

**TIP PROJECT: B-3919**

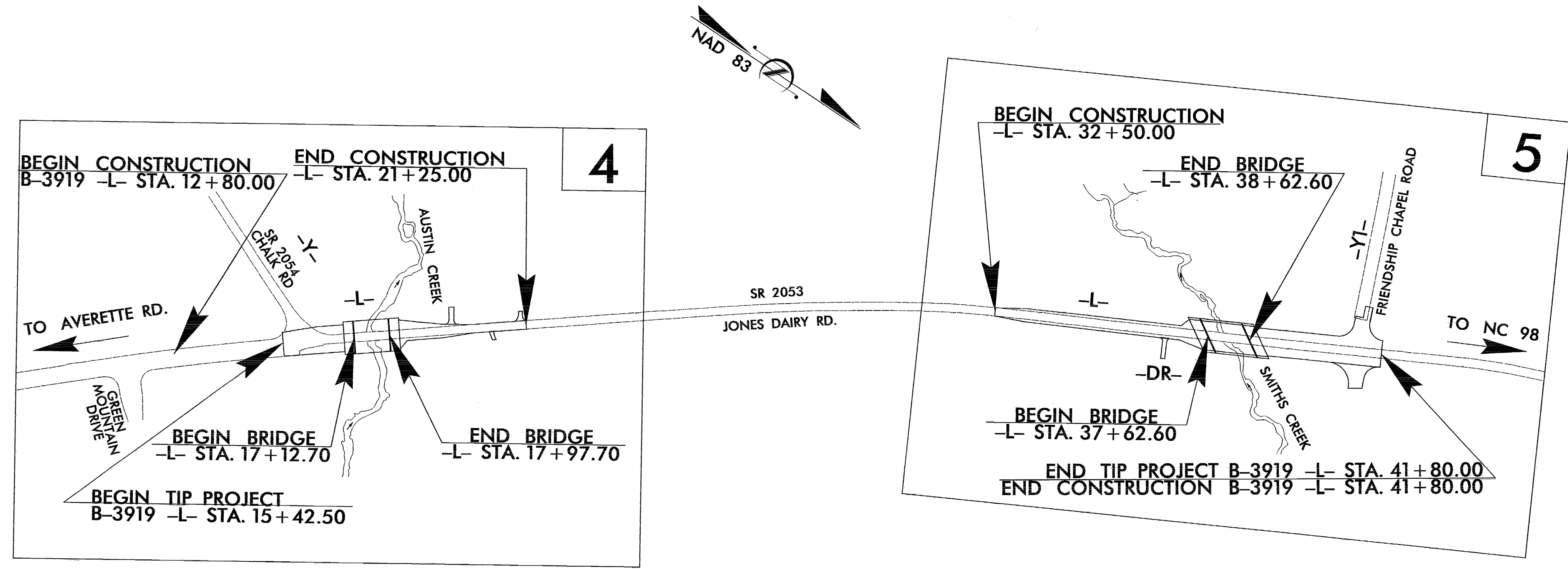
STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
 PLAN FOR PROPOSED  
 HIGHWAY EROSION CONTROL  
**WAKE COUNTY**

**LOCATION: BRIDGE NO. 448 OVER AUSTIN CREEK AND  
 BRIDGE NO. 140 OVER SMITHS CREEK AND  
 APPROACHES ON SR 2053 (JONES DAIRY RD.)  
 TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURES**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3919	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**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	—
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	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.**

**THIS PROJECT HAS  
 BEEN DESIGNED TO  
 SENSITIVE WATERSHED  
 STANDARDS.**

**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

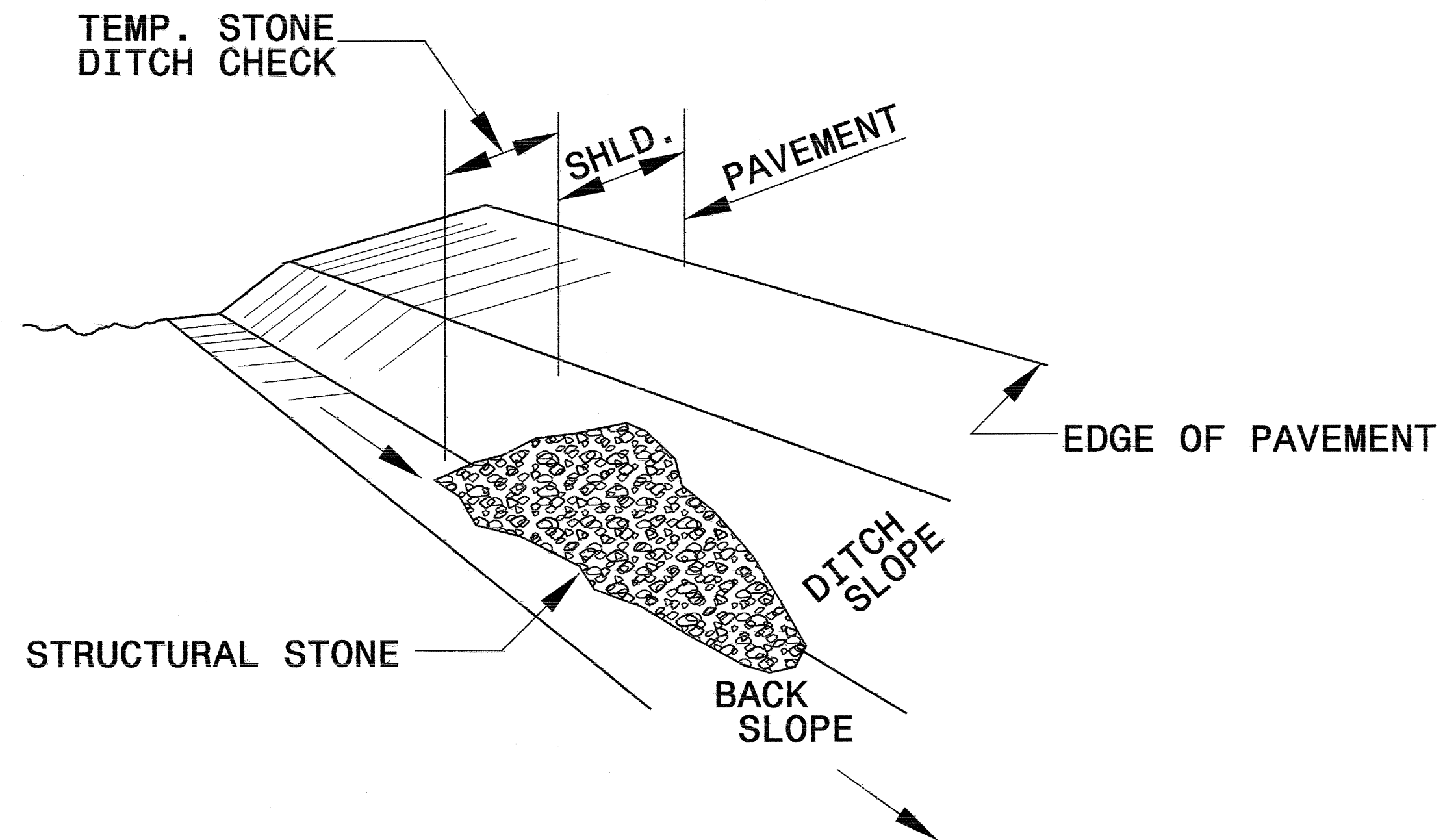
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence	1632.03 Rock Inlet Sediment Trap Type C
1606.01 Special Sediment Control Fence	1633.01 Temporary Rock Silt Check Type A
1607.01 Gravel Construction Entrance	
1622.01 Temporary Berms and Slope Drains	
1630.03 Temporary Silt Ditch	
1630.05 Temporary Diversion	

