



CENTRE COUNTY CONSERVATION DISTRICT
Erosion and Sediment Control Plan
For Earth Disturbances Less Than One (1) Acre

This form is a tool provided for Applicants as a blueprint for which a proposed earth disturbance project can meet Chapter 102 Erosion and Sedimentation Control throughout the proposed earthmoving activities. Applicability and inclusiveness of this form relative to individual proposed projects may vary.

***1. Is the proposed project the following:** Home construction Commercial
 Soil Waste Area/Borrow Area Other: _____

***2. Is the proposed project subject to Land Development approval through the County’s Planning Office and/or your municipality?** Yes No

***3. Total estimated disturbed area in square feet or fractions of an acre:** _____

***4. Over the life of your project, will the total area to be disturbed area equal or be greater than one (1) acre (43,560 square feet)?** Yes No

NOTE: If “Yes”, you may need a NPDES permit and should contact the Conservation District to discuss your project.

Applicant Name: _____ Municipality: _____

Applicant Address: _____ Disturbed Area (sqft): _____

Phone Number: _____ Contractor, if known: _____

Site Owner: _____ Plan preparer: _____

Owner Address: _____ Address: _____

Phone Number: _____ Phone Number: _____

I. Site Description:

Include a sketch map or plan drawing of the site. USGS topographic maps indicating the quad are acceptable. The map should include: north arrow, significant landscape features, streams, and an outline of the project area. Proposed Erosion and Sedimentation controls should be shown and clearly labeled and include the size of the E&S control to be used. Proposed earthwork should be included in an area noted as “Limit of Disturbance” and should encompass all areas on the project site where earth will be disturbed. This “LOD” size should correspond with #3 in the section above. A short written description of the proposed project and corresponding earthwork should be included.

II. Soils Information:

Contained in the Centre County Soil Survey. The USDA soil survey website allows you to create soils maps for your project at: websoilsurvey.nrcs.usda.gov/app/HomePage.htm. A copy of the soils map must be included with the submission.

Soil Symbols: _____

Name(s) of the soils: _____

Are there sinkholes or closed depressions on site or within the proposed disturbed area? Yes No

Does the site have: Poor drainage Surface Stones/Exposed Bedrock High Water Table

III. Characteristics of Earth Disturbance Activity:

How has the site been used for the last 5 years? Agriculture Forest Barren
Other: _____

Have all necessary municipal approvals or requirements been obtained or otherwise met? Yes No
If no, provide status of any approvals/requirements needed: _____

Will soil be placed on site? Yes No Will soil be removed from the site? Yes No
Has the site been previously disturbed? If so, for what? _____

IV. Waters of the Commonwealth:

Are there streams or rivers near the project area? Yes No

If yes, name of nearest stream: _____

Approximate distance stream is from the disturbed limits of the project: _____

*If distance is 50' or less, a DEP permit is required.

Are there wetlands, swampy areas, springs, or wet areas within the proposed disturbed area? Yes No

Is the project located within the 100-year floodplain? Yes No (If yes, contact Municipality)

*FEMA maps are available at your local municipal office or online at: <https://msc.fema.gov/>

*Streams, wet areas, wetlands, and swampy areas must be shown on the plan drawing/sketch.

V. Erosion & Sediment Control Best Management Practices:

Temporary Controls*:

- | | |
|---|---|
| <input type="checkbox"/> Rock Construction Entrance | |
| <input type="checkbox"/> Silt Fence | <input type="checkbox"/> Erosion Control Blankets |
| <input type="checkbox"/> Silt Sock | <input type="checkbox"/> Rock Aprons |
| <input type="checkbox"/> Sediment Trap | <input type="checkbox"/> Pumped Water Filter Bag |
| <input type="checkbox"/> Seed and Mulch | <input type="checkbox"/> Others: _____ |
| <input type="checkbox"/> Waterbars | _____ |

*See Maintenance Program section

*All temporary controls should be installed as per the manufacturer and meet any minimum requirements from the DEP's Erosion and Sediment Pollution Control Program Manual, 2012 edition:

<http://www.centrecountypa.gov/index.aspx?nid=797> .

