MAP CODE
SILT

SILT FENCE

USE
Erosion
Environment
Sediment
Pollution

What

- A temporary linear filter barrier of burlap or synthetic filter fabric and posts. Wire fencing is sometimes used as support.

Purpose

- Used below disturbed areas to remove or reduce sediment in stormwater run off and sheet or rill erosion.

Silt Fence
Perspective View

Where

YES: Perpendicular to the slope, below disturbed areas where runoff may occur in the form of sheet and rill erosion.

NO: Live streams or swales or ditch lines where flows are likely to exceed 1.0 cubic foot per second (0.3 metres per second).

Materials, Equipment & Costs

Burlap, synthetic filter fabric or geotextile; wire mesh for reinforcement (if necessary); wooden or steel fence posts and staples; wire and ground staples.

Labour.

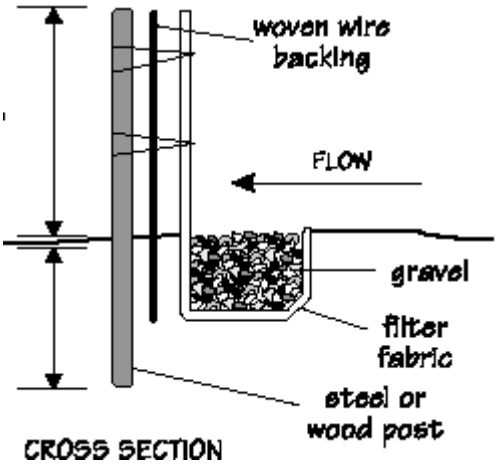
$ Low.

Plans & Specs

- Use only where the size of the drainage area is no more than 0.10 hectares per 30 meters of silt fence length, the maximum slope length above the barrier is 30 meters, and the maximum gradient above the barrier is 50 percent.
- The height of a silt fence should not exceed 0.9 meters. Higher fences may impound volumes of water sufficient to cause failure of the structure.
- To avoid the use of joints, the filter fabric should be purchased in a continuous roll and cut to the length of the barrier.
- Excavate a trench approximately 100 millimeters wide and 100 millimeters deep along the line of stakes and upslope of the barrier.

If posts are used rather than stakes, the trench should be 200 millimeters deep.

- When standard strength filter fabric is used, apply a wire fencing to support the fabric. Fasten the fence securely to the upslope side of the posts using heavy-duty wire staples, tie wires or hog rings. Attach the filter fabric to the fencing material with tie wires, plastic zip straps or hog rings.
- When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such cases the filter fabric is stapled or wired directly to the posts.
- The trench is then backfilled and soil compacted over the filter fabric.



CROSS SECTION
Source: WSDNR, ODGMI

- If a silt fence is to be constructed across a ditch line or swale, the barrier should be of sufficient length to eliminate end flow, and the plan configuration should resemble an arc or horseshoe with the open ends oriented upslope.

Maintenance

- Regular inspections should be conducted after each rainfall and storm to ensure the fence is intact and debris and sediment has not accumulated at the bottom. Remove any deposits when they reach one-half the fence height.
- Silt fences and filter barriers may be removed when they have served their purpose, but not before the upslope area has been permanently stabilized.

Sources

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