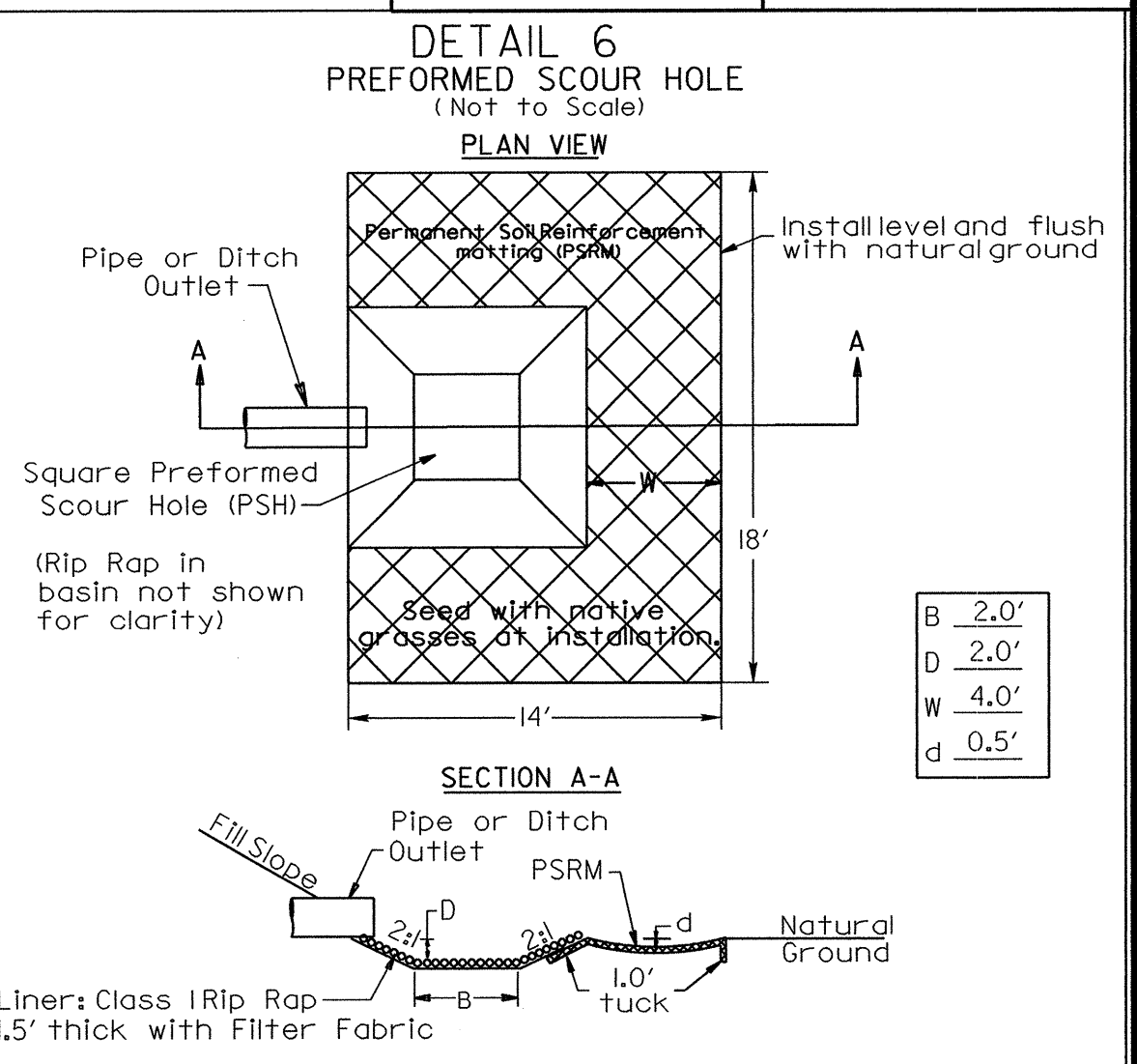
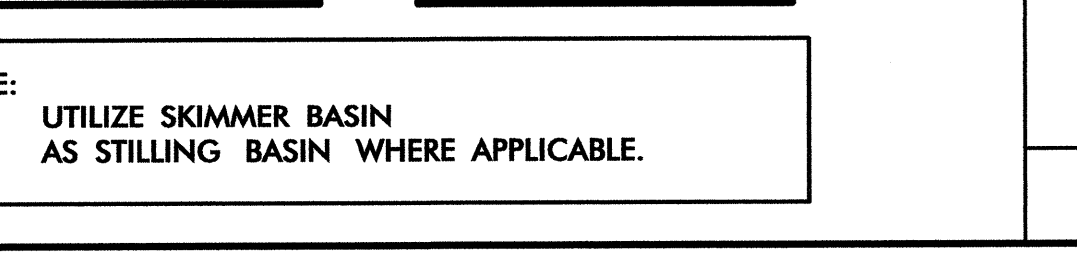
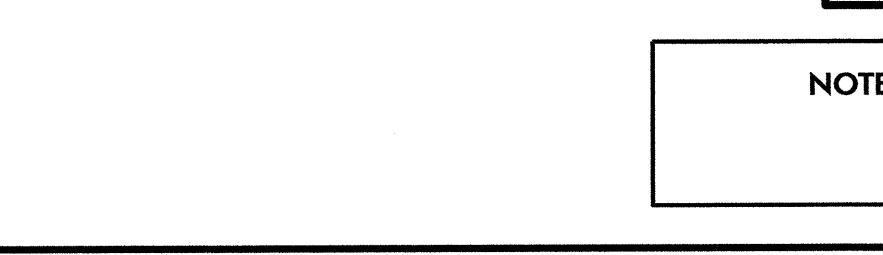
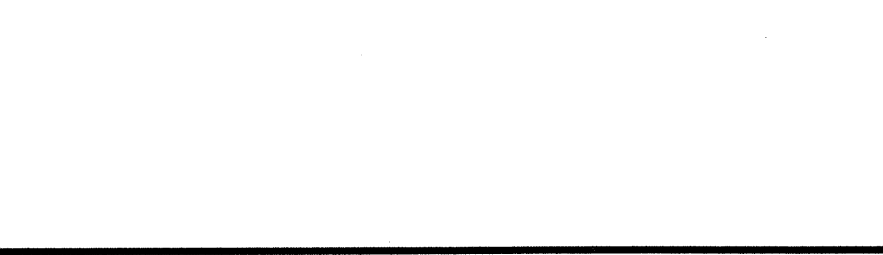
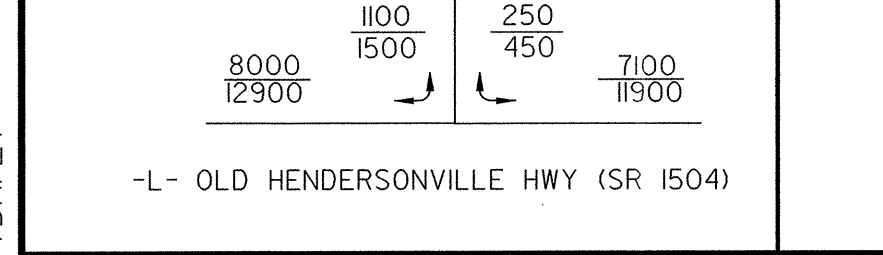
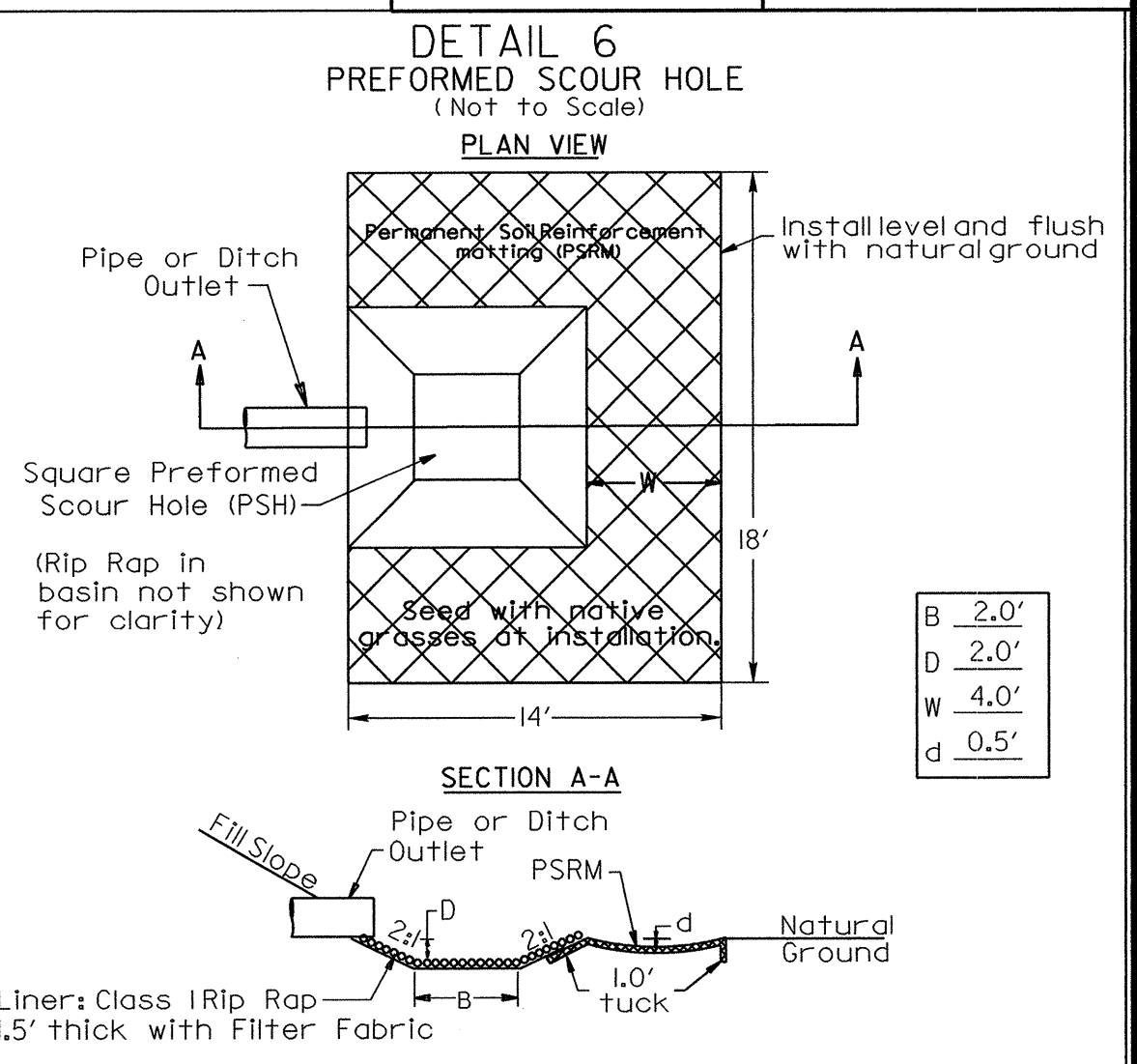
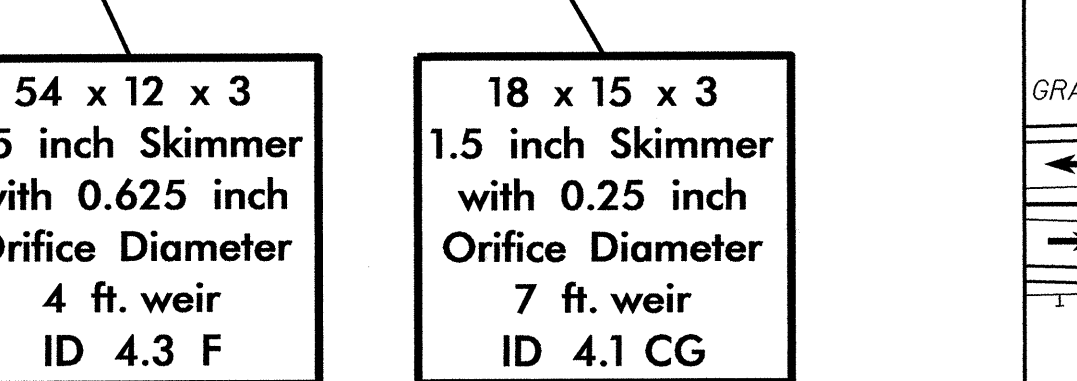
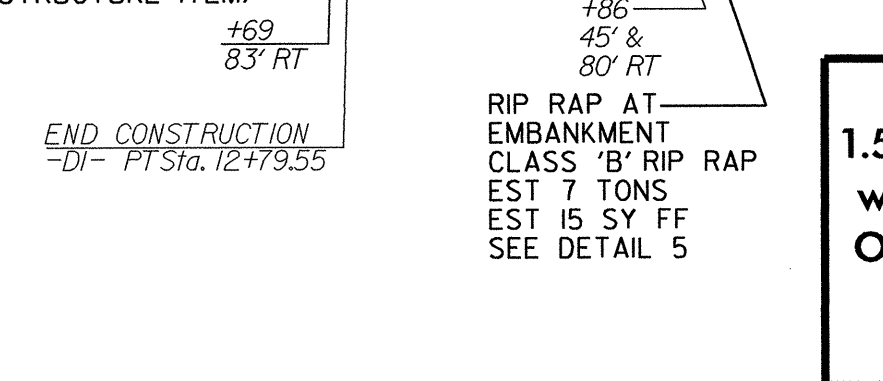
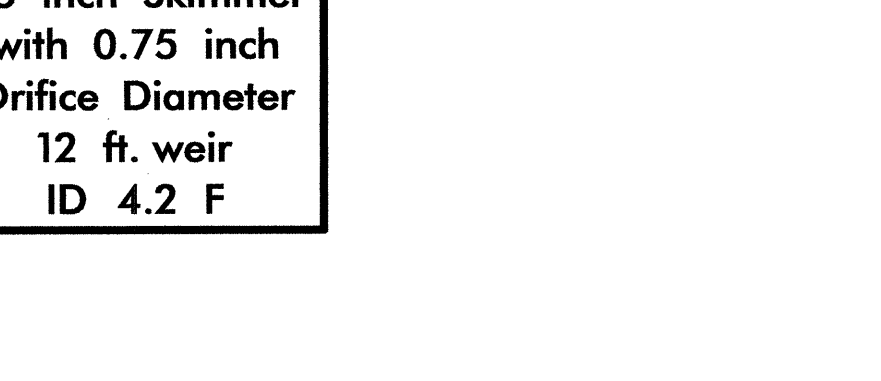
