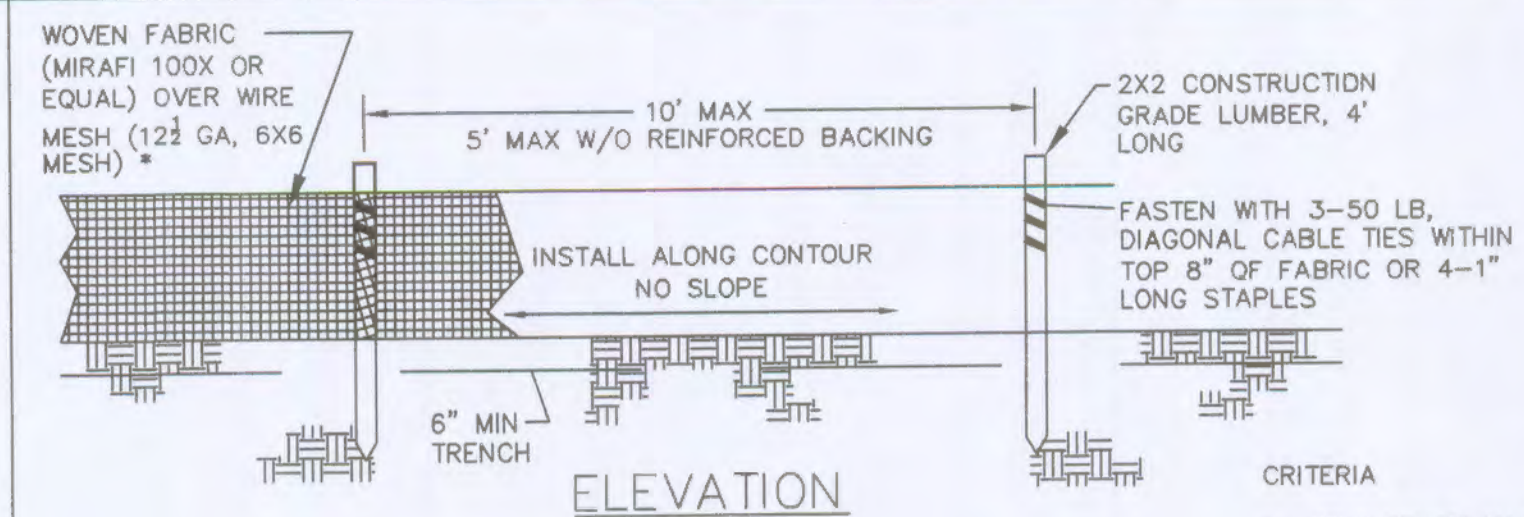


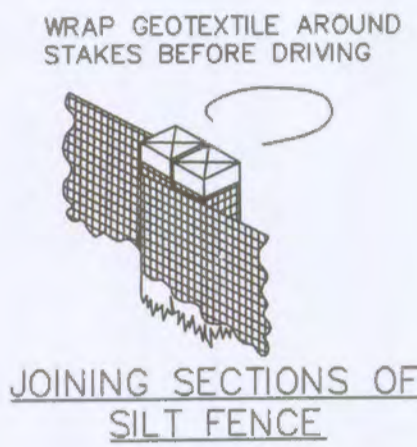
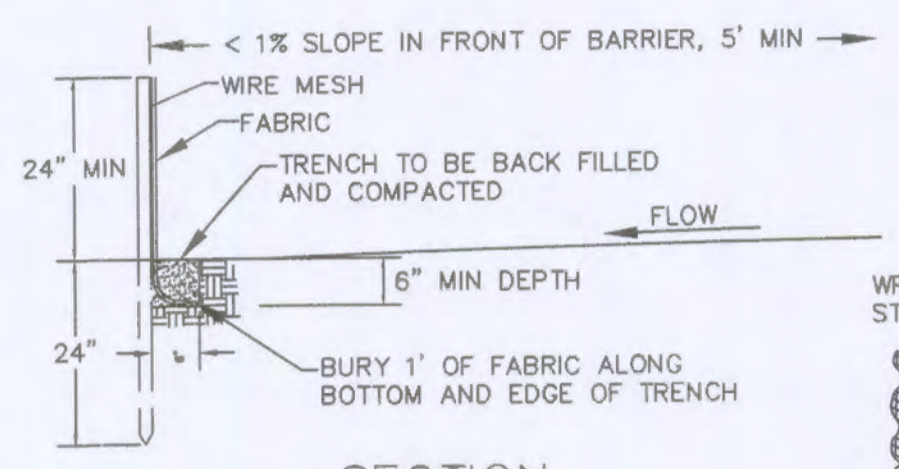
- DESIGN CRITERIA**
- SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
 - STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
 - REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
 - TERRACING INCLUDES LOGS, WATTLES & FILTER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

