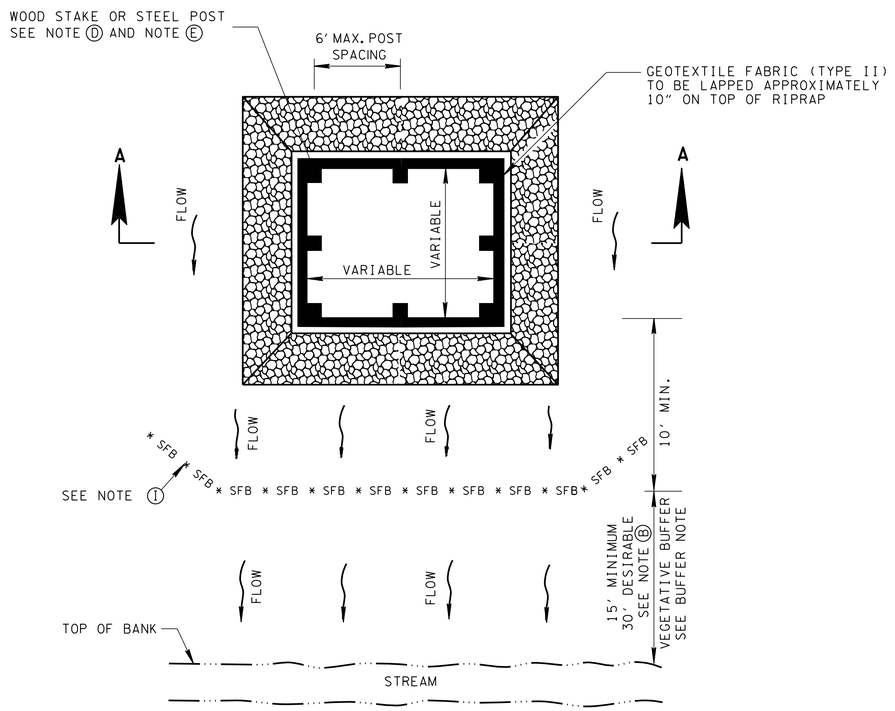
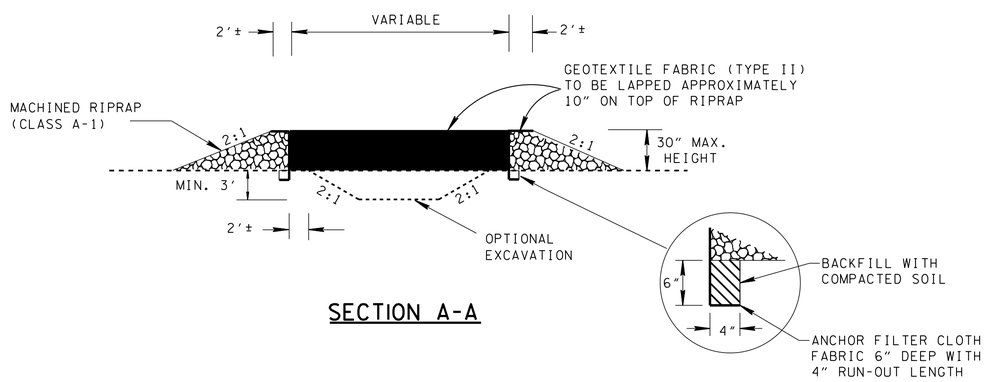


PLAN VIEW

BUFFER NOTE:

ATTEMPTS SHOULD BE MADE TO PROVIDE THE DESIRABLE WIDTH AT ALL SITES. THE AVERAGE WIDTH OF THE BUFFER STRIP MAY BE USED WHEN CALCULATING THE DESIRABLE WIDTH.



SECTION A-A

TRENCHING DETAIL

EROSION CONTROL PLAN LEGEND: DEWATERING STRUCTURE

DEWATERING STRUCTURE VOLUMES AND DIMENSIONS				
PUMP DIAMETER (INCHES)	PUMP RATE (GALLONS PER MINUTE)	STORAGE VOLUME REQ'D (CUBIC YARDS)	INTERIOR DIMENSIONS	EXTERIOR DIMENSIONS
2	140	84	30' X 30'	44' X 44'
3	260	155	41' X 41'	55' X 55'
4	500	298	57' X 57'	71' X 71'
6	1,100	654	85' X 85'	99' X 99'

(1) DIMENSIONS BASED ON THE MAXIMUM STRUCTURE HEIGHT OF 30" AND THE LENGTH BEING EQUAL TO THE WIDTH. OPTIONAL EXCAVATION IS NOT INCLUDED.

(2) ADJUSTMENTS SHOULD BE MADE TO THE DIMESIONS TO OBTAIN THE BEST CONFIGURATION FOR THE PROJECT SITE. DIMENSIONS ARE BASED ON THE DEWATERING STRUCTURE BEING HORIZONTAL.

DEWATERING STRUCTURE GENERAL NOTES

(A) DEWATERING STRUCTURES MAY BE USED WHENEVER SEDIMENT LADEN WATER IS REMOVED BY MEANS OF PUMPING. THEY SHOULD BE USED IN CONJUNCTION WITH THE DEWATERING OF COFFERDAMS, TRENCHES, ENCLOSED DITCHES, AND OTHER CONSTRUCTION ACTIVITIES WHICH REQUIRE THE REMOVAL OF SEDIMENT LADEN WATER.

