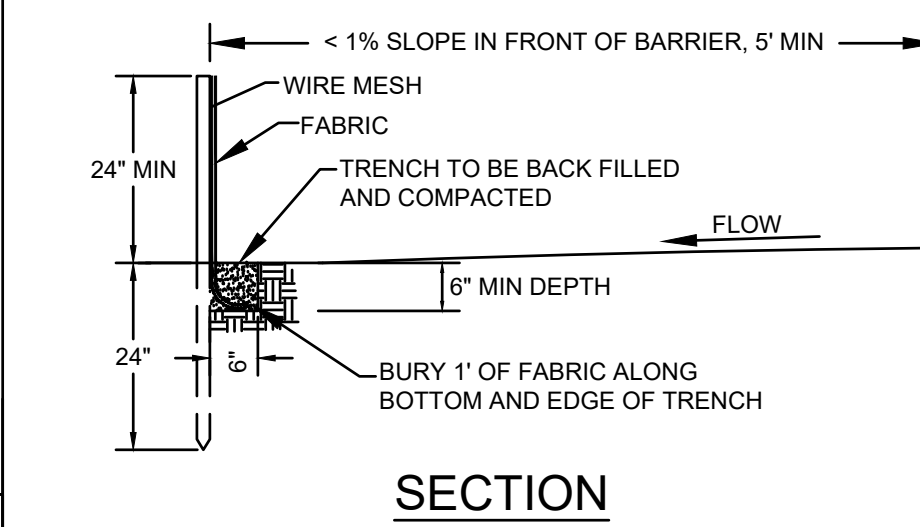
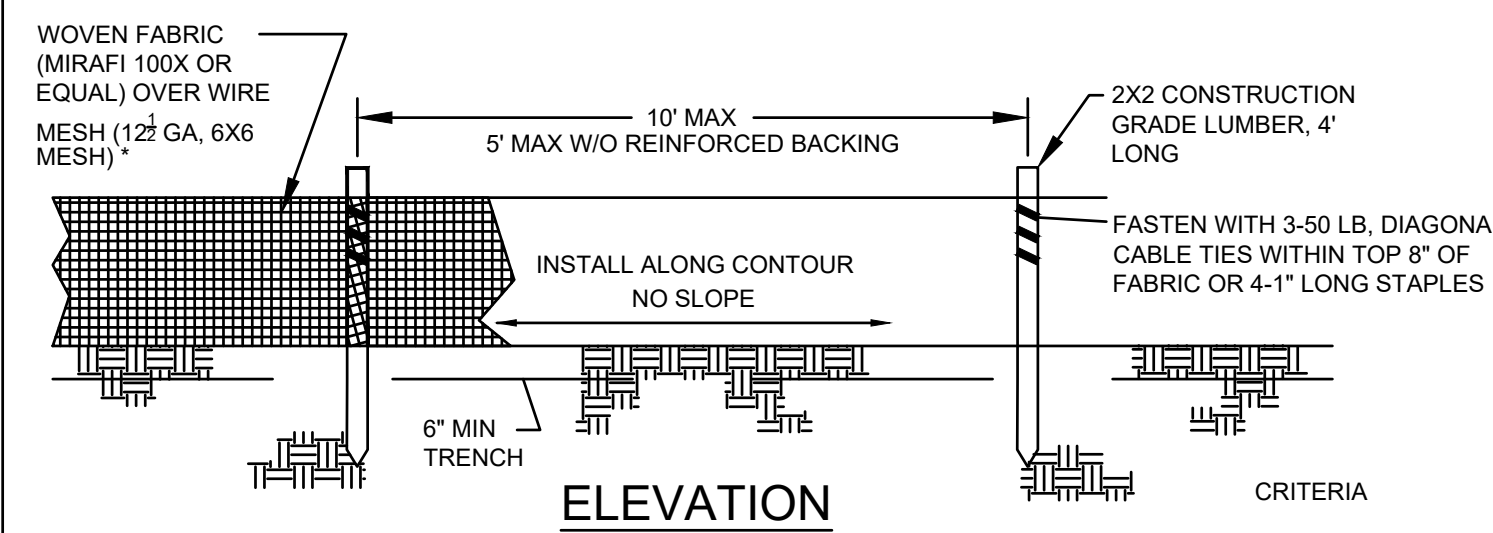


- DESIGN CRITERIA**
- SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
  - TERRACING INCLUDES LOGS, WATTLES & FILTER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

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ENGINEERING DEPARTMENT  
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**SPACING CHART  
FOR ESC DEVICES**



