

GUIDELINES  
used by  
CALVERT SOIL CONSERVATION DISTRICT  
for  
EROSION & SEDIMENT CONTROL  
PLAN REVIEWS

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## I. INTRODUCTION

The purpose of the Calvert Soil Conservation District (Calvert SCD) Guidelines is to protect, maintain, and enhance the public health, safety, and general welfare by establishing the minimum requirements and procedures used in the review and approval of Erosion and Sediment Control Plans. Proper erosion and sediment control practice design, installation, and maintenance will substantially reduce the amount of off-site sedimentation caused by soil erosion, will help maintain wildlife habitat, and assist in the attainment and maintenance of stream, river and bay water quality standards.

## II. APPLICABLE REGULATIONS

A. As one of the agencies evaluating your Grading Permit Application in Calvert County, Calvert SCD's responsibilities are derived from the Natural Resources Article, Section 8-1101 through 8-1108, Annotated Code of Maryland. These guidelines are a supplement to and not a replacement for

1. 1994 Maryland Standards and Specifications for Erosion and Sediment Control (or its latest revision), published by the Maryland Department of the Environment (MDE);
2. Calvert County Erosion and Sediment Control Ordinance;
3. Calvert County Critical Area Ordinance.

### III. RESPONSIBILITIES

A. The District's review and approval responsibilities include:

1. Evaluation of your Erosion and Sediment Control Plan using the 1994 Standards and Specifications for Erosion and Sediment Control, or the latest revision, published by MDE (hereafter called the 1994 Standards); the Calvert County Erosion and Sediment Control Ordinance (hereafter called the Calvert County E&S Ordinance) and the appropriate Natural Resources Conservation Service Practice Standards and Specifications (hereafter called the NRCS Standards) found in the NRCS Field Office Technical Guide.
2. Ensuring that adequate erosion and sediment off-site control is provided from initial site disturbance through final site stabilization.
3. Ensuring that proposed activities in or around water or wetlands have all required state and federal permits or notice of non-jurisdiction.
4. Reviewing proposed minor earth moving activities and issuing grading exemptions when conditions apply.
5. There are two parts to a Grading Permit Application. They are the Grading Permit Application form, and the Erosion and Sediment Control Plan (E&S Plan). The E&S Plan consists of an E&S Checklist, a plan view of the site (hereafter called E&S Plan Sheet), and Support Information. This Guideline will address each of these items in detail.

B. Other agency review and approval responsibilities:

1. A signed Grading Permit Application, and stamped E&S Plan indicate the approval of the Erosion and Sediment Control Plan only. In addition, any storm water management (SWM) facility exceeding 10,000 cubic feet in storage capacity or three feet in dam height, requires a separate NRCS review and approval.

2. In Calvert County the Department of Public Works (hereafter called DPW) reviews and approves storm water management systems. NRCS reviews and approves SWM pond designs per the 378 Pond Standards. Storm water management facility approval letters are sent to DPW, with a copy to the submitter.

1. Erosion and Sediment Control Plan approval is valid for two years. Review the Calvert County E&S Ordinance for details.

#### IV. GENERAL INFORMATION

A. Land Grading: All land grading activities will conform to the 1994 Standards, Section

F-19-1 Land Grading, and Section G-21-1 Topsoiling. You are required to preserve topsoil and limit disturbance (through phasing) whenever possible. Total site erosion and sediment control (E&S) is required for all phases of construction. You may have to install a separate series of E&S controls for each phase. This office will not accept an E&S Plan that does not adequately address erosion and sediment control from initial disturbance through final site stabilization.

B. Calvert SCD Check sheet: Include a copy of the Calvert SCD Check sheet with every E&S Plan, including single lots. Use this sheet to ensure you have submitted a complete E&S Plan. Make sure all appropriate items are checked and that the Check sheet is signed by the engineer or land surveyor.

