

TIP PROJECT: B-4622

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

ROCKINGHAM COUNTY

**LOCATION: REPLACEMENT OF BRIDGE NO. 54 ON NC 65
 OVER ROCK HOUSE CREEK**

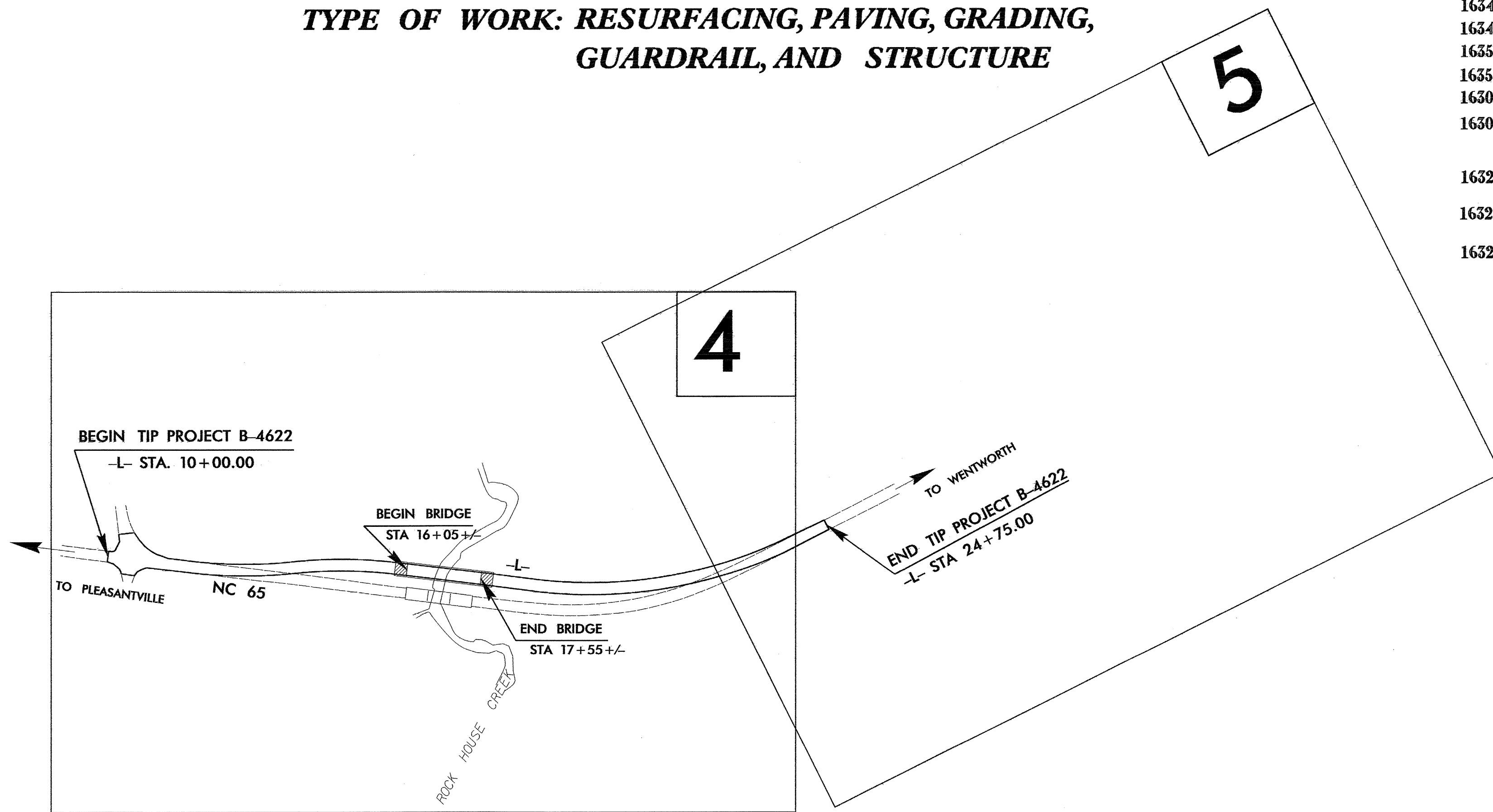
**TYPE OF WORK: RESURFACING, PAVING, GRADING,
 GUARDRAIL, AND STRUCTURE**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4622	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

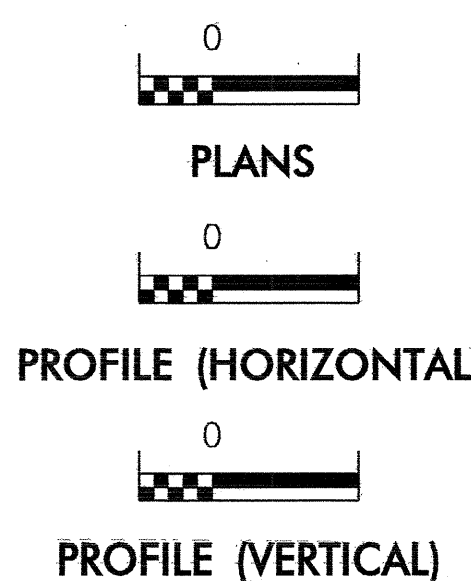
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch.....	--- TSD ---
1630.05	Temporary Diversion.....	--- TD ---
1605.01	Temporary Silt Fence.....	
1606.01	Special Sediment Control Fence.....	
1622.01	Temporary Berms and Slope Drains.....	-----
1630.01	Riser Basin.....	(Circle with arrow)
	Silt Basin Type B.....	(Rectangle with diagonal lines)
1633.01	Temporary Rock Silt Check Type-A.....	(Cross-hatched rectangle)
	Temporary Rock Silt Check Type-B.....	(Arrow pointing right)
	Wattle.....	(Wavy line)
1634.01	Temporary Rock Sediment Dam Type-A.....	(Rectangle with cross-hatch)
1634.02	Temporary Rock Sediment Dam Type-B.....	(D-shaped symbol)
1635.01	Rock Pipe Inlet Sediment Trap Type-A.....	(U-shaped symbol)
1635.02	Rock Pipe Inlet Sediment Trap Type-B.....	(C-shaped symbol)
1630.04	Stilling Basin.....	(Rectangle with hatched interior)
1630.06	Special Stilling Basin.....	(Square with cross-hatch)
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.



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

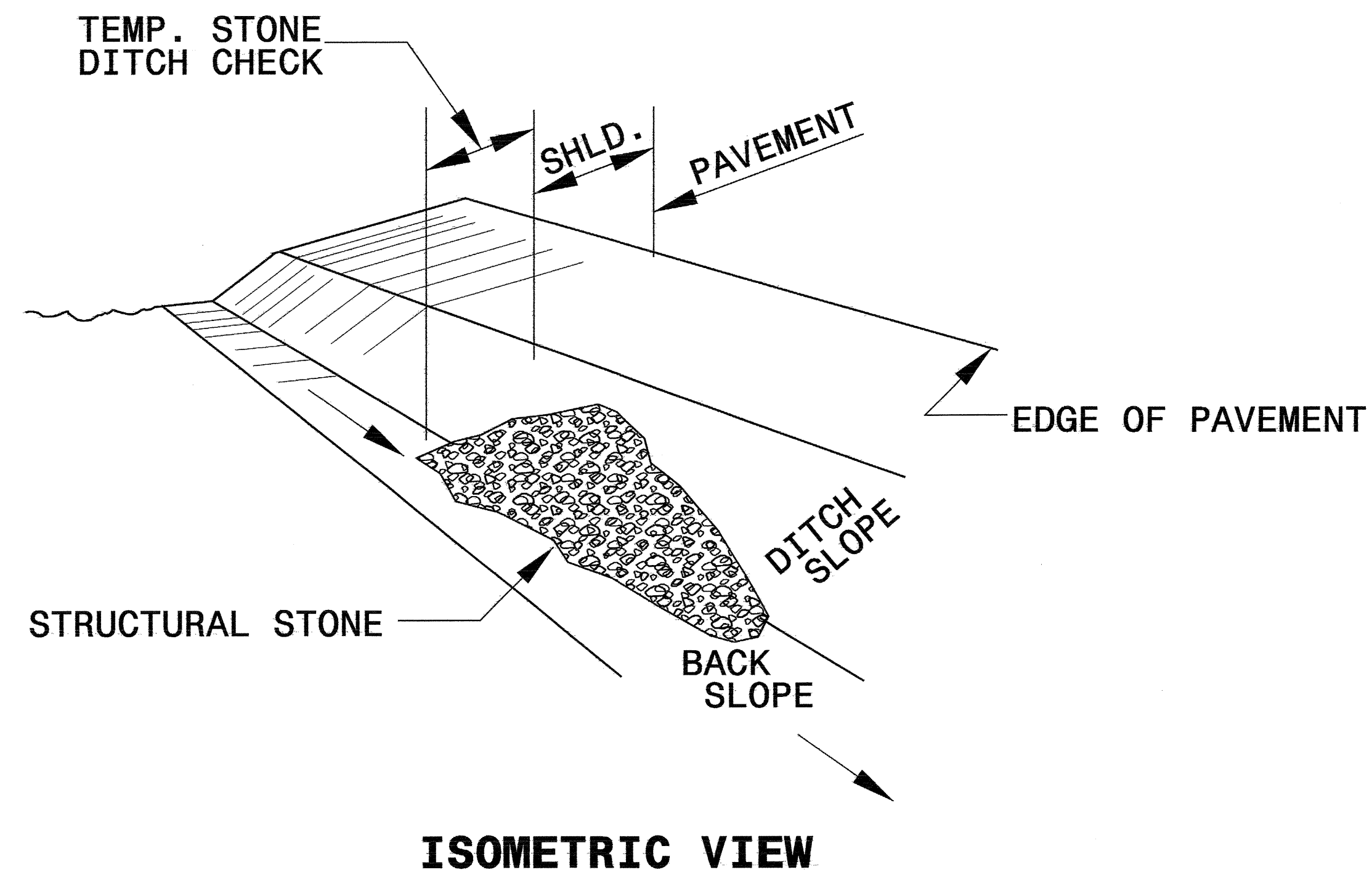
Roadway Standard Drawings

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	1630.05 Temporary Diversion
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	1635.02 Rock Pipe Inlet Sediment Trap Type B

PROJECT REFERENCE NO.	SHEET NO.
B-4622	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