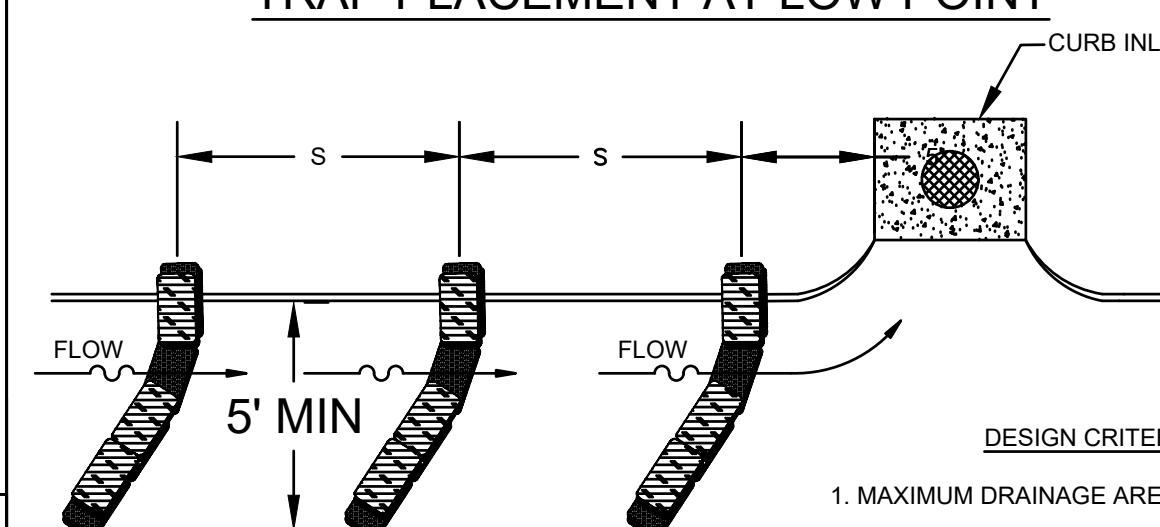
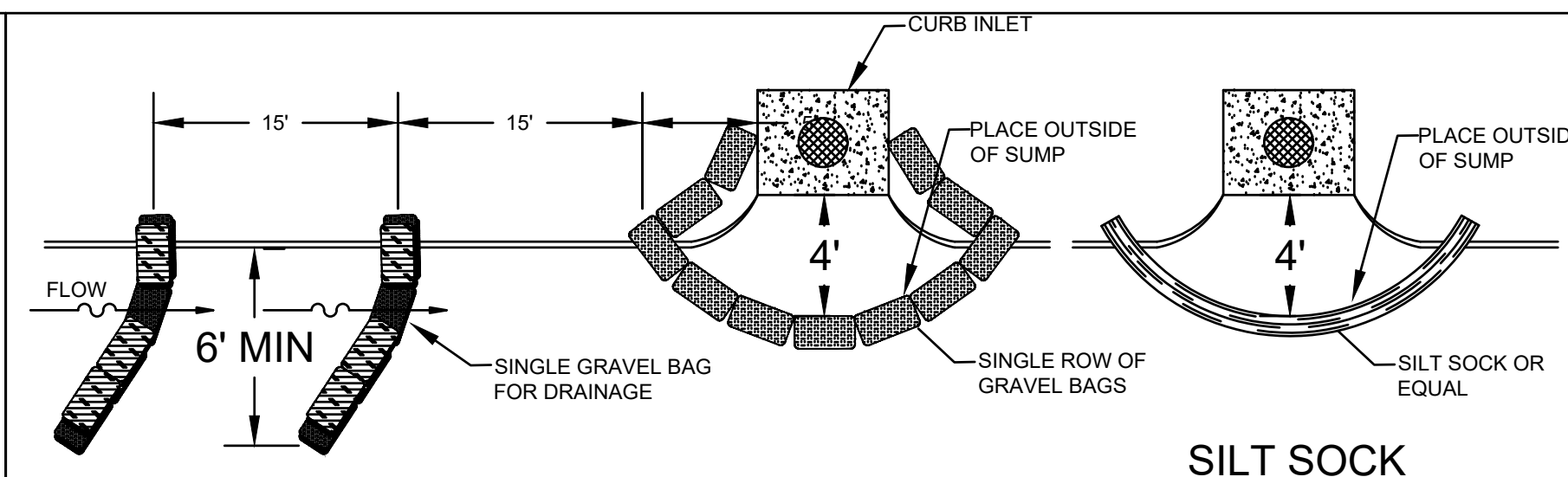
- CRITERIA**
- SILT FENCE SHALL BE 24 INCHES HIGH.
  - SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
  - GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
  - WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