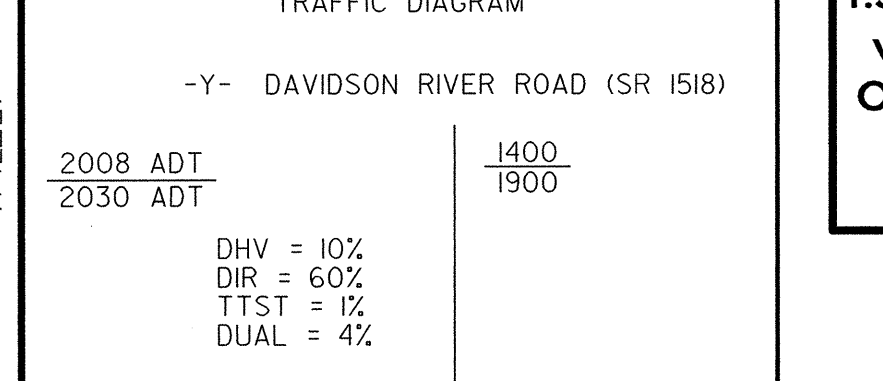
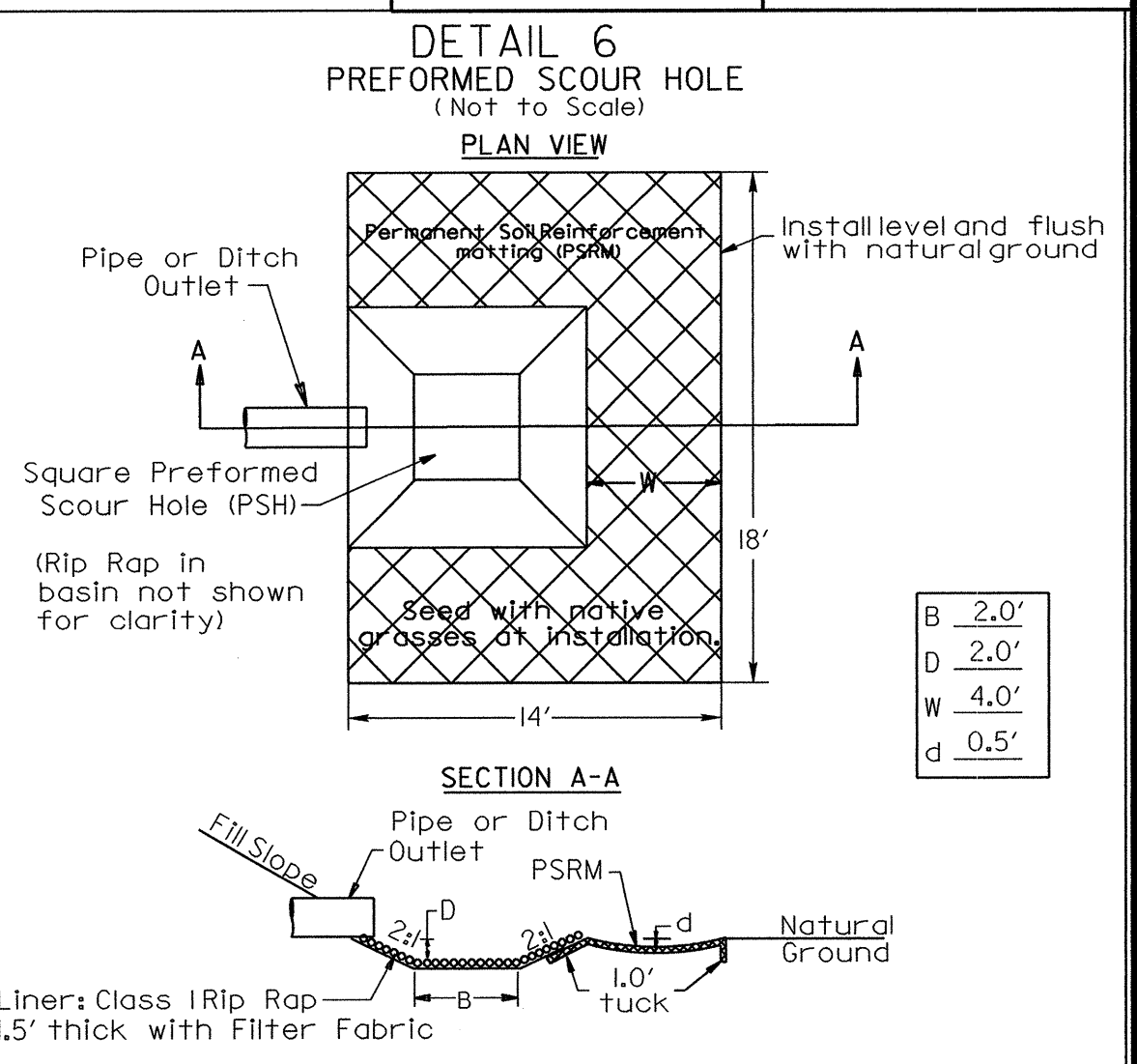
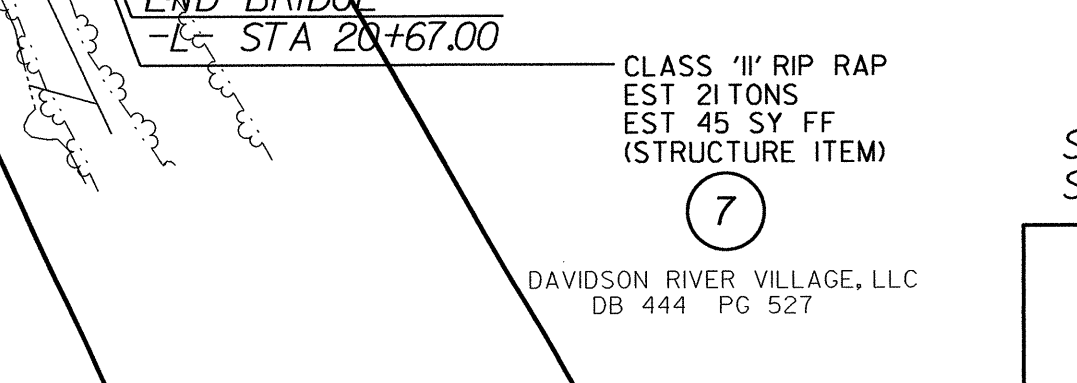
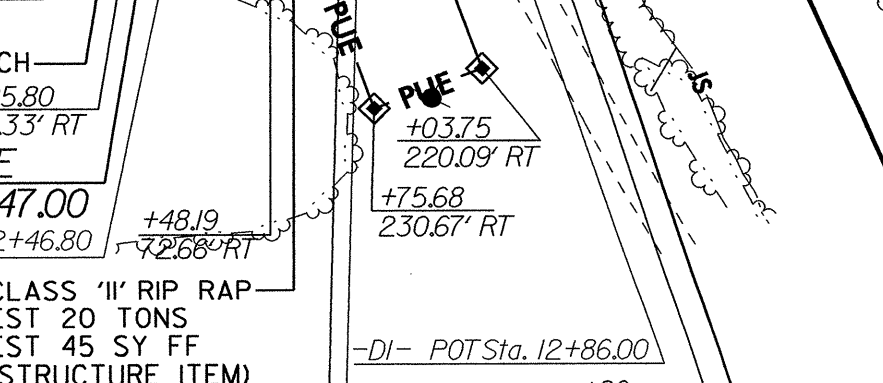
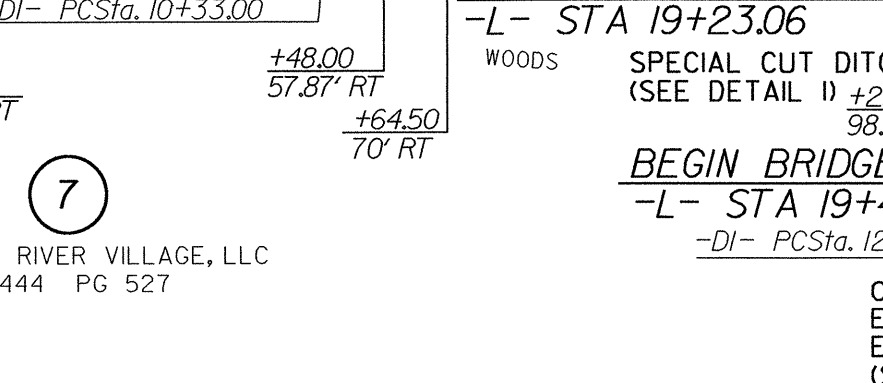
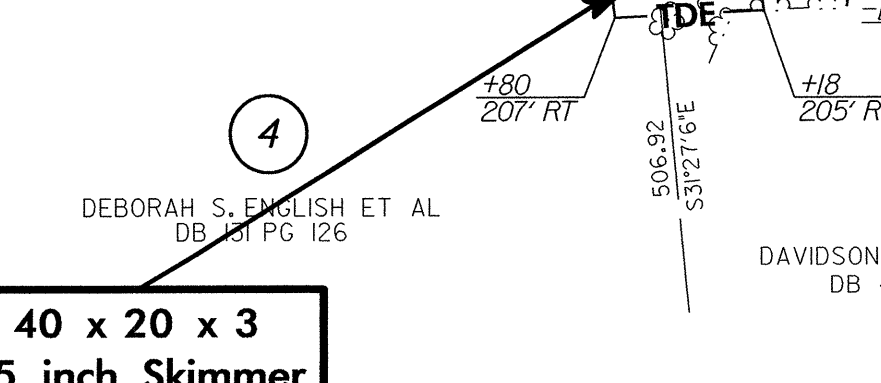
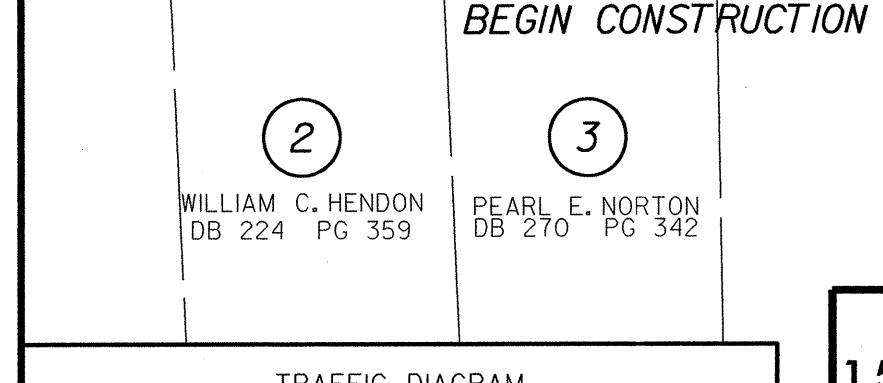
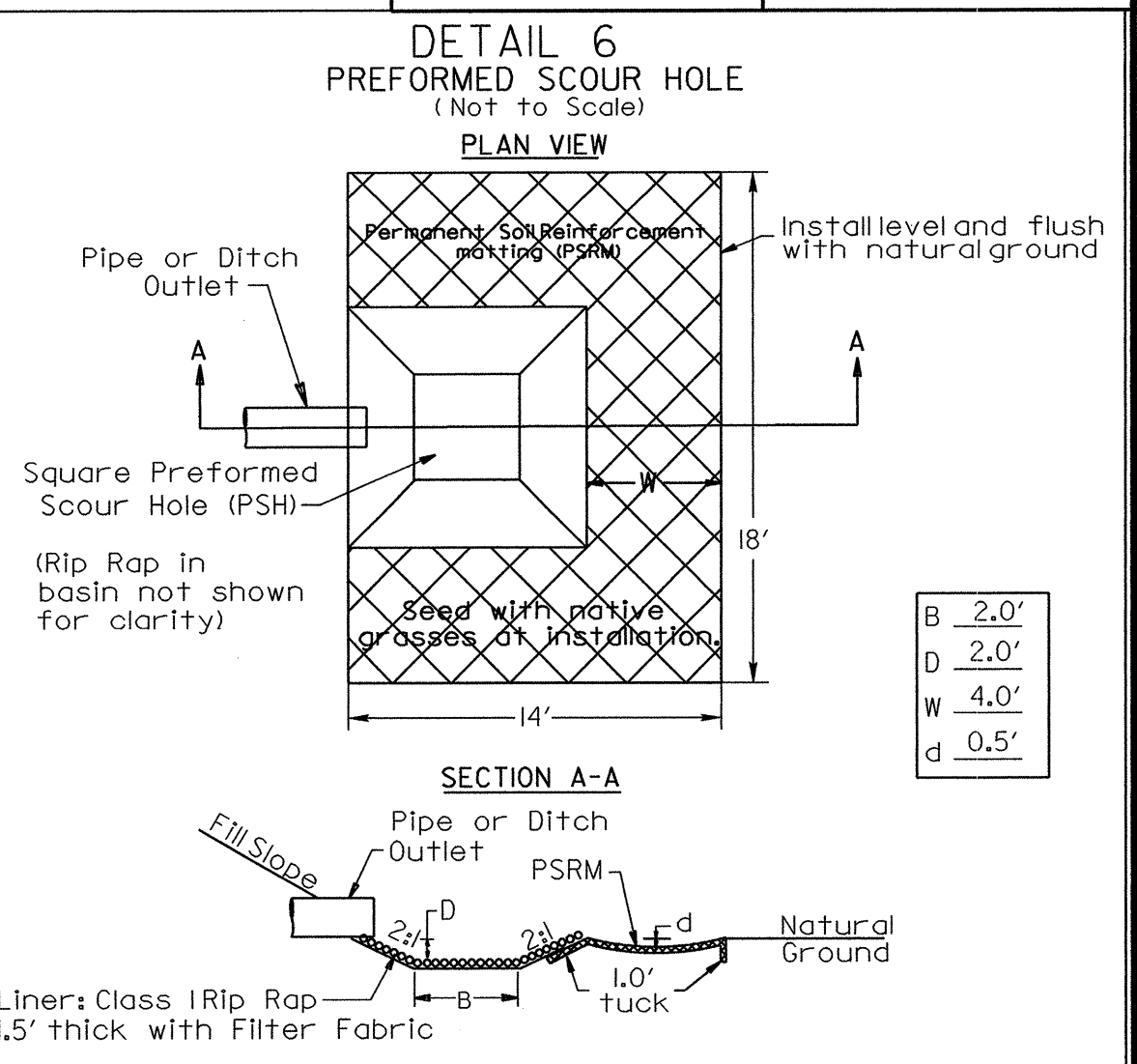
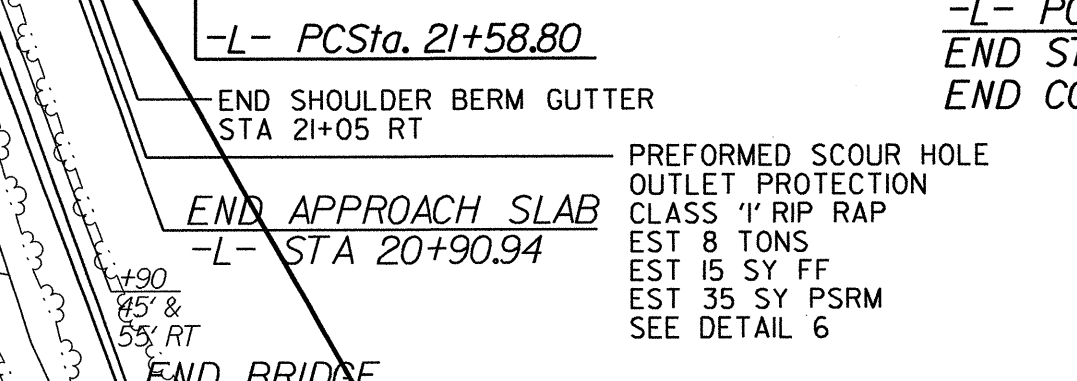
