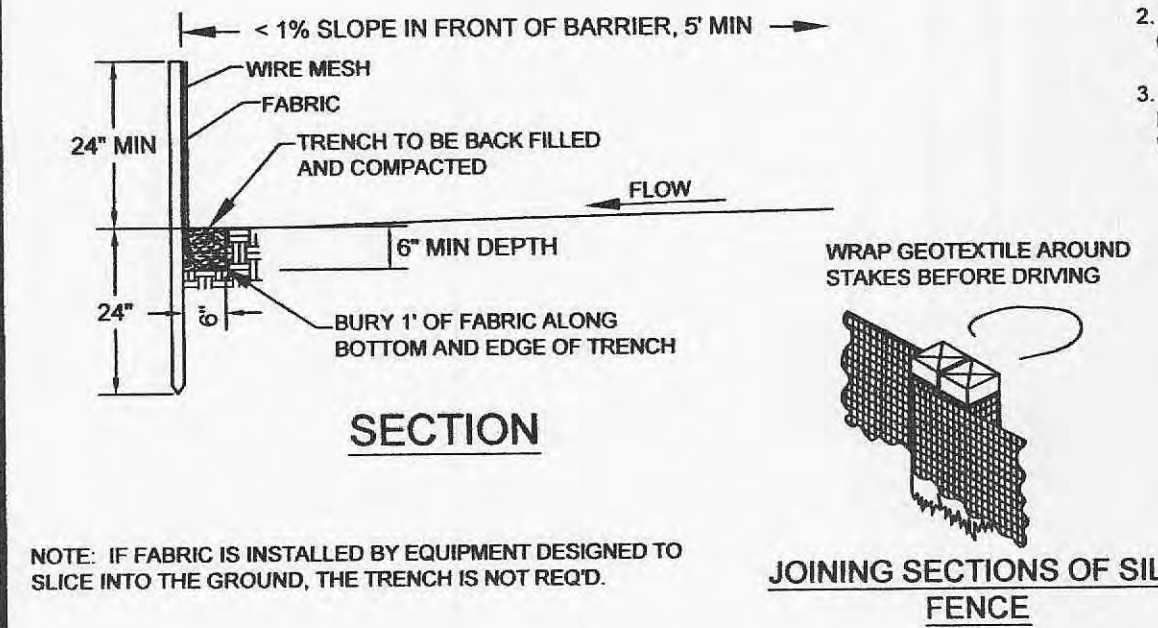
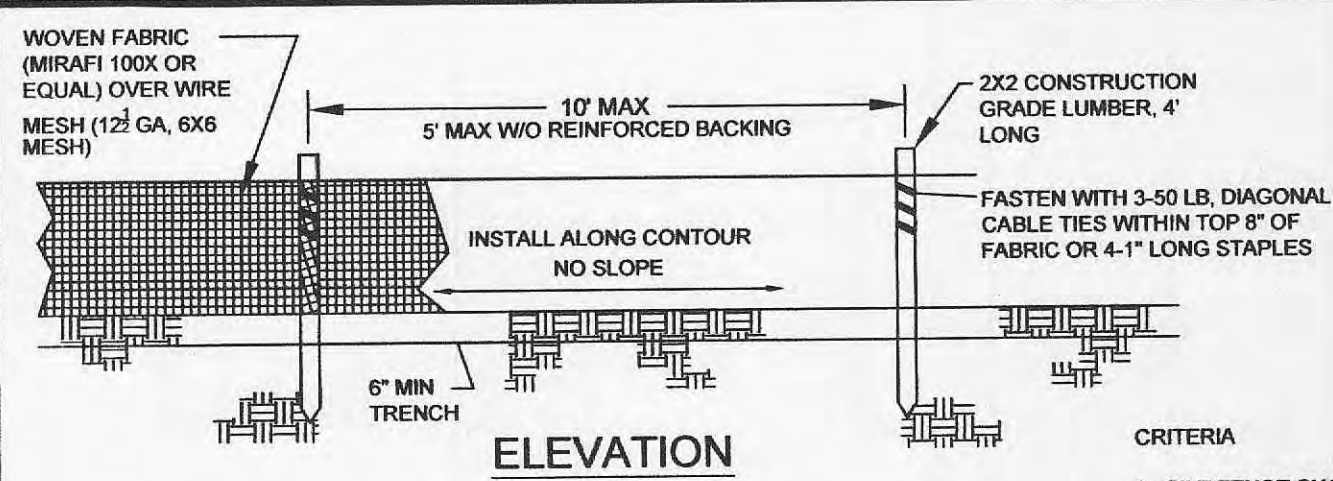


**DESIGN CRITERIA**

- SILTY FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
- STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
- REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
- TERRACING INCLUDES LOGS, WATTLES & FILTER SOCKS.

