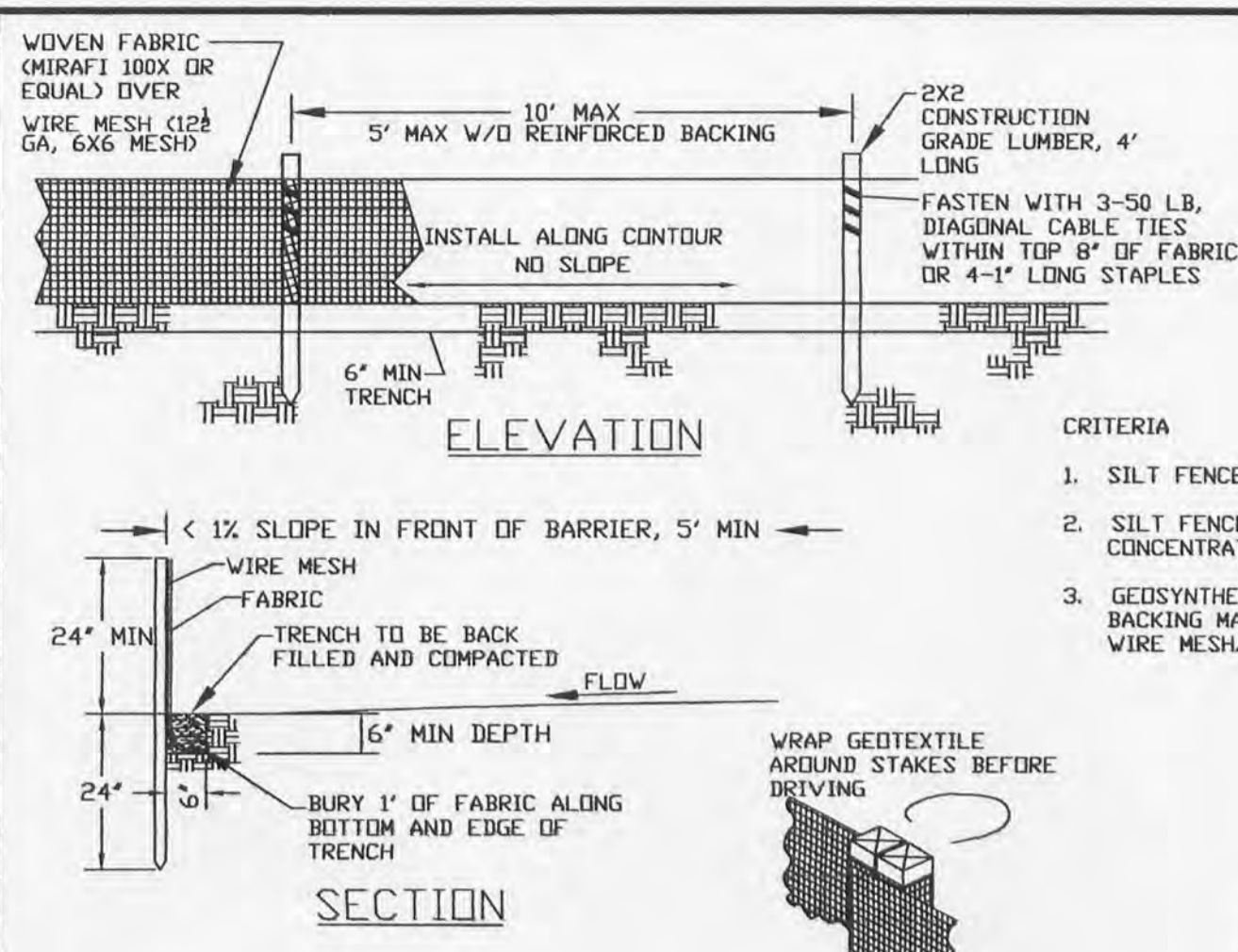


DESIGN CRITERIA

- SILT 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.

