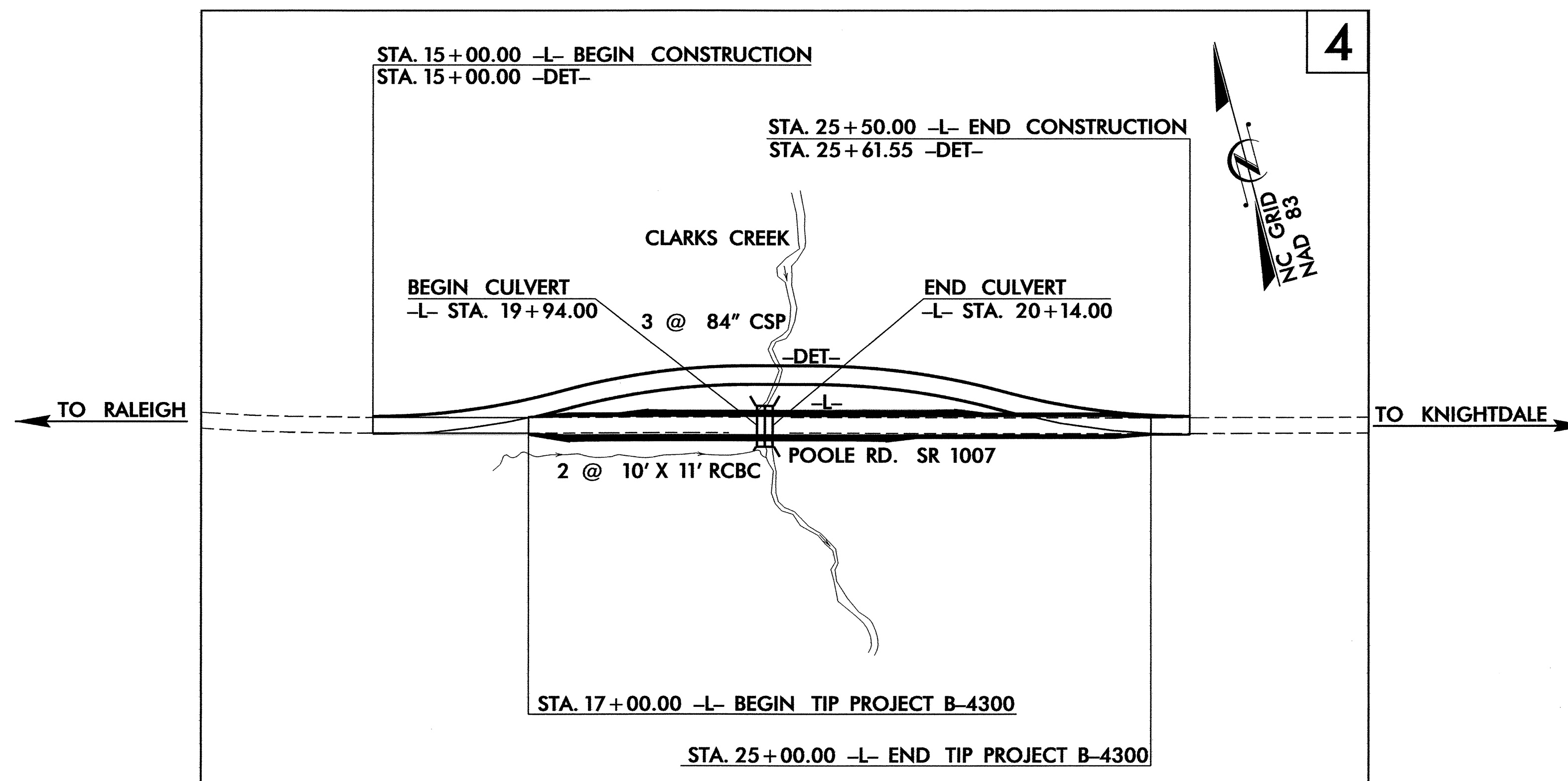


**TIP PROJECT: B-4300**

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

**LOCATION: BRIDGE NO. 29 OVER CLARKS CREEK ON SR 1007**

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



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4300	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.**

**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**

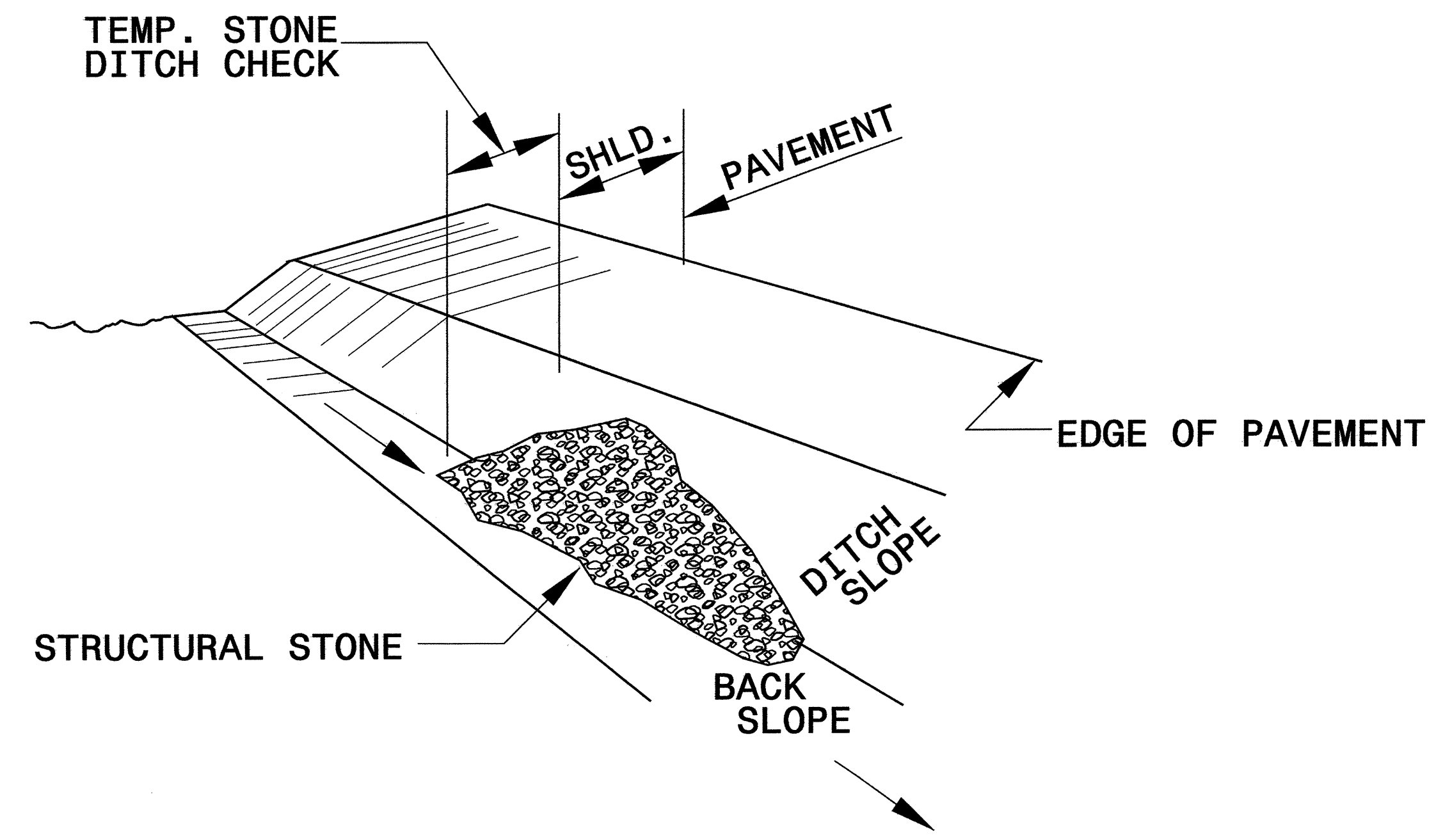
Roadway Standard Drawings

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	1630.05 Temporary Diversion
1606.01 Special Sediment Control Fence	1630.06 Special Stilling Basin
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A

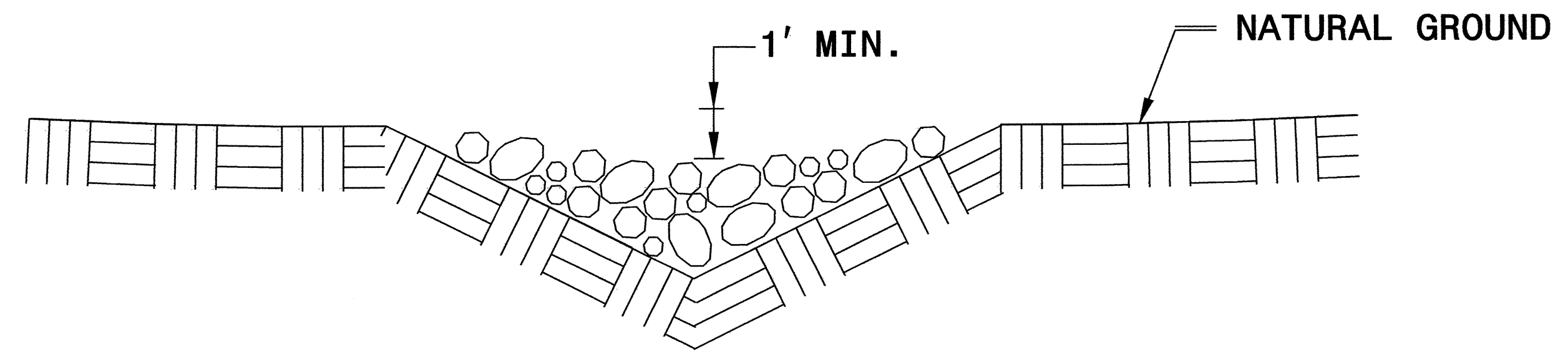
PROJECT REFERENCE NO. <i>B-4300</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

