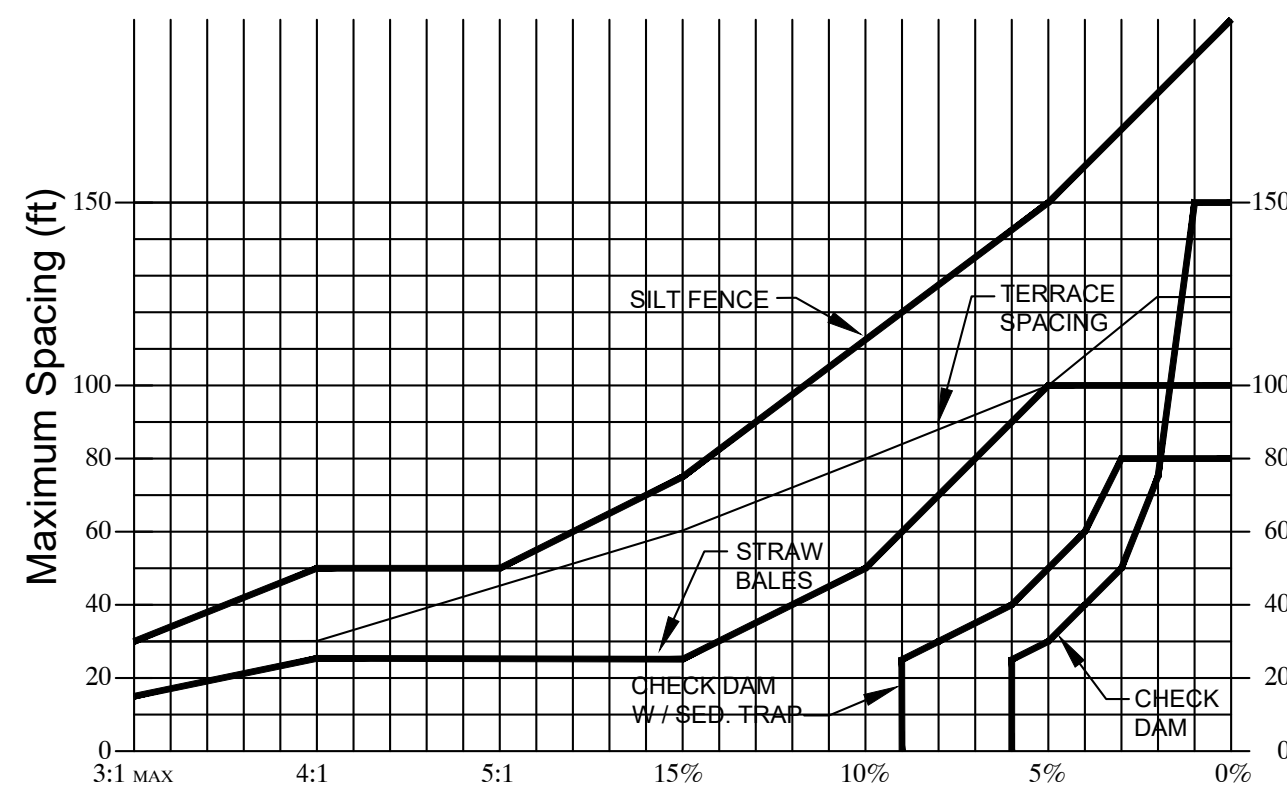


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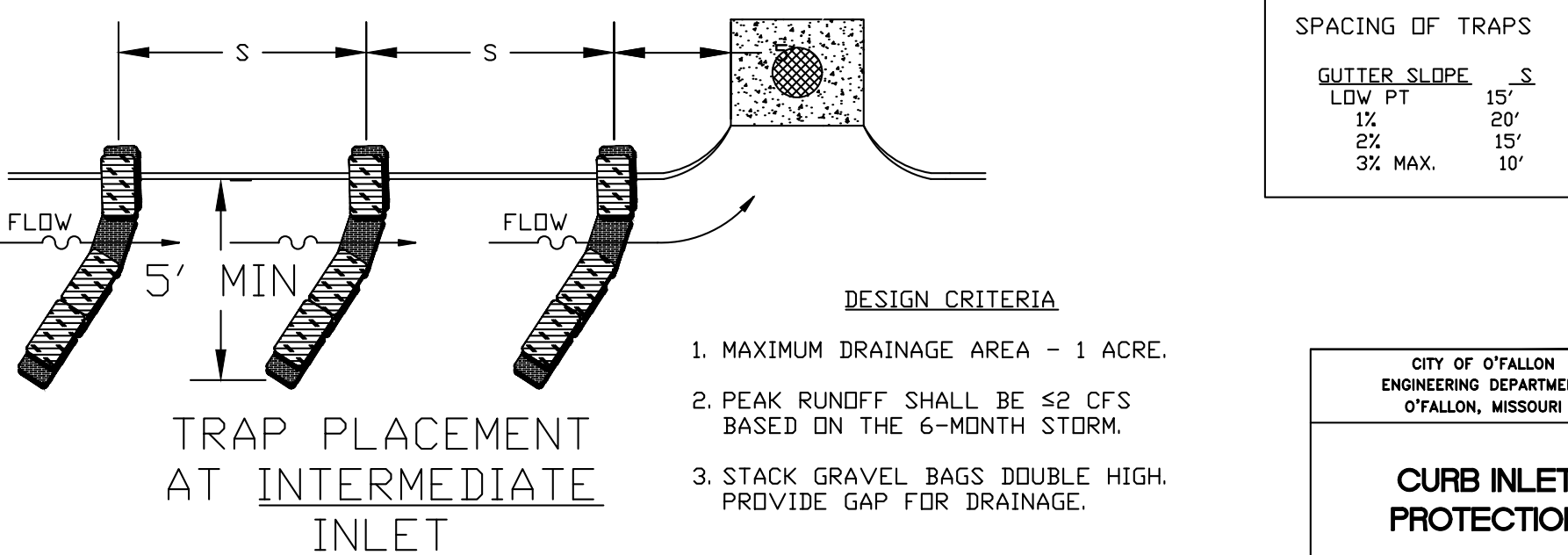
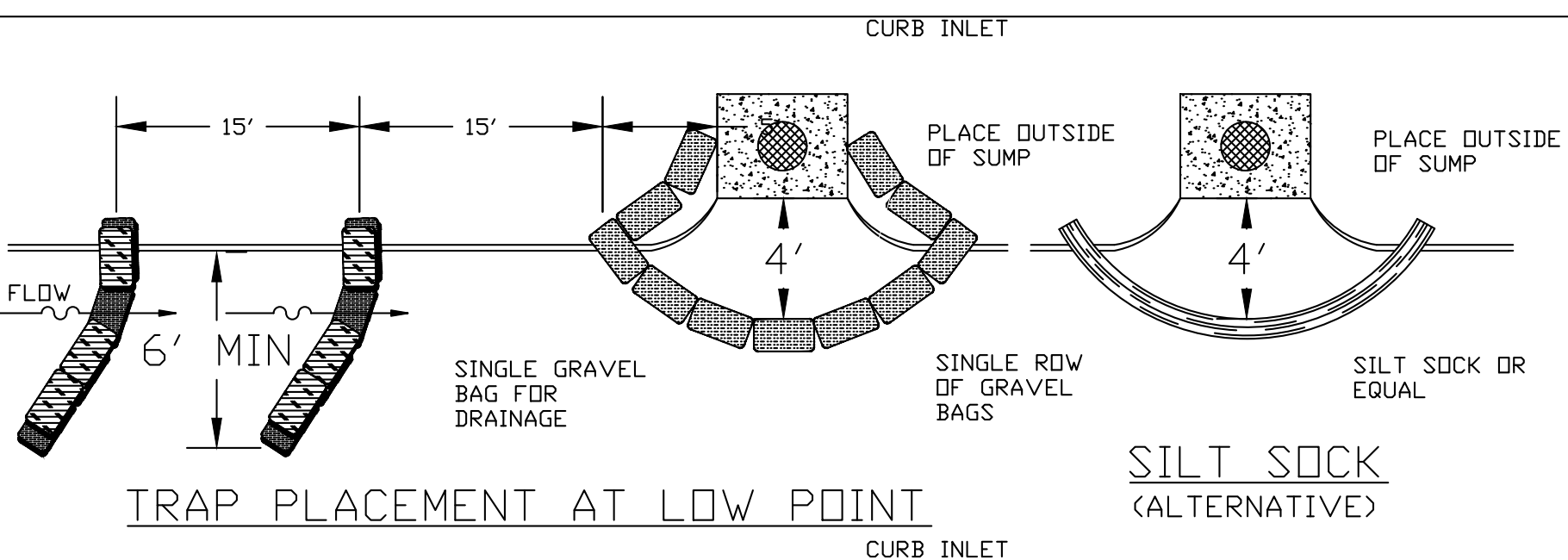


- DESIGN CRITERIA
1. SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
 2. STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
 3. REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
 4. TERRACING INCLUDES LOGS, WATTLES & FILTER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