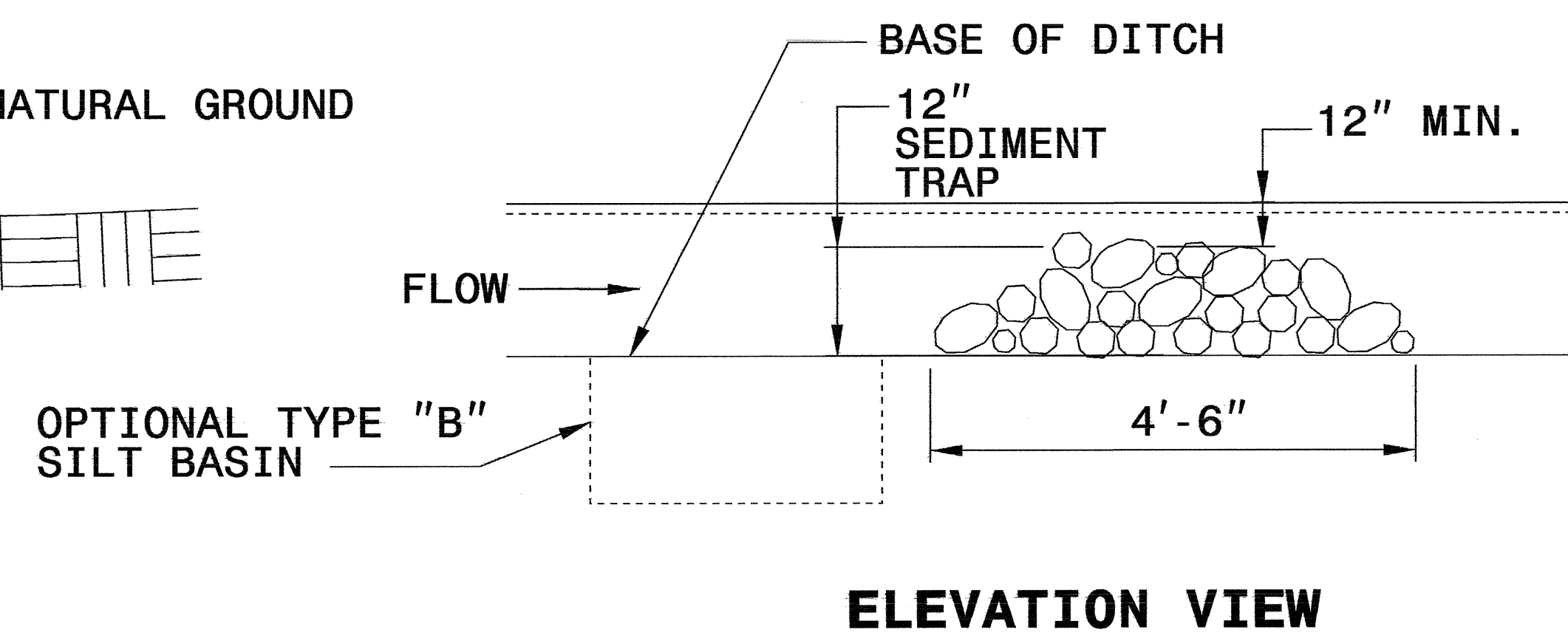
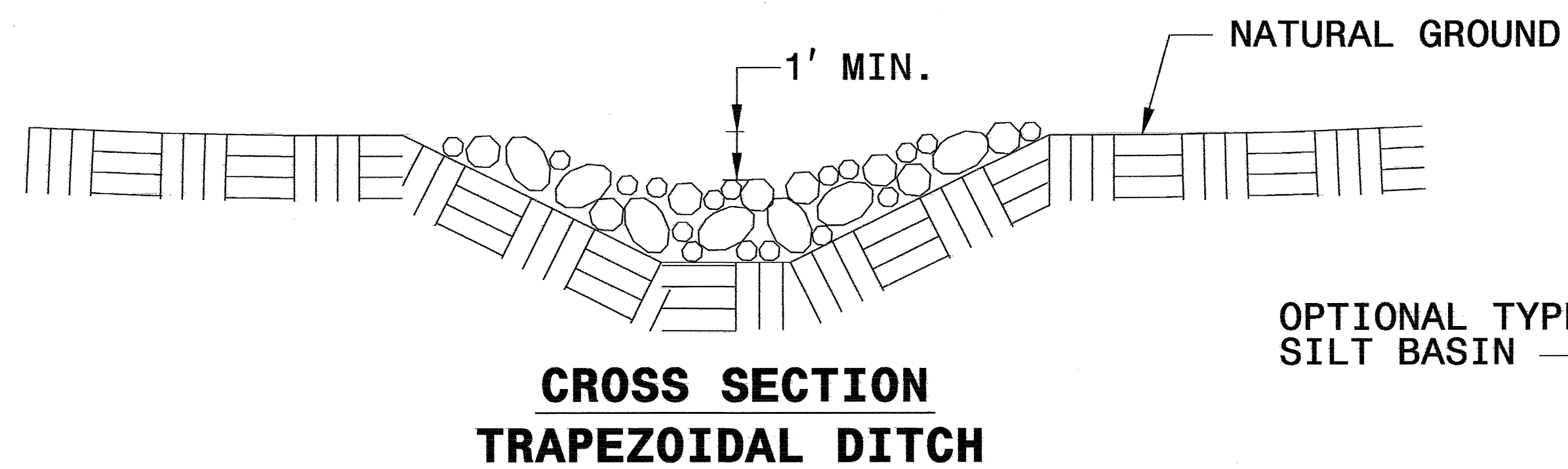
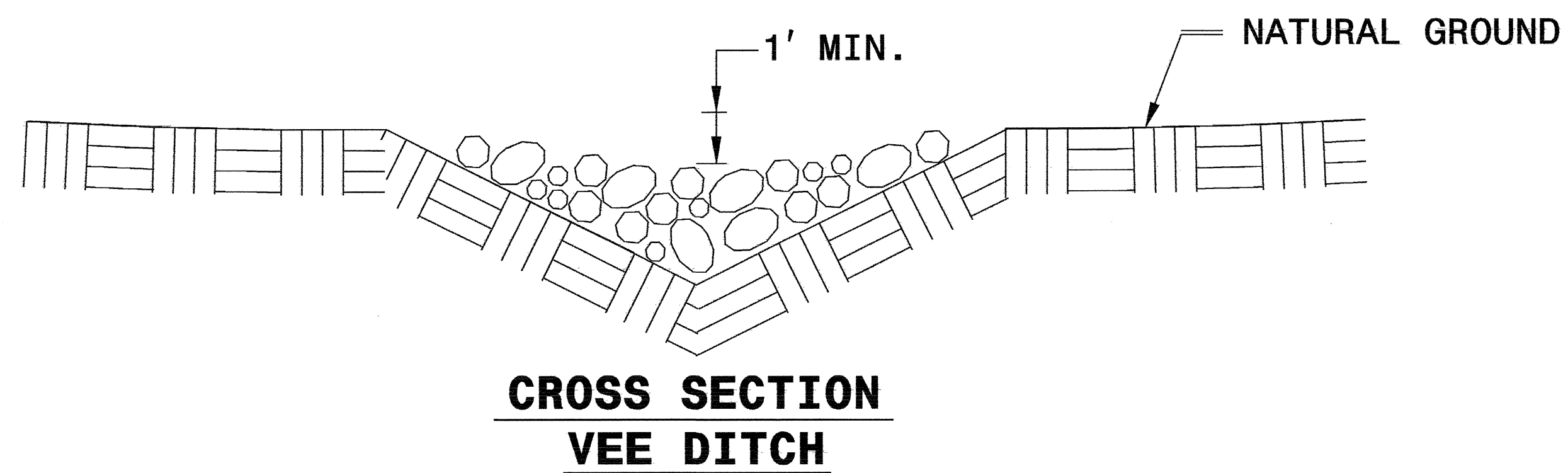
TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



NOTES:

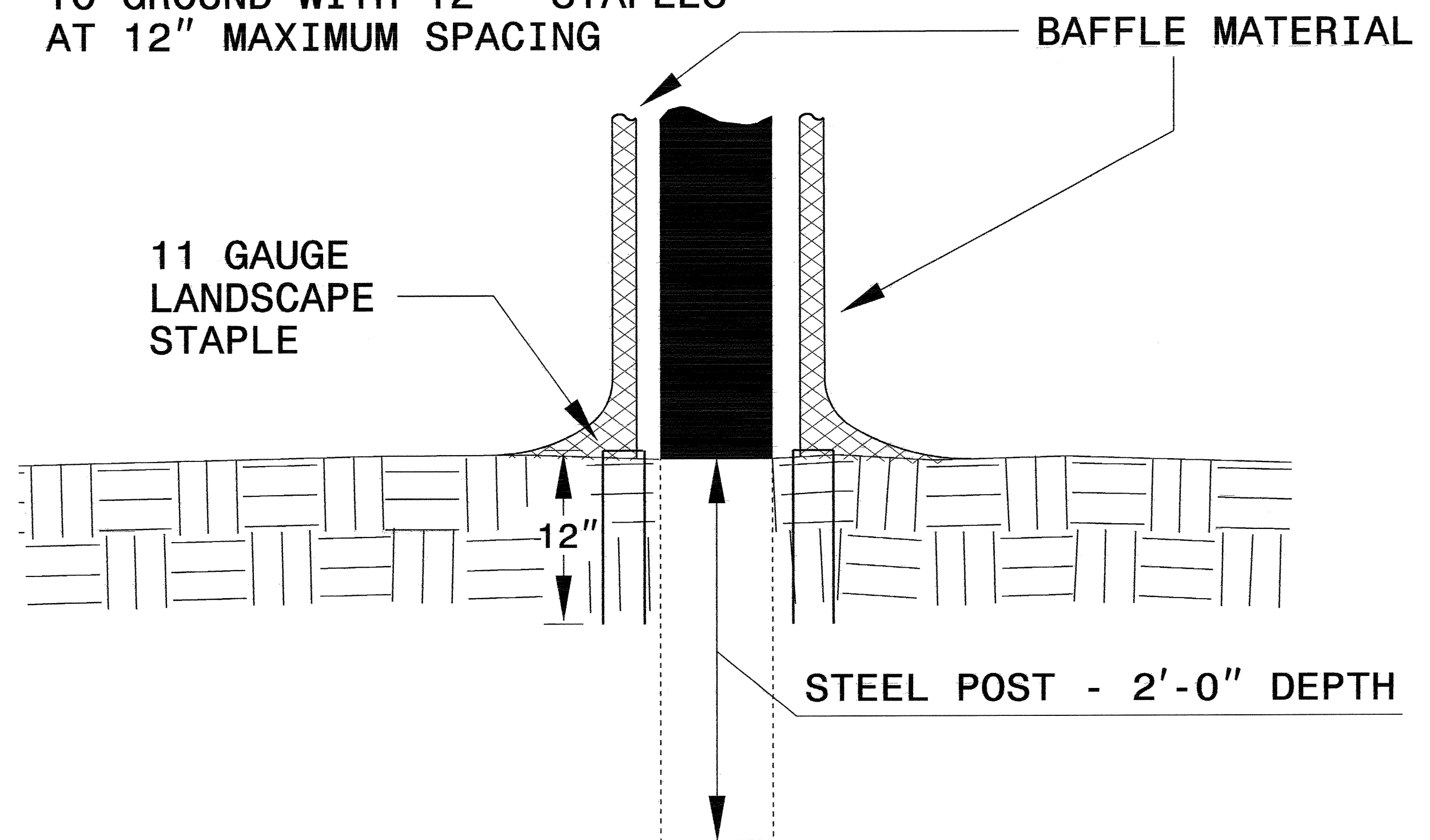
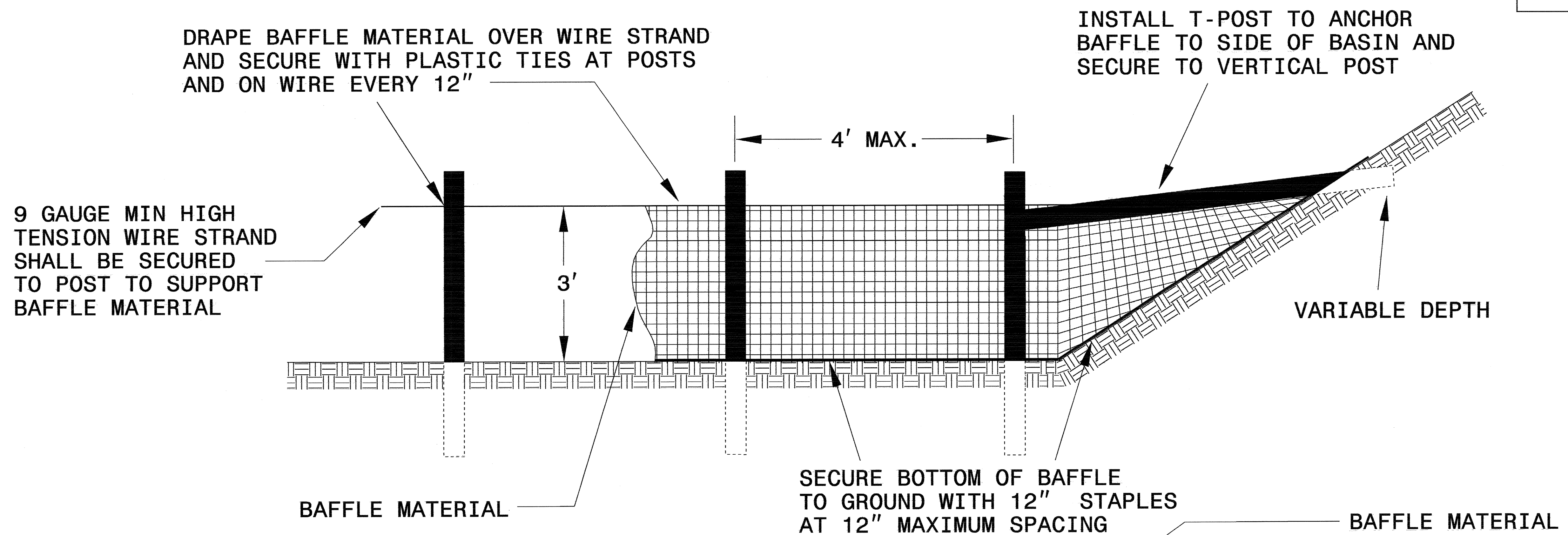
USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