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PROJECT REFERENCE NO. B-3919	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

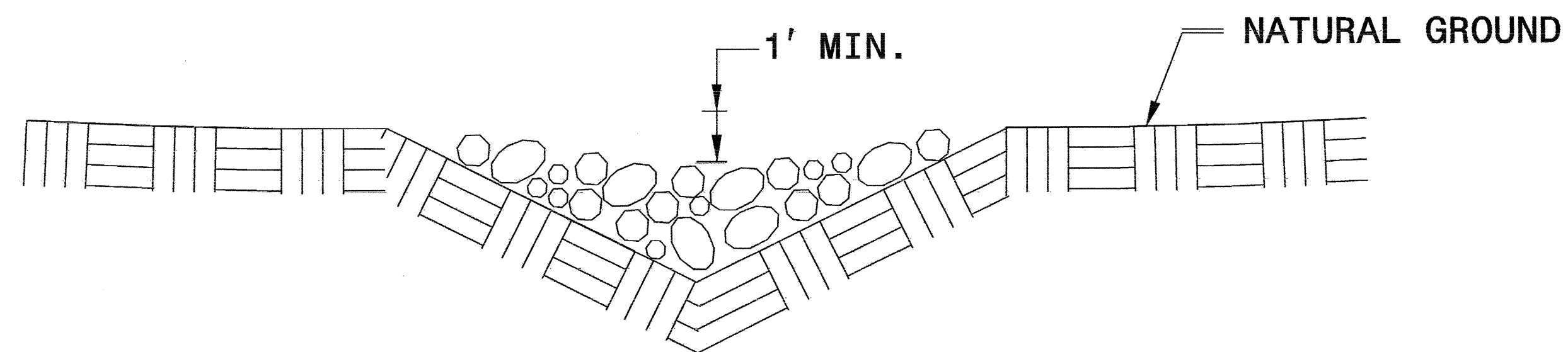


**ISOMETRIC VIEW**

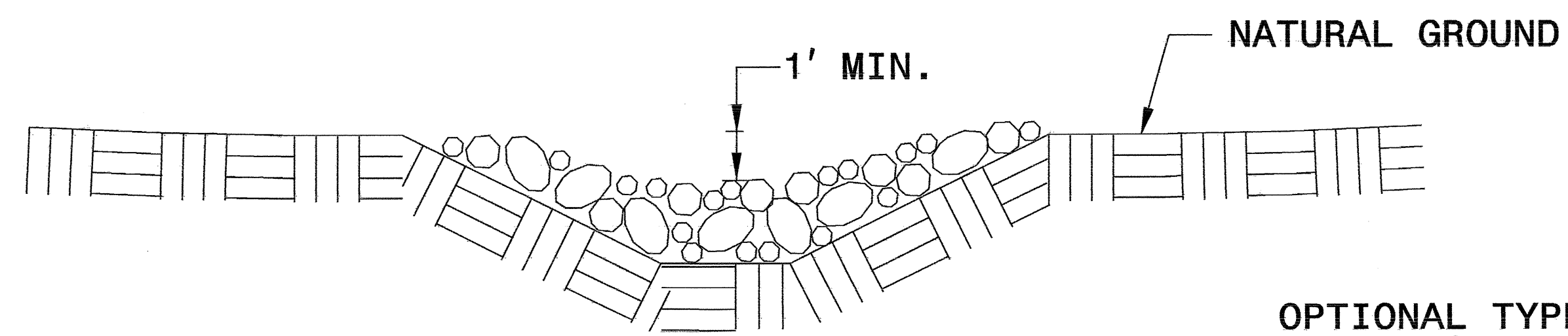
**NOTES:**

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

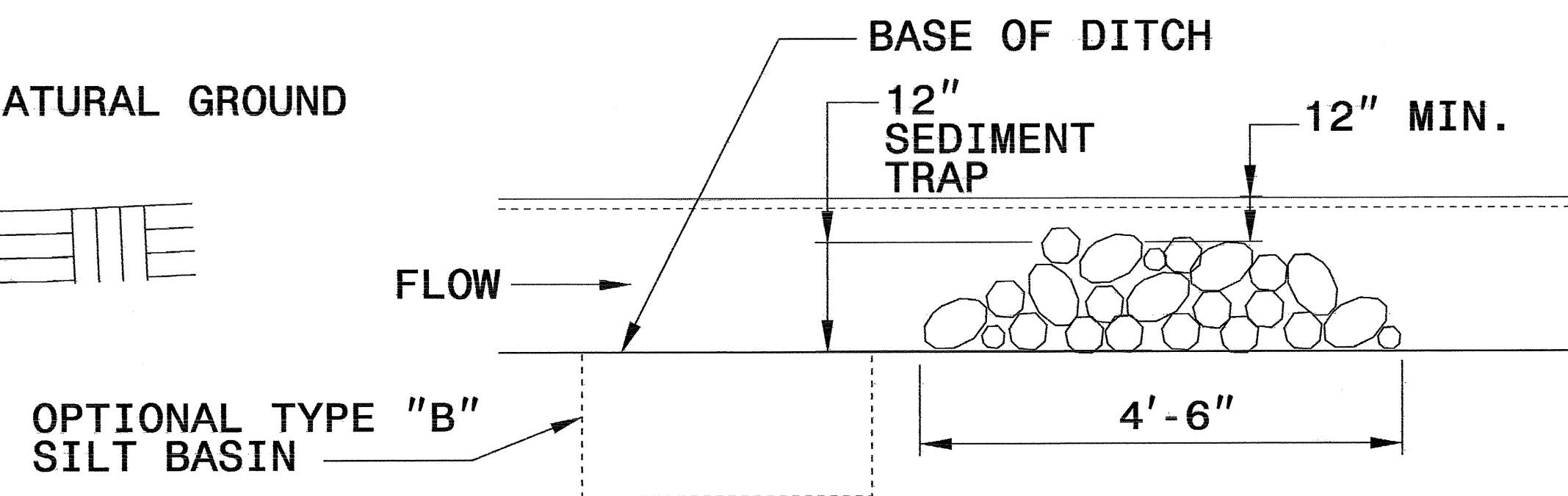
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION VEE DITCH**