SPACING CHART FOR ESC DEVICES

1 SPACING CHART FOR ESC DEVICES

Scale: NOT TO SCALE



SPACING OF TRAPS

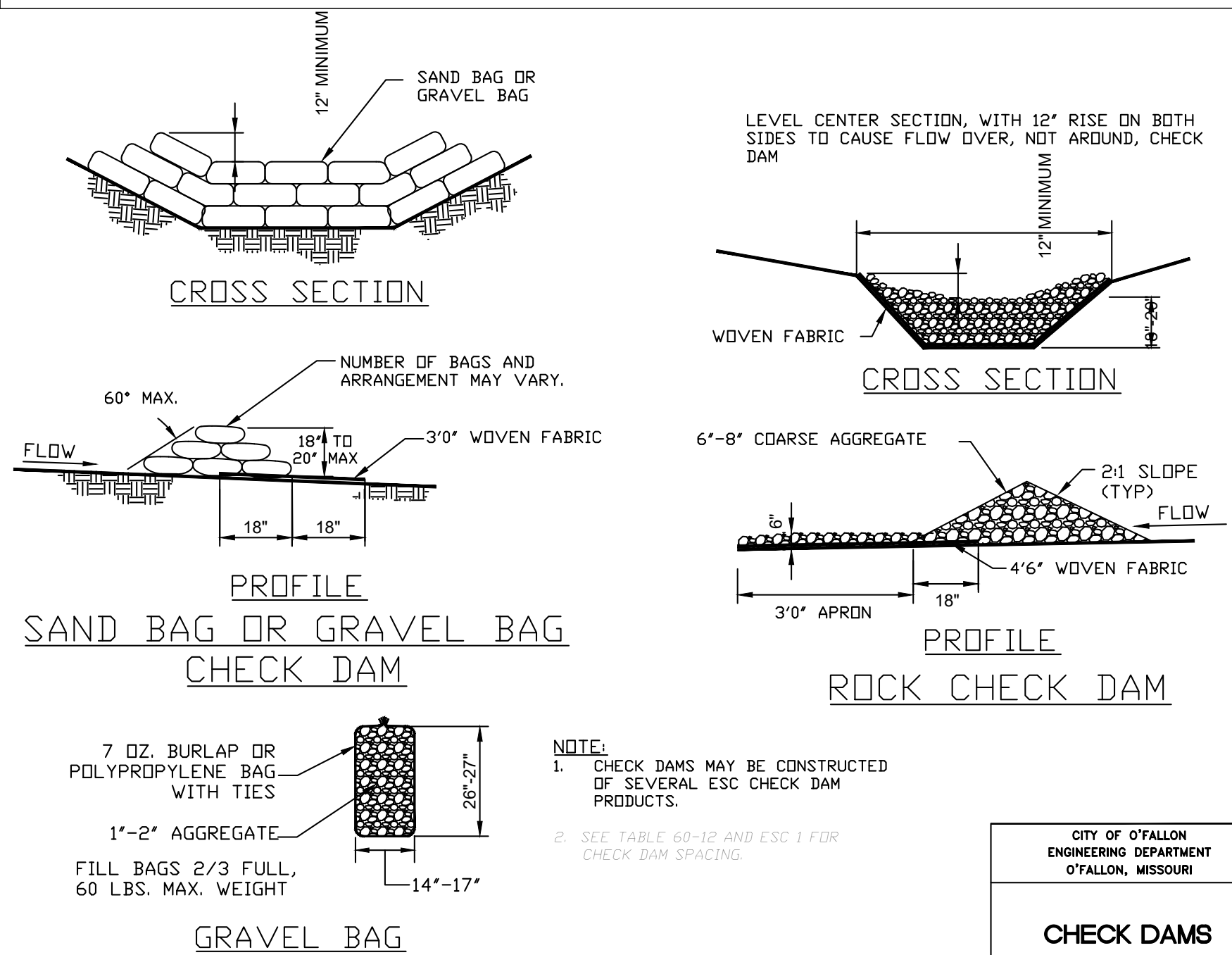
GUTTER SLOPE LOW PT	S
1%	15'
2%	20'
3% MAX.	15'

- DESIGN CRITERIA
1. MAXIMUM DRAINAGE AREA - 1 ACRE.
 2. PEAK RUNOFF SHALL BE 52 CFS BASED ON THE 6-MONTH STORM.
 3. STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