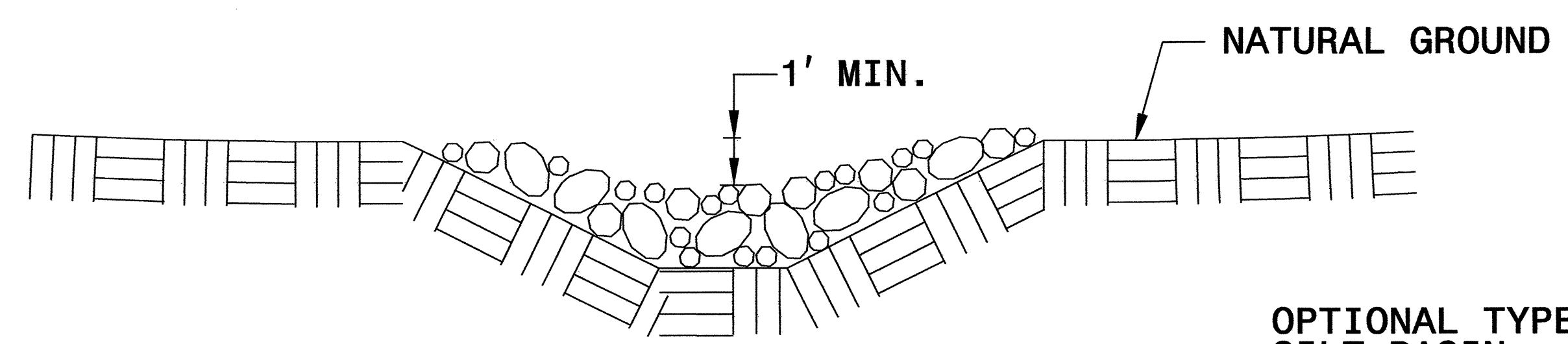


**ISOMETRIC VIEW**

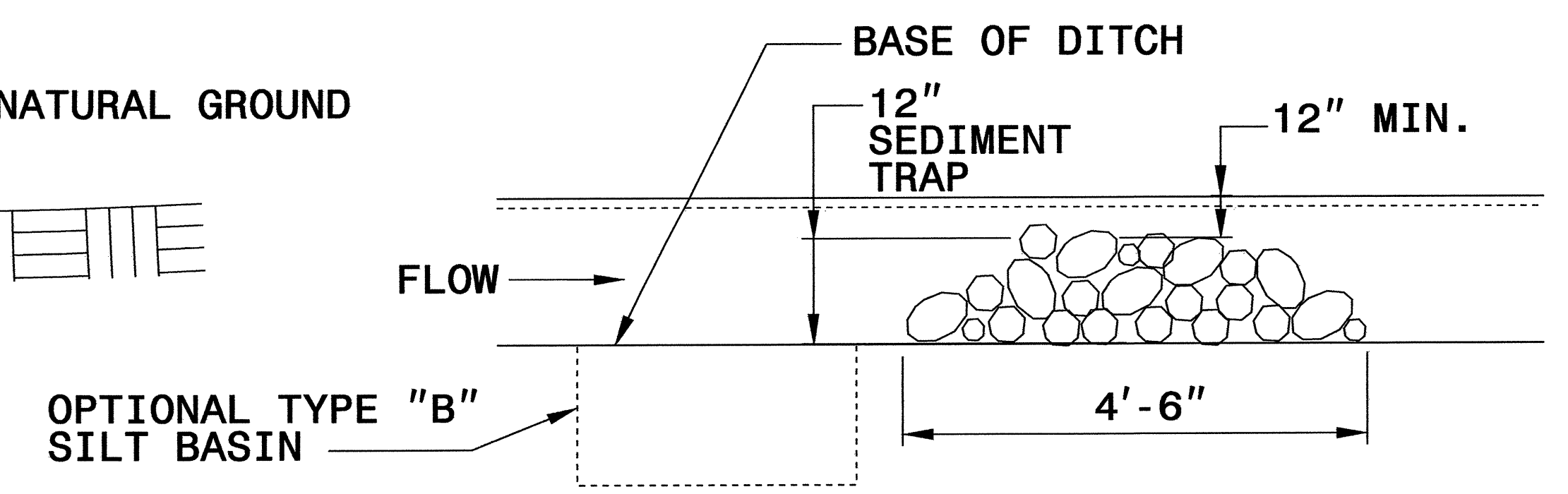
NOTES:  
 USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.  
 THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION VEE DITCH**



**CROSS SECTION TRAPEZOIDAL DITCH**

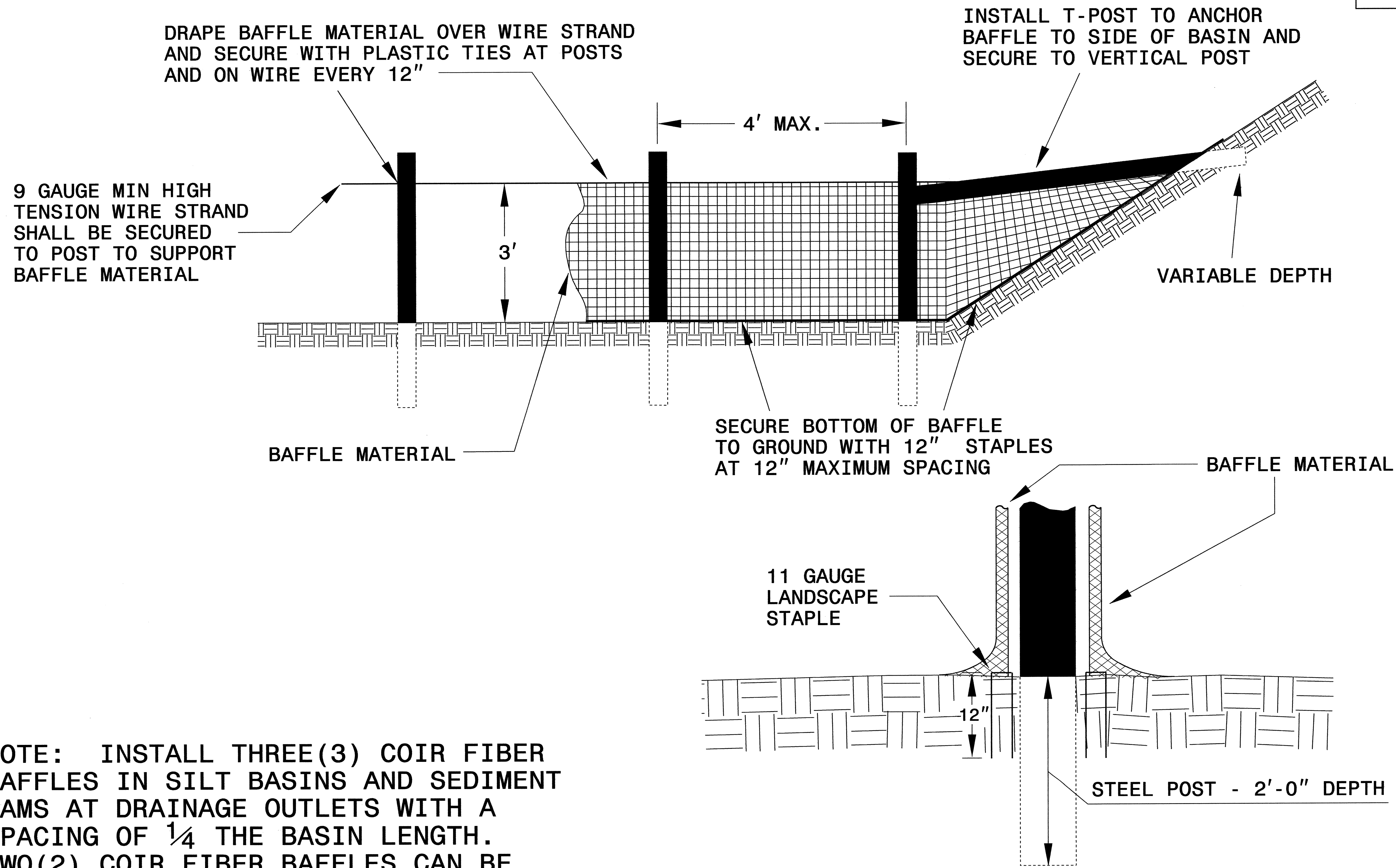


**ELEVATION VIEW**

OPTIONAL TYPE "B" SILT BASIN

PROJECT REFERENCE NO. B-4300	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER BAFFLE DETAIL