Permanent Controls:

- | | |
|--|---|
| <input type="checkbox"/> Seed and Mulch | <input type="checkbox"/> Landscaping (other than grass) |
| <input type="checkbox"/> Pavement | <input type="checkbox"/> Stone (aggregate) |
| <input type="checkbox"/> Ditches, Channels or Swales | <input type="checkbox"/> Stormwater Detention |

VI. Sequence of Construction:

The following is a general construction sequence – indicate below if the intent is to follow this general sequence or attach your own construction sequence to this form.

- (I) Install Rock Construction Entrance
- (II) Prior to earthmoving, install temporary E&S Control Best Management Practices (listed in Section V)
- (III) For soil waste or soil borrow areas – place or remove material
- (IV) Site Grading, including utility trenching, site pad and/or building construction
- (V) Installation or conversion of sediment BMP's to stormwater BMP's (if necessary)
- (VI) Permanent site stabilization and installation of permanent E&S Control Best Management Practices (listed in Section V)
- (VII) Remove temporary E&S control measures from step (II) once a uniform 70% perennial vegetative cover, stone base or pavement has been established over the entire disturbed area.

Yes, I intend to utilize this general Construction Sequence. No, I intend to utilize another Construction Sequence (your alternate Construction Sequence needs to be attached to this form).

VII. Supporting Calculations:

Certain proposed E&S controls require supporting calculations to show that the proposed items are correctly sized for their intended use. Attach supporting calculations for culvert sizing, sediment trap or basin design, ditch or channel or swale design, rock apron design, etc.

No supporting calculations are needed.

VIII. Maintenance Program

*Temporary E&S controls should be inspected at a minimum once a week and after every measureable rain event.

*Sediment should be removed from the devices when the device storage capacity has been reduced by 50%. This sediment should be placed in an upland area with downslope E&S controls, seeded and mulched.

*Disturbed areas that are to remain for more than 4 days need to implement temporary E&S control measures.

*Soil stockpiles should have downslope perimeter E&S controls (generally silt fence or silt sock) installed.

I have read and agree to the above Maintenance Program. I plan to implement the above Maintenance Program.

I do not plan to use the above Maintenance Program. I plan to utilize the attached, alternative Maintenance Program (your alternate Maintenance Program needs attached to this form).

Signed: _____ Date: _____

IX. Recycling and Disposal of Materials:

Any and all excess soil or rock material will be taken to a site that has been approved by the Centre County Conservation District. These sites must have appropriate E&S controls in place and operational. Any construction waste materials will be taken to a DEP approved landfill. Where possible, construction materials will be recycled.

I have read and agree to the above Recycling and Disposal of Materials above. I plan to implement the above program for this project.

I do not plan to use the above Recycling and Disposal program. I will use the following, which is attached to this form.

Signed: _____ Date: _____

X. Geologic or Soil Conditions:

Are there any naturally occurring geologic formations or soil conditions present that have the potential to cause pollution during the project? Yes No N/A

If yes, please list and explain how these geologic formations or soil conditions will be avoided or mitigated during this project: _____

XI. Thermal Impacts:

Please provide a statement how this project, through the use of BMP's or what additional steps are being taken to limit or minimize the potential of thermally impacting the nearest receiving waters.

Are there any additional permits or approvals needed for this project? Keep in mind that all necessary permits and approvals need to be secured prior to earthmoving commencing.

No

Yes – if yes, please list: _____

***NOTE:** This form must be submitted for review by the Centre County Conservation District prior to beginning any earth disturbance activity. The Conservation District or DEP may visit the site to gain a broader perspective of the proposed project site area. Dependent on a number of factors, including erosion hazards or permitting requirements, certain sites may not be feasible to be used as soil borrow or soil waste sites.

Certification:

As the Landowner Contractor Other; otherwise being the responsible party and assuming responsibility for implementing this Erosion and Sedimentation control plan and maintaining BMP's as described in this plan. This plan must be kept on site throughout the duration of the earthmoving activity and until permanent (final) stabilization has been achieved.