CURB INLET PROTECTION

4 CURB INLET PROTECTION

Scale: NOT TO SCALE

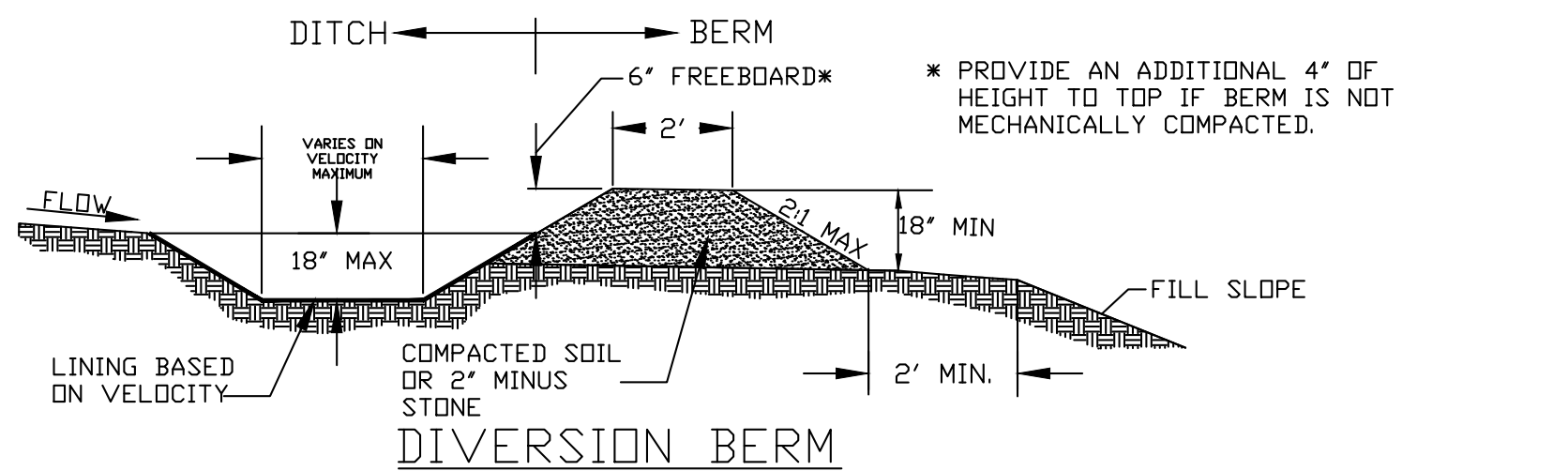


- NOTE:
1. CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS.
 2. SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.

CHECK DAMS

7 CHECK DAM DETAIL

Scale: Not To Scale

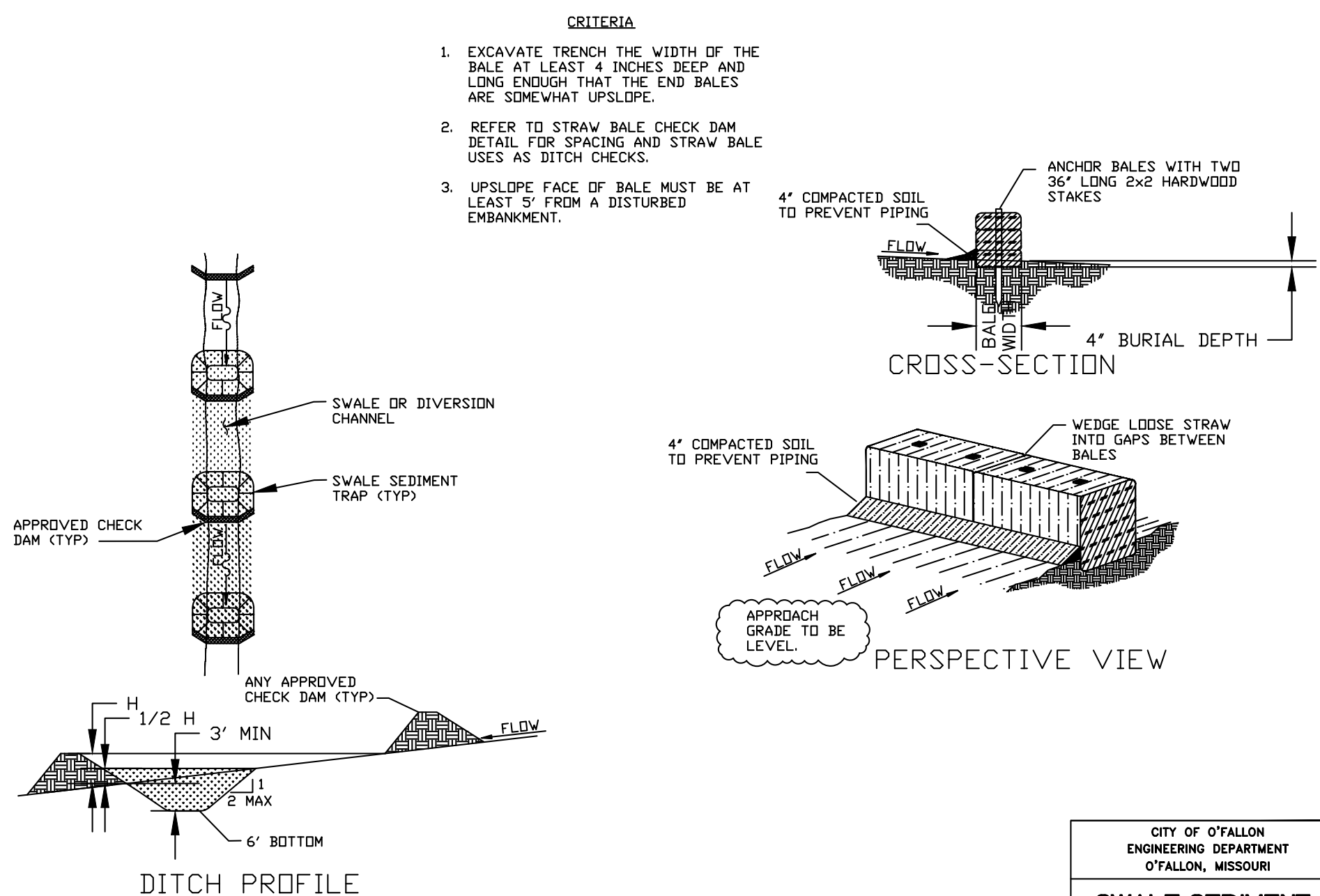


- DESIGN CRITERIA
1. DIVERSIONS SHALL BE USED FOR DRAINAGE AREAS ≤ 3 ACRES.
 2. DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
 3. CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20Min. STORM.
 4. MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
 5. SWALE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

