Silt Fence Field Guide- City of Berea, KY

If you are reading this then that means that you have a project in the City of Berea that should have erosion prevention and sediment control on site. We will begin inspections of silt fences soon and this document is meant to serve as a general overlook as to what we will be looking for and cooperating with you on.

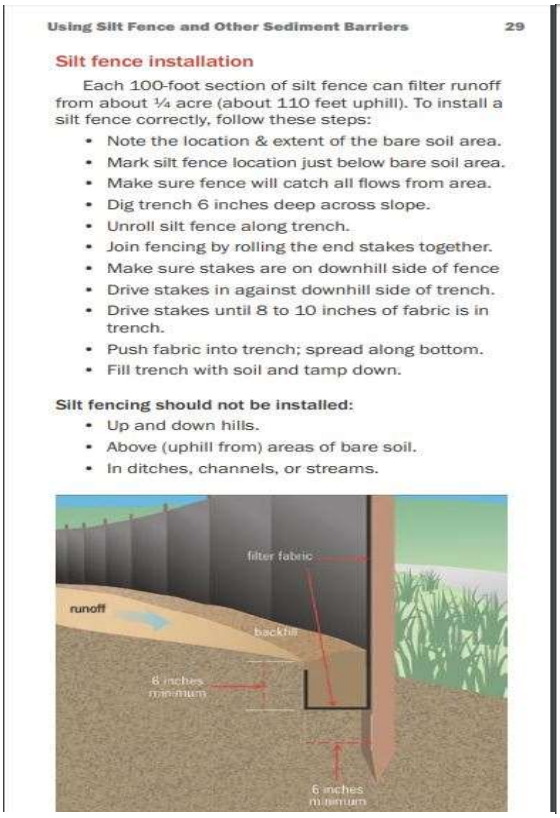
We reserve the right to inspect when:

- The job has begun
- Every two weeks after initial inspection
- After a rain event
- Whenever we see fit

Silt fences are used to help control sediment runoff from disturbed land and keep our stormwater clean. They act as a barrier but also let the water get through if installed correctly. These should remain as an effort until the project has finished and the disturbed land has been able to revegetate with permanent soil stabilization beginning.

Throughout this guide you will see general guidelines with imagery to help see what sorts of thing we will be on the lookout for. The main principle aspects are:

- Appropriate materials used to build the silt fence
- Adequate amount of fencing
- Proper placement of fencing



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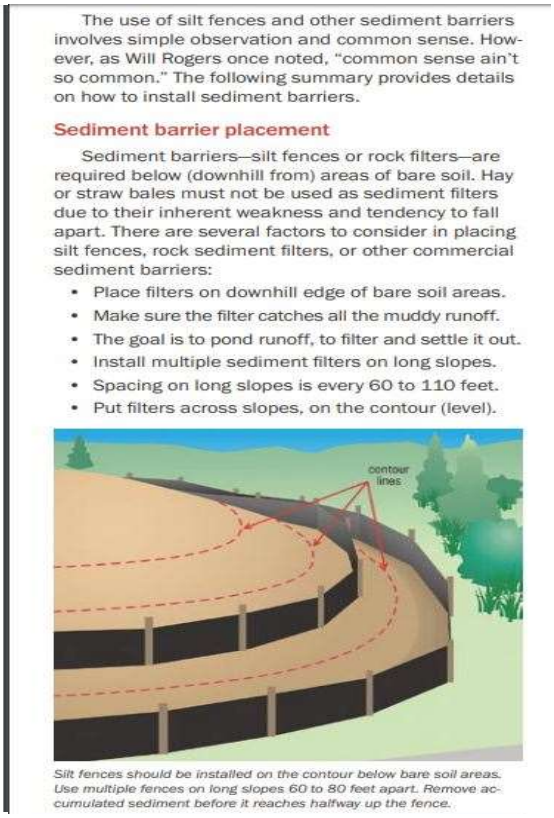
Silt fence installation

Each 100-foot section of silt fence can filter runoff from about ¼ acre (about 110 feet uphill). To install a silt fence correctly, follow these steps:

- Note the location & extent of the bare soil area.
- Mark silt fence location just below bare soil area.
- Make sure fence will catch all flows from area.
- Dig trench 6 inches deep across slope.
- Unroll silt fence along trench.
- Join fencing by rolling the end stakes together.
- Make sure stakes are on downhill side of fence
- Drive stakes in against downhill side of trench.
- Drive stakes until 8 to 10 inches of fabric is in trench.
- Push fabric into trench; spread along bottom.
- Fill trench with soil and tamp down.