Responsible Party Signature: _____

Date: _____

Printed Name and Title: _____

If your E&S plan needs approval from the Centre County Conservation District as part of Land Development or another environmental permit, you should submit:

Two (2) copies of the completed Erosion & Sedimentation Control Plan

One (1) copy of the Review Application

Review payment as per Review Application

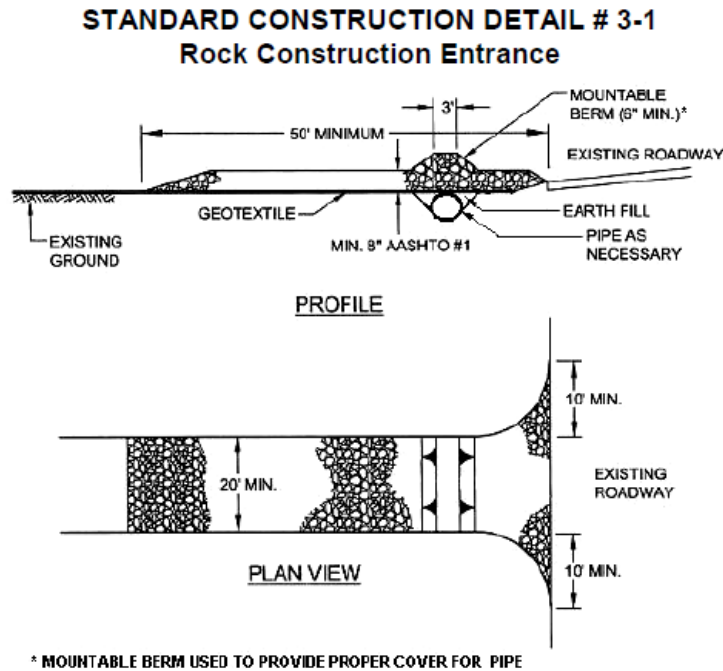
Make checks payable to "Centre County Conservation District"

Centre County Conservation District
414 Holmes Street, Suite 4
Bellefonte, PA 16823
(814) 355-6817

***NOTE: For your project, this E&S plan should be present on-site throughout all stages of construction.**

Common E&S BMP Standard Construction Details

*Additional Standard Construction Details can be found in the DEP's Erosion and Sediment Pollution Control Program Manual, 2012 edition at: <http://www.centrecountypa.gov/index.aspx?nid=797> .



Modified from Maryland DOE

Remove topsoil prior to installation of rock construction entrance. Extend rock over full width of entrance.

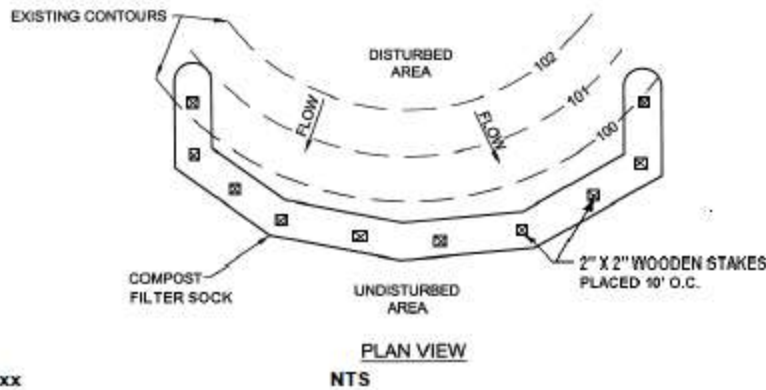
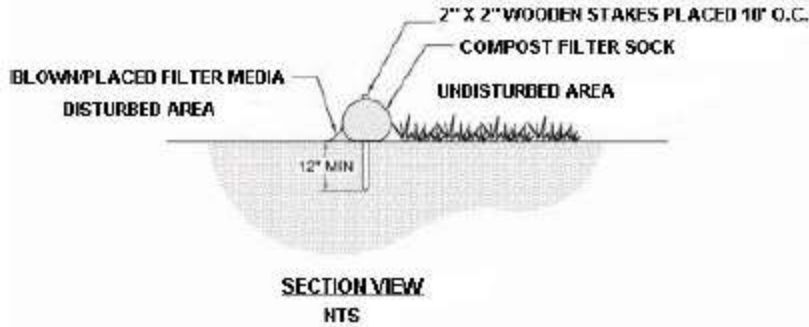
Runoff shall be diverted from roadway to a suitable sediment removal BMP prior to entering rock construction entrance.

