

CHAPTER 10 - LOW HAZARD INDIVIDUAL LOT E&S PLAN



York County Conservation District

Low hazard sites are those with limited disturbance (< 1 acre), slopes of 5% or less, and at a distance of 100' or more from surface water.

Chapter 102 requires a written E&S plan for all earth disturbances of 5,000 square feet or more as well as any earth disturbances (of any size) in HQ or EV watersheds. For a low hazard individual lot this plan must be developed before the start of construction and must be available on site at all times during construction. Local municipalities may require the E&S plan to be submitted to them or the local conservation district for review and approval prior to start of construction or issuance of building permits. Therefore, the appropriate agency should be contacted before the plan is developed.

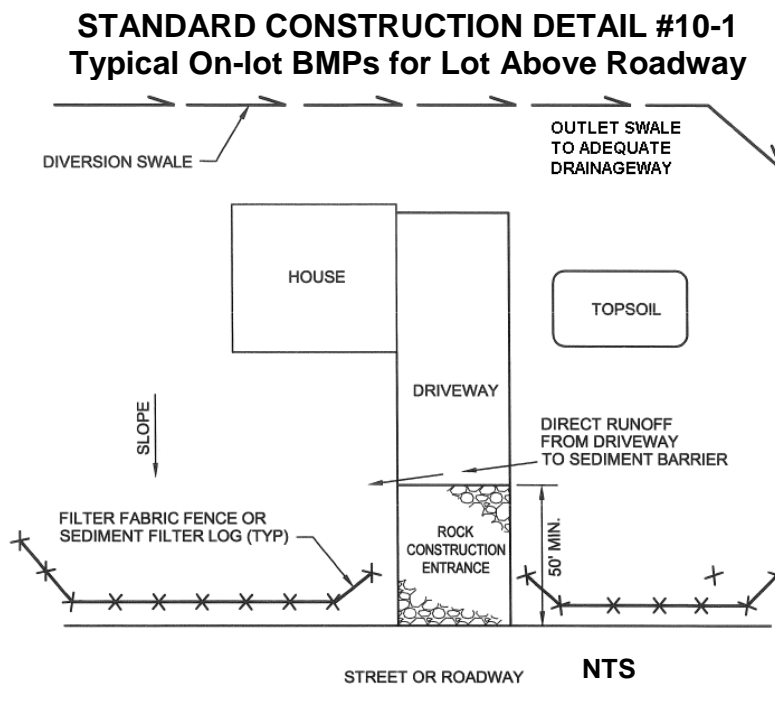
General steps to be taken in developing a plan for an individual low hazard site include:

1. Prepare a sketch plan of the site and indicate general land slopes, limits of the proposed project and existing features such as roads, property boundaries and streams. Select appropriate erosion control BMPs such as compost socks, fiber logs, or silt fence and a stabilized stone construction entrance and show their location on the sketch plan of the site. The compost socks, fiber logs, silt fence, and/or straw bale barriers should be located to filter the stormwater runoff from the disturbed areas before it leaves the site and enters a surface water (e.g. storm sewer). A stabilized construction entrance is usually placed at the location where a driveway will be installed and when properly maintained, minimizes the tracking of mud from the site by construction vehicles. It becomes the base for a permanent driveway to be installed near the completion of construction. A note on the sketch plan should indicate that the various BMPs are to be installed as the first step in project construction. Details for installation of the BMPs are found in the Standard E&S Worksheets and Standard Details section of this manual. Those details should be included on the E&S plan drawings.
2. Hold site grading to the minimum necessary to allow the construction of desired improvements. Construction equipment should be restricted from proposed PCSM infiltration BMP locations (e.g. rain gardens, dry wells, etc.). Access roads should avoid gradients in excess of 10%. Buildings should be located so there is positive drainage away from them. Any topsoil from areas where cuts or fills occur should be stockpiled for redistribution after grading to help establish vegetation.
3. Save existing vegetation to the maximum extent possible, especially trees because of their ability to reduce or prevent erosion. Protect trees and shrubs from damage during earthmoving operations (See Appendix I).
4. Minimize the size and time of exposure for areas to be disturbed. The plan should call for restabilizing disturbed areas by seeding, sodding, or paving as soon as possible. Chapter 102 requires disturbed areas, regardless of size, within HQ or EV watersheds to be stabilized immediately upon reaching final grade.
5. Upslope runoff should be diverted around work areas wherever possible. If diversion is not practical, the runoff should be conveyed through the area of disturbance in such a way that it is protected from sediment pollution.