SPACING CHART FOR ESC DEVICES

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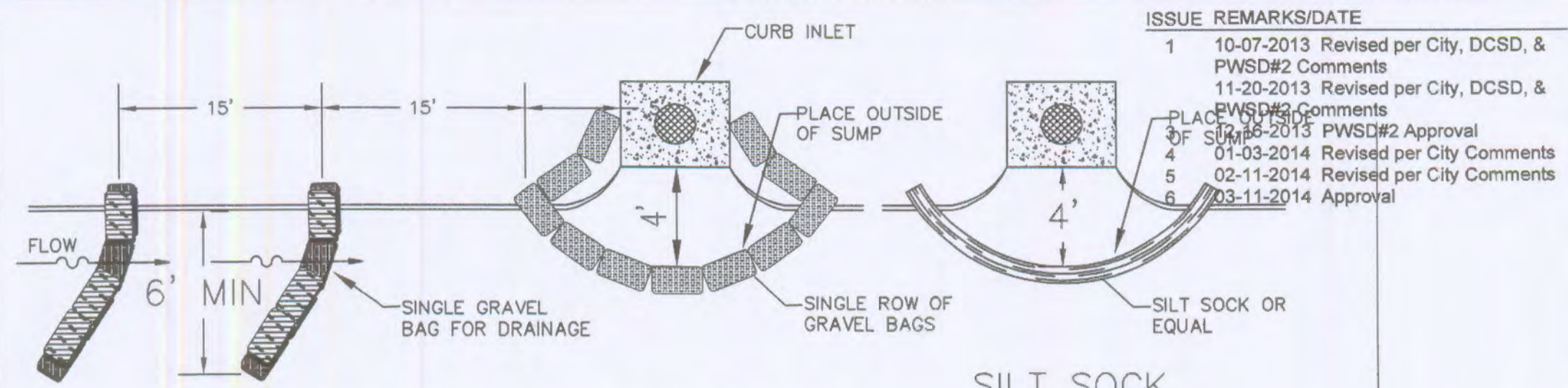
- CRITERIA**
- SILT FENCE SHALL BE 24 INCHES HIGH.
 - SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
 - GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
 - WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.



