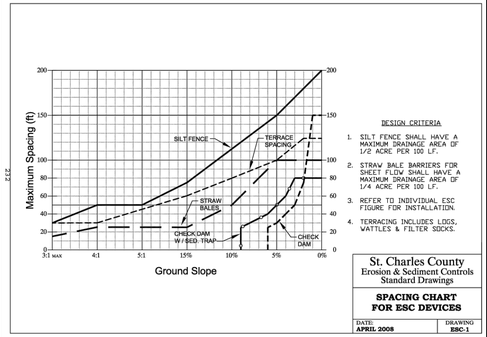


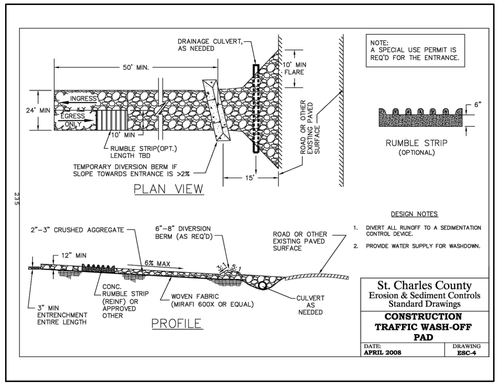
DESIGN CRITERIA

1. SILT FENCE SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/2 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.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

SPACING CHART FOR ESC DEVICES

DATE: APRIL 2008 | DRAWING: ESC-1



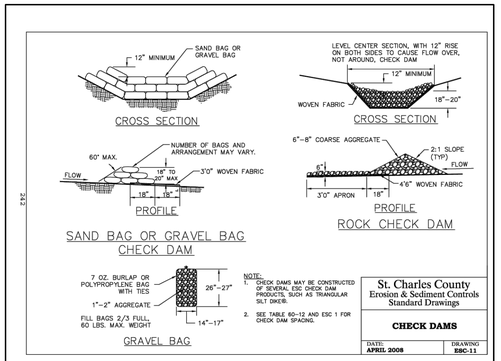
DESIGN NOTES

1. DIVERT ALL RUNOFF TO A SEDIMENTATION CONTROL DEVICE.
2. PROVIDE WATER SUPPLY FOR WASHDOWN.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

CONSTRUCTION TRAFFIC WASH-OFF PAD

DATE: APRIL 2008 | DRAWING: ESC-4



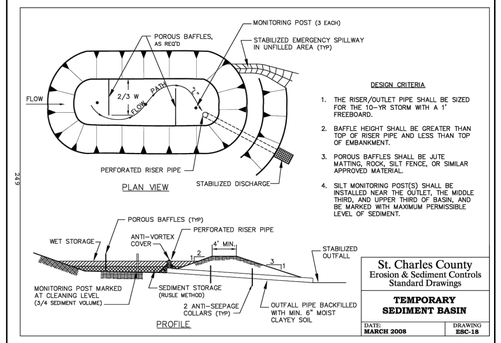
NOTE:

1. CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS, SUCH AS TRIANGULAR SILT DIKER.
2. SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

CHECK DAMS

DATE: APRIL 2008 | DRAWING: ESC-11



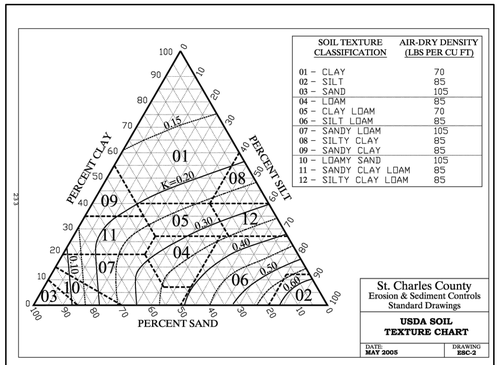
DESIGN CRITERIA

1. THE RISER/OUTLET PIPE SHALL BE SIZED FOR THE 10-YR STORM WITH A 1' FREEBOARD.
2. BAFFLE HEIGHT SHALL BE GREATER THAN TOP OF RISER PIPE AND LESS THAN TOP OF EMBANKMENT.
3. POROUS BAFFLES SHALL BE JUTE MATTING, ROCK, SILT FENCE, OR SIMILAR APPROVED MATERIAL.
4. SILT MONITORING POST(S) SHALL BE INSTALLED NEAR THE OUTLET. THE MIDDLE THIRD, AND UPPER THIRD OF BASIN, AND BE MARKED WITH MAXIMUM PERMISSIBLE LEVEL OF SEDIMENT.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