C. Agency Approvals/Stamps: Approval stamps from Planning and Zoning (hereafter called P&Z) and DPW must show on each E&S Plan Sheet. All revisions requested by P&Z and DPW must be made, and agency approvals given, before the Calvert SCD review will take place. The P&Z and DPW approval stamps must be on the copy submitted for Calvert SCD review. The towns of Chesapeake Beach and North Beach have special review authority. Reviews from these towns will be handled on a case-by-case basis.

D. Commercial/Industrial Plans, Road Plans, and Subdivision Plans: Submit one paper copy for review. Once the E&S Plan has been approved, you will bring the mylars in for stamping. The mylars must have the P&Z and DPW approval stamps and signed certification statements or it will be returned. Submit the Grading Permit Application form with the mylars. We will not stamp the mylars without the grading Permit Application form. Provide a 2"x2" space near the certification statements, and on each E&S Plan

Sheet for the SCD approval stamps. After Calvert SCD approval, this office requires two copies of your E&S Plan, with all agency approval stamps and signatures clearly visible. Approval dates must be readable on both copies. Calvert SCD approval of an E&S Plan indicates that all county regulations have been met for the E&S Plan only. No other permits or approvals are given or implied.

E. Planning and Zoning Stamp: This indicates that the project has been reviewed and approved by the Department of Planning and Zoning for meeting county ordinances and regulations, including Critical Area.

F. Public Works Approval Stamp: This indicates that the project has been reviewed and approved by the Department of Public Works and meets county regulations, including storm water management.

G. Multiple E&S Plan Sheets: When a project area spans three or more E&S Plan Sheets, reference on an overall plan showing the entire limit of work (LOW), the relationship between phases, and all match lines. The scale may not exceed 1 inch = 50 feet. There may be exceptions to this rule for extremely long roads or rights-of-way. Permission to use a different scale will be given on a case-by-case basis after concurrence by all reviewing agencies.

H. Utilities: Locate all known utilities within the LOW on each plan sheet. Notification of utility companies should occur at least 48 hours prior to construction by calling “Miss Utility” at (800) 257-7777. We recommend (not require) that this action be included as part of the Sequence of Construction.

I. Single Lots: For minor revisions to E&S Plans for single lots, the engineering firm has the option of having Calvert SCD redline the plans. The engineering firm is required to send a letter, on their letterhead, giving Calvert SCD permission to make minor revisions. This courtesy is given in order to expedite the permit process.

J. Not Approved (Rejected) Plans: Plans (except single lots) that are returned for additional information or correction must be re-submitted with a point-by-point narrative of the initial problem, and the action taken to correct it. This may be waived by the Calvert SCD representative upon review on a case-by-case basis.

K. Revisions: Plans that are approved and then altered have voided that approval. These plans must be re-submitted for review and reapproval based on the current standards and specifications. The Revisions Table in the Title Block must indicate the change(s). Changes (such as those described in Section V-C, Field Changes) need review and reapproval from all county departments and agencies before re-submitting to Calvert SCD.

L. Forest Harvest Plans: Forest Harvest Plans are not covered in this Guideline. They are handled on a case-by-case basis. Harvest operations that exceed 5,000 square feet of disturbance must have a Forest Harvest Plan and an E&S Plan. E&S Plans are approved by Calvert SCD once the Forest Harvest Plan has been approved by the Maryland Department of Natural Resources (hereafter DNR) forester. Contact Calvert SCD or the DNR forester for details.

M. Shoreline Protection Projects: These projects will not be reviewed unless all required state and federal permits have been received. Copies must be included with the E&S Plan. These permits usually include an Army Corps of Engineers 404 Permit and State 401 Water Quality Certification, or a Letter of Non-jurisdiction. A copy of the Permit/Letter are included as part of your Grading Permit Application when erosion and sediment control is required.

N. Retaining Walls: Whenever retaining walls are used, a detailed cross section (to scale) is required showing how the wall will be backfilled (both sides). Also, indicate on the E&S Plan Sheet(s) how the backfill will blend into existing ground. When a retaining wall is 3 feet or greater in height, an Engineering Certification (see Section VI-E) is required on the grading permit application per Project Management of Calvert County.

