

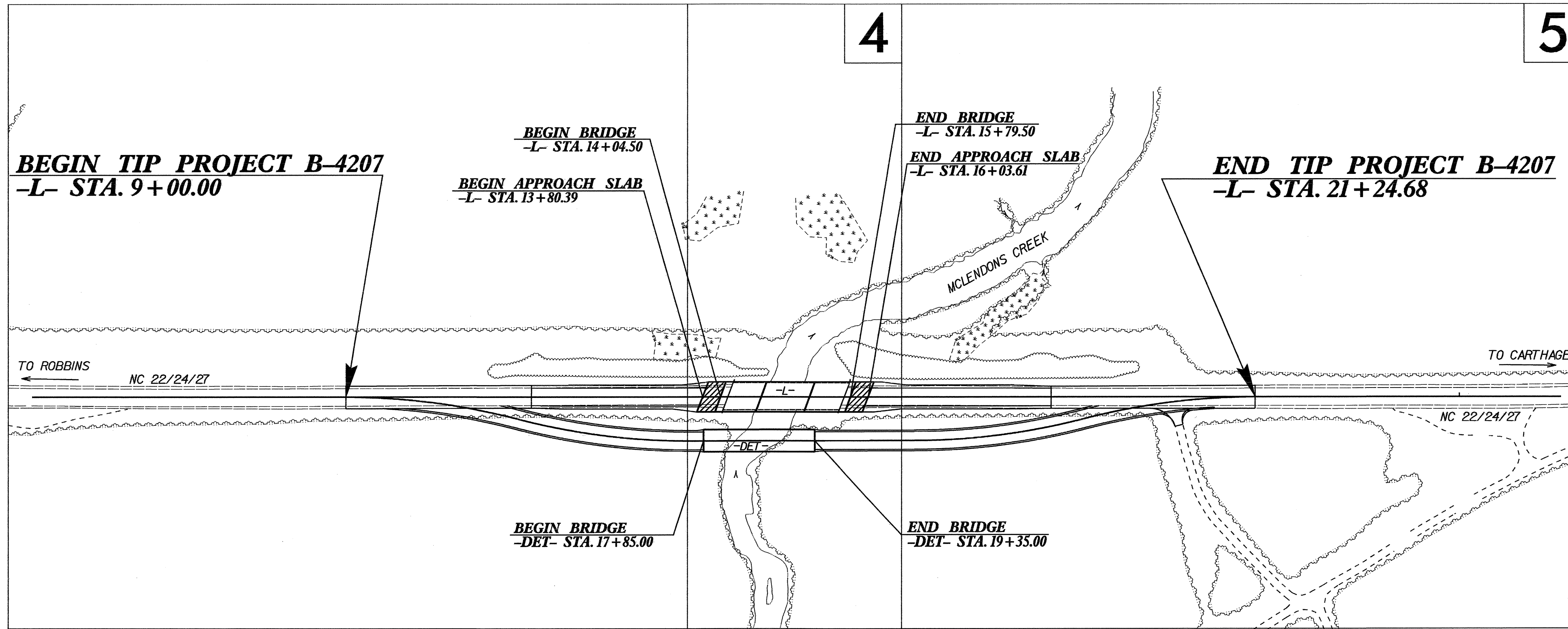
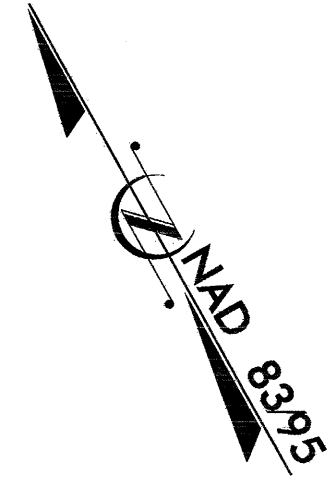
TIP PROJECT: B-4207

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

MOORE COUNTY

LOCATION: BRIDGE NO. 43 OVER MCLENDONS CREEK ON NC 22/24/27

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE



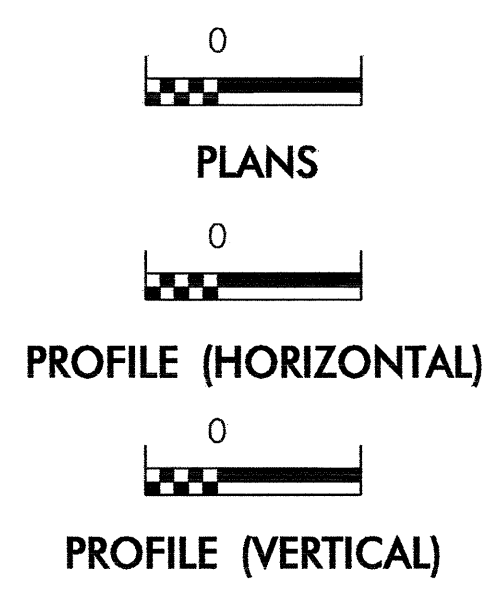
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4207	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
	Wattle	
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	
1632.02	Type B	
1632.03	Type 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

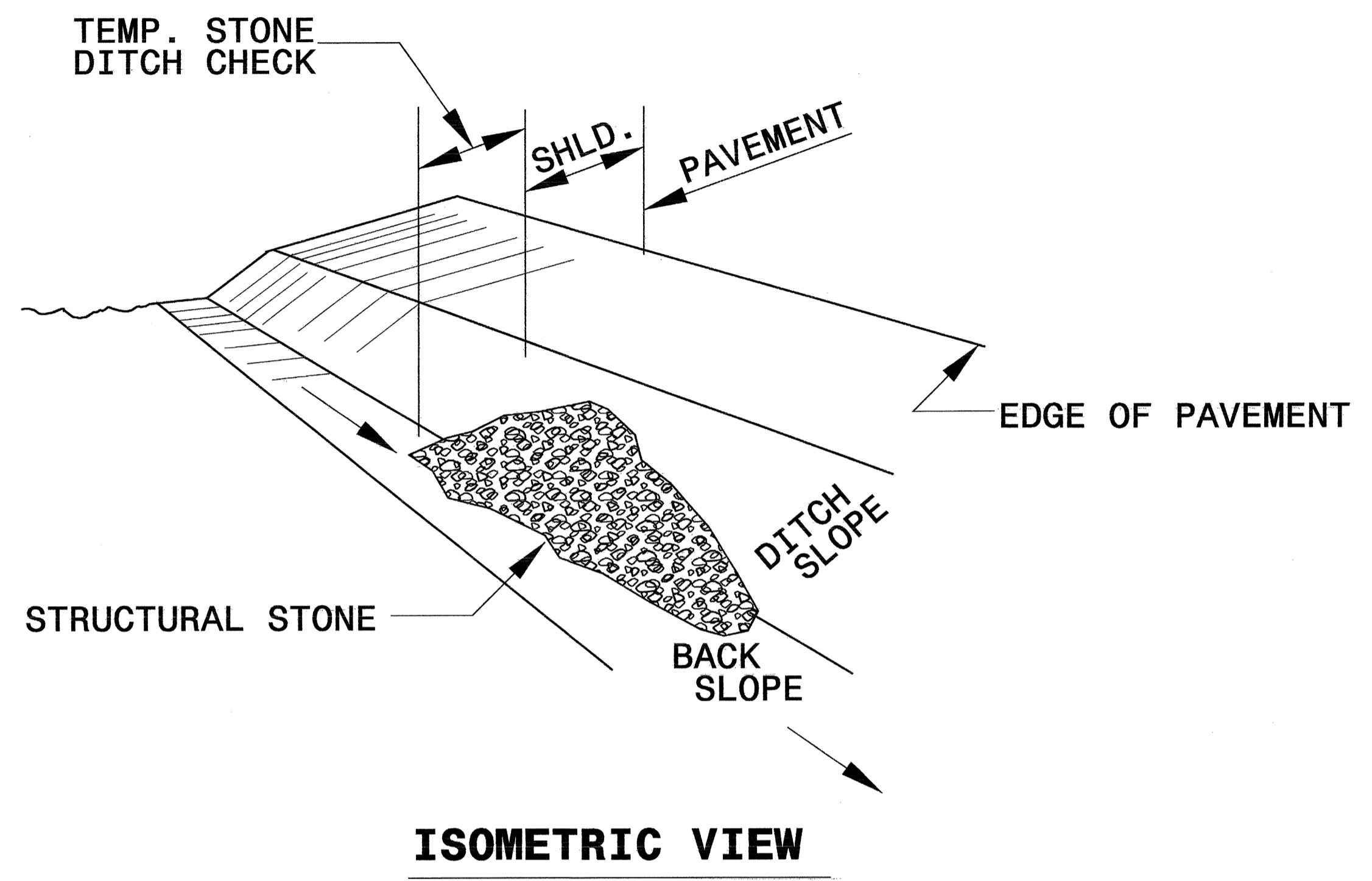
Prepared in the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2006 STANDARD SPECIFICATIONS

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 July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.
1605.01 Temporary Silt Fence 1630.06 Special Stilling Basin
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

23-JAN-2009 10:07
r:\env\program\2008\B-4207-ec-tsh.dgn
p:\env\2312

PROJECT REFERENCE NO. B-4207	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