(B) DEWATERING STRUCTURES SHOULD NOT BE PLACED WITHIN A JURISDICTIONAL WETLAND OR WITHIN 15 FEET (30 FEET DESIRABLE) OF A STABILIZED OUTLET, STREAM, OR OTHER NATURAL WATER RESOURCE. WHEN DISCHARGING TO SEDIMENT-IMPAIRED STREAMS OR EXCEPTIONAL TENNESSEE WATERS, THE BUFFER SHALL BE A MINIMUM OF 30 FEET WITH A DESIRABLE WIDTH OF 60 FEET. BUFFER REQUIREMENT DOES NOT APPLY TO ANY LOCATION ON SITE WITH A VALID ARAP OR EQUIVALENT PERMIT BY FEDERAL AGENCIES.

(C) THE MINIMUM STORAGE VOLUME REQUIRED FOR A DEWATERING STRUCTURE SHOULD BE BASED ON 2 HOURS OF PUMPING AT THE RATE SHOWN IN THE "DEWATERING STRUCTURE VOLUMES AND DIMENSIONS" TABLE. THE MINIMUM STORAGE VOLUME REQUIRED IN CUBIC FEET IS OBTAINED BY MULTIPLYING THE PUMPING RATE IN GALLONS PER MINUTE BY 16.

(D) POST SHALL BE PLACED ALONG THE INTERIOR PERIMETER OF THE DEWATERING STRUCTURE. ONE POST SHOULD BE PLACED IN EACH CORNER AND POSTS SHOULD BE PLACED ALONG THE SIDES AT A MAXIMUM SPACING OF 6 FEET. POST SHOULD BE EMBEDDED A MINIMUM OF 30 INCHES INTO THE EXISTING GROUND AND SHOULD EXTEND AT A MINIMUM THE HEIGHT OF THE DEWATERING STRUCTURE.

(E) THE POST SHOULD BE A MINIMUM 2.25" (NOMINAL) X 2.25" (NOMINAL) HARDWOOD POST (OAK OR HICKORY) OR MINIMUM 1.25 LB./FT. STEEL POST (STD. "T" OR "U" SECTION).

(F) DIVERT ANY STORMWATER RUNOFF AWAY FROM THE DEWATERING STRUCTURE.

(G) SEDIMENT FILTER BAGS MAY BE USED TO COLLECT SEDIMENT WHEN PUMPING FROM A DEWATERING STRUCTURE INTO AN ADJACENT STREAM WHEN APPROVED BY THE ENGINEER. SEE STANDARD DRAWING EC-STR-2.

(H) ONLY GEOTEXTILE FABRIC (TYPE II) LISTED ON THE QUALIFIED PRODUCTS LIST SHALL BE USED.

(I) INSTALL SILT FENCE WITH WIRE BACKING BETWEEN STREAM AND/OR DRAINAGE DITCH AND THE DEWATERING STRUCTURE. SEE STANDARD DRAWINGS EC-STR-3C AND EC-STR-3E FOR INSTALLATION DETAILS.

(J) THE EXISTING VEGETATIVE BUFFER SHOULD REMAIN BETWEEN SILT FENCE WITH WIRE BACKING AND STABILIZED OUTLET, STREAM OR OTHER NATURAL RESOURCE. BUFFER ZONE EXEMPTIONS ARE DEFINED BASED ON EXISTING LAND USES.

(K) THE VOLUME OF DEWATERING STRUCTURE SHOWN IN THE EROSION PREVENTION AND SEDIMENT CONTROL PLANS IS TO BE BASED ON USE OF THE 4 INCH PUMP SHOWN IN THE "DEWATERING STRUCTURE VOLUMES AND DIMENSIONS" TABLE.

(L) DEWATERING STRUCTURES SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBERS:

203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) PER CUBIC YARD
209-10.01	TEMPORARY DEWATERING STRUCTURE PER CUBIC YARD

SILT FENCE WITH WIRE BACKING SHALL BE PAID FOR ACCORDING TO ITS RESPECTIVE STANDARD DRAWING.

PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF THE DEWATERING STRUCTURE.

(M) THE ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE STRUCTURE IS HALF FULL AND PAID FOR UNDER ITEM NUMBER 209-05, SEDIMENT REMOVAL PER CUBIC YARD.

REV. 12-18-95: CHANGED DRAWING NO. FROM ESC-STR-1 TO EC-STR-1.

- REV. 10-26-00: IN TEMPORARY EROSION AND SEDIMENT CONTROL PAY ITEMS BLOCK CHANGED PAY ITEM NUMBERS AND DESCRIPTIONS TO CONCUR WITH CHANGES MADE BY CONSTRUCTION DIVISION.
- REV. 5-27-01: REVISED PAY ITEMS AND GENERAL NOTES TO COMPLY WITH NEW PAY ITEM SYSTEM GOING IN EFFECT OCTOBER 26, 2001.
- REV. 12-18-02: ADDED PAY ITEM NOS. 209-08.02 AND 209-08.04. CHANGED SHEET NAME.
- REV. 1-22-03: CHANGED GENERAL NOTE (H).
- REV. 4-1-08: REMOVED TEMPORARY REFERENCE, REMOVED PAY ITEMS TABLE, REPLACED GENERAL NOTES AND DEWATERING STRUCTURE VOLUMES TABLE, AND OTHER MINOR DRAFTING EDITS.
- REV. 8-1-12: MODIFIED BUFFER DIMENSION, ADDED BUFFER NOTES, MINOR EDITS TO GENERAL NOTES.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

NOT TO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DEWATERING STRUCTURE

10-26-92 EC-STR-1