**CROSS SECTION TRAPEZOIDAL DITCH**

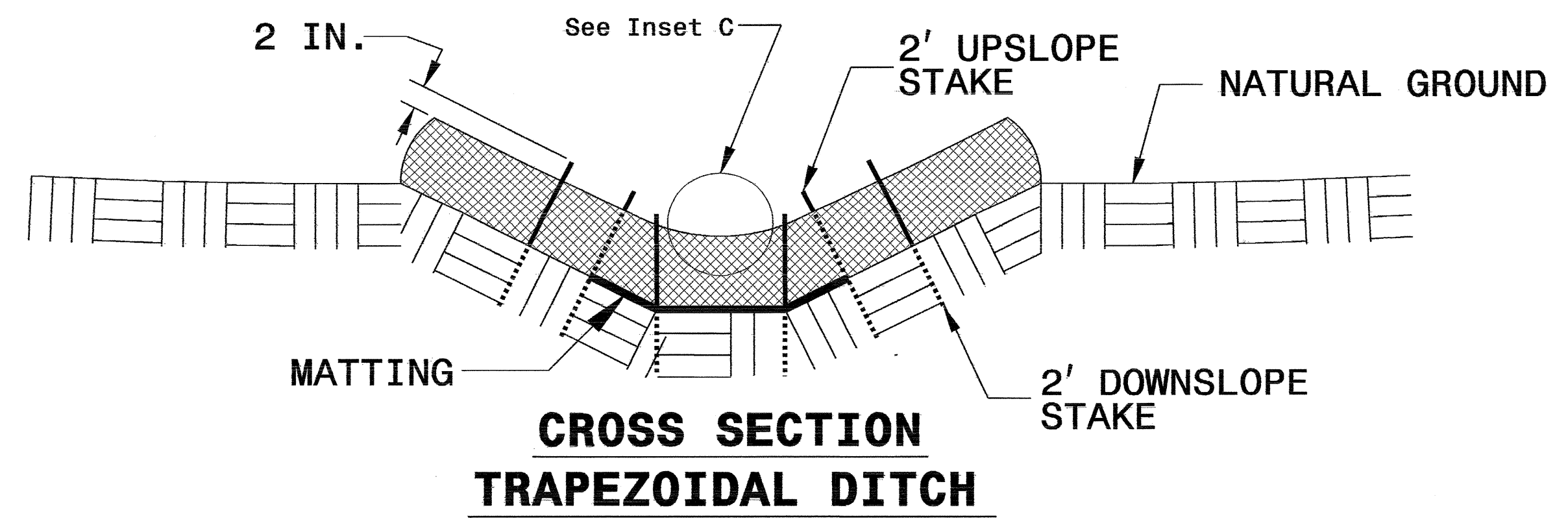
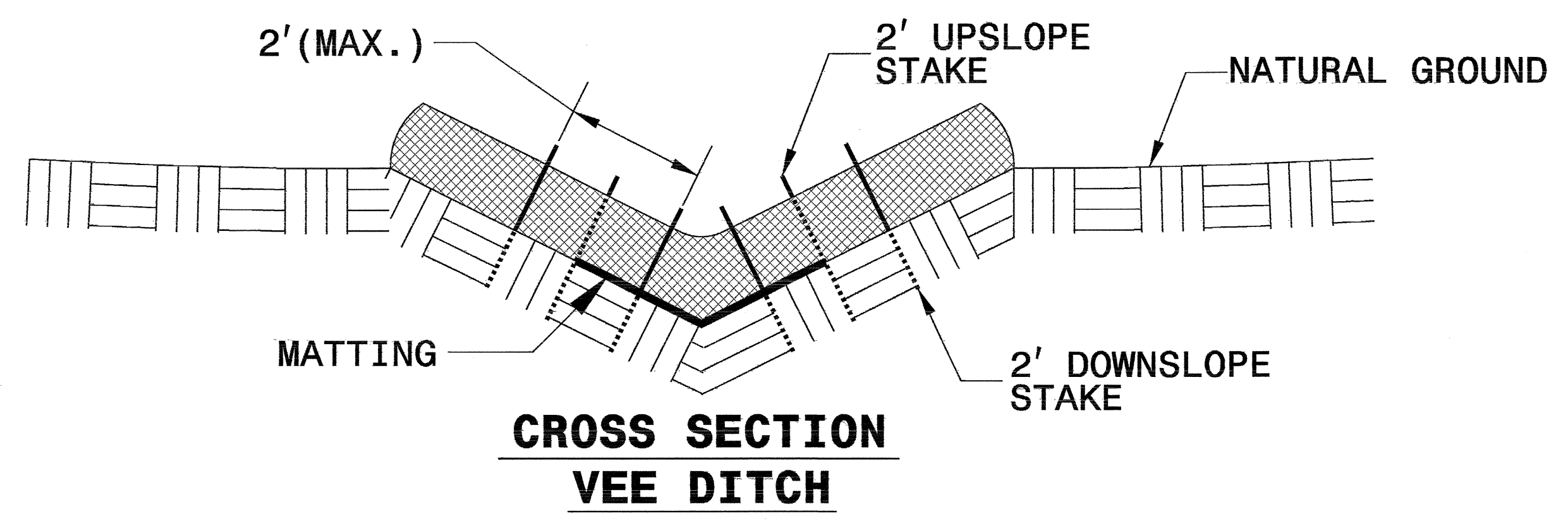
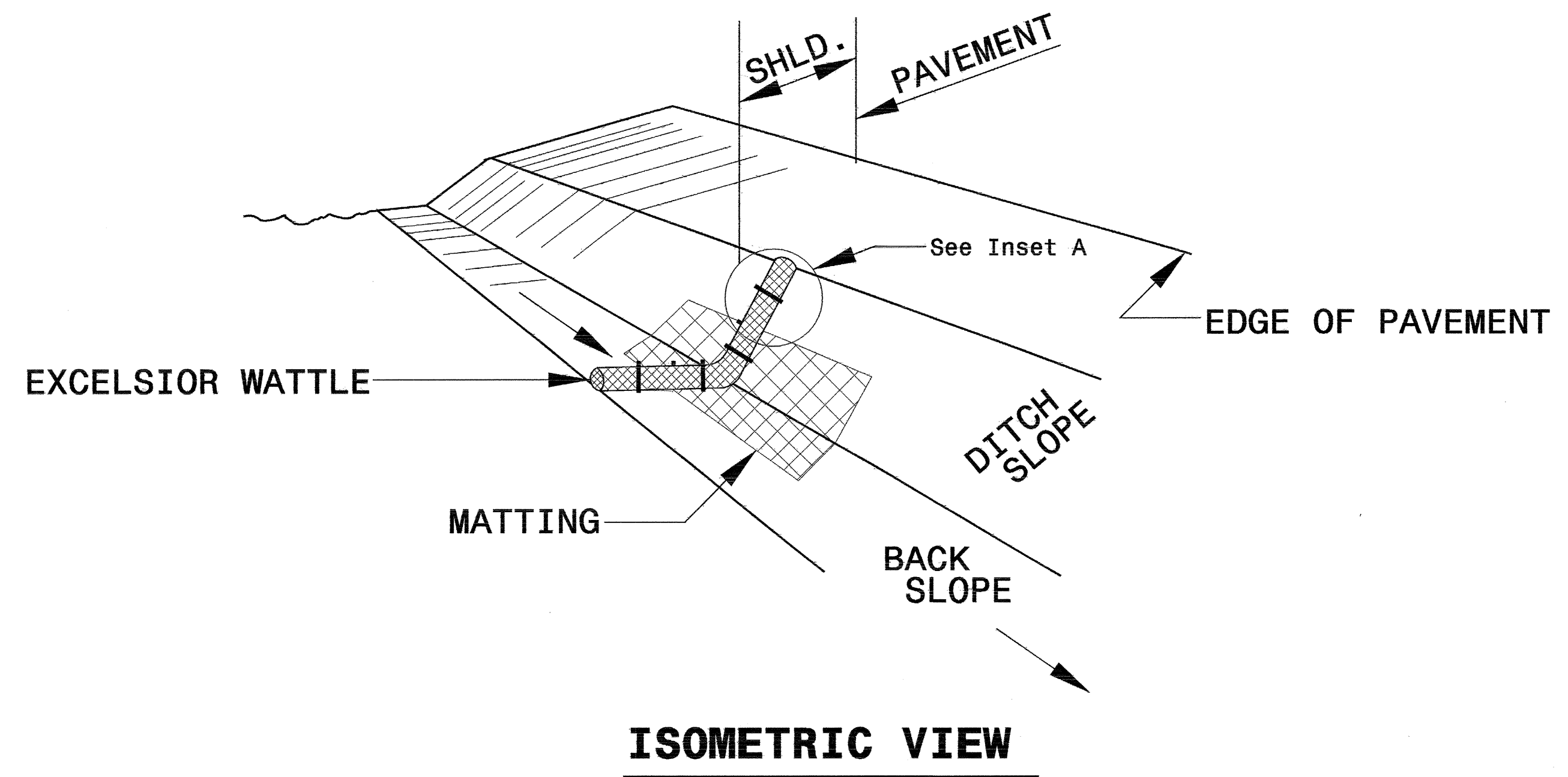