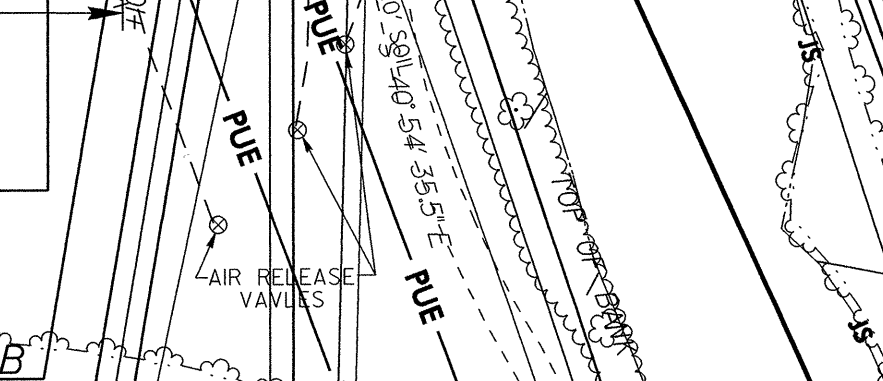
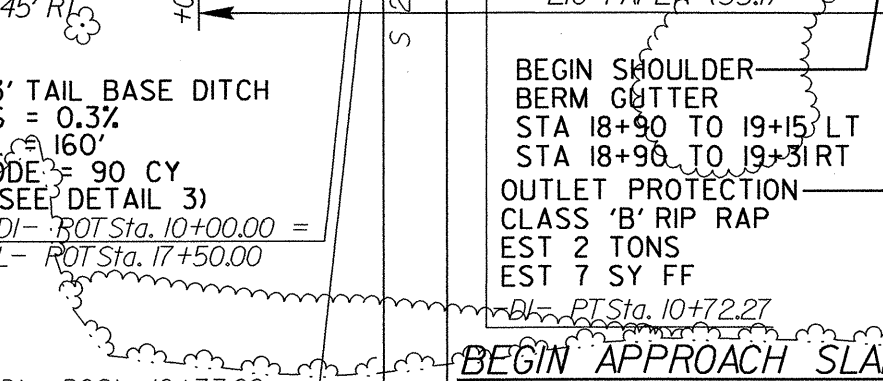
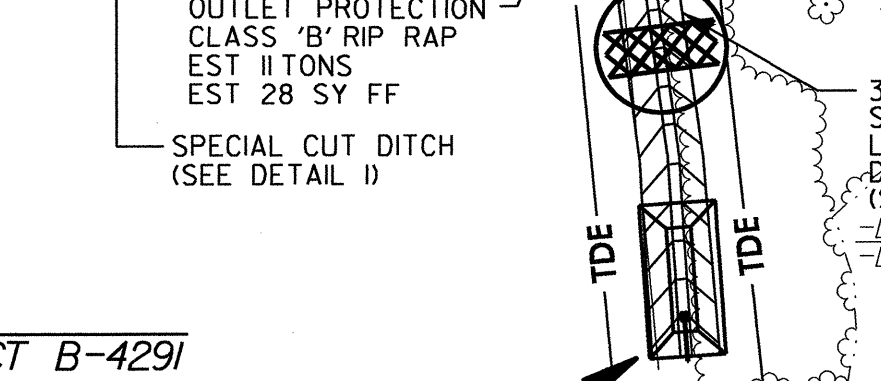
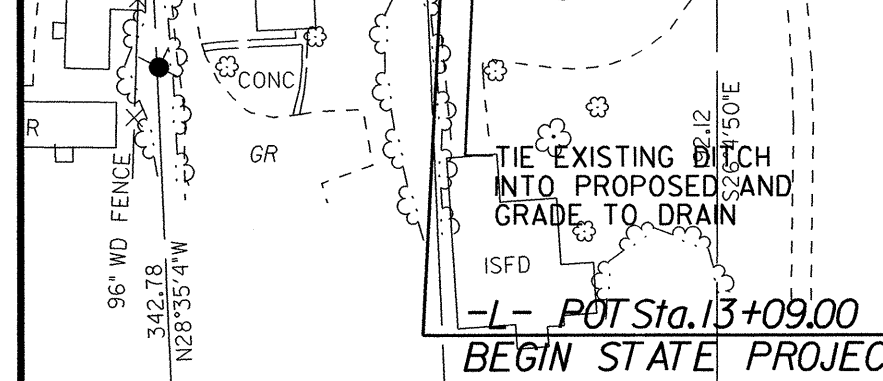
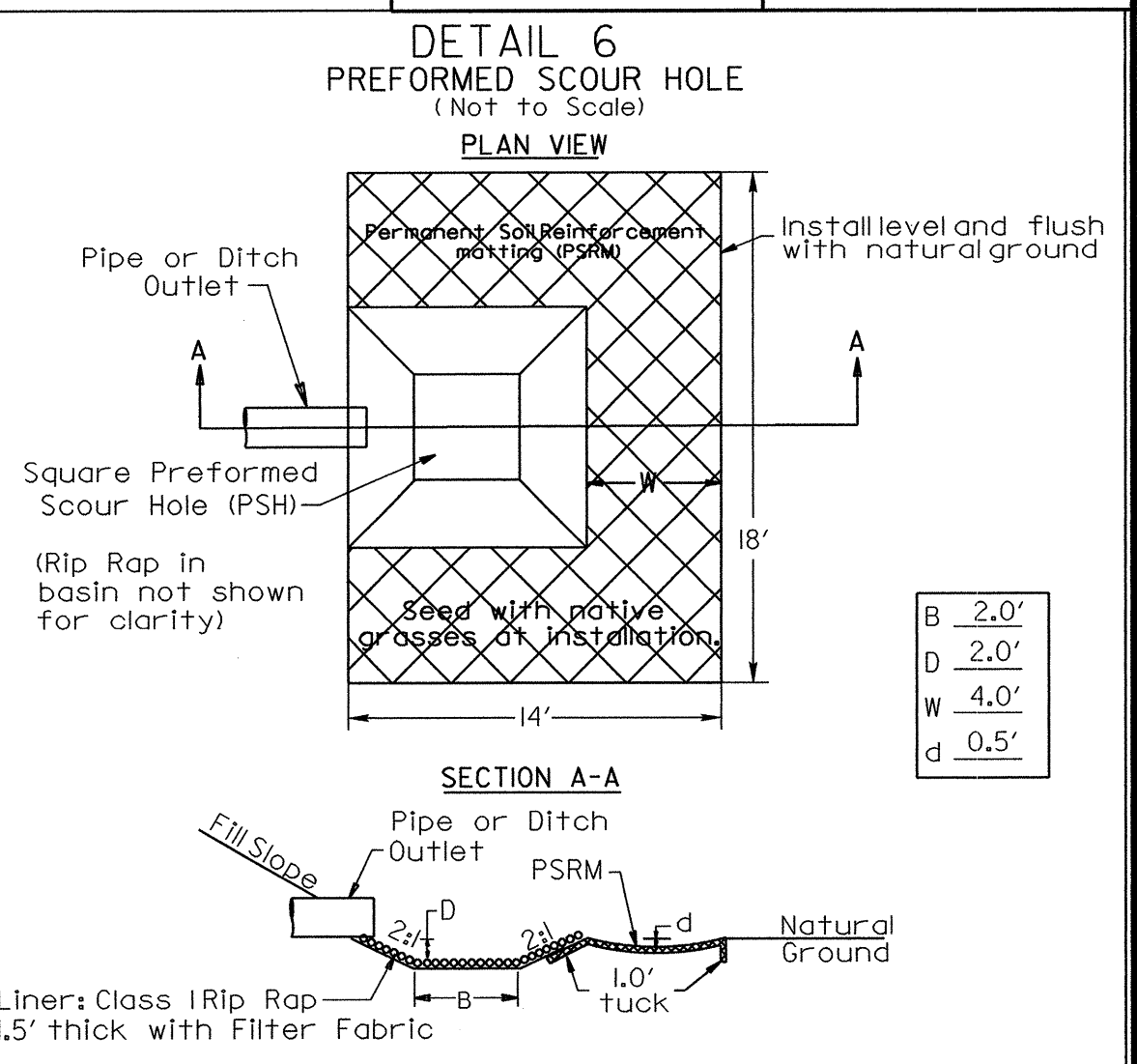
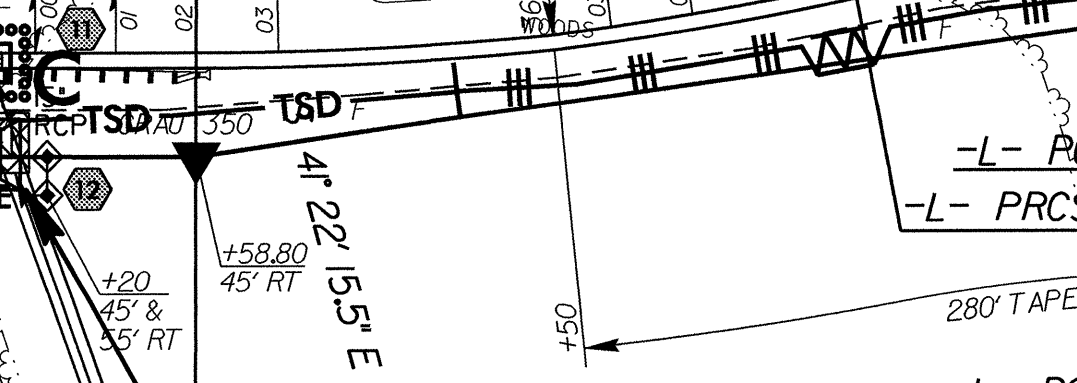
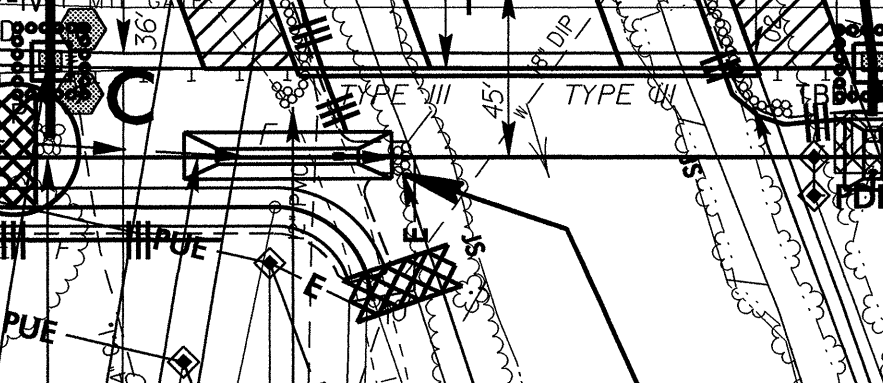
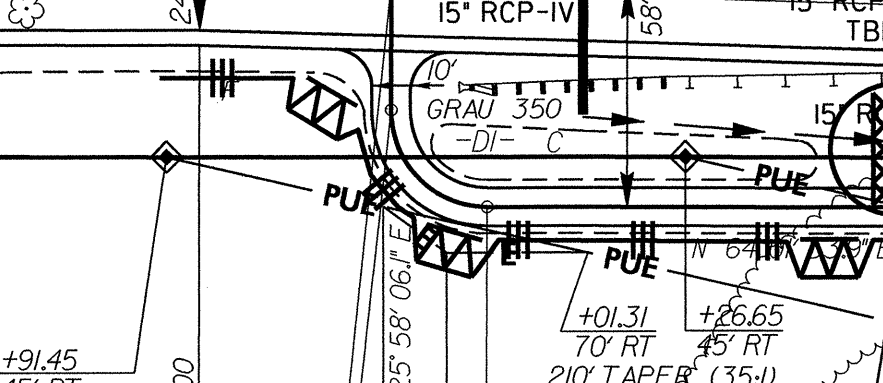
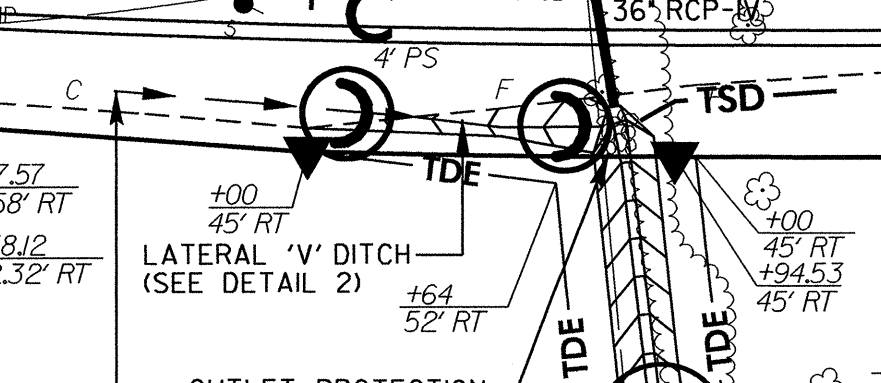
