A VESCP must be consistent with the following criteria, techniques and methods:

1. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

2. During construction of the project, soil stock piles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.

3. 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 is uniform, mature enough to survive and

4. Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes

5. Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after

6. Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin.

a. The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area and the trap shall only control drainage areas less than three acres.

b. Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outfall system shall, at a minimum, maintain the structural integrity of the basin during a 25-year storm of 24-hour duration. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is utilized.

7. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.

8. Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.

9. Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.

10. 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.

11. Before newly constructed stormwater conveyance channels or pipes 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. 12. 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

13. When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of nonerodible material shall be provided.

14. All applicable federal, state and local requirements pertaining to working in or crossing live watercourses shall be met. 15. The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.

16. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable

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 through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property

d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.

e. Restabilization shall be accomplished in accordance with this chapter. f. Applicable safety requirements shall be complied with.

17. Where construction vehicle access routes intersect paved or 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 paved or public road surface, the road surface shall be cleaned thoroughly at the end of each 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. This provision shall apply to individual development lots as well as to larger land-disturbing

18. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the VESCP authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further

19. Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels:

a. Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.

b. Adequacy of all channels and pipes shall be verified in the following manner:

(1) The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or

(2) (a) Natural channels shall be analyzed by the use of a two-year storm to verify that stormwater will not overtop channel

banks nor cause erosion of channel bed or banks. (b) All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel

(c) Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater will be contained within the pipe or system.

c. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant

(1) Improve the channels to a condition where a ten-year storm will not overtop the banks and a two-year storm will not cause erosion to the channel, the bed, or the banks; or

(2) Improve the pipe or pipe system to a condition where the ten-year storm is contained within the appurtenances;

(3) Develop a site design that will not cause the pre-development peak runoff rate from a two-year storm to increase when runoff outfalls into a natural channel or will not cause the pre-development peak runoff rate from a ten-year storm to increase when runoff outfalls into a man-made channel; or

(4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion.

d. The applicant shall provide evidence of permission to make the improvements.

e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of f. If the applicant chooses an option that includes stormwater detention, he shall obtain approval from the VESCP of a plan for

responsible for performing the maintenance. g. Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition from the facility to the receiving channel.

maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person

h. All on-site channels must be verified to be adequate.

i. Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility.

j. In applying these stormwater management criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be

k. All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state.

1. Any plan approved prior to July 1, 2014, that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels shall satisfy the flow rate capacity and velocity requirements for natural or man-made channels if the practices are designed to (i) detain the water quality volume and to release it over 48 hours; (ii) detain and release over a 24-hour period the expected rainfall resulting from the one year, 24-hour storm; and (iii) reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming it was in a good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition, and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to § 62.1-44.15:54 or

m. For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of § 62.1-44.15:52 A of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and attendant regulations, unless such land-disturbing activities are in accordance with 9VAC25-870-48 of the Virginia Stormwater Management Program (VSMP) Regulations.

n. Compliance with the water quantity minimum standards set out in <u>9VAC25-870-66</u> of the Virginia Stormwater Management Program (VSMP) Regulations shall be deemed to satisfy the requirements of subdivision 19 of this subsection.

EROSION CONTROL GENERAL NOTES CONTACT THE ROANOKE COUNTY DEPT. OF INSPECTIONS AND CODE COMPLIANCE PRIOR TO COMMENCING ANY LAND

DISTURBANCE ACTIVITIES ON THE SITE. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE PRINCE GEORGE COUNTY ORDINANCE AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
NOTIFY THE ROANOKE COUNTY DEPT. OF INSPECTIONS ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES EVERY TWO WEEKS AND AFTER EACH

EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT. FOR LONGER THEN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE LEFT DORMANT FOR MORE THAN ONE YEAR.

RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE

THE CONTRACTOR IS RESPONSIBLE FOR DAILY REMOVAL OF SEDIMENT THAT HAS BEEN TRANSPORTED ONTO A PAVED OR 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOILS WHICH MAY PRESENT A HEALTH HAZARD, TRAFFIC SAFETY PROBLEM, OR HARM ANIMAL OR PLANT LIFE.