O. Grading: Mowed grades will not exceed 3:1. Unmowed grades may not exceed 2:1. Grades greater than 3:1, with slope lengths over 50 feet, require erosion and sediment control matting. Slopes exceeding 4:1 with a north or northwest aspect or a shaded east aspect, require erosion control matting. (There are special circumstances that allow exceptions to this standard.)

P. Tree Planting: Areas planted to trees need “temporary” stabilization for at least the first 6 years of seedling growth. A permanent grass sod is the only acceptable temporary seeding. Mowing is required to suppress competition for light until seedlings reach 3 feet in height. Fertilizer and lime are not recommended after the initial seeding.

Q. Permanent Structures: Permanent Structures such as pipes, culverts, storm drains, and curb openings must have outlet protection. The type of protection (rock, matting, sod), design criteria, design cross section(s), and calculations are part of the E&S Plan.

R. Other Considerations: Preserve existing natural drainage patterns and vegetative cover whenever possible. When an area must be disturbed, avoid clearing and grading as long as possible. Use temporary vegetation and mulch to protect exposed areas during development. Install permanent vegetation as soon as practical.

## V. FIELD CHANGES

A. Minor Field Modifications: When site conditions or other factors make it impossible or extremely difficult to follow the approved E&S Plan, approval by Calvert SCD is required before any alteration is made. Field changes will not be approved “after the fact.” Each requested change must be evaluated on its own merit to ensure it meets state and county standards. Any deviation from the approved plan without first having it “redlined” (field approved) by Calvert SCD, may be interpreted by inspectors as noncompliance. Field changes are typically approved when an existing sediment control structure is not working, field topography does not match the design or continued use of a specific structure interferes with building construction. Certain types of field changes are considered minor. These changes can be approved by the county/state inspector on site. Minor changes are defined through agreement between Calvert SCD and the inspecting agency. The inspector can, at any time, defer to Calvert SCD.

The following minor modifications to Calvert SCD-approved E&S Plans are authorized without prior consultation with the District Conservationist, District Manager, or their designee. Changes not specifically covered by this list are considered major in nature and may be made only after consultation and approval by the District Conservationist, District Manager or their designee.

1. Increasing or decreasing the amount of silt fence or straw bale dike by 30 percent of the original length, not to exceed 250 feet. When silt fence/straw bale dike lengths are increased, the addition may not be used to intercept concentrated flows or as a substitution for a non-equivalent practice, such as perimeter dikes/swales.
2. The relocation of approved sediment control measures (including silt fence, straw bale dikes, and perimeter dikes/swales) to better meet field conditions, provided the changes do not increase the limit of work or the drainage area.
3. The relocation of sediment traps to meet field conditions, provided the drainage area is not increased.
4. Changes in sediment trap dimensions to meet field conditions, provided the total storage volume and trapping efficiency is not reduced.

B. Field modifications that require Calvert SCD review and approval before action is taken (Redline Modification):

1. Substitution of a practice for another when that substitution is not an equivalent practice;
2. Relocation of a sediment trap that alters the original drainage area;
3. Changes in the order of practice installation or the sequence of construction;
4. Minor extensions to the limit of work (LOW) beyond the approved area.

C. Modifications that require re-review by all agencies:

1. Modifications that are within the critical area.
2. Modifications that are within a wetland area, buffer or other sensitive area.
3. Modifications that will increase the limit of work.
4. Modifications that will alter an approved SWM system.
5. Modifications that will change a building location.
6. Modifications that encroach on a setback.
7. Modifications that will reduce the size of a parking area.
8. Modifications that will affect other county ordinances or regulations.
9. Calvert SCD will not approve the revision until it has been reviewed and approved by the appropriate departments and agencies.

## VI. GRADING PERMIT APPLICATION FORM

A. Owner Block: The name, address, and telephone number should be printed or typed.

B. Job Location Block: Indicate where the work will take place, using either an address or location description from the Courthouse to the site.

