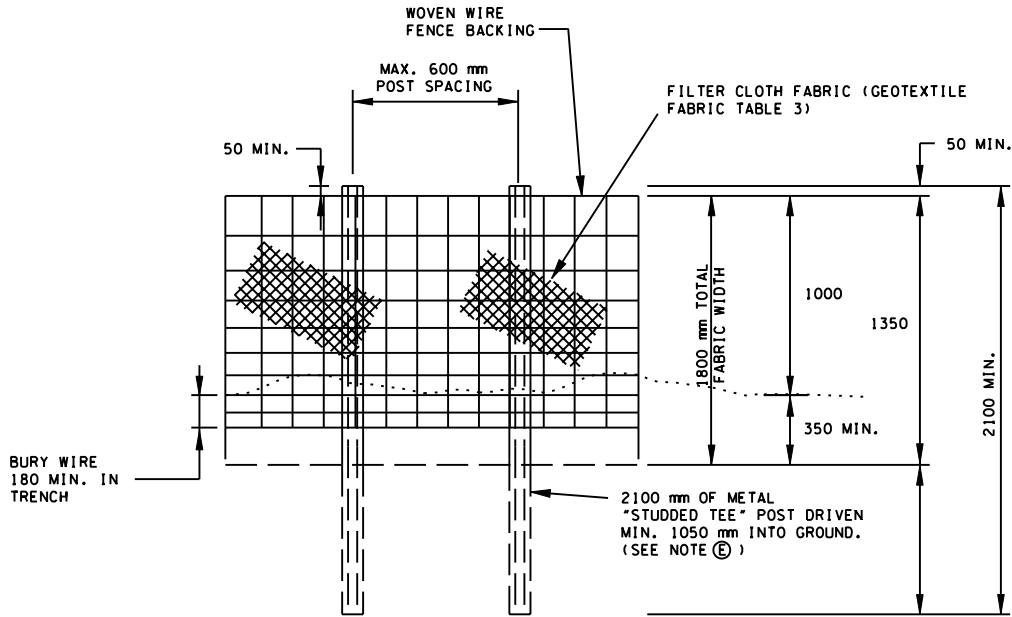
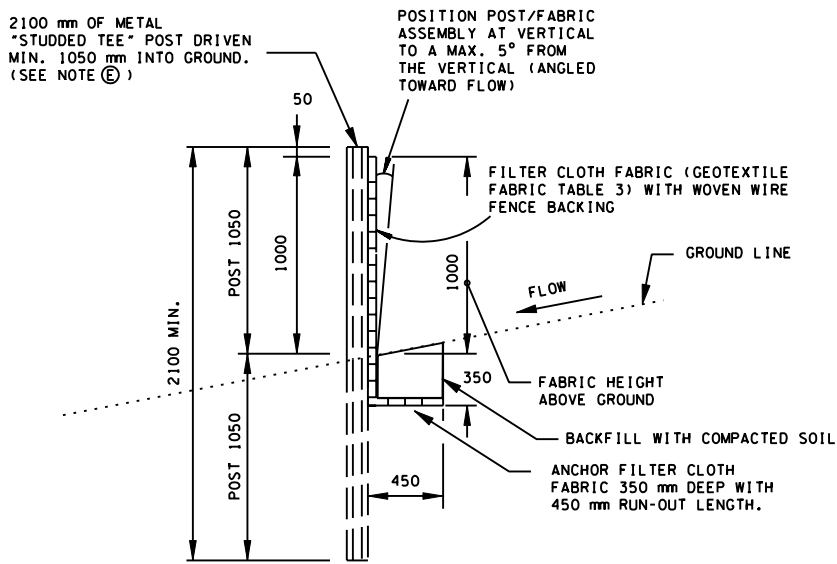


REV. 12-18-03: REPLACED TABLE 3 AND MODIFIED GENERAL NOTES ③, ④, AND ①.
REV. 7-29-04: CHANGED VALUES IN TABLE 3 FROM MEAN TO MARV VALUES.

