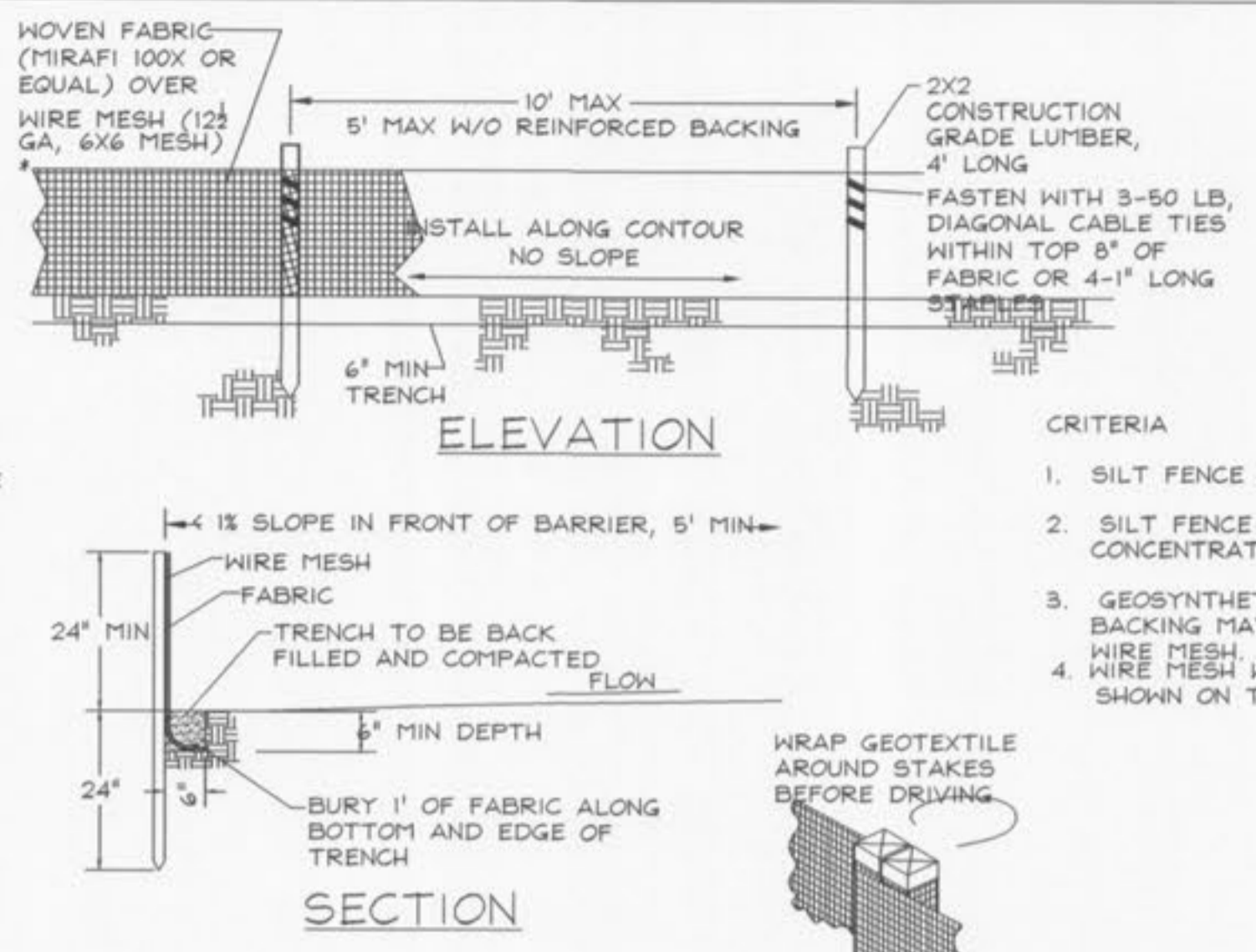


- DESIGN CRITERIA**
- SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - REFER TO INDIVIDUAL SHEETS FOR INSTALLATION PROCEDURES.
  - TERRACING INCLUDES LOGS, MATTLERS & FILTER SOCKS.