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

JOINING SECTIONS OF SILT FENCE

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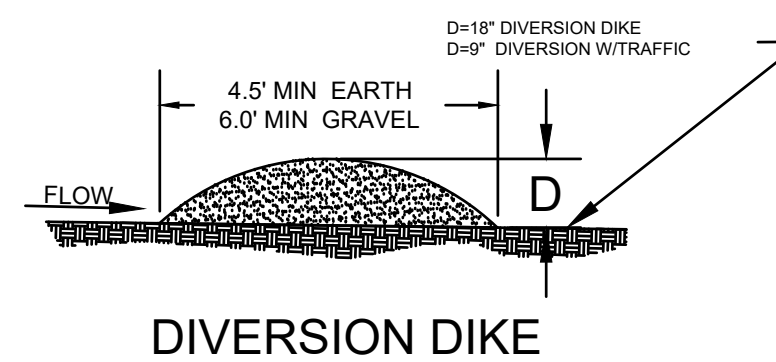
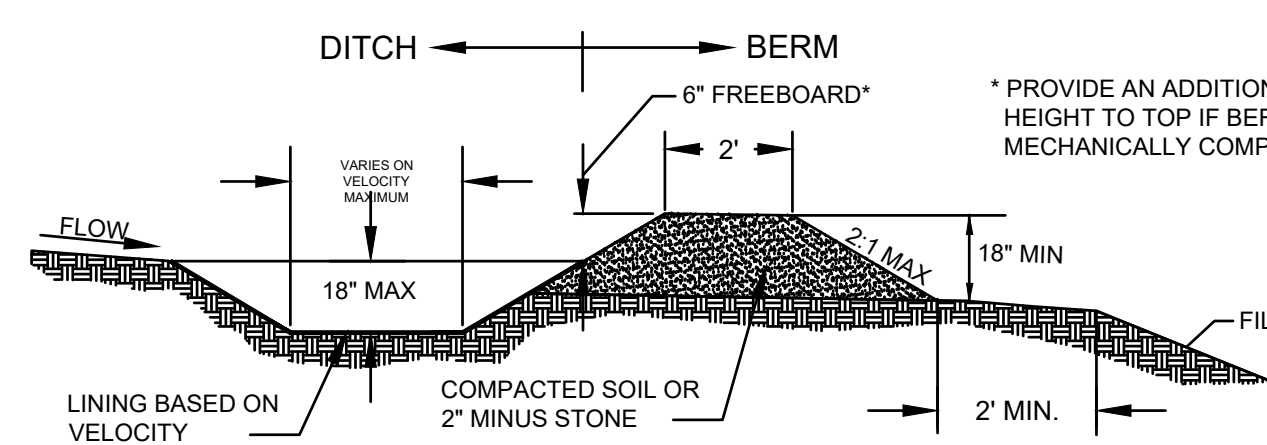
**SILT FENCE INSTALLATION  
SHEET FLOW ONLY**



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

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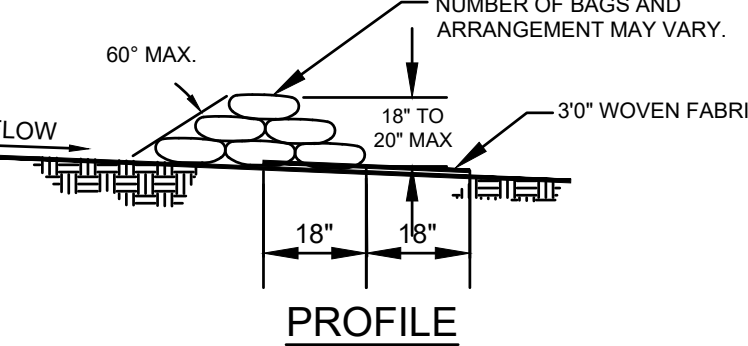
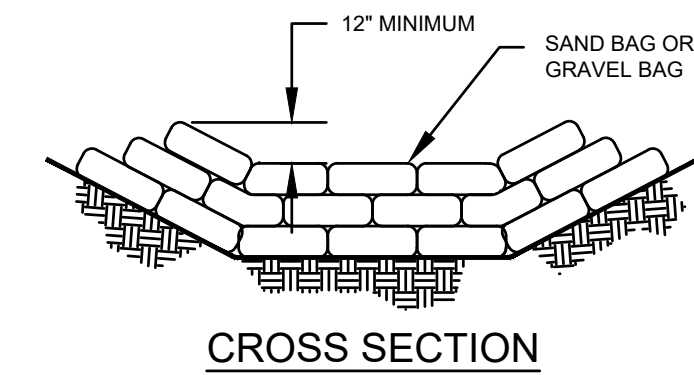
**CURB INLET  
PROTECTION**