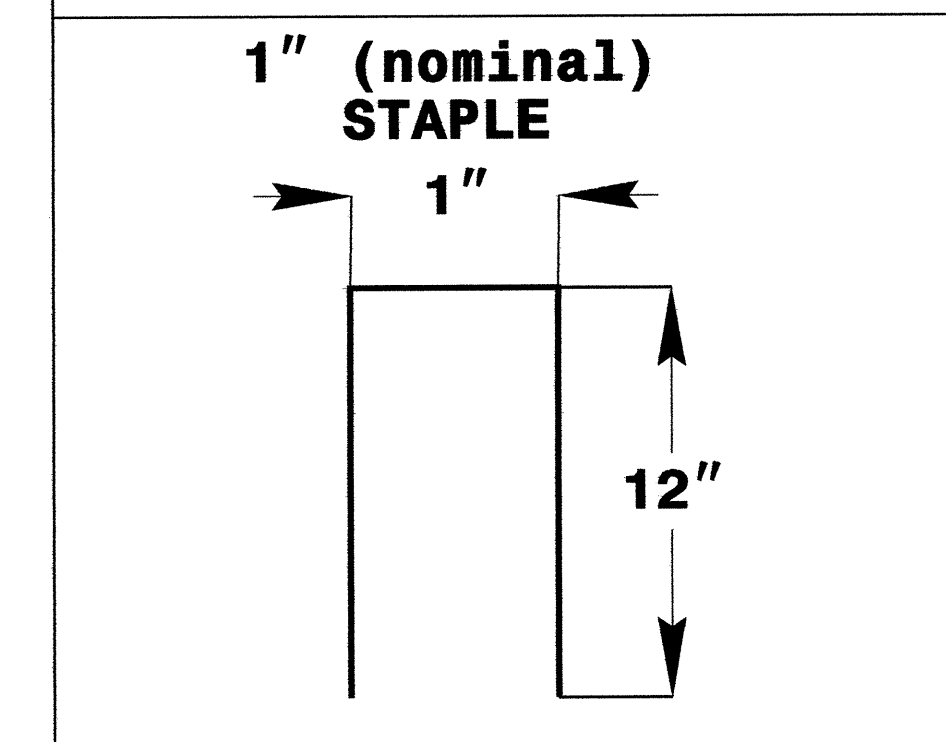
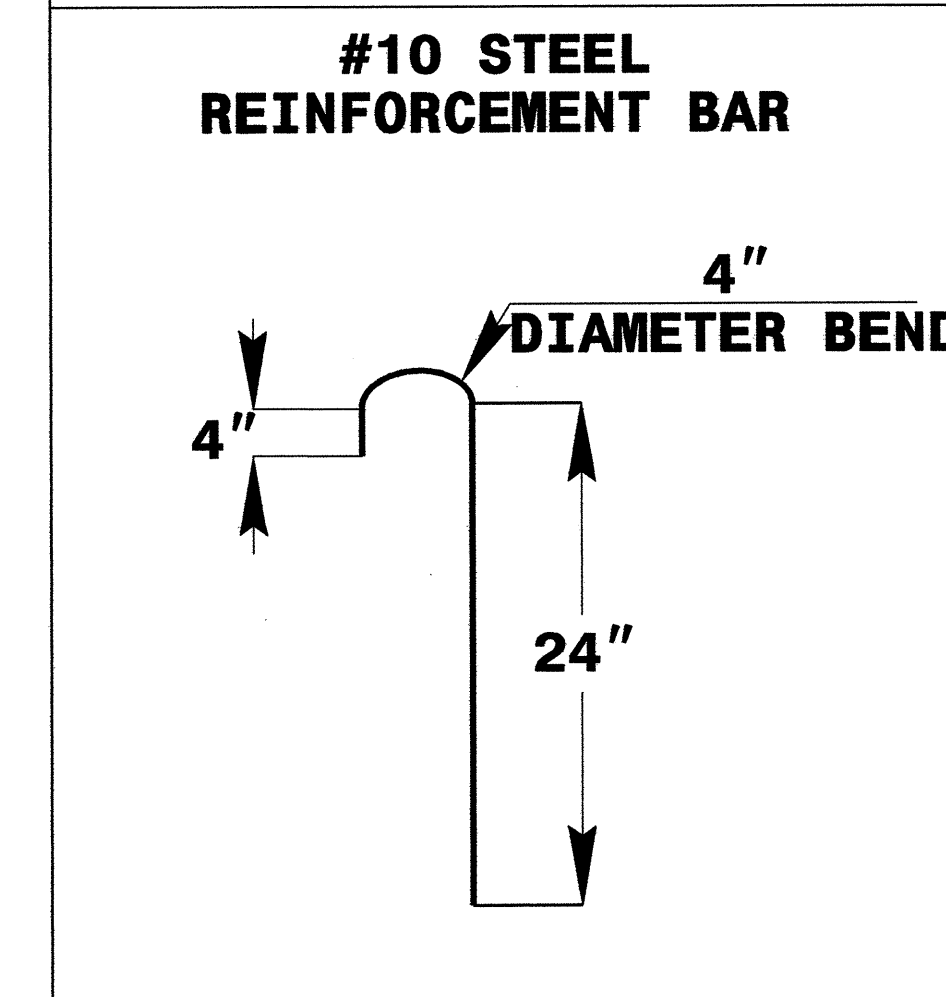
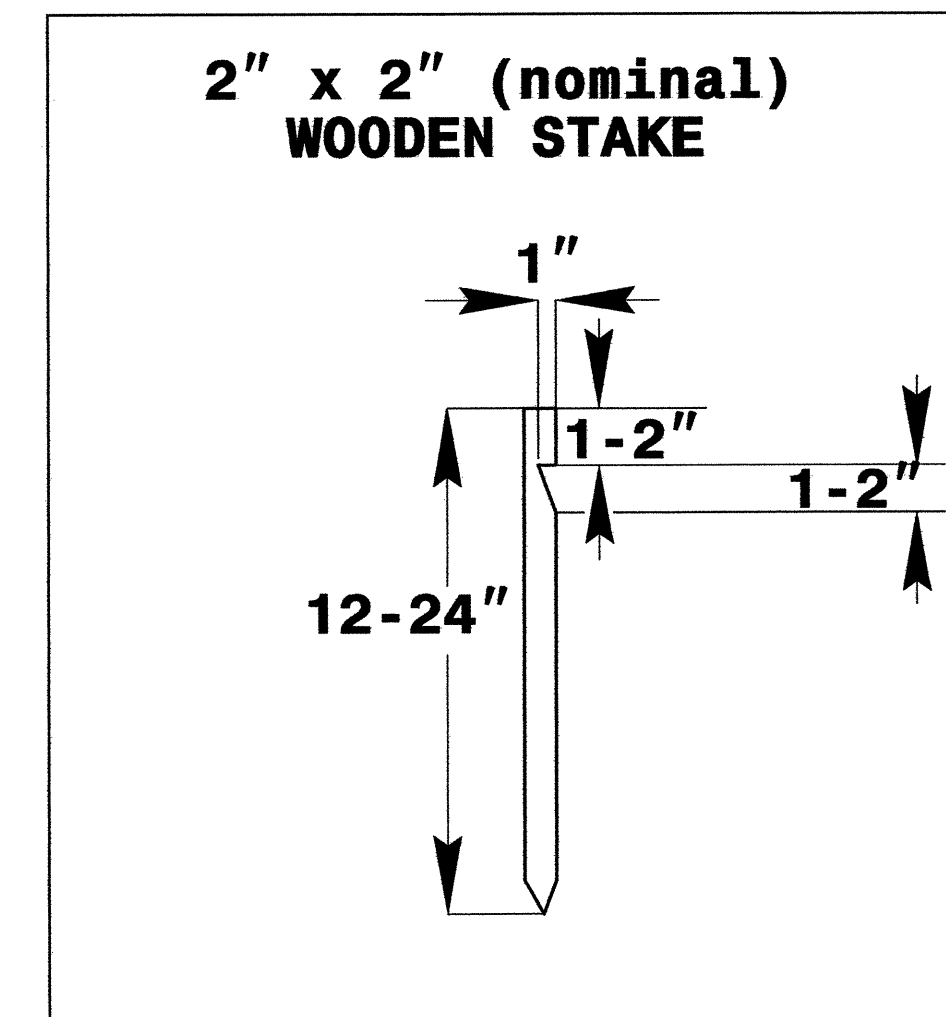
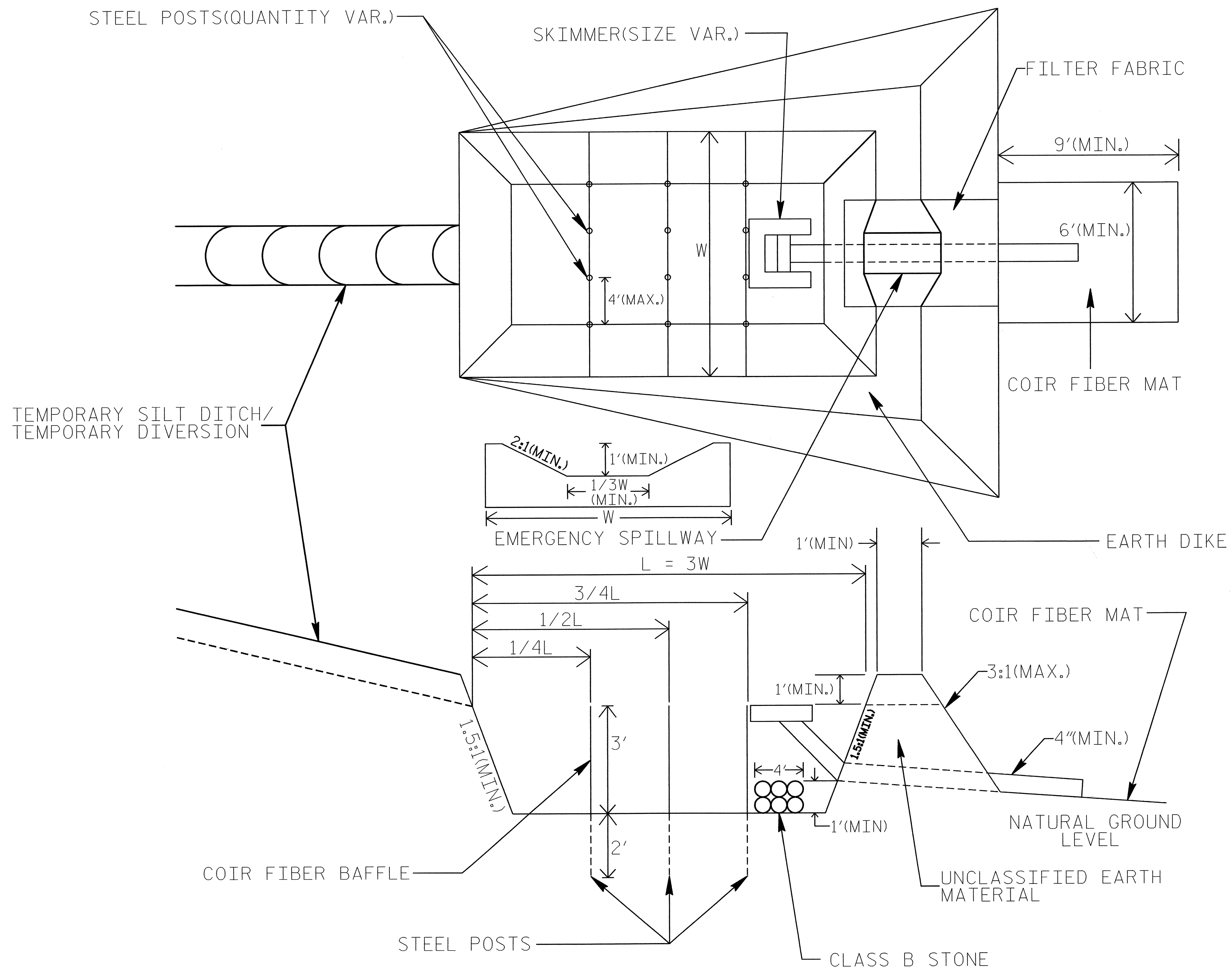


NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF  $\frac{1}{4}$  THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF  $\frac{1}{3}$  THE BASIN LENGTH.

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-4300	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 SIDESLOPES.
  2. LIMIT EARTH DIKE HEIGHT TO 5 FT.



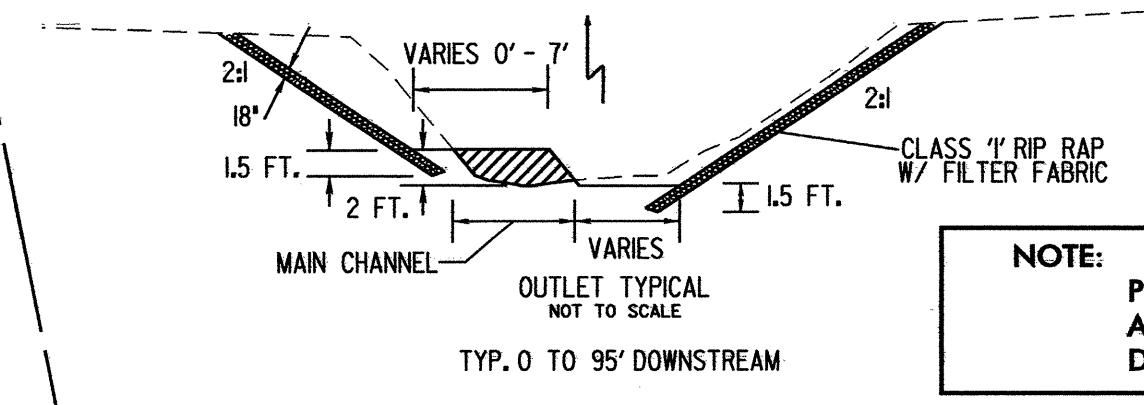
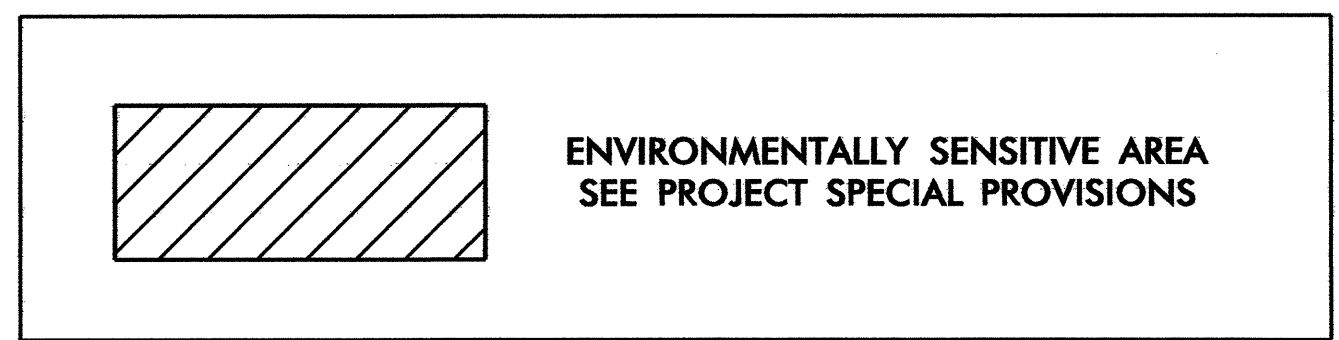
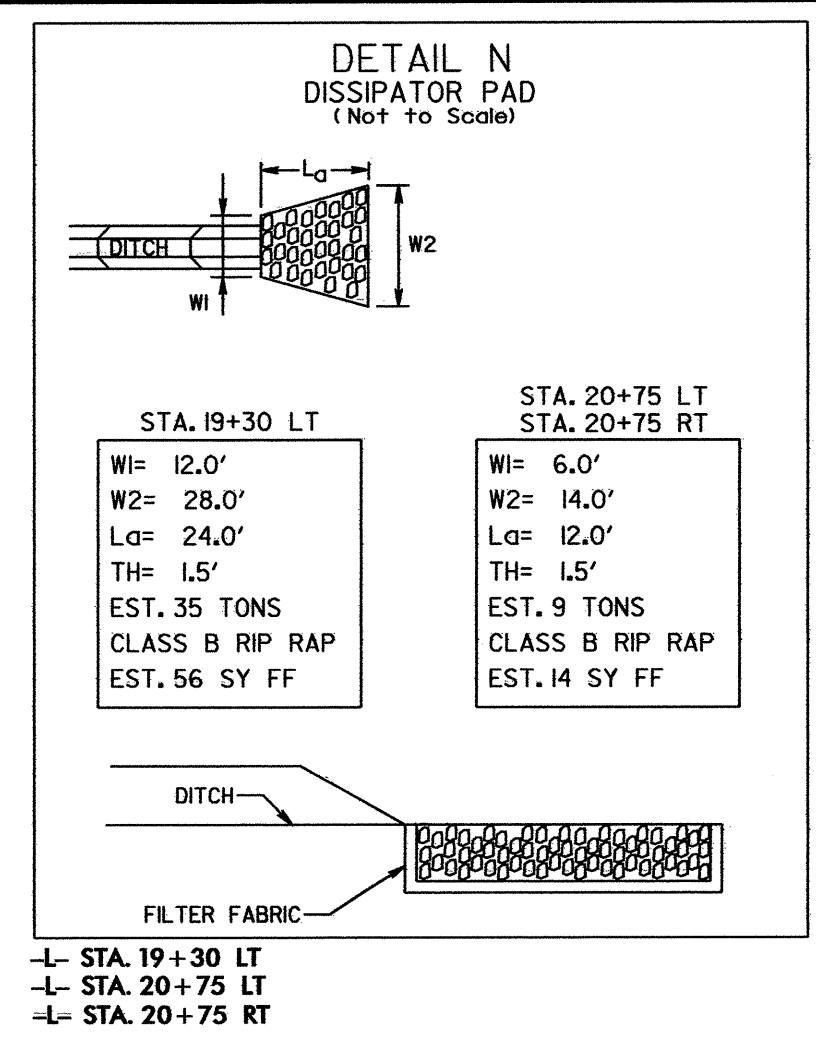
-L-  
 PI Sta 13+19.9  
 $\Delta = 7'04''12.2''$  (LT)  
 $D = 2'22''25.1''$   
 $L = 297.86'$   
 $T = 149.12'$   
 $R = 2,413.84'$

PROJECT REFERENCE NO. B-4300	SHEET NO. EC-4/CONST.4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	ENGINEER

FOR -L- PROFILE SEE SHEET 5

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.