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-4622	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



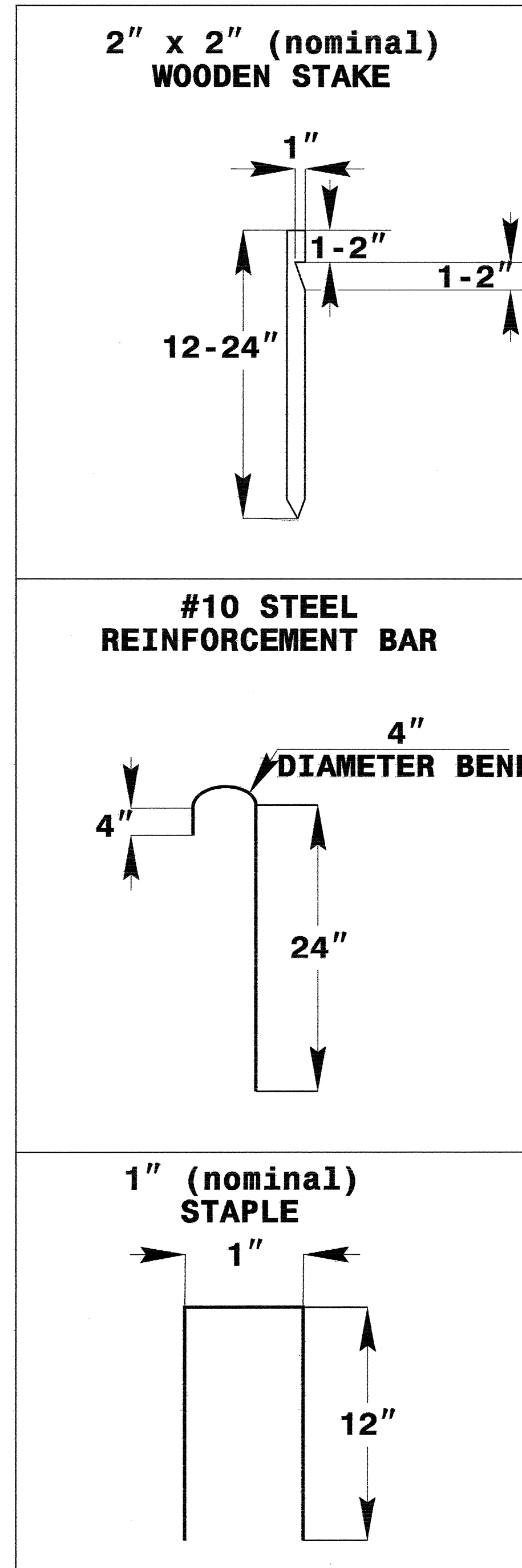
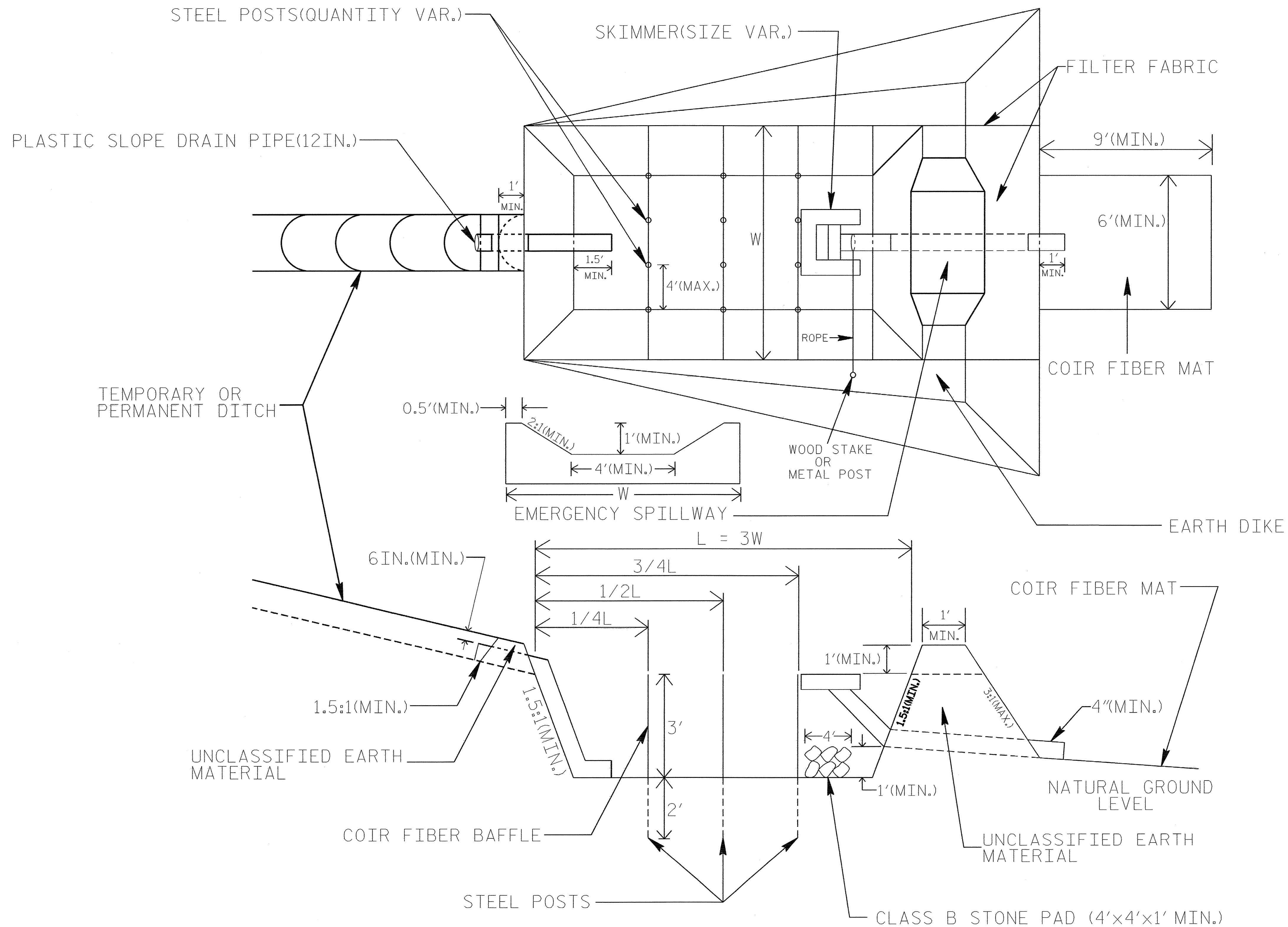
NOTES:

1. 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.
2. 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.
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

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-4622	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



COIR FIBER MAT ANCHOR OPTIONS

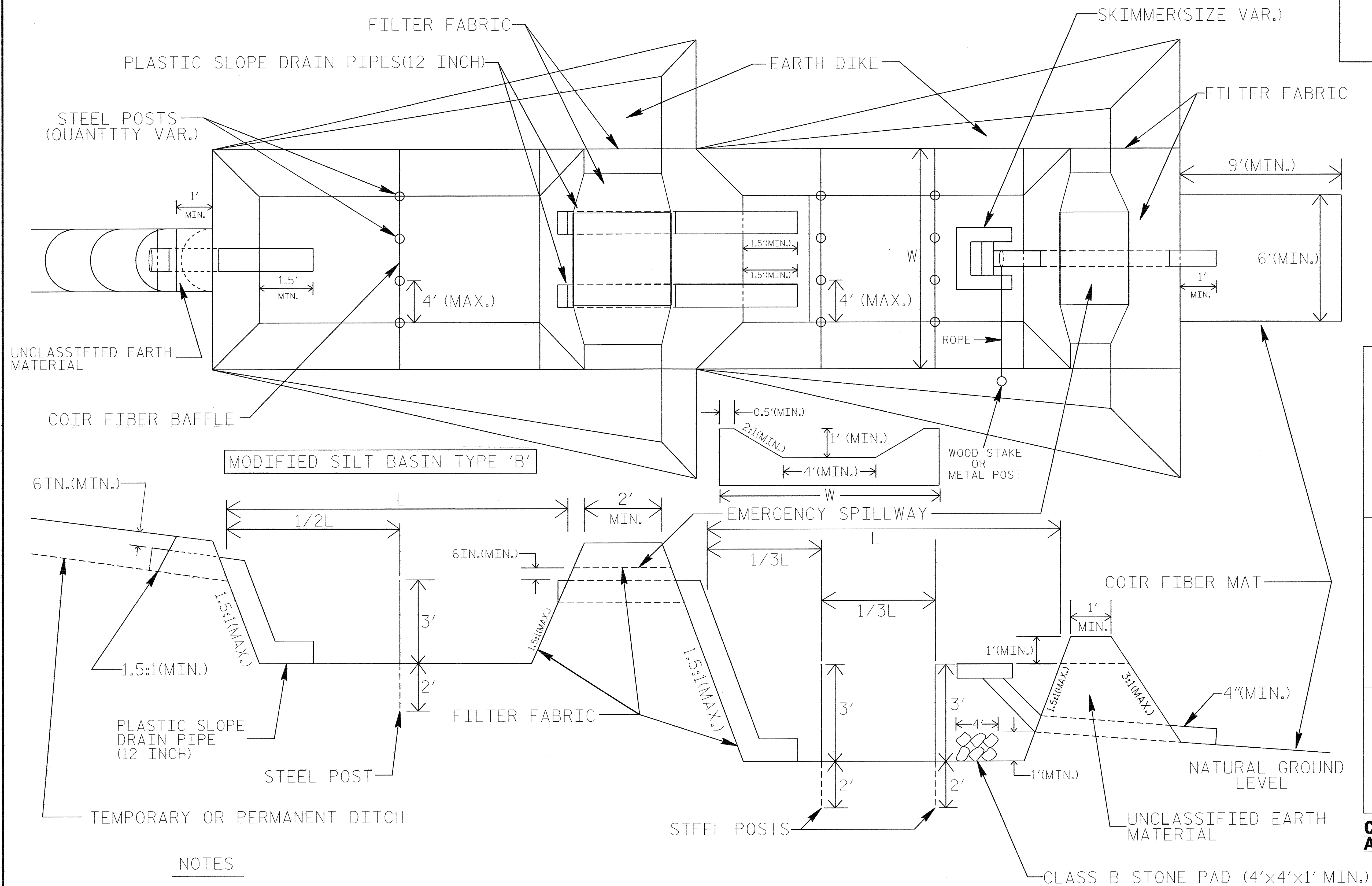
NOTES

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

TIERED SKIMMER BASIN DETAIL

PROJECT REFERENCE NO. B-4622	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