TEMPORARY SEDIMENT BASIN

DATE: MARCH 2008 | DRAWING: ESC-18

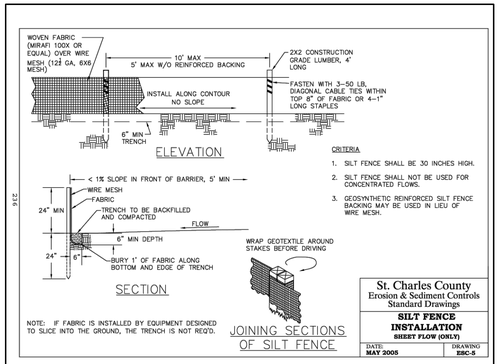


SOIL TEXTURE CLASSIFICATION	AIR-DRY DENSITY (LBS PER CU FT)
01 - CLAY	70
02 - SILT	85
03 - SAND	105
04 - LOAM	85
05 - CLAY LOAM	70
06 - SILT LOAM	85
07 - SANDY LOAM	105
08 - SILTY CLAY	85
09 - SANDY CLAY	85
10 - LOAMY SAND	105
11 - SANDY CLAY LOAM	85
12 - SILTY CLAY LOAM	85

St. Charles County
Erosion & Sediment Controls
Standard Drawings

USDA SOIL TEXTURE CHART

DATE: MAY 2005 | DRAWING: ESC-2



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

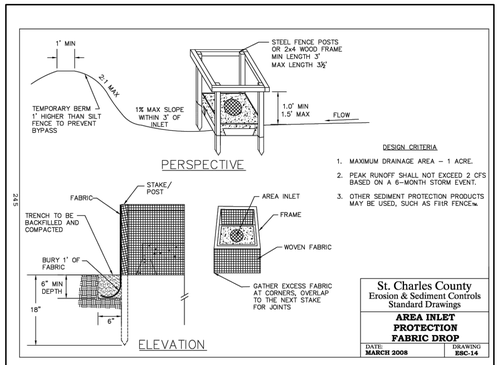
CRITERIA

1. SILT FENCE SHALL BE 30 INCHES HIGH.
2. SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
3. GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

SILT FENCE INSTALLATION
SHEET FLOW (ORLY)

DATE: MAY 2008 | DRAWING: ESC-5



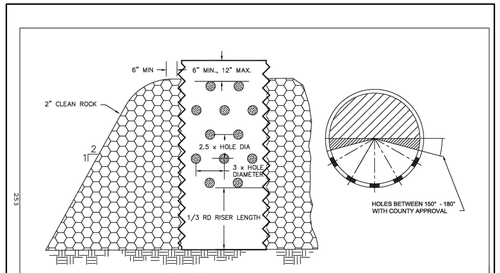
DESIGN CRITERIA

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

St. Charles County
Erosion & Sediment Controls
Standard Drawings

AREA INLET PROTECTION FABRIC DROP

DATE: MARCH 2008 | DRAWING: ESC-14



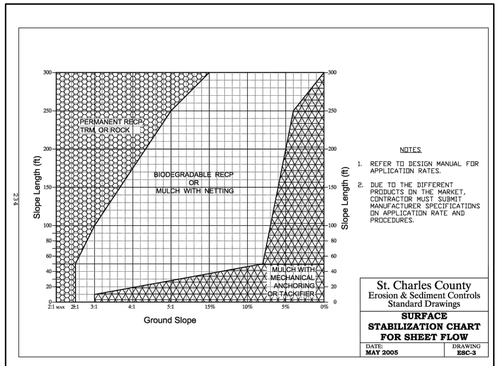
DESIGN CRITERIA:

1. TOP OF RISER PIPE SHALL BE A MIN. OF 18" BELOW THE TOP OF THE EMBANKMENT.
2. THE RISER PIPE SHALL BE SIZED FOR THE 10-YR STORM WITH A 1 FT FREEBOARD.
3. HOLES SHALL BE SPACED AS SHOWN. HOLES ARE TO BE PLACED WITHIN 150° FACING AWAY FROM THE EMBANKMENT.
4. 2" CLEAN ROCK SHALL COVER THE HOLES. HOLES SHALL BE COVERED WITH 1/2" WIRE MESH.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