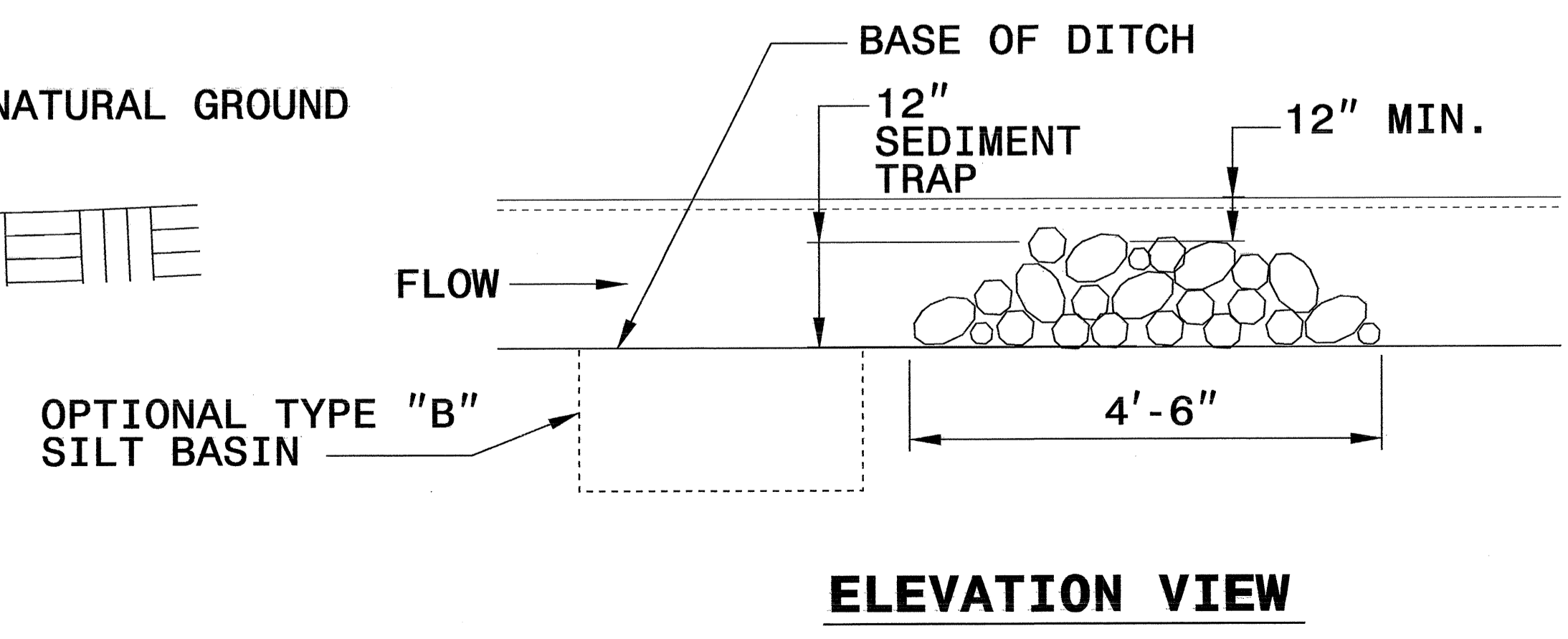
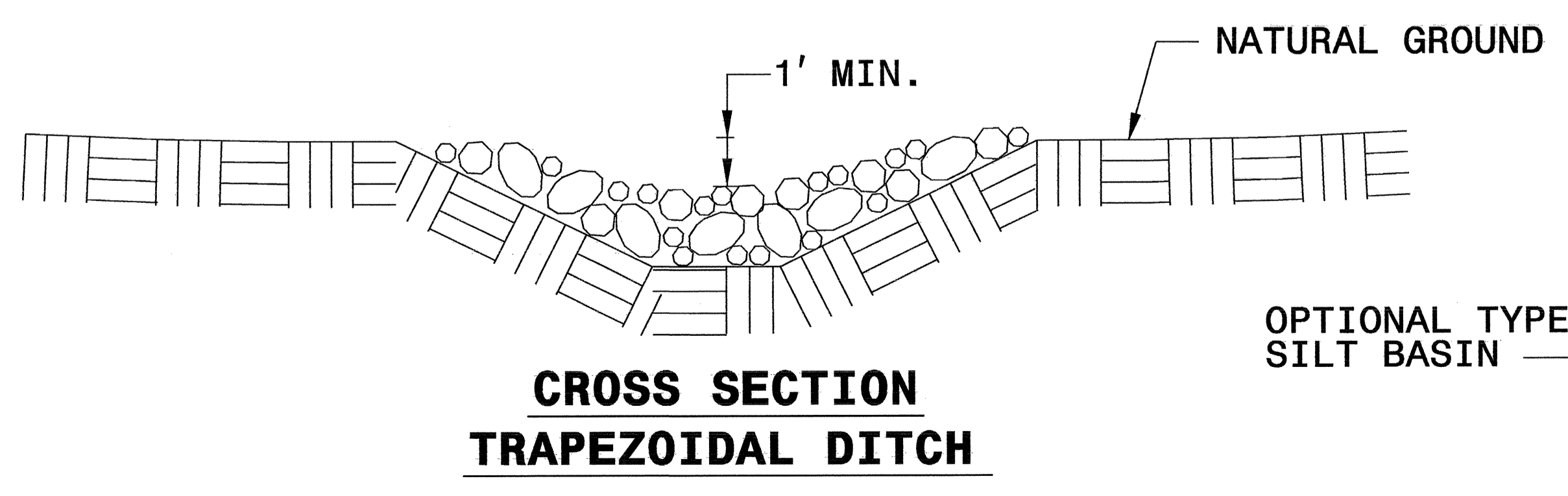
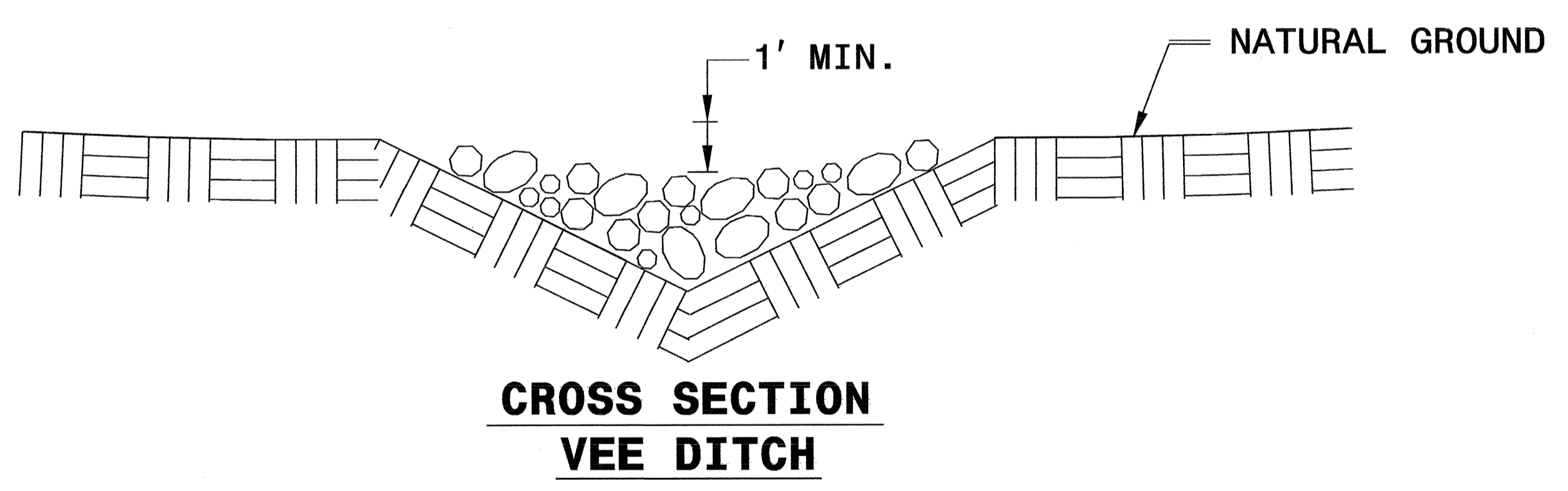
TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



NOTES:

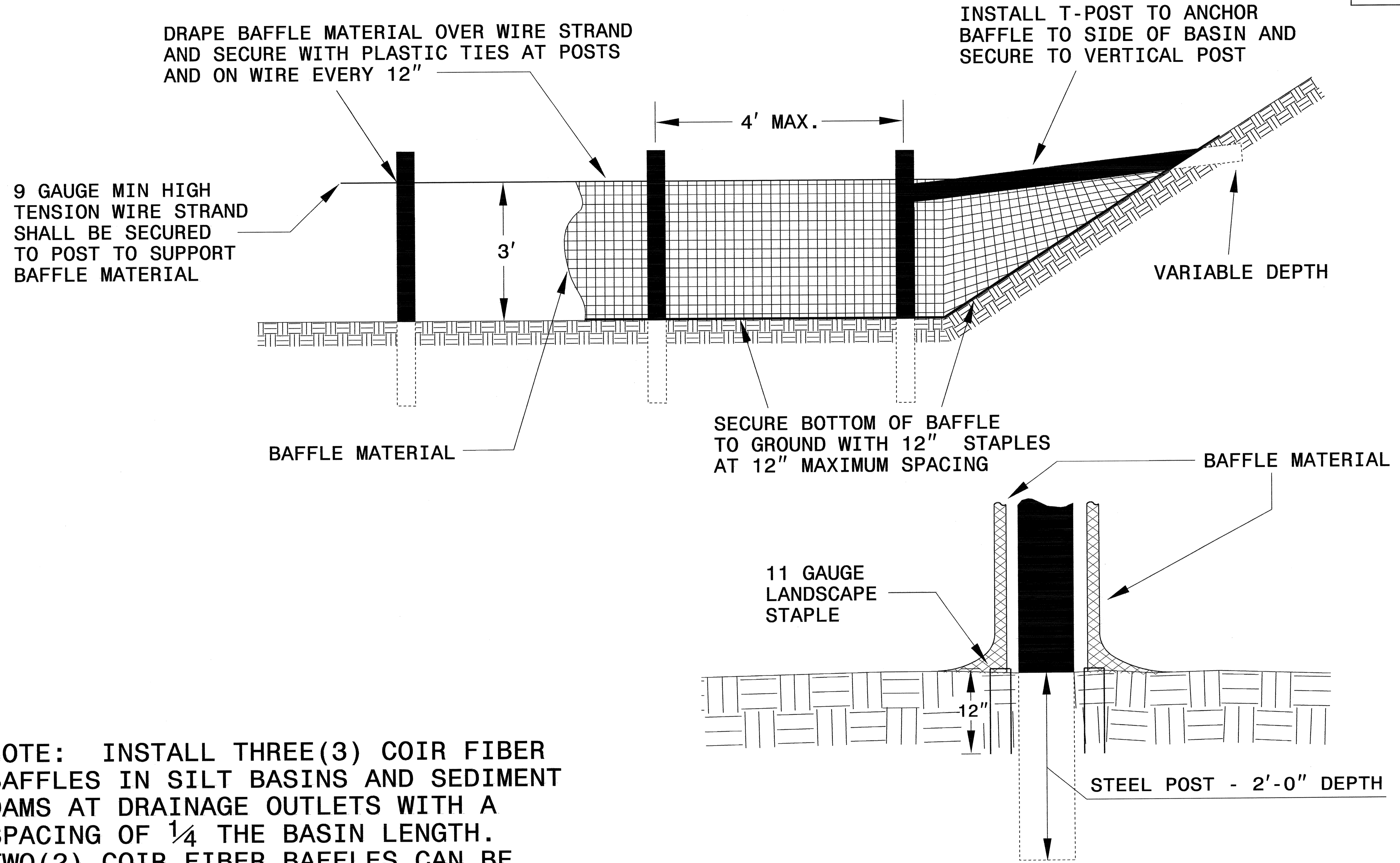
USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



PROJECT REFERENCE NO. B-4207	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL

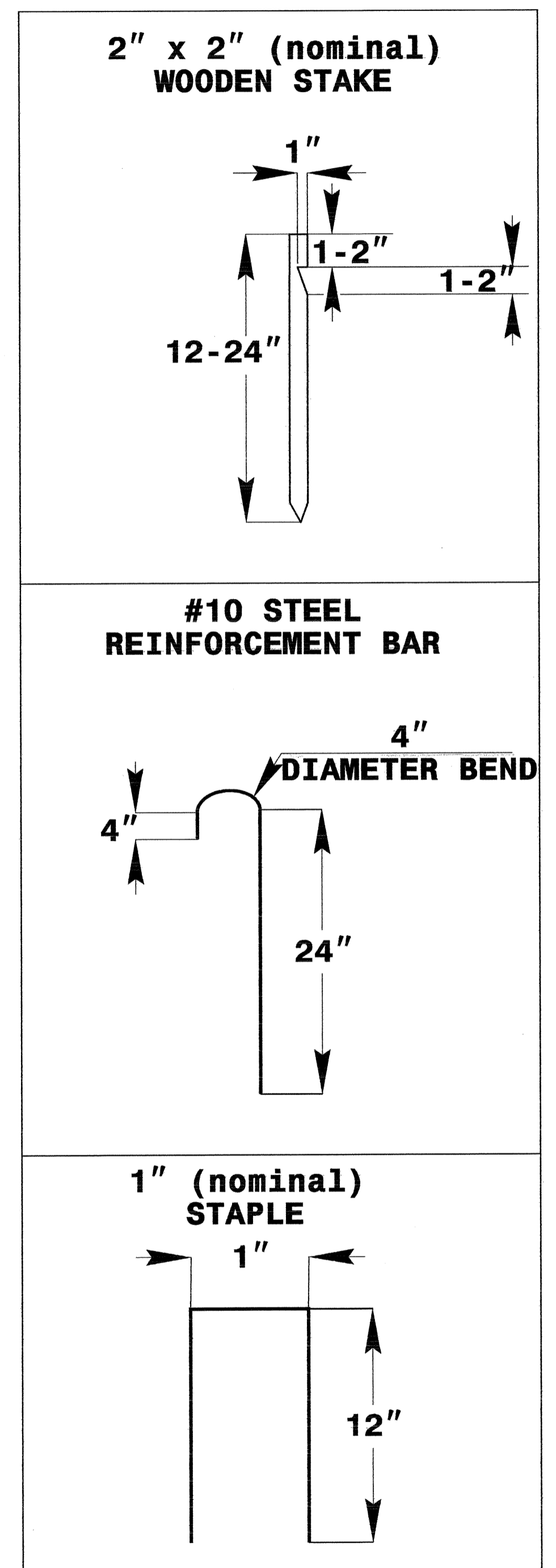
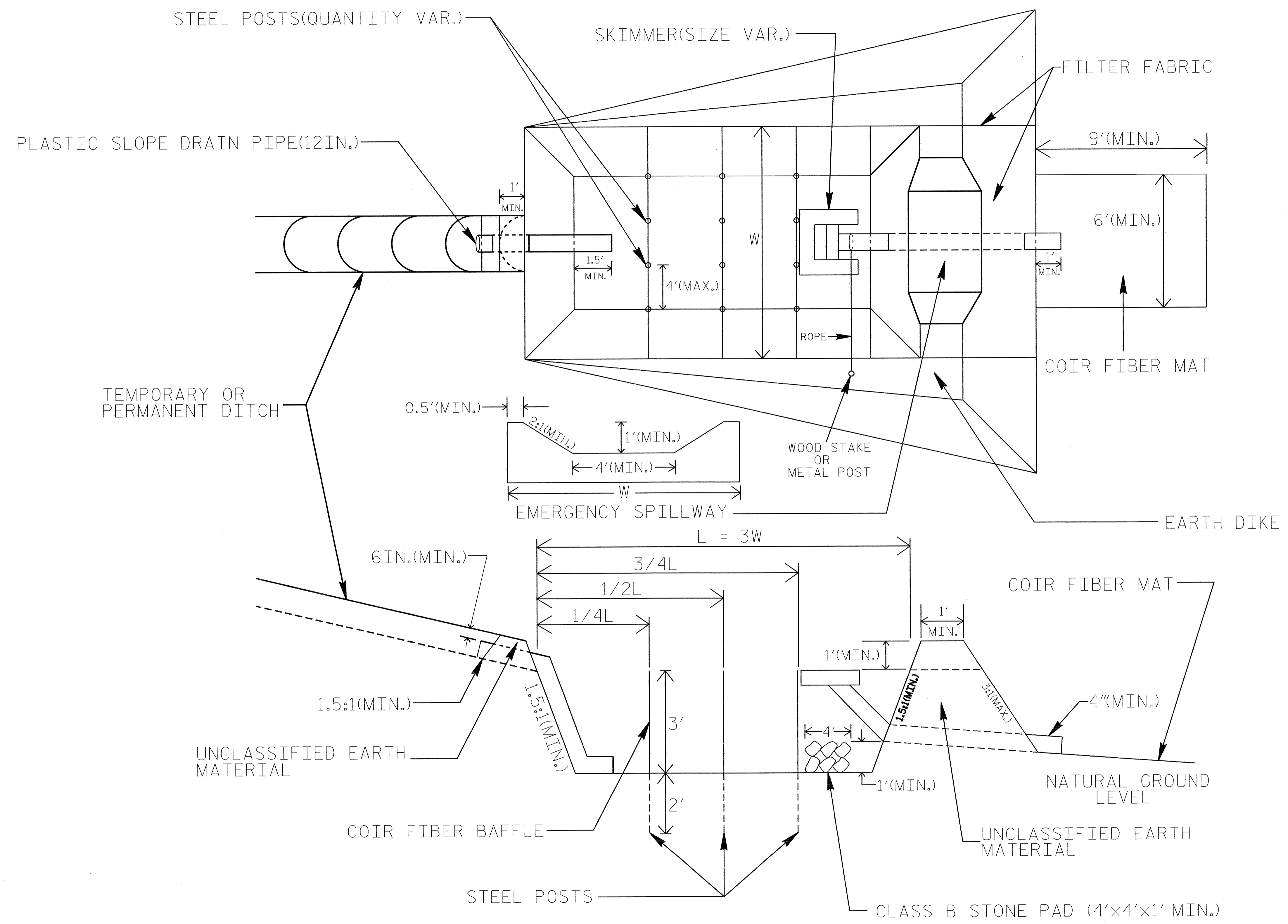


NOTE: INSTALL THREE (3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH. TWO (2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. B-4207	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



COIR FIBER MAT ANCHOR OPTIONS

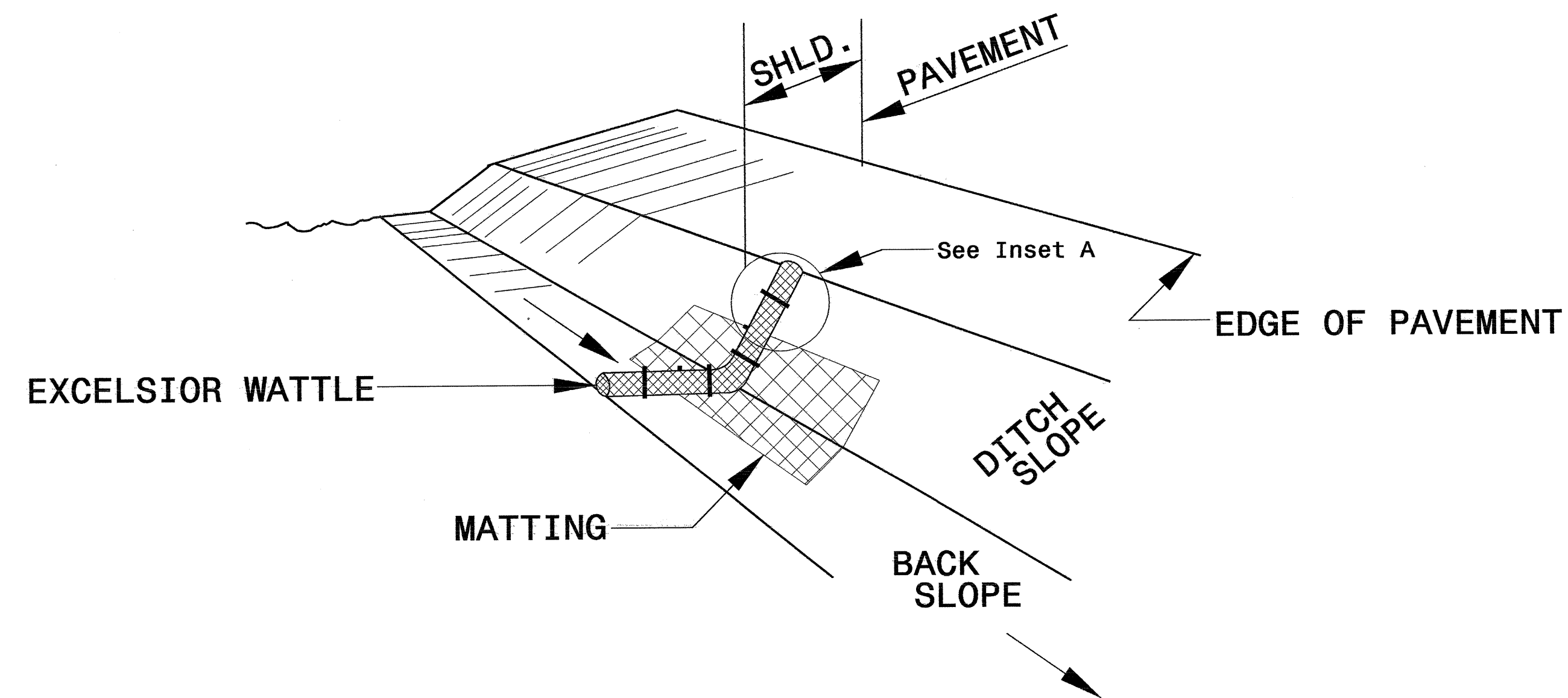
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. 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.