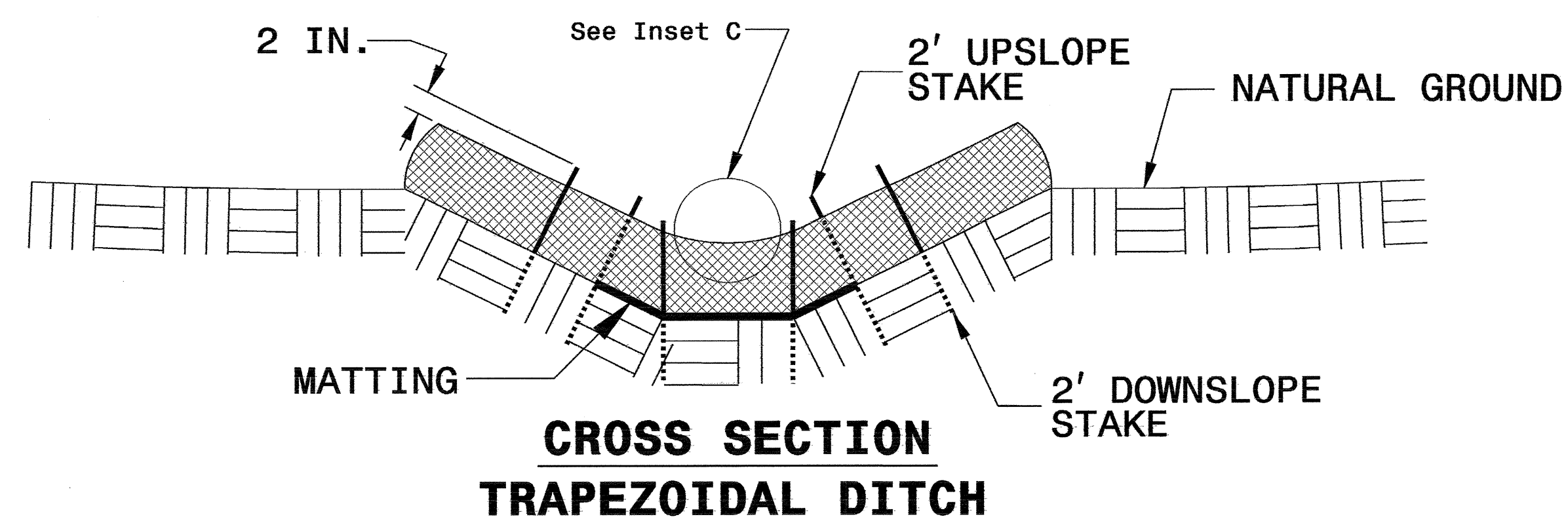
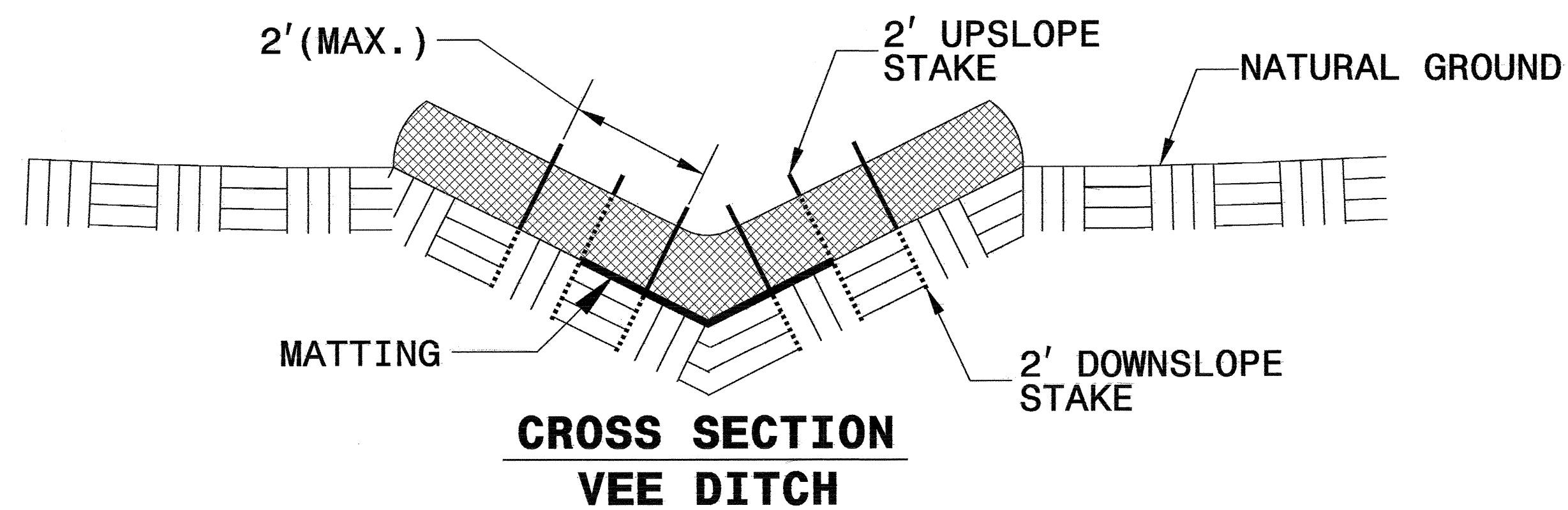
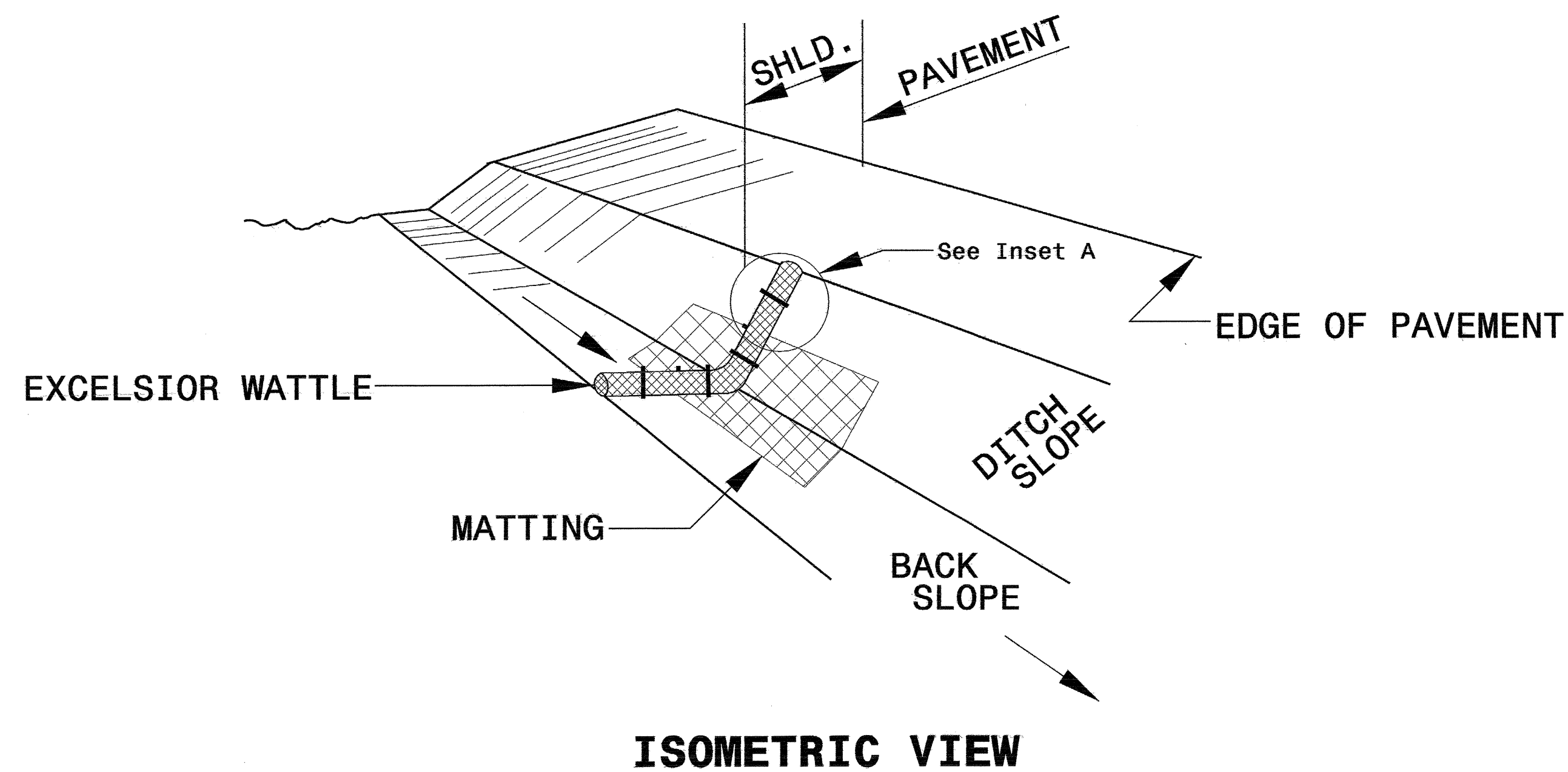
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE EMERGENCY SPILLWAY LENGTHS (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.

NOT TO SCALE

PROJECT REFERENCE NO. B-4622	SHEET NO. EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WATTLE WITH POLYACRYLAMIDE DETAIL