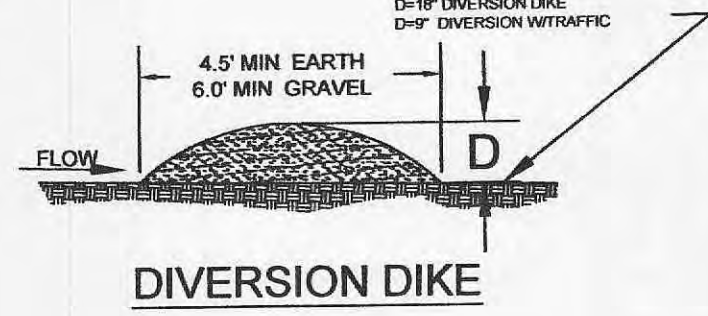
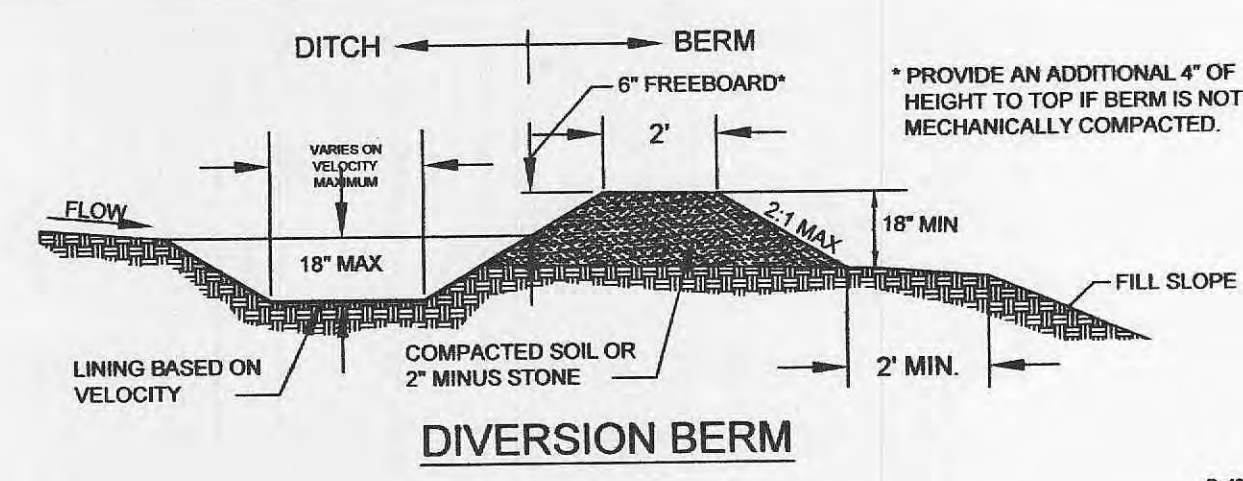
**SPACING CHART FOR ESC DEVICES**



**CRITERIA**

- SILT FENCE SHALL BE 24 INCHES HIGH.
- SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
- GEOSYNTHETIC REINFORCED SILTY FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.

**SILT FENCE INSTALLATION SHEET FLOW (ONLY)**



**DESIGN CRITERIA**

- DIVERSION CHANNELS SHALL BE USED FOR DRAINAGE AREAS ≤ 3 ACRES.
- DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
- CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20MIN. STORM.
- MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
- SWALE SEDIMENT TRAPS ARE TO BE USED IN HIGHLY EROSION AREAS.
- CHANNELS SHALL BE PROTECTED USING APPROPRIATE CHANNEL LINERS.
- CHANNEL OUTLETS MUST BE STABILIZED.
- STORM SEWERS MAY BE USED IN LIEU OF OPEN CHANNELS.

**DIVERSION BERMS + DIKES**

**VEGETATIVE ESTABLISHMENT FOR URBAN DEVELOPMENT SITES**

**APPENDIX A**

**SEEDING RATES:**

Permanent:

- Tall Fescue - 80 lbs./ac.
- Smooth Brome - 100 lbs./ac.
- Combined: Fescue@40 lbs./ac. and Brome@50 lbs./ac.

Temporary:

- Wheat or Rye - 150 lbs./ac. (3.5 lbs. per 1000 sq. ft.)
- Oats - 120 lbs./ac. (2.75 lbs. per 1000 sq. ft.)

