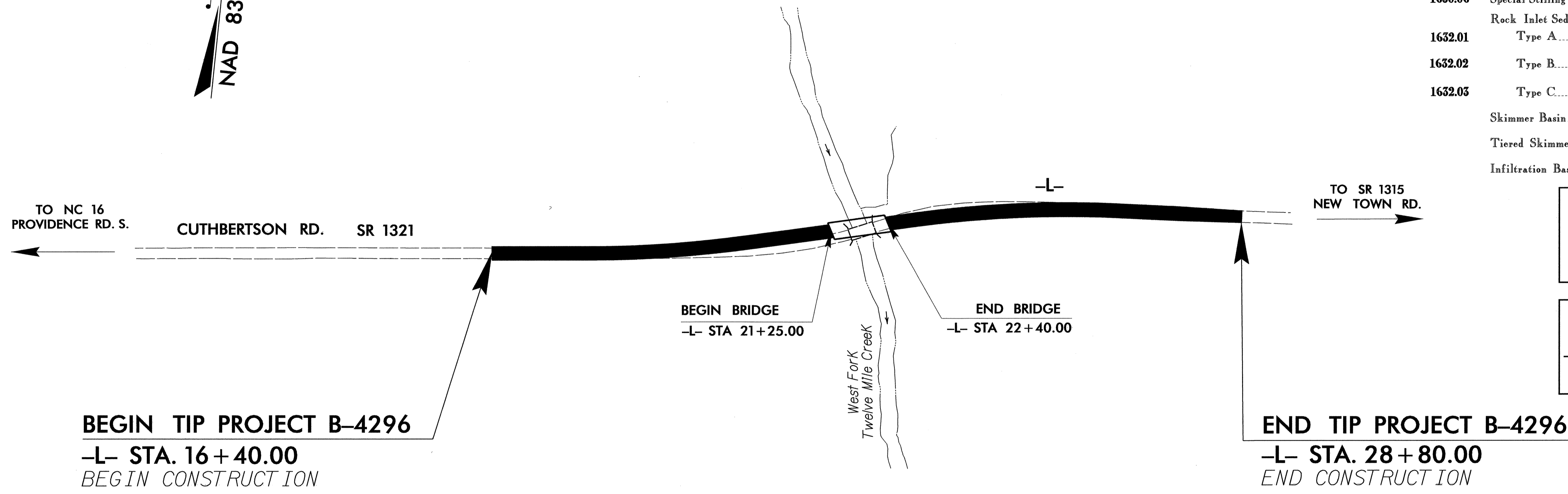


**TIP PROJECT: B-4296**

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

**LOCATION: BRIDGE NO. 223 OVER WEST FORK TWELVE MILE CREEK AND APPROACHES ON SR 1321 (CUTHBERTSON ROAD)**

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



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4296	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**EROSION AND SEDIMENT CONTROL MEASURES**

Sta. #	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
1630.01	Riser Basin	RB
1630.01	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	TRSCA
1633.01	Temporary Rock Silt Check Type-B	TRSCB
1633.01	Wattle	W
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDB
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

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

**ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT**  
*Refer To E. C. Special Provisions for Special Considerations.*

**GRAPHIC SCALE**

0

PLANS

0

PROFILE (HORIZONTAL)

0

PROFILE (VERTICAL)

