

Homebuilders must reduce soil loss during home construction. This fact sheet provides general erosion and sediment control (ESC) and stabilization guidelines for homebuilding and other construction that disturb less than 1 acre.

Each site is different. Some lots can require additional or alternative controls. Check with local officials to make sure all ESC requirements are addressed. ESC devices must handle a two-year, 24-hour rain event. A two-year, 24-hour event ranges from 1.9 inches of rain in western North Dakota to 2.3 inches of rain in the eastern part of the state over a 24-hour period.



PERIMETER CONTROLS

Perimeter controls capture soil before it leaves the construction site. These types of controls include vegetative buffers, silt fences and fiber rolls.

Vegetative buffers consist of a strip of dense grass. One foot of buffer is used for every 5 feet of disturbed area that drains to it.

Silt fence and fiber rolls are examples of controls used to capture sediment. Controls of this type capture sediment by ponding water behind them. Ponding allows soil to settle out of the water. A rule of thumb for silt fence is to use 1 linear foot of silt fence for every 100 square feet of upslope disturbed area.

SEDIMENT TRAPS

Sediment traps are small depressions that allow soil to settle out of runoff.

One type of trap that can be used is called a cut-back curb. Cut-back curbs pond water behind the curb. The cut should be made 3 to 4 feet wide and 3 to 4 inches deep. The cut can be offset 5 feet from the curb. When a driveway opening is encountered, a piece of wood (2x4, 4x4) should be securely installed to continue the curb. Cut-back curbs may not be allowed in all municipalities. Contact local officials before using them.

INLET PROTECTION

Inlet protection devices keep soil out of the storm sewer system. They are a last line of control and must be used with other ESC and stabilization methods. Inlet protection devices need to be selected and installed so water can bypass the device if flooding is a concern.

STABILIZED SITE EXIT

A stabilized construction site exit reduces dirt tracked from the site. Vehicles and equipment must not exit the site from any other place, especially when wet soil conditions are present.

ROOF DRAINS

Roof drains need to be provided with adequate splash pads and/or downspout extensions to prevent erosion from roof runoff.

INSPECTIONS AND HOUSEKEEPING

Inspect ESC devices every 14 calendar days and within 24 hours of a 1/4-inch rainfall.

Maintenance or repair should be completed following good housekeeping practices, which includes cleaning and maintaining ESC devices, cleaning dirt off streets and picking up debris.

Clean sediment control devices, such as silt fence, before sediment has reached half of the exposed height. Repair or replace the device if it is not functioning properly. Removal of sediment or device repair/replacement needs to be done within 24 hours of discovery or as soon as field conditions allow.

Clean out sediment traps and basins when the storage volume is reduced by half. This must be done within 72 hours or as soon as field conditions allow.

Remove dirt from streets by the end of the work day.

ESC and stabilization must be maintained at the site until there is 70 percent vegetative cover or the site is turned over to the homeowner.



TEMPORARY AND PERMANENT COVER

Temporary cover is used to reduce erosion and should be applied to areas where construction activity has ceased and is not planned to resume for 14 days. Temporary soil stockpiles such as clean aggregate, demolished concrete and sand stockpiles are exempt. Temporary cover may be obtained by planting, mulching or using an erosion control blanket.

Permanent cover is any type of cover that will not be disturbed again by construction activities.

MATERIAL STORAGE

Stockpiled material cannot be placed in any stormwater conveyance system (e.g., curb and gutter, drainage ditch).

Sediment controls need to be placed between any stockpile and stormwater conveyance system. Stockpiled material should not be placed directly against any device.

Liquid or soluble materials (e.g., oil and paint) must be stored to prevent spills or leaks.

WASTE DISPOSAL

All construction debris must be placed in an appropriate container to prevent it from being carried away by wind or water. Dispose of all debris at an appropriate facility.

CONCRETE WASH WATER

Concrete wash water cannot be placed in or allowed to drain to any surface or groundwater or storm sewer system. Place concrete wash water in an appropriate collection system.

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