**ELEVATION VIEW**



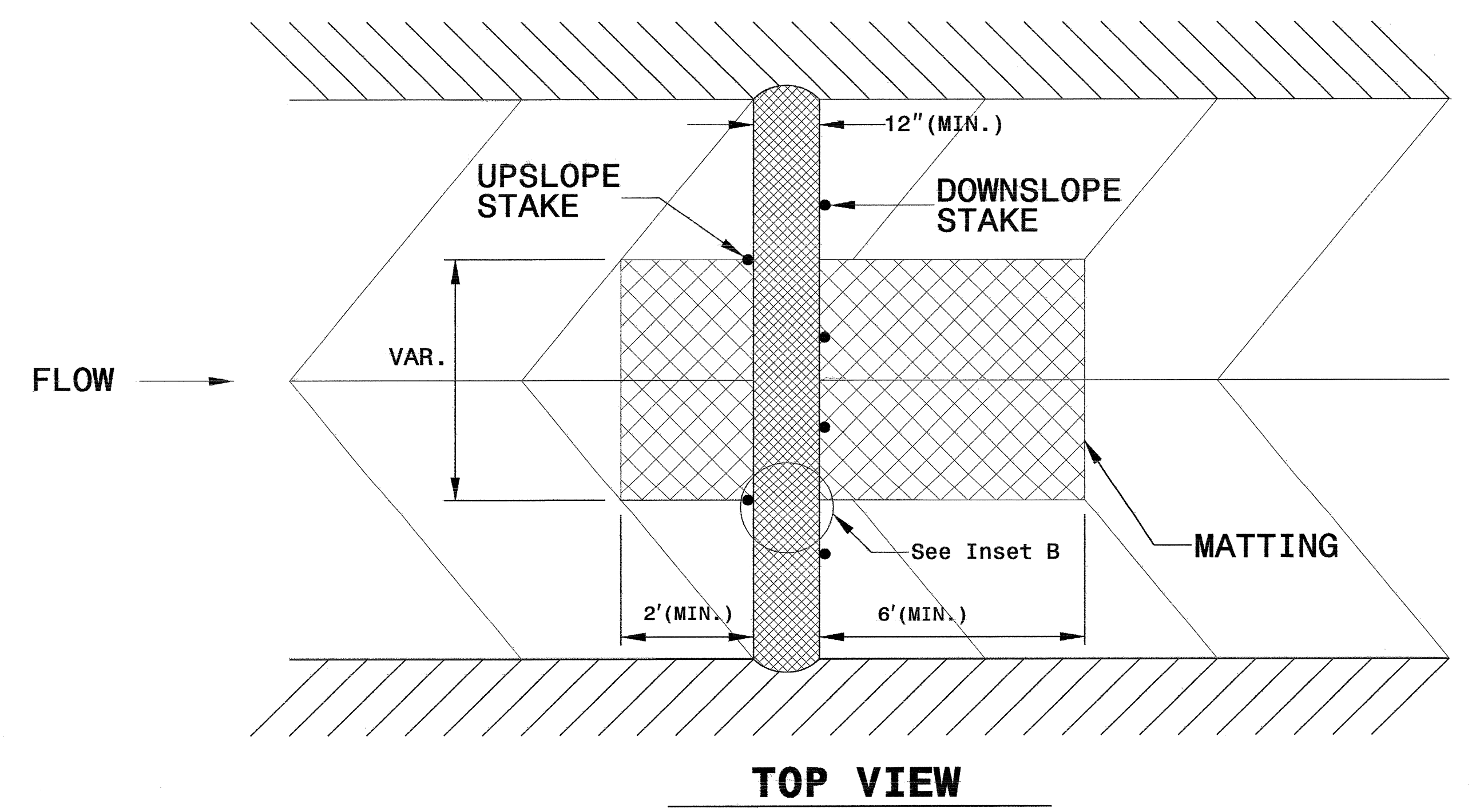
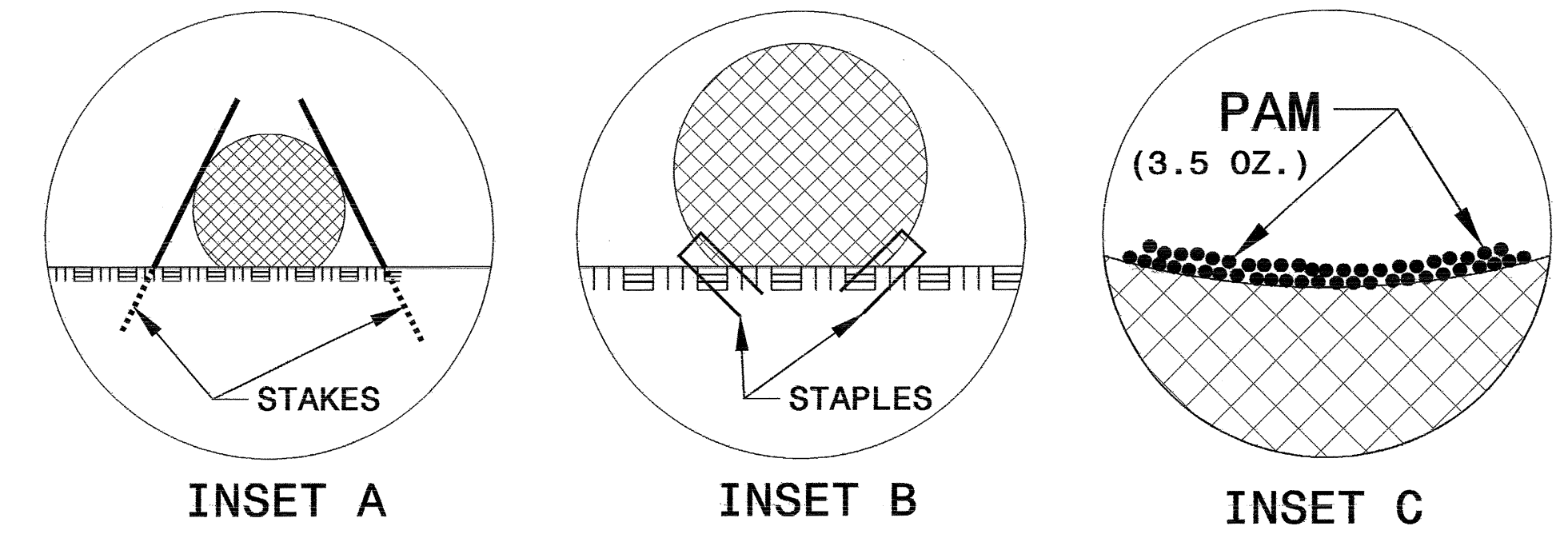
PROJECT REFERENCE NO. B-3919	SHEET NO. EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# WATTLE WITH POLYACRYLAMIDE DETAIL