DIVERSION BERMS + DIKES

2 DIVERSION BERMS & DIKES

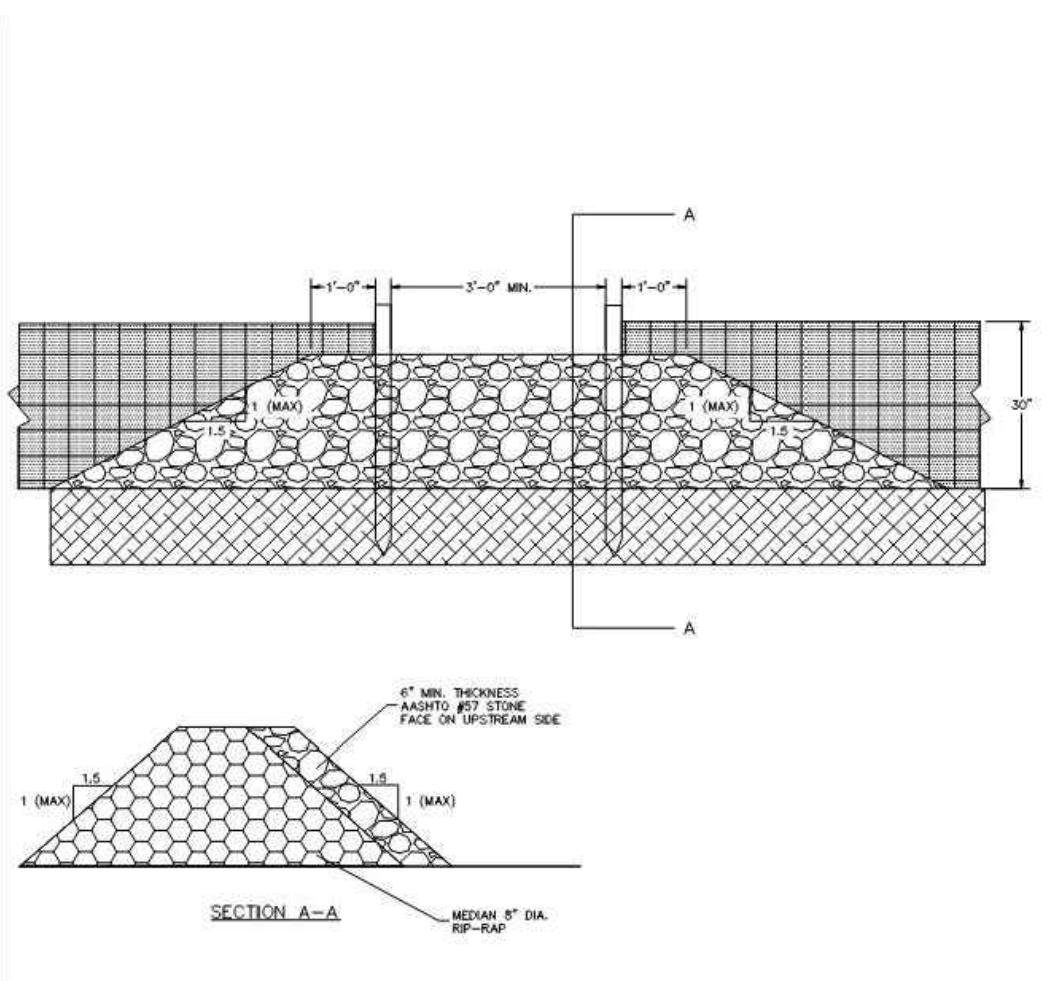
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SWALE SEDIMENT TRAP & STRAW BALE BARRIER INSTALLATION