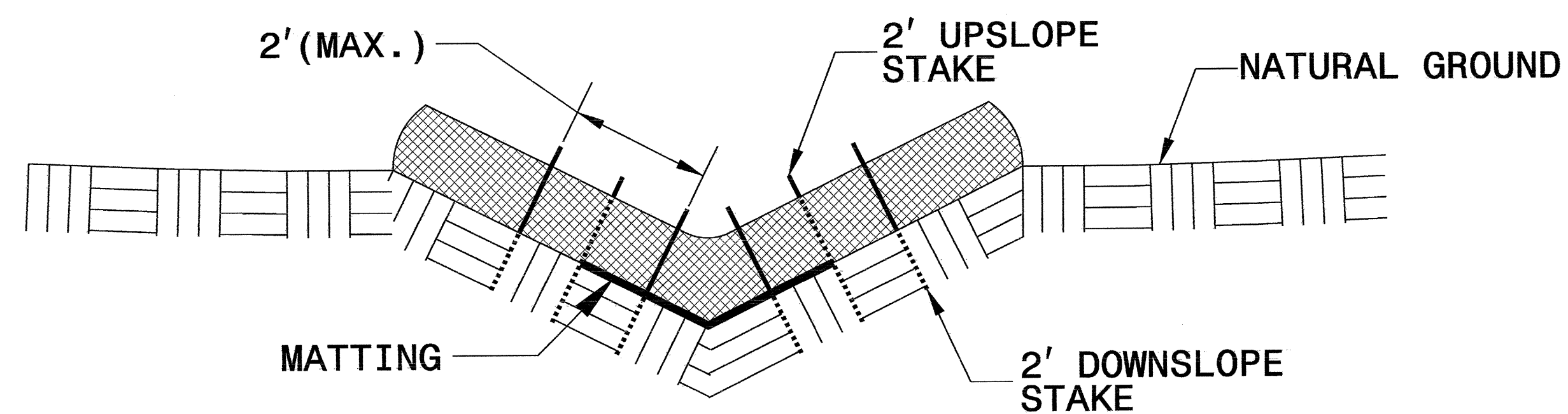
NOT TO SCALE

PROJECT REFERENCE NO. B-4207	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

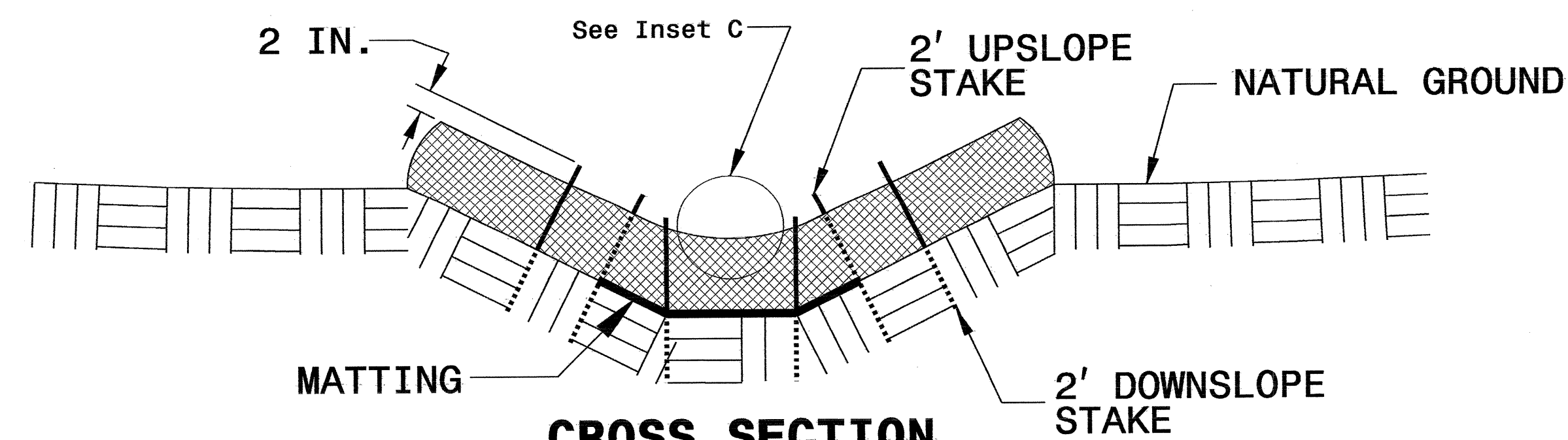
WATTLE WITH POLYACRYLAMIDE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. CROSS SECTION.

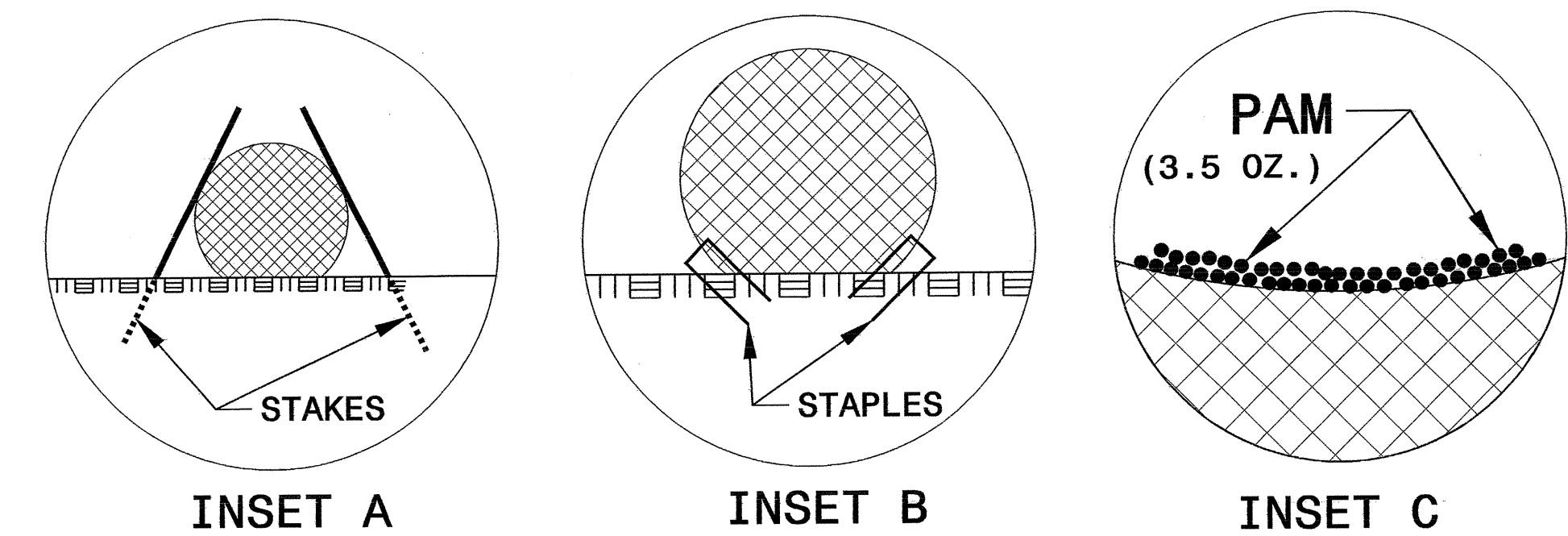
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

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.

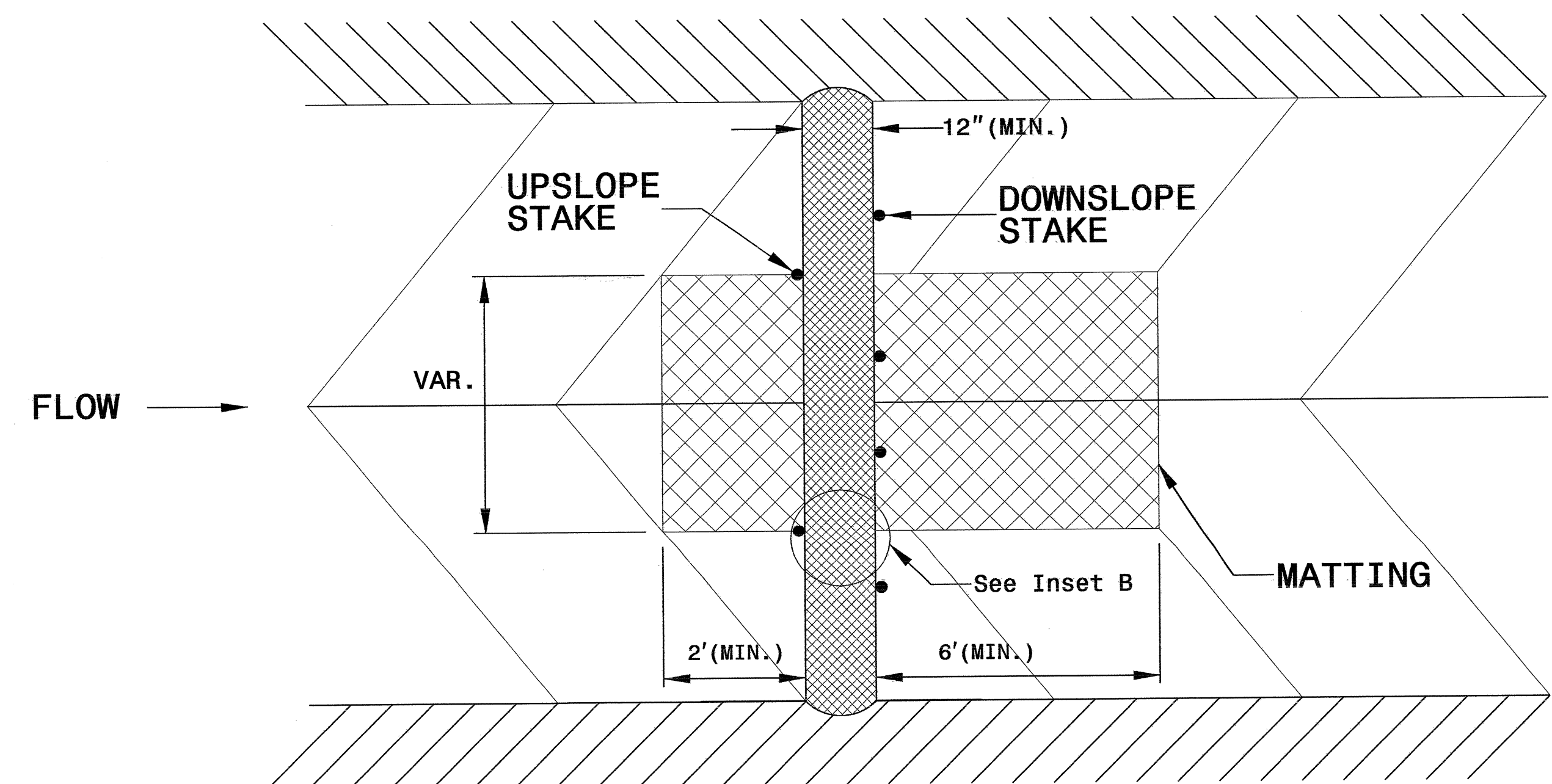
INITIALLY APPLY 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.25 IN.