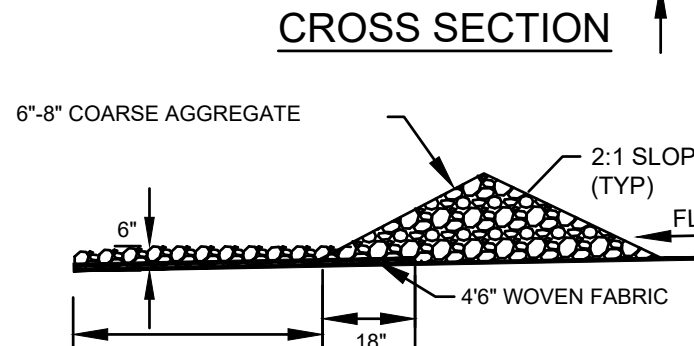
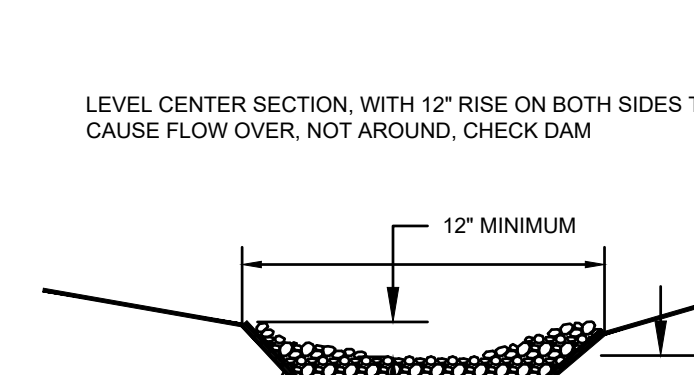
- DESIGN CRITERIA**
- DIVERSIONS SHALL BE USED FOR DRAINAGE AREAS ≤ 3 ACRES.
  - DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
  - CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20min. STORM.
  - MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
  - SWALE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

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**DIVERSION BERMS  
+ DIKES**