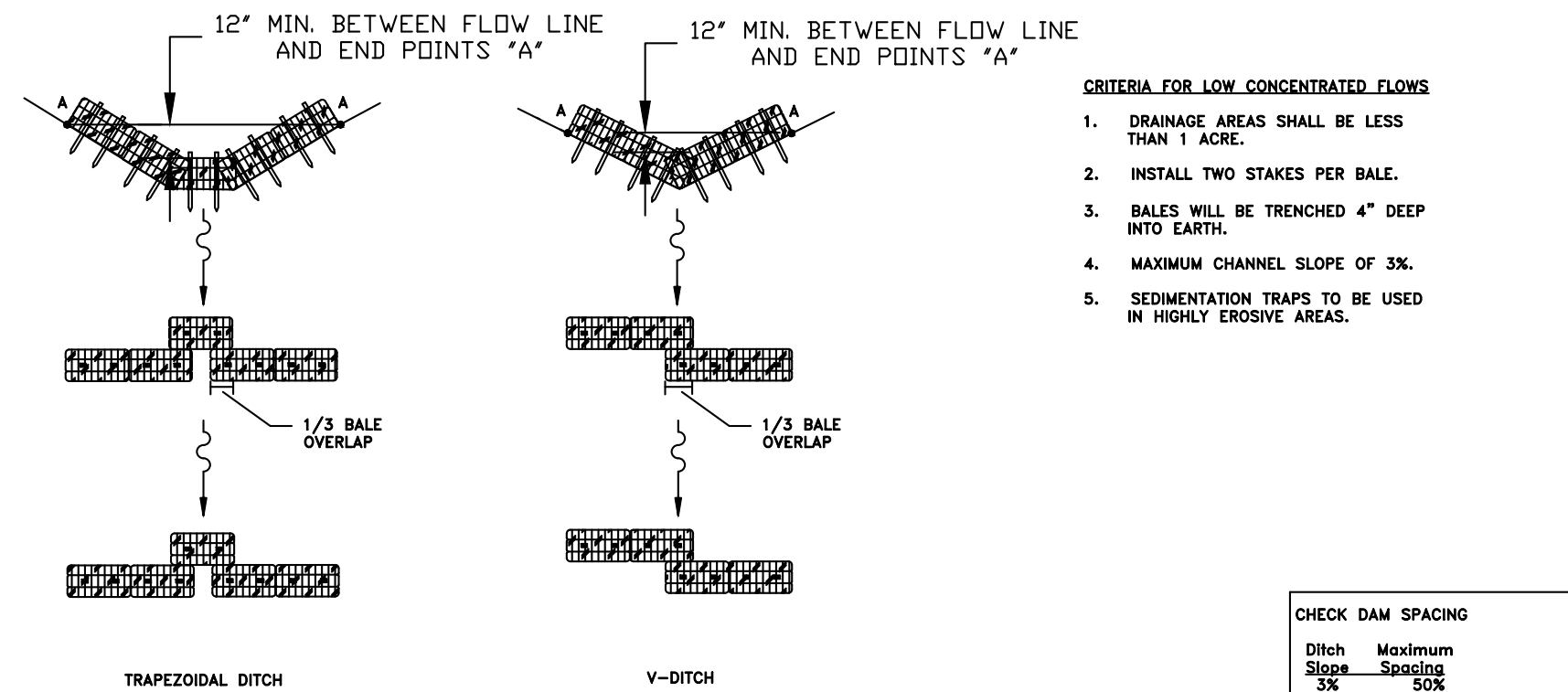
5

Scale: NOT TO SCALE



8 SILT FENCE ROCK OUTLET DETAIL

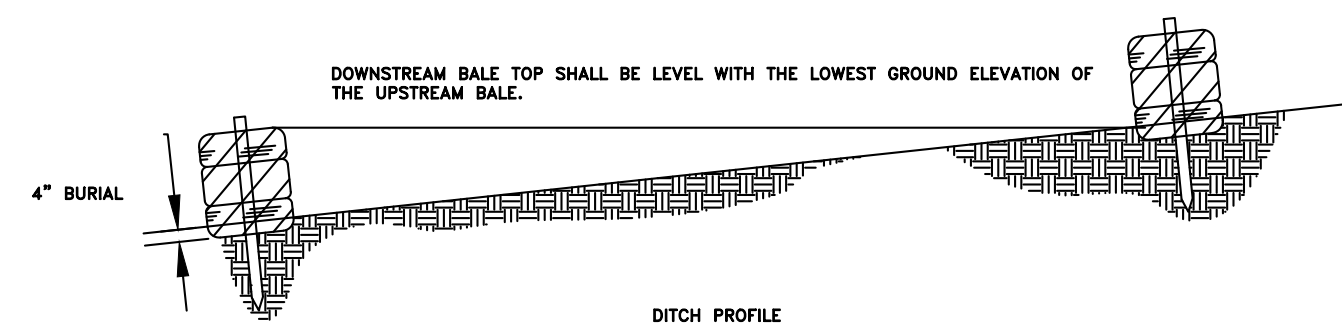
Scale: None