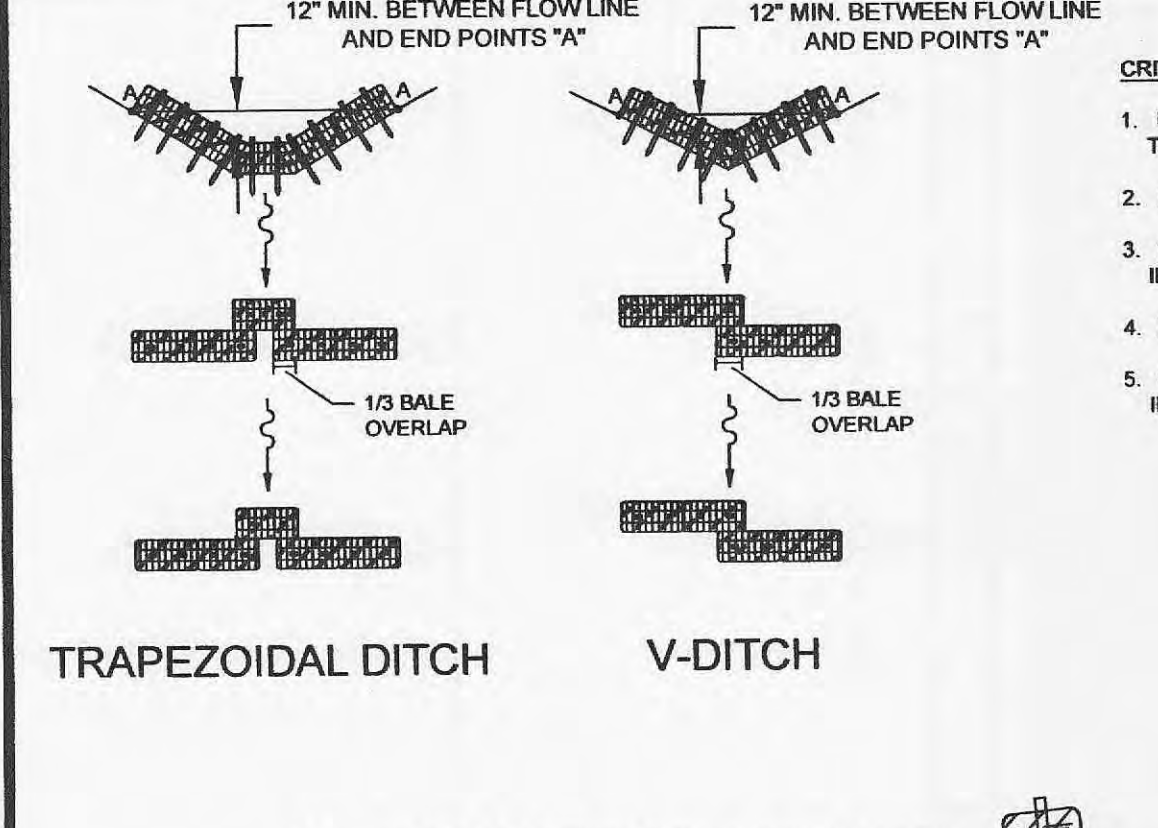
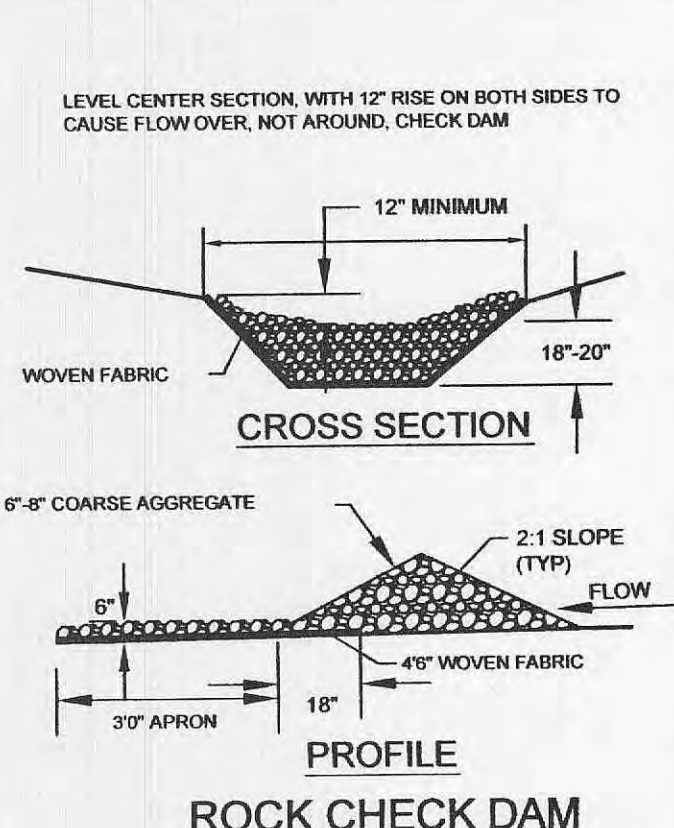
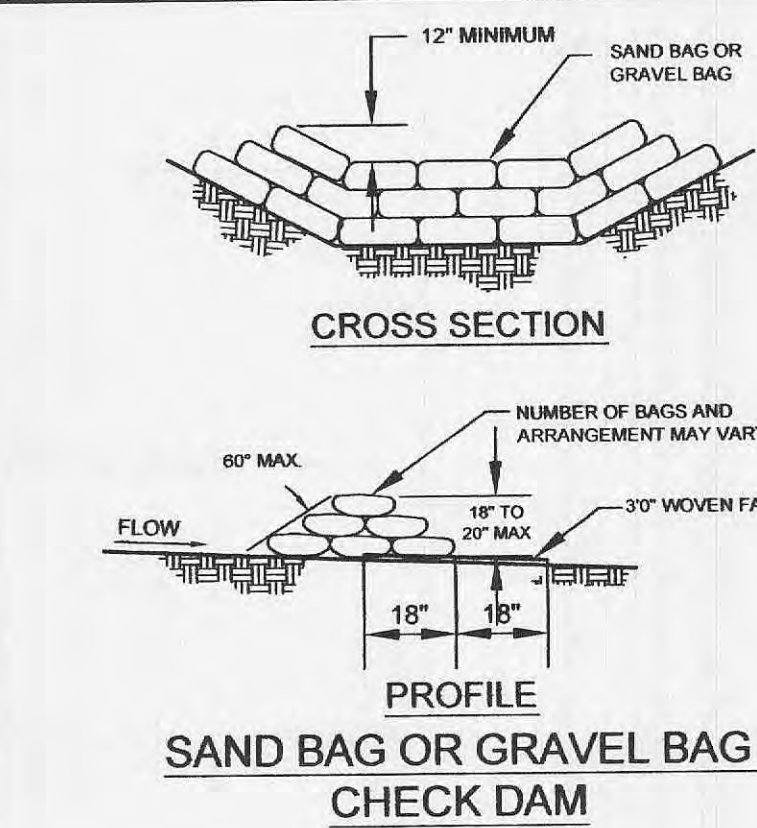
**SEEDING PERIODS**