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

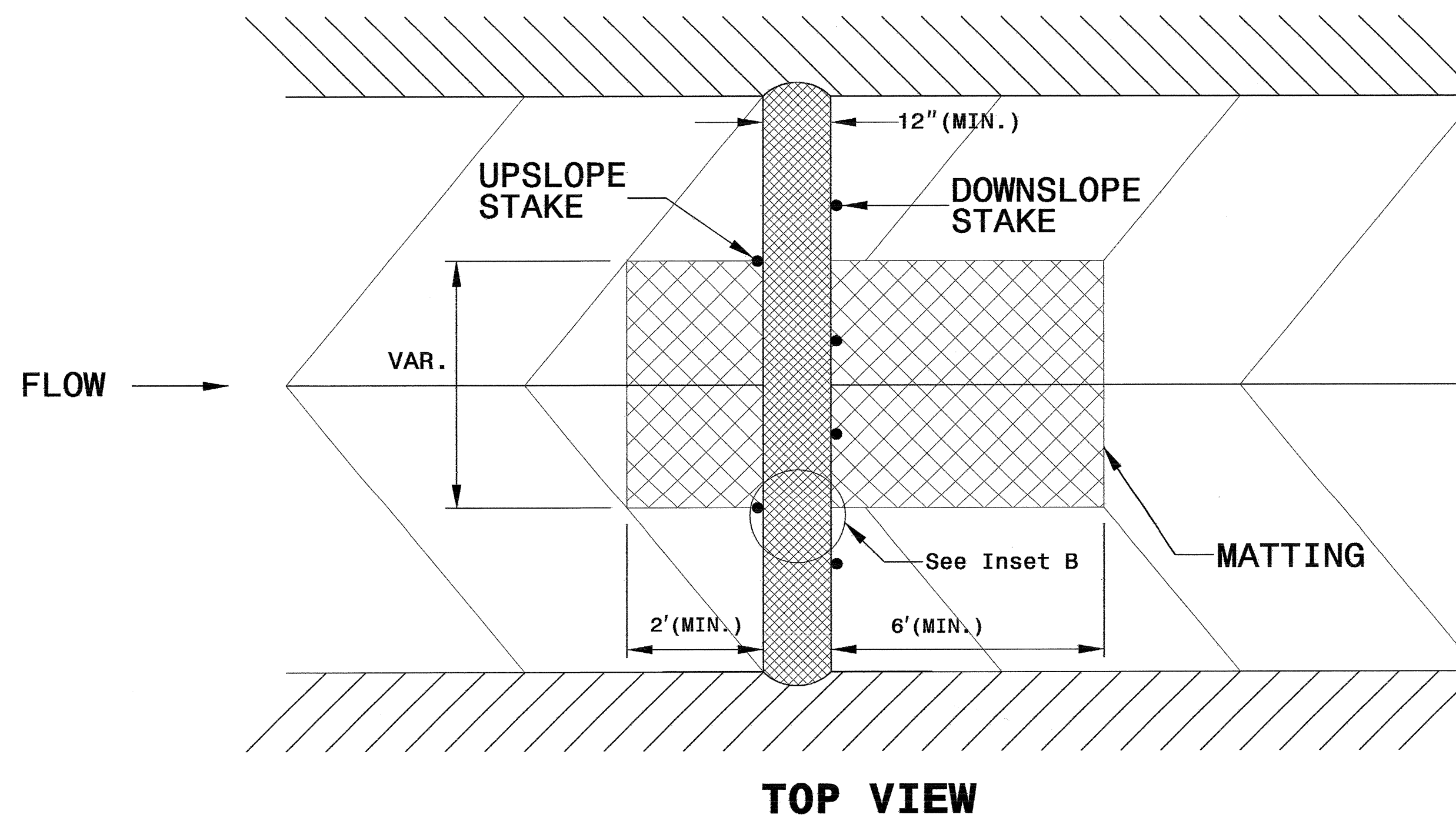
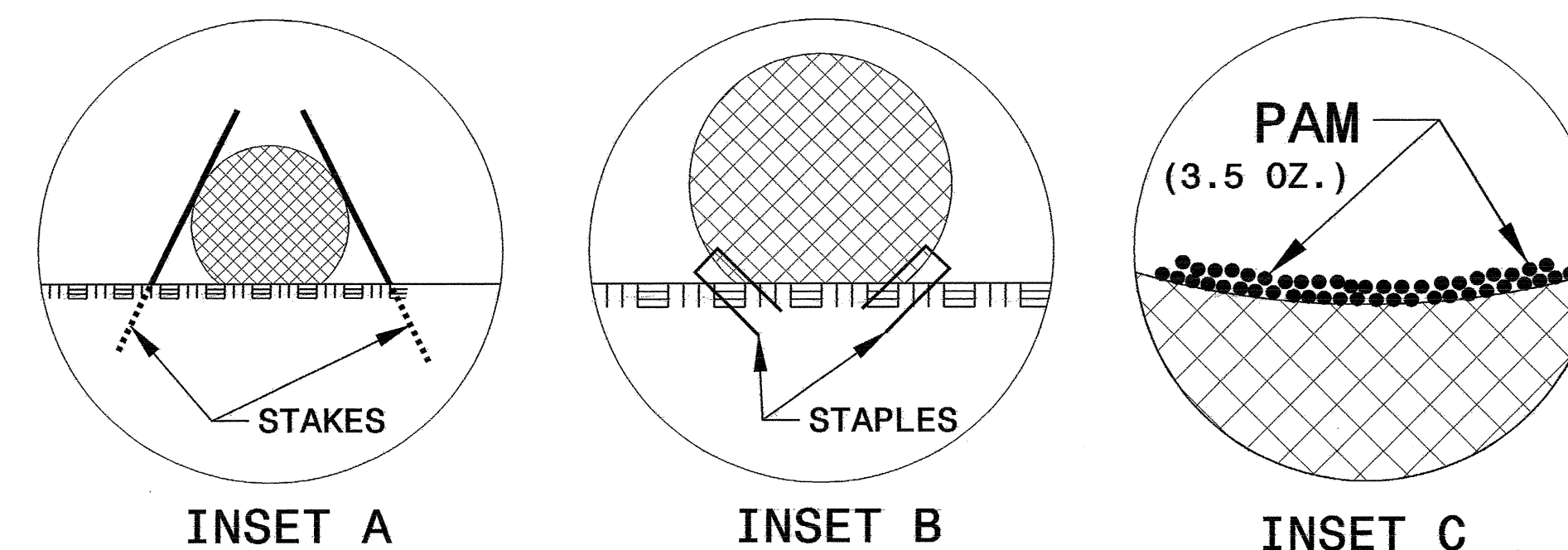
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

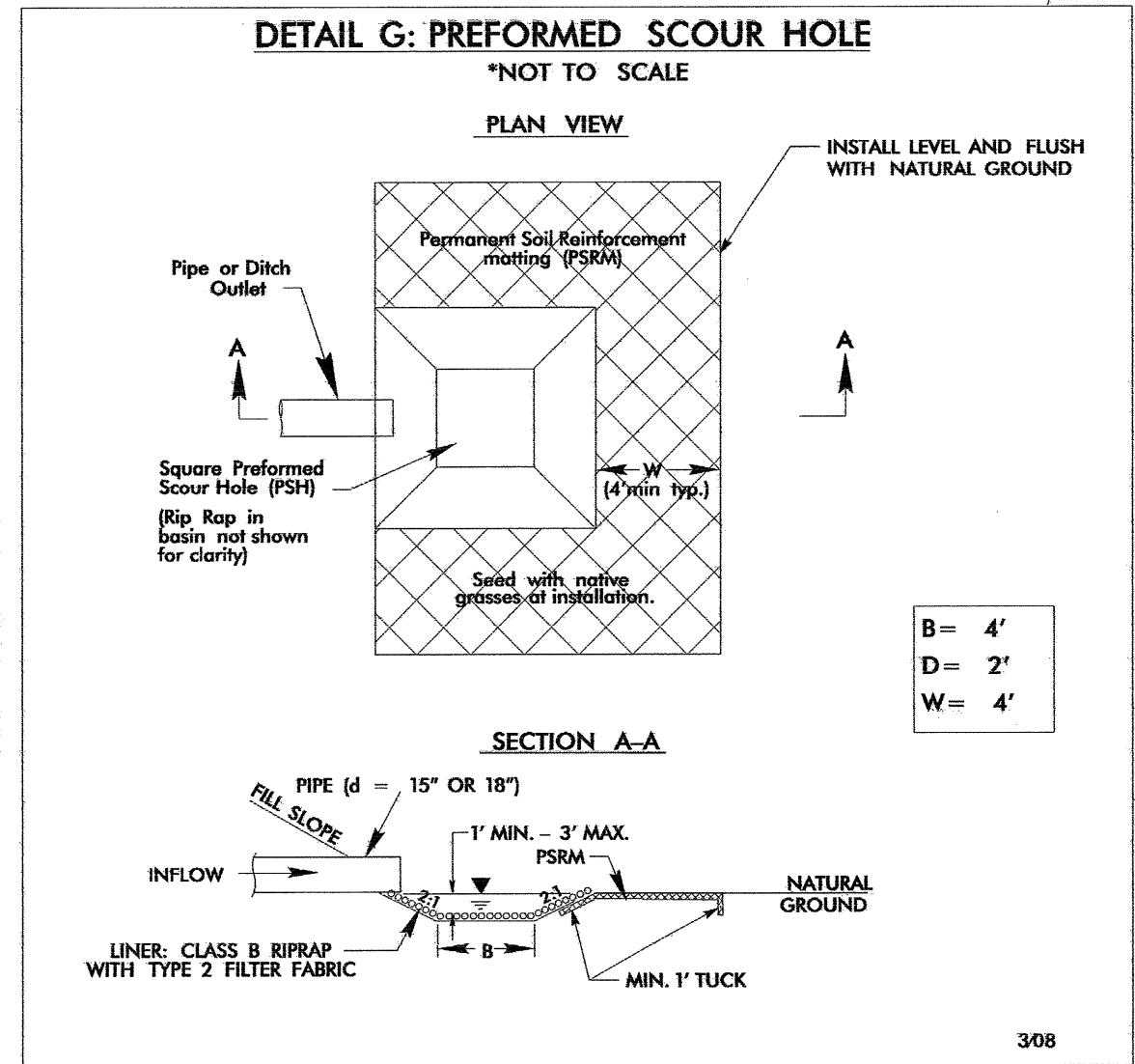
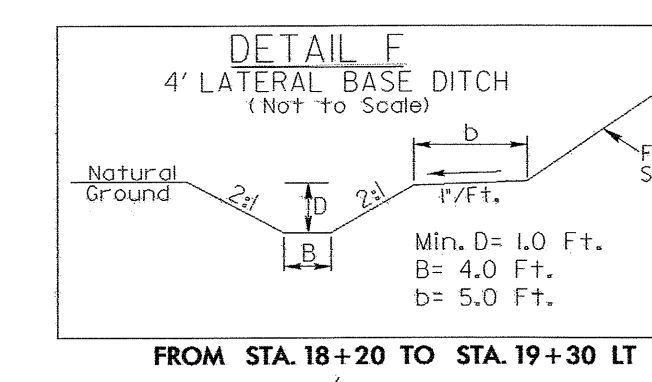
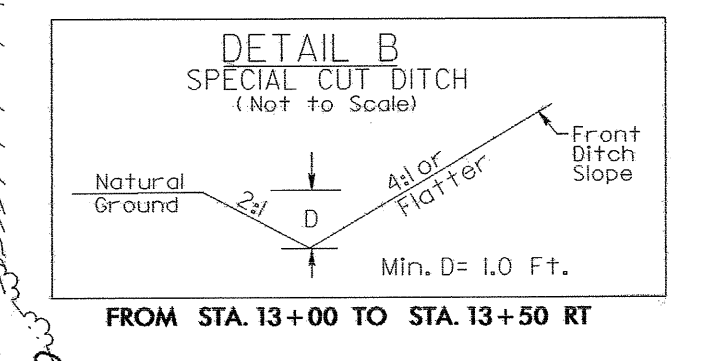
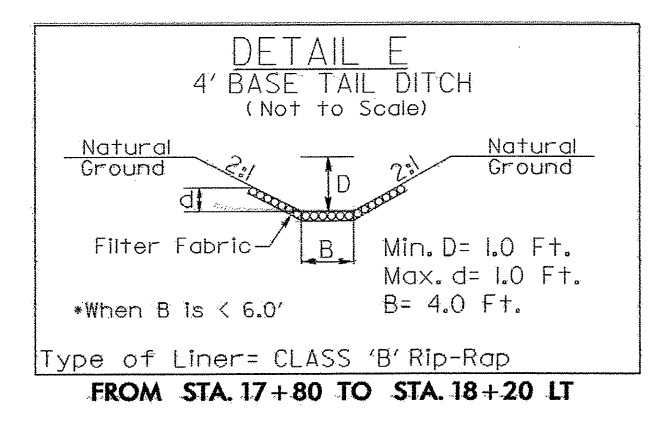
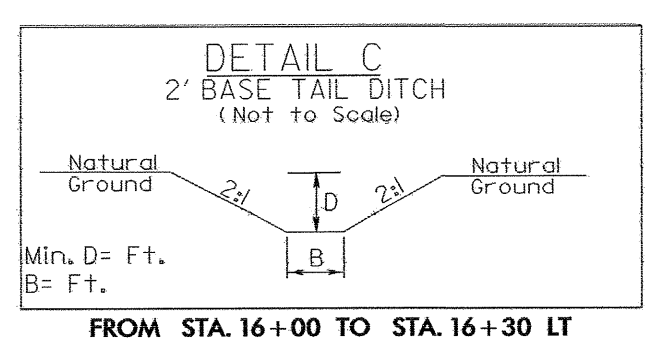
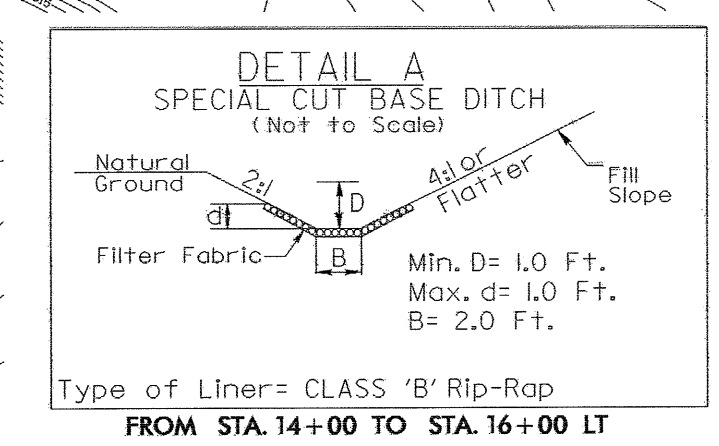
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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 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 0.50 IN.