C. Contractor Block: Supply requested information (optional).

D. Type of Construction/Development: The description of work and area affected (Lot numbers) on the application must agree with the activities and limit of work on the Erosion and Sediment Control Plan.

E. Registered Engineer/Professional Land Surveyor Certification: The Registered Engineer/Professional Land Surveyor's name (printed or typed), license number, and signature. The Engineer/Surveyor signature is required on all commercial, industrial, subdivision, and single lot applications and on large grading plans. All other plans will be reviewed on a case-by-case basis.

F. Owner/Authorized Agent Certification: Provide signature over printed or typed name, date, and phone number of Owner/Agent. If not the owner's signature and name (shown in Owner's Block), include the individual's title and affiliation.

## VII. EROSION AND SEDIMENT PLAN SHEET REQUIREMENTS

A. Title Block: Project name, title of sheet, sheet number, date, name and address of engineering firm, stamp of registered engineer/professional land surveyor, scale, and Table of Revisions. The Table of Revisions should include a general description of the revision, date revised, and initials of the responsible individual.

B. Location Map of Project: Location Map must be shown in such a way that it can be easily found for inspection. Map scale should not exceed 1:25000 (USGS Quad base). Single lots and pools are exempt from this item.

C. North Arrow: A north arrow will be on every E&S Plan Sheet.

D. Scale: The plat scale will not exceed 1 inch = 50 feet (reference 1994 Standards, page XVII). An E&S Plan scale greater than 1 inch = 50 feet will not be accepted. We recognize that compliance with this rule, and having to show property boundaries and general drainage patterns may prohibit the use of 8.5 inch x 14 inch paper. In order to meet regulations and maintain the current plat size, the following procedure will be used: One 8.5 inch x 14 inch sheet at 1 inch = 100 feet scale showing the entire lot, including general drainage patterns, property boundaries, proposed house/driveway location, septic fields and other pertinent information. A second 8.5 inch x 14 inch sheet on a 1 inch = 50 feet scale showing the LOW area and E&S Plan. If the LOW and E&S Plan will not fit on an 8.5 inch x 14 inch sheet at 1 inch = 50 feet, a larger sheet must be used. The 1 inch = 50 feet scale is still in effect.

E. Legend or Symbol Key: A Legend or Symbol Key based on the 1994 Standards, page VIII. In addition, the following symbols used by local firms are acceptable:

Straw Bale Dike o o o o o o o o o o o o o o o o

Silt Fence n n n n n n n n n n n n n n n n

Earth/Dike, Perimeter Dike/Swale è è è è è è

Limit of Work (LOW) . . . . . — LOW — LOW — LOD — LOD —

-S -S -S -

Silt Fence w/Straw Bale Back n n n OR — n — n — n —

## Super Silt Fence - SSF -

F. Limit of Disturbance (LOD) or Work (LOW): All land disturbance must remain within existing property boundaries, unless written permission exists to allow activity outside this boundary. A copy of that permission must be included. All plats must show complete LOD around project.

G. Utility Installation in Rights-of-Way: Utility installation in rights-of-way is normally done where the installation of erosion and sediment control measures is difficult to install and the potential off-site impact minimal. In these cases it is acceptable to include the statement below in lieu of “normal” erosion and sediment control measures, detail notes, and LOWs. NOTE: this applies only to the installation of underground utilities by trenching or aboveground utilities via periodic pole placement or replacement.

“All trenches or holes created for utility installation shall be backfilled, compacted, and stabilized at the end of each working day. Excavated trench material shall be placed on the high side of the trench or hole. No trench/hole shall be opened more than can be stabilized the same day. If an area must be left unstabilized overnight, silt fence will be placed immediately downhill of all disturbed areas and stockpiles, and appropriate safety measures will be installed as required.