- Fescue or Brome - March 1 to June 1
- August 1 to October 1
- Wheat or Rye - March 15 to November 1
- Oats - March 15 to September 15

**MULCH RATES:** 100 lbs. per 1000 sq. ft. (4,356 lbs. per acre)

**FERTILIZER RATES:** Nitrogen 30 lbs./ac.  
Phosphate 30 lbs./ac.  
Potassium 30 lbs./ac.  
Lime 600 lbs./ac. ENM\*

\*ENM = effective neutralizing material as per State evaluation of quarried rock.

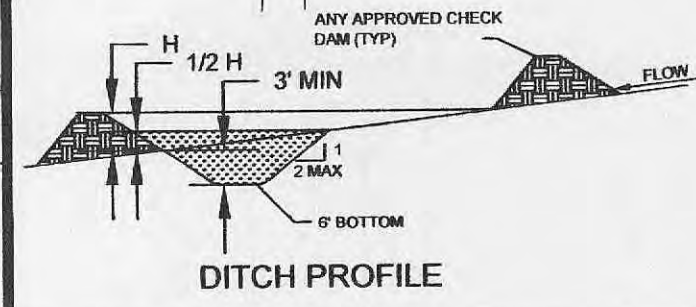
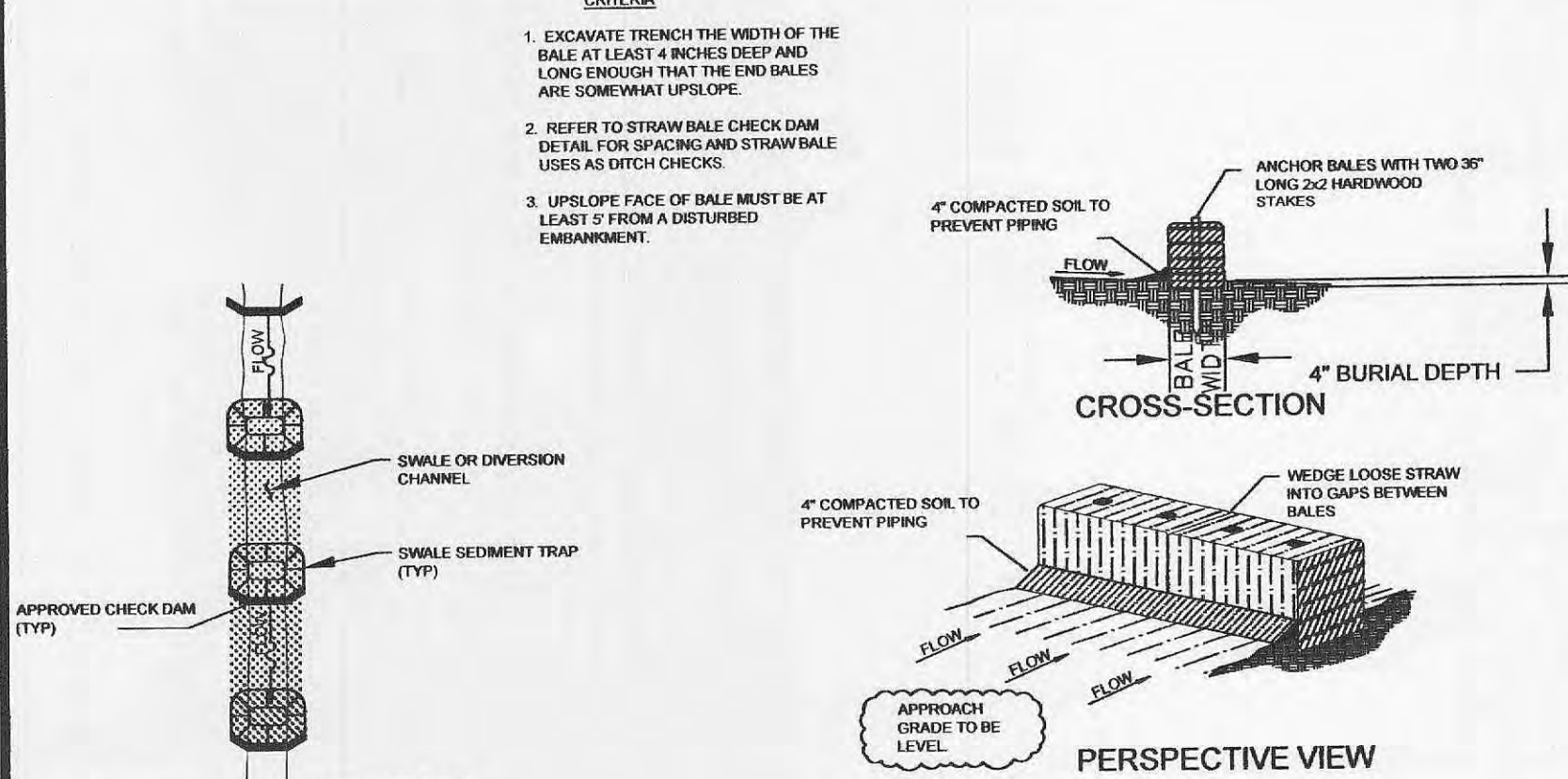