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

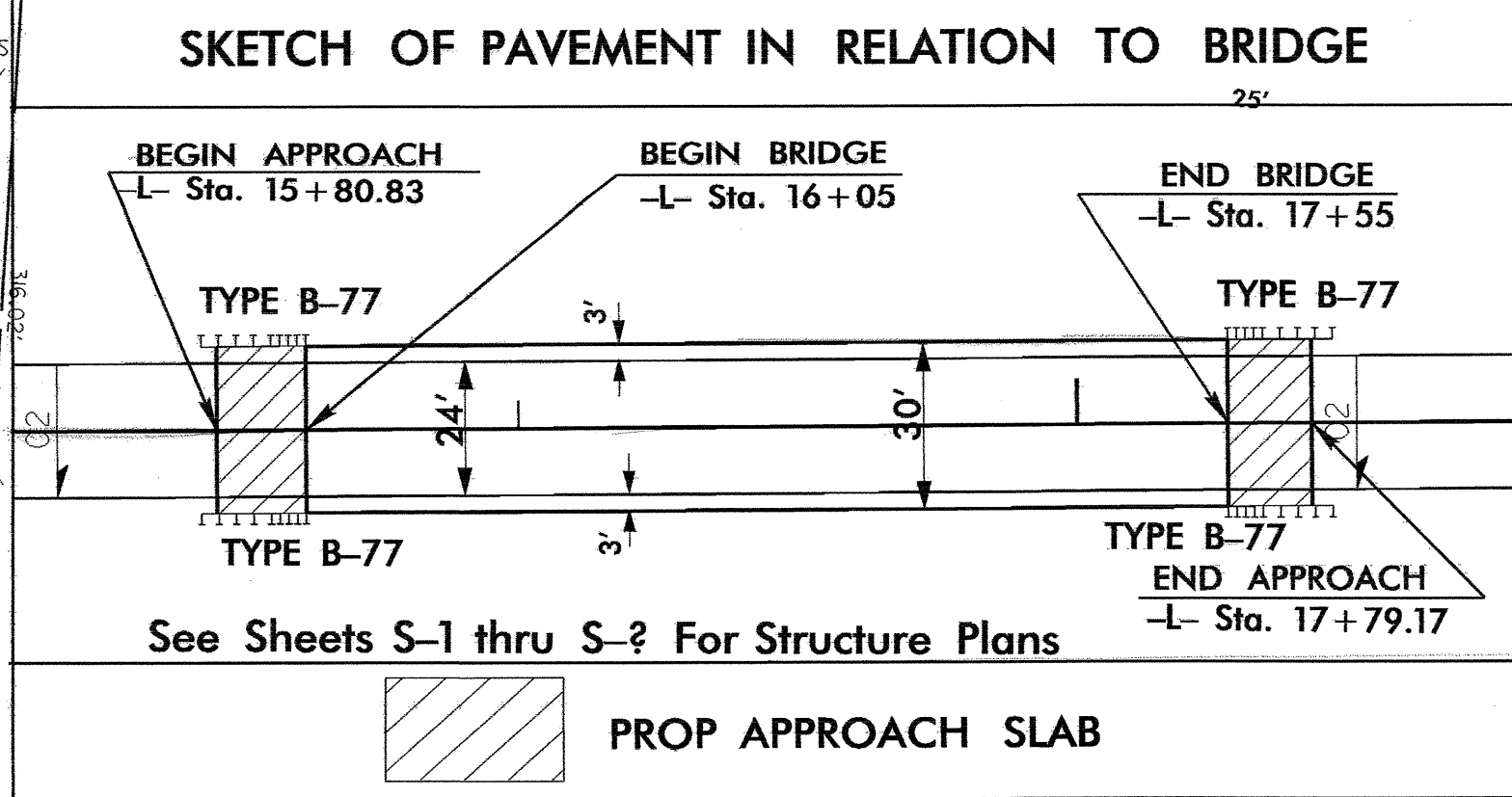


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

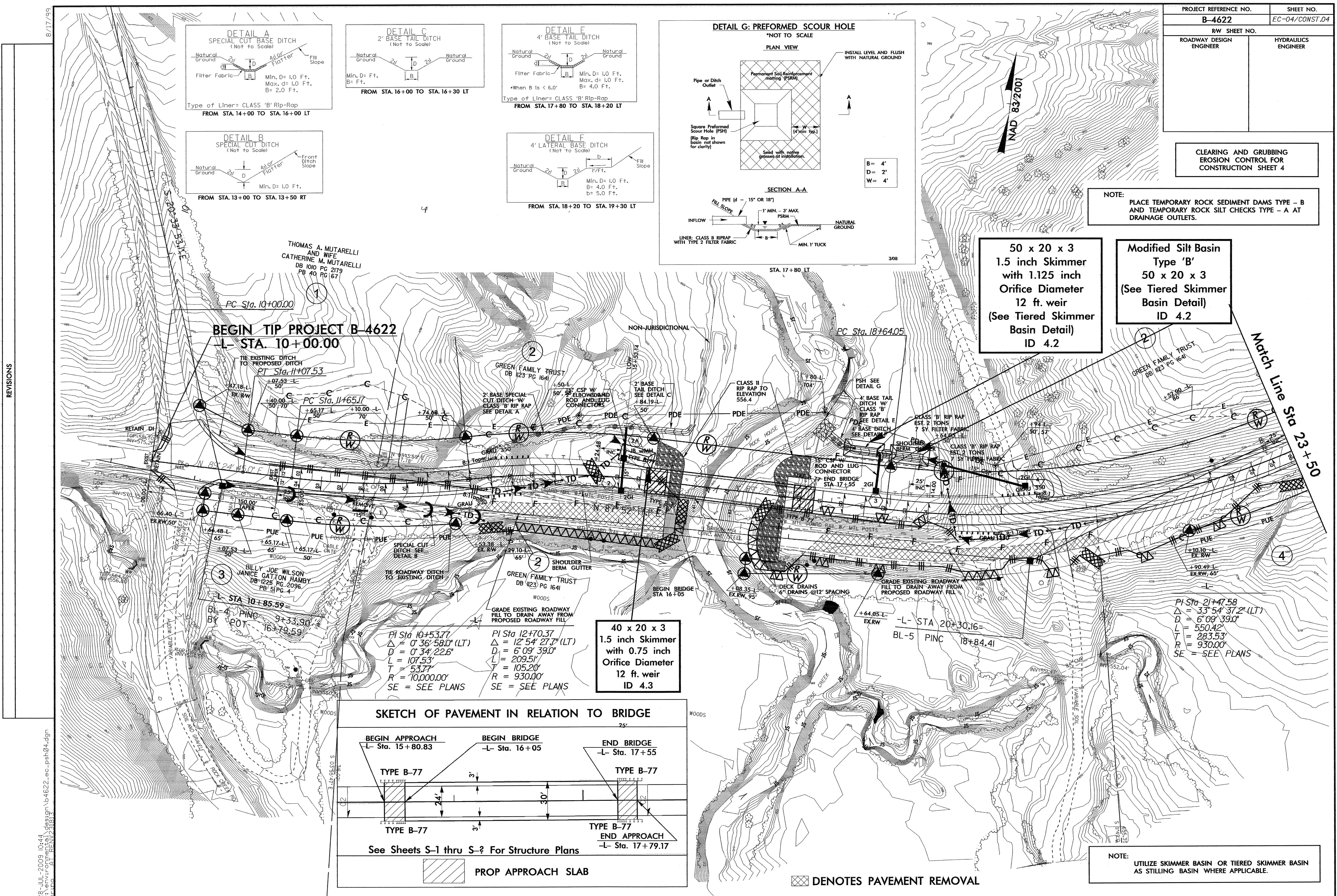
50 x 20 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 4.2

Modified Silt Basin
Type 'B'
50 x 20 x 3
(See Tiered Skimmer
Basin Detail)
ID 4.2

40 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
12 ft. weir
ID 4.3



NOTE:
UTILIZE SKIMMER BASIN OR TIERED SKIMMER BASIN
AS STILLING BASIN WHERE APPLICABLE.



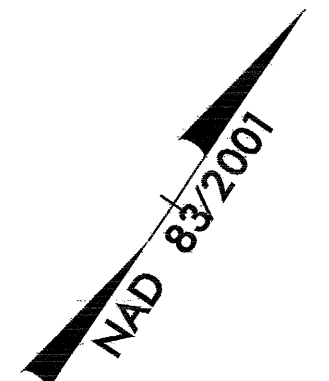
REVISIONS

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PROJECT REFERENCE NO.	SHEET NO.
B-4622	EC-05/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

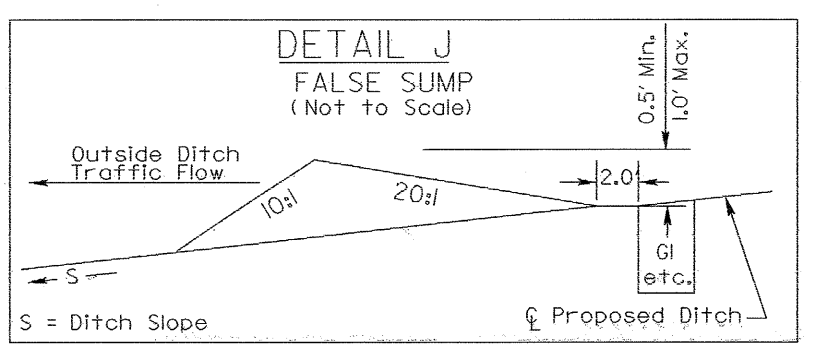
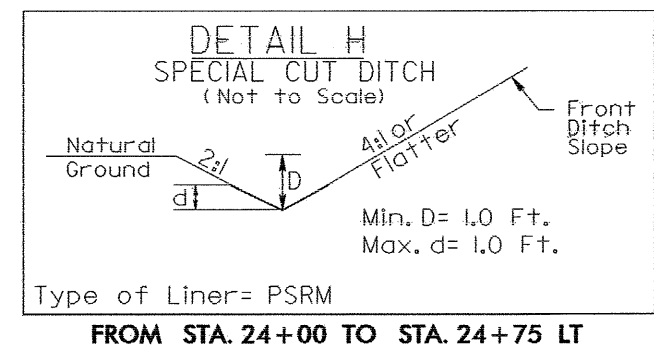
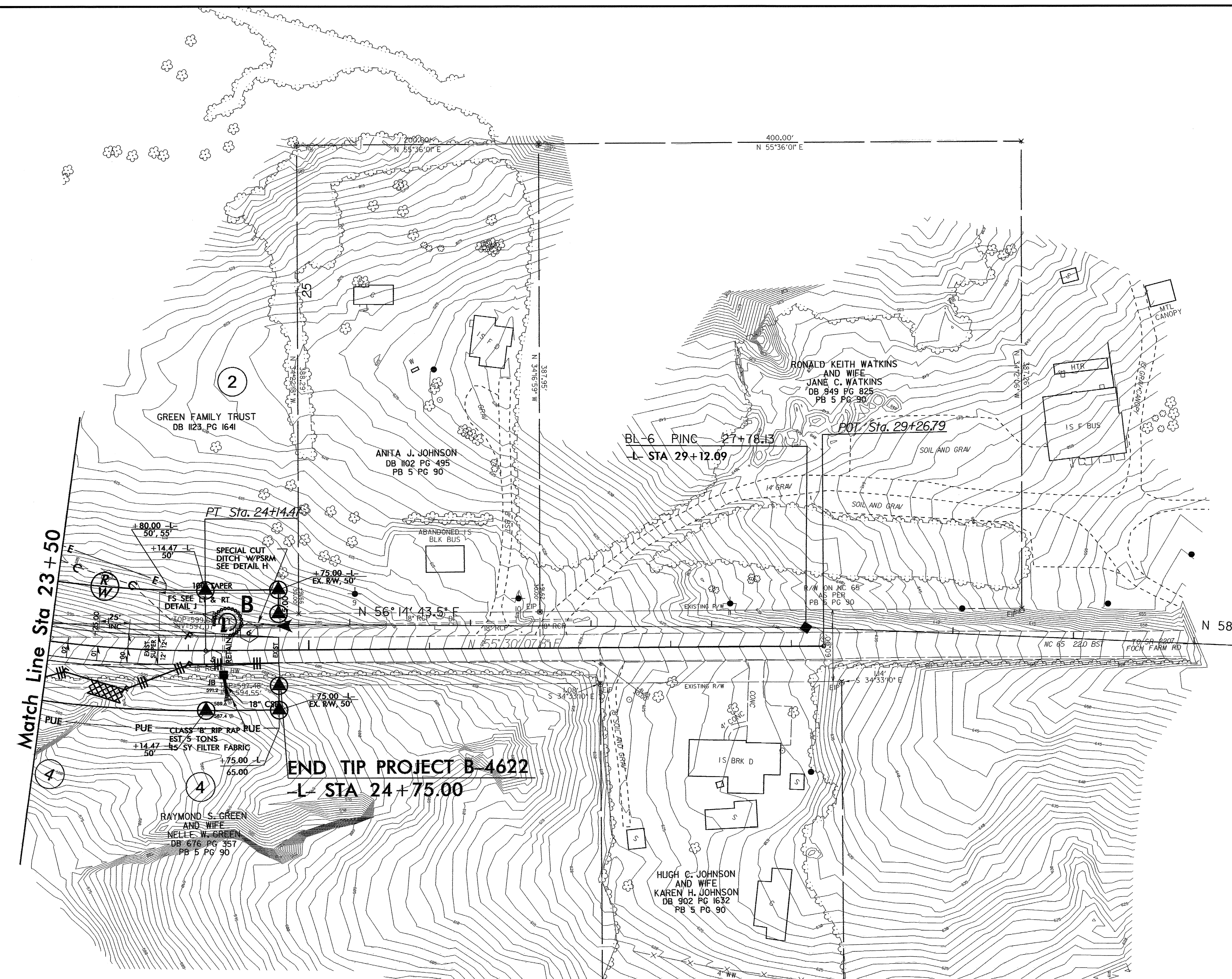
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