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**

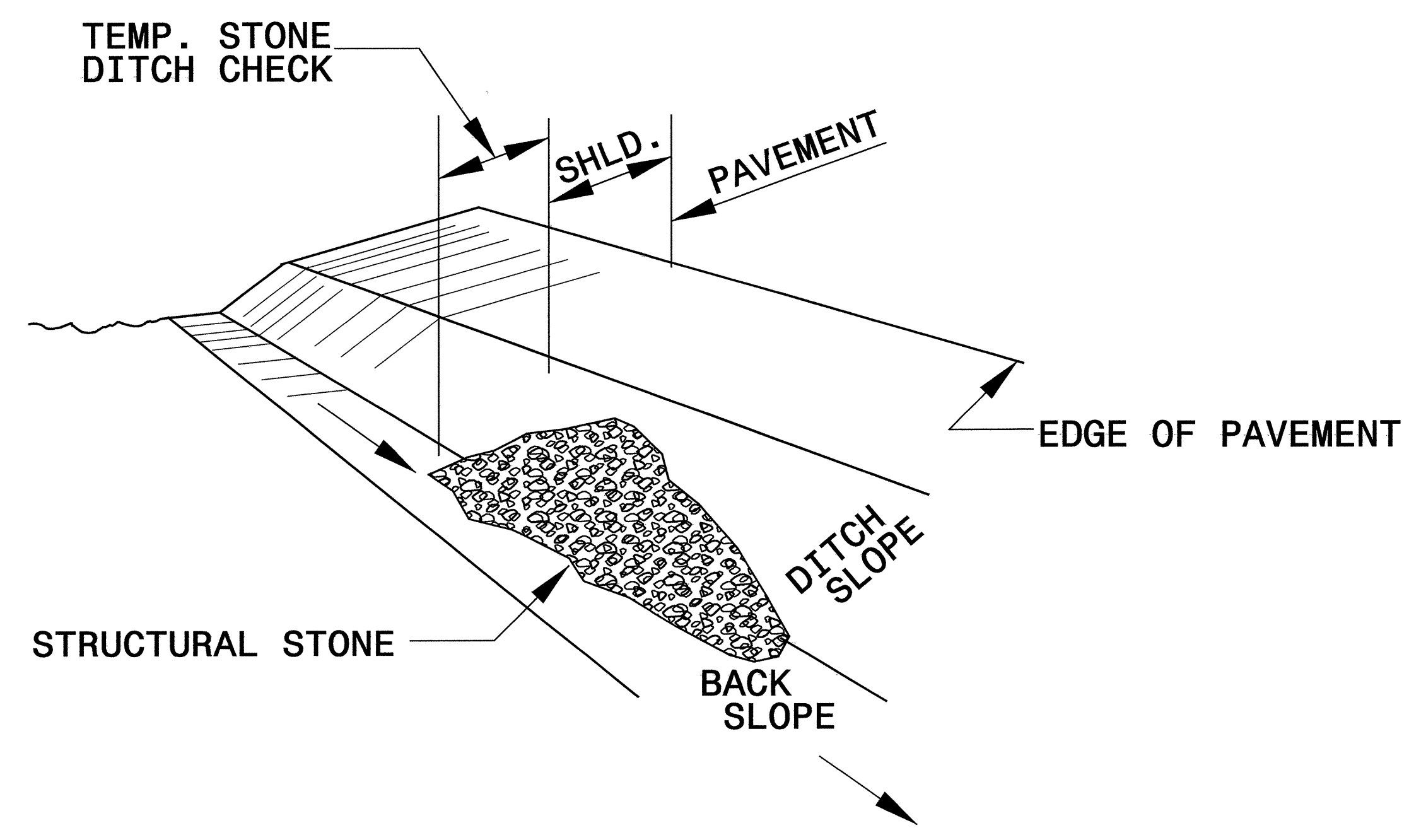
Roadway Standard Drawings

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
- 1606.01 Special Sediment Control Fence
- 1607.01 Gravel Construction Entrance
- 1622.01 Temporary Berms and Slope Drains
- 1630.05 Temporary Diversion
- 1632.03 Rock Inlet Sediment Trap Type C
- 1633.01 Temporary Rock Silt Check Type A

PROJECT REFERENCE NO. B-4296	SHEET NO. EC-2
R/W SHEET NO.	
ROADWAY DESIGN- ENGINEER	HYDRAULICS- ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