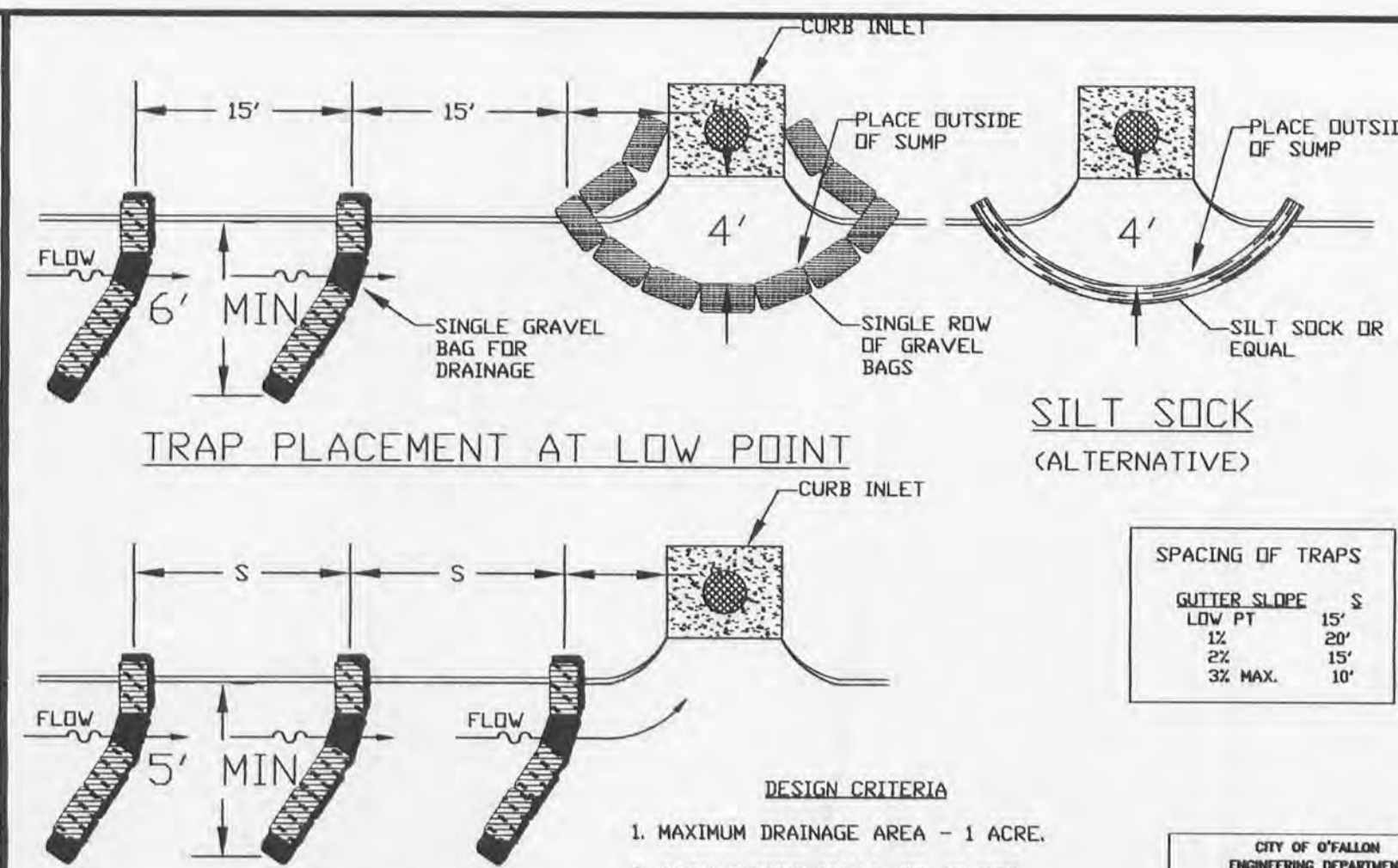
SPACING CHART FOR ESC DEVICES



CRITERIA

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

JOINING SECTIONS OF SILT FENCE



DESIGN CRITERIA

- MAXIMUM DRAINAGE AREA - 1 ACRE.
- PEAK RUNOFF SHALL BE ≤ 2 CFS BASED ON THE 6-MONTH STORM.
- STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

CURB INLET PROTECTION

VEGETATIVE ESTABLISHMENT FOR URBAN DEVELOPMENT SITES

APPENDIX A

SEEDING RATES:

Permanent:

- Tall Fescue - 30 lbs./ac.
- Smooth Brome - 20 lbs./ac.
- Combined Fescue@15 lbs./ac. and Brome@10 lbs./ac.