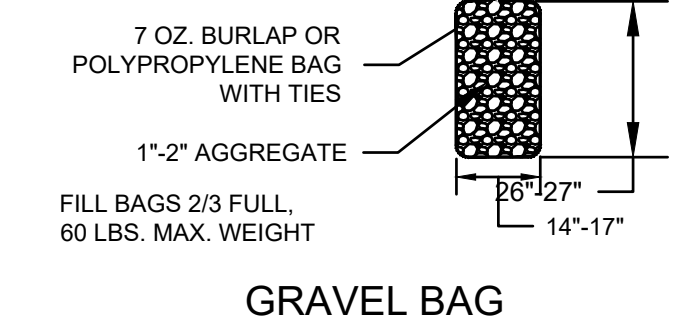


**SAND BAG OR GRAVEL BAG  
CHECK DAM**



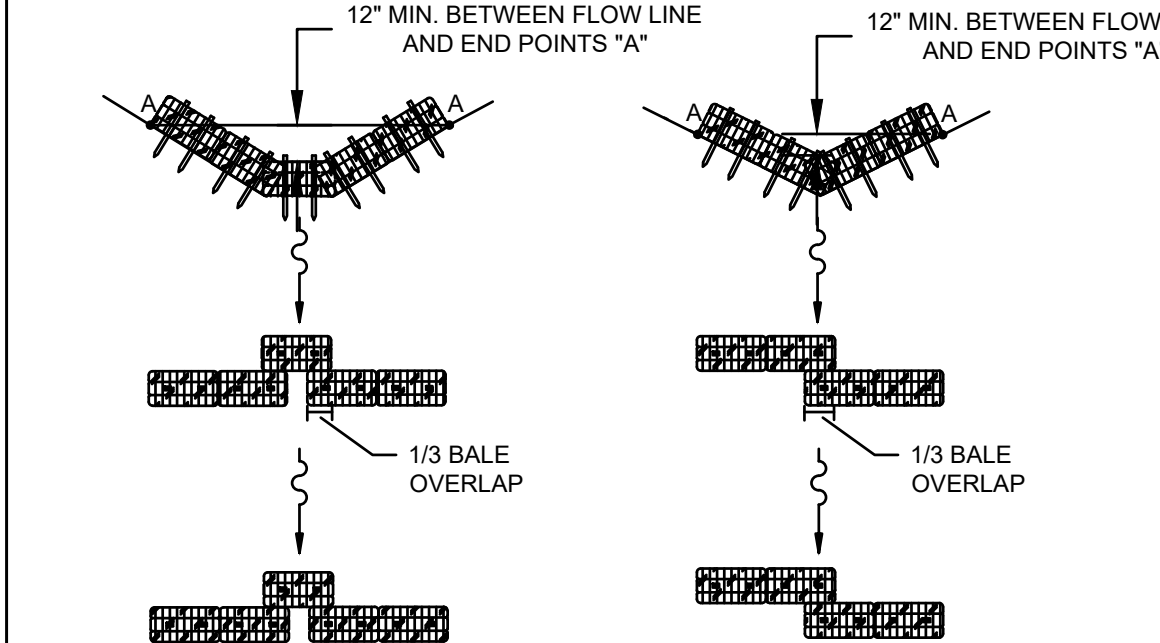
**ROCK CHECK DAM**

- NOTE:**
- CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS.
  - SEE TABLE 60-10 AND ESC 1 FOR CHECK DAM SPACING.



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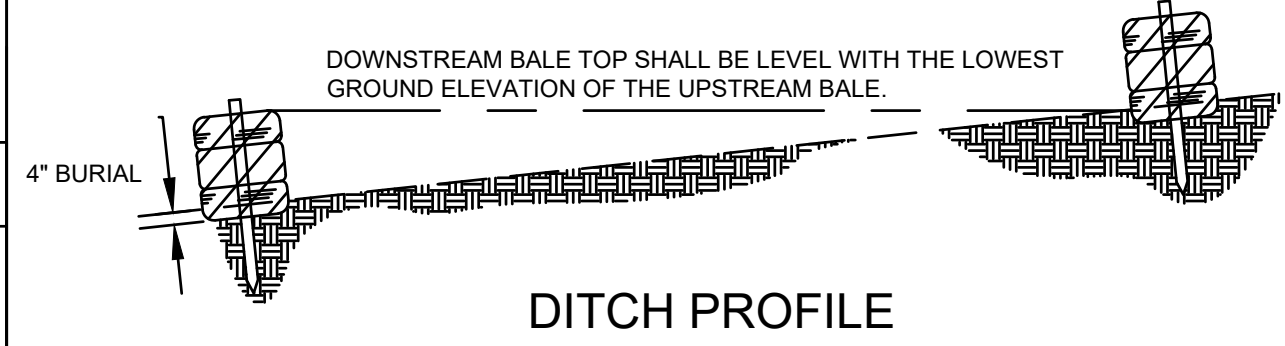
**CHECK DAMS**



- 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**

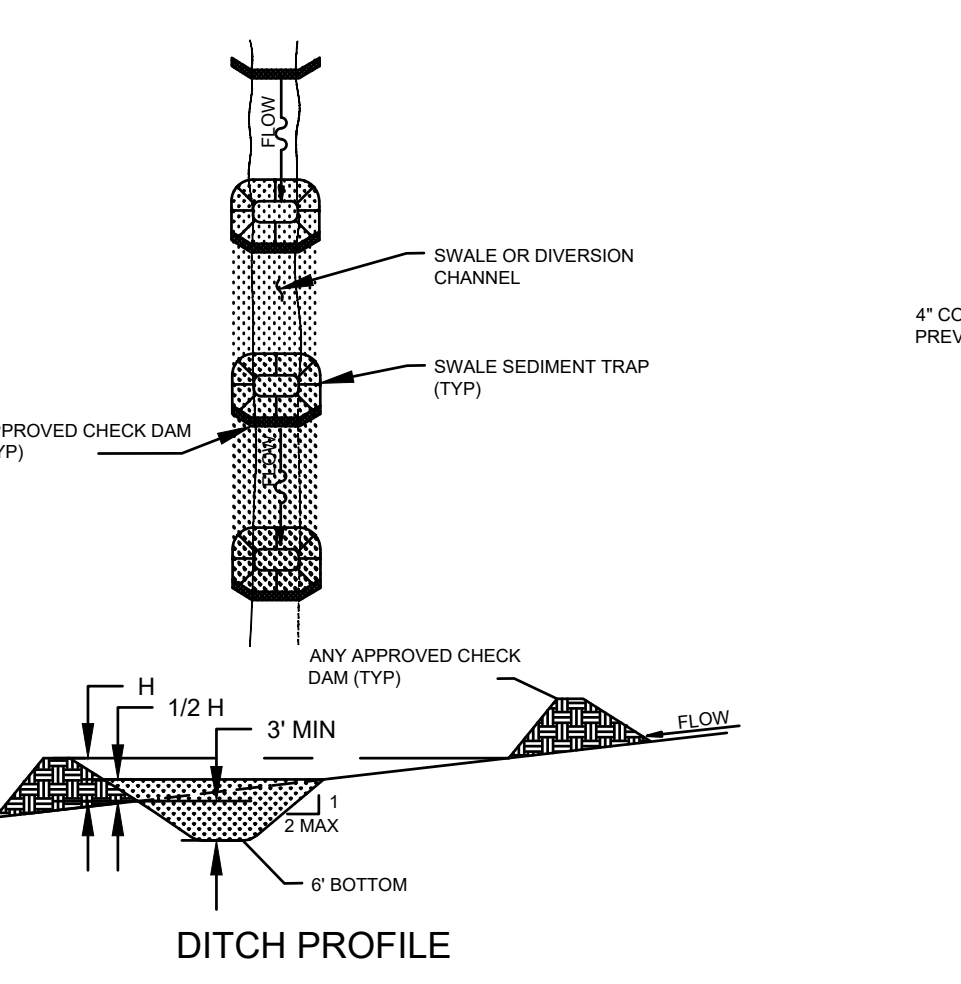
Ditch Slope	Maximum Spacing
3%	60'
2%	75'