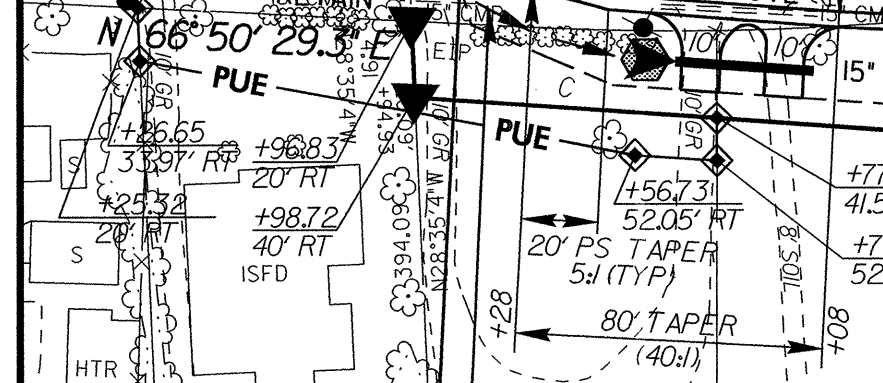
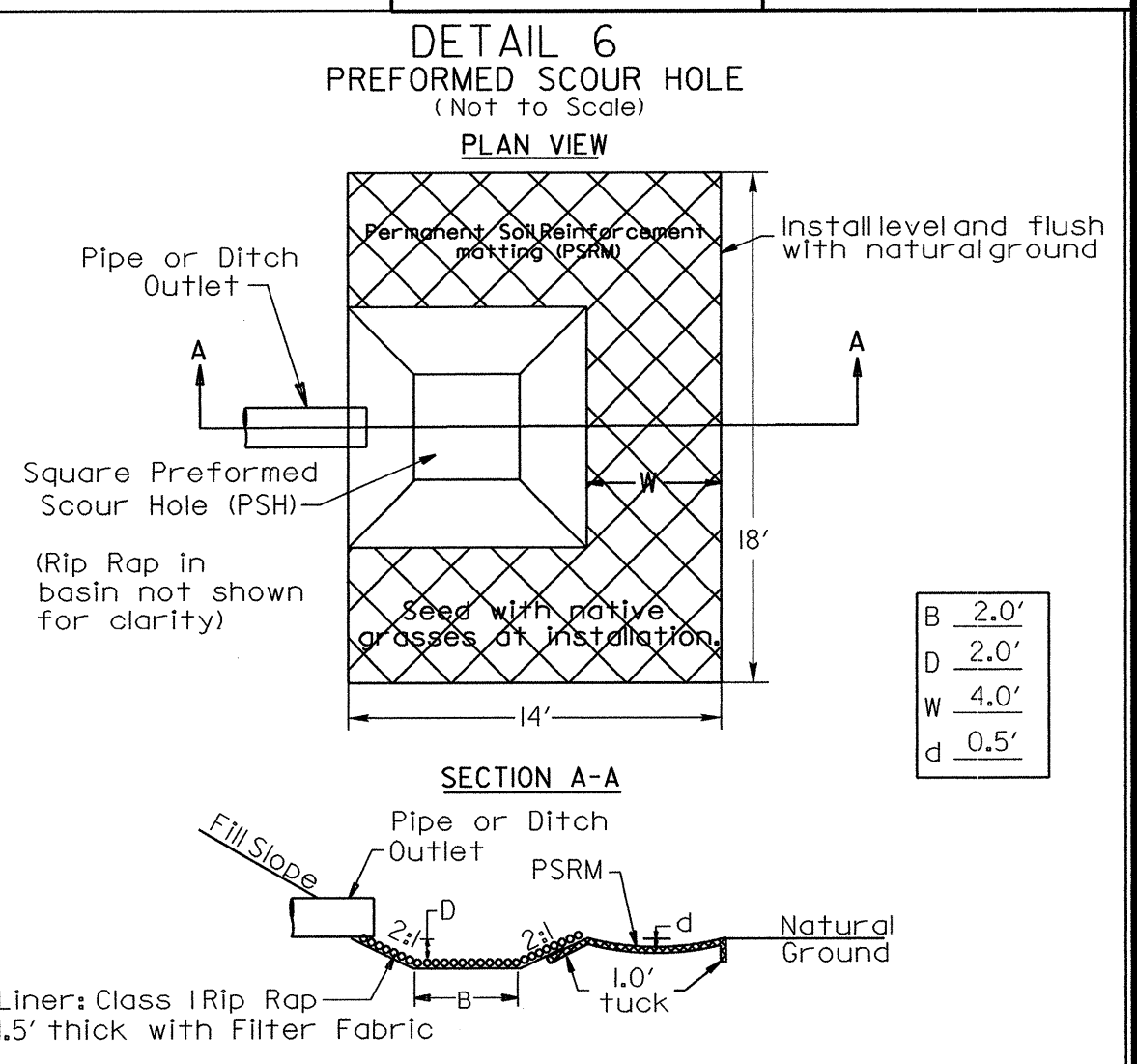
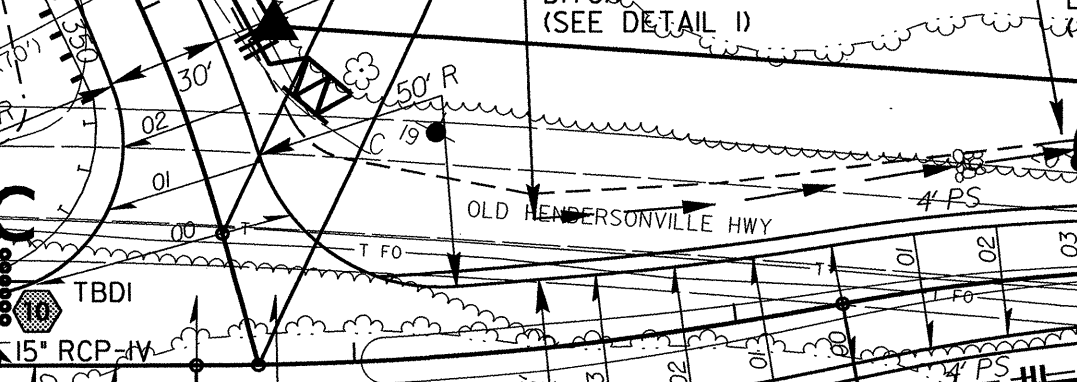
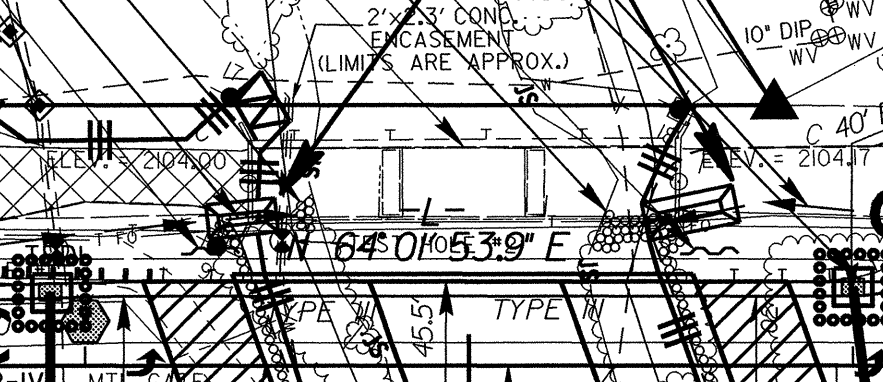
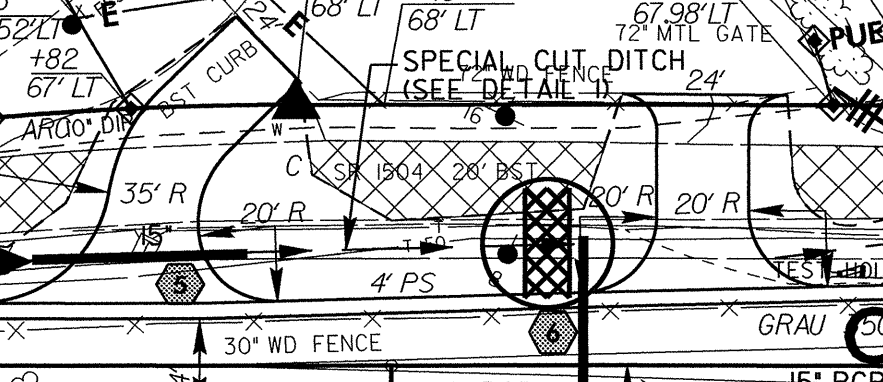
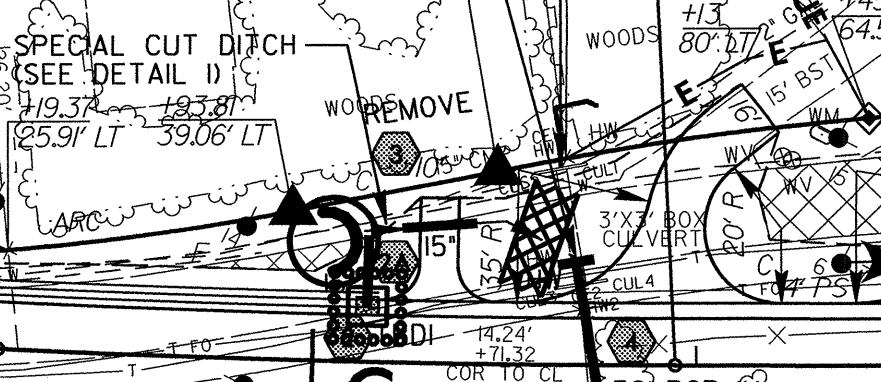
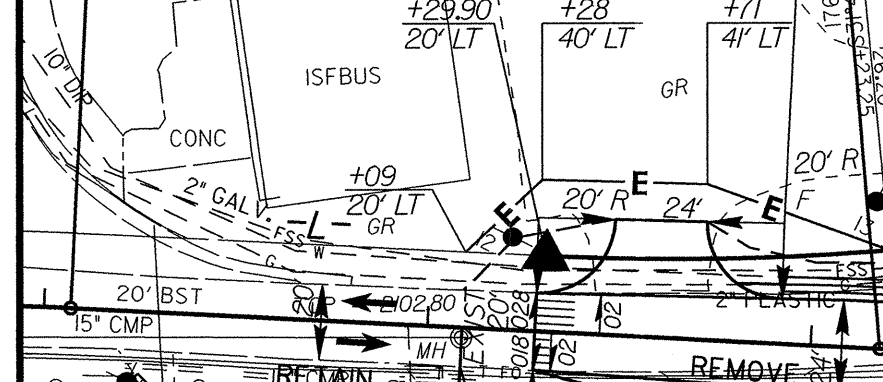
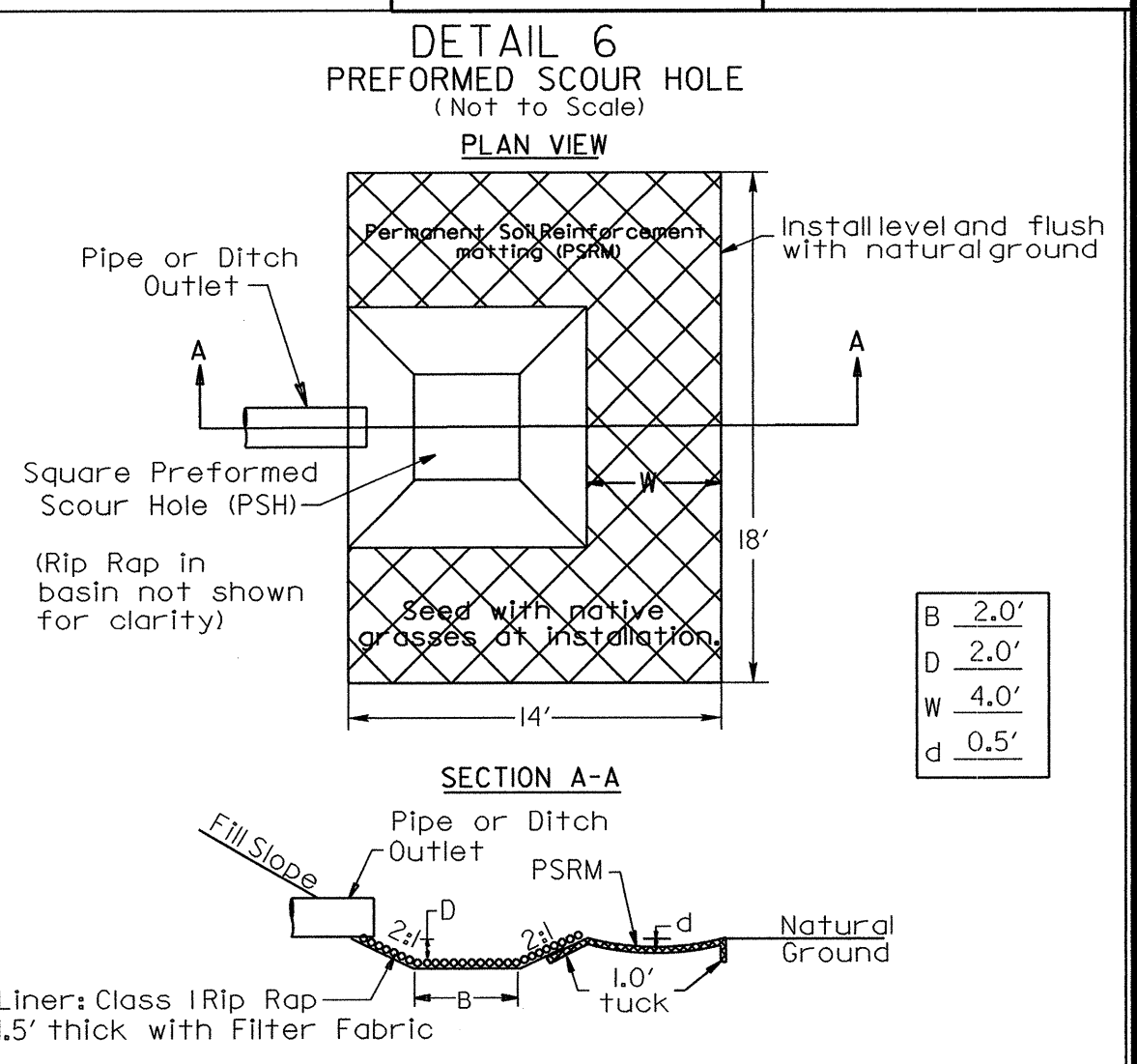
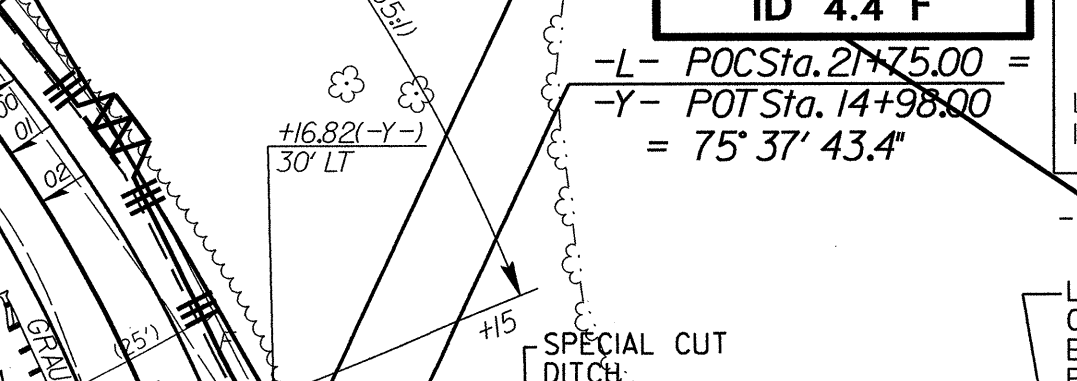