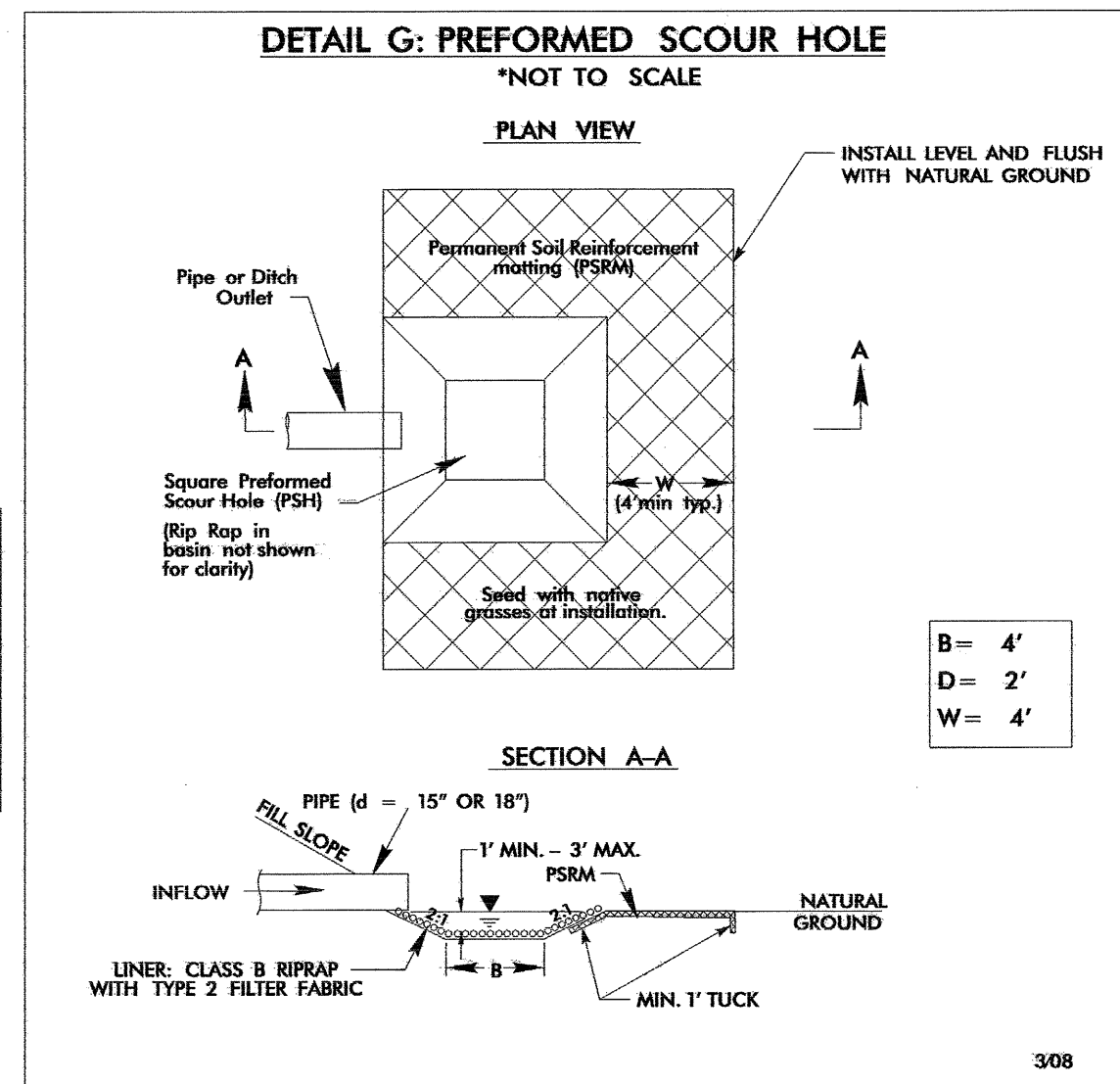
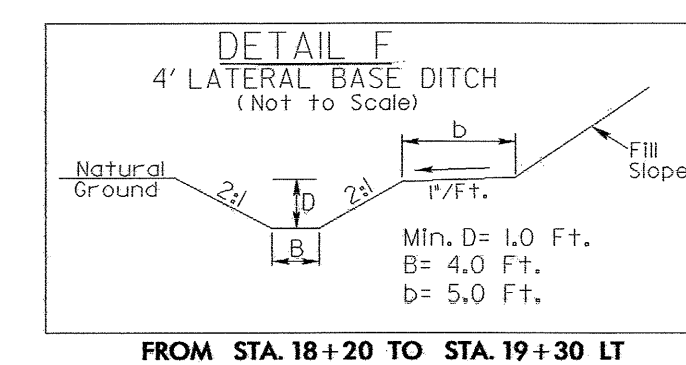
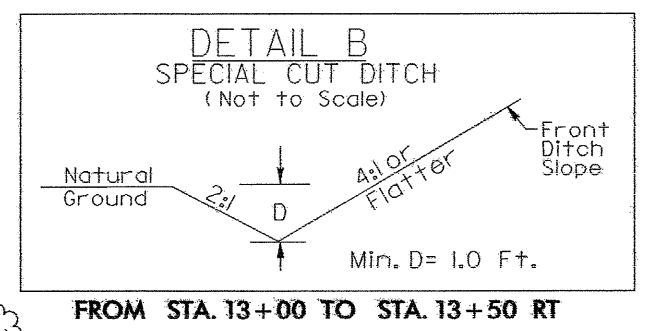
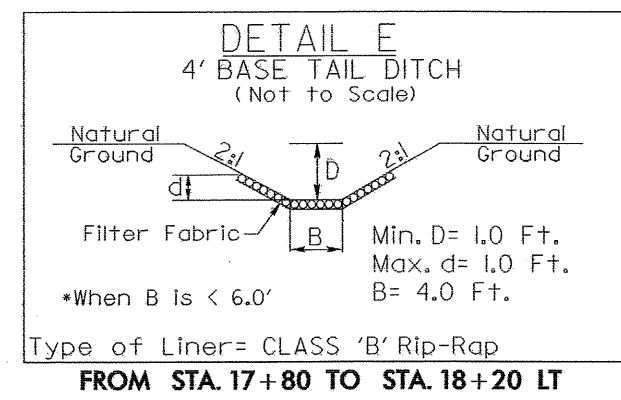
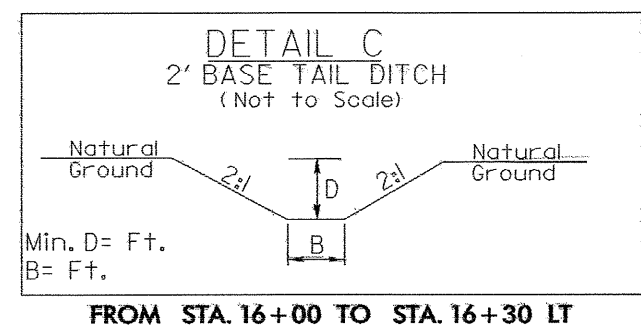
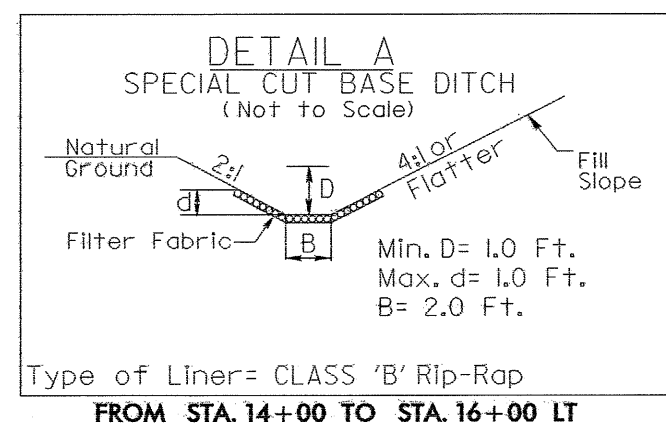
GPS B4622-1-PINC 35+17.90