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

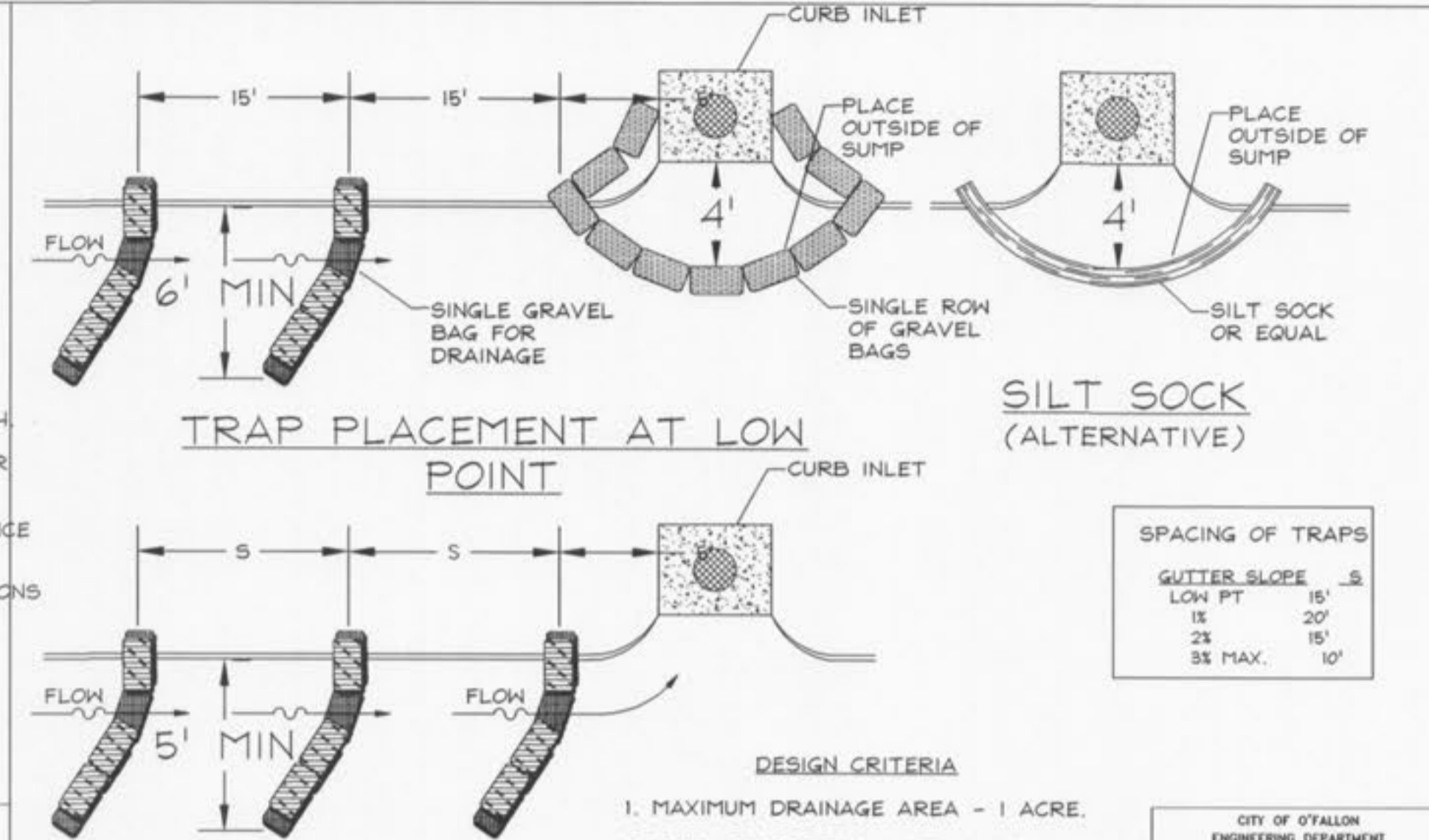
**SPACING CHART FOR ESC DEVICES**



- 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.
  - WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