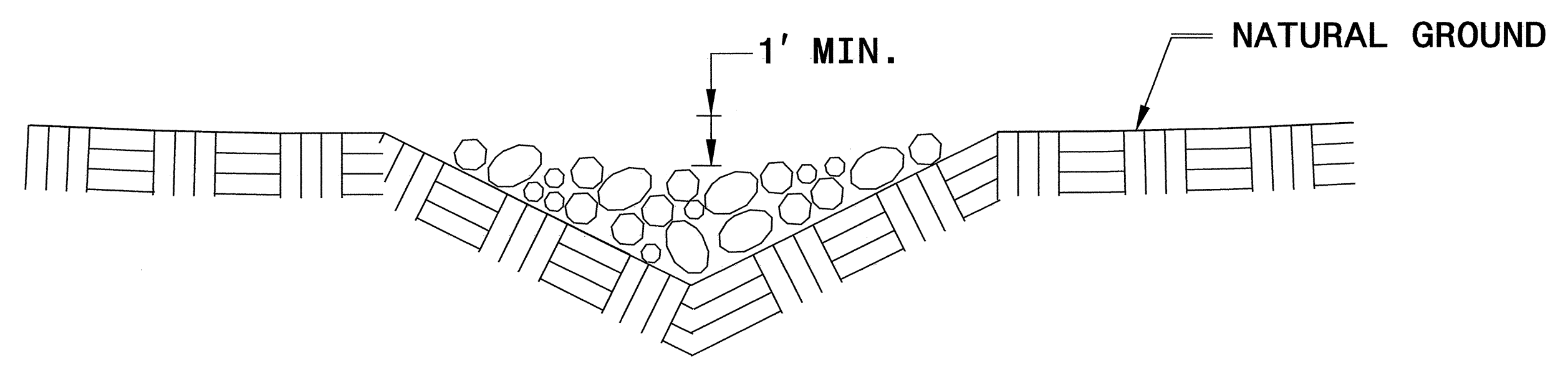


**ISOMETRIC VIEW**

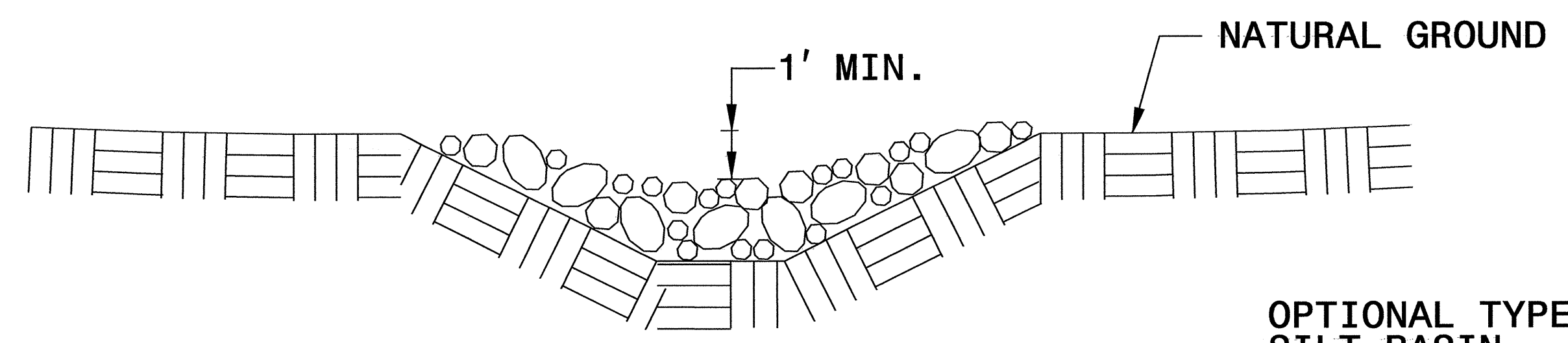
**NOTES:**

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

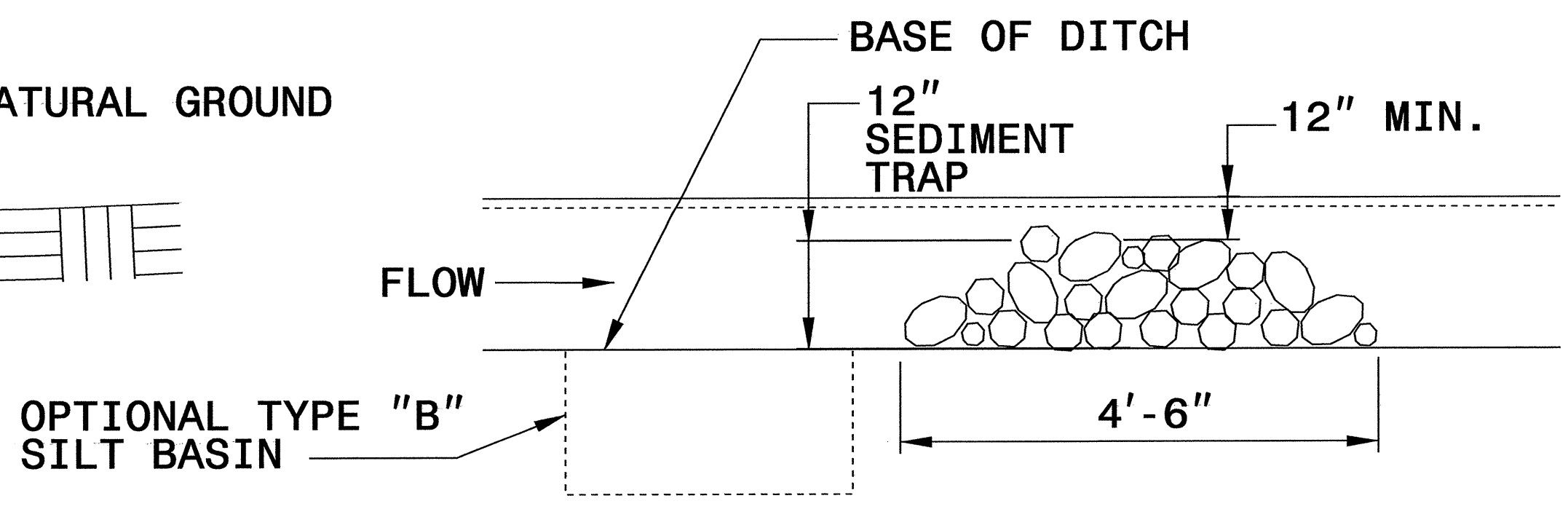
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION  
VEE DITCH**



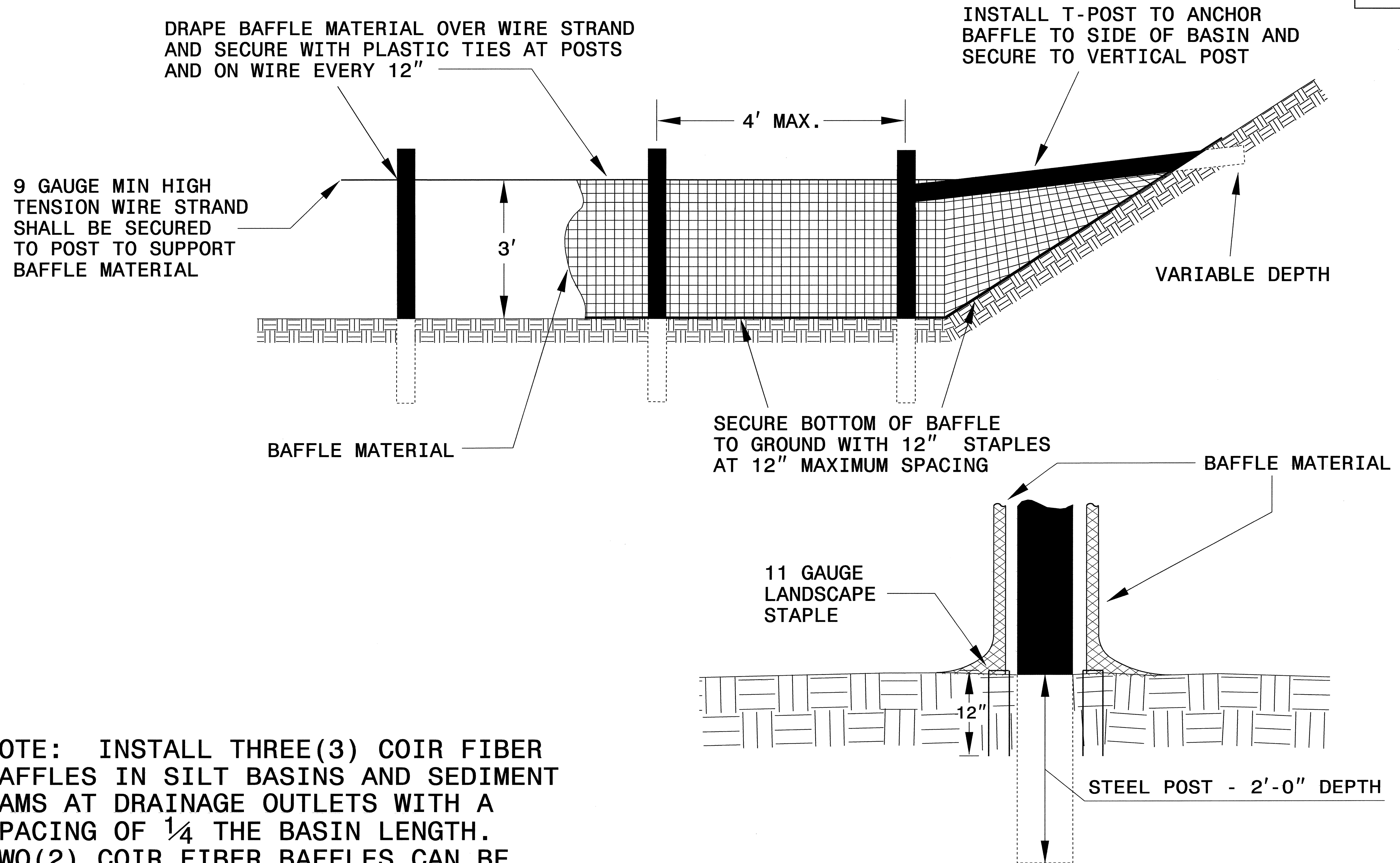
**CROSS SECTION  
TRAPEZOIDAL DITCH**



**ELEVATION VIEW**

PROJECT REFERENCE NO. B-4296	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER BAFFLE DETAIL