SEDIMENT BASIN RISER PIPE

DATE: MARCH 2008 | DRAWING: ESC-22



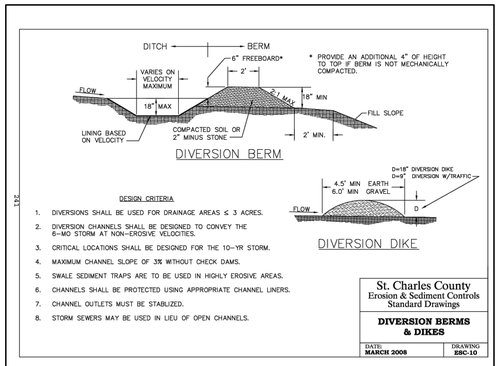
NOTES

1. REFER TO DESIGN MANUAL FOR APPLICATION RATES.
2. DUE TO THE DIFFERENT PRODUCTS ON THE MARKET, CONTRACTOR MUST SUBMIT MANUFACTURER SPECIFICATIONS ON APPLICATION RATE AND PROCEDURES.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

SURFACE STABILIZATION CHART FOR SHEET FLOW

DATE: MAY 2005 | DRAWING: ESC-3



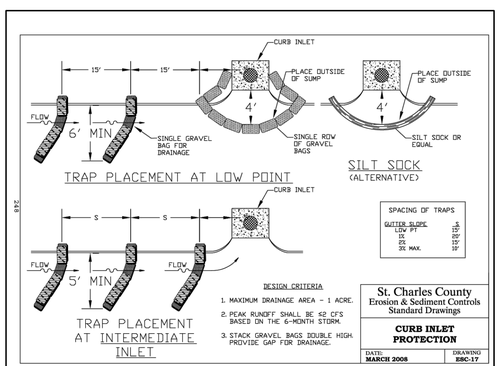
DESIGN CRITERIA

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 10-YR STORM.
4. MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
5. SWALE SEDIMENT TRAPS ARE TO BE USED IN HIGHLY EROSIVE 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.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

DIVERSION BERMS & DIKES

DATE: MARCH 2008 | DRAWING: ESC-10



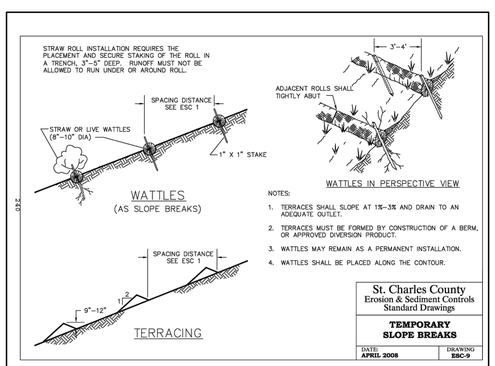
DESIGN CRITERIA

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

St. Charles County
Erosion & Sediment Controls
Standard Drawings

CURB INLET PROTECTION

DATE: MARCH 2008 | DRAWING: ESC-17



NOTES:

1. TERRACES SHALL SLOPE AT 1%-3% AND DRAIN TO AN ADEQUATE OUTLET.
2. TERRACES MUST BE FORMED BY CONSTRUCTION OF A BERM, OR APPROVED DIVERSION PRODUCT.
3. WATTLES MAY REMAIN AS A PERMANENT INSTALLATION.
4. WATTLES SHALL BE PLACED ALONG THE CONTOUR.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

TEMPORARY SLOPE BREAKS

DATE: APRIL 2008 | DRAWING: ESC-9

STATE OF MISSOURI
BRANDON ASHER HARP
NUMBER E-28650
REGISTERED PROFESSIONAL ENGINEER
4/5/2024

BRANDON A. HARP, P.E. E-28650
PROFESSIONAL ENGINEER
CEDC LICENSE NO.: 2003004674

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CIVIL ENGINEERING
DESIGN CONSULTANTS
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Site Improvement Plans for
DOBBS TIRE AND AUTO CENTER
970 BRYAN ROAD
O'FALLON, MO 63366

Proj. # 2398

No.	Description	Date
	PERMIT SET	1/5/24
	REV PERMIT SET	2/12/24
	REV PERMIT SET	3/20/24

STORM WATER POLLUTION PREVENTION DETAILS

DRAWING NO.

C11