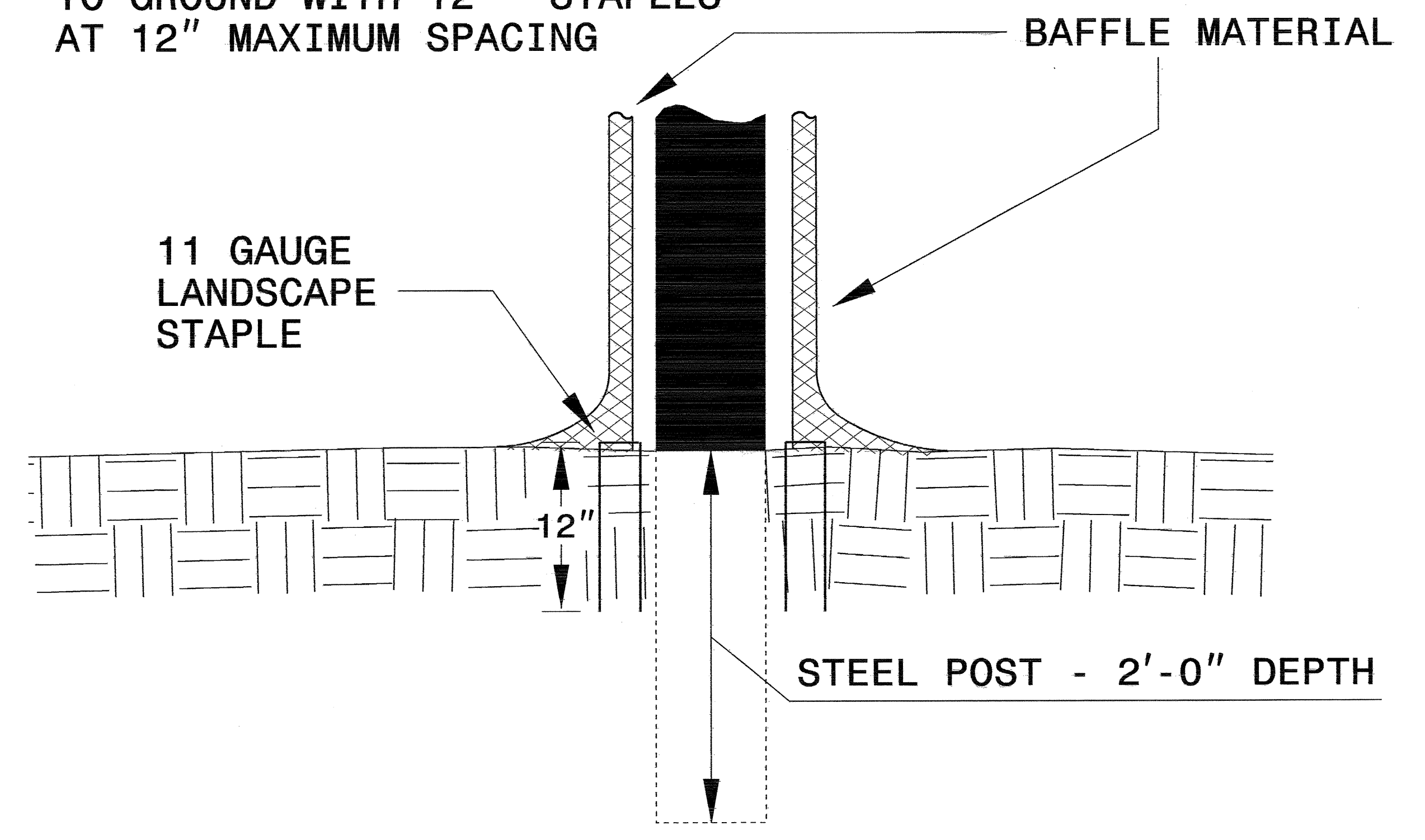
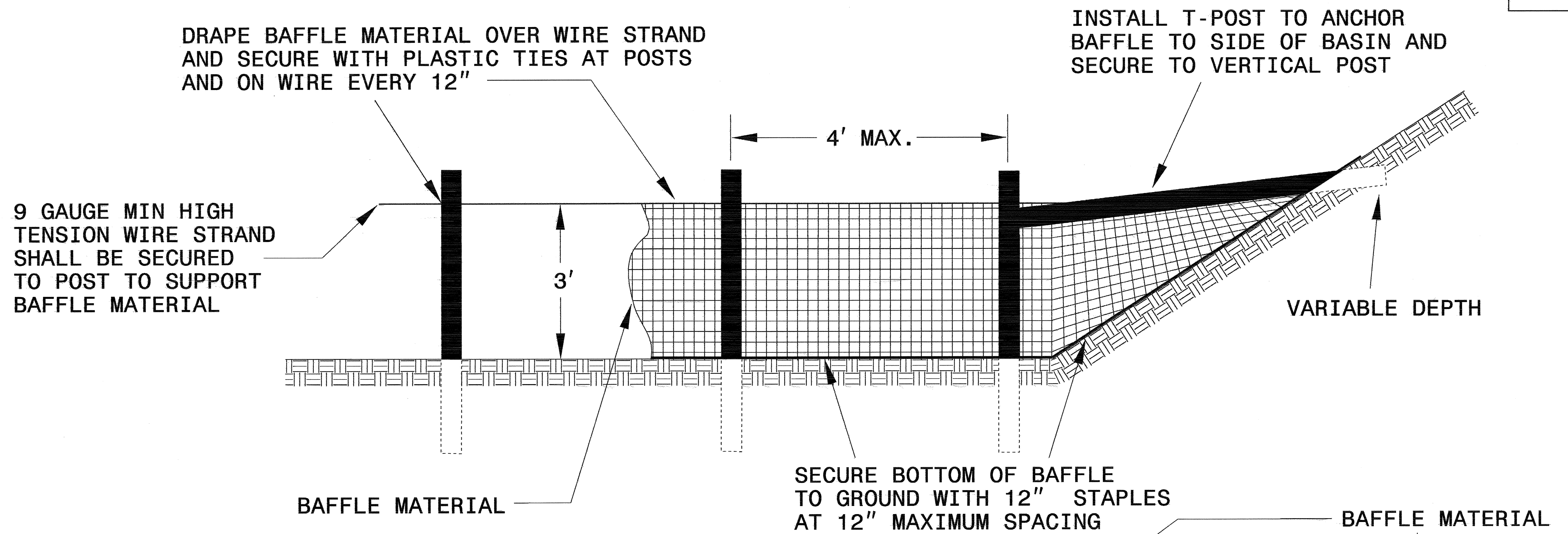
**NOTES:**

- 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.