Temporary:

- Wheat or Rye - 150 lbs./ac.(35 lbs. per 1000 sq. ft.)
- 120 lbs./ac.(27.5 lbs. per 1000 sq. ft.)

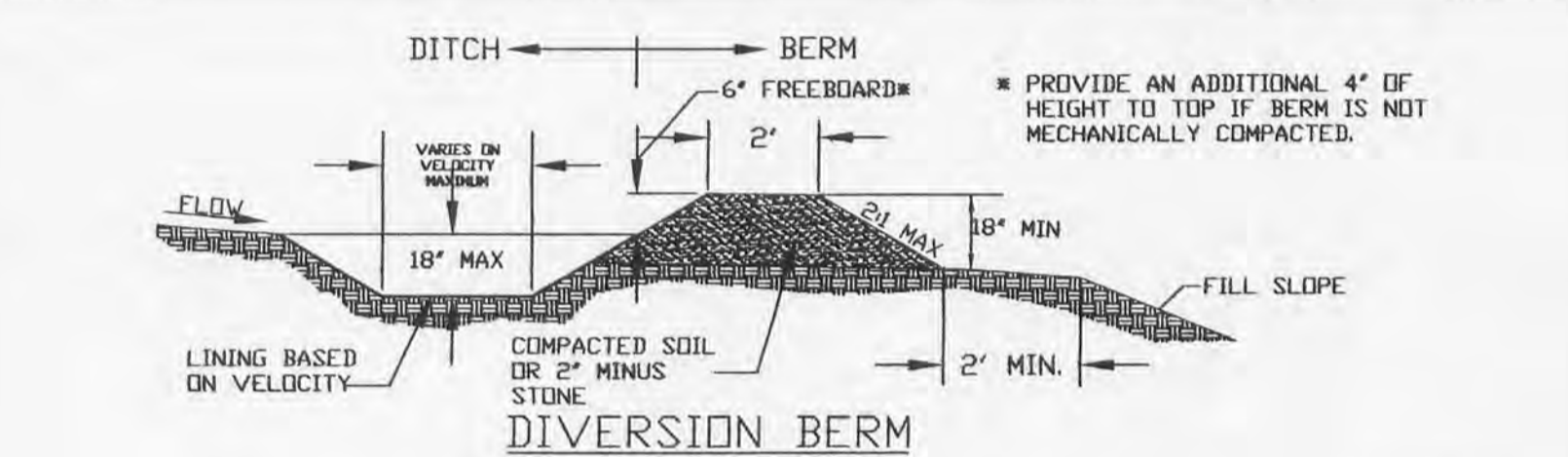
SEEDING PERIODS

- Fescue or Brome: March 1 to June 1
- Wheat or Rye: August 1 to October 1
- Wheat or Rye: March 15 to November 1
- Wheat or Rye: 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., Line 600 lbs./ac. ENM