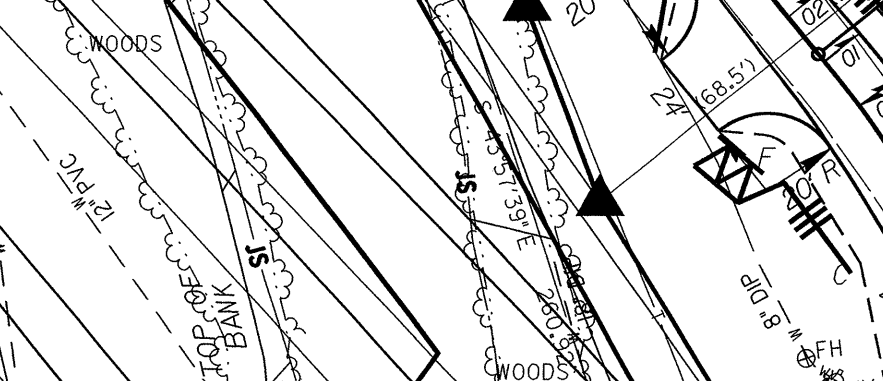
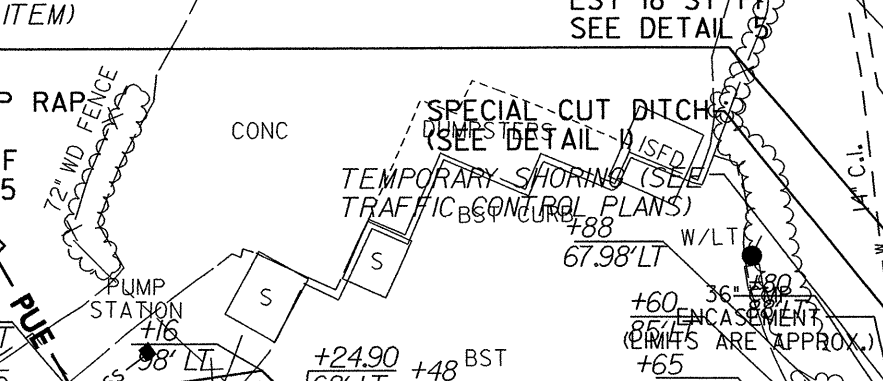
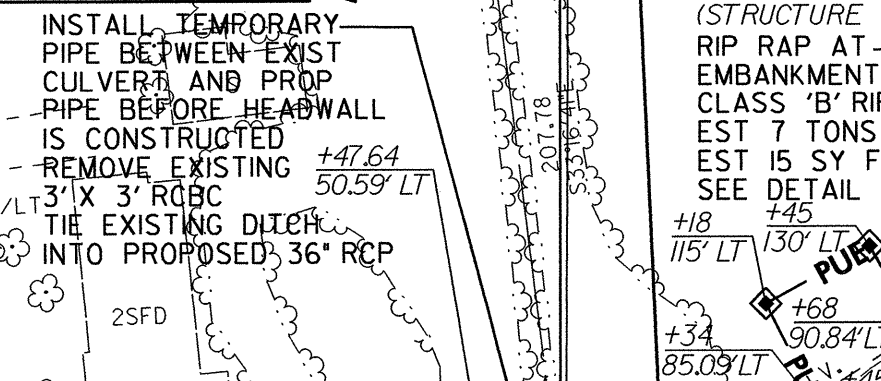
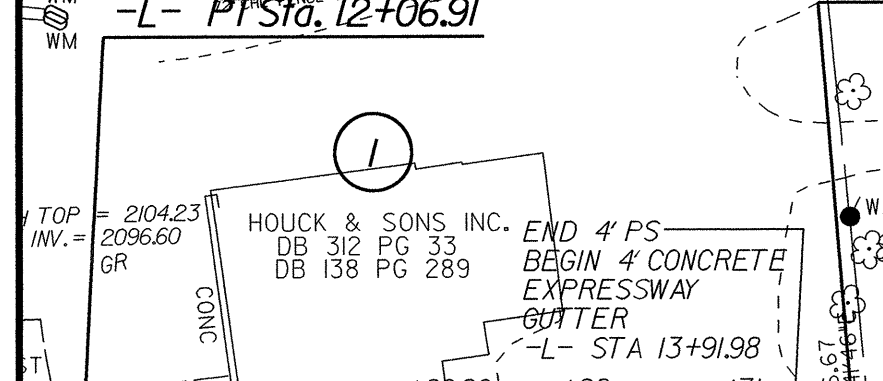
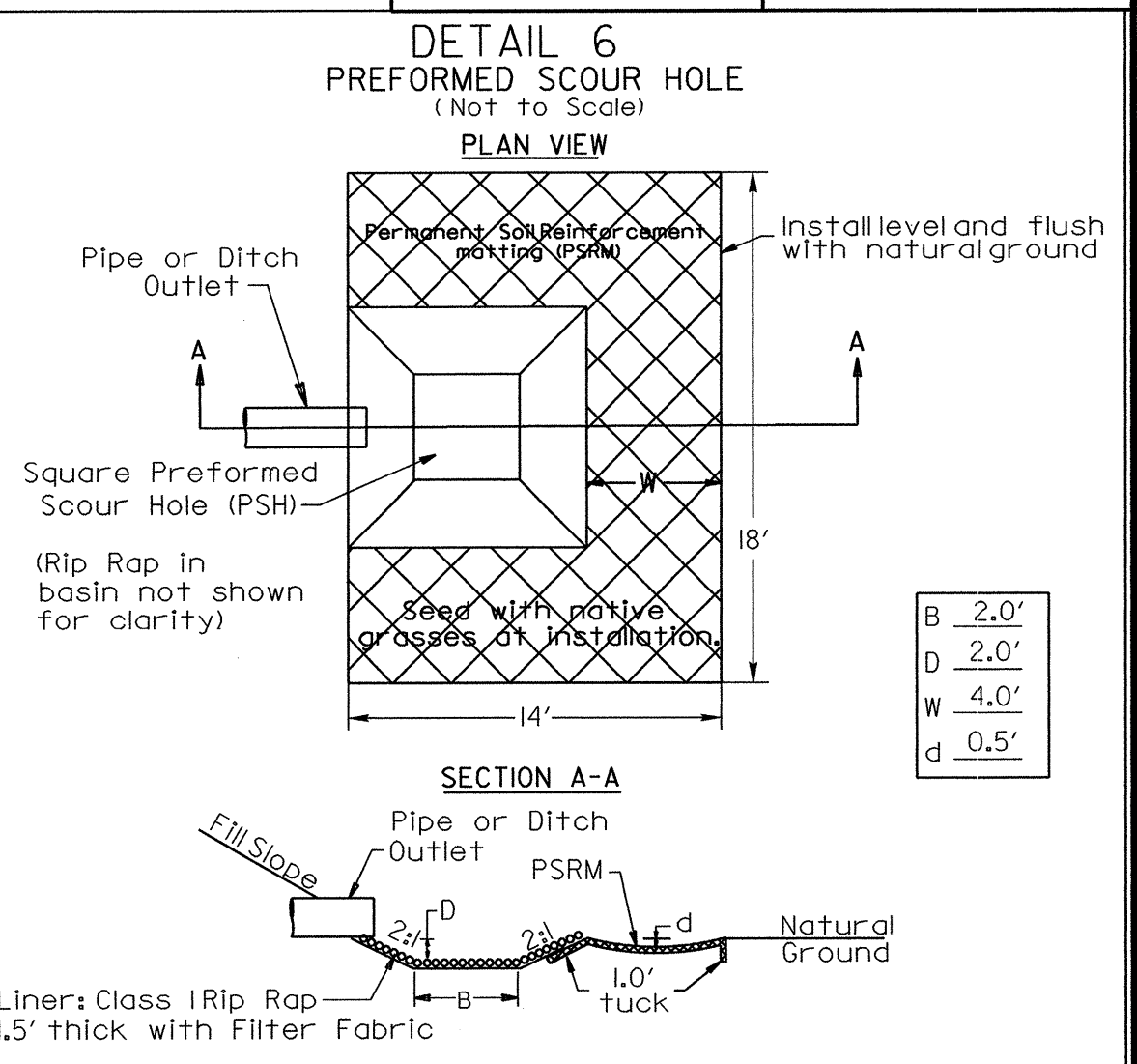
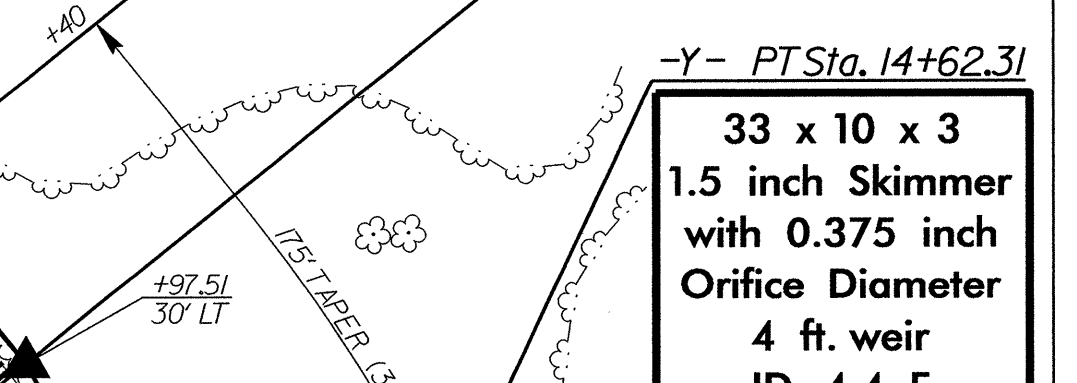
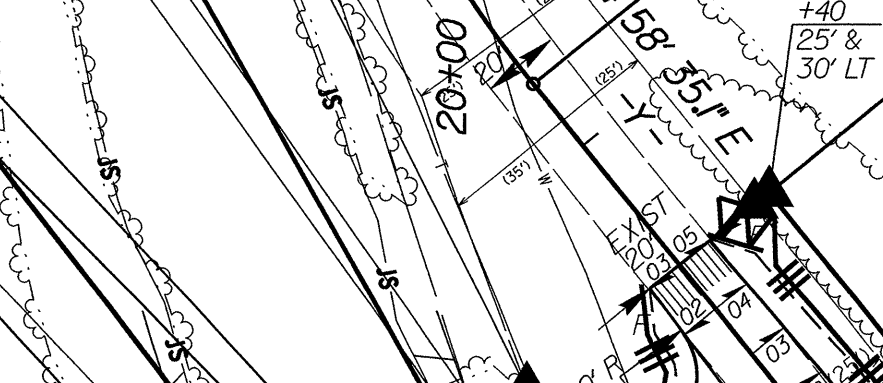
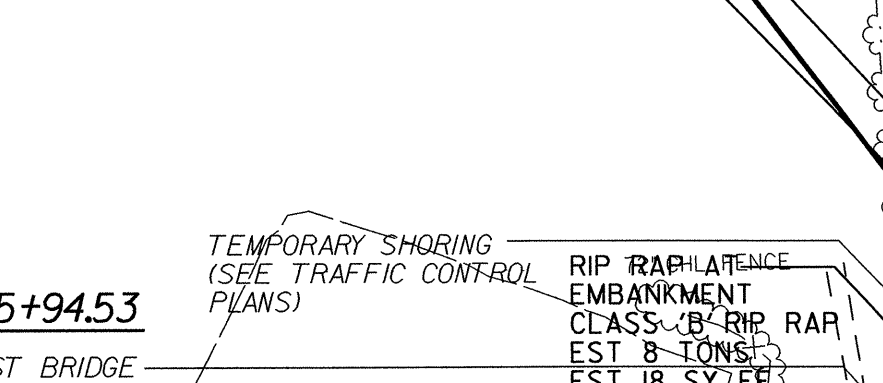
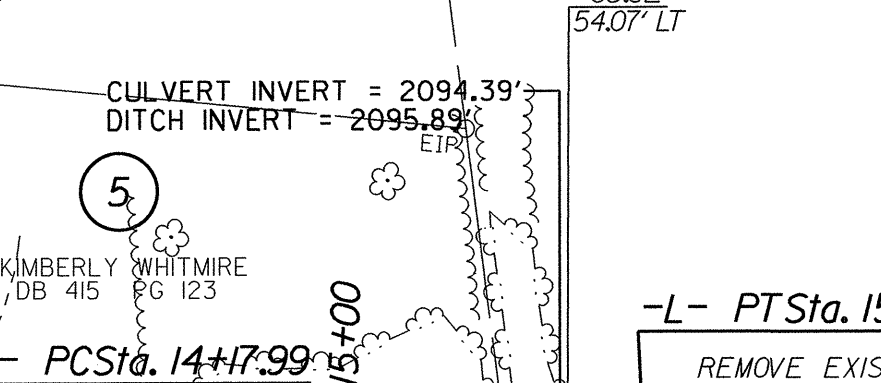
