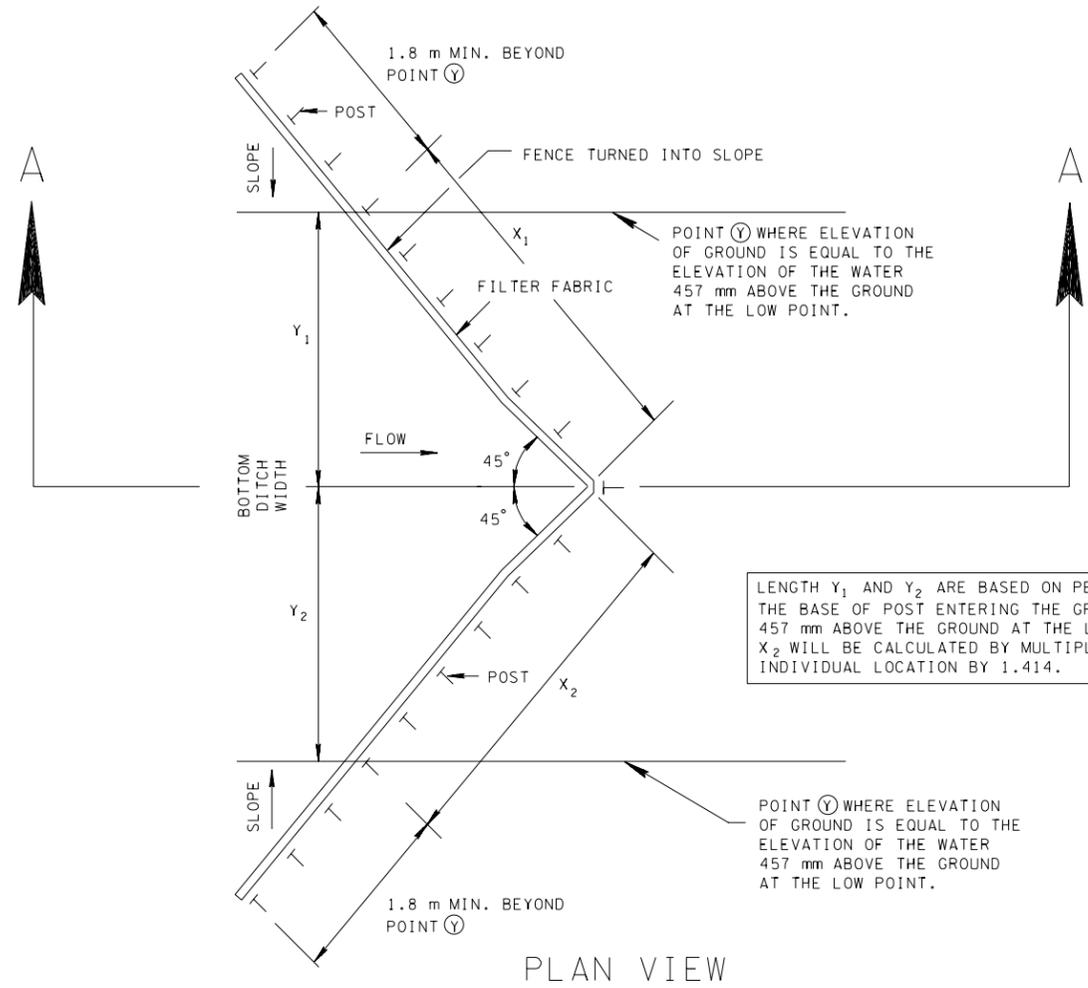


REV. 12-18-03: MODIFIED SPACING FOR ENHANCED SILT FENCE DETAIL AND ADDED SUPPORTING TABLE. MODIFIED TABLE 5 AND GENERAL NOTES.

REV. 3-15-04: CHANGED PLANS LEGEND SYMBOL.

TYPE EC IA

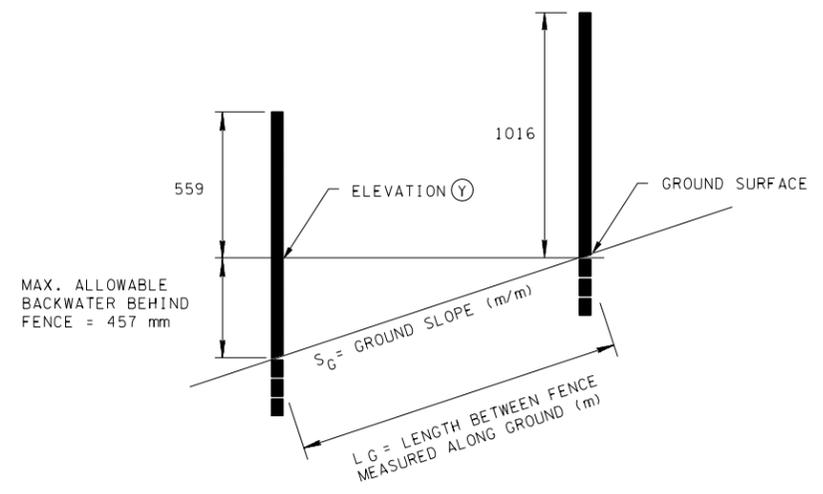


LENGTH Y_1 AND Y_2 ARE BASED ON PERPENDICULAR SLOPE LENGTHS TO A POINT WHERE THE BASE OF POST ENTERING THE GROUND IS AT THE SAME ELEVATION AS A POINT 457 mm ABOVE THE GROUND AT THE LOW POINT OF THE THE DITCH. LENGTHS X_1 AND X_2 WILL BE CALCULATED BY MULTIPLYING THE LENGTHS OF SLOPE Y_1 OR Y_2 AT EACH INDIVIDUAL LOCATION BY 1.414.