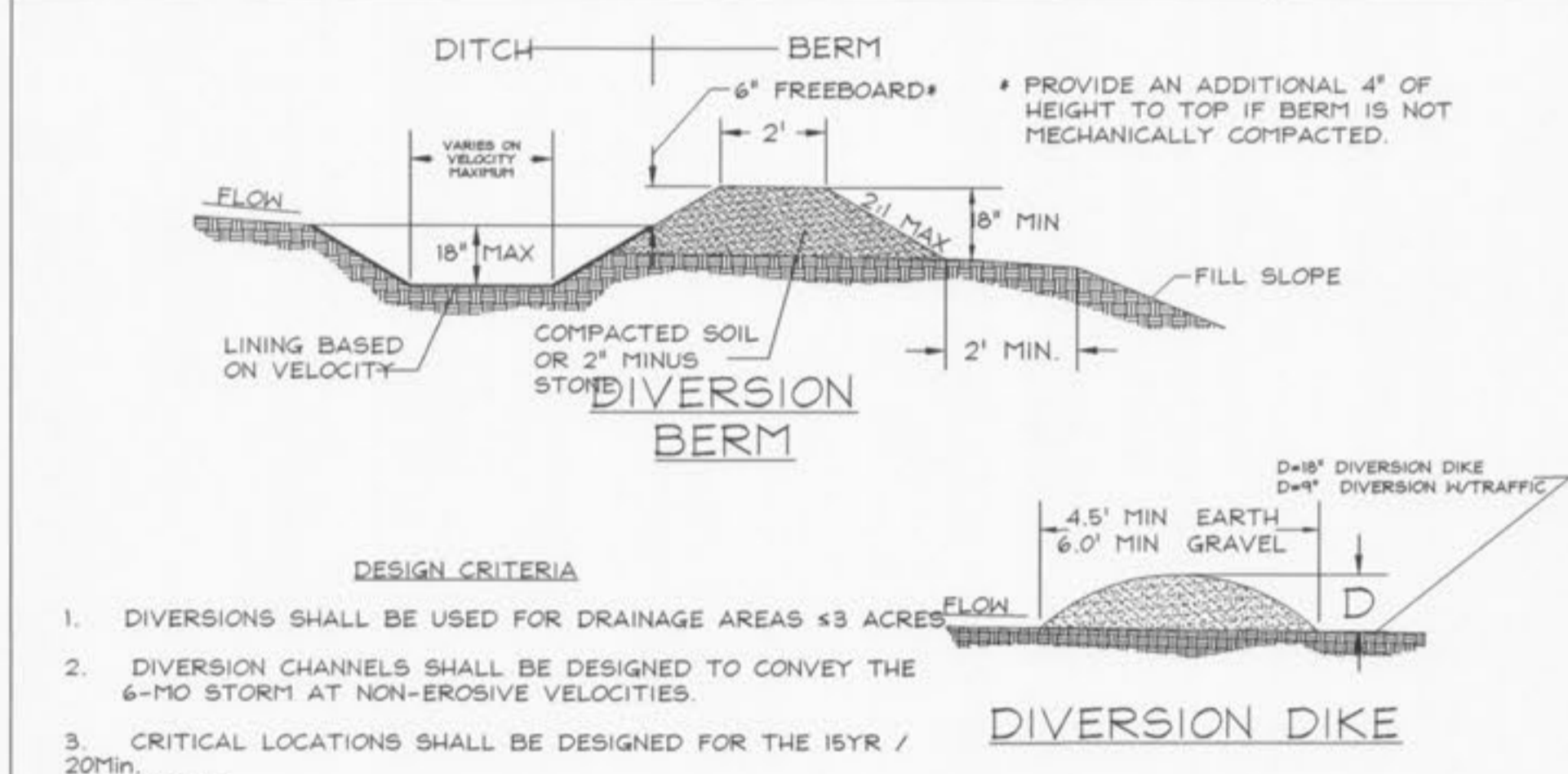
**SILT FENCE INSTALLATION SHEET FLOW (ONLY)**



- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
  - PEAK RUNOFF SHALL BE 42 CFS BASED ON THE 6-MONTH STORM.
  - STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