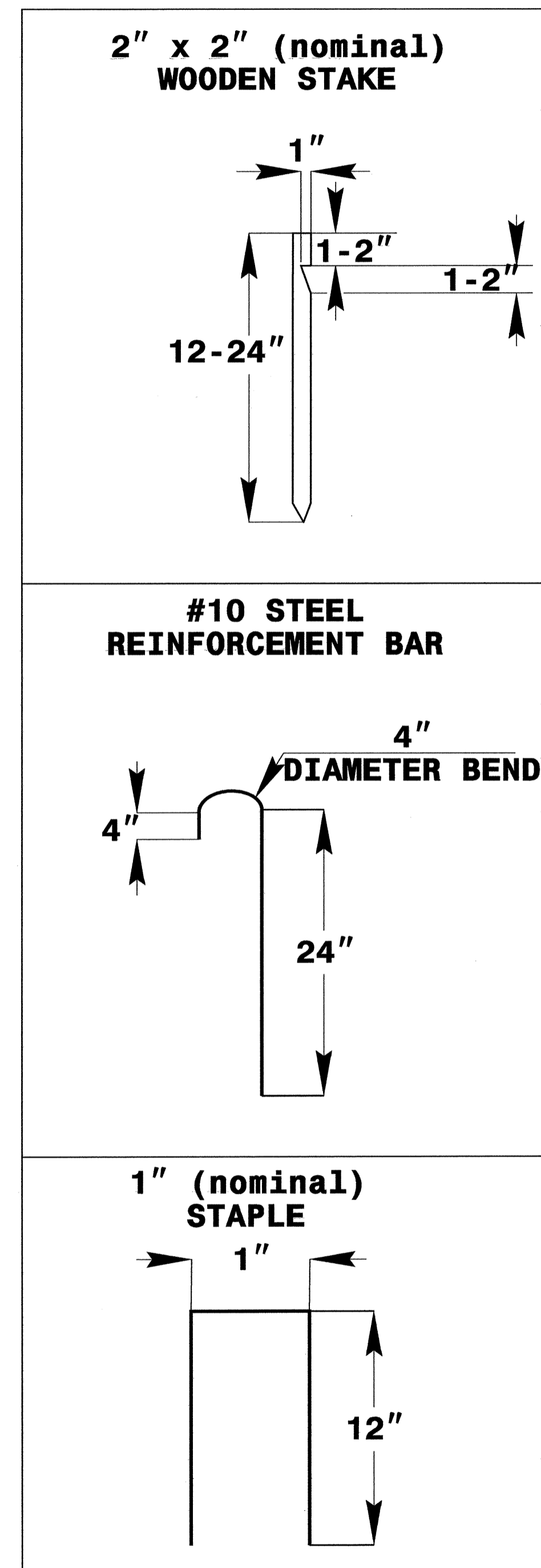
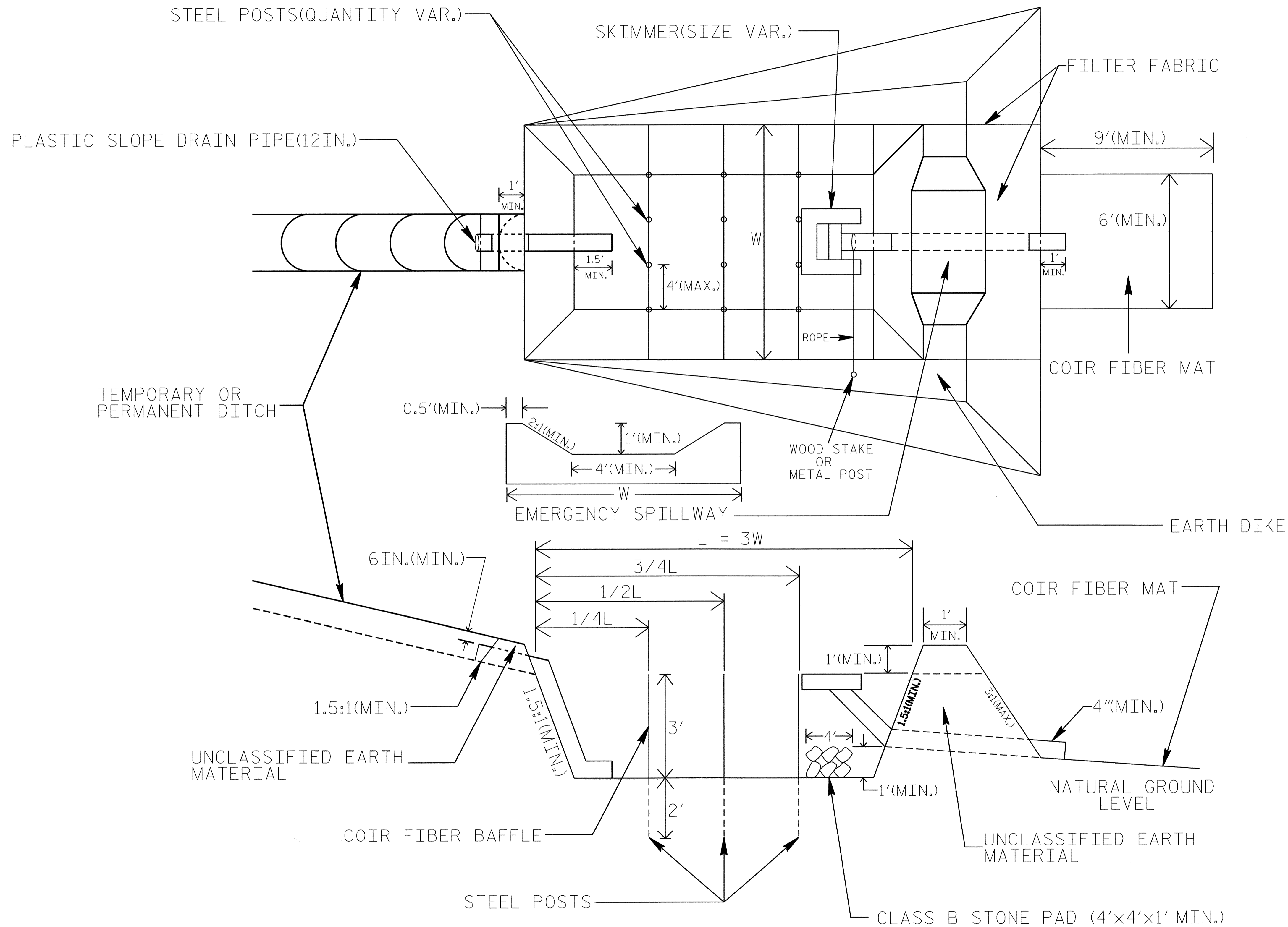


NOTE: INSTALL THREE (3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF  $\frac{1}{4}$  THE BASIN LENGTH. TWO (2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF  $\frac{1}{3}$  THE BASIN LENGTH.