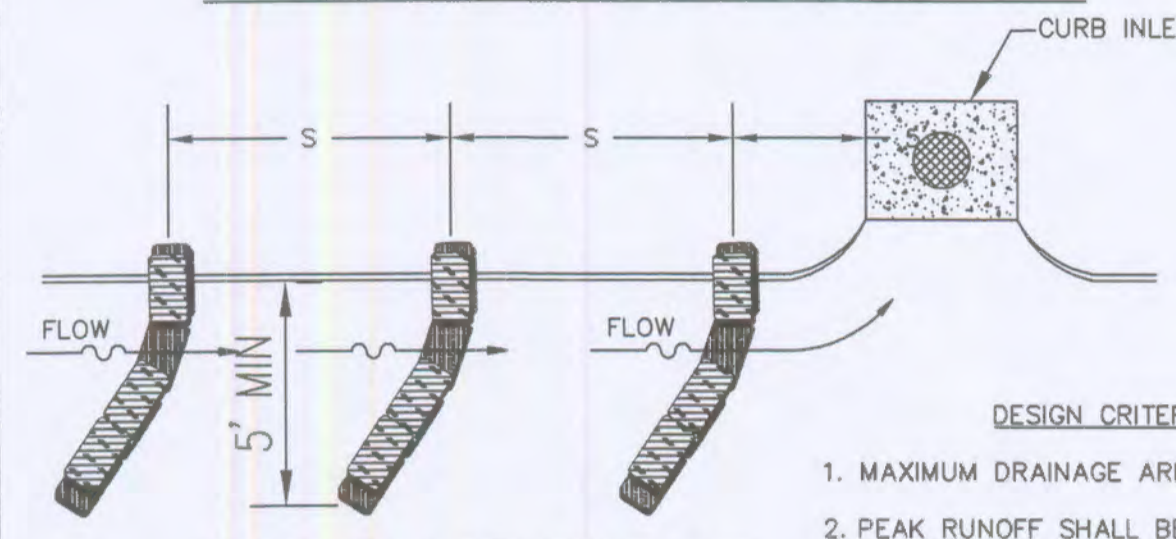
SECTION

JOINING SECTIONS OF SILT FENCE

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SILT SOCK (ALTERNATIVE)



TRAP PLACEMENT AT INTERMEDIATE INLET

- 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.

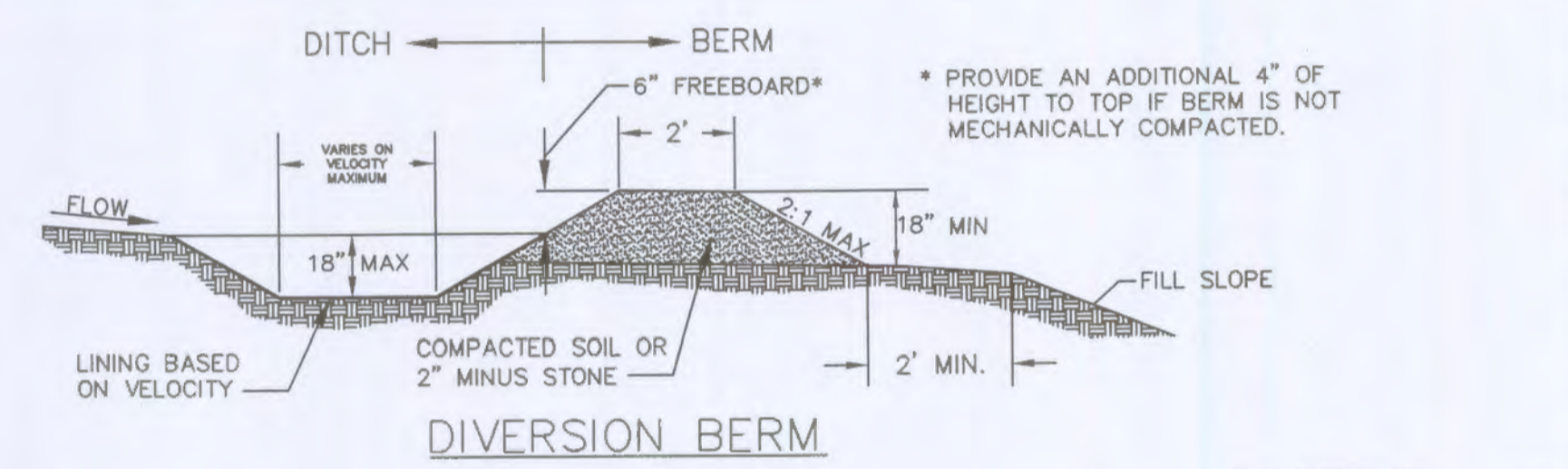
SPACING OF TRAPS

GUTTER SLOPE	S
LOW FT	15'
1%	20'
2%	15'
3% MAX.	10'

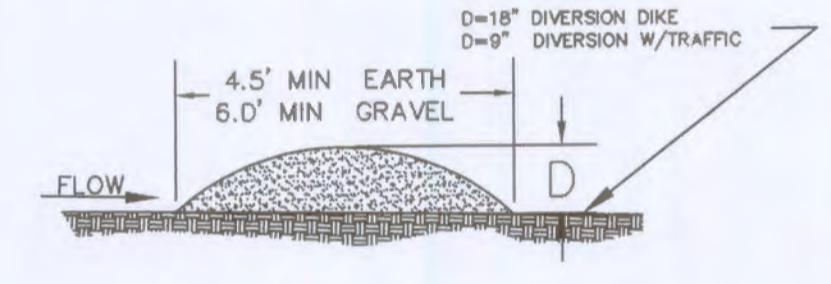
ISSUE REMARKS/DATE

1	10-07-2013	Revised per City, DCSD, & PWSD#2 Comments
2	11-20-2013	Revised per City, DCSD, & PWSD#2 Approval
3	01-03-2014	Revised per City Comments
4	02-11-2014	Revised per City Comments
5	03-11-2014	Approval