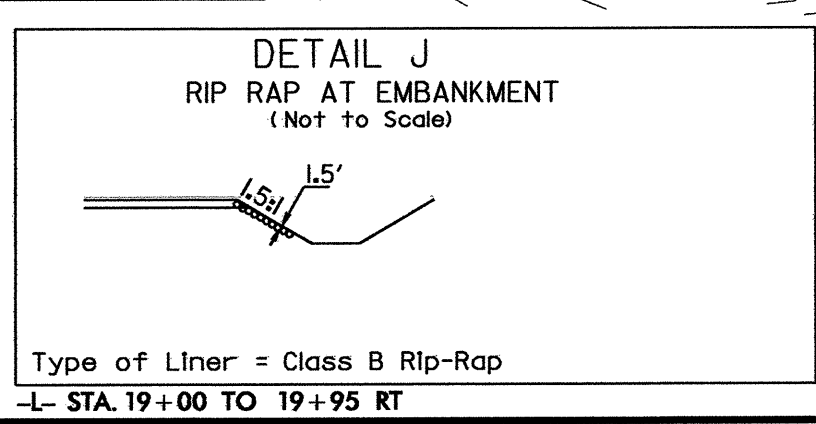
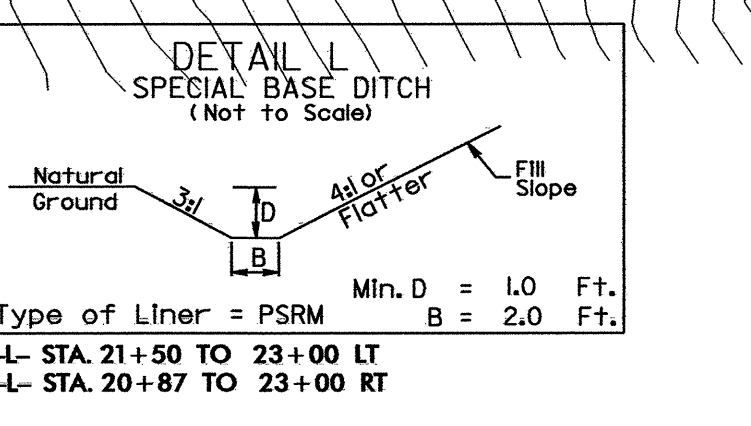
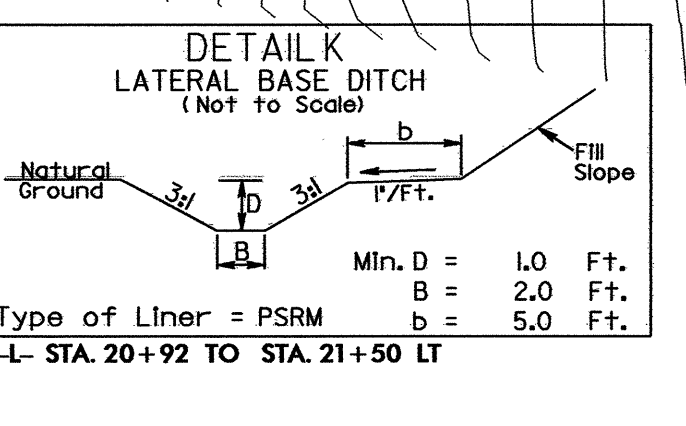
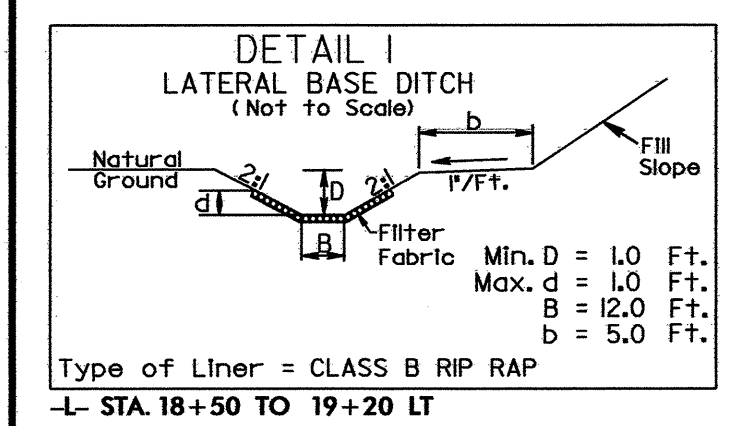
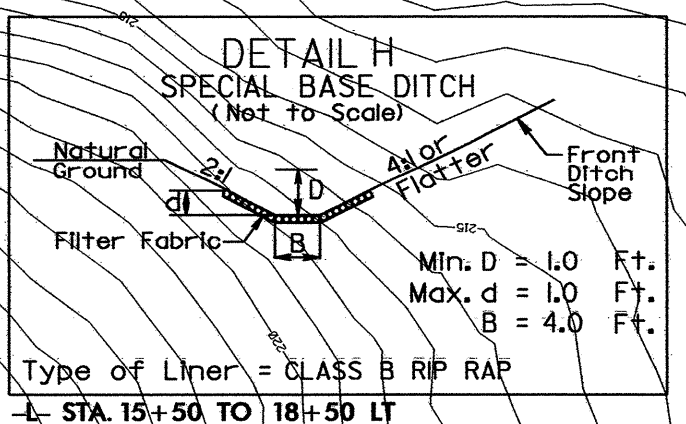
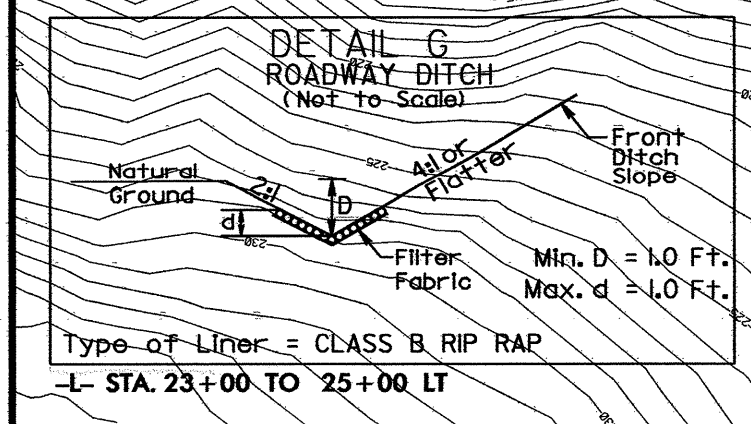
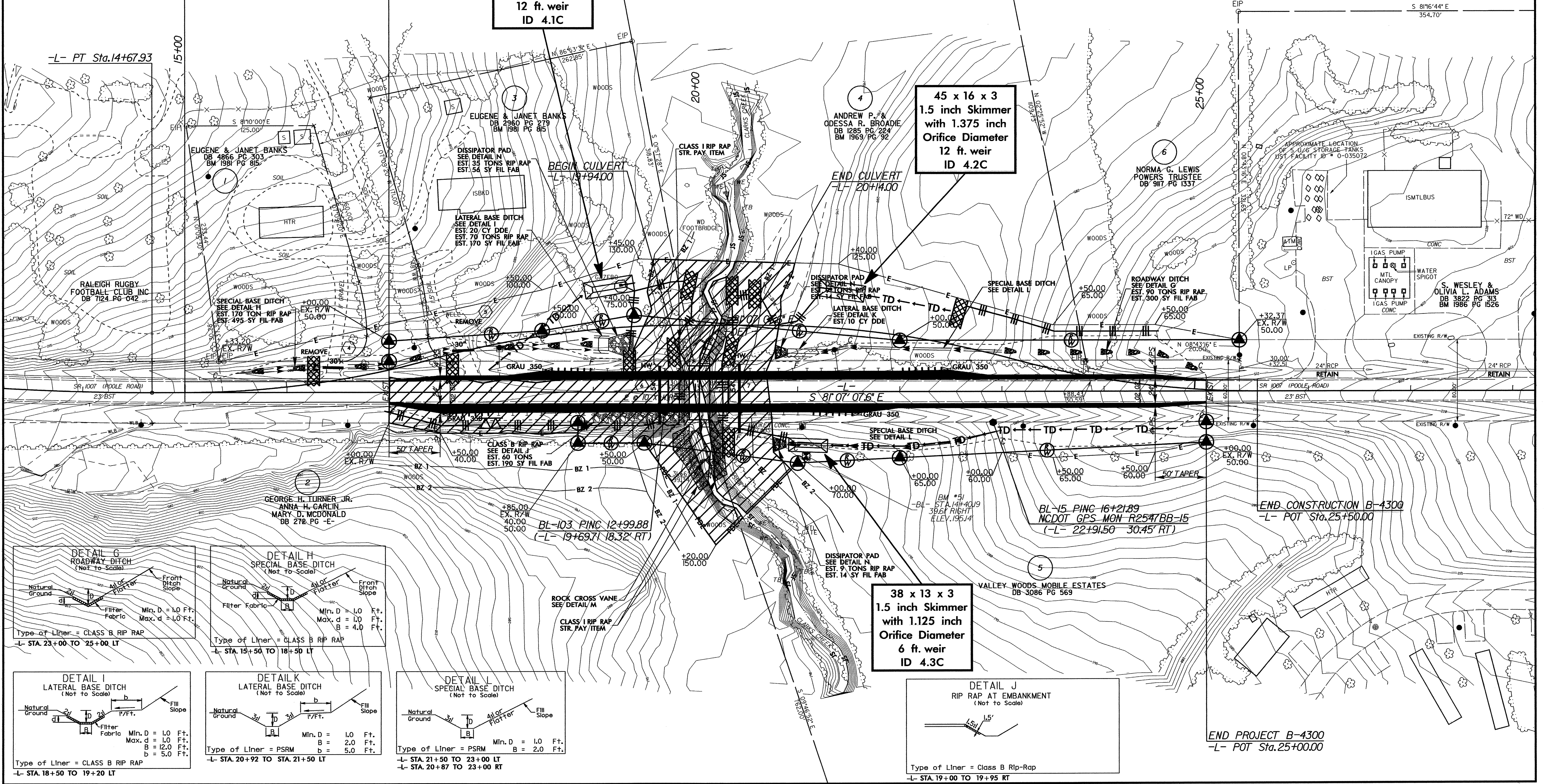
BEGIN CONSTRUCTION B-4300  
 -L- POT Sta.15+00.00

BEGIN PROJECT B-4300  
 -L- POT Sta.17+00.00

48 x 16 x 3  
 1.5 inch Skimmer  
 with 1.375 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 4.1C

45 x 16 x 3  
 1.5 inch Skimmer  
 with 1.375 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 4.2C

38 x 13 x 3  
 1.5 inch Skimmer  
 with 1.125 inch  
 Orifice Diameter  
 6 ft. weir  
 ID 4.3C



PROJECT REFERENCE NO.	SHEET NO.
B-4300	EC-5/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# CULVERT CONSTRUCTION SEQUENCE STA. 20+04 -L-