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-4296	SHEET NO. EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



**COIR FIBER MAT ANCHOR OPTIONS**

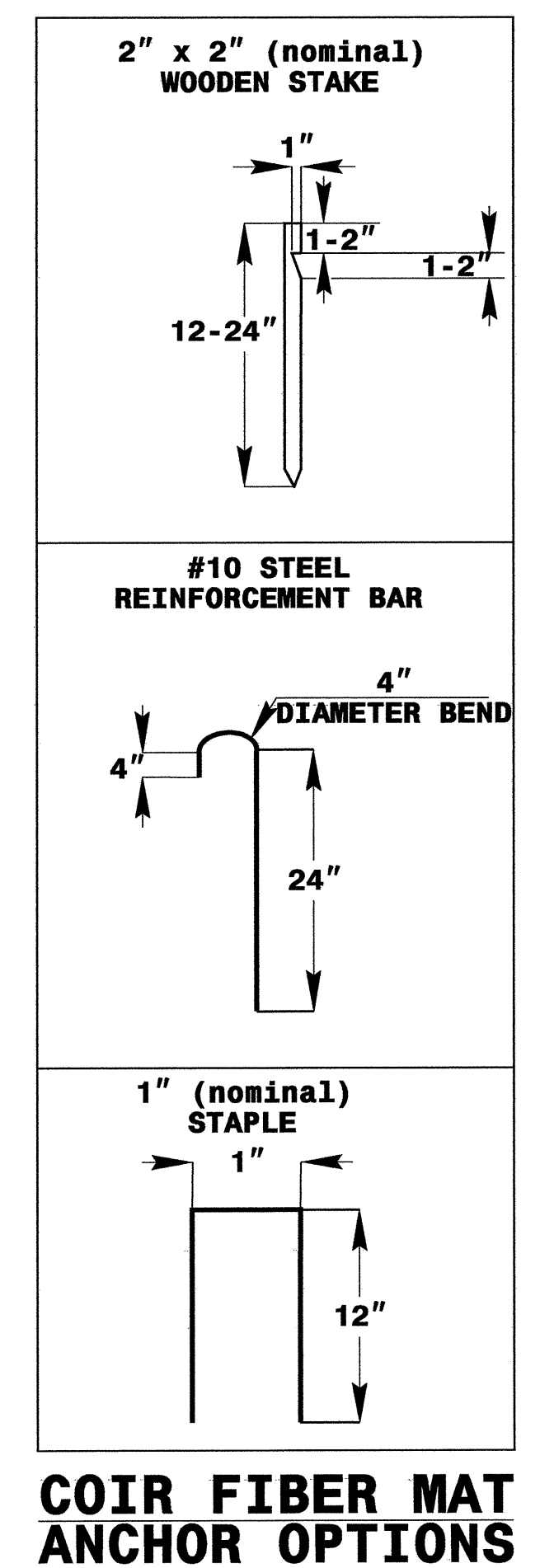
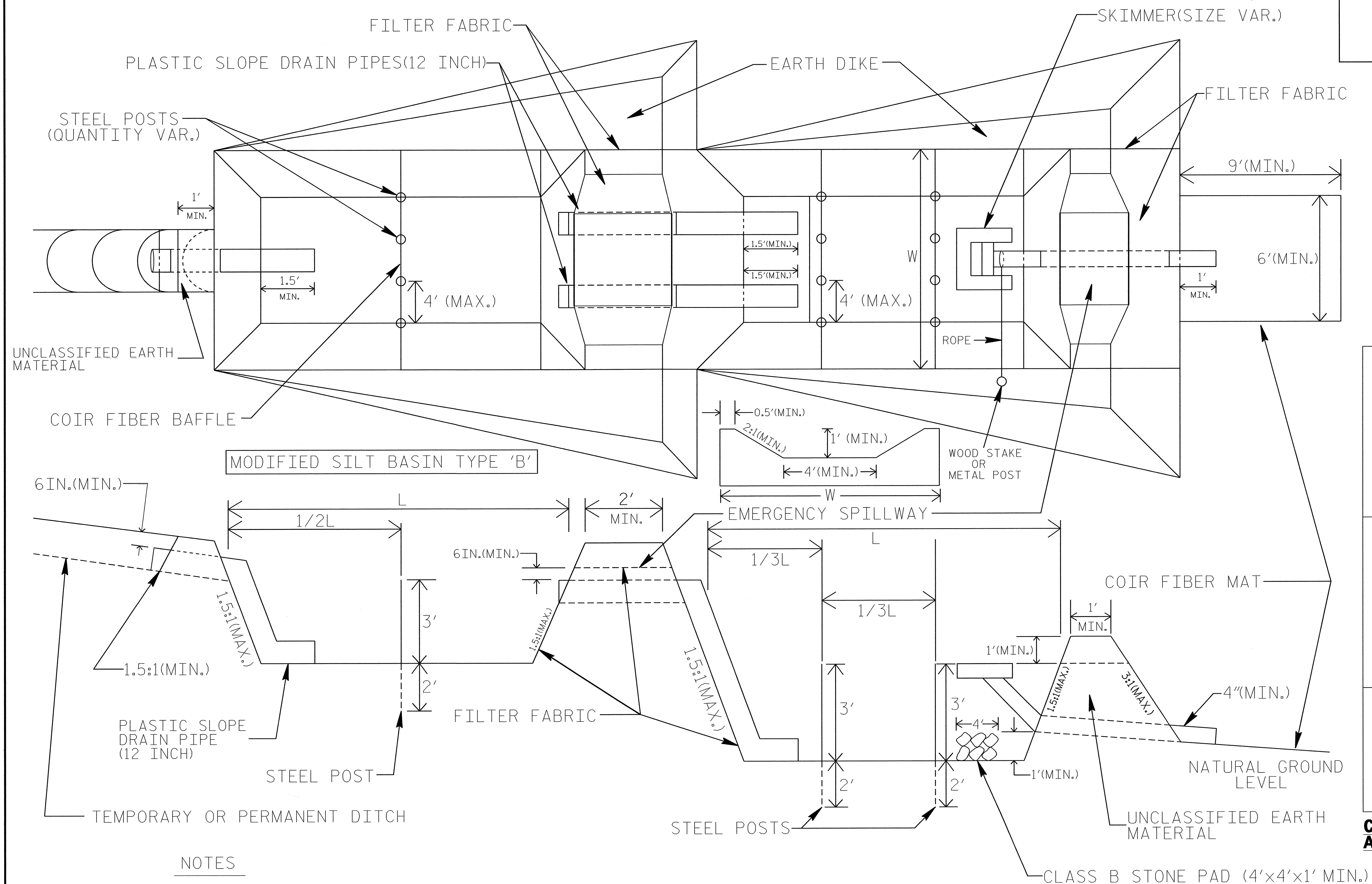
**NOTES**