Mountable berm shall be installed wherever optional culvert pipe is used and proper pipe cover as specified by manufacturer is not otherwise provided. Pipe shall be sized appropriately for size of ditch being crossed.

MAINTENANCE: Rock construction entrance thickness shall be constantly maintained to the specified dimensions by adding rock. A stockpile shall be maintained on site for this purpose. All sediment deposited on paved roadways shall be removed and returned to the construction site immediately. If excessive amounts of sediment are being deposited on roadway, extend length of rock construction entrance by 50 foot increments until condition is alleviated or install wash rack. Washing the roadway or sweeping the deposits into roadway ditches, sewers, culverts, or other drainage courses is not acceptable.

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**STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK**



Filtrexx

NTS

Sock fabric shall meet standards of Table 4.1. Compost shall meet the standards of Table 4.2.

Compost filter sock shall be placed at existing level grade. Both ends of the sock shall be extended at least 8 feet up slope at 45 degrees to the main sock alignment (Figure 4.1). Maximum slope length above any sock shall not exceed that shown on Figure 4.2. Stakes may be installed immediately downslope of the sock if so specified by the manufacturer.

Traffic shall not be permitted to cross filter socks.

Accumulated sediment shall be removed when it reaches half the aboveground height of the sock and disposed in the manner described elsewhere in the plan.

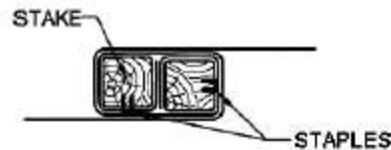
Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection.

Biodegradable filter socks shall be replaced after 6 months; photodegradable socks after 1 year. Polypropylene socks shall be replaced according to manufacturer's recommendations.

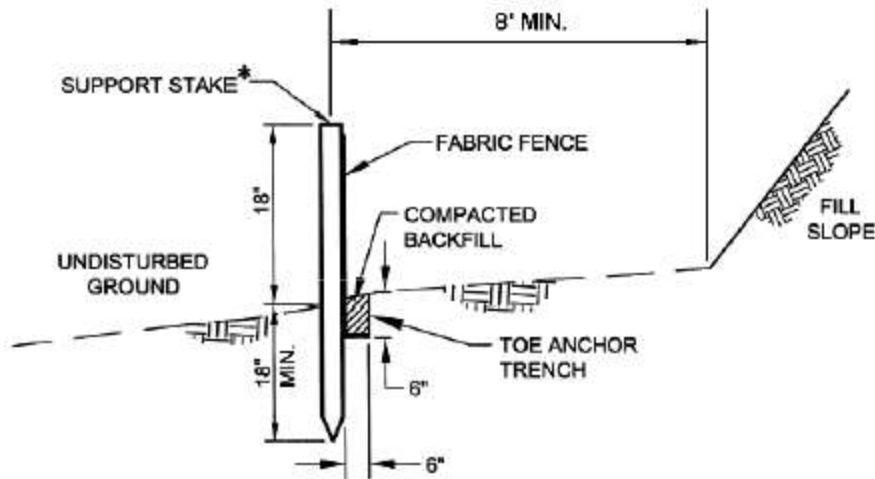
Upon stabilization of the area tributary to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed. In the latter case, the mesh shall be cut open and the mulch spread as a soil supplement.

STANDARD CONSTRUCTION DETAIL # 4-7
Standard Silt Fence (18" High)

*STAKES SPACED @ 8' MAX.
 USE 2" x 2" (± 3/8") WOOD
 OR EQUIVALENT STEEL
 (U OR T) STAKES



JOINING FENCE SECTIONS



ELEVATION VIEW

PA DEP

Fabric shall have the minimum properties as shown in Table 4.3.

Fabric width shall be 30" minimum. Stakes shall be hardwood or equivalent steel (U or T) stakes.