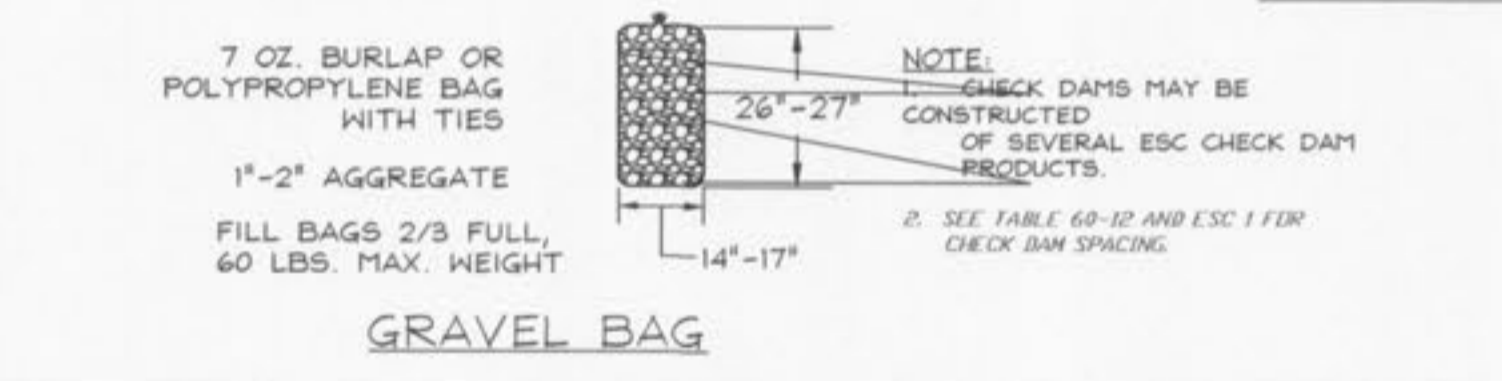
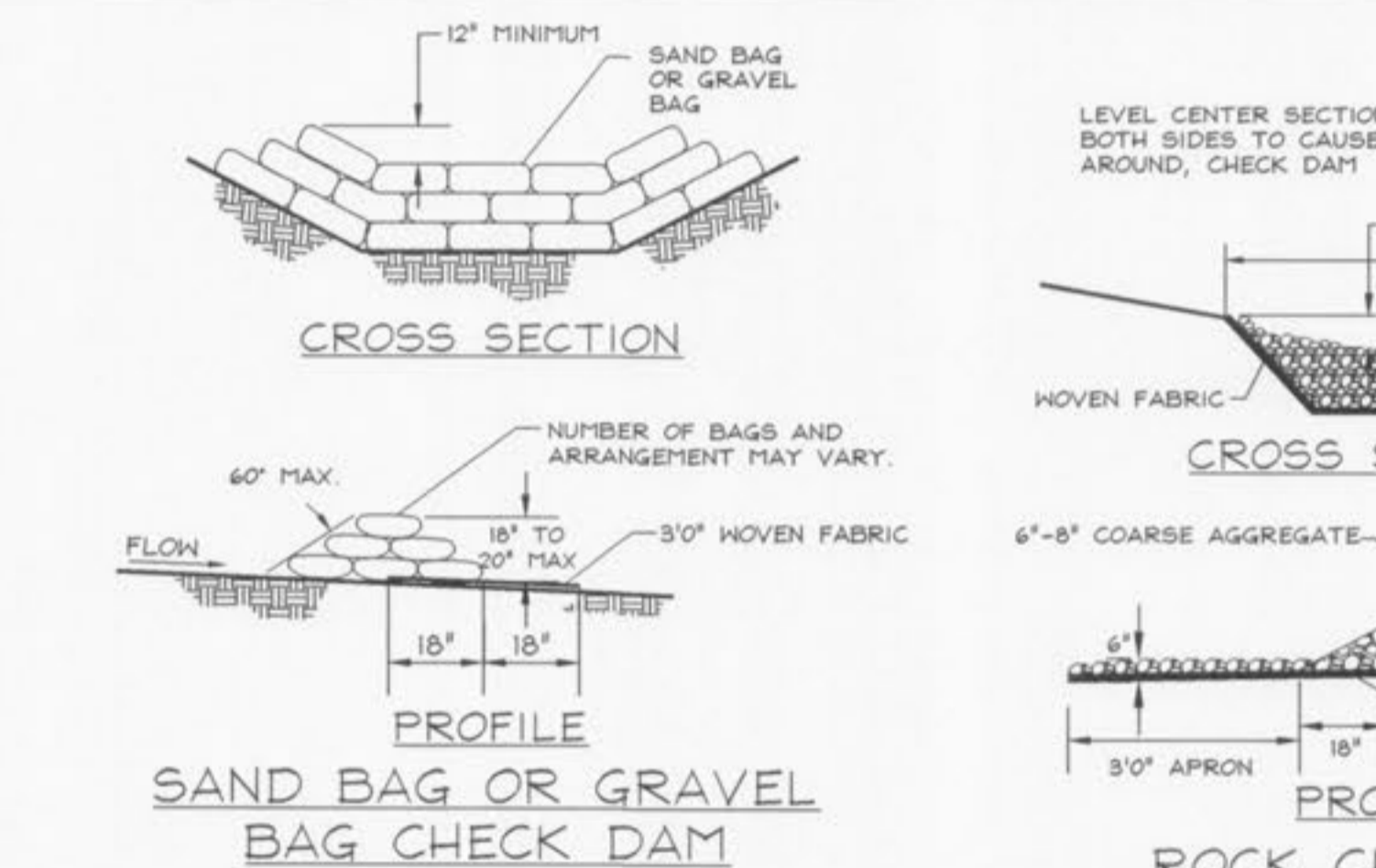
**CURB INLET PROTECTION**



- 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 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.