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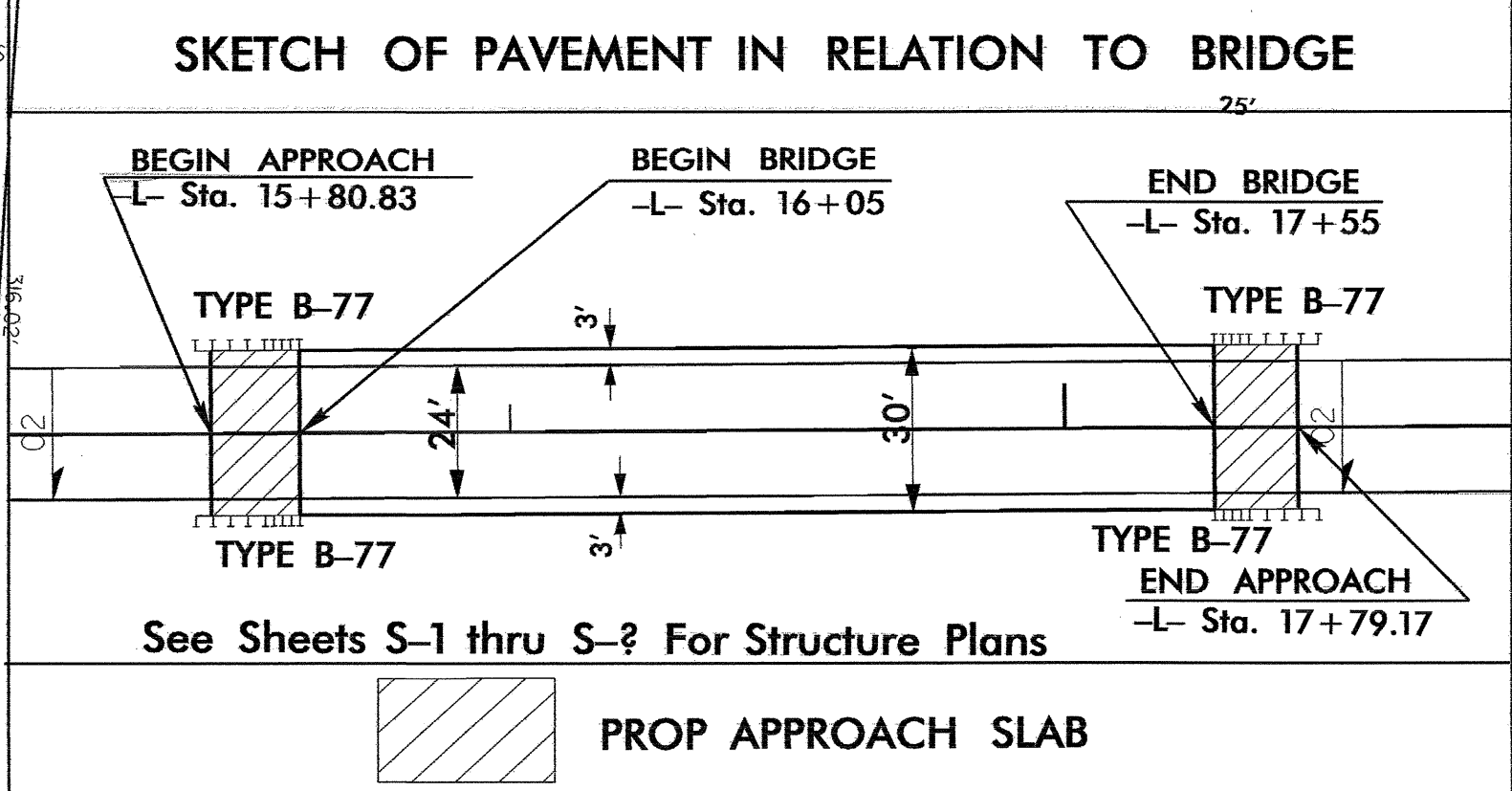
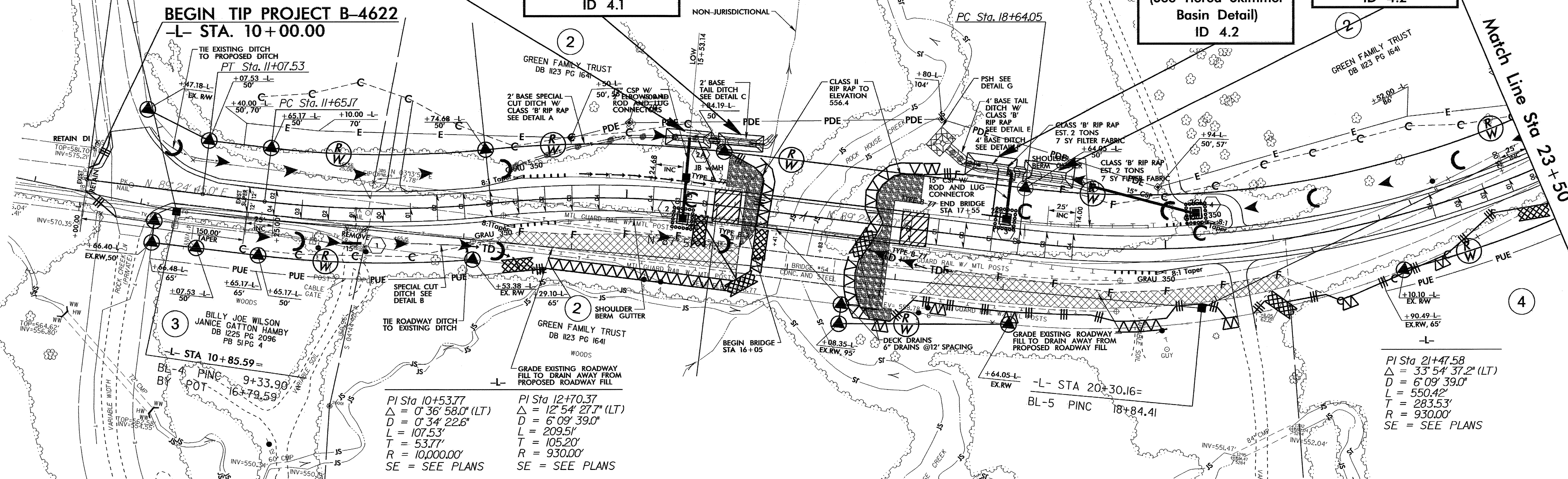


Modified Silt Basin
Type 'B'
45 x 15 x 3
(See Tiered Skimmer Basin Detail)
ID 4.1

45 x 15 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
(See Tiered Skimmer Basin Detail)
ID 4.1

50 x 20 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 4.2

Modified Silt Basin
Type 'B'
50 x 20 x 3
(See Tiered Skimmer Basin Detail)
ID 4.2



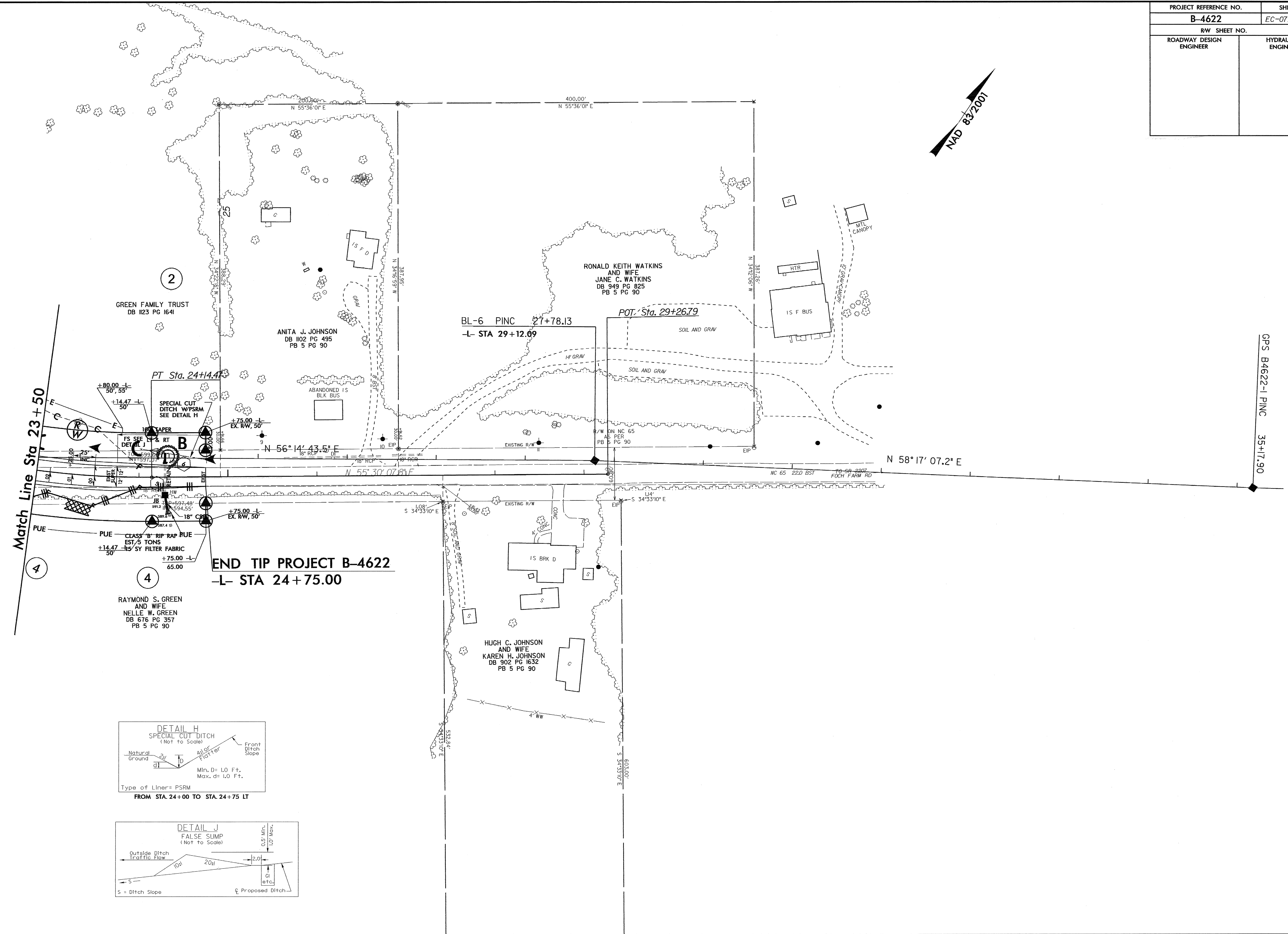
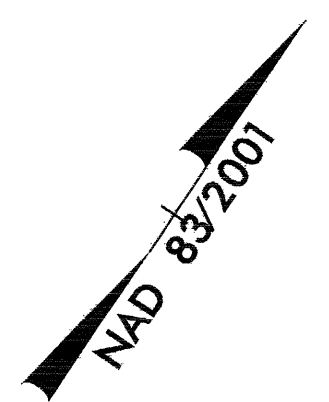
PI Sta 21+47.58
Δ = 33° 54' 37.2" (LT)
D = 6° 09' 39.0"
L = 550.42'
T = 283.53'
R = 930.00'
SE = SEE PLANS

NOTE: UTILIZE SKIMMER BASIN OR TIERED SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

8/17/99
 REVISIONS
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PROJECT REFERENCE NO. B-4622	SHEET NO. EC-07/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



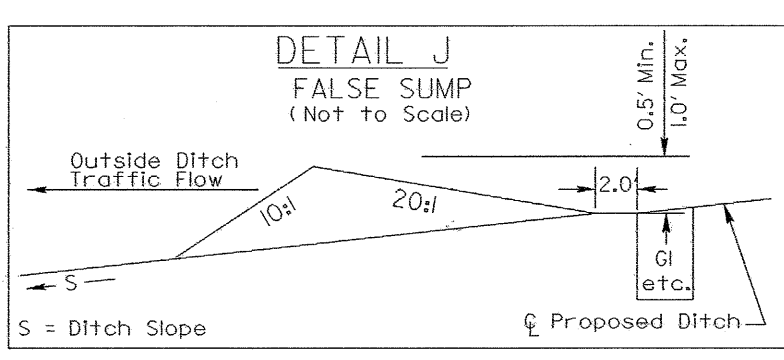
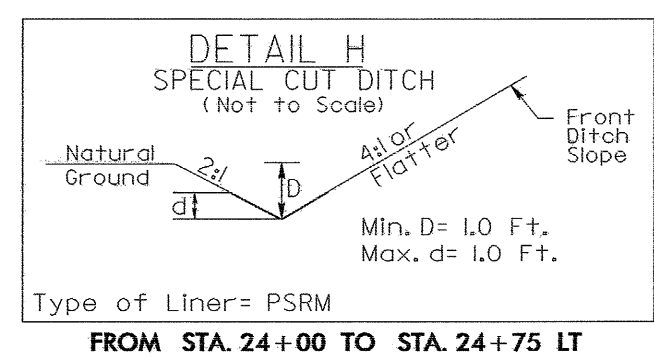
REVISIONS

Match Line Sta 23+50

4

END TIP PROJECT B-4622
-L- STA 24+75.00

GPS B4622-1 P1NC 35+17.90



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