INSET A

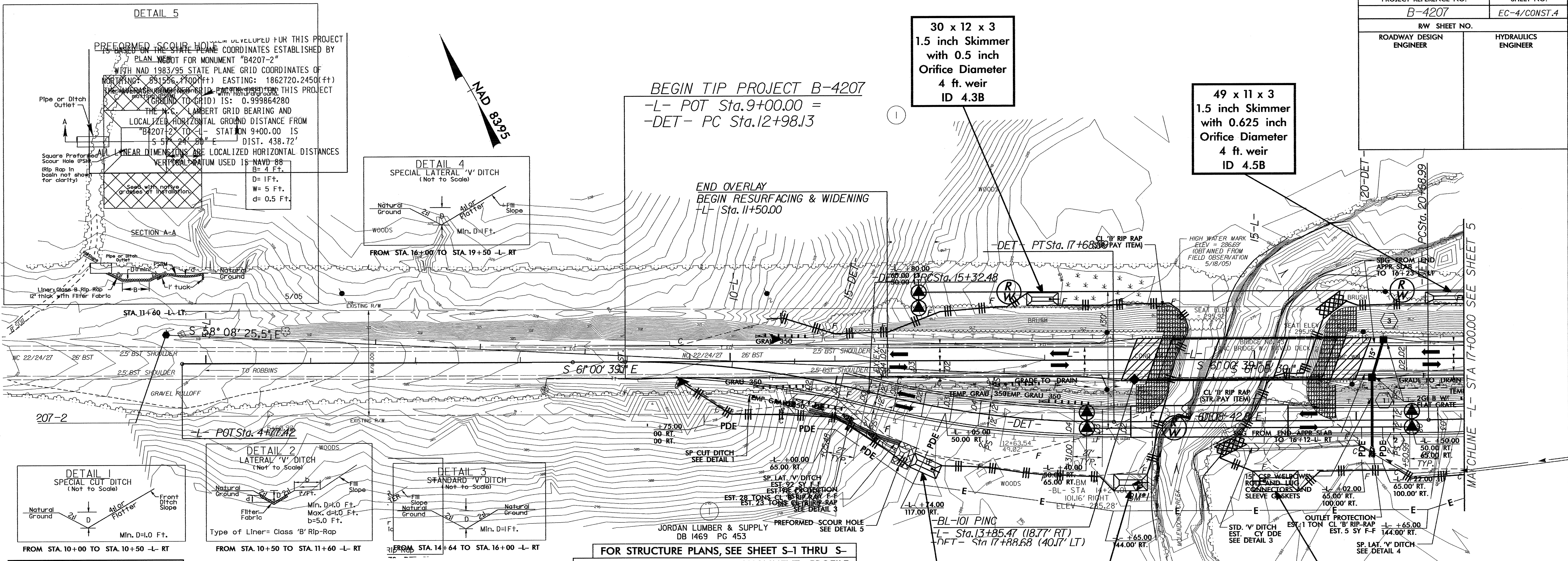
INSET B

INSET C



TOP VIEW

8/17/95
 23-JAN-2009 13:56 \\sru\proj\design\B4207_ec.psh_04.dgn
 10/22/09 10:58 AM
 10/22/09 10:58 AM

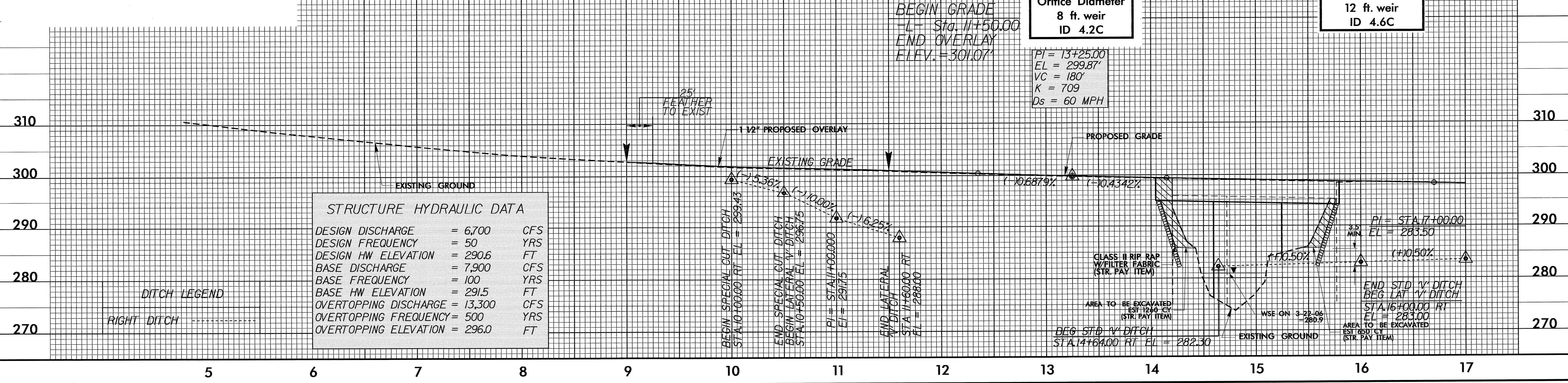


CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

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

NOTE: UTILIZE SPECIAL STILLING BASIN WHERE APPLICABLE.

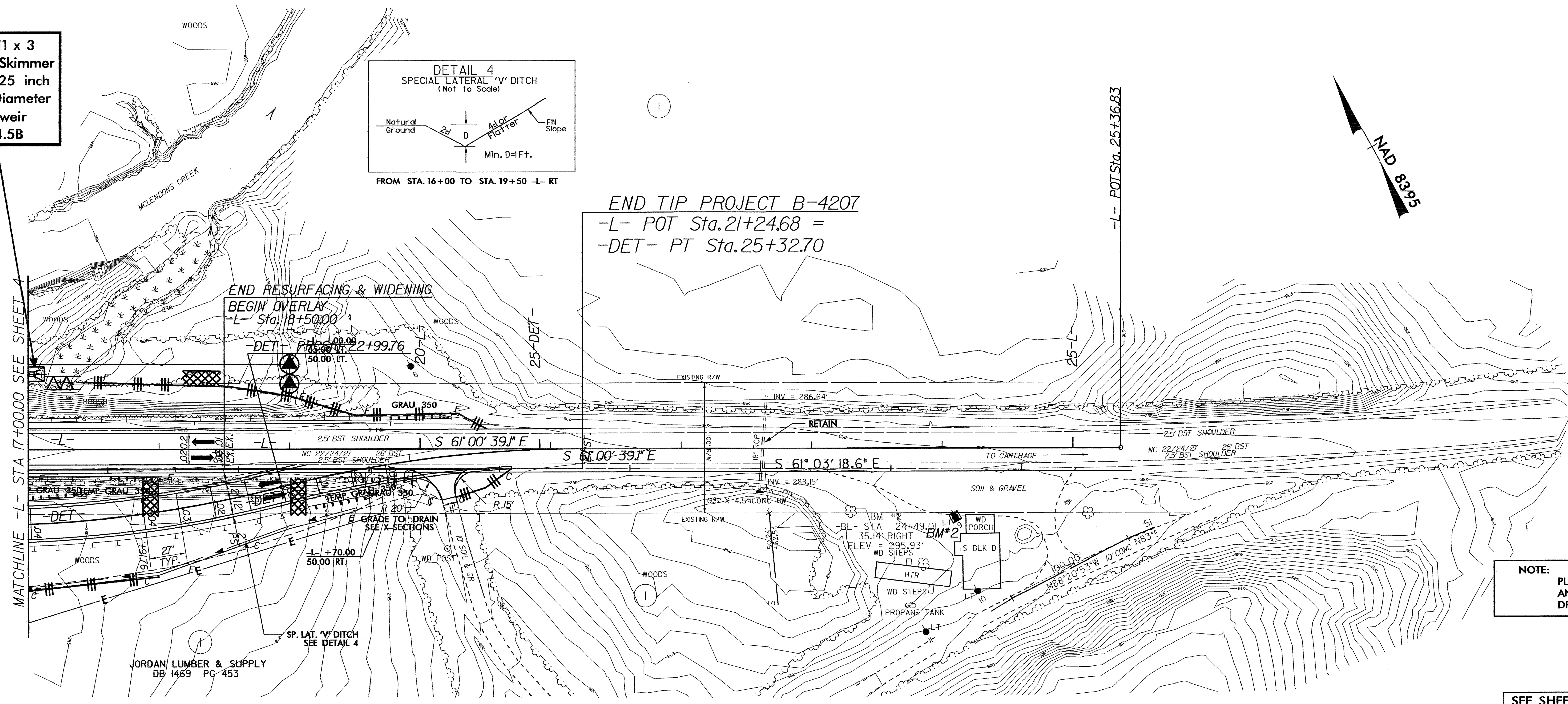
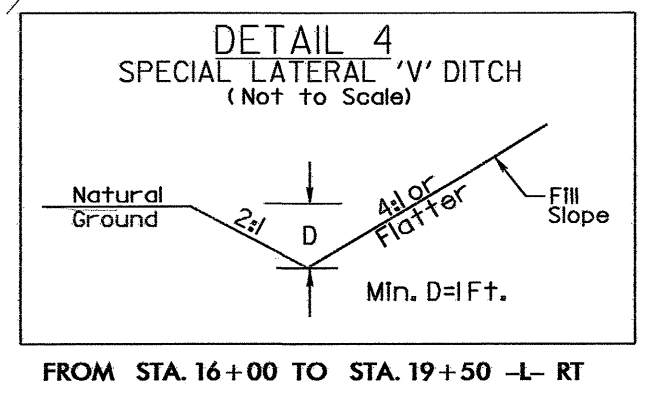
FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-
SEE SHEETS 2B-2C FOR -DET- ALIGNMENT+PROFILE



23-JAN-2009 13:56 \\sru\proj\design\B4207_ec.psh_04.dgn
 10/22/09 10:58 AM
 10/22/09 10:58 AM

PROJECT REFERENCE NO.	SHEET NO.
B-4207	EC-5/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

49 x 11 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 4.5B

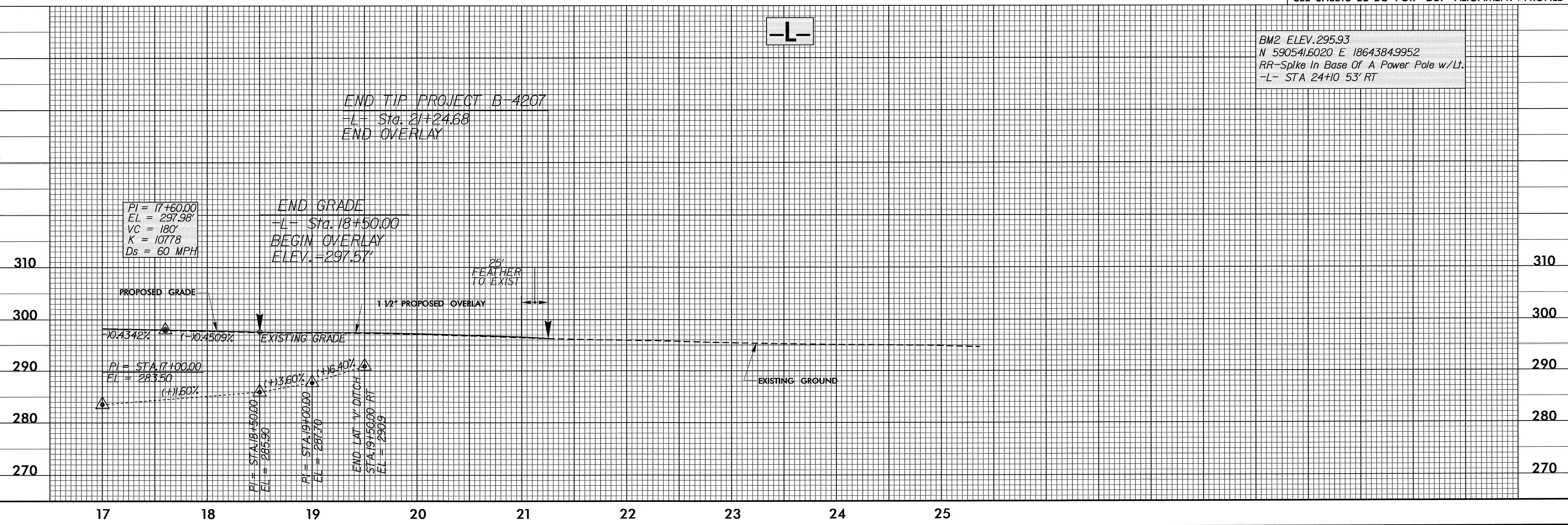


END TIP PROJECT B-4207
-L- POT Sta. 21+24.68 =
-DET- PT Sta. 25+32.70

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.