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

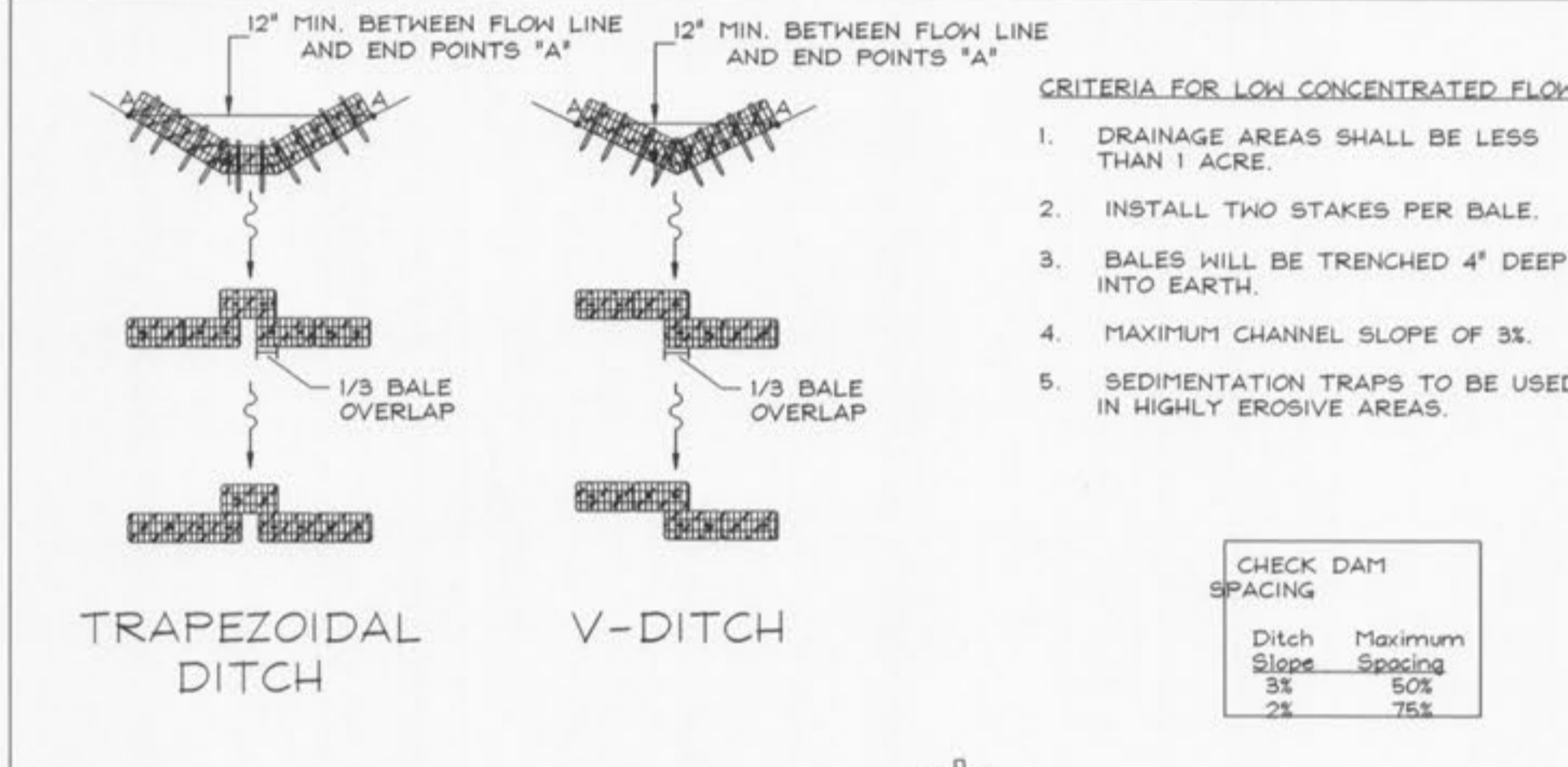
**DIVERSION BERMS + DIKES**



- 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.