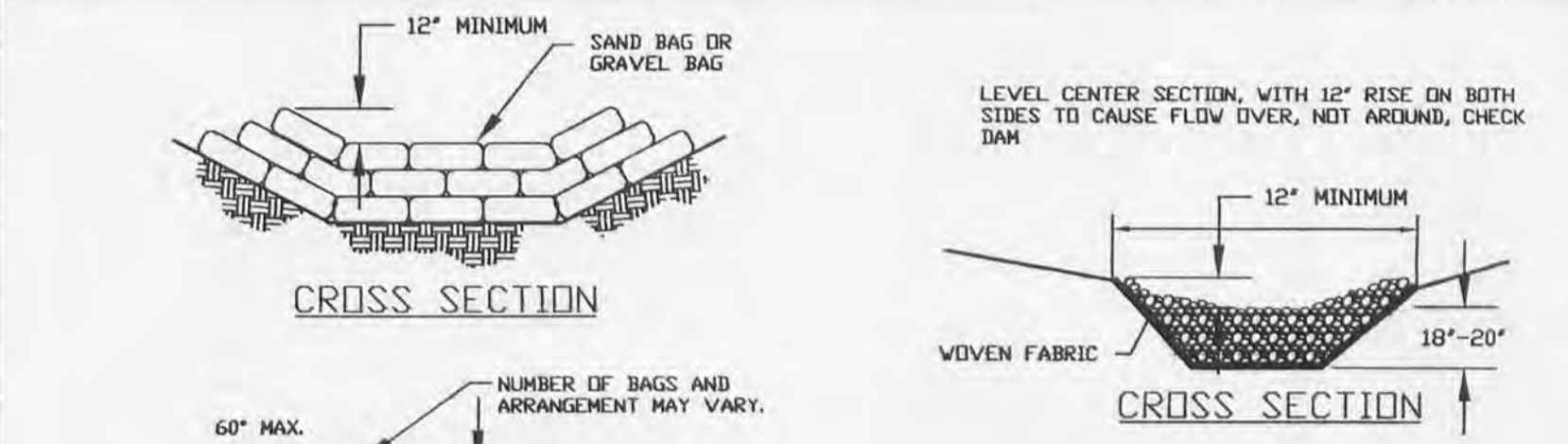
ENM = effective neutralizing material as per State evaluation of quarried rock.



DESIGN CRITERIA

- DIVERSIONS 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 ERODITIVE 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

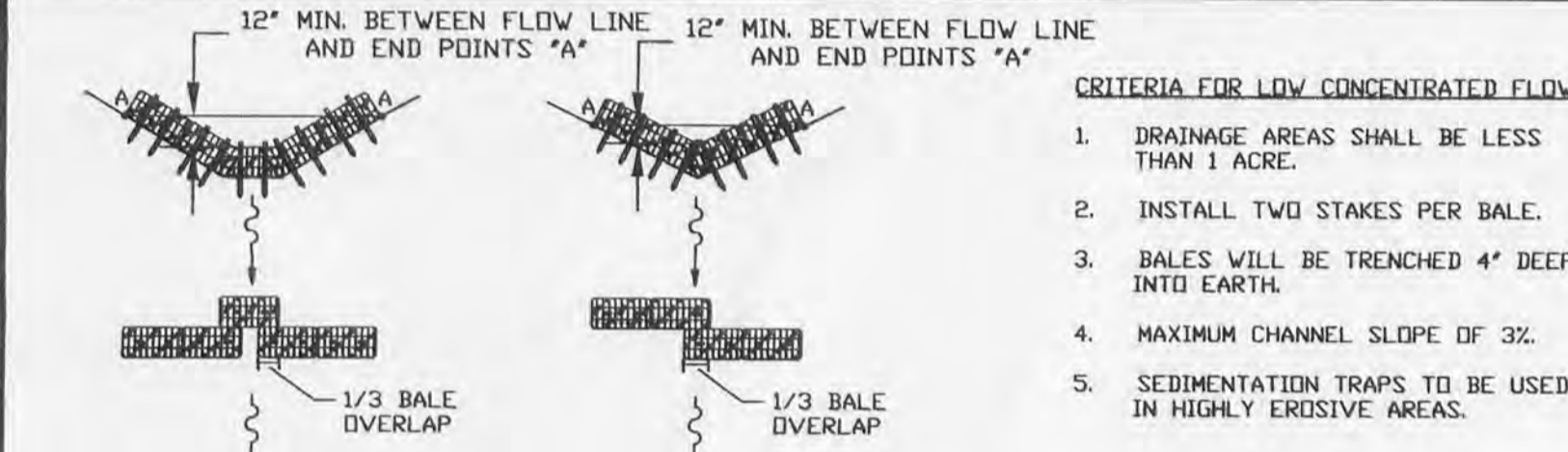


NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT REQ'D.

