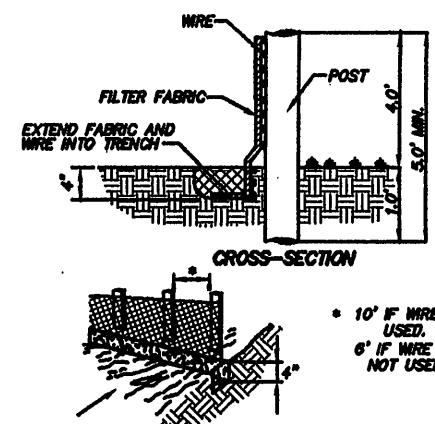


SF SILT FENCE BARRIER DETAIL



**TABLE 3.05-9
PHYSICAL PROPERTIES OF
FILTER FABRIC IN SILT FENCE**

PHYSICAL PROPERTY	TEST	REQUIREMENTS
FILTERING EFFICIENCY	ASTM D141	70% (MIN.)
TENSILE STRENGTH AT 90° SHAFT CLONATION (%)	VIM-52	EXTRA STRENGTH - 50 (MINIMUM) (MIN.)
FLOW RATE	ASTM D141	0.5 GAL./SQ.FT./ MINUTE (MAX.)
ULTRAVIOLET RADIATION STABILITY %	ASTM-D-26	90% (MIN.)

(*) REQUIREMENTS REDUCED BY 50% AFTER SIX MONTHS OF INSTALLATION.

CONSTRUCTION SPECIFICATIONS

MATERIALS

1. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR OTHER TYPICAL AND SHALL BE CONTROLLED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS NOTED IN TABLE 3.05-9.
2. SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A LIFE OF UP TO 36 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0° TO 120° F.
3. IF WOODEN STAKES ARE UTILIZED FOR SILT FENCE CONSTRUCTION, THEY MUST HAVE A DIAMETER OF 2 INCHES WHEN ONE IS USED AND 4 INCHES WHEN PINE IS USED. WOODEN STAKES MUST HAVE A MINIMUM LENGTH OF 3 FEET.
4. IF STEEL POSTS (STANDARD 1" OR 1 1/2" SECTION) ARE UTILIZED FOR SILT FENCE CONSTRUCTION, THEY MUST HAVE A MINIMUM WEIGHT OF 1.33 POUNDS FOR LINEAR POST AND SHALL HAVE A MINIMUM LENGTH OF 3 FEET.
5. WIRE FENCE (INTERMEDIATE) FOR SILT FENCE USING STANDARD FILTER CLOTH SHALL BE A MINIMUM OF 14 GAUGE AND SHALL HAVE A MINIMUM MESH SPACING OF 6 INCHES.