ENHANCED SILT FENCE
(ITEM NO. 209M08.04)



ELEVATION VIEW



SECTIONAL VIEW

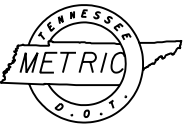
EROSION CONTROL PLAN LEGEND: * ESF * ESF * ESF * (ENHANCED SILT FENCE)

TABLE 3
ENHANCED SILT FABRIC SPECIFICATIONS

FABRIC PROPERTY AND TEST METHODS	REQUIRED PHYSICAL PROPERTIES (MARV VALUES OF TEST DATA)
FABRIC TYPE	WOVEN MONOFILAMENT
APPARENT OPENING SIZE (ASTM D4751)	# 30 TO # 80 STANDARD SIEVE
WATER FLUX (ASTM D4491)	≥ 4477 L/MIN/m ²
TENSILE STRENGTH (ASTM D4632)	≥ 1645 N (WARP DIRECTION) X 1023 N (FILL DIRECTION)
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	≥ 90%
BURST STRENGTH (ASTM D3786)	≥ 3240 kPa
PUNCTURE STRENGTH (ASTM D4833)	≥ 489 N
TRAPEZOIDAL TEAR (ASTM D4533)	≥ 511 N (WARP DIRECTION) X 333 N (FILL DIRECTION)
PERMEABILITY (ASTM D4491)	≥ 0.05 CM/SEC
THICKNESS (ASTM D5199)	≤ 35 MILS

ENHANCED SILT FENCE GENERAL NOTES

- ① ALL LABOR AND MATERIALS SHOWN ON THE ELEVATION AND SECTIONAL VIEWS USED TO CONSTRUCT ENHANCED SILT FENCE ARE TO BE INCLUDED IN THE PRICE BID FOR ITEM NO. 209M08.04 TEMPORARY ENHANCED SILT FENCE PER METER.
- ② ENHANCED SILT FENCE IS TO BE USED WHERE INTERCEPTION OF CONCENTRATED FLOWS (e.g. SWALES, DITCHES, RUTS ALONG SLOPE) ARE ANTICIPATED. LIMITS OF FLOW APPLICATIONS FOR USE OF ENHANCED FILTER FENCE ARE GIVEN IN TABLE 4 AND TABLE 5 ON STANDARD DRAWINGS ECM-STR-4 AND ECM-STR-4A, RESPECTIVELY.
- ③ WHEN TWO SECTIONS OF ENHANCED SILT FABRIC ADJOIN EACH OTHER THEY SHALL BE JOINED ACCORDING TO THE DETAILS ON STANDARD DRAWING ECM-STR-3E.
- ④ MAINTENANCE SHALL BE PERFORMED AS NEEDED; CAPTURED SOIL MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND/OR WHEN EVIDENCE OF FILTER BLINDING IS NOTED.
- ⑤ STEEL POSTS SHALL BE 2.0 kg/m ROLLED FROM HIGH CARBON STEEL AND SHALL BE GALVANIZED OR HOT-DIPPED AND PAINTED WITH ONE OR MORE COATS OF HIGH-GRADE WEATHER RESISTANT STEEL PAINT. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED TO AID IN THE ATTACHMENT OF WIRE.
- ⑥ STEEL POSTS SHALL HAVE A PROJECTION FOR FASTENING WIRE TO THEM. WOVEN WIRE FENCE BACKING TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST SIX PER POST.
- ⑦ WIRE FENCE FABRIC SHALL MEET THE REQUIREMENTS FOR ASTM A-116 FOR NO. 11 FARM, DESIGN NO. 1047-6-11, CLASS 3 COATING.
- ⑧ FILTER FABRIC SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE BACKING WITH TIES SPACED EVERY 600 mm ALONG TOP AND MID SECTION.
- ⑨ FOR TRENCH-BASED INSTALLATIONS, FENCING SHALL BE INSTALLED PER THE FOLLOWING STEPS AND IN THE FOLLOWING ORDER:
- EXCAVATE TRENCH A MAXIMUM OF 450 mm WIDE AND AT THE SPECIFIED DEPTH AS SHOWN ON THE APPLICABLE DETAIL. THE TRENCH SHALL BE HAND-CLEANED FOLLOWING EXCAVATION TO REMOVE BULKY DEBRIS SUCH AS ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH.
 - INSTALL FABRIC IN TRENCH.
 - BACKFILL TRENCH (OVER-FILL) WITH SOIL PLACED AROUND FABRIC.
 - COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).
 - DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL.
 - ATTACH WOVEN WIRE FENCE BACKING TO POSTS AND FABRIC TO THE WIRE BACKING USING WIRE TIES. SPACING AND DENSITY OF TIES SHALL BE INSTALLED AS GIVEN ON THE APPLICABLE DETAIL.



MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TEMPORARY
ENHANCED
SILT FENCE

12-18-02 ECM-STR-3D

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