The E&S plan should include such information as the name, address, and phone number of the person(s) responsible for the project. A brief description of the project including the estimated time frame for its installation should also be included. If this information cannot be provided on the sketch plan of the site, a supplemental sheet with this information should be attached. Published USGS topographic maps should be consulted to determine the name of the nearest stream receiving runoff from the site. If the stream is in a special protection watershed, nondischarge or ABACT BMPs must be used. The NRCS website should be consulted to determine what soil use limitations can be expected on the site. A means to deal with those limitations should be included in the E&S plan. USGS maps, lists of special protection watersheds, and other useful information are available at the local conservation district office. The conservation districts can also provide valuable assistance in E&S plan development. The BMPs used to control runoff from disturbed areas on a single residential housing lot during house construction are often referred to as “on-lot Controls.” Depending on the size of the lot and the amount of disturbance, they may range from sediment barriers to channels and traps. **On-lot controls may not be used instead of perimeter controls such as sediment basins or sediment traps** where such facilities are appropriate, such as housing developments, industrial parks, etc. However, on-lot controls can increase the effectiveness of perimeter controls by reducing the sediment load conveyed to them. They can also reduce the need for street cleaning, flushing of storm sewer lines, and repairs to adjacent lots damaged by uncontrolled runoff. On-lot BMPs are typically not considered as ABACT for permitted housing projects or industrial parks. They may, however, be used in conjunction with other BMPs that are considered ABACT, as described in Chapter 17. Where on-lot controls are proposed as part of the overall E&S plan for a multi-unit development, the appropriate typical details should be placed on the plan drawings. Where this is done, it is not necessary to show on-lot controls for each individual lot on the plan map(s).

TYPICAL CONFIGURATIONS

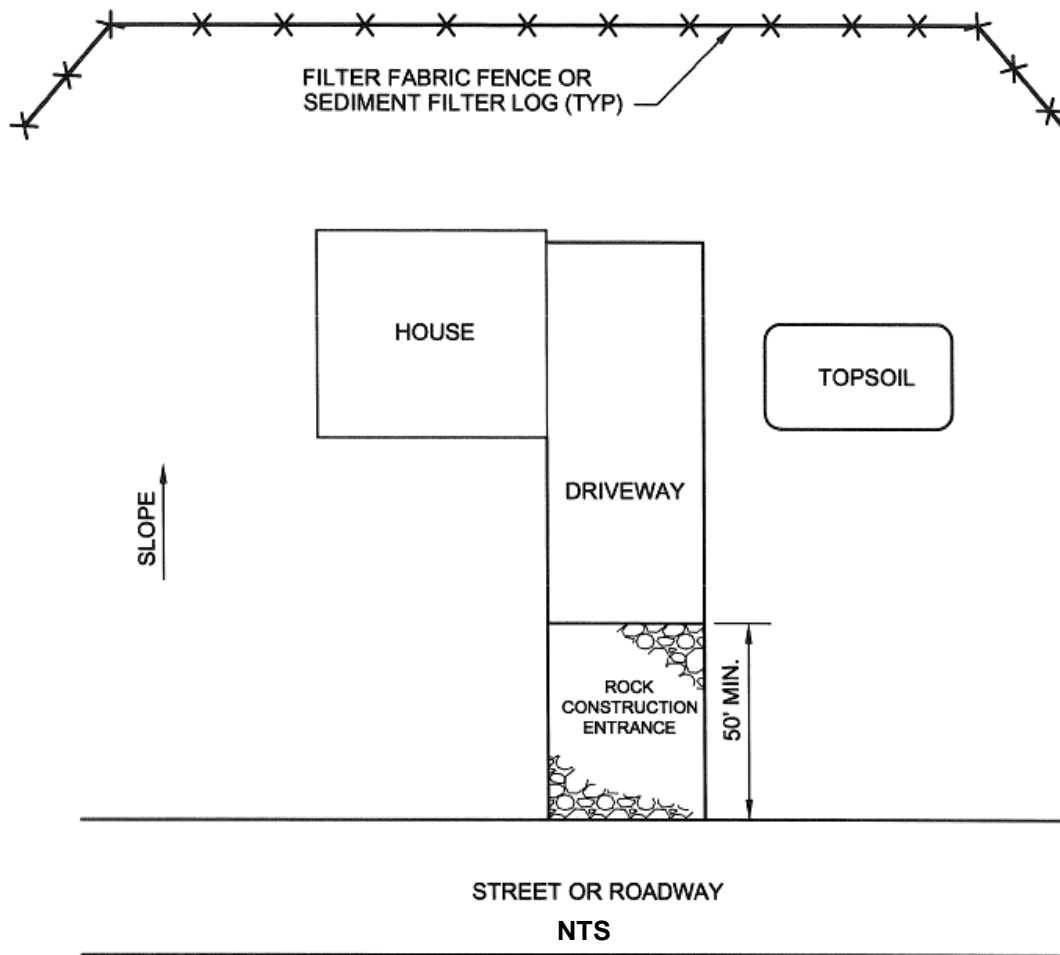
Wherever a lot is sloping toward the roadway, a layout as shown in Standard Construction Detail #10-1 should be used.