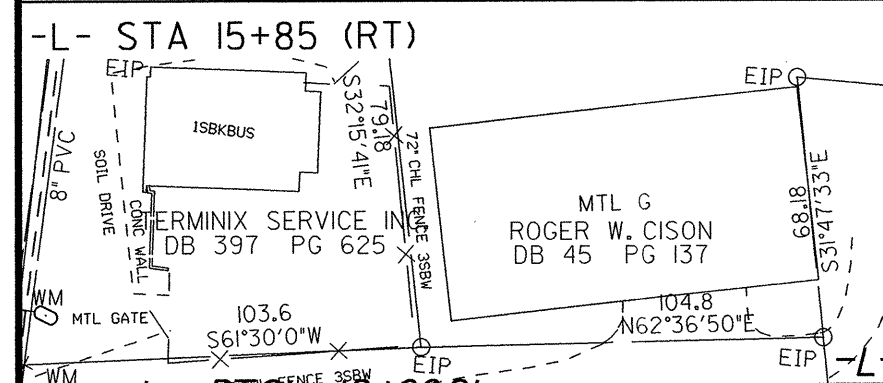
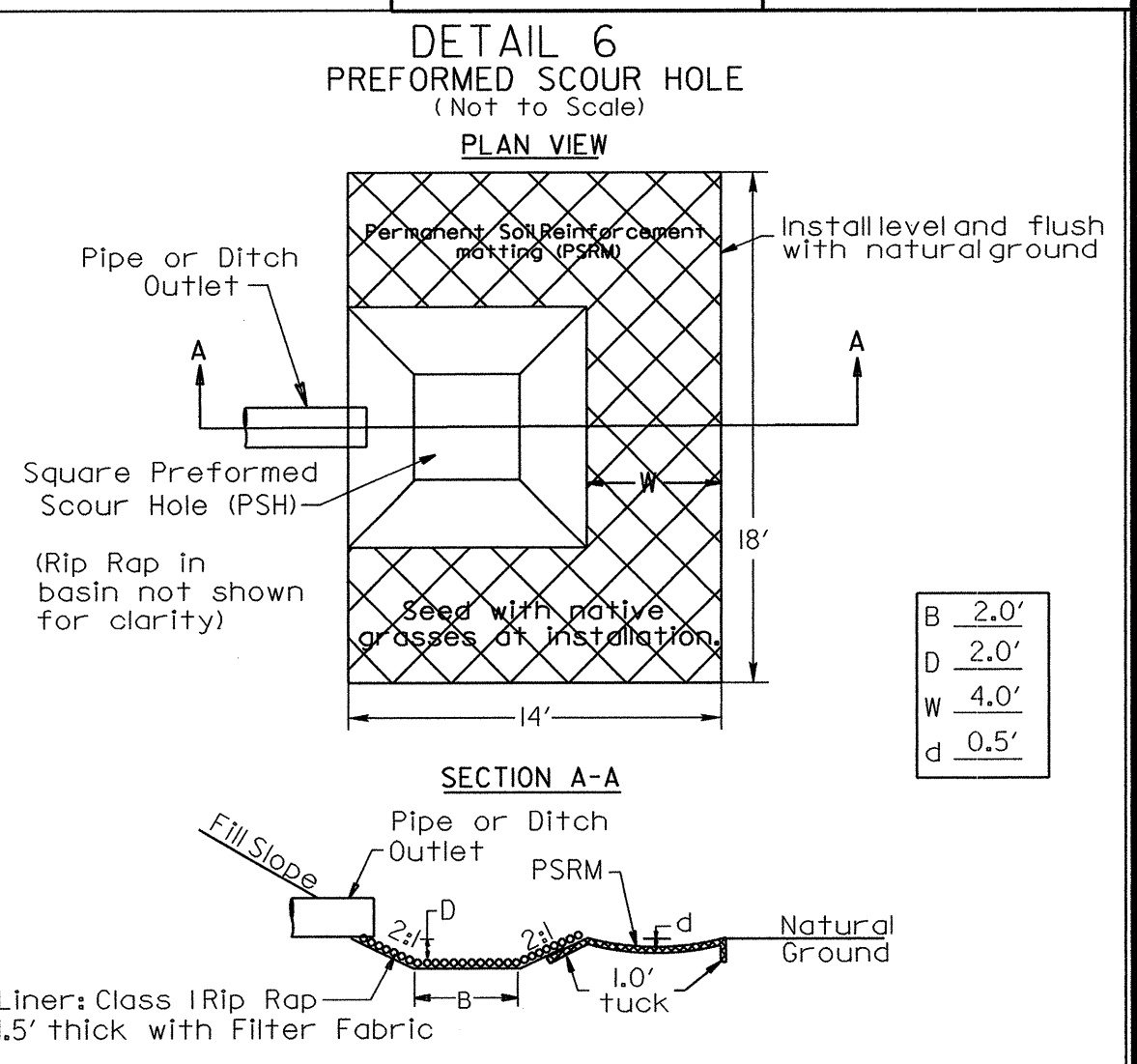
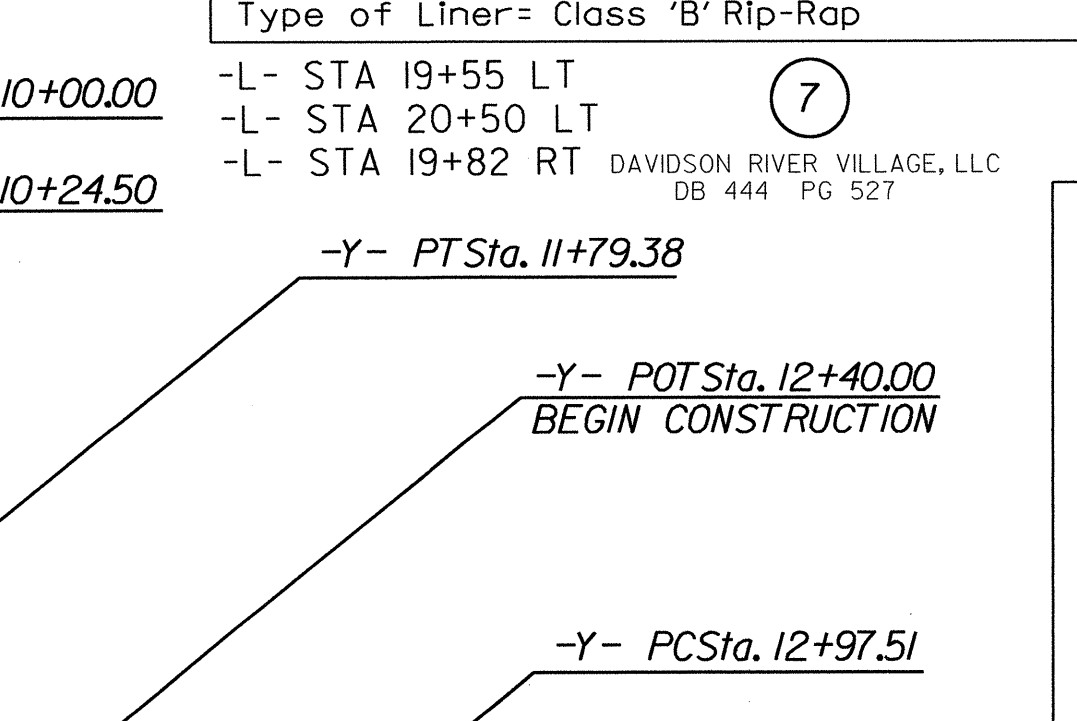
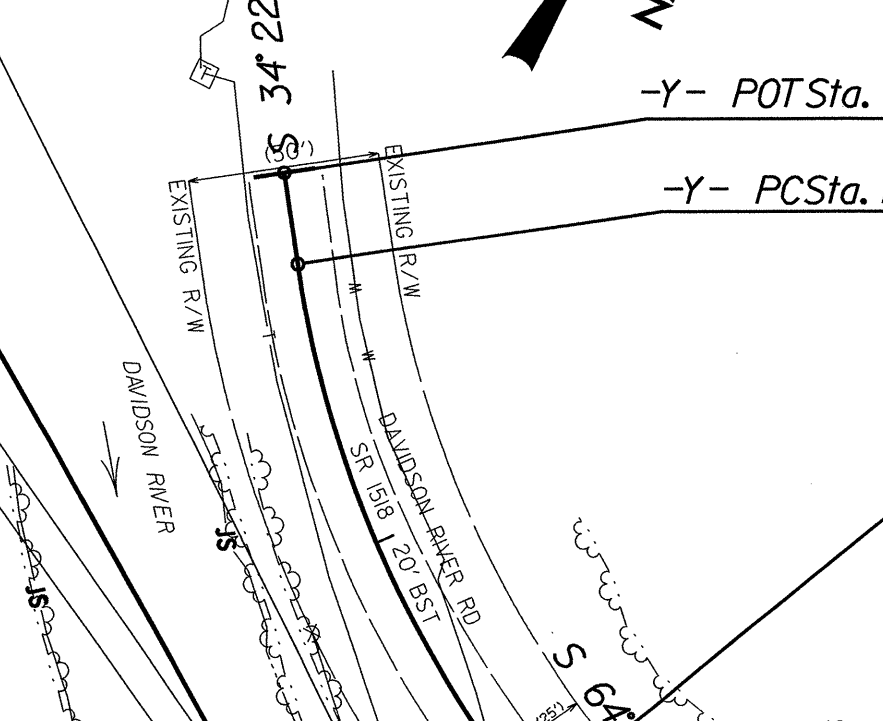
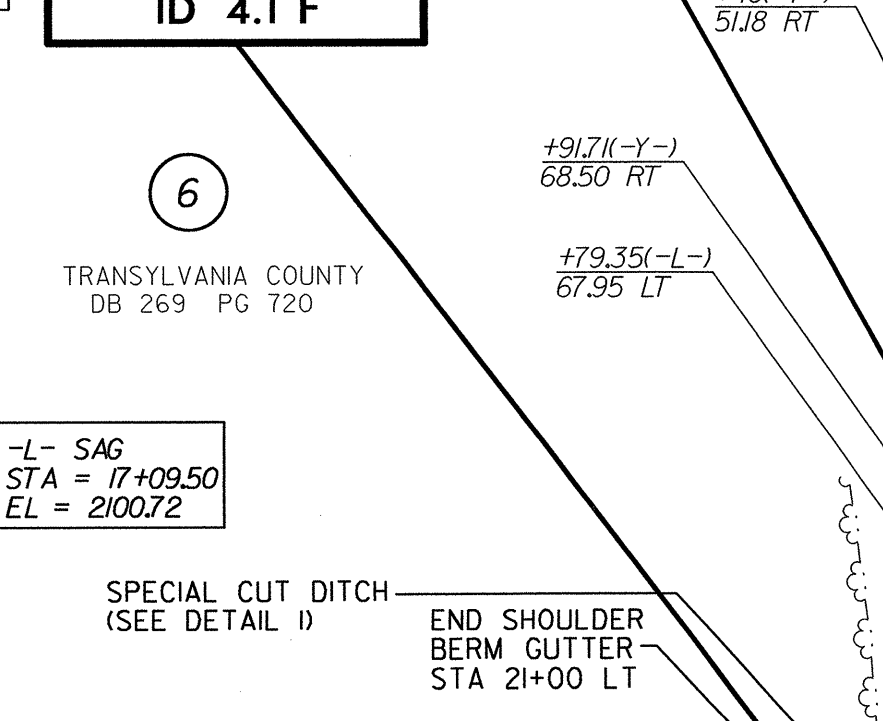
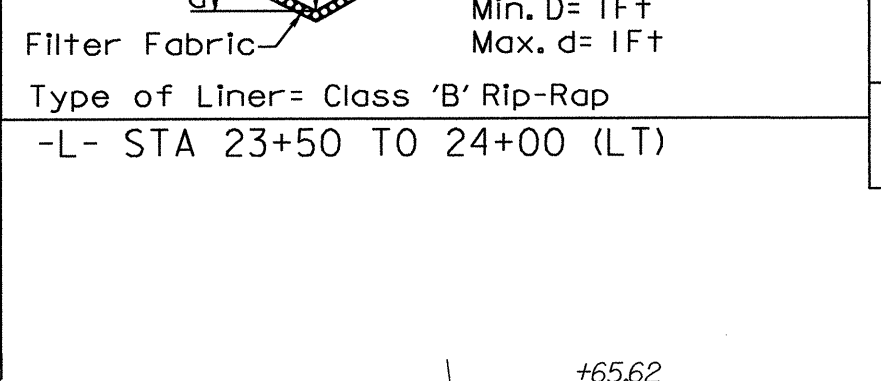
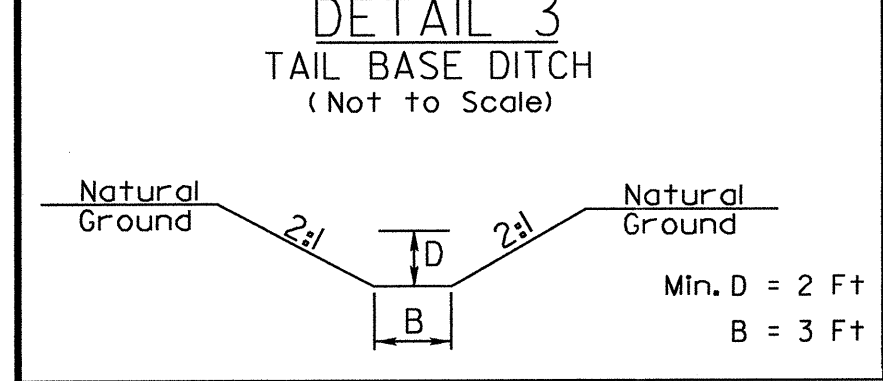


SKETCH SHOWING BRIDGE / PAVEMENT RELATIONSHIP



- L- STA 15+00 TO 15+69 (LT)