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

**CHECK DAMS**

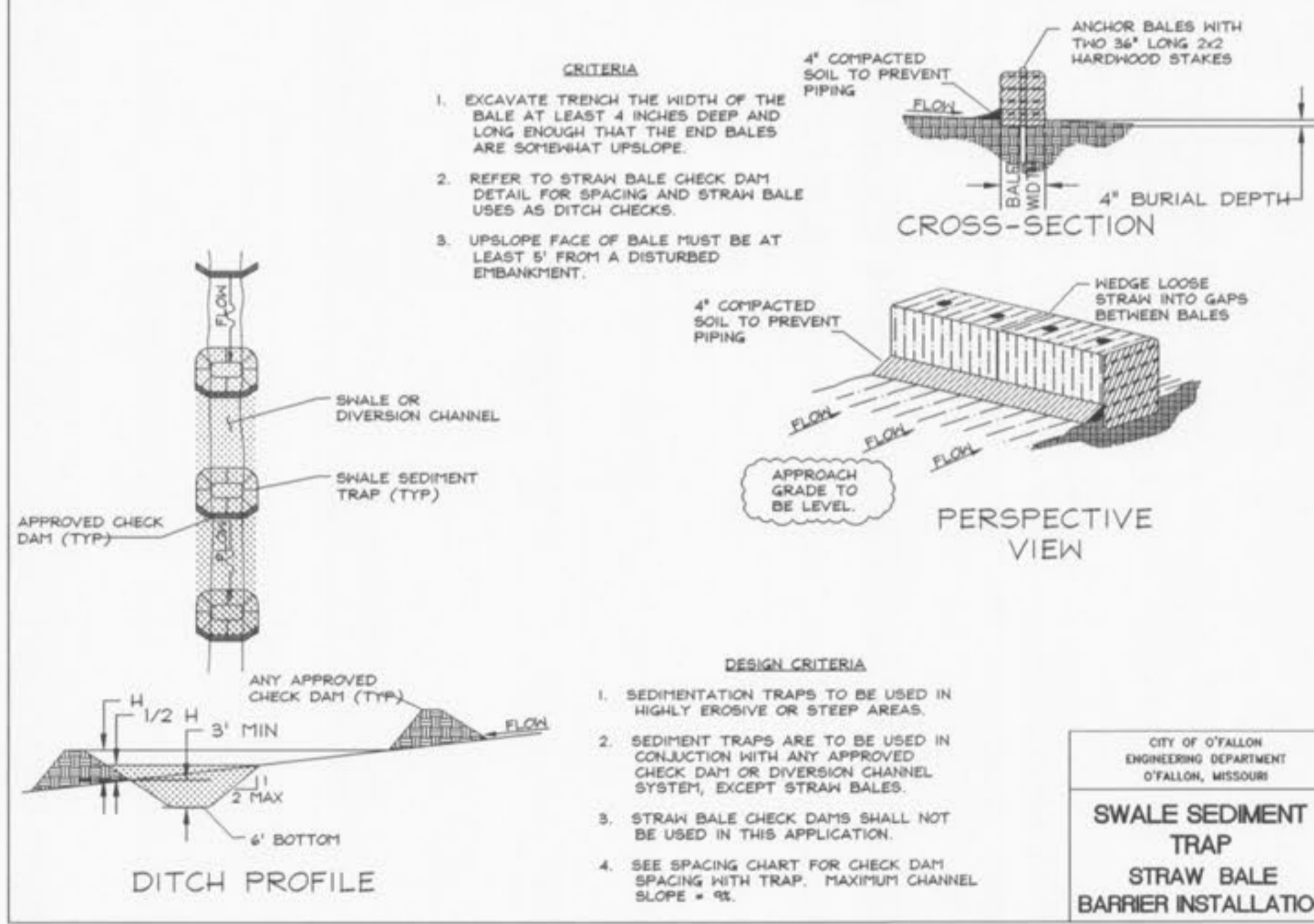


**CHECK DAM SPACING**

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

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

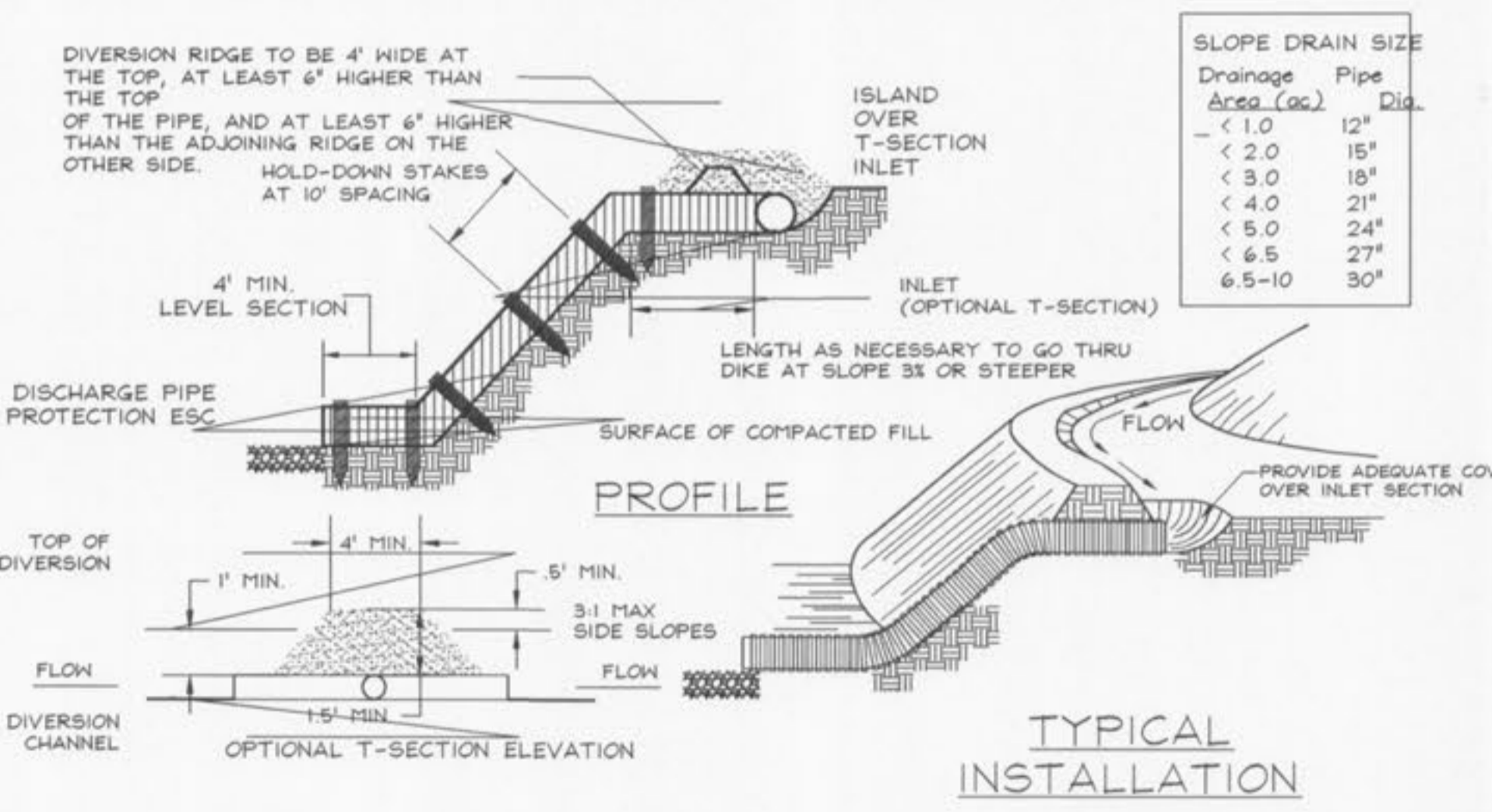
**STRAW BALE CHECK DAM**



- DESIGN CRITERIA**
- SEDIMENTATION TRAPS TO BE USED IN HIGHLY EROSION OR STEEP AREAS.
  - SEDIMENT TRAPS ARE TO BE USED IN CONJUNCTION WITH ANY APPROVED CHECK DAM OR DIVERSION CHANNEL SYSTEM, EXCEPT STRAW BALES.
  - STRAW BALE CHECK DAMS SHALL NOT BE USED IN THIS APPLICATION.
  - SEE SPACING CHART FOR CHECK DAM SPACING WITH TRAP. MAXIMUM CHANNEL SLOPE = 3%.