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DIVERSION BERM

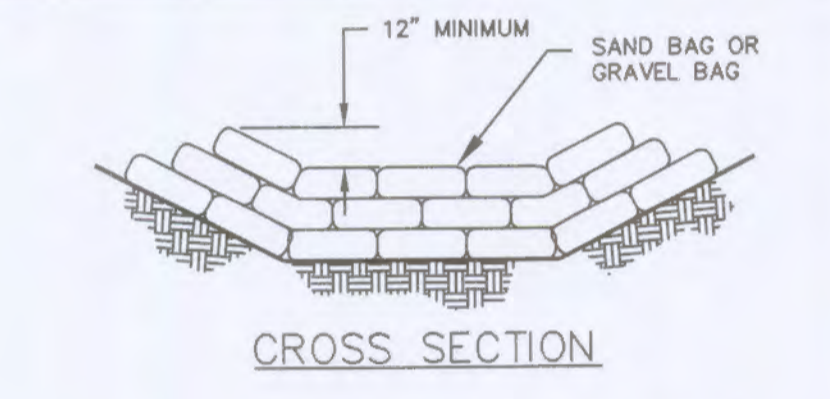


DIVERSION DIKE

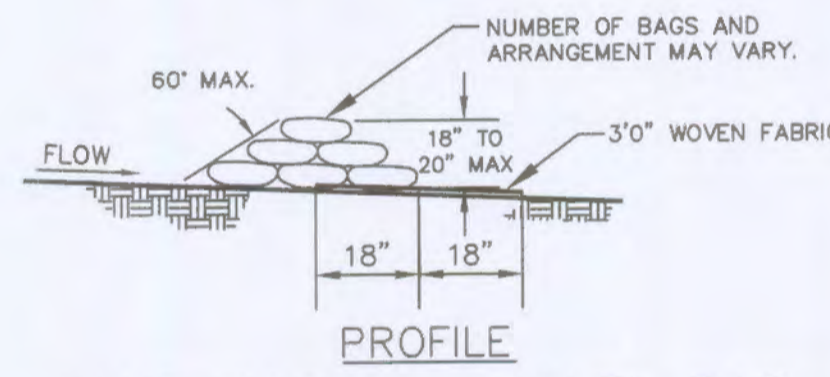
- DESIGN CRITERIA**
- DIVERSIONS SHALL BE USED FOR DRAINAGE AREAS ≤ 3 ACRES.
 - DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
 - CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20Min. STORM.
 - MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
 - SWALE SEDIMENT 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.

DIVERSION BERMS + DIKES

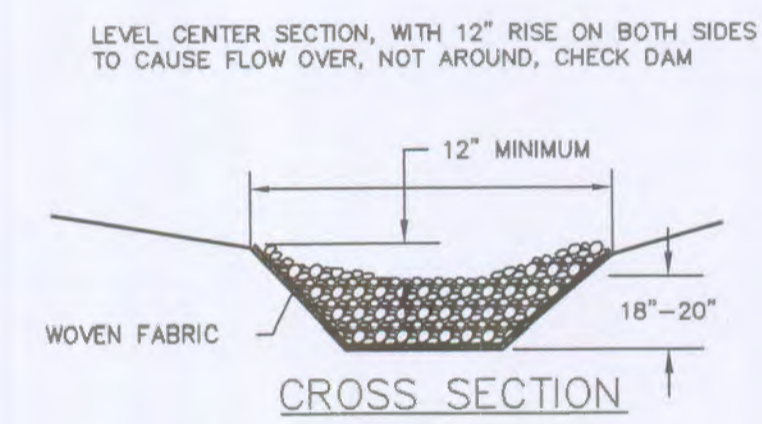
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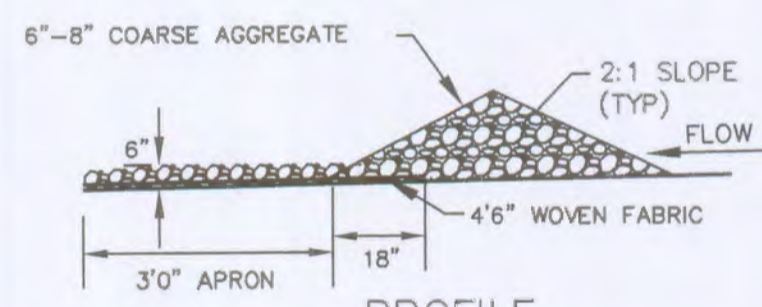
CROSS SECTION