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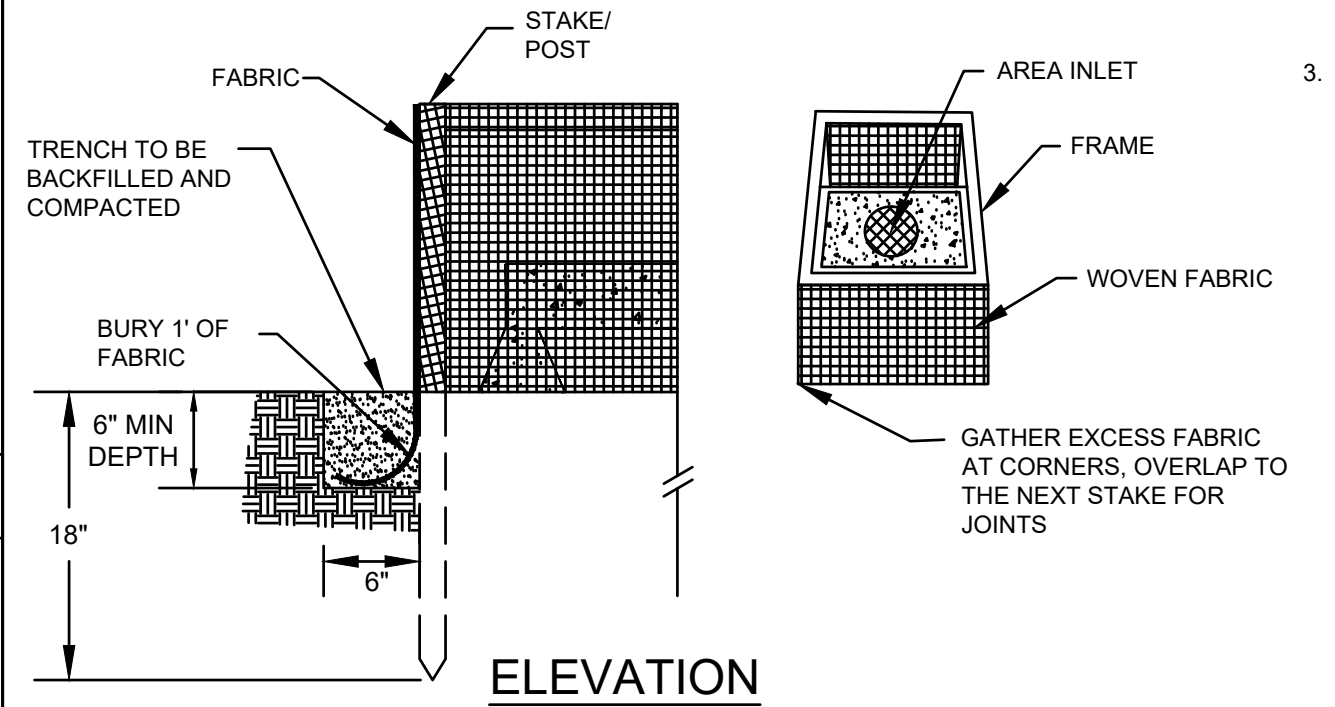
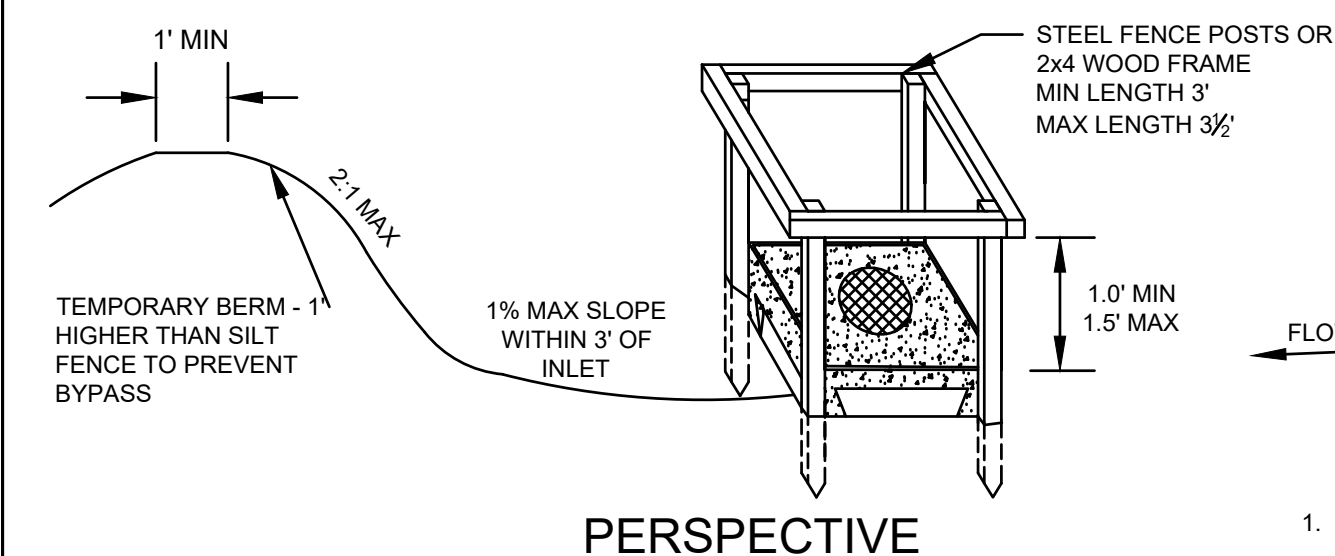
**STRAW BALE  
CHECK DAM**