PROJECT REFERENCE NO. B-3919	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER BAFFLE DETAIL



**NOTES:**

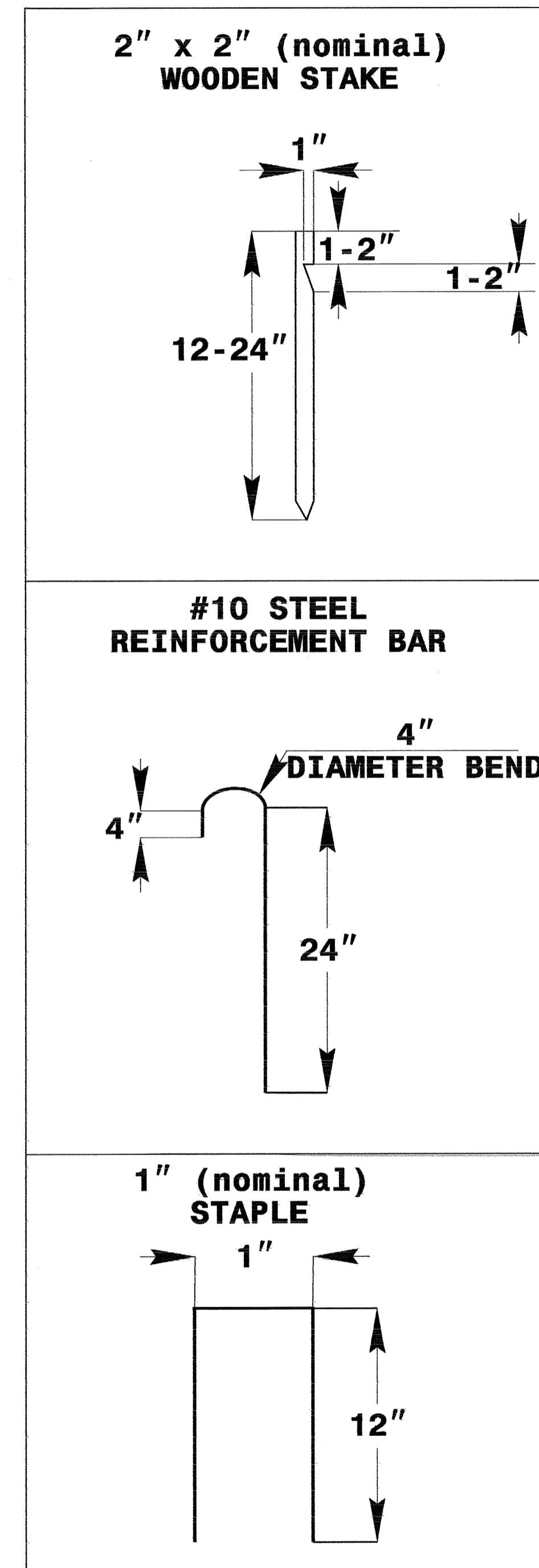
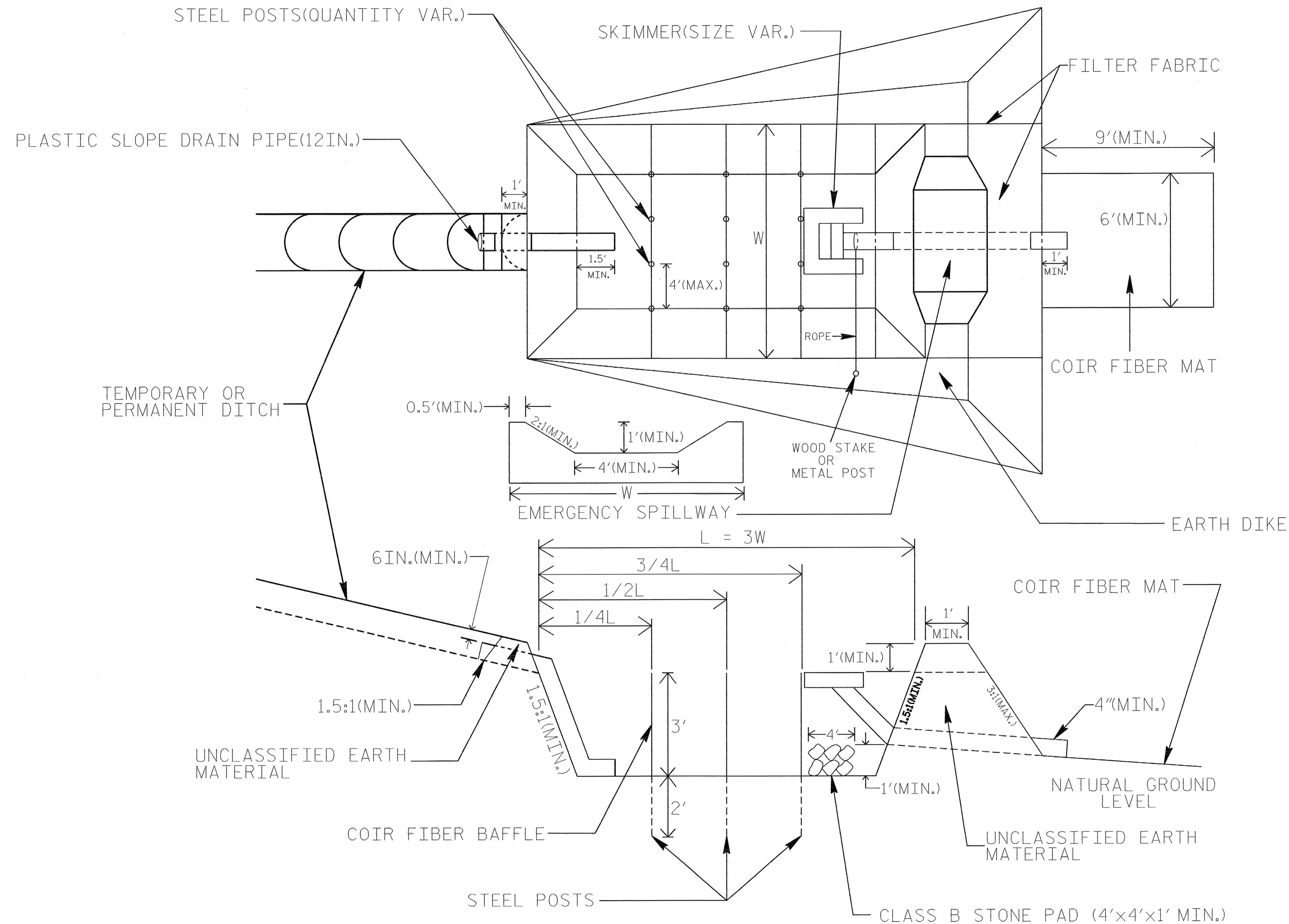
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF  $\frac{1}{4}$  THE BASIN LENGTH.
2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF  $\frac{1}{3}$  THE BASIN LENGTH.
3. TOP HEIGHT 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-3919	SHEET NO. EC-2C
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