**CRITERIA FOR LOW CONCENTRATED FLOWS**

- DRAINAGE AREAS SHALL BE LESS THAN 1 ACRE.
- INSTALL TWO STAKES PER BALE.
- BALES WILL BE TRENCHED 4" DEEP INTO EARTH.
- MAXIMUM CHANNEL SLOPE OF 3%.
- SEDIMENTATION TRAPS TO BE USED IN HIGHLY EROSION AREAS.

**CHECK DAM SPACING**

Ditch Slope	Maximum Spacing
3%	50%
2%	75%

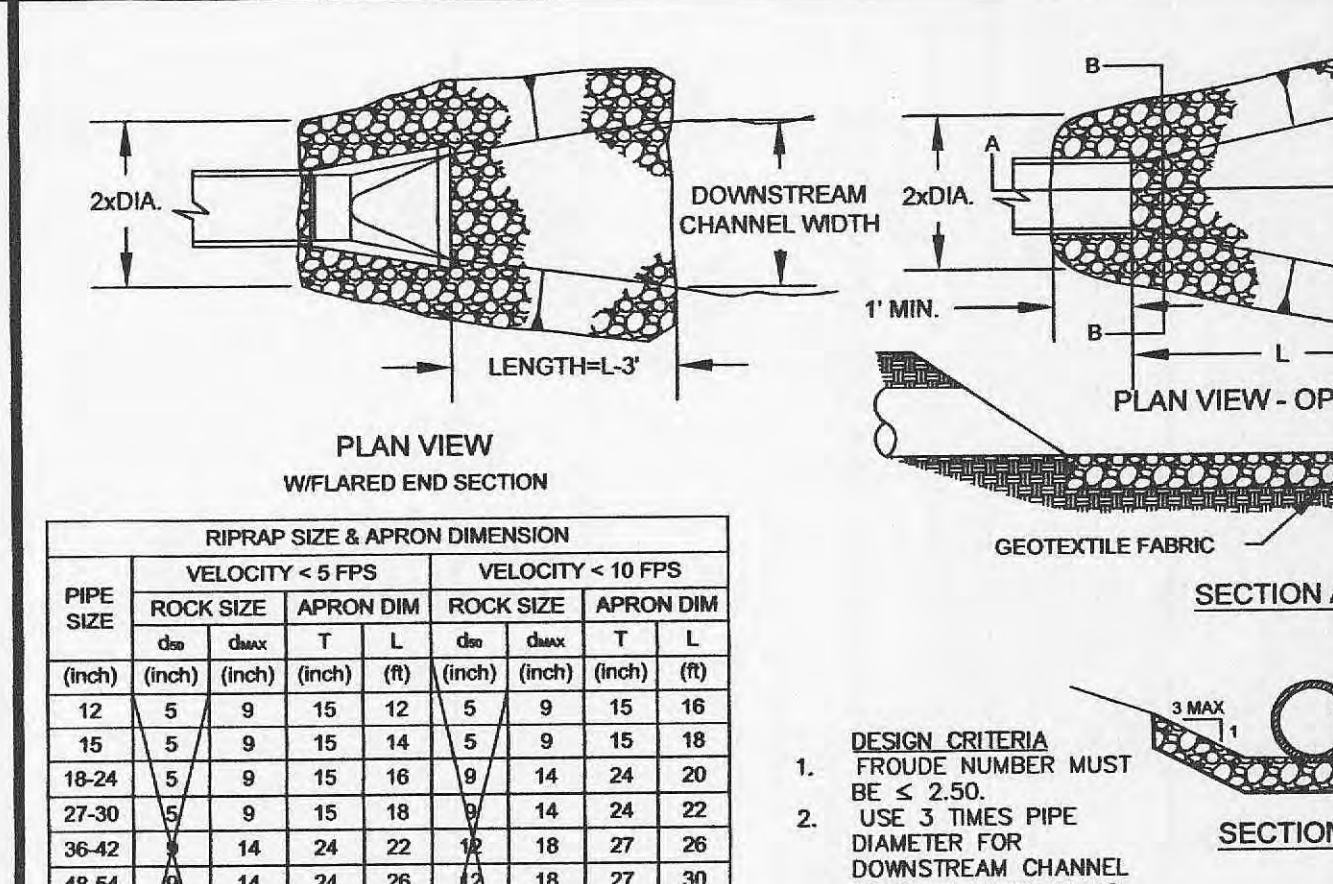
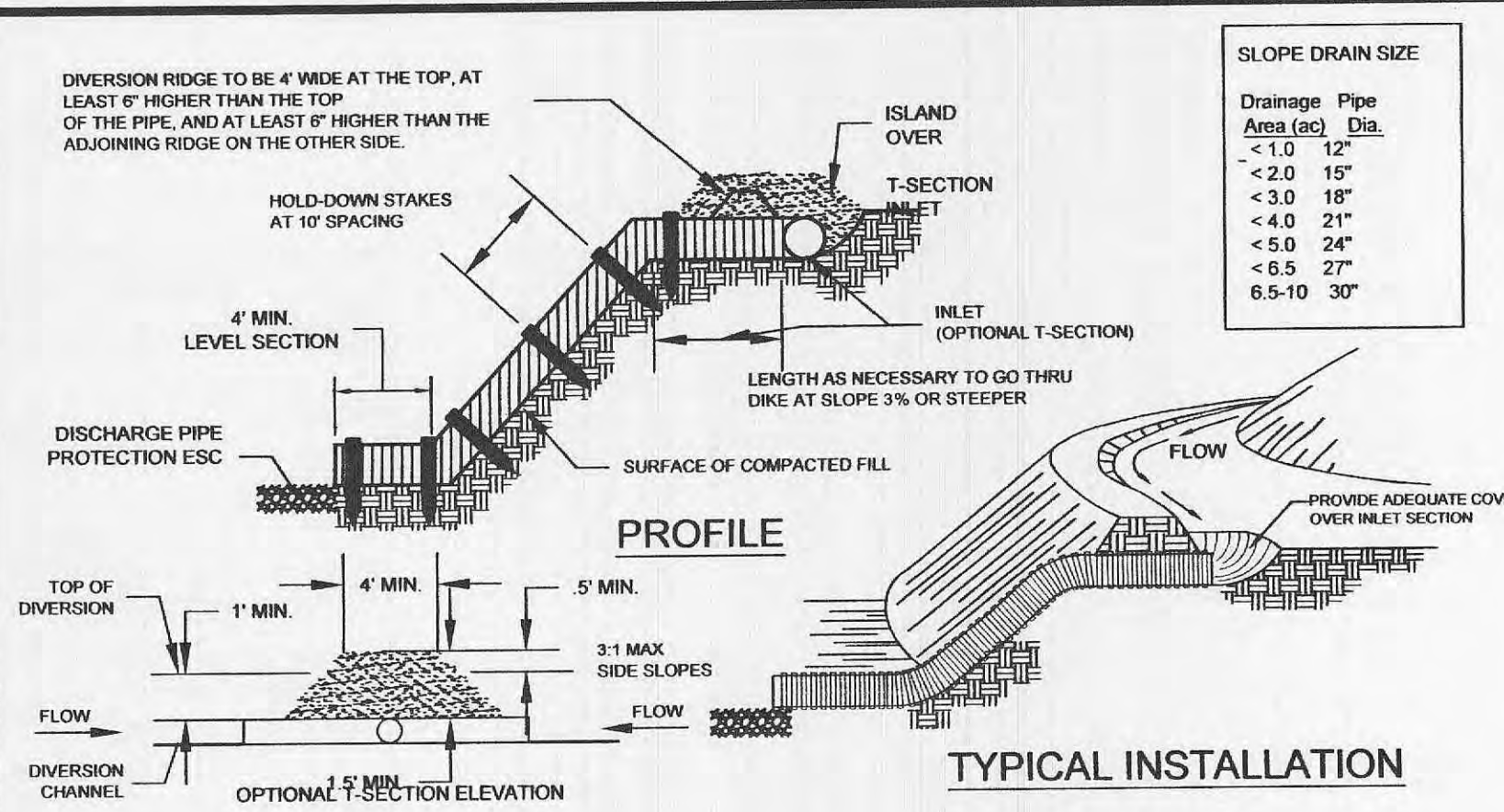