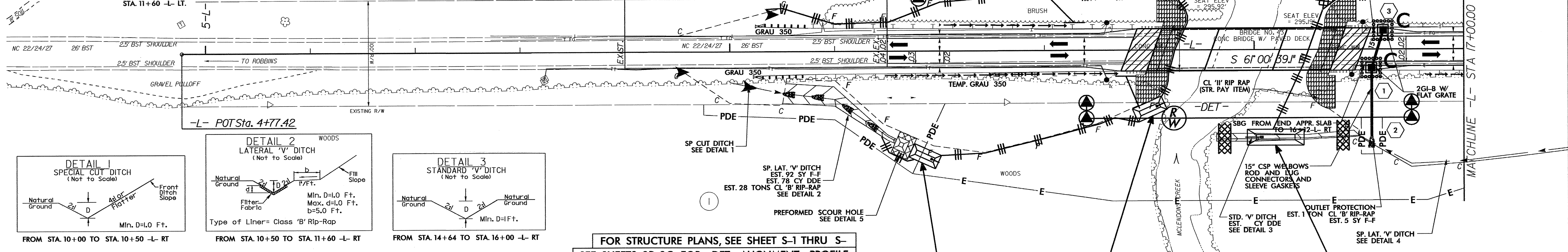
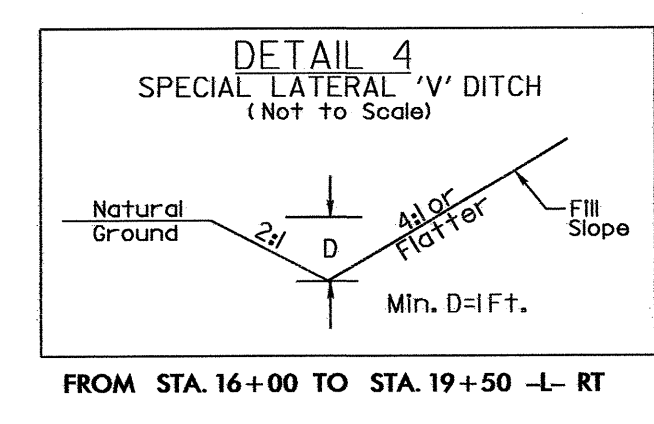
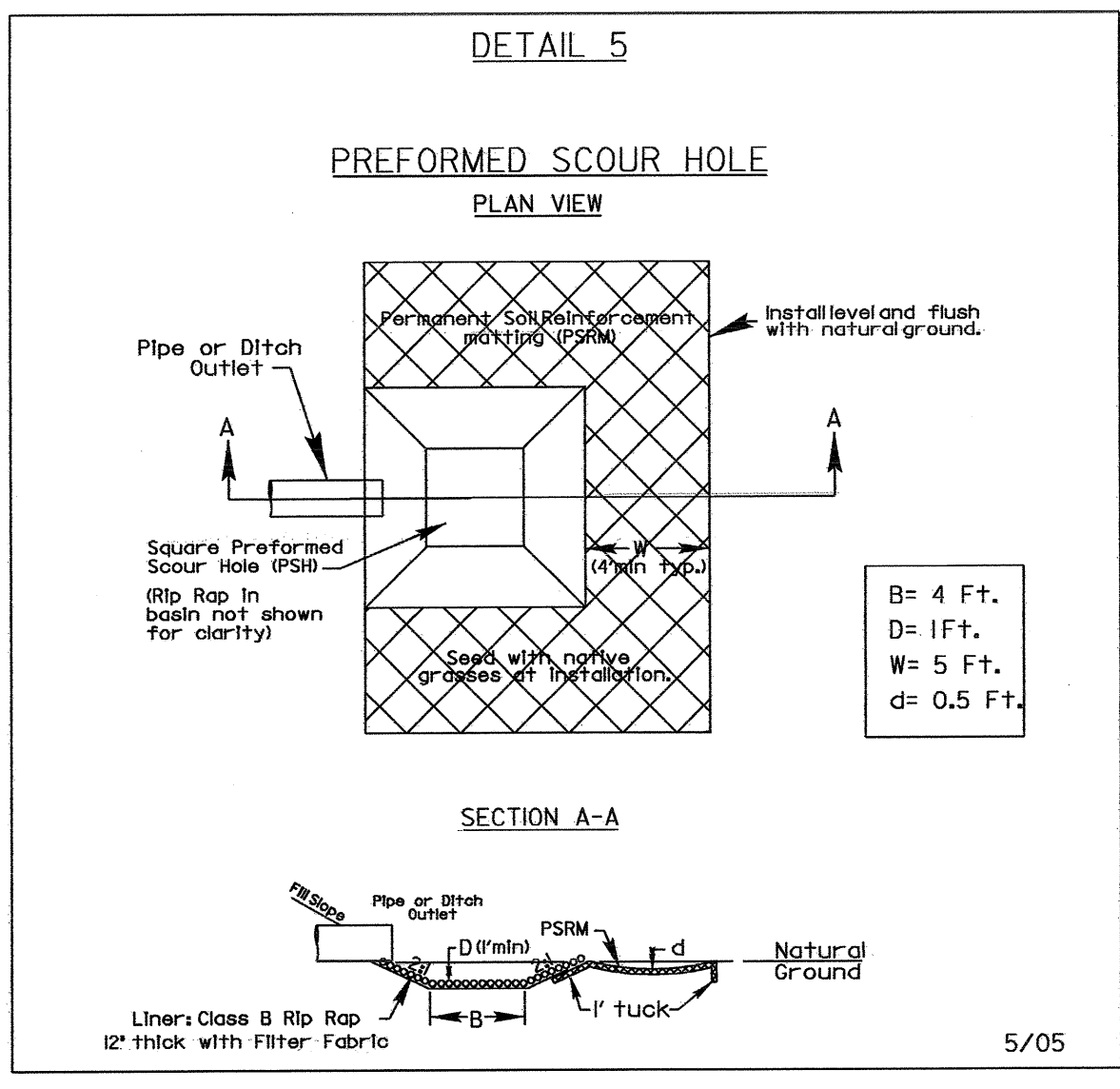
SEE SHEETS 2B-2C FOR -DET- ALIGNMENT + PROFILE



BM2 ELEV. 295.93
N 590541.6020 E 1864384.9952
RR-Spike In Base Of A Power Pole w/Lt.
-L- STA 24+10 53' RT

23-JAN-2009 13:57 \\desgr\4207.ec.psh.05.dgn
REV: 2/18/09
Labb

8/17/95



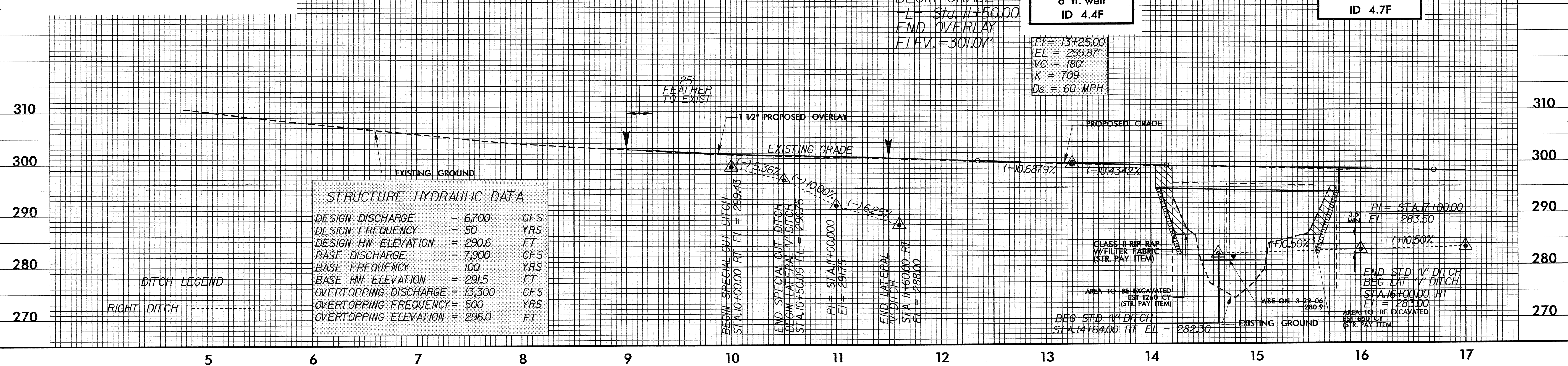
NOTE:
 UTILIZE SPECIAL STILLING BASIN
 WHERE APPLICABLE.