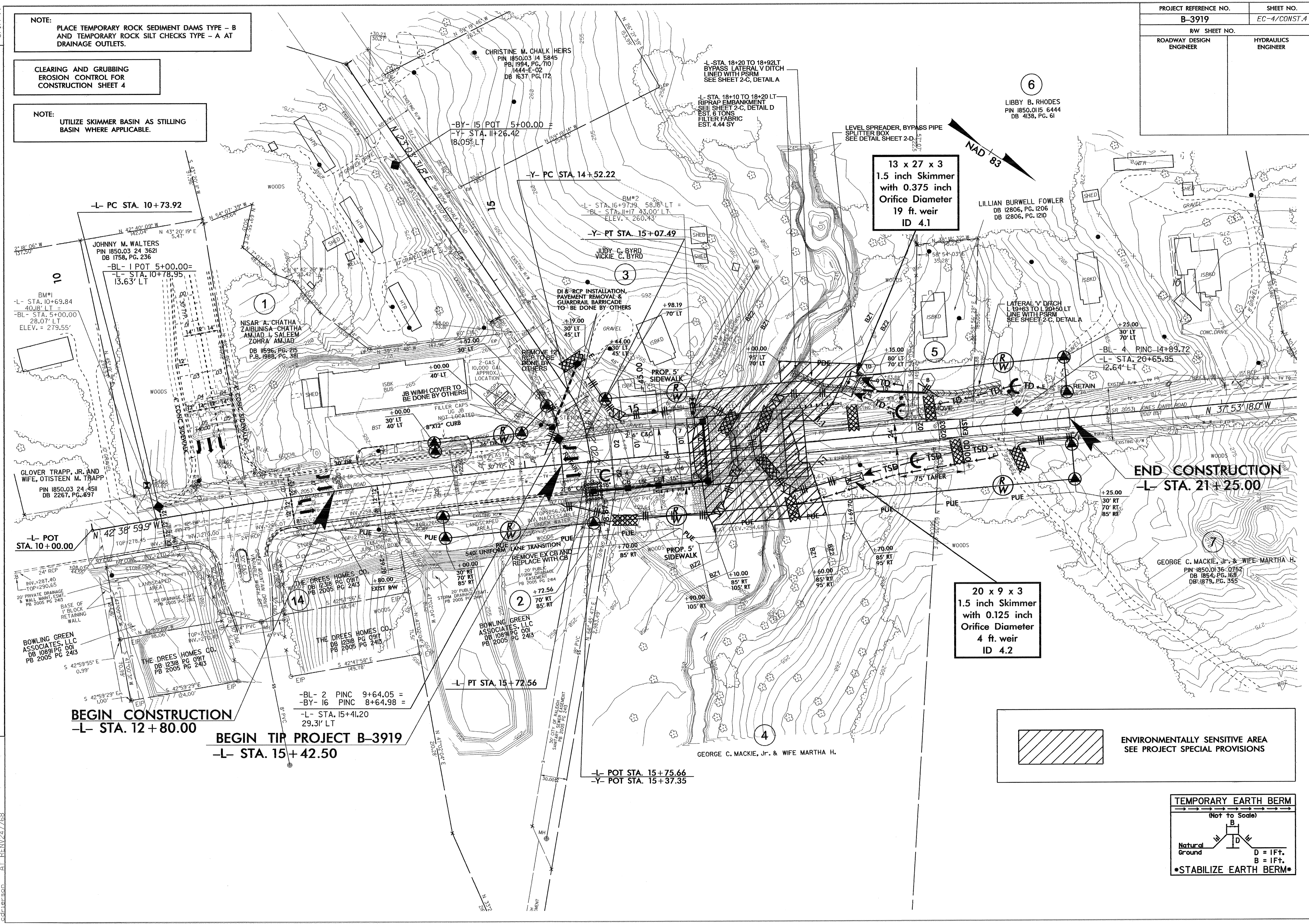


PROJECT REFERENCE NO.	SHEET NO.
B-3919	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 4

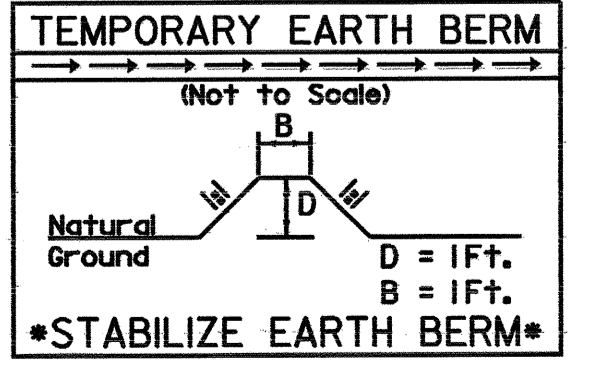
NOTE:  
UTILIZE SKIMMER BASIN AS STILLING  
BASIN WHERE APPLICABLE.



13 x 27 x 3  
1.5 inch Skimmer  
with 0.375 inch  
Orifice Diameter  
19 ft. weir  
ID 4.1

20 x 9 x 3  
1.5 inch Skimmer  
with 0.125 inch  
Orifice Diameter  
4 ft. weir  
ID 4.2

 ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS



REVISIONS

8/17/99

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jason







PROJECT REFERENCE NO.	SHEET NO.
B-3919	EC-6/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**NOTE:**  
UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

**13 x 27 x 3**  
1.5 inch Skimmer  
with 0.375 inch  
Orifice Diameter  
19 ft. weir  
ID 4.1

**20 x 9 x 3**  
1.5 inch Skimmer  
with 0.125 inch  
Orifice Diameter  
4 ft. weir  
ID 4.2

**END CONSTRUCTION**  
-L- STA. 21+25.00

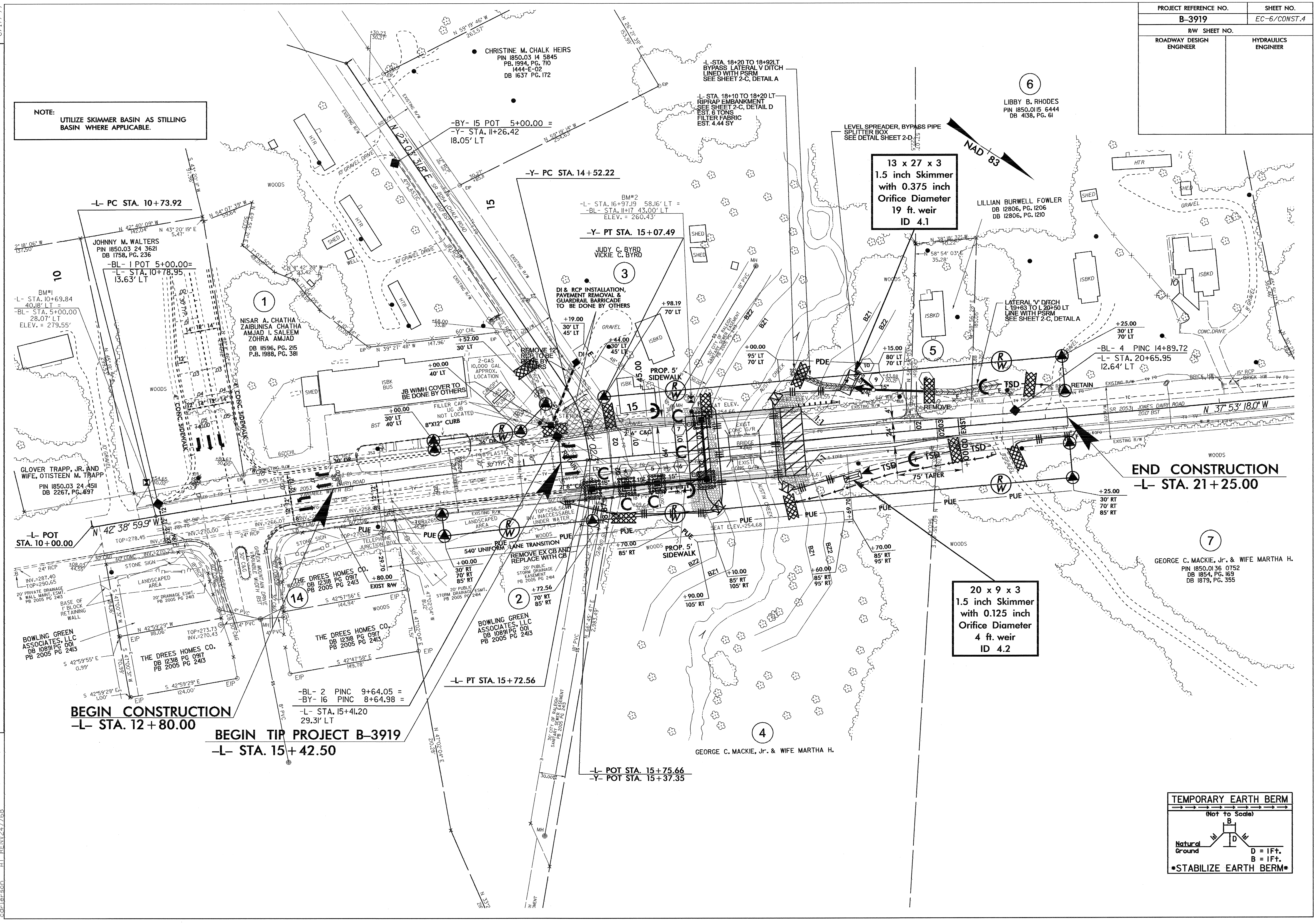
**BEGIN CONSTRUCTION**  
-L- STA. 12+80.00