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-4296	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN- ENGINEER	HYDRAULICS- ENGINEER

# TIERED SKIMMER BASIN DETAIL



## 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



**BEGIN TIP PROJECT B-4296 -L- STA 16+40.00  
BEGIN CONSTRUCTION**

NOTE: UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

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

PROJECT REFERENCE NO. B-4296	SHEET NO. EC-04/CONST.04
RW SHEET NO.	HYDRAULICS-ENGINEER
ROADWAY DESIGN-ENGINEER	

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 04

22 x 20 x 3  
1.5 inch Skimmer  
with 0.75 inch  
Orifice Diameter  
12 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 4.4

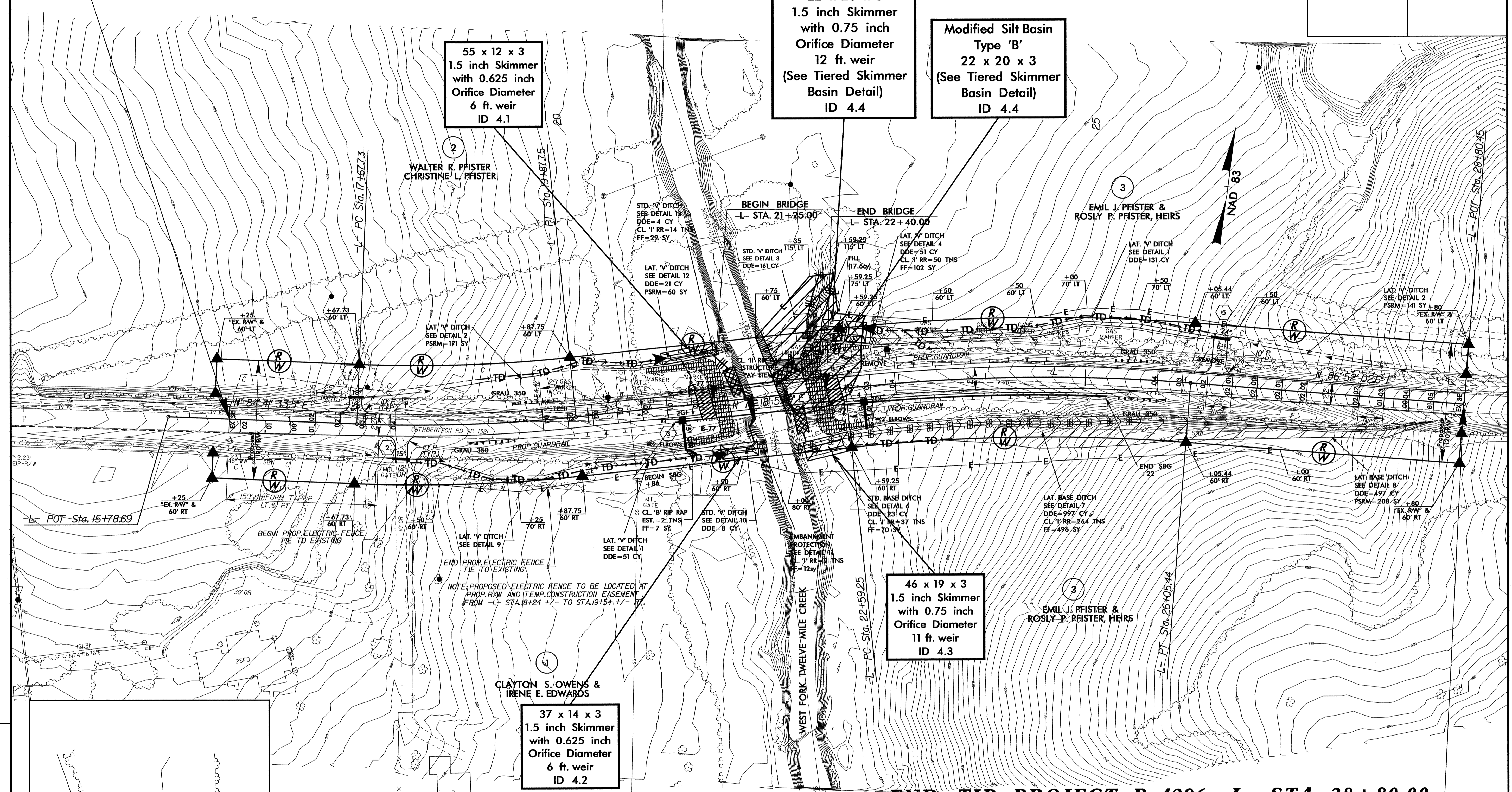
Modified Silt Basin  
Type 'B'  
22 x 20 x 3  
(See Tiered Skimmer  
Basin Detail)  
ID 4.4