BEGIN TIP PROJECT B-4207
 -L- Sta. 9+00.00
 BEGIN OVERLAY

28 x 14 x 3
 1.5 inch Skimmer
 with 0.5 inch
 Orifice Diameter
 6 ft. weir
 ID 4.1B

30 x 14 x 3
 1.5 inch Skimmer
 with 0.5 inch
 Orifice Diameter
 6 ft. weir
 ID 4.4F

54 x 15 x 3
 1.5 inch Skimmer
 with 0.75 inch
 Orifice Diameter
 7 ft. weir
 ID 4.7F

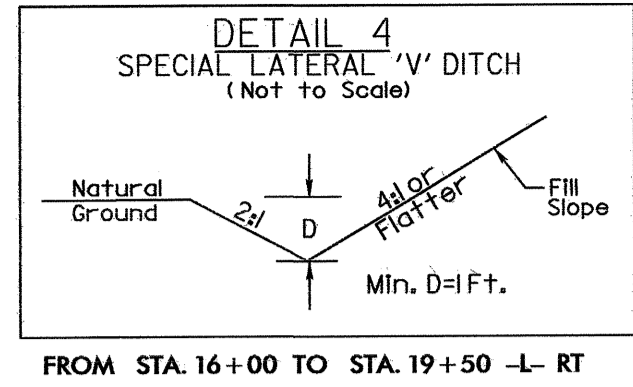


23-JAN-2009 13:57 \\design\p4207.ec-psh.04.dgn
 REV 2/18/09
 RAB

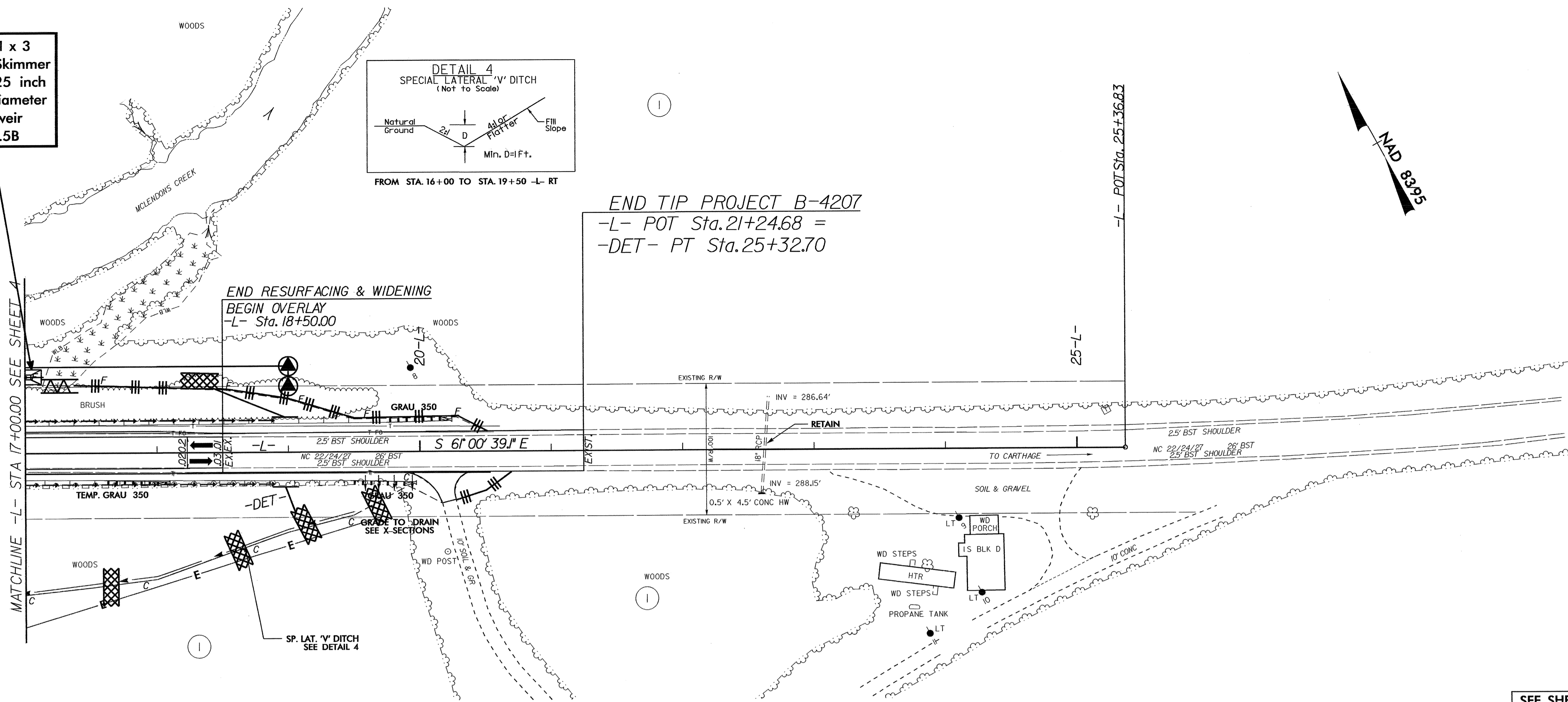
MATCHLINE -L- STA 17+00.00 SEE SHEET 5

PROJECT REFERENCE NO.	SHEET NO.
B-4207	EC-7/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

49 x 11 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 4.5B



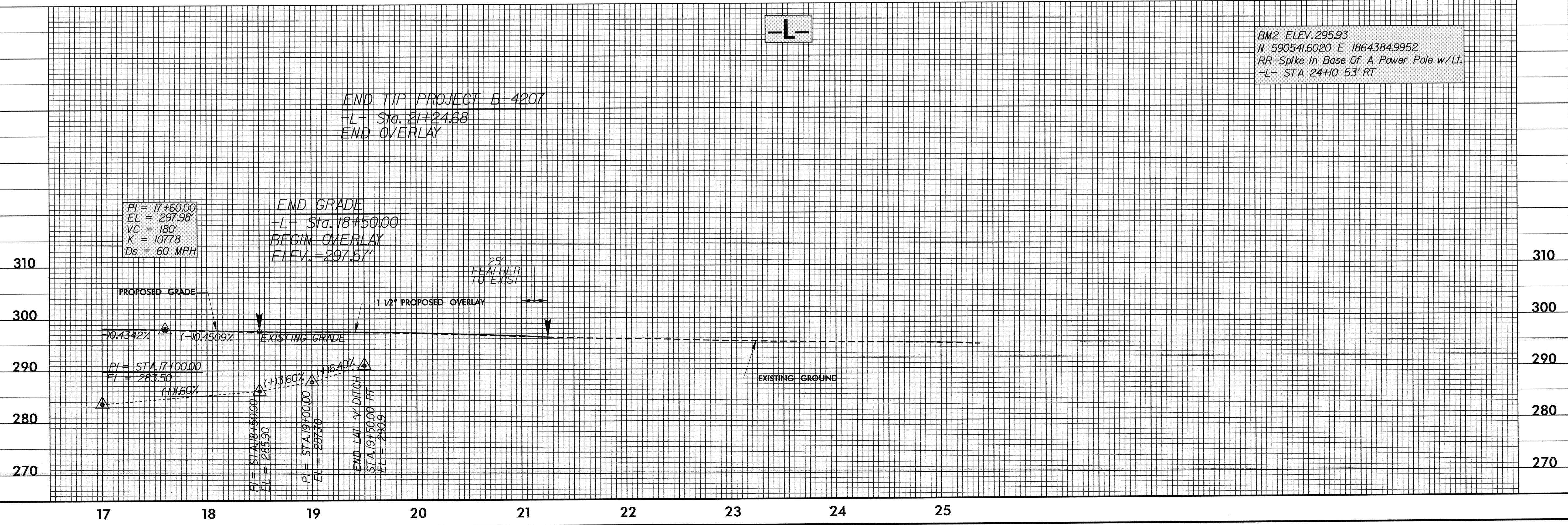
END TIP PROJECT B-4207
-L- POT Sta. 21+24.68 =
-DET- PT Sta. 25+32.70



SEE SHEETS 2B-2C FOR -DET- ALIGNMENT + PROFILE

BM2 ELEV. 295.93
N 590541.6020 E 1864384.9952
RR-Spike In Base Of A Power Pole w/Lt.
-L- STA 24+10 53' RT

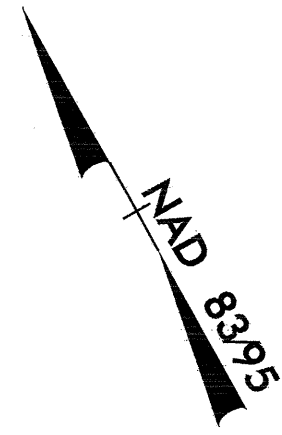
END TIP PROJECT B-4207
-L- Sta. 21+24.68
END OVERLAY



23-JAN-2009 13:56 \\server\proj\design\B4207.ec-psh_05.dgn
C:\Users\jrb\Documents\B4207.ec-psh_05.dgn

8/17/99

NOTE:
UTILIZE SPECIAL STILLING BASIN
WHERE APPLICABLE.



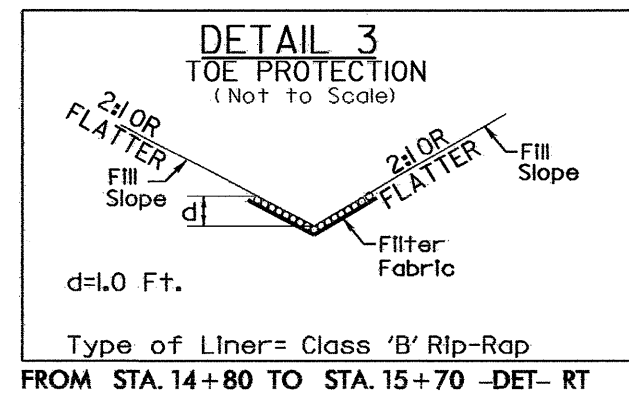
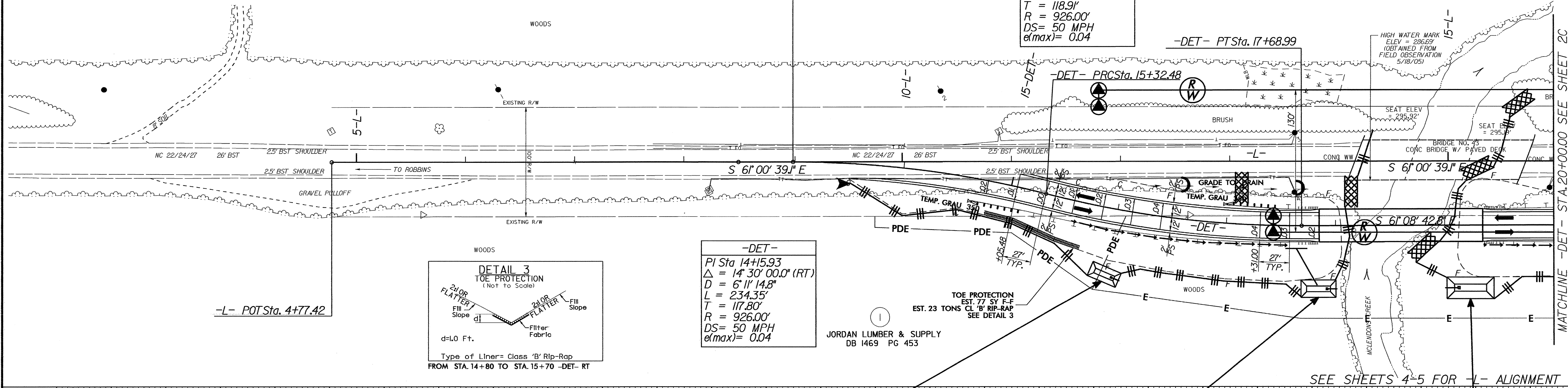
DETOUR

PROJECT REFERENCE NO. B-4207	SHEET NO. EC-8/CONST.2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BEGIN CONSTRUCTION
-DET- PCSta.12+98.13 =
-L- POTSta.9+00.00

