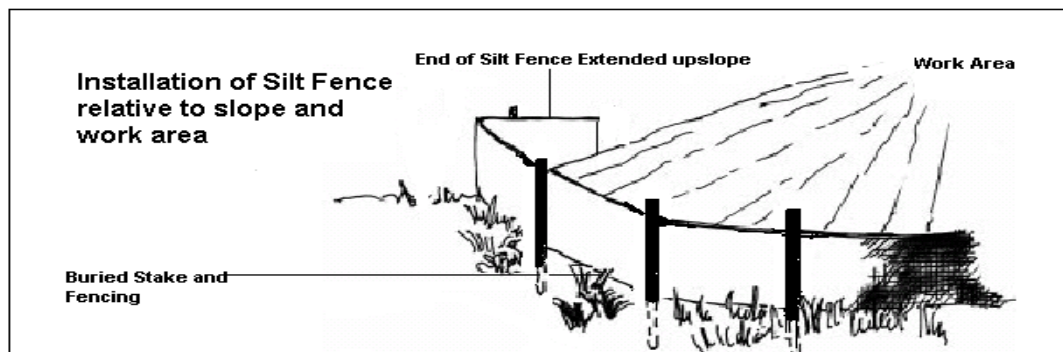


Silt Fence Installation/Maintenance

Definition

Silt fence or silt screen is a temporary sediment and erosion control device made of geotextile fabric designed to intercept and slow the flow of sediment – laden runoff from small areas of disturbed soil.



Source: Modified from Indiana Department of Natural Resources: Planning & Design Manual

Purpose

The purpose of the silt fence is to prevent sediment carried by overland flow from leaving the disturbed site and entering rivers, creeks, wetlands, lakes and artificial drainage systems such as a storm drainage system, by intercepting water run-off and causing the deposition of sediment at the fence.

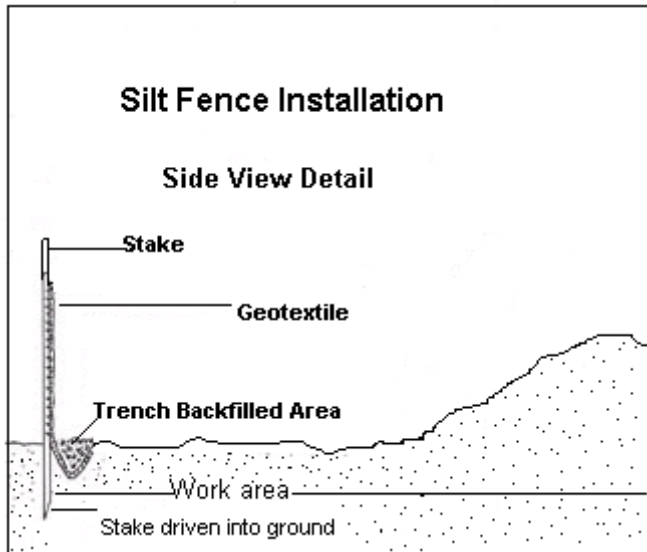
Limitation

Silt fences should not be installed along areas where rocks or other hard surfaces will prevent uniform anchoring of fence posts and entrenching of the filter fabric. Silt fences are not suitable for areas where large amount of concentrated run-off are likely to occur. Silt fences should not be installed across streams, ditches or waterways where flows are concentrated.

Installation

The filter fabric can be purchased in a continuous roll and cut to the required length of the area to be protected.

The fabric should be attached to wooden stakes that are to be driven securely into the ground with the fabric side towards the disturbed site. The silt fence must be fastened securely to the stakes using heavy-duty wire staples, or tie wire. Stakes should not be spaced more than 2 metres apart and can be closer depending on the length of the silt fence. It should be pointed out that it is now possible in some locations to purchase silt fence with the stakes already attached.



Where installation with wood stakes is difficult, such as when hard or frozen ground is encountered, the use of steel stakes is recommended. If metal stakes are used, attachment points are needed for fastening the geotextile fabric using wire ties.

A trench should be excavated in which the bottom edge of the silt fence must be buried at least 15cm (6inches) into the ground. It should then be backfilled and compacted to be effective, and to ensure that no gaps exist between the ground and the fabric. The ends of the silt

fence should be extended upslope (to resemble an arc or horseshoe), to prevent water from flowing around the ends of the fence.

The height of the silt fence should not exceed one (1) metre above the surface of the ground and it should not be stapled to existing trees.

Sufficient area should exist behind the fence for ponding to occur without flooding or overtopping the fence.

Maintenance

Regular inspections should be done especially before and after each rainfall to ensure that the fence is intact and accomplishing the original intention of its establishment.

Silt fences that are damaged and become unsuitable for the intended purpose should be removed from the site, disposed of and replaced with a new silt fence barrier.

Soil that has accumulated to one-half the original height of the silt fence should be removed and properly disposed of. Soil removed during maintenance may be incorporated into earthwork on the site or disposed of at an appropriate location.

Silt fence should remain in place until disturbed areas have been revegetated and permanently stabilized.

Removal

The removal must be undertaken in such a manner as to prevent the release of soil into any watercourse.