- CRITERIA**
- EXCAVATE TRENCH THE WIDTH OF THE BAILE AT LEAST 4 INCHES DEEP AND LONG ENOUGH THAT THE END BALES ARE SOMEWHAT UPSLOPE.
  - REFER TO STRAW BALE CHECK DAM DETAIL FOR SPACING AND STRAW BALE USES AS DITCH CHECKS.
  - UPSLOPE FACE OF BAILE MUST BE AT LEAST 5' FROM A DISTURBED EMBANKMENT.



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**SWALE SEDIMENT  
TRAP  
STRAW BALE  
BARRIER INSTALLATION**

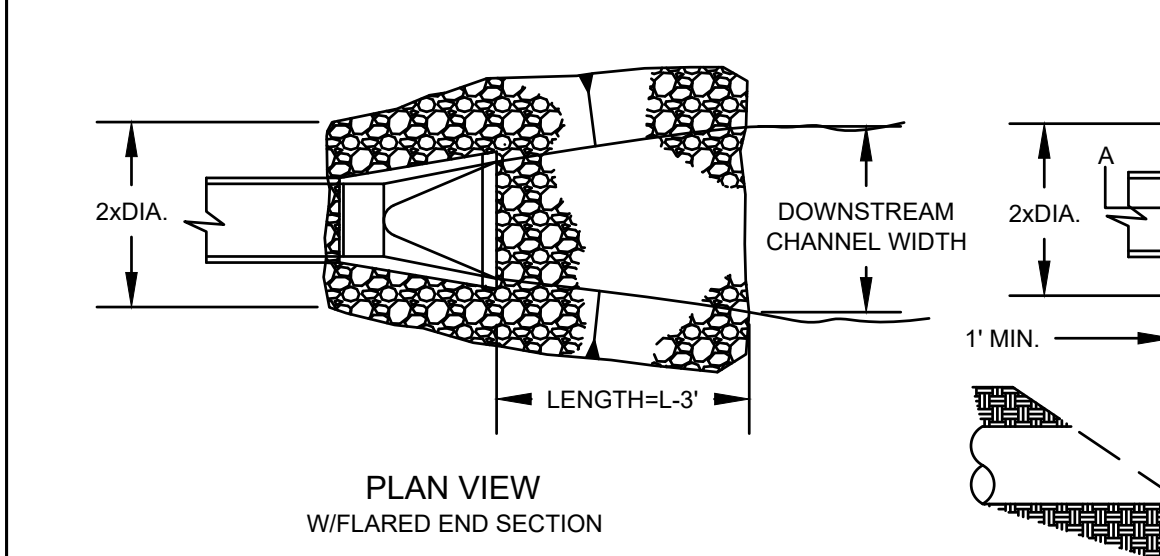


- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
  - PEAK RUNOFF SHALL NOT EXCEED 2 CFS BASED ON A 6-MONTH STORM EVENT.
  - OTHER SEDIMENT PROTECTION PRODUCTS MAY BE USED, SUCH AS FIBER FENCE™.