EROSION CONTROL SEQUENCE OF EVENTS NOTIFY THE ROANOKE COUNTY DEPT. OF INSPECTIONS AND CODE COMPLIANCE FOR A PRE-CONSTRUCTION MEETING AND ON-SITE VISIT ONE

WEEK PRIOR TO BEGINNING CONSTRUCTION. INSTALL CONSTRUCTION ENTRANCE, INLET PROTECTION AND PERIMETER SILT FENCE AS PER PLAN. BEGIN CLEARING AND DEMOLITION OPERATIONS. APPLY TEMPORARY STABILIZATION. STABILIZE THE SITE WITH VEGETATION AND STRAW

MULCH ACCORDING TO STATE REGULATIONS. BEGIN GRADING, BUILDING CONSTRUCTION, AND LINDERGROUND LITHLITY INSTALL ATION, INSTALL INLET PROTECTION AS NEEDED FINE GRADE SITE AND BEGIN PAVING. APPLY PERMANENT STABILIZATION ON ANY REMAINING BARE SOIL AND INSTALL LANDSCAPE. CONTINUING MAINTENANCE PRACTICES SHALL BE PERFORMED TO ENSURE PROTECTION OF DOWNSTREAM PROPERTIES. NO EROSION CONTROL DEVICE SHALL BE REMOVED UNTIL AN ADEQUATE STAND OF GRASS HAS BEEN OBTAINED. EROSION CONTROL MEASURES SHALL BE REMOVED IN ACCORDANCE WITH VIRGINIA REGULATION 9VAC25-840-40 MS-18.

NOTE: ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN ARE TO BE CONSTRUCTED. MAINTAINED, AND REMOVED IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION: THIS PROJECT CONSISTS OF THE DEMOLITION OF AN EXISTING OFFICE BUILDING AND THE CONSTRUCTION OF A FREE-STANDING EMERGENCY ROOM AND ASSOCIATED PARKING, UTILITIES, DRAINAGE, LANDSCAPING, AND IRRIGATION.

<u>EXISTING SITE CONDITIONS:</u> THE SITE IS DEVELOPED. THE NORTH AND WEST PORTIONS OF THE SITE DRAIN INTO AN EXISTING STORM SEWER SYSTEM. THE SOUTH AND EAST PORTIONS OF THE SITE DRAIN INTO THE RIGHT-OF-WAY AND THEN ENTER AN EXISTING STORM SEWER SYSTEM ADJACENT AREAS: THE SITE IS SURROUNDED BY COMMERCIAL PROPERTIES TO THE WEST AND NORTH, ELECTRIC ROAD TO THE SOUTH, AND OGDEN ROAD TO THE EAST. NO ADJACENT AREAS WILL BE IMPACTED BY THE CONSTRUCTION.

SOILS: ACCORDING TO THE MOST RECENT DATA AVAILABLE FOR ROANOKE COUNTY FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE, THERE IS ONE (1) SOIL TYPE REPRESENTED ONSITE:

CRITICAL AREAS: THERE ARE NO CRITICAL AREAS ON THIS SITE.

OFFSITE AREAS: THERE ARE NO OFFSITE AREAS.

MAP UNIT SYMBOL 53 - URBAN LAND

VIRGINIA REGULATION 9V/AC25-840

<u>EROSION AND SEDIMENT CONTROL MEASURES:</u> TEMPORARY CONSTRUCTION ENTRANCE, PERIMETER SILT FENCE, AND INLET PROTECTION ON EXISTING INLETS WILL SERVE AS THE PRIMARY EROSION CONTROL MEASURES FOR PHASE I. PHASE II E&S MEASURES INCLUDE INLET PROTECTION ON PROPOSED STORM STRUCTURES AND SOIL STABILIZATION BLANKETS AND MATTING. WHERE THERE HAS BEEN MUD/SOIL/SEDIMENT FRANSPORTED BY CONSTRUCTION TRAFFIC ONTO A PAVED OR PUBLIC ROAD SURFACE. THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY A THE END OF EACH DAY. TEMPORARY AND PERMANENT SEEDING WILL ALSO BE USED AS NEEDED. SEEDING SHALL BE DONE IN ACCORDANCE WITH

<u>PERMANENT STABILIZATION:</u> DURING CONSTRUCTION, SOIL STOCK PILE SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF THE SOIL STOCKPILE ON SITE. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THEN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE LEF DORMANT FOR MORE THAN ONE YEAR. APPLY SOIL STABILIZATION BLANKETS TO ALL SLOPES GREATER THAN $3\colon$

STORMWATER RUNOFF CONSIDERATIONS: THE DEVELOPMENT OF THIS SITE DRAINS TO PROPOSED STORM SEWER NETWORKS WHICH CONNECT TO EXISTING STORM SEWER NETWORKS. SEE CALCULATIONS ON SHEET C1.7.

CALCULATIONS: ALL CALCULATIONS HAVE BEEN SUBMITTED TO COUNTY AND STATE OFFICIALS FOR REVIEW.