55 x 12 x 3  
1.5 inch Skimmer  
with 0.625 inch  
Orifice Diameter  
6 ft. weir  
ID 4.1

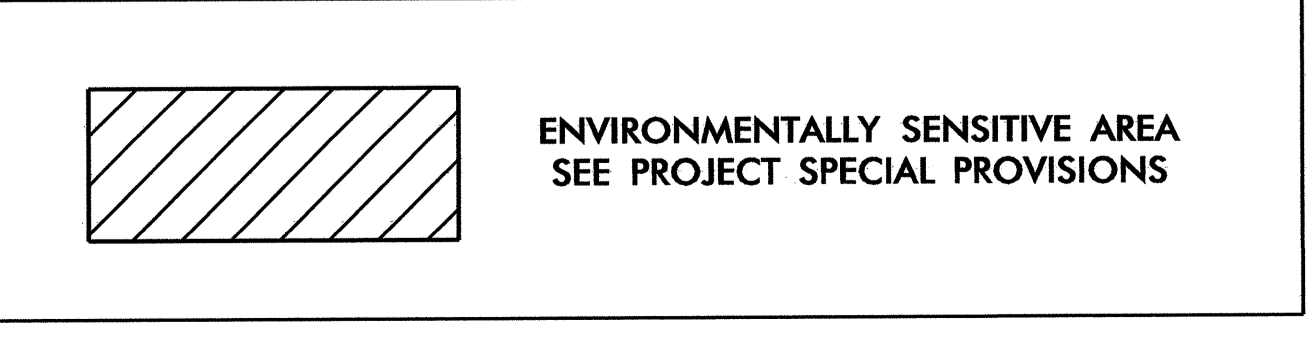
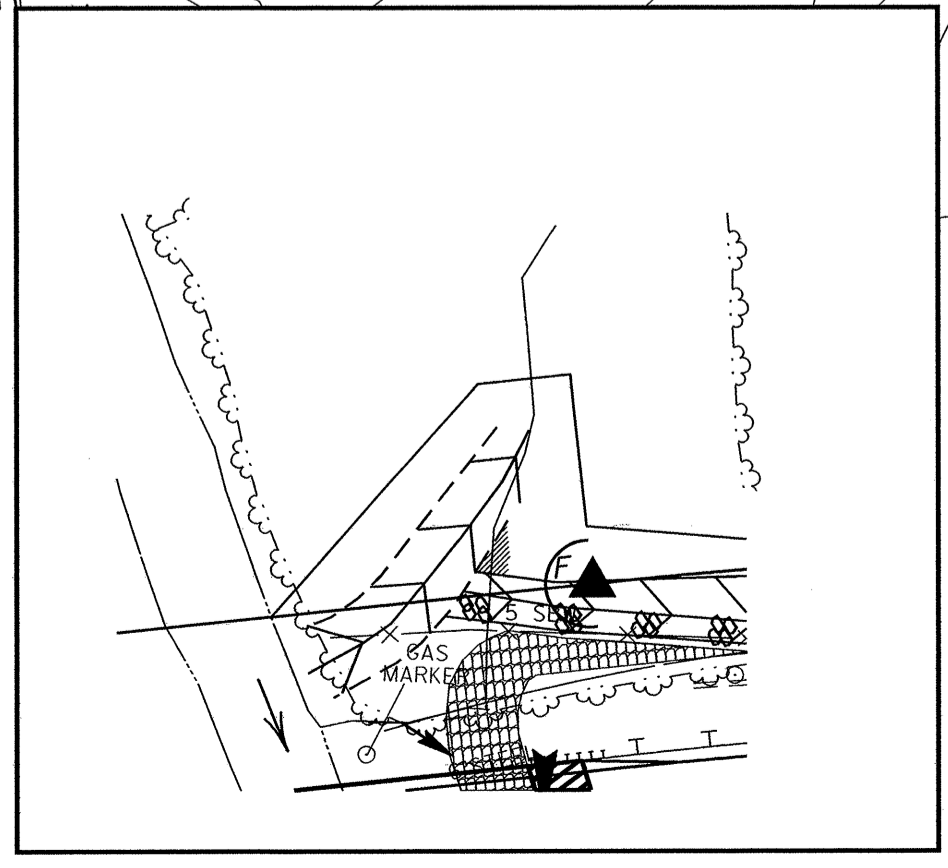
46 x 19 x 3  
1.5 inch Skimmer  
with 0.75 inch  
Orifice Diameter  
11 ft. weir  
ID 4.3

37 x 14 x 3  
1.5 inch Skimmer  
with 0.625 inch  
Orifice Diameter  
6 ft. weir  
ID 4.2

REVISIONS



**END TIP PROJECT B-4296 -L- STA 28+80.00  
END CONSTRUCTION**



PROJECT REFERENCE NO.	SHEET NO.
B-4296	EC-05/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**BEGIN TIP PROJECT B-4296 -L- STA 16+40.00  
BEGIN CONSTRUCTION**

NOTE:  
UTILIZE SKIMMER BASIN AS STILLING BASIN  
WHERE APPLICABLE.