JORDAN LUMBER & SUPPLY
DB 1469 PG 453

-DET-
PI Sta 16+51.38
 $\Delta = 14' 38'' 03.6''$ (LT)
D = 6' 11' 14.8"
L = 236.52'
T = 118.9'
R = 926.00'
DS = 50 MPH
 $e(max) = 0.04$



-DET-
PI Sta 14+15.93
 $\Delta = 14' 30'' 00.0''$ (RT)
D = 6' 11' 14.8"
L = 234.35'
T = 117.80'
R = 926.00'
DS = 50 MPH
 $e(max) = 0.04$

JORDAN LUMBER & SUPPLY
DB 1469 PG 453

-DET-

28 x 14 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
6 ft. weir
ID 4.1B

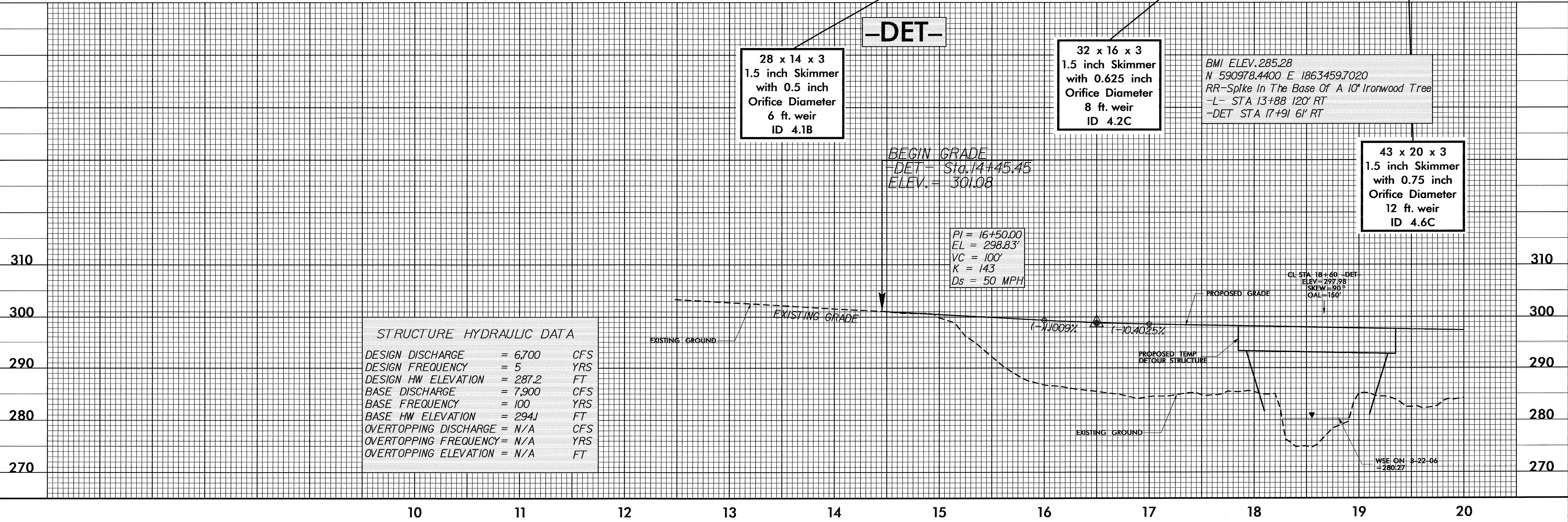
32 x 16 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
ID 4.2C

BMI ELEV.285.28
N 590978.4400 E 1863459.7020
RR-Spike In The Base Of A 10' Ironwood Tree
-L- STA 13+88 120' RT
-DET STA 17+91 61' RT

43 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
12 ft. weir
ID 4.6C

BEGIN GRADE
-DET- Sta.14+45.45
ELEV.= 301.08

PI = 16+50.00
EL = 298.83'
VC = 100'
K = 14.3
Ds = 50 MPH



STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 6,700	CFS
DESIGN FREQUENCY	= 5	YRS
DESIGN HW ELEVATION	= 287.2	FT
BASE DISCHARGE	= 7,900	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 294J	FT
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING ELEVATION	= N/A	FT

23-JAN-2009 13:58
r:\environment\ec\design\B4207_ec_pst_02b.dgn

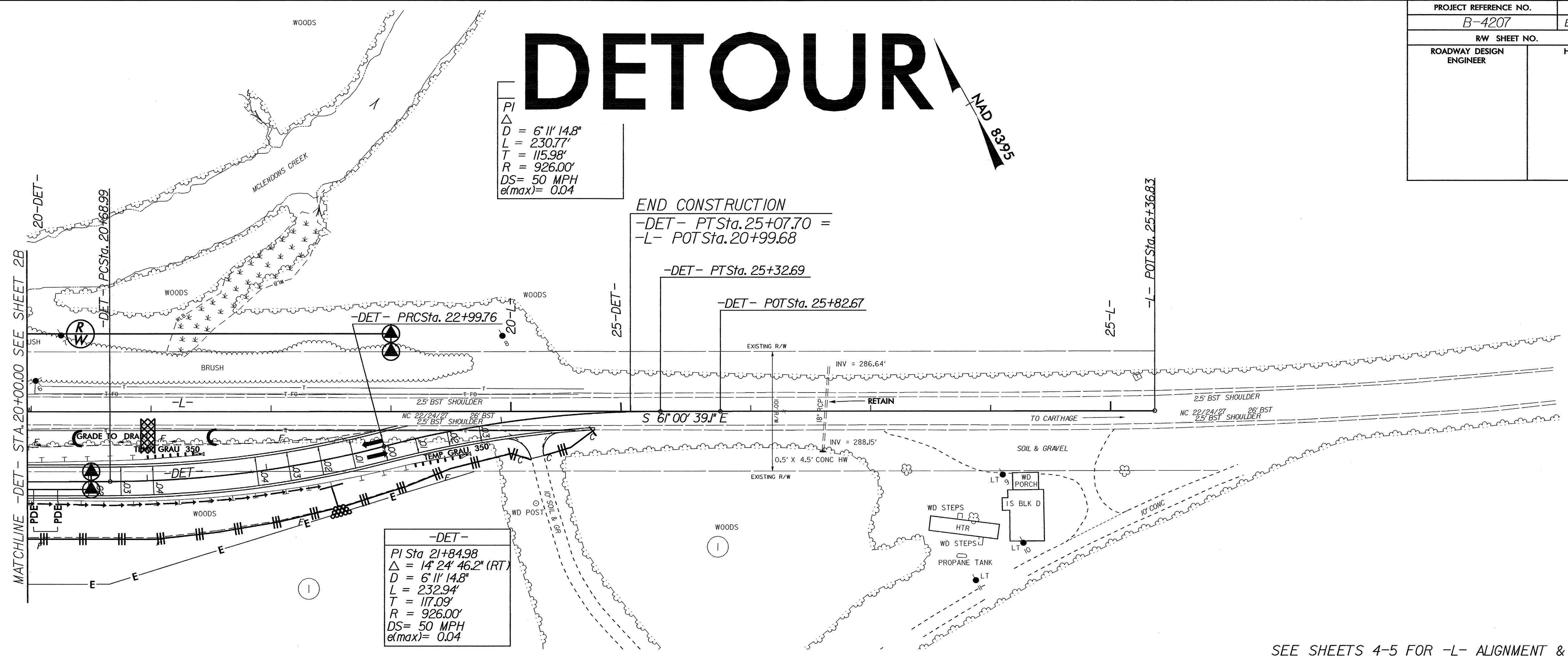
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
B-4207	EC-9/CONST.2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETOUR

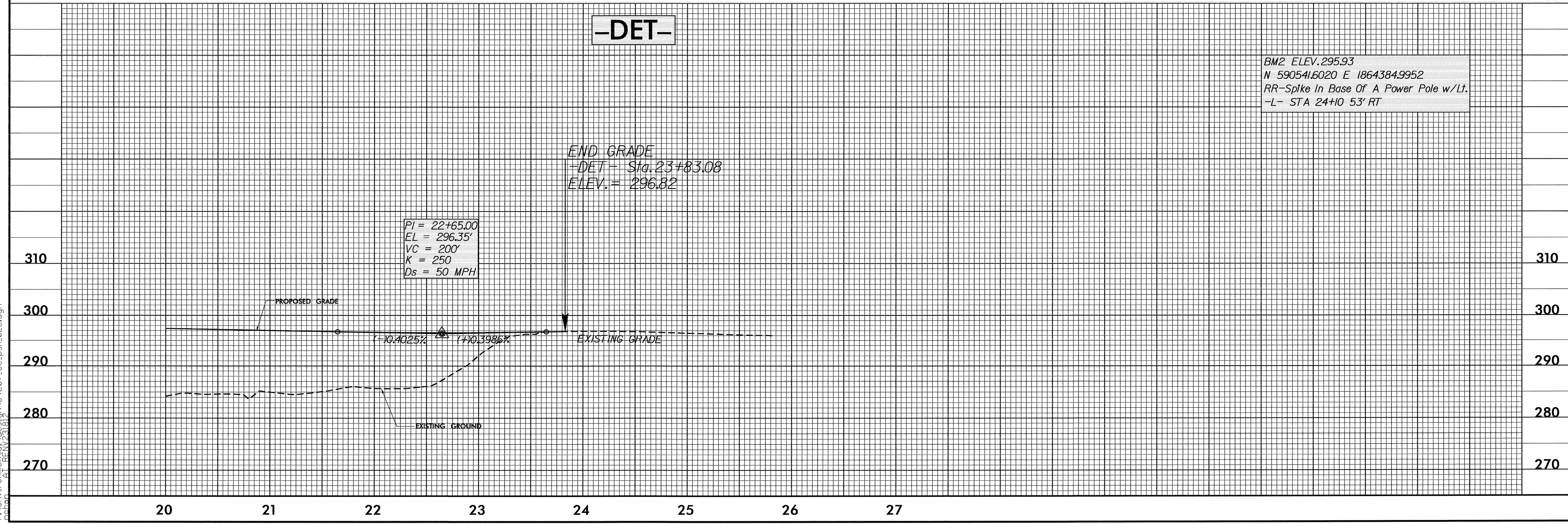
NAD 83 95

PI
 $\Delta = 6' 11'' 14.8''$
 $L = 230.77'$
 $T = 115.98'$
 $R = 926.00'$
 $DS = 50 \text{ MPH}$
 $e(\text{max}) = 0.04$



-DET-
 $PI \text{ Sta } 21+84.98$
 $\Delta = 14' 24'' 46.2'' \text{ (RT)}$
 $D = 6' 11'' 14.8''$
 $L = 232.94'$
 $T = 117.09'$
 $R = 926.00'$
 $DS = 50 \text{ MPH}$
 $e(\text{max}) = 0.04$

SEE SHEETS 4-5 FOR -L- ALIGNMENT & PROFILE



23-JAN-2009 13:58
 c:\environment\p\1\4207.ec.psh.02c.dgn