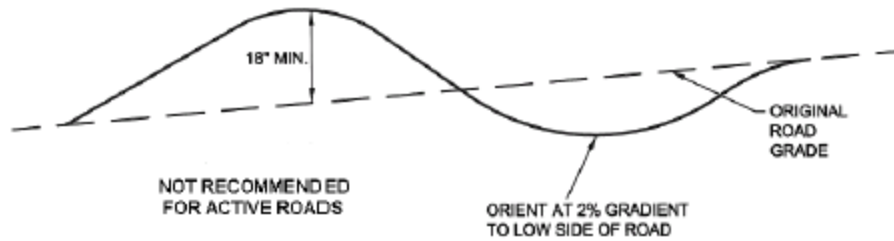
Silt fence shall be placed at level existing grade. Both ends of the fence shall be extended at least 8 feet up slope at 45 degrees to the main fence alignment (see Figure 4.1).

Sediment shall be removed when accumulations reach half the aboveground height of the fence.

Any section of silt fence which has been undermined or topped shall be immediately replaced with a rock filter outlet (Standard Construction Detail # 4-6).

Fence shall be removed and properly disposed of when tributary area is permanently stabilized.

**STANDARD CONSTRUCTION DETAIL #3-5
Waterbar**



Adapted from USDA Forest Service

Waterbars shall discharge to a stable area.

Waterbars shall be inspected weekly (daily on active roads) and after each runoff event. Damaged or eroded waterbars shall be restored to original dimensions within 24 hours of inspection.

Maintenance of waterbars shall be provided until roadway, skidtrail, or right-of-way has achieved permanent stabilization.

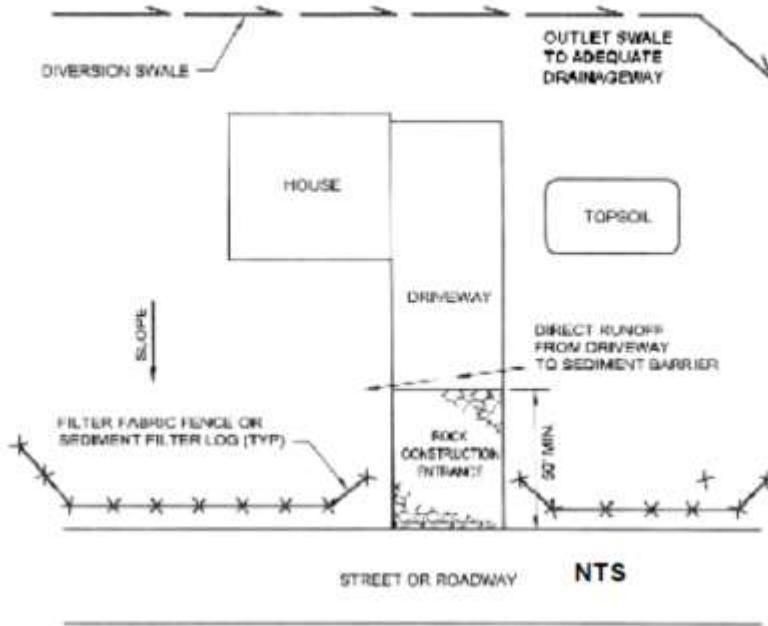
Waterbars on retired roadways, skidtrails, and right-of-ways shall be left in place after permanent stabilization has been achieved.