**SWALE SEDIMENT TRAP STRAW BALE BARRIER INSTALLATION**

**CHECK DAMS**

**NOTE:**

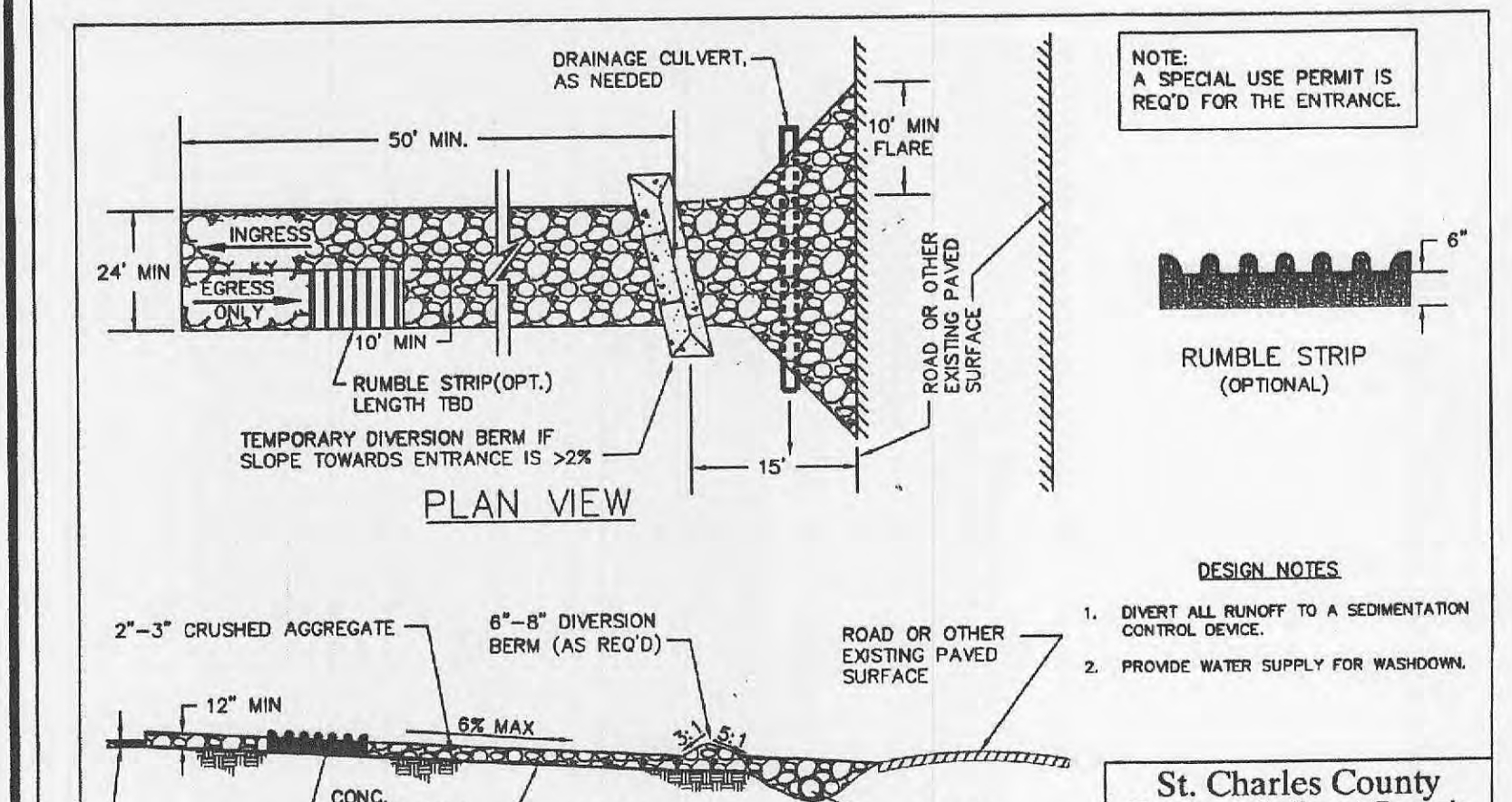
- CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS, SUCH AS TRIANGULAR SILTY DIKE®.
- SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.



**DESIGN CRITERIA**

- FRICITION NUMBER MUST BE ≤ 2.50.
- USE 3 TIMES PIPE DIAMETER FOR DOWNSTREAM CHANNEL WIDTH IF THERE IS NO DEFINED CHANNEL.
- BANK PROTECTION HEIGHT TO BE 2/3 TIMES PIPE DIAMETER.
- ROCK SLOPES SHALL BE NO STEEPER THAN 3:1.