**BEGIN TIP PROJECT B-3919**  
-L- STA. 15+42.50

8/17/99

REVISIONS

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PROJECT REFERENCE NO.	SHEET NO.
B-3919	EC-7/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:  
UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE APPLICABLE.

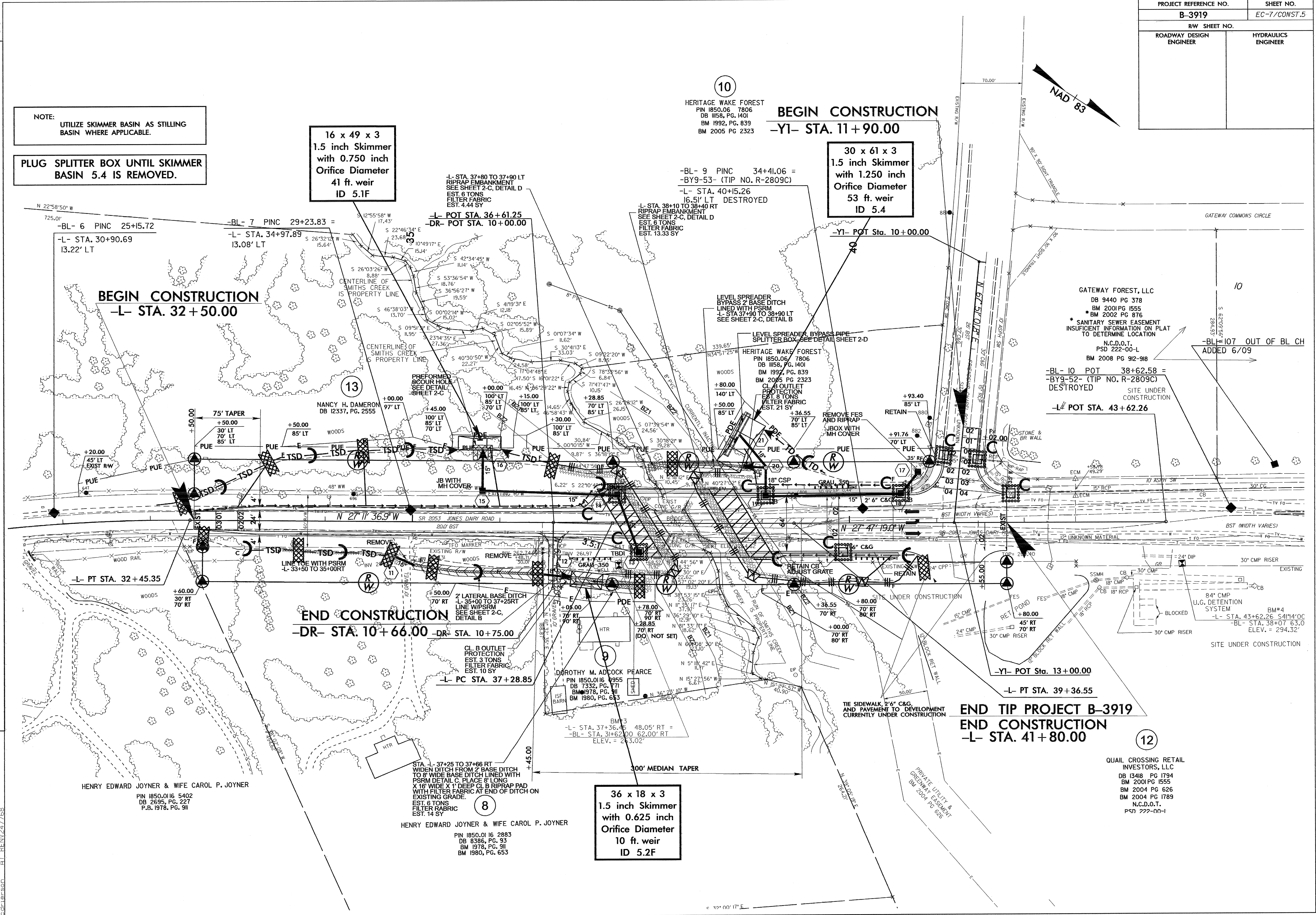
PLUG SPLITTER BOX UNTIL SKIMMER BASIN 5.4 IS REMOVED.

16 x 49 x 3  
1.5 inch Skimmer  
with 0.750 inch  
Orifice Diameter  
41 ft. weir  
ID 5.1F

30 x 61 x 3  
1.5 inch Skimmer  
with 1.250 inch  
Orifice Diameter  
53 ft. weir  
ID 5.4

36 x 18 x 3  
1.5 inch Skimmer  
with 0.625 inch  
Orifice Diameter  
10 ft. weir  
ID 5.2F

REVISIONS



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HENRY EDWARD JOYNER & WIFE CAROL P. JOYNER  
 PIN 1850.016 5402  
 DB 2635, PG. 227  
 P.B. 1978, PG. 91

HENRY EDWARD JOYNER & WIFE CAROL P. JOYNER  
 PIN 1850.016 2883  
 DB 8386, PG. 93  
 BM 1978, PG. 91  
 BM 1980, PG. 653

QUAIL CROSSING RETAIL INVESTORS, LLC  
 DB 1348 PG 1794  
 BM 2001 PG 1555  
 BM 2004 PG 626  
 BM 2004 PG 1789  
 N.C.D.O.T.  
 PSD 222-00-1

END TIP PROJECT B-3919  
 END CONSTRUCTION  
 -L- STA. 41+80.00

12

10

13

8

10

BM#4

ELEV. = 294.32'

SITE UNDER CONSTRUCTION

-L- STA. 43+62.26 S41°14'00"

-BL- STA. 38+07.63.0

BLOCKED

84" CMP U.G. DETENTION SYSTEM

30" CMP RISER

30" CMP RISER

30" CMP RISER

30" CMP RISER

30" CMP RISER

30" CMP RISER

30" CMP RISER

30" CMP RISER

30" CMP RISER