EROSION AND SEDIMENT CONTROL MEASURES:

THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL MEASURES NECESSARY TO PREVENT SOIL FROM FRODING OR BEING TRACKED ONTO ADJACENT PROPERTY, STREETS, DRAINAGE SYSTEMS, AND WATERWAYS, UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURA EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 1992 EDITION". THE MINIMUM STANDARDS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE FROM

3.02 TEMPORARY STONE CONSTRUCTION ENTRANCE: A STONE PAD, LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE, TO REDUCE THE SOIL TRANSPORTED ONTO PUBLIC ROADS AND OTHER PAVED AREA

3.05 SILT FENCE: A TEMPORARY SEDIMENT BARRIER CONSTRUCTED OF POSTS, FILTER FABRIC AND, IN SOME CASES, A WIRE SUPPORT FENCE, PLACED ACROSS OR AT THE TOE OF A SLOPE OR IN A MINOR DRAINAGE WAY TO INTERCEPT AND DETAIN SEDIMENT AND DECREASE FLOW VELOCITIES FROM DRAINAGE AREAS OF LIMITED SIZE; APPLICABLE WHERE SHEET AND RILL EROSION OR SMALL CONCENTRATED FLOWS MAY BE A 3.07 STORM DRAIN INLET PROTECTION: THE INSTALLATION OF VARIOUS KINDS OF SEDIMENT TRAPPING MEASURES AROUND DROP INLETS OR CURB INLET STRUCTURES PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA; LIMITED TO DRAINAGE AREAS NOT EXCEEDING ONE

ACRE, AND NOT INTENDED TO CONTROL LARGE, CONCENTRATED STORMWATER FLOWS. 3.31 TEMPORARY SEEDING: ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR PERIODS OF 14 DAYS TO ONE YEAR BY SEEDING WITH APPROPRIATE RAPIDLY-GROWING PLANTS. 3.32 PERMANENT SEEDING: ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER BY PLANTING SEED ON ROUGH-GRADED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A YEAR OR MORE OR WHERE PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED ON FINE-GRADED AREAS.

3.36 SOIL STABILIZATION BLANKETS AND MATTING: THE INSTALLATION OF A PROTECTIVE COVERING ON A PREPARED PLANTING AREA TO SSIST IN SEED GERMINATION AND SLOPE STABILIZATION. 3.39 DUST CONTROL: REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBANCE, DEMOLITION OR CONSTRUCTION ACTIVITIES IN AREAS SUBJECT TO DUST PROBLEMS IN ORDER TO PREVENT SOIL LOSS AND REDUCE THE PRESENCE OF POTENTIALLY HARMFUL AIRBORNE

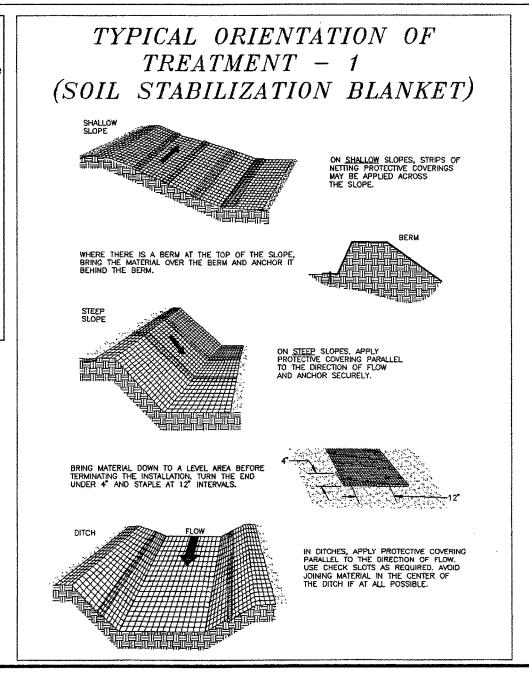
MAINT ENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

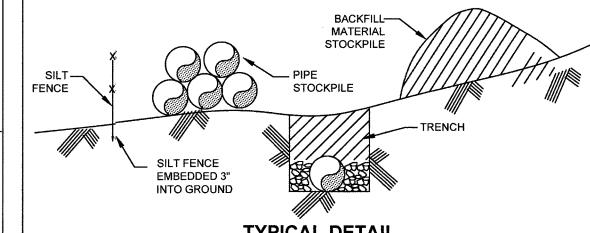
3.02 CONSTRUCTION ENT RANCE: TOP DRESS WITH ADDITIONAL STONE OR WASH AND REWORK EXISTING STONE AS NEEDED TO PREVENT MUD FROM BEING TRACKED OFF THE SITE. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO

3.05 SILT FENCE: INSPECT AFTER EACH RAINFALL EVENT AND DAILY DURING PROLONGED RAINFALL. REMOVE SEDIMENT FROM SILT FENCE AFTER EACH STORM EVEN AND WHEN IT REACHES ONE-HALF THE HEIGHT OF THE BARRIER. REPAIR ANY TORN, DAMAGED, OR DEGRADED FENCE PROMPTLY. ANY SEDIMENT REMAINING AFTER SILT FENCE HAS BEEN REMOVED SHALL BE DRESSED TO CONFORM WITH EXISTING/PROPOSED

3.07 STORM DRAIN INLET PROTECTION: INSPECT AFTER EACH RAIN EVENT AND REPAIR AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

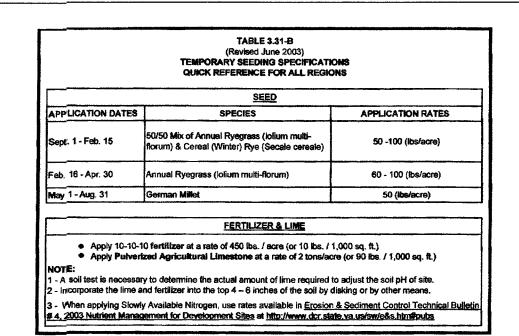
TABLE 3.39-A ADHESIVES USED FOR DUST CONTROL Type of Application Rate Gallons/Acre (Adhesive: Water) Nozzle Asphalt Emulsion 1,200 Coarse Spray 235 Latex Emulsion Fine Spray 300 Resin in Water Fine Spray Acrylic Emulsion 450 (Non-Traffic) Coarse Spray Acrylic Emulsion 350 (Traffic) 3.5:1 Coarse Spray

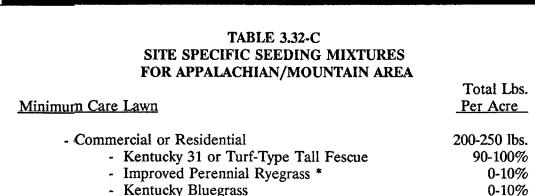




TYPICAL DETAIL **EROSION CONTROL PROTECTION FOR PIPE TRENCHING**

NOTE: AN ACCEPTABLE ALTERNATE TO FILTER FABRIC FENCE IS A LINE OF STAKED STRAW BALES





High-Maintenance Lawn

Minimum of three (3) up to five (5) varieties of bluegrass from approved list for use in Virginia. 125 lbs.

General Slope (3:1 or less)

- Kentucky 31 Fescue - Red Top Grass - Seasonal Nurse Crop ** 20 lbs.

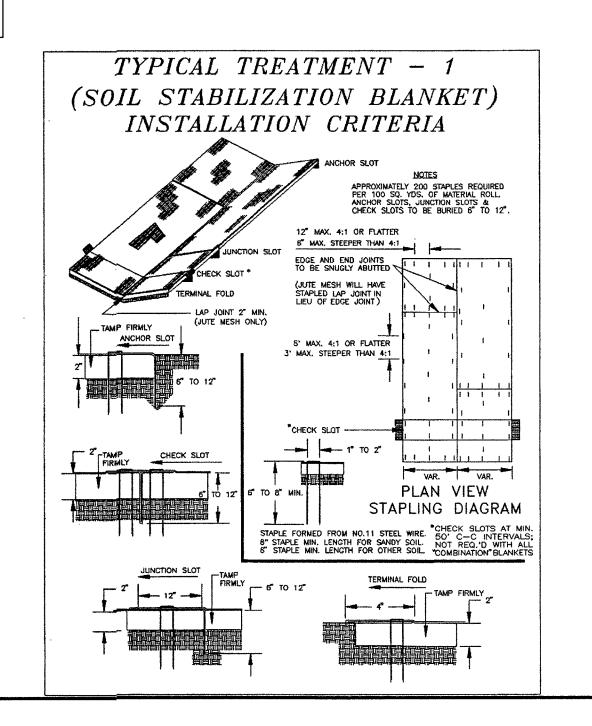
Low-Maintenance Slope (Steeper than 3:1)

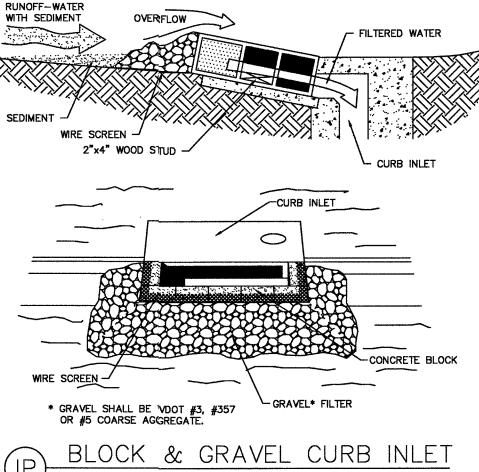
- Kentucky 31 Fescue 108 lbs. - Red Top Grass 2 lbs. - Seasonal Nurse Crop ** 20 lbs. - Crownvetch *** 20 lbs. 150 lbs.