NOTE: CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS, SUCH AS TRIANGULAR SILT DIKE®.

NOTE: SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.

CHECK DAMS



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 ERODITIVE AREAS.

CHECK DAM SPACING

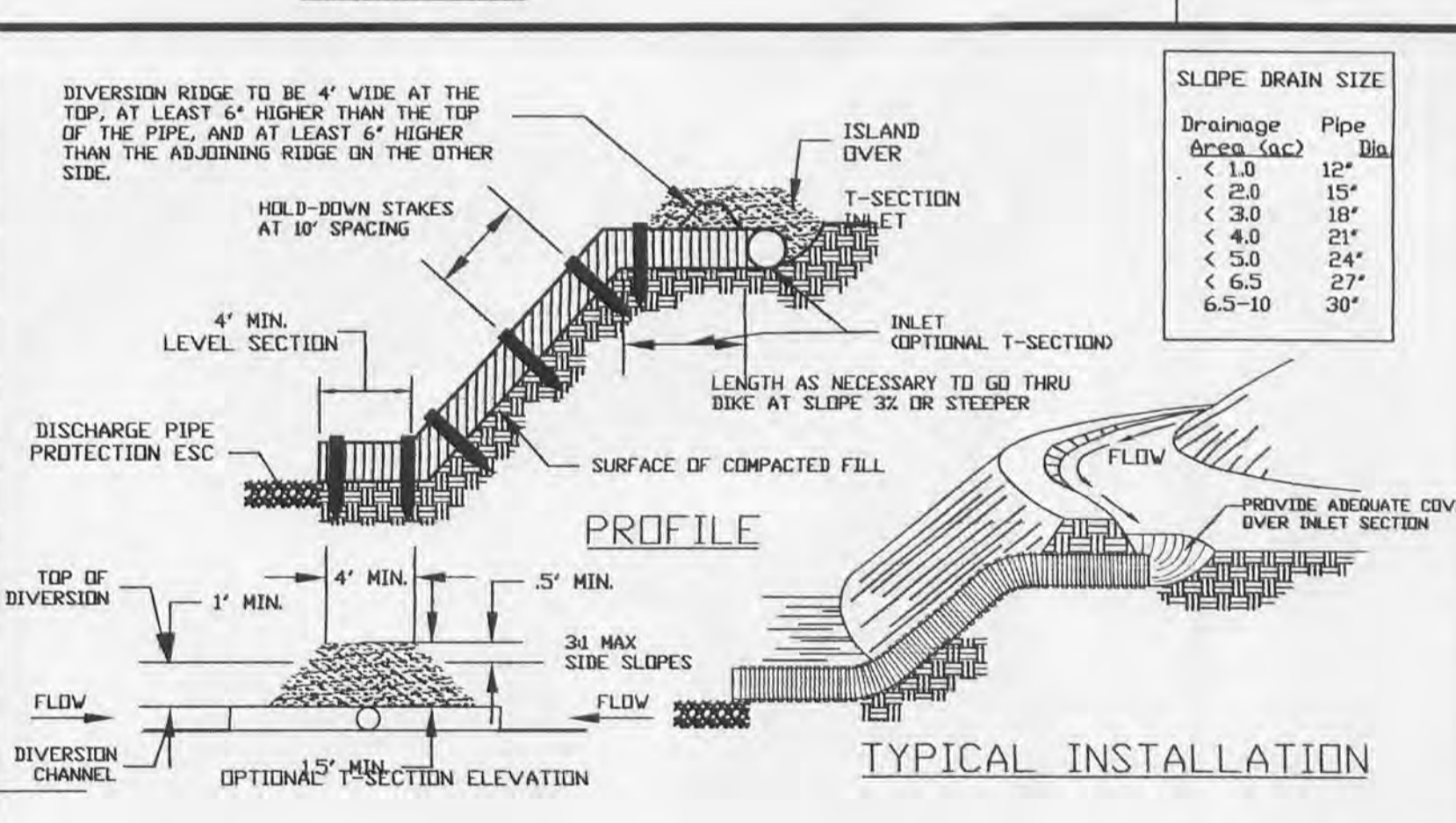
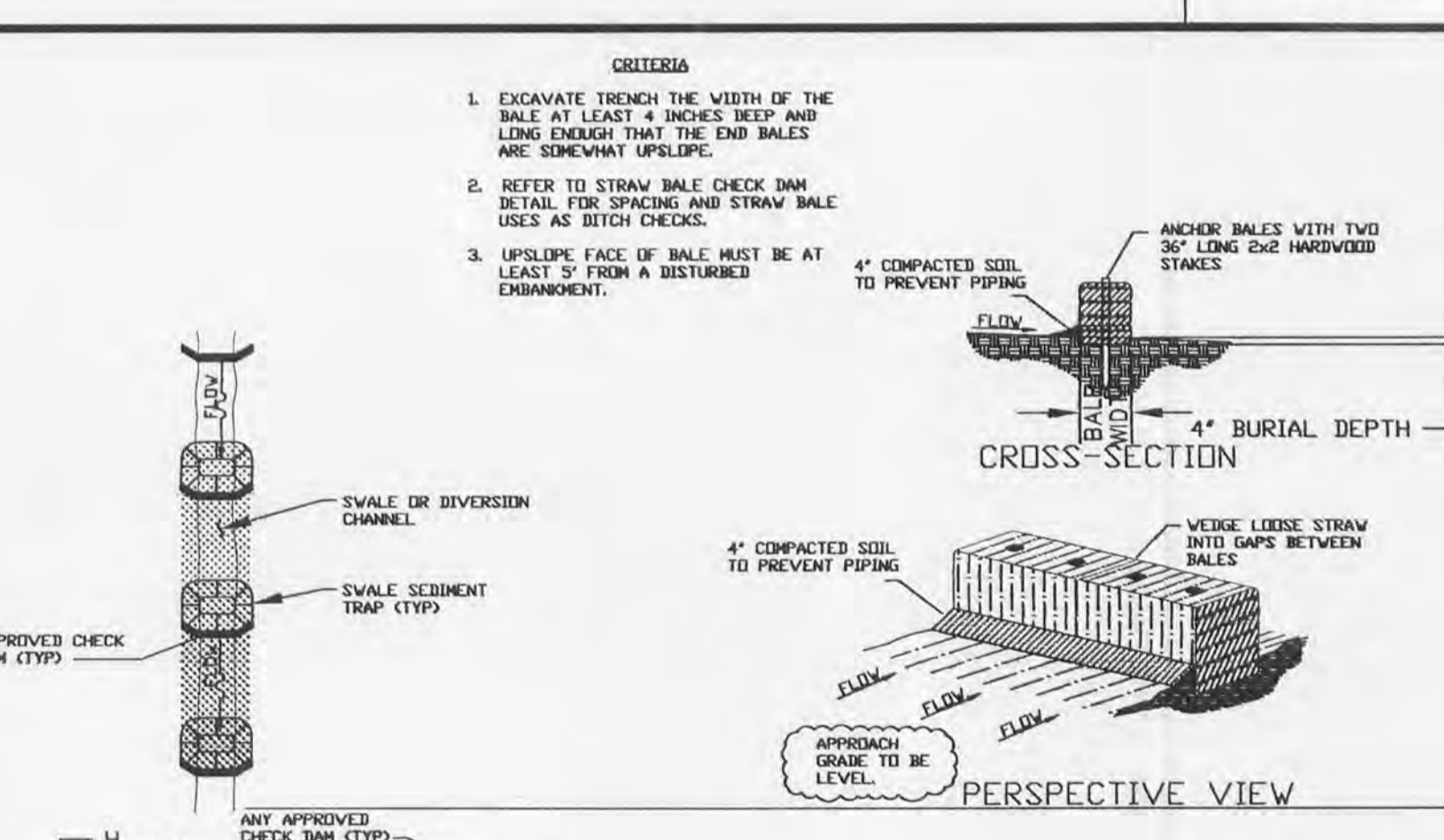
Ditch Slope	Maximum Spacing
3%	50'
2%	75'

TRAPEZOIDAL DITCH V-DITCH

DITCH PROFILE

DOWNSTREAM BALE TOP SHALL BE LEVEL WITH THE LOWEST GROUND ELEVATION OF THE UPSTREAM BALE.