PROFILE SAND BAG OR GRAVEL BAG CHECK DAM



CROSS SECTION

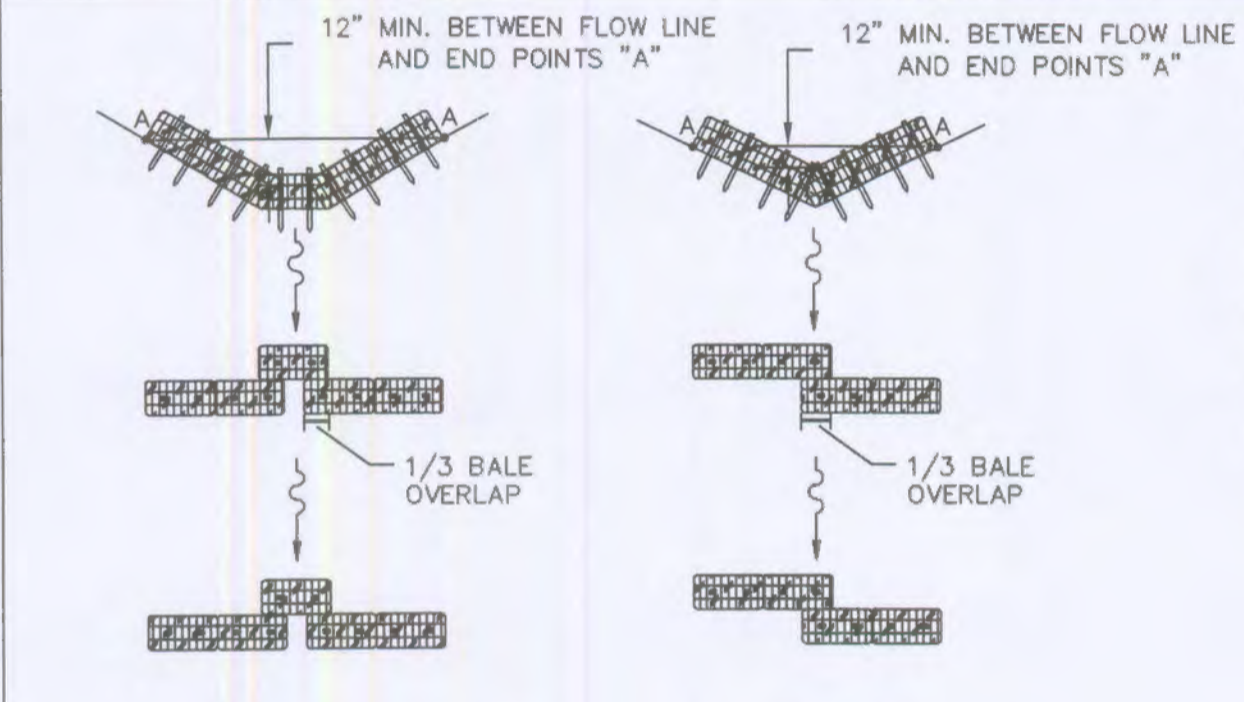


PROFILE ROCK CHECK DAM

- NOTE:**
- CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS.
 - SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.