When working in or around wetlands, buffers, or other sensitive areas, appropriate erosion and sediment control will be installed and approved prior to land disturbance. The type and amount of E&S controls will be determined by the inspecting official based on the site. Conflicts and questions will be directed to the Calvert SCD representatives for a final determination.”

H. Existing/Proposed Contours: Show existing and proposed contours at a two foot contour interval. Both existing and proposed contours must be shown on the same sheet. Any plan submitted in phases, where rough grading is phase one and final grading/building construction is phase two, must show the finished grade of phase one as the existing grade of phase two.

Show existing contours as dashed lines. Show at least three contours on the plat. Extend contours far enough beyond the LOW to indicate general drainage patterns. Flat sites may use spot elevations in lieu of contour lines to indicate existing conditions. Show enough spot elevations to easily determine the general drainage pattern. Proposed contours must be shown as solid lines. Blend all contours into

original ground within the LOW. This includes road plans. Cross sections at specified intervals are not to be used as a substitute.

I. Soils Information: All soils within the project area must be identified. A soils table should be included. See example below. Also, provide a map showing the relationship between the project area and its soils. This map may take one of two forms: (1) Show Project area on a Calvert County Soil Survey Report soils sheet where the LOW is three or more acres, and overlay constructed items such as roads, buildings, or storm water management facilities. (2) Draw and label the soil boundaries on the Site Plan or E&S Plan Sheet(s). Single lots, regardless of size, must identify the soils. The following Soils Table can be used for single lots:

#### SOILS TABLE

Soil Survey Sheet	Soil Map Symbol	Soil Name	Hydric Soil (Y/N)	Includes Slopes > 15% (Y/N)
27 My	Mixed Alluvial Land	Y	N	
27 MtA	Mattapex FSL	N	N	
27 ErE	Eroded Land, Steep	N	Y	

J. Erosion and Sediment Control Practices: Practices must meet the site conditions and design specifications outlined in the 1994 Standards. All E&S practices must be placed within or along the LOW. Any area within the LOW that remains undisturbed must be protected.

Where E&S practices such as silt fence, straw bales, and perimeter dike/swales are placed along the LOW, it is recommended that you use the practice symbol to indicate both the location of the practice and the LOW. This would make it easier for the contractor and inspector to read and understand the plan. The most common erosion control practices are listed below:

#### 1. Stabilized Construction Entrance (SCE) - 1994 Standards, Section F-17-1:

A stabilization construction entrance protects all points of construction ingress and egress and prevents the deposition of materials onto public roads. All materials

deposited onto public roads shall be removed immediately. An SCE must be shown for all construction sites, including single lots.

2. Silt Fence (SF) - 1994 Standards, Section E-15-1: Silt fence is used for sheet flow control only and is to be placed along or parallel to the contour. Silt Fence cannot be used to direct flow or to divert flow to a sediment trap or basin or in lieu of a sediment trap.

3. Dike/Swale (D/S) - 1994 Standards, Section A-3-1: A dike/swales should maintain positive drainage. The drainage area (DA) is based on the total DA at the point of discharge. Use only to divert flows to a sediment trap/basin or to keep “clean” water off-site. When the DA is less than two acres, use a dike/swales.

4. Earth Dike Standard (E/D) - 1994 Standards, Section A-1-1: When the DA is greater than ten acres, use the Temporary Storm Drain Diversion (1994 Standards, Section A (A-4-1)). These three practices do not stand alone. When transporting “dirty” water, they must be used in conjunction with a sediment trap/basin or stone outlet structure. When used to divert “clean” water, the entire drainage area intercepted by the practice must be shown with suitable outlet protection. The design will be supported by the drainage area calculations included with the plan. The outlet protection must be adequate to handle the flows for a ten-year storm. As an alternative, you may show the drainage area on a separate drainage area sheet instead of on the E&S Plan Sheet(s). The scale of this DA sheet cannot exceed 1 inch =100 feet.