St. Charles County  
Erosion & Sediment Controls  
Standard Drawings

**AREA INLET  
PROTECTION  
FABRIC DROP**

DATE: MARCH 2008 DRAWING: ESC-14



**VELOCITY < 5 FPS**

PIPE SIZE	d <sub>50</sub> (inch)	d <sub>max</sub> (inch)	T (inch)	L (ft)
12	5	9	15	12
15	5	9	15	14
18-24	5	9	15	16
27-30	5	9	15	18
36-42	5	9	15	22
48-54	5	9	15	26
60-66	5	9	15	30
72-84	5	9	15	42
96	5	9	15	50

**VELOCITY < 10 FPS**

PIPE SIZE	d <sub>50</sub> (inch)	d <sub>max</sub> (inch)	T (inch)	L (ft)
12	9	15	12	5
15	9	15	14	5
18-24	9	15	16	9
27-30	9	15	18	9
36-42	9	15	22	18
48-54	9	15	26	18
60-66	9	15	34	15
72-84	9	15	42	15
96	9	15	50	18

d<sub>50</sub> - NOMINAL DIAMETER  
d<sub>max</sub> - MAXIMUM DIAMETER  
T - THICKNESS  
L - LENGTH

- 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 SIZES SHALL BE NO STEEPER THAN 3:1.

CITY OF O'FALLON  
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**TEMPORARY OUTLET  
PIPE DISCHARGE  
PROTECTION**

Underground facilities, structures & utilities have been plotted from available surveys, records & information, and therefore, do not necessarily reflect the actual existence, nonexistence, size, type, number of, or location of these facilities, structures, & utilities.

The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act.



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Additional erosion control measures may be required during construction that are not shown on these plans. Contractor is responsible for installing and maintaining temporary and/or interim erosion control measures during construction progression or as required by the City and/or MDRN Inspector. Any changes/additions to the Storm Water Pollution Prevention Plan (SWPPP) shall be documented by the contractor and remain on file at the site.

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the clayton engineering company, inc.  
ENGINEERS • SURVEYORS • PLANNERS  
2288 WELSH INDUSTRIAL CT.  
ST. LOUIS, MISSOURI 63104  
(314) 892-8888 FAX: (314) 892-8888 claytoneng.com  
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**FGM Architects Inc.**  
1 Metropolitan Sq, Ste. 1945  
St. Louis, Missouri 63102

314.439.1601 OFFICE  
314.439.1602 FAX  
MISSOURI CERTIFICATE OF AUTHORITY #000311

**ARCHITECTURE**  
FGM ARCHITECTS  
1 METROPOLITAN SQ, STE. 1945  
ST. LOUIS, MISSOURI 63102  
314.439.1601 (O) 314.439.1602(F)  
MO STATE CERTIFICATE OF AUTHORITY NO. 000311

**CIVIL**  
THE CLAYTON ENGINEERING COMPANY, INC.  
2288 WELSH INDUSTRIAL CT.  
ST. LOUIS, MO 63146  
314.892.8888 (O) 314.892.8888(F)  
MO STATE CERTIFICATE OF AUTHORITY NO. 000067 & PROF. SURVEYING NO. 000014

**STRUCTURAL**  
ASDG, LLC  
1009 LINCOLN HIGHWAY  
FAIRVIEW HEIGHTS, IL 62208  
618.628.0887 (O) 618.628.0889(F)  
IL STATE CERTIFICATE OF AUTHORITY NO. 184-003843

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BELLVILLE, IL 62220  
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ENGINEER No. 2006000132  
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DATE 08/25/2021

**ISSUANCE**

NO.	DATE	DESCRIPTION
1.	08/25/21	CITY SUBMITTAL
2.	09/22/21	2nd CITY SUBMITTAL
3.	10/06/21	3rd CITY SUBMITTAL
4.	11/22/21	4th CITY SUBMITTAL (BID SET)

O'FALLON, MO MOTOMART  
NEW CONVENIENCE CENTER  
AND CARWASH  
FKG OIL COMPANY

SWPPP DETAILS 2