CHECK DAMS

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TRAPEZOIDAL DITCH

V-DITCH

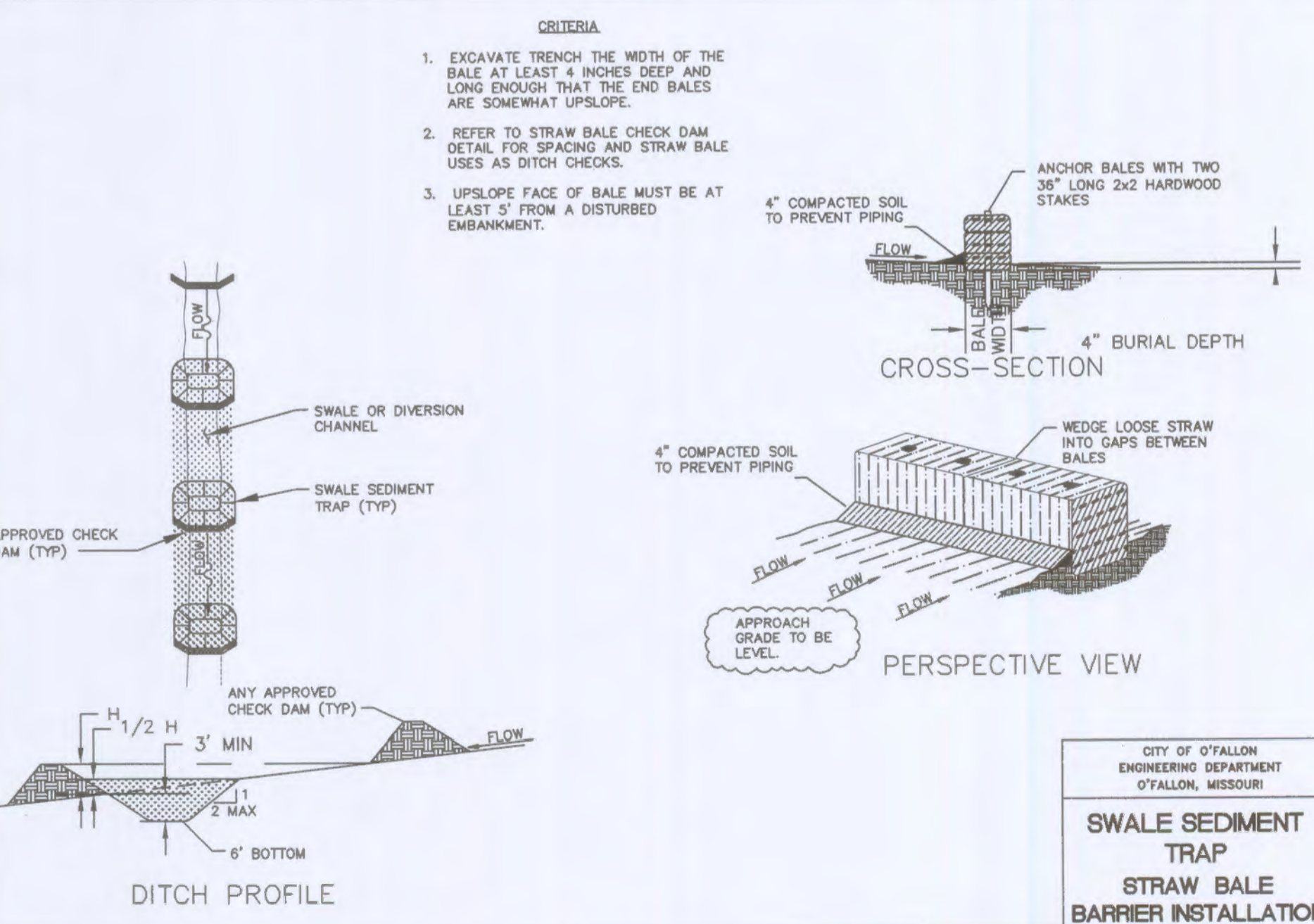
- CRITERIA FOR LOW CONCENTRATED FLOWS**
- DRAINAGE AREAS SHALL BE LESS THAN 1 ACRE.
 - INSTALL TWO STAKES PER BALE.
 - BALES WILL BE TRENCHED 4" DEEP INTO EARTH.
 - MAXIMUM CHANNEL SLOPE OF 3%.
 - SEDIMENTATION TRAPS TO BE USED IN HIGHLY EROSION AREAS.