5. Sediment Traps and Sediment Basins - 1994 Standards, Section C-10-1: Must be located at least 20 feet from an existing or proposed building foundation. Trap depth dimensions are relative to the outlet elevation. All traps must have a stable outfall. All traps and basins shall have stable inflow points.

a. Sediment removed from traps and basins shall be placed and stabilized in approved areas, but not within a flood plain, wetland, or tree-save area. When pumping sediment-laden water, the discharge must be directed to a sediment trapping device prior to release from the site. A sump pit (1994 Standards, Section D-13-1) may be used if sediment traps themselves are being pumped out.

b. Important Note: Where deemed appropriate by the engineer or inspector, sediment basins and traps may need an approved safety fence. The fence must conform to local ordinances and regulations. The developer or owner shall check with local building officials on applicable safety requirements. Where safety fence is deemed appropriate and local ordinances do not specify fencing sizes and types, the following shall be used as a minimum standard: The safety fence must be made of welded wire, be at least 42 inches high, have posts spaced no farther than 8 feet apart, have mesh openings no greater than 2 inches in width and 4 inches in height, with a minimum of

14 gauge wire. The safety fence must be maintained and in good condition at all times.

c. Each trap/basin will have a unique identification number or name. The total drainage area for each trap will be shown on the plat. Each trap will have a "Table of Calculations" located on the same sheet as the trap or a "Trap Information Table" for all traps is acceptable. SWM ponds used for E&S control during construction must be uniquely identified and must have the same information provided as any sediment trap/basin. SWM pond design must meet the appropriate sediment trap/basin standards and be noted on the sequence of construction when the sediment trap is to be removed and converted into a SWM pond. The hydrology and supporting design information is also required. An example "Table of Calculations" is given below:

#### Table of Calculations

Sediment Trap/Basin Number or Name \_\_\_\_\_

Trap Type \_\_\_\_\_

Drainage Area \_\_\_\_\_ ac.

Required Storage \_\_\_\_\_ cu. ft.

Designed Capacity\* \_\_\_\_\_ cu. ft.

Top Dimensions (LxW) \_\_\_\_\_ ft. x \_\_\_\_\_ ft.

Bottom Dimensions (LxW) \_\_\_\_\_ ft. x \_\_\_\_\_ ft.

Depth \_\_\_\_\_ ft.

Side Slope\*\* \_\_\_\_\_

Top Elevation \_\_\_\_\_

Bottom Elevation \_\_\_\_\_

Clean out Elevation \_\_\_\_\_

Weir Size (Length) \_\_\_\_\_ ft.

\*Trap size must meet or exceed the volume calculated using the formula below:

$$\frac{[(\text{area of top}) + (4) (\text{area of middle}) + (\text{area of bottom})] \times \text{Depth}}{6}$$

6

\*\*1994 Standards specify that side slopes will not be steeper than 2:1. Some soils may require side slopes less than 2:1 for stability.

6. Stone Outlet Structure (SOS) - 1994 Standards, Section C-11-1: The stone outlet structures are to be used in conjunction with Earth/Dikes, Perimeter Dike/Sw ale or constructed ditches. Two can be used for a total of one acre of DA. They would be placed one on each side of the point of discharge in such a way that they are not side by side. The DA for each SOS will be placed on the E&S Plan.

7. Proposed Stockpile Area(s): Show location in relation to grading activities and indicate access route. Show required erosion and sediment controls for both the stockpile area and access route. Indicate the nature of the stockpiled material (topsoil, clay, vegetation). Final topography and the stabilization procedure of the stockpile area is required.

8. Borrow Area(s): Show location in relation to grading activities and indicate access route. Show required erosion and sediment controls for both the borrow area and access route. Indicate the nature of the borrow material (topsoil, clay, vegetation). Final topography and the stabilization procedure of the borrow area is required.