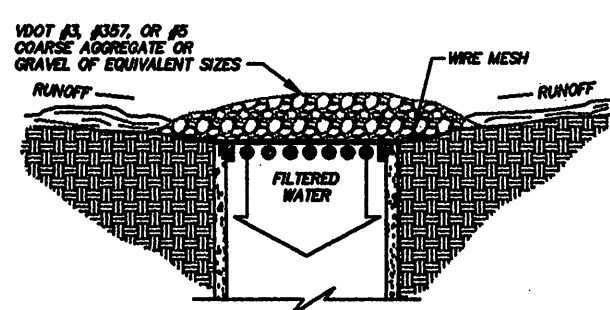
INSTALLATION

1. THE HEIGHT OF A SILT FENCE SHALL BE A MINIMUM OF 18 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL OUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE UNAVOIDABLE, FILTER CLOTH SHALL BE SEWED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.
3. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4-INCHES WIDE AND 4-INCHES DEEP ON THE UPSTREAM SIDE OF THE SILT FENCE.
4. WHEN WIRE SUPPORT IS USED, STANDARD FILTER CLOTH MAY BE USED. POSTS FOR THIS TYPE OF INSTALLATION SHALL BE PLACED A MINIMUM OF 10 FEET APART. THE WIRE MESH FENCE MUST BE FASTENED TO THE POSTS WITH 12-GAUGE GALV. STEEL STAPLES. THE TRENCH SHALL BE AT LEAST ONE FOOT LONG. THE POSTS OF 1000 POUNDS. THE TRENCH SHALL EXTEND INTO THE TRENCH A MINIMUM OF 10 INCHES FROM THE POST OF 1000 POUNDS. THE TRENCH SHALL EXTEND INTO THE TRENCH A MINIMUM OF 10 INCHES FROM THE POST OF 1000 POUNDS. THE TRENCH SHALL EXTEND INTO THE TRENCH A MINIMUM OF 10 INCHES FROM THE POST OF 1000 POUNDS.
5. WHEN WIRE SUPPORT IS NOT USED, EXTRA STRENGTH FILTER CLOTH SHALL BE USED. POSTS FOR THIS TYPE OF FENCE SHALL BE PLACED A MINIMUM OF 4 FEET APART. THE FILTER FABRIC SHALL BE FASTENED TO THE POSTS WITH 12-GAUGE GALV. STEEL STAPLES. THE TRENCH SHALL BE AT LEAST ONE FOOT LONG. THE POSTS OF 1000 POUNDS. THE TRENCH SHALL EXTEND INTO THE TRENCH A MINIMUM OF 10 INCHES FROM THE POST OF 1000 POUNDS.
6. IF A SILT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SLOPE, THE FENCE MUST BE OF ADEQUATE STRENGTH TO RESIST THE FORCE OF THE WATER. WHEN A SILT FENCE IS CONSTRUCTED ACROSS A DITCH LINE OR SLOPE, THE FENCE MUST BE OF ADEQUATE STRENGTH TO RESIST THE FORCE OF THE WATER.
7. A 4 INCH BY 4 INCH TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
8. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPHILL AREA HAS BEEN PERMANENTLY STABILIZED.

MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING.
3. SHOULD THE FABRIC ON A SILT FENCE BECOME OR BECOME INOPERATIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, AND THE BARRIER STILL NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE REMOVED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDS.

IP INLET PROTECTION

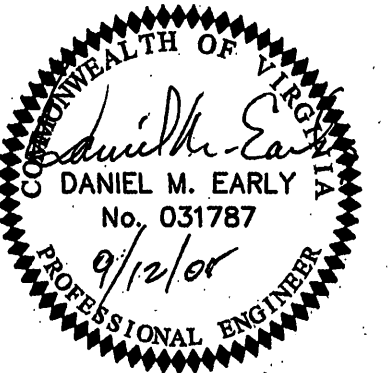


GENERAL NOTES

1. THE METHOD OF INLET PROTECTION IS APPLICABLE WHEN HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHEN FLOWING AROUND THE STRUCTURE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.
2. WIRE MESH SHALL BE LAY OVER DROP INLET SO THAT THE WIRE EXTENDS MIN. 1' BEYOND EACH SIDE OF INLET STRUCTURE. WIRE MESH WITH 1/2" OPENING SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
3. AFTER CLEAN RUNOFF PRODUCE RAINFALL, THE GRAVEL SHALL BE GRADUALLY SET IF IT HAS BECOME CLOTTED. THE CONTRACTOR SHALL CLEAN OR REPLACE GRAVEL, AS REQUIRED.
4. GRAVEL AND WIRE MESH INLET PROTECTION IS THE MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE STRUCTURE. WIRE MESH WITH 1/2" MESH OPENING SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
5. (A) GRAVEL CONCENTRATED SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN THE DETAIL. THE STRIPS OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
6. (B) IF THE STONE FILTER BECOMES CLOTTED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE INLET, CLEANED AND/OR REPLACED.
7. NOTE: THIS FILTERING DEVICE HAS NO CHECKFLOW MECHANISM. THEREFORE, FLOWING IS LIKELY ESPECIALLY IF SEDIMENT IS NOT REMOVED REGULARLY. THIS TYPE OF DEVICE MUST NEVER BE USED WHERE DOWNFLOW MAY OCCUR. IF SLOPE CONSTRUCTION SHOULD ALSO BE GIVEN TO THE POSSIBLE EFFECTS OF FLOWING ON TRAFFIC MOVEMENT, NEARBY STRUCTURES, WORKING AREAS, ADJACENT PROPERTY, ETC.
8. MAINTENANCE: SILT FENCES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
9. SEDIMENT SHALL BE REMOVED AND THE TRENCH RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE TRENCH DEPTH OF THE TRENCH. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT BE A HAZARD TO THE UPHILL AREA.
10. TEMPORARY STRUCTURES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPHILL AREA HAS BEEN PERMANENTLY STABILIZED.