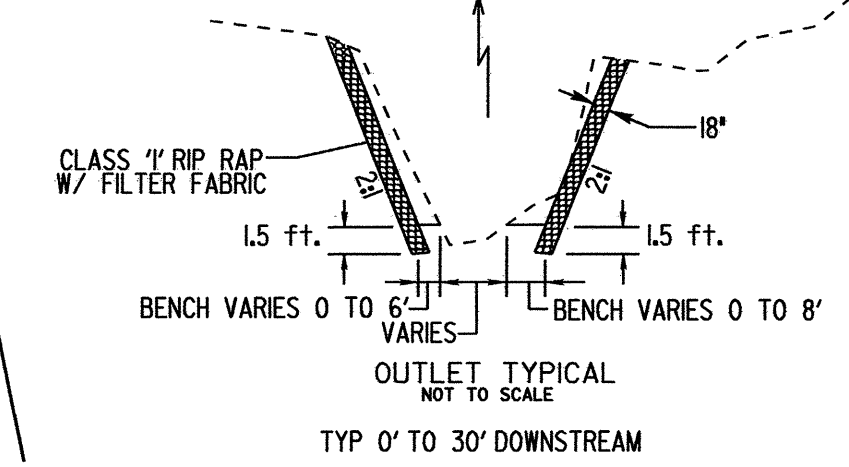
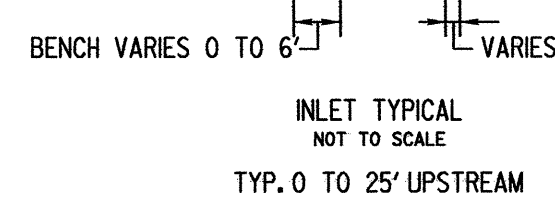
PHASE I	PHASE II	PHASE III
<ol style="list-style-type: none"> <li>1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.</li> <li>2. CONSTRUCT IMPERVIOUS DIKE 1 AND INSTALL 18" TEMPORARY CSP.</li> <li>3. INSTALL 3 @ 84" CSP AND CONSTRUCT DETOUR ROADWAY.</li> <li>4. SHIFT TRAFFIC ONTO DETOUR ALIGNMENT.</li> </ol>	<ol style="list-style-type: none"> <li>5. REMOVE EXISTING BRIDGE.</li> <li>6. CONSTRUCT IMPERVIOUS DIKES 2 AND 3, AND INSTALL 15" TEMPORARY FLEXIBLE PIPE.</li> <li>7. CONSTRUCT PROPOSED CULVERT.</li> <li>8. REMOVE IMPERVIOUS DIKES 2 AND 3, AND 15" TEMPORARY FLEXIBLE PIPE.</li> </ol>	<ol style="list-style-type: none"> <li>9. CONSTRUCT DOWNSTREAM CHANNEL IMPROVEMENTS.</li> <li>10. CONSTRUCT ROADWAY, AND SHIFT TRAFFIC TO FINAL ALIGNMENT.</li> <li>11. REMOVE DETOUR ROADWAY AND 3 @ 84" CSP.</li> <li>12. CONSTRUCT UPSTREAM CHANNEL IMPROVEMENTS.</li> <li>13. REMOVE IMPERVIOUS DIKE 1 AND 18" TEMPORARY CSP.</li> <li>14. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), AND COMPLETE ROADWAY.</li> </ol>
<p>PHASE I construction plan view. It shows the proposed culvert alignment (CULVERT) crossing a roadway. Key features include: IMPERVIOUS DIKE 1 located upstream of the culvert; a SPECIAL STILLING BASIN at the culvert inlet; three 18 INCH TEMPORARY CSP (Culvert Stoplogs) installed across the roadway; and a DETOUR ROADWAY (DET) established to the north of the roadway. The plan also shows existing and proposed boundaries (BZ 1, BZ 2), property lines (PDE), and streamlines (SWE, WE). A north arrow indicates NAD 83 NC GRID.</p>	<p>PHASE II construction plan view. This view shows the removal of the existing bridge and the installation of temporary structures. Key features include: IMPERVIOUS DIKE 1 (remains); IMPERVIOUS DIKE 2 and IMPERVIOUS DIKE 3 installed on either side of the roadway; a 15 INCH TEMPORARY FLEXIBLE PIPE installed across the roadway; and a SPECIAL STILLING BASIN at the culvert inlet. The detour roadway (DET) is still present. The plan shows the same boundaries and streamlines as Phase I. A north arrow indicates NAD 83 NC GRID.</p>	<p>PHASE III construction plan view. This view shows the final construction and removal of temporary structures. Key features include: DOWNSTREAM CHANNEL IMPROVEMENTS (indicated by hatched areas); the final ROADWAY construction; and the removal of IMPERVIOUS DIKE 1 and the 18 INCH TEMPORARY CSP. The detour roadway (DET) is shown being removed. The plan shows the final roadway alignment and streamlines. A north arrow indicates NAD 83 NC GRID.</p>

# DETOUR

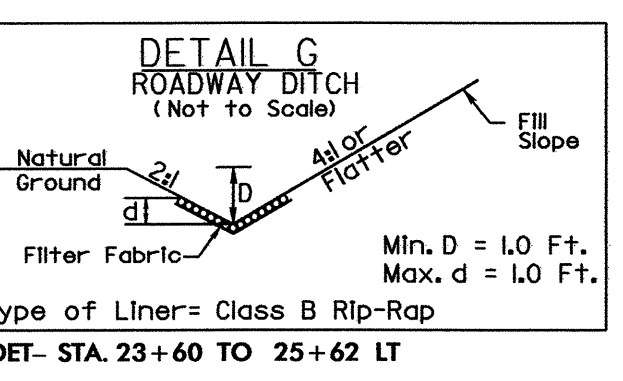
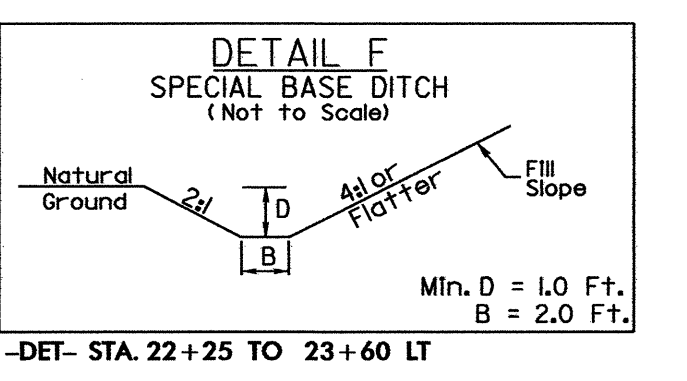
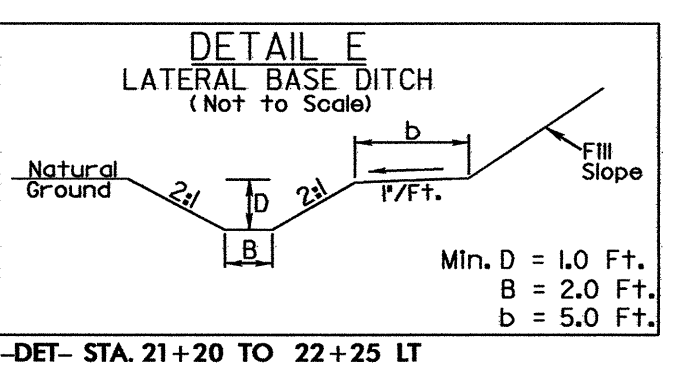
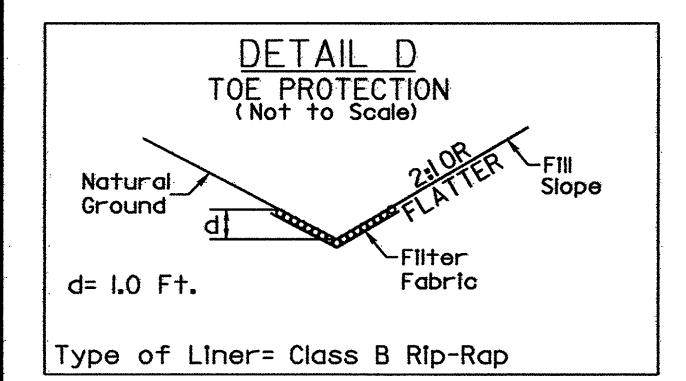
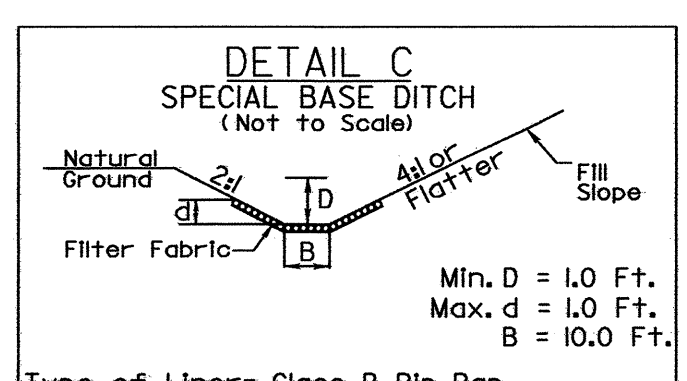
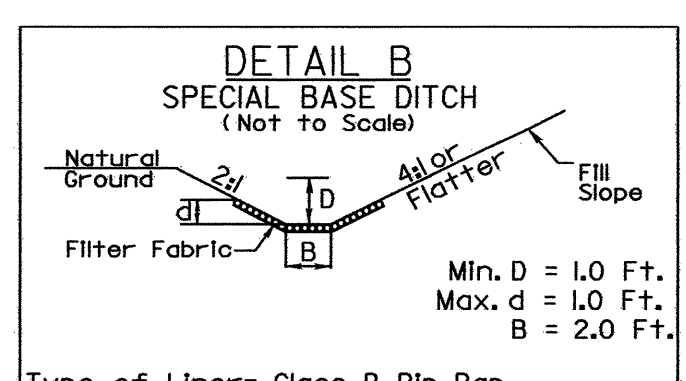
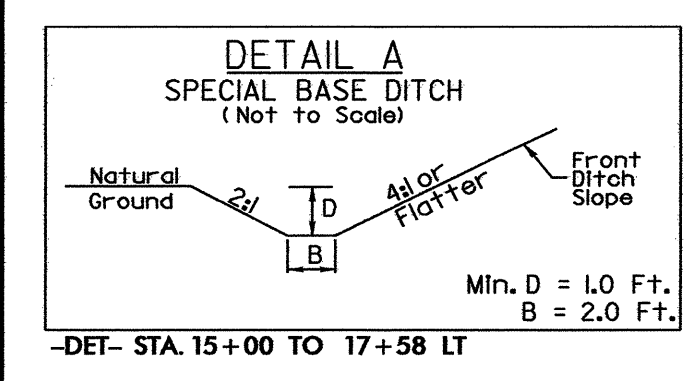
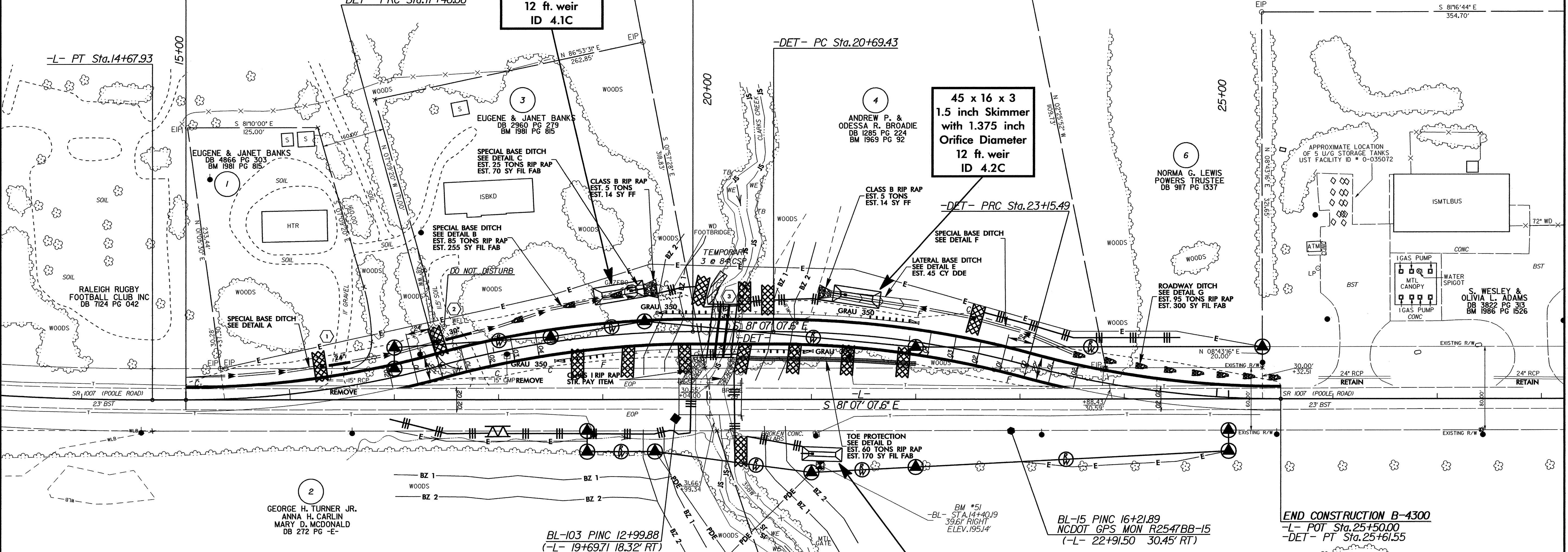
PROJECT REFERENCE NO.		SHEET NO.	
B-4300		EC-6/CONST.2-B	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