CHECK DAM SPACING

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

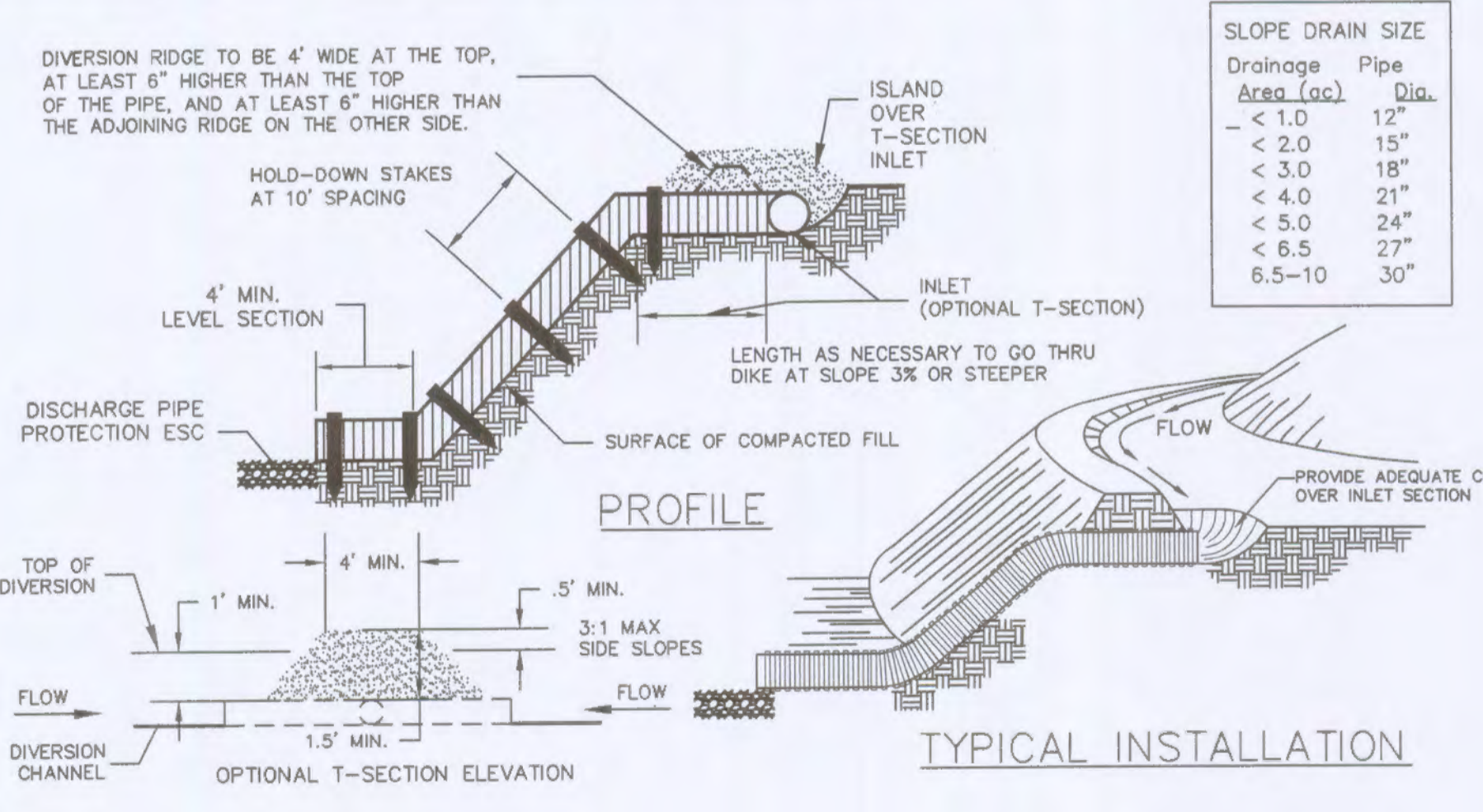
STRAW BALE CHECK DAM

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SWALE SEDIMENT TRAP STRAW BALE BARRIER INSTALLATION

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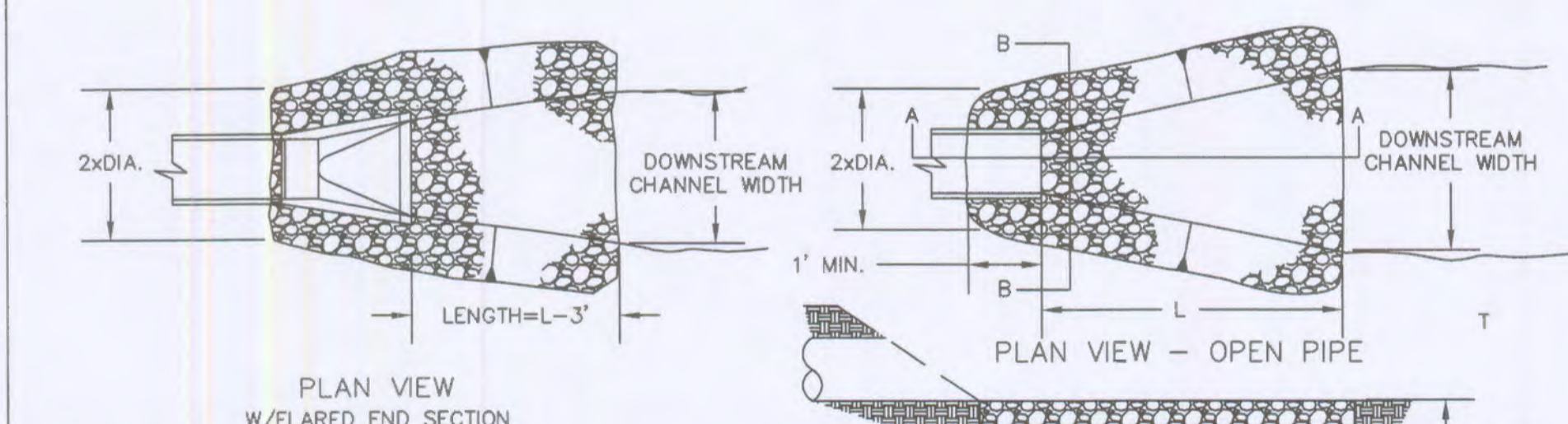


TYPICAL INSTALLATION

- 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

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PLAN VIEW W/FLARED END SECTION

SECTION A-A

RIPRAP SIZE & APRON DIMENSION

PIPE SIZE	VELOCITY < 5 FPS				VELOCITY < 10 FPS			
	ROCK SIZE	APRON DIM	ROCK SIZE	APRON DIM	ROCK SIZE	APRON DIM	ROCK SIZE	APRON DIM
(inch)	d ₅₀	d _{max}	T	L	d ₅₀	d _{max}	T	L
12	5	9	15	12	5	9	15	16
15	5	9	15	14	5	9	15	18
18-24	5	9	15	16	9	14	24	20
27-30	5	9	15	18	9	14	24	22