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

CHECK DAM SPACING

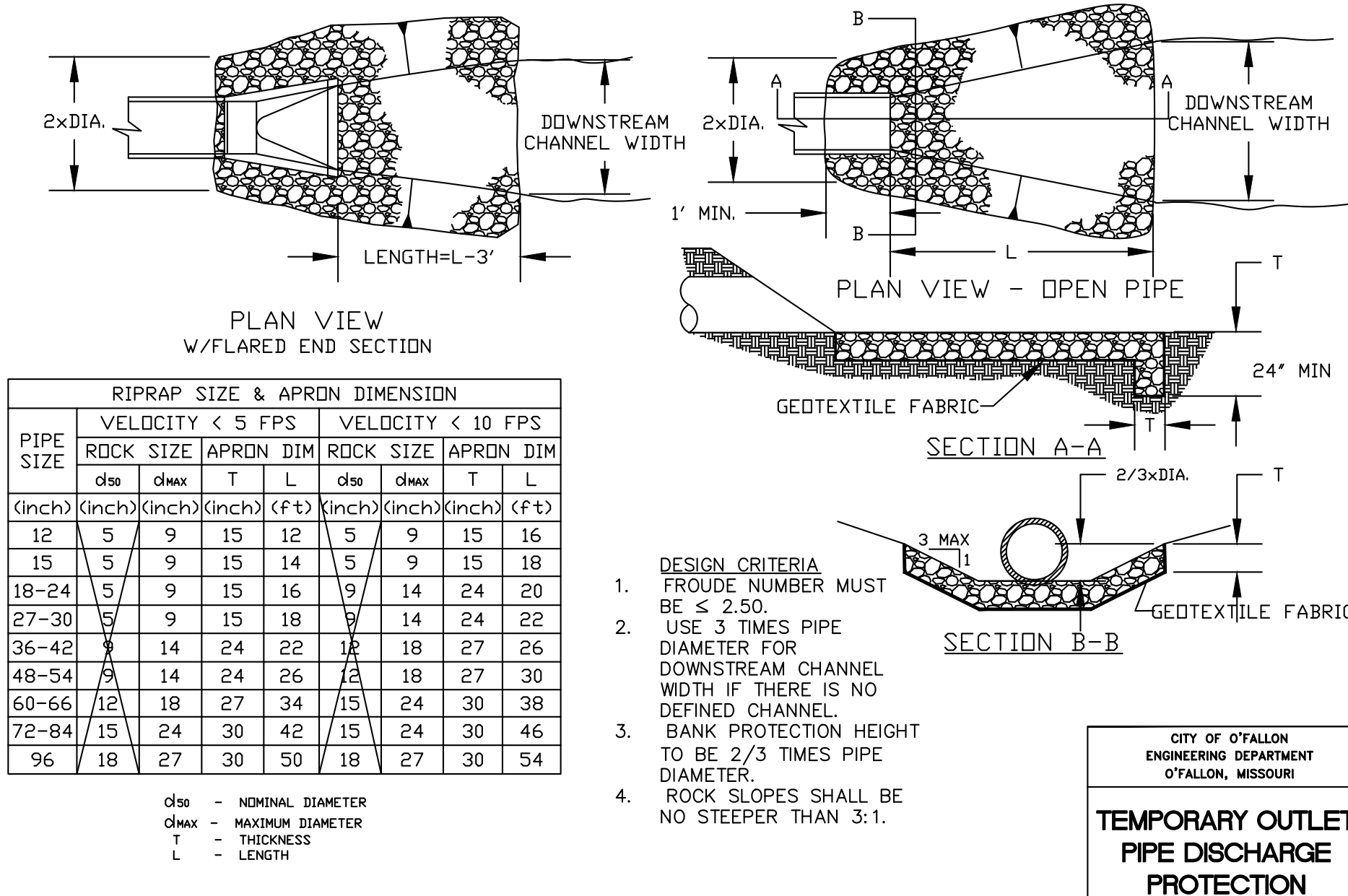
Ditch Slope	Maximum Spacing
3%	50'
5%	75'