**TEMPORARY OUTLET PIPE DISCHARGE PROTECTION**



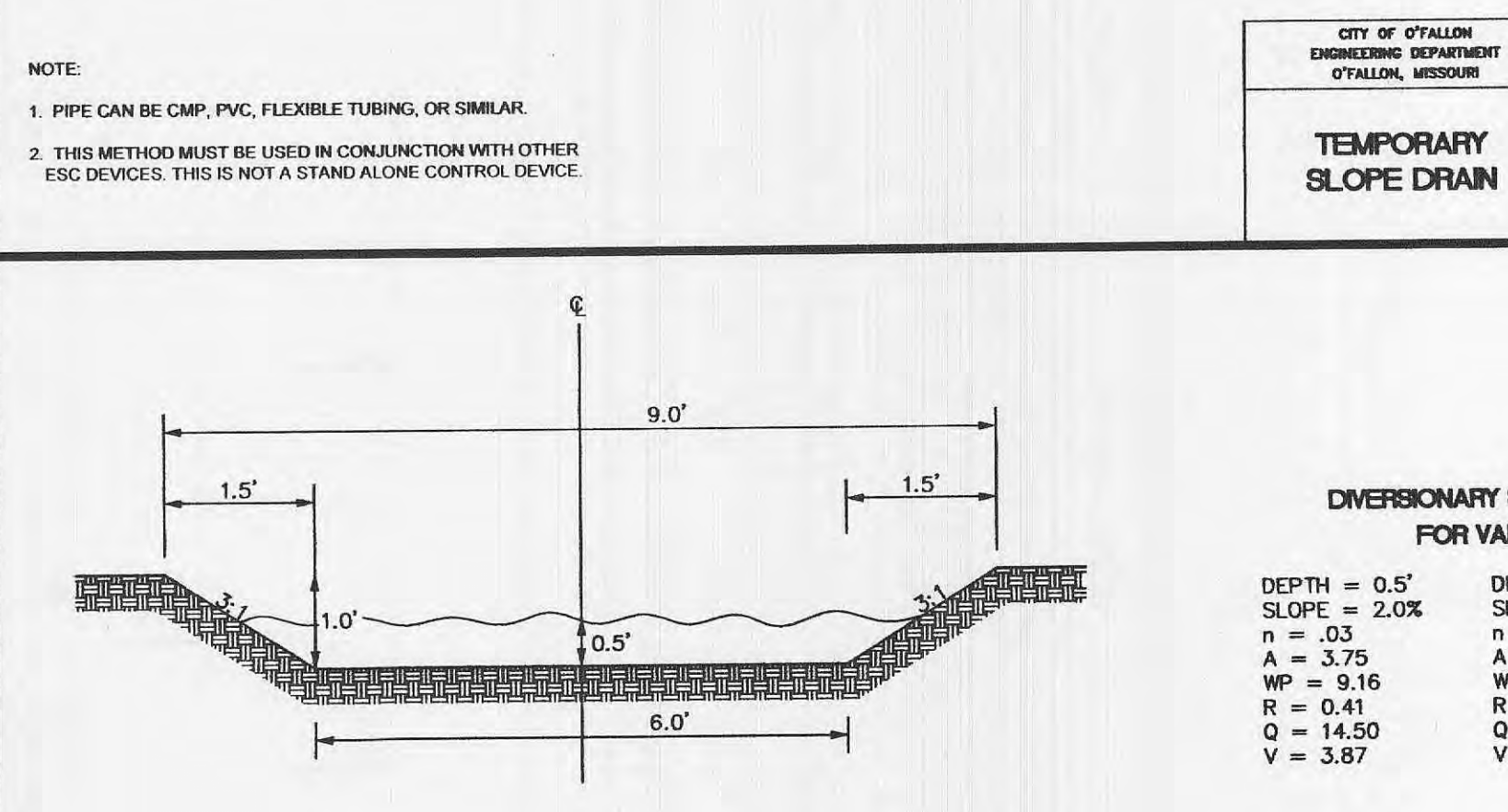
**DESIGN NOTES**

- DIVERT ALL RUNOFF TO A SEDIMENTATION CONTROL DEVICE.
- PROVIDE WATER SUPPLY FOR WASHDOWN.

**St. Charles County Erosion & Sediment Controls Standard Drawings**

**CONSTRUCTION TRAFFIC WASH-OFF PAD**

DATE: APRIL 2008 DRAWING: EBC-4



**DIVERSIONARY SWALE COMPUTATIONS FOR VARIOUS SLOPES**

DEPTH = 0.5'	DEPTH = 0.5'	DEPTH = 0.5'
SLOPE = 2.0%	SLOPE = 3.0%	SLOPE = 6.0%
n = .03	n = .03	n = .03
A = 3.75	A = 3.75	A = 3.75
WP = 9.16	WP = 9.16	WP = 9.16
R = 0.41	R = 0.41	R = 0.41
Q = 14.50	Q = 17.76	Q = 25.11
V = 3.87	V = 4.74	V = 6.70

PROJECT TITLE: **S.A.K. CONST.**

**EROSION CONTROL DETAILS**

**MUSLER ENGINEERING COMPANY**

CIVIL ENGINEERING - PLANNING - LAND SURVEYING

32 Portwest Court, St. Charles, Missouri 63303

Telephone: (636) 916-0444

Fax: (636) 916-3444

CERTIFICATE OF AUTHORITY: ENGINEERING E-2206-D-01 MISSOURI REG. NO. 15-044-D

DATE: JUNE 2011 DRAWN: J.A.S. CHECKED: J.A.S. SHEET NO.: 11-1200

**DISCLAIMER OF RESPONSIBILITY**

I hereby certify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

9.8.11

JEFFREY R. SMITH, P.E.  
MO. P.E. # 2001004672

PREPARED FOR:

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12-10.01 & 12-10.02  
City No.

Page No. **10**