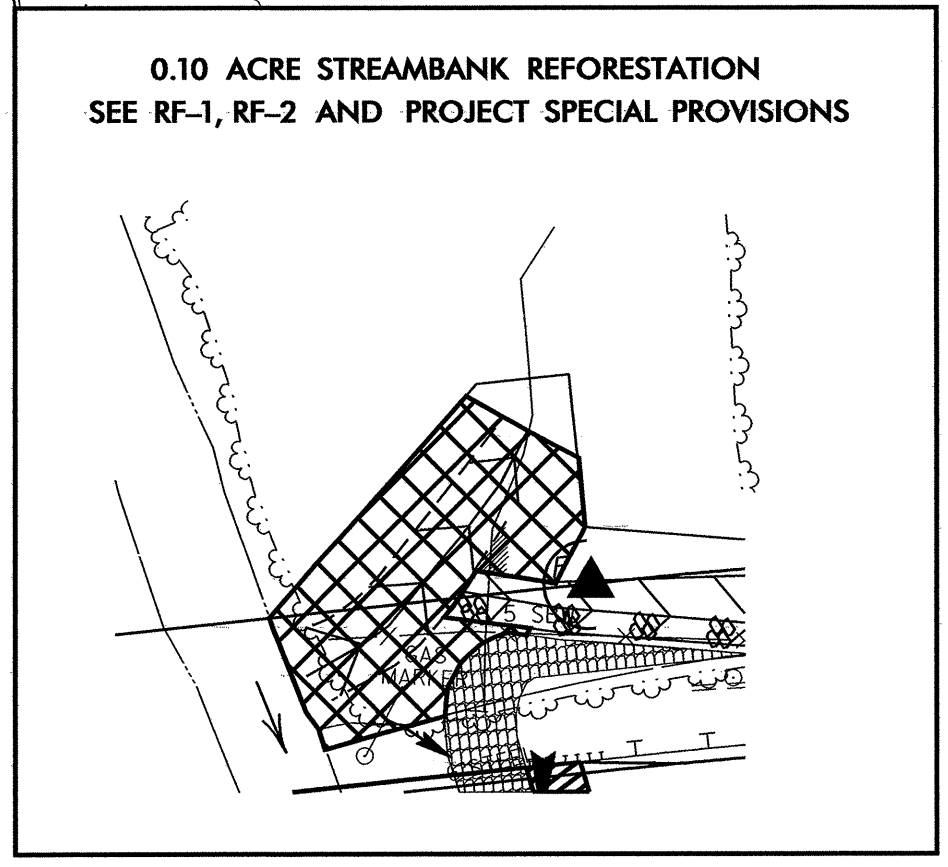
55 x 12 x 3  
1.5 inch Skimmer  
with 0.625 inch  
Orifice Diameter  
6 ft. weir  
ID 4.1

22 x 20 x 3  
1.5 inch Skimmer  
with 0.75 inch  
Orifice Diameter  
12 ft. weir  
(See Tiered Skimmer  
Basin Detail)  
ID 4.4

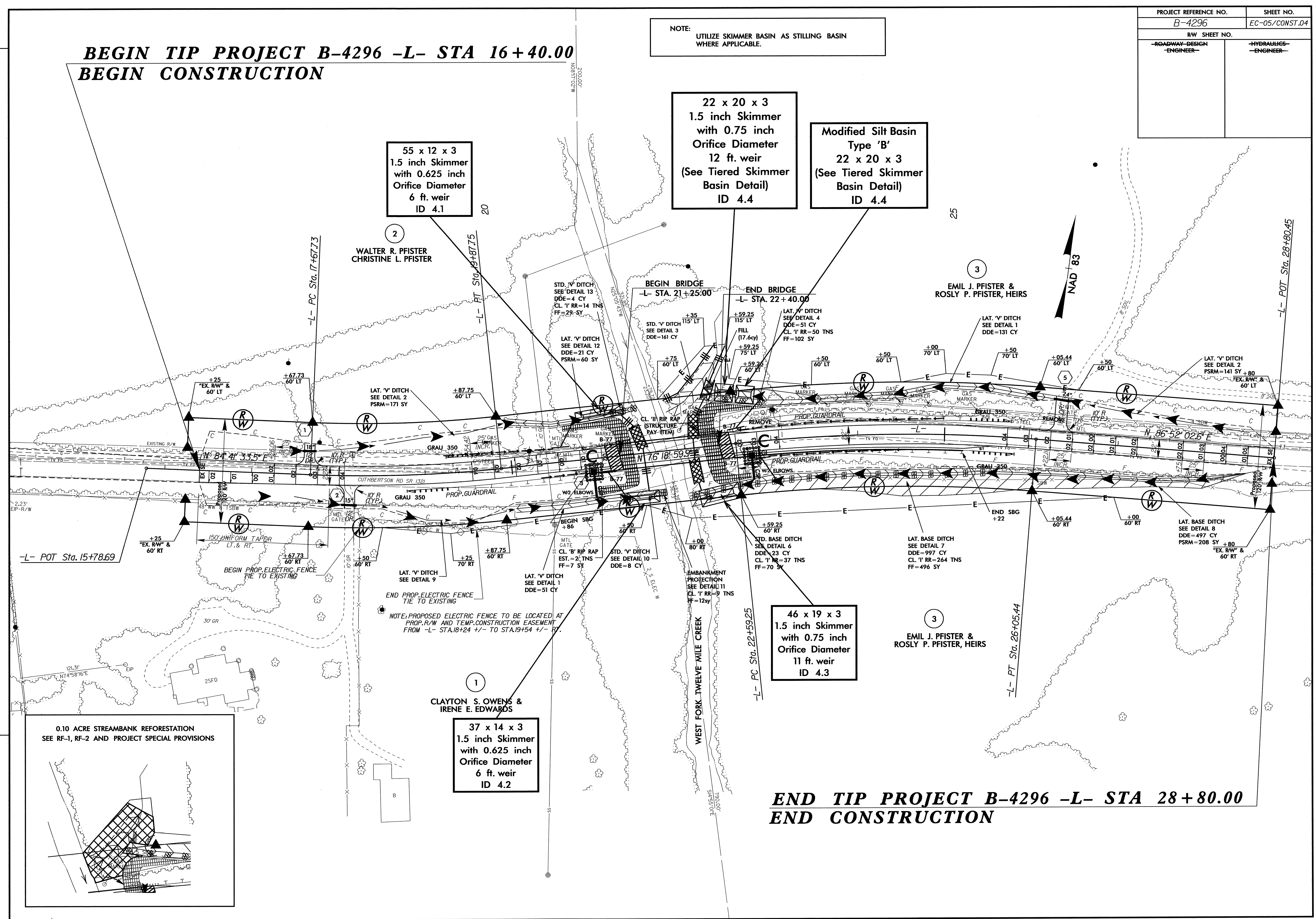
Modified Silt Basin  
Type 'B'  
22 x 20 x 3  
(See Tiered Skimmer  
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46 x 19 x 3  
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37 x 14 x 3  
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Orifice Diameter  
6 ft. weir  
ID 4.2



REVISIONS



**END TIP PROJECT B-4296 -L- STA 28+80.00  
END CONSTRUCTION**