9. Wetland Areas: Must be identified on each E&S Plan Sheet. These areas include tidal and non tidal wetlands, open water, buffer areas, and 100-year flood plains. For single lots only, this identification consists of known or potential wetland areas (blue-line and intermittent streams marshes and hydric soils). Known sensitive areas, as defined in the Calvert County Critical Area and Zoning Ordinances, should also be identified. See Wetland Area Boundary and Buffer OR Negative Wetland Area Statement below for more information. Other county, state or federal agencies may require more detailed information or studies.

10. Wetland Area Boundary & Buffer OR Negative Wetland Area: There are three categories for wetlands on a proposed site:

- a. they or their buffers occur within the LOW;
- b. they or their buffers do not occur within the LOW, but are located within 50 feet of the LOW;
- c. there are no wetland areas in or around the site.

## VIII. SUPPORTING INFORMATION

We recommend that the following minimum information be included as part of your E&S Plan.

### A. Erosion and Sediment Control Notes:

1. Use the paragraph that applies:

- a. For single lots: The contractor shall contact the County Department of Public Works, Project Management and Inspections Division, Courthouse, Prince Frederick, Maryland 20678. (410) 535-2155, at least 48 hours prior to the beginning of construction.

b. For all other sites: The contractor shall contact the Maryland Department of the Environment (MDE), Sediment and Storm water Compliance Program, 2500 Broening Highway, Baltimore, Maryland 21224 at (410) 631-3510 at least 48 hours prior to beginning construction.

2. All vegetative and structural practices shown on this plan will be installed according to the provisions, standards, and specification found in the 1994 Standards, Section G, or its latest revision.

3. Seedbed Preparation: Apply 100 lbs. per 1,000 sq. ft. of pulverized dolomitic limestone, and 15 lbs. per 1,000 sq. ft. of 10-10-10 or equivalent fertilizer. Harrow or disc according to the 1994 Standards, Section G.

4. Seeding: Use Kentucky 31 Tall Fescue at the rate of 5 to 7 lbs. per 1,000 sq. ft. on a moist seedbed, 1/4 inch minimum coverage. Stabilize by mulching with unweathered, unchopped, small grain straw, spread at the rate of 2 tons per acre. Mulch to be anchored by asphalt tie-down method. Permanent seeding is to be done only between March 1 and May 15, or August 15 and October 15. Temporary seeding is to be done upon completion of construction, until a permanent seeding can be accomplished (1994 Standards, Section G). An equivalent seed mixture, rate, or preparation is acceptable if it provides the same or better site stabilization as the seeding recommendation above. Calvert SCD reserves the right to reject any seeding mixture, rate, or site preparation not listed in the 1994 Standards that is not believed to provide adequate site protection.

5. Sodding: Class of turfgrass sod shall be Maryland Virginia state certified approved. Sod shall be transplanted within 36 hours of harvesting. Each strip of sod is to be placed with long edges parallel to contours and rolled and tamped, pegged, or otherwise secured (1994 Standards, Section G-20-10).

6. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within seven calendar days to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and fourteen days for all other disturbed or graded areas on the project site.

These requirements do not apply to those areas on which actual construction activities are currently being performed, or to interior areas of a surface mine site where the stabilization material would contaminate the recoverable resource. Maintenance of erosion and sediment control practices and devices shall be performed as necessary to ensure that the disturbed areas continuously meet the appropriate requirements of the

1994 Standards or its latest revision, and that runoff from these areas does not adversely impact downstream properties.

7. If conditions warrant, and with the engineer's approval, additional measures may be employed as construction proceeds, to ensure effective erosion and sediment control on site.

8. The developer is responsible for the acquisition of all required easements and/or rights-of-way pursuant to the discharge from the sediment and erosion control practices, stormwater management practices, and the discharge of stormwater onto or across adjacent or downstream properties affected by this plan (also for grading or other work).

9. The contractor is required to protect all points of construction ingress and egress to prevent the deposition of materials onto public roads. All materials deposited onto public roads shall be removed immediately.

10. The contractor will inspect all erosion and sediment control practices and devices after each storm event and maintain them in an effective operating condition until such time as they are removed as part of the normal sequence of construction, and after permission from the inspecting agency representative.