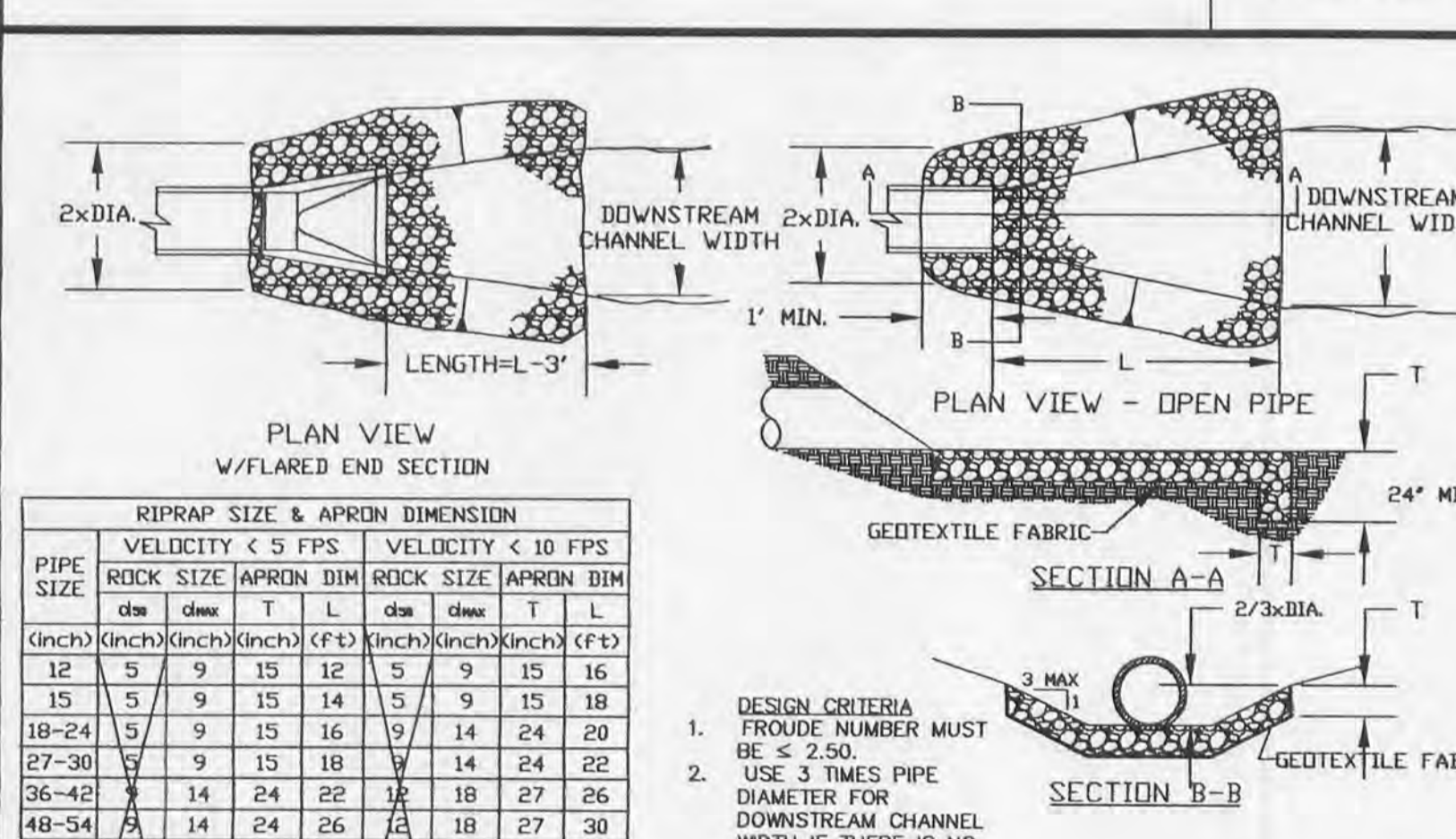
STRAW BALE CHECK DAM



NOTE:

- PIPE CAN BE CMP, PVC, FLEXIBLE TUBING, OR SIMILAR.
- THIS METHOD MUST BE USED IN CONJUNCTION WITH OTHER ESC DEVICES. THIS IS NOT A STAND ALONE CONTROL DEVICE.