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

**SWALE SEDIMENT TRAP STRAW BALE BARRIER INSTALLATION**

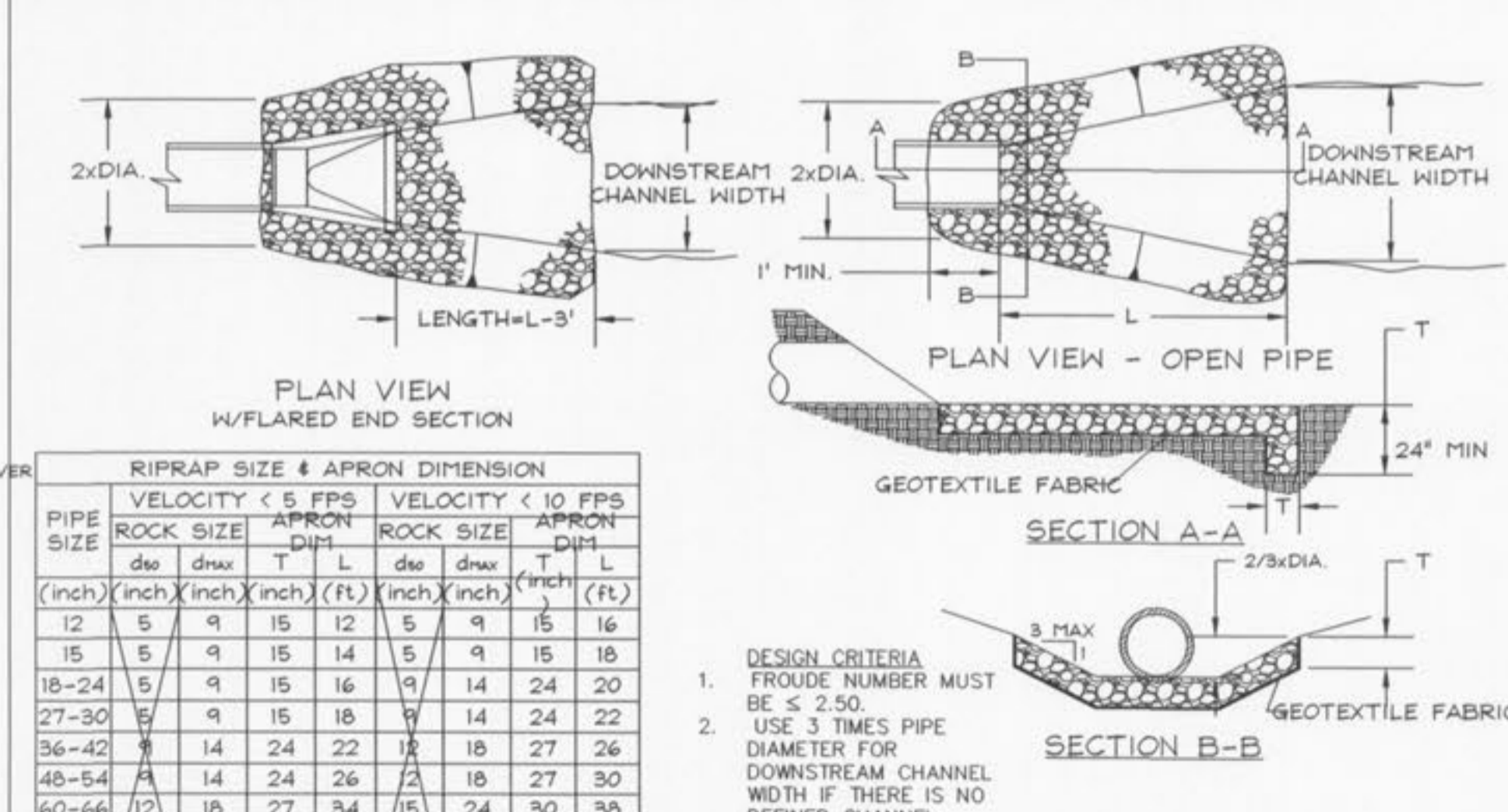


**SLOPE DRAIN SIZE**

Drainage Area (ac)	Pipe Dia.
< 1.0	12"
< 2.0	15"
< 3.0	18"
< 4.0	21"
< 5.0	24"
< 6.5	27"
6.5-10	30"

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

**TEMPORARY SLOPE DRAIN**



**RIPRAP SIZE & APRON DIMENSION**

PIPE SIZE (inch)	VELOCITY < 5 FPS			VELOCITY < 10 FPS		
	APRON dia (inch)	T (inch)	L (ft)	APRON dia (inch)	T (inch)	L (ft)
12	5	9	15	5	9	15
15	5	9	15	5	9	15
18-24	5	9	15	9	14	24
27-30	5	9	15	9	14	24
36-42	9	14	24	12	18	27
48-54	9	14	24	12	18	27
60-66	12	18	27	15	24	30
72-84	15	24	30	15	24	30
96	18	27	30	18	27	30

- 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.

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

**TEMPORARY OUTLET PIPE DISCHARGE PROTECTION**



PREPARED FOR:  
**MEL SCHNEIDER**  
305 CAPRI DR.  
O'FALLON, MO. 63366  
PH: 314-249-9550

PROJECT:  
**LAND PLANNING • LAND SURVEYING**  
CIVIL ENGINEERING  
1112 ROCK CREEK ELEMENTARY RD.  
O'FALLON, MISSOURI 63366  
PH: (636) 240-4949  
MO. CERT. OF AUTHORITY FOR LAND SURVEYING  
LIC. NO. 000036  
SERIAL NO. 15-1596-D

**LDC** INCORPORATED

**SCHNEIDER DUPLEX**  
ST. JOSEPH ST.  
O'FALLON, MO.

REVISION


DRAWN BY: GMK  
CHECKED BY: JPT  
DATE: 1/20/2012  
JOB NO.: 11.700  
SCALE: NO SCALE  
P&Z NO.: 24-11  
CITY NO.:  
SHEET: 09