#### B. Detail Sheet:

Provide a detail sheet for each erosion and sediment control practice used in your E&S

Plan. These sheets provide the information for proper installation of the practice, sizes, and other pertinent information. E&S practice detail sheets are located in the 1994 Standards.

Note: Some firms like to reduce these detail sheet(s) and place them on one large sheet. This is acceptable provided the information is readable. If the reviewer cannot read the detail sheets, the plan will not be approved.

#### C. Sequence of Construction:

The sequence of construction includes the sequence of practice installation, the time required to complete each item, who (and when) to call before grading activities begin, and the need for inspection/approval by the enforcing agency before practices are removed. The Sequence should indicate all phasing of land disturbance activities. When E&S controls must be removed as part of the phasing process, the Sequence

must include the creation of new controls before the destruction of existing practices. Each phase should be identified by name or number and relate directly to a specific, easily identifiable area on each plan sheet.

1. The first four items of the Sequence should be:

a. Clear only where necessary to install required erosion and sediment control practices. (\_\_\_\_\_ days)

b. Installation of the erosion and sediment control practices where indicated on this approved Erosion and Sediment Control Plan. ( \_\_\_\_\_ days)

c. Contact the appropriate inspecting agency. See Erosion and Sediment Control Note #1 for the appropriate agency and telephone number. No further clearing, grading, or other land disturbance is permitted until the inspecting agency certifies that all required erosion and sediment controls are properly installed according to the relevant construction Standard. All other building or grading inspection approvals may not be authorized until the initial approval by the inspecting agency is given. (2 days)

d. Sediment control practices will be maintained according to the 1994 Standards and county regulations until the entire site is stabilized and inspected, and final approval is given by the appropriate state/county department. (\_\_\_\_\_ days)

2. The last two items in the Sequence should be:

a. Request agency approval for the removal of erosion and sediment control practices/devices.

b. Removal of erosion and sediment control practices. Stabilize where necessary. (\_\_\_\_\_ days)

**Owner/Developer Certification Statement:**

I here by certify that I have reviewed this erosion and sediment control plan and that all clearing, grading, construction, and/or development will be done pursuant to this approved plan and that responsible personnel involved in the construction project will have a Certificate of Training from an approved Department of the Environment training program for the control of sediment and erosion (green card) before beginning the project.

Signature Date

Owner/Developer Name Date  
(typed or printed)

Registered Engineer/Professional Land Surveyor Certification Statement:

I hereby certify that this plan of erosion and sediment control meets the requirements, standards, and specifications of the Calvert County Soil Conservation District, appropriate Calvert County Ordinances, and the 1994 Maryland Standards and Specifications for Erosion and Sediment Control, or its latest revision.

Signature Date

Registered Engineer/Prof. Date  
Land Surveyor  
(typed or printed)

(SEAL)

E. Sediment Control Quantity Table:

The following items should be included in the Table: Total project area, total disturbed area, total area paved, total area seeded and mulched, total number of sediment traps/basins, total length of silt fence, total length of straw bale dike (ft.), total length of perimeter dike/swale (ft.), total cut (cu. yds.), and total fill (cu. yds.). When cut and fill are not balanced, note what will happen to the excess or where the additional fill is coming from and its "condition." Single lots are exempt from this requirement. When appropriate, include any other erosion control measures in the Table, such as matting (i.e. curlex) or sodding. See example below:

Sediment Control Quantity Table

Total Project Area sq. ft. or ac.

Total Disturbed Area sq. ft. or ac.

Total Area to be Seeded and Mulched sq. ft. or ac.

Total Number of Sediment Traps/Basins sq. ft. or ac.

Total Length of Silt Fence ft.  
Total Length of Perimeter Dike/Swale ft.

Earth Quantities\*

Total Cut cu. ft./cu. yds.

Total Fill cu. ft./cu. yds.

Excess Cut/Fill cu. ft./cu. yds.

\*Not Required for Single Lots or Swimming Pools