- L- STA 14+50 TO 15+00 (RT)
- L- STA 16+50 TO 18+00 (LT)
- L- STA 18+00 TO 19+82 (RT)
- L- STA 18+50 TO 19+55 (LT)
- L- STA 20+50 TO 21+00 (LT)
- L- STA 22+50 TO 23+50 (LT)

- L- STA 15+00 TO 15+79 (RT)
- L- STA 23+50 TO 24+00 (LT)



TRAFFIC DIAGRAM

-Y- DAVIDSON RIVER ROAD (SR 1518)

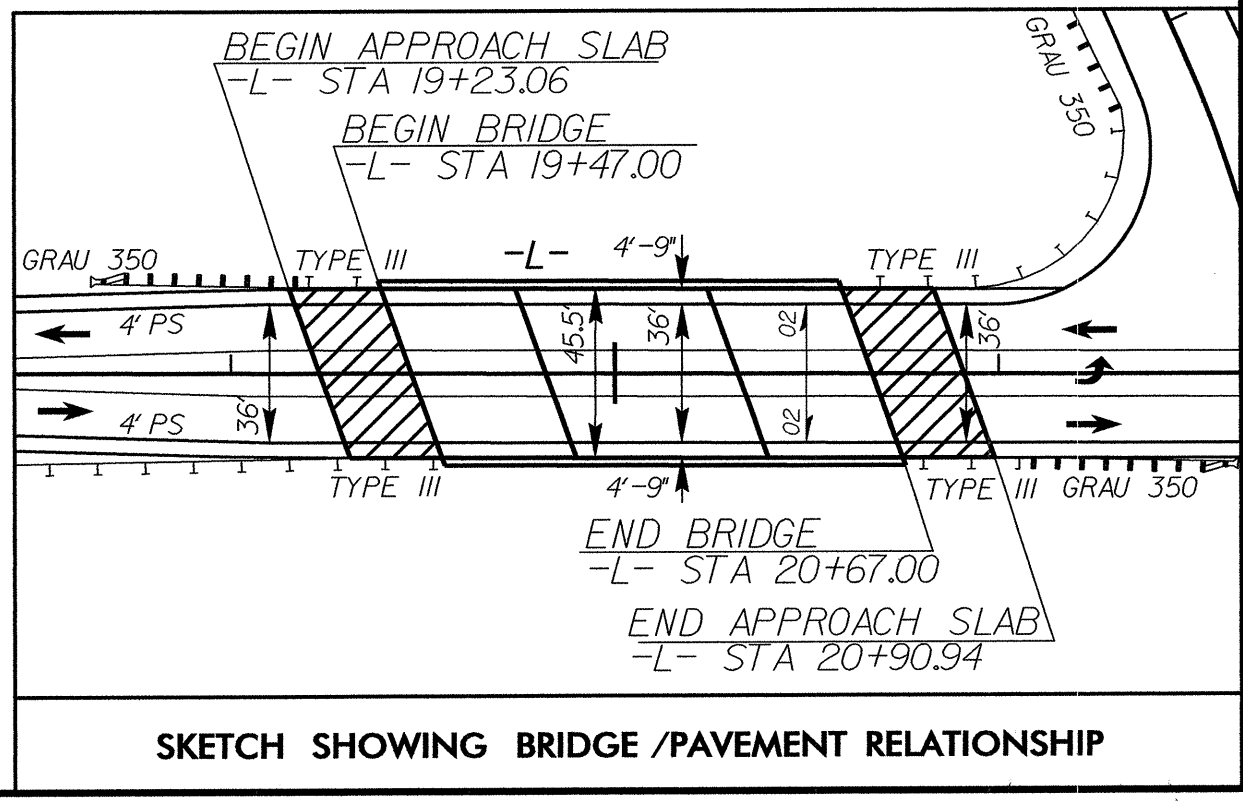
2008 ADT	1400
2030 ADT	1900

DHV = 10%
DIR = 60%
TTST = 1%
DUAL = 4%

1100	250
1500	450
8000	7100
12900	11900

-L- OLD HENDERSONVILLE HWY (SR 1504)

NOTE: UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.



REMOVE AND OBLITERATE EXISTING ASPHALT PAVEMENT

SEE SHEET NO.5 FOR -L- & -Y- PROFILE

SEE SHEET NOS. S- THRU S- FOR STRUCTURE PLANS

SKETCH SHOWING BRIDGE / PAVEMENT RELATIONSHIP