STRAW BALE CHECK DAM

3 STRAW BALE CHECK DAM

Scale: NOT TO SCALE

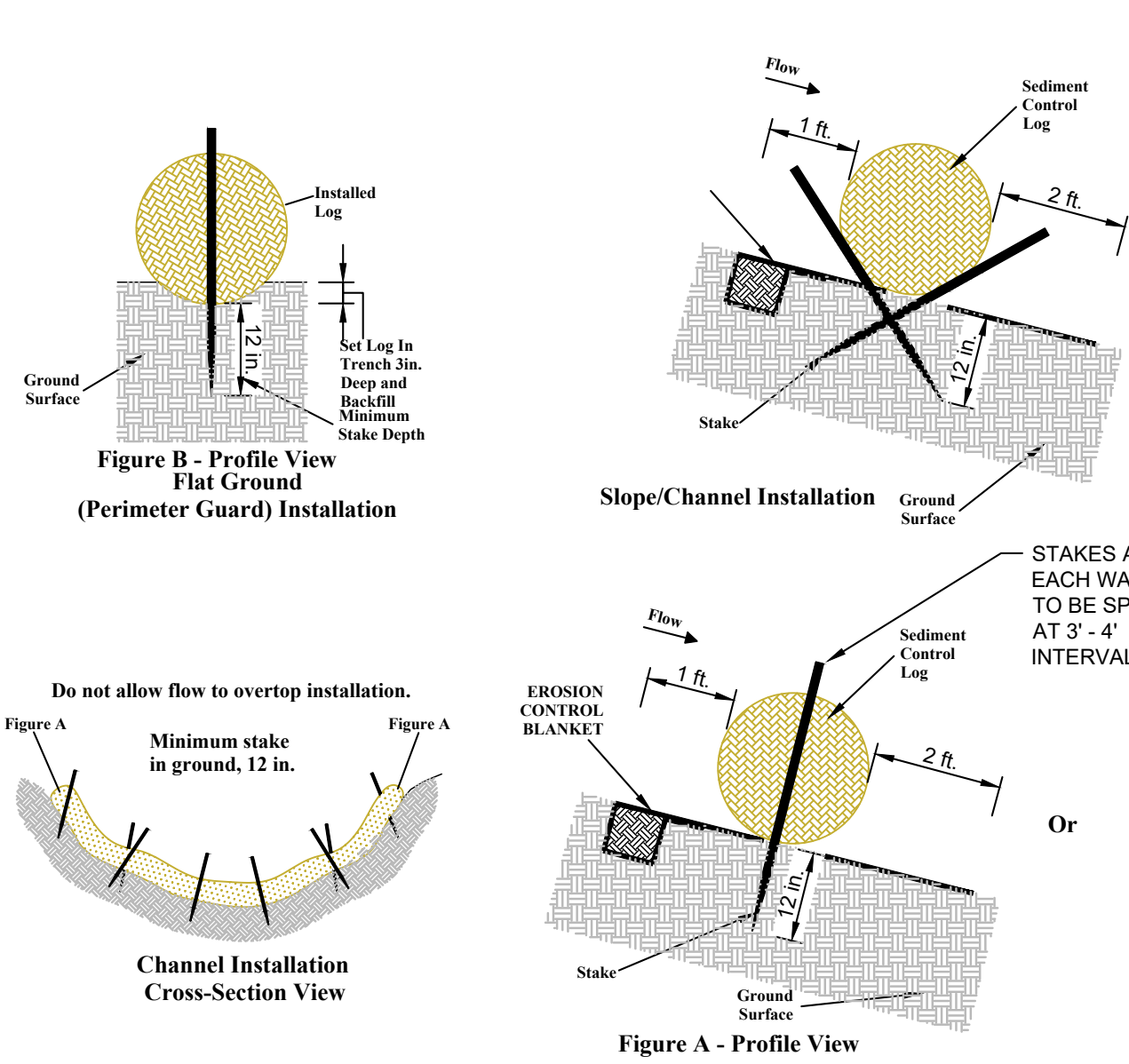


- DESIGN CRITERIA
1. FROUDE NUMBER MUST BE ≤ 2.50.
 2. USE 3 TIMES PIPE DIAMETER FOR DOWNSTREAM CHANNEL WIDTH IF THERE IS NO DEFINED CHANNEL.
 3. BANK PROTECTION HEIGHT TO BE 2/3 TIMES PIPE DIAMETER.
 4. ROCK SLOPES SHALL BE NO STEEPER THAN 3:1.

TEMPORARY OUTLET PIPE DISCHARGE PROTECTION

6 TEMPORARY OUTLET PIPE DISCHARGE PROTECTION

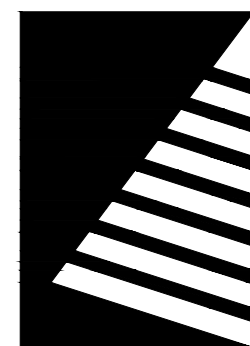
Scale: NOT TO SCALE



- INSTALLATION NOTES:
- USE MINIMUM 1/8" DIAMETER EXCELSIOR WATTLE.
- USE 2" WOODEN STAKES WITH A 2" x 2" NOMINAL CROSS SECTION. ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AS DIRECTED.
- INSTALL A MINIMUM OF 2 UP SLOPE STAKES AND 4 DOWN SLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- INSTALL WITH A MINIMUM OF ONE FOOT OVERLAP WHERE DITCH TYPICAL SECTION REQUIRES MORE THAN ONE WATTLE.
- PROVIDE STAPLES MADE OF 0.125" DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- MAINTENANCE NOTES:
- REMOVE AND DISPOSE OF SILT ACCUMULATIONS WHEN THE DEPTH REACHES ONE-HALF OF THE HEIGHT OF THE WATTLE.
- REPLACE OR CLEAN THE WATTLE AS NEEDED TO ALLOW RUNOFF TO SLOWLY DEWATER THROUGH THE DEVICE BETWEEN RAIN EVENTS.
- MONITOR THE WOODEN STAKES AND STAPLES TO ENSURE THAT THE WATTLE REMAINS SECURELY ANCHORED AFTER RAIN EVENTS.

9 WATTLE DETAILS

Scale: Not To Scale



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Engineers | Architects | Surveyors | Scientists

ISSUE:
DATE: DESCRIPTION:
A 1/30/2024 60% DESIGN REVIEW

Project Status

PROJECT:
FTI

TREE CLEARING PACKAGE

O' FALLON, MO

DATE: 2/12/2025

DESIGNED: SAS

DRAWN: TMW

REVIEWED: SAS

FIELD BOOK NO.:

SHEET TITLE:

SITE DETAILS

SHEET NUMBER:

C4.1

PROJECT NO.: 0240497.00