FOR -DET- PROFILE SEE SHEET 5

NAD 83  
NC GRID



BEGIN CONSTRUCTION B-4300  
-L- POT Sta.15+00.00  
-DET- PC Sta.15+00.00



38 x 13 x 3  
1.5 inch Skimmer  
with 1.125 inch  
Orifice Diameter  
6 ft. weir  
ID 4.3C

END CONSTRUCTION B-4300  
-L- POT Sta.25+50.00  
-DET- PT Sta.25+61.55

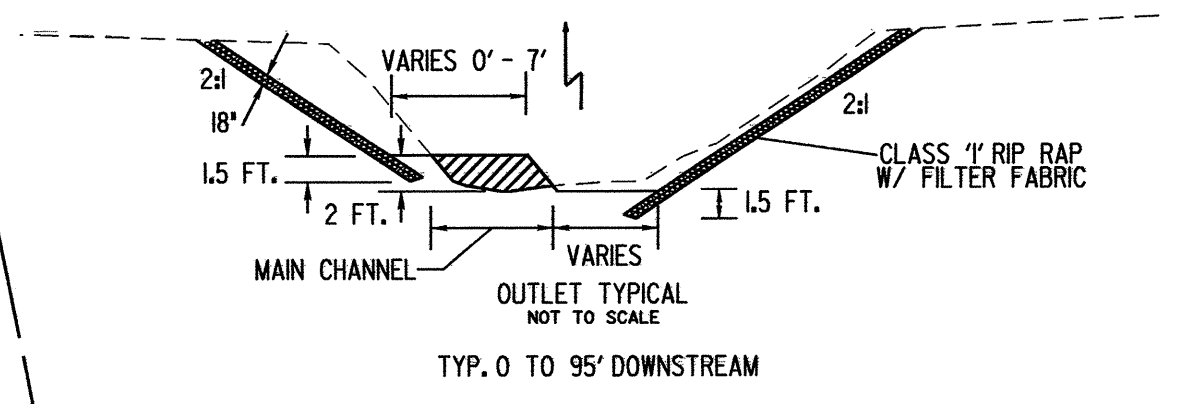
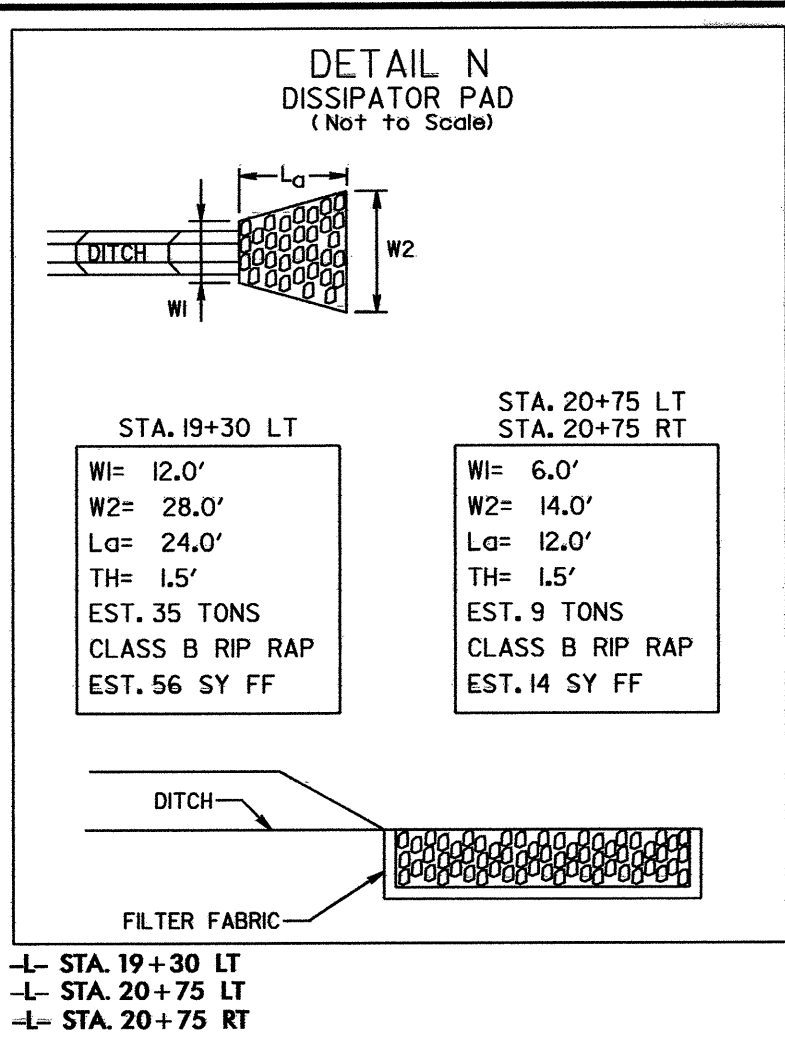
FOR CULVERT PLANS SEE SHEETS C-1 TO C-7



-L-  
 PI Sta 13+19.19  
 $\Delta = 7' 04" 12.2" (LT)$   
 $D = 2' 22" 25.1"$   
 $L = 297.86'$   
 $T = 149.12'$   
 $R = 2,413.84'$

PROJECT REFERENCE NO. B-4300	SHEET NO. EC-7/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FOR -L- PROFILE SEE SHEET 5