36-42	9	14	24	22	12	18	27	26
48-54	9	14	24	26	12	18	27	30
60-66	12	18	27	34	15	24	30	38
72-84	15	24	30	42	15	24	30	46
96	18	27	30	50	18	27	30	54

- 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.

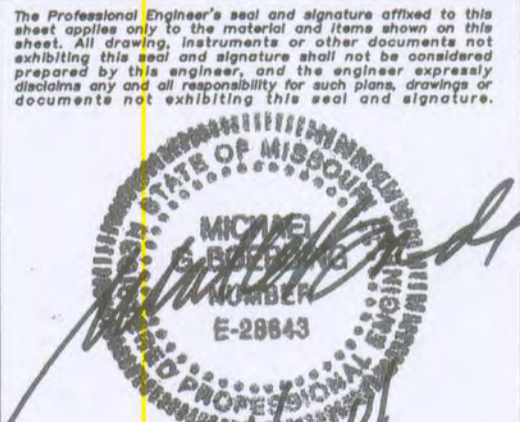
TEMPORARY OUTLET PIPE DISCHARGE PROTECTION

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

PROJECT TITLE

THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph: 314-487-0440 Fax: 314-487-8944
www.sterling-eng-survey.com
Corporate Certificate of Authority #001348

OAKHURST
O'FALLON, MISSOURI



Date: Michael G. Boarding
License No. MO E-28643
Civil Engineer

LOMBARDO HOMES
2299 Technology Drive
O'Fallon, Missouri 63368
Ph: 636-265-2710

EROSION CONTROL DETAILS

P+Z No. 207.02
City No.
Date: July 22, 2013
Job No. 12-10-284
Page No.

DTL-1

IMP