TABLE 3.1 – Maximum Waterbar Spacing

PERCENT SLOPE	SPACING (FT)
<5	250
5 - 15	150
15 - 30	100
> 30	50

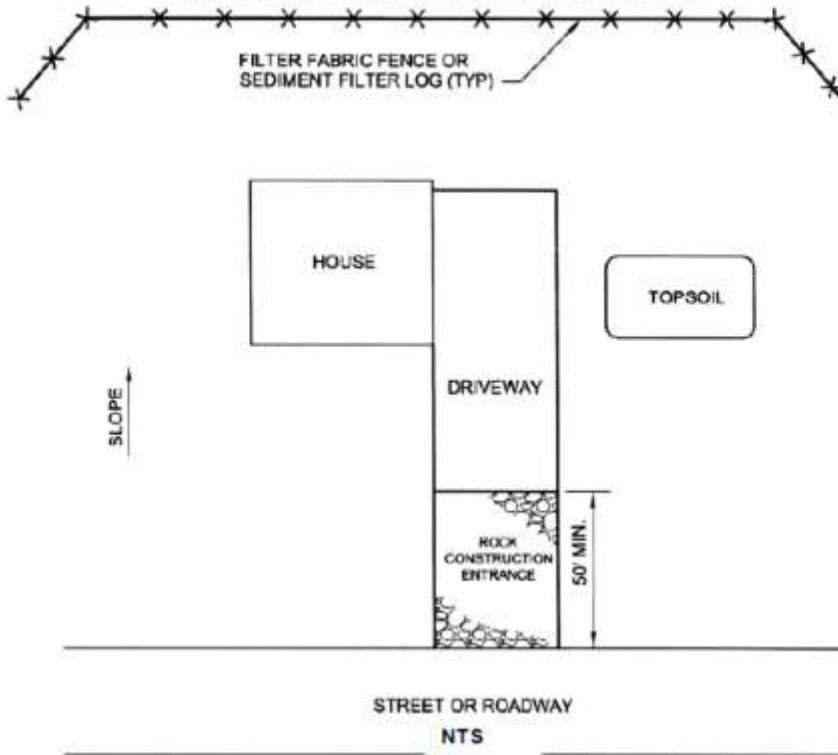
Adapted from USDA Forest Service

**STANDARD CONSTRUCTION DETAIL #10-1
Typical On-lot BMPs for Lot Above Roadway**



THE UPSLOPE DIVERSION CHANNEL SHOULD BE INSTALLED WHEREVER THE LOT EXTENDS MORE THAN 150 FEET ABOVE THE ROADWAY OR WHERE RUNOFF FROM AREAS ABOVE THE LOT IS NOT OTHERWISE DIVERTED AWAY FROM THE LOT. THE CHANNEL SHOULD BE PROPERLY SIZED AND PROVIDED WITH A SUITABLE PROTECTIVE LINING. THE DESIGNER MUST EXERCISE CAUTION TO PROTECT ALL DOWNSTREAM PROPERTY OWNERS WHEN SELECTING THE DISCHARGE POINT FOR THIS CHANNEL.

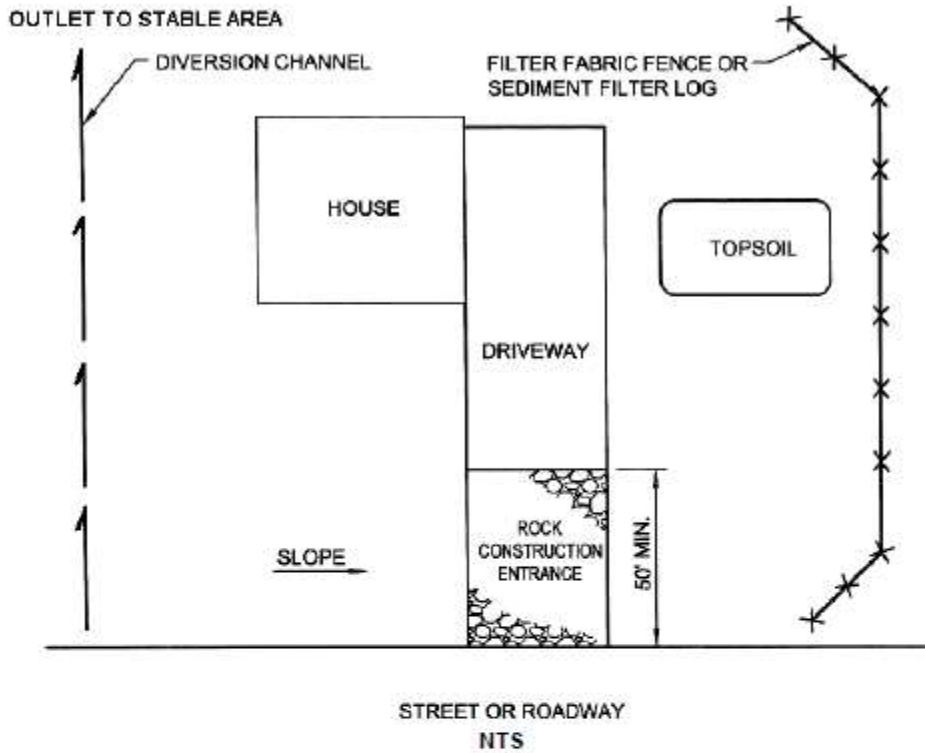
**STANDARD CONSTRUCTION DETAIL #10-2
Typical On-lot BMPs for Lot Below Roadway**



THE AREA DOWNSLOPE FROM THE FILTER FABRIC/SOCK MAY NOT BE UNDER DEVELOPMENT OR OTHERWISE DISTURBED.