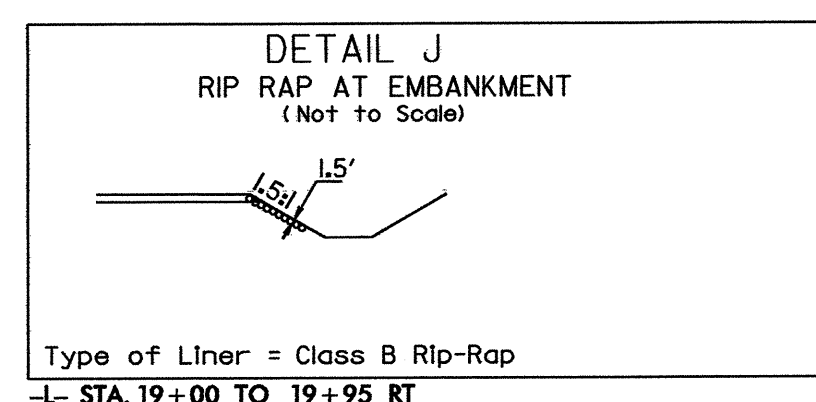
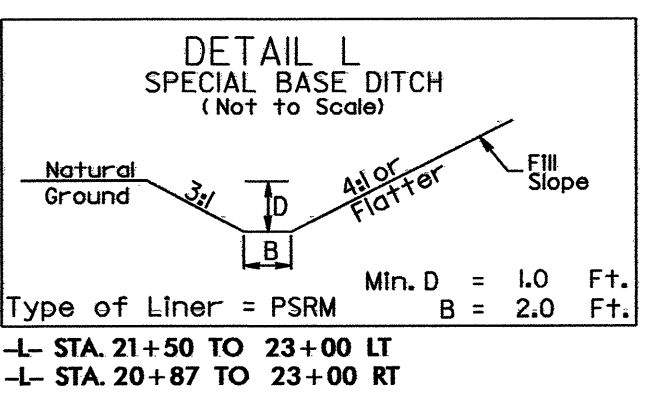
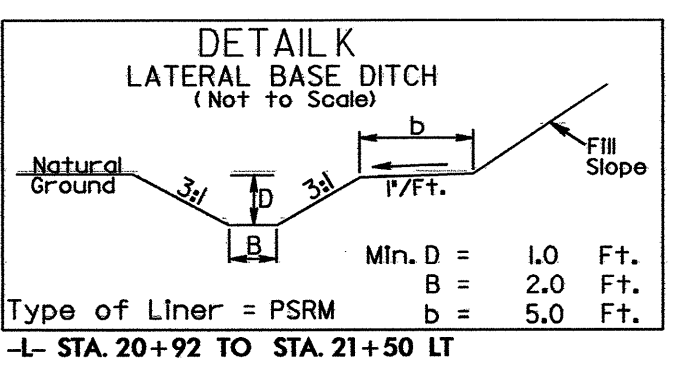
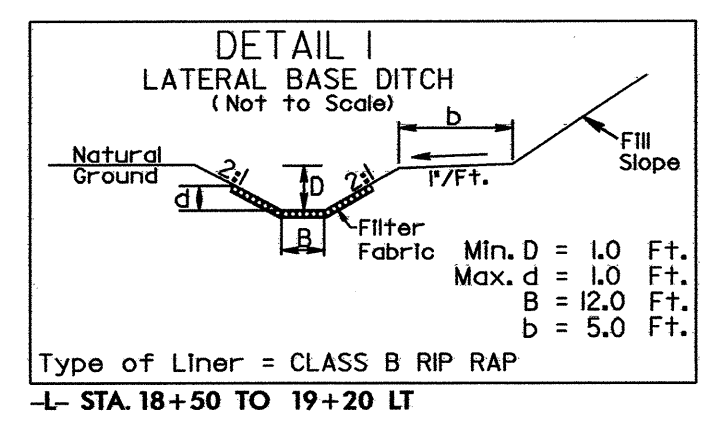
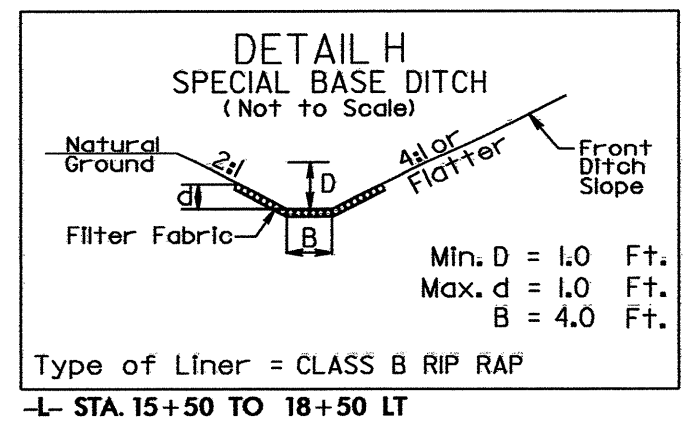
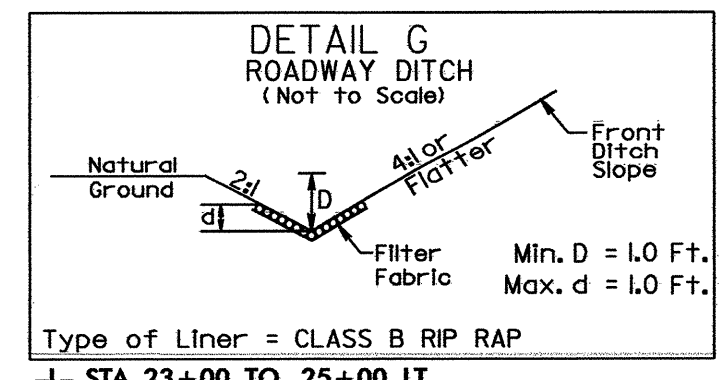
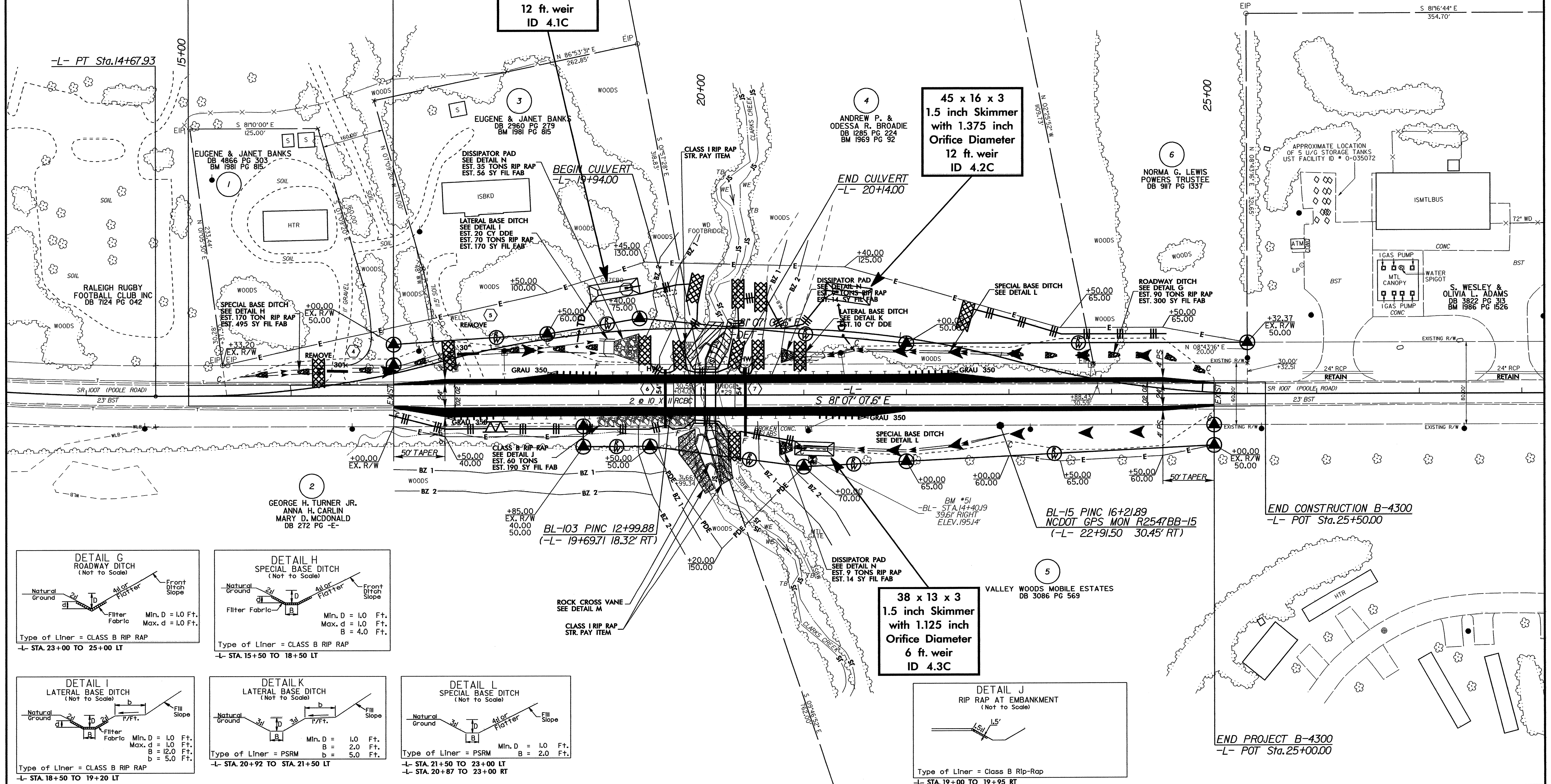
BEGIN CONSTRUCTION B-4300  
 -L- POT Sta.15+00.00

BEGIN PROJECT B-4300  
 -L- POT Sta.17+00.00

48 x 16 x 3  
 1.5 inch Skimmer  
 with 1.375 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 4.1C

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 with 1.375 inch  
 Orifice Diameter  
 12 ft. weir  
 ID 4.2C

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 1.5 inch Skimmer  
 with 1.125 inch  
 Orifice Diameter  
 6 ft. weir  
 ID 4.3C



END CONSTRUCTION B-4300  
 -L- POT Sta.25+50.00

END PROJECT B-4300  
 -L- POT Sta.25+00.00