* Perennial Ryegrass will germinate faster and at lower soil temperatures than fescue, thereby providing cover and erosion resistance for seedbed.

* *	Use seasonal nurse crop in accordance with seeding dates as stated below:
	March, April through May 15th Annual Rye
	May 16th through August 15th Foxtail Millet
	August 16th through September, October Annual Rye
	November through February Winter Rye
	•

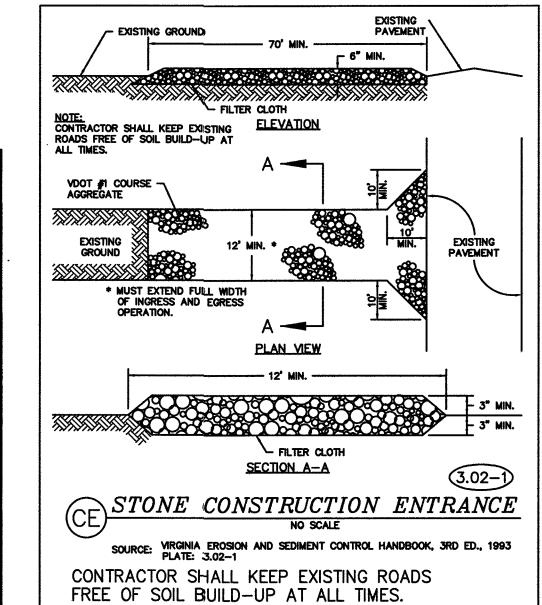
*** If Flatpea is used, increase to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may also be included in any slope or lowmaintenance mixture during warmer seeding periods; add 10-20 lbs/acre in mixes.

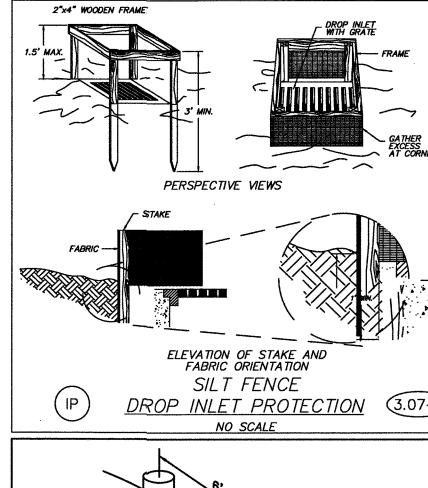


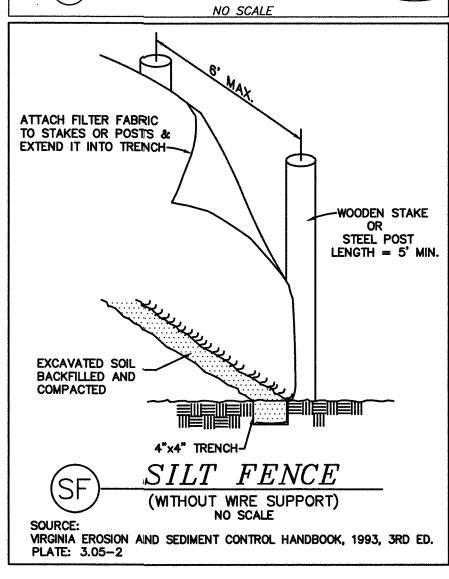


NO SCALE

SOURCE: VIRGINIA EROSIONI AND SEDIMENT CONTROL HANDBOOK, 3RD ED., 1993





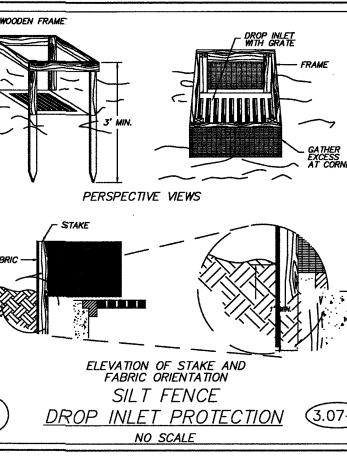


TIMOTHY STEPHEN SELDON Lic. No. 047999

8-23-2016 DRAWN BY

T. SELDON DESIGNED BY T. SELDON CHECKED BY T. SELDON

NONE



JOB NO. 38321

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