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.
PA DEP

Wherever a lot is sloping away from the roadway, a layout as shown in Standard Construction Detail #10-2 should be used.

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

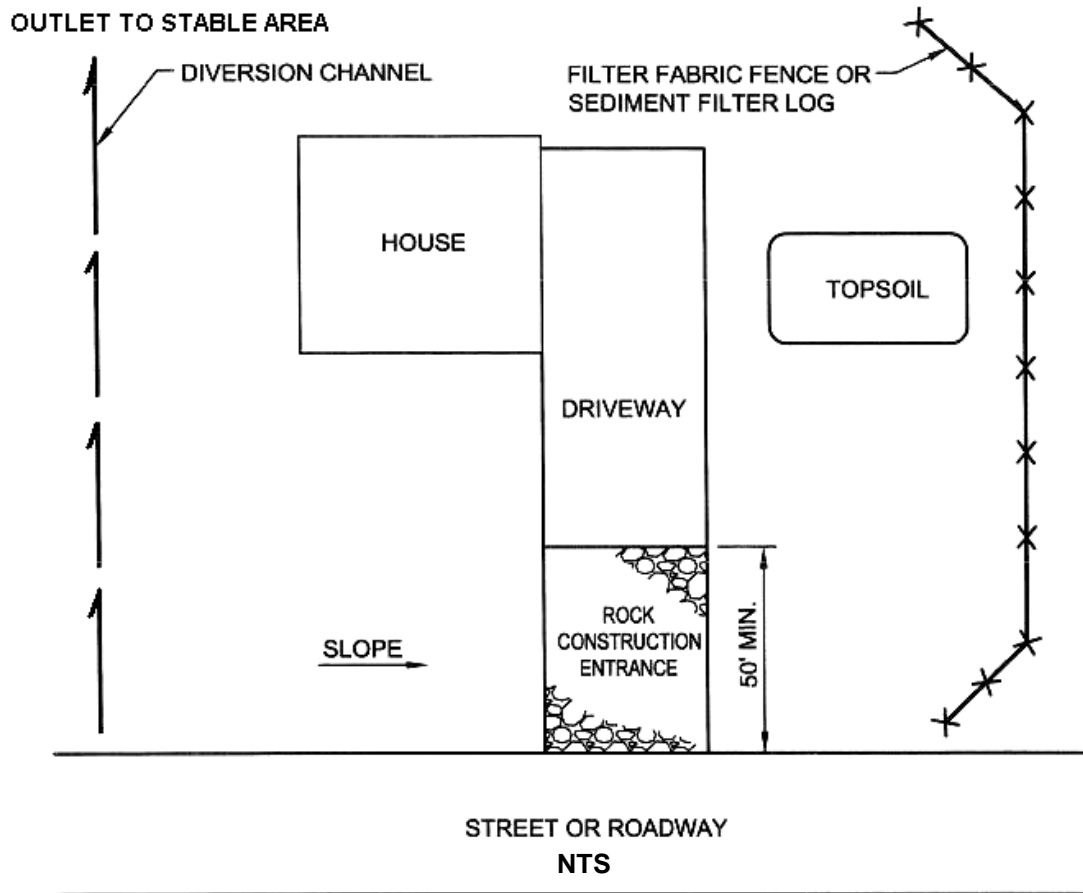


THE AREA DOWNSLOPE FROM THE FILTER FABRIC FENCE MAY NOT BE UNDER DEVELOPMENT OR OTHERWISE DISTURBED .

PA DEP

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.