EROSION SEDIMENT CONTROL MINIMUM STANDARDS

MINIMUM STANDARDS	MEASURE APPLIED FOR EACH MINIMUM STANDARD
PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE HAS BEEN REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN THIRTY (30) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR.	PERMANENT AND TEMPORARY SEEDING HAS BEEN SPECIFIED FOR ALL DENUDED AREAS ALONG WITH APPLICABLE MULCH, LIME AND FERTILIZATION. FOR THE PARKING ARE CONSTRUCTION ROAD STABILIZATION HAS BEEN SPECIFIED
DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE.	THERE ARE NO SOIL STOCKPILES PROPOSED, IF SOIL IS TO BE STORED ON SITE IS SHALL HAVE SILT FENCE INSTALLED AROUND THE DOWN HILL SIDE OF THE PILE TO INSURE PROTECTION FROM SEDIMENT LADEN RUN-OFF FROM LEAVING THE SITE
A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE LOCAL PROGRAM ADMINISTRATOR OR AGENT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.	PERMANENT AND TEMPORARY SEEDING HAS BEEN SPECIFIED FOR ALL DENUDED AREAS ALONG WITH APPLICABLE MULCH, LIME AND FERTILIZATION.
SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN THE LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCES OCCURS.	SILT FENCE IS PROPOSED TO TRAP SEDIMENT FOR THIS SITE DUE TO IT'S SMALL SIZE.
STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.	NOT APPLICABLE
CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1) YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.	NOT APPLICABLE
CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.	NOT APPLICABLE
WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.	NOT APPLICABLE
ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.	NOT APPLICABLE
BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.	NOT APPLICABLE
WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.	NOT APPLICABLE
WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.	NOT APPLICABLE
THE BED AND BANKS OF ANY WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.	NOT APPLICABLE
UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME. B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THRU AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY. D. RESTABILIZATION SHALL BE ACCOMPLISHED IN WITH THESE REGULATIONS. E. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.	NOT APPLICABLE
WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF THE DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.	A CONSTRUCTION ENTRANCE HAS BEEN PROPOSED AT THE EXISTING ENTRANCE. FOR THE PARKING ARE CONSTRUCTION ROAD STABILIZATION HAS BEEN SPECIFIED
ALL EROSION AND SEDIMENT CONTROL STRUCTURES AND SYSTEMS SHALL BE MAINTAINED, INSPECTED AND REPAIRED AS NEEDED TO INSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. AN INSPECTION SHALL BE MADE AT LEAST ONCE IN EVERY TWO-WEEK PERIOD AND WITHIN 48 HOURS FOLLOWING ANY RUNOFF PRODUCING STORM EVENT.	MAINTENANCE FOR EACH EROSION CONTROL MEASURE IS SPECIFIED IN THE DETAIL SHOWN ON SHEETS C1.5 AND C1.6.
ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.	REMOVAL FOR TEMPORARY EROSION CONTROL MEASURE IS SPECIFIED IN THE DETAIL SHOWN ON SHEETS C1.5 AND C1.6, OR WHEN THE COUNTY DEEMS THE SITE FULLY STABILIZED.



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**PHASE 2 SITE PLAN
FOR
CAVENESS PROPERTIES
ROANOKE COUNTY, VIRGINIA**

DRAWN BY: M.L.L.

DESIGNED BY: M.L.L.

CHECKED BY:

DATE: Aug. 1, 2005

SCALE:

REVISIONS

REVISION	DATE	COMMENT

SHEET No.

C1.6
EROSION CONTROL
DETAILS

JOB No. 05004