Wherever the slope parallels the roadway, a layout as shown in Standard Construction Detail #10-3 should be used.

STANDARD CONSTRUCTION DETAIL #10-3
Typical On-lot BMPs for Lot Along Ascending or Descending Roadway



THE AREA DOWNSLOPE FROM THE FILTER FABRIC FENCE MAY NOT BE UNDER DEVELOPMENT OR OTHERWISE DISTURBED .

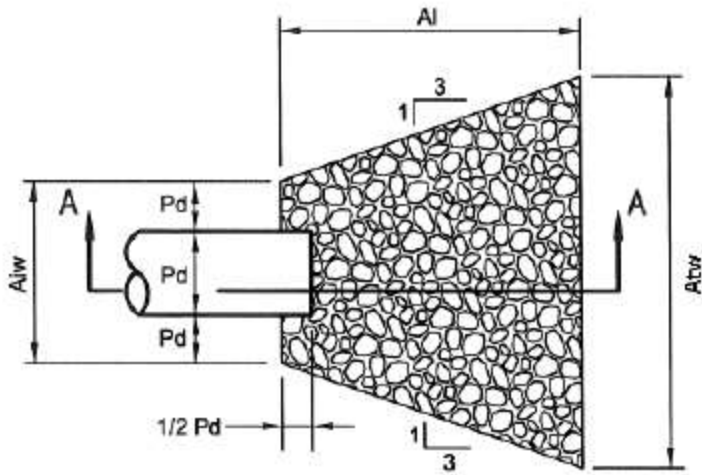
THE UPSLOPE DIVERSION CHANNEL SHOULD BE INSTALLED WHEREVER RUNOFF FROM AREAS ABOVE THE LOT IS NOT OTHERWISE DIVERTED AWAY FROM THE LOT. THE CHANNEL SHOULD BE PROPERLY SIZED AND PROVIDED WITH A SUITABLE PROTECTIVE LINING.

PA DEP

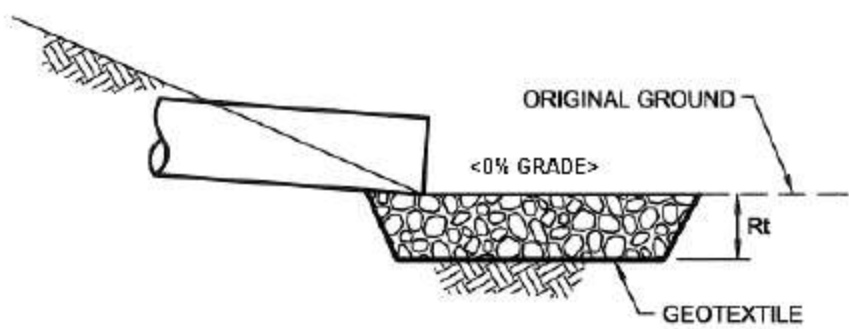
In areas where slope is at an oblique angle to the roadway, BMPs shall be adjusted accordingly.

Diversion channel may outlet to roadside ditch or storm sewer system, but not onto street or roadway.

**STANDARD CONSTRUCTION DETAIL # 9-2
Riprap Apron at Pipe Outlet without Flared Endwall**



PLAN VIEW



SECTION A - A

Adapted from USDOT, FHA HEC-14

NOTE: This table is intentionally blank and should be filled in by the plan preparer.

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		LENGTH Al (FT)	APRON	
		SIZE (R-)	THICK. Rt (IN)		INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)

All aprons shall be constructed to the dimensions shown. Terminal widths shall be adjusted as necessary to match receiving channels.

All aprons shall be inspected at least weekly and after each runoff event. Displaced riprap within the apron shall be replaced immediately.

Extend riprap on back side of apron to at least 1/2 depth of pipe on both sides to prevent scour around the pipe.



Legend:

Rock Construction Entrance (RCE)

Silt Sock -----SS-----

Silt Fence -----SF-----

Limit of Disturbance -----LOD-----

Stream/Swale

Culvert