POINT Y WHERE ELEVATION OF GROUND IS EQUAL TO THE ELEVATION OF THE WATER 457 mm ABOVE THE GROUND AT THE LOW POINT.

PLAN VIEW

EROSION CONTROL PLAN LEGEND: TEMPORARY TYPE EC IA FILTER BARRIER EROSION DITCH CHECK



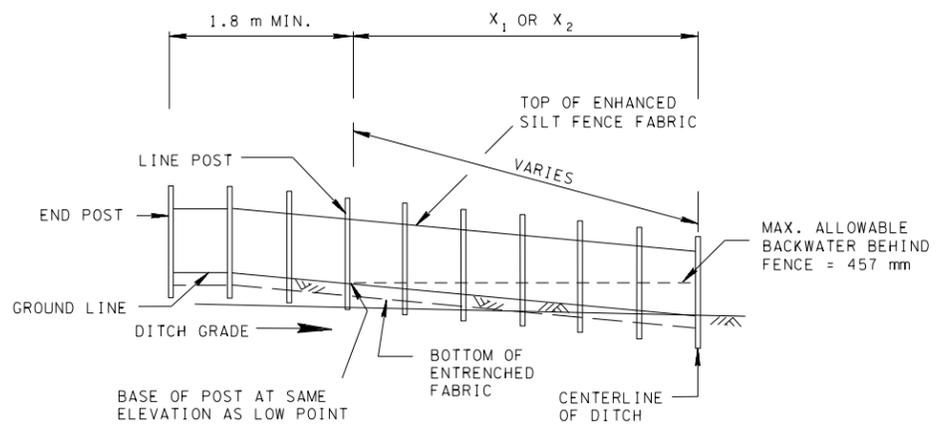
SPACING FOR ENHANCED SILT FENCE

GROUND SLOPE S_G (m/m)	⊕ RECOMMENDED SPACING, (L_G) BETWEEN ENHANCED SILT FENCE (m)
0.01	46
0.02	23
0.03	15
0.04	12
0.05	9
0.06 AND STEEPER	8

⊕ RECOMMENDED SPACING REFERS TO SPACING BETWEEN ENHANCED SILT FENCE FILTER LOCATIONS, BASED ON BACKWATER EFFECTS (USING 457 mm MAXIMUM BACKWATER BEHIND FENCE)

DITCH SIDESLOPES	X_1 OR X_2 (m)	TOTAL AVAILABLE SURFACE AREA OF FABRIC IN DITCH AT 0.46 m OF FLOW DEPTH (m^2)	* MAX. ALLOWABLE DESIGN PEAK FLOW FROM WATERSHED (CFS)
2:1	1.3	0.59	101.95
3:1	2.0	0.88	152.93
4:1	2.6	1.18	203.90
5:1	3.2	1.48	254.88
6:1	3.9	1.77	305.86
7:1	4.5	2.07	356.83
8:1	5.2	2.36	404.98
9:1	5.8	2.66	455.95
10:1	6.5	2.95	506.93

* BASED ON 2445 LITERS PER MIN./ m^2 (0.10 CM/SEC PERMEABILITY) ENHANCED SILT FENCE FABRIC AND MAXIMUM ALLOWABLE BACKWATER BEHIND FABRIC FENCE OF 0.46 m FOR TRIANGULAR CROSS-SECTION DITCH. SEE TABLE 3 FOR ENHANCED SILT FENCE FABRIC SPECIFICATION ON STANDARD DRAWING ECM-STR-3D.



GENERAL NOTES

- (A) A DITCH WITH A TRIANGULAR CROSS-SECTION IS ASSUMED.
- (B) DESIGN FLOWS FOR STORMWATER TREATMENT (E.G., 2 YEAR/24 HOUR STORM EVENT FLOWS) SHOULD BE ROUTED THROUGH ENHANCED SILT FENCE FILTERS WITH NO BYPASSING OR OVERFLOWS. FLOWS IN EXCESS OF THE FLOW-THROUGH CAPACITIES GIVEN IN TABLE 5 ABOVE SHOULD BE ACCOMMODATED BY BYPASSING EXCESS FLOWS.
- (C) ANCHOR AND INSTALL TEMPORARY ENHANCED SILT FENCE PER DETAILS AND SPECIFICATIONS SHOWN ON STANDARD DRAWING ECM-STR-3D. THE LOCATIONS AND SPACING OF ENHANCED SILT FENCE FILTERS, ALONG A DITCH SHOULD BE BASED ON COMBINATION OF HYDRAULIC PROPERTIES OF THE FENCE MATERIAL (TABLE 5) AND THE SPACING TABLE (SHOWN ABOVE). TO INSURE THAT THE TREATMENT REQUIREMENTS OF NOTE (B) ARE ACHIEVED, AND TO PREVENT OVERTOPPING, IT IS ALSO RECOMMENDED THAT BACKWATER ANALYSIS BE PERFORMED (E.G., STANDARD-STEP METHOD).
- (D) THE FLOW VALUES IN TABLE 5 ASSUME NO CLOGGING EFFECTS AT THE ENHANCED SILT FENCE SURFACE WITH SOLIDS. IN ORDER TO INSURE MINIMAL INFLUENCE FROM FILTER CLOGGING, FILTER FENCES SHOULD BE REGULARLY CLEANED BY DRYBRUSHING OF FABRIC SURFACE AND/OR PRESSURE WASHING OF FILTER.



MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION CHECK/FILTER USING ENHANCED SILT FENCE IN A TRIANGULAR CROSS-SECTION DITCH