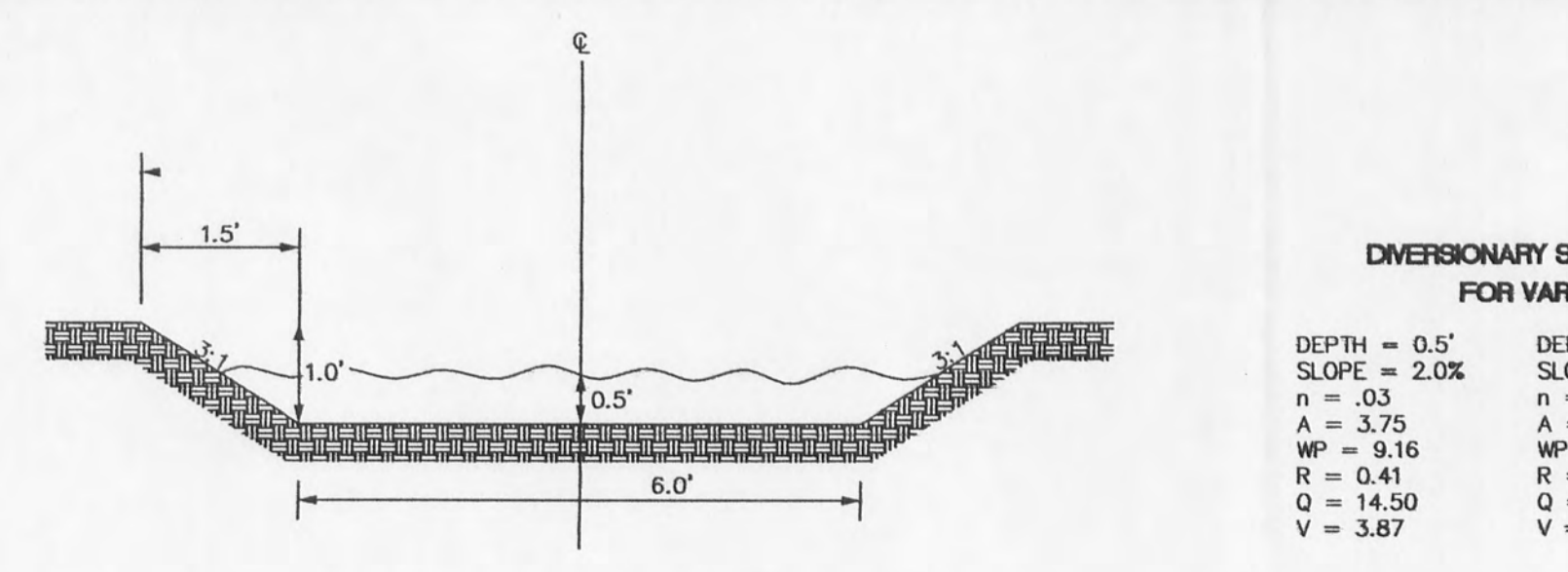
TEMPORARY SLOPE DRAIN



DESIGN CRITERIA

- FROUDE 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



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
MP = 9.16	MP = 9.16	MP = 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:
O'FALLON DERMATOLOGY
DETAILS

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DATE: JAN. 2012
DRAWN: J.R.S.
CHECKED: J.R.S.
PROJECT NO.: 11-1244
SHEET NO.: 19 OF 19

DISCLAIMER OF RESPONSIBILITY

I hereby specify that the documents intended to be authenticated 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.

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