Silt fencing should not be installed:

- Up and down hills.
- Above (uphill from) areas of bare soil.
- In ditches, channels, or streams.



The use of silt fences and other sediment barriers involves simple observation and common sense. However, as Will Rogers once noted, "common sense ain't so common." The following summary provides details on how to install sediment barriers.

Sediment barrier placement

Sediment barriers—silt fences or rock filters—are required below (downhill from) areas of bare soil. Hay or straw bales must not be used as sediment filters due to their inherent weakness and tendency to fall apart. There are several factors to consider in placing silt fences, rock sediment filters, or other commercial sediment barriers:

- Place filters on downhill edge of bare soil areas.
- Make sure the filter catches all the muddy runoff.
- The goal is to pond runoff, to filter and settle it out.
- Install multiple sediment filters on long slopes.
- Spacing on long slopes is every 60 to 110 feet.
- Put filters across slopes, on the contour (level).

Silt fences should be installed on the contour below bare soil areas. Use multiple fences on long slopes 60 to 80 feet apart. Remove accumulated sediment before it reaches halfway up the fence.

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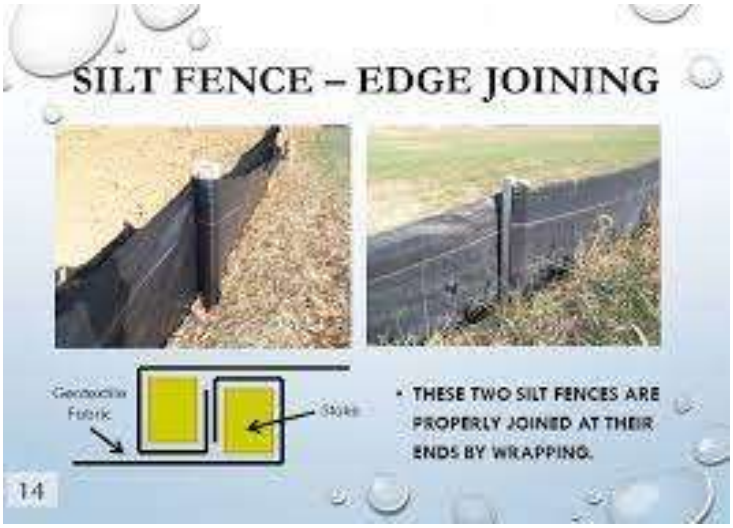
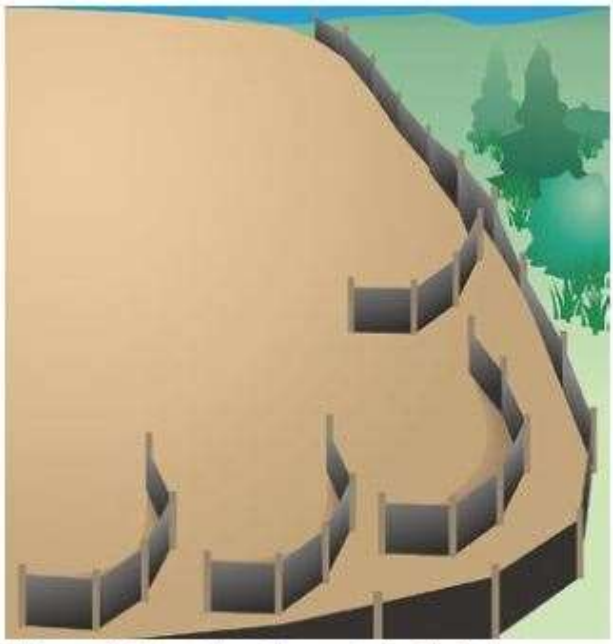
The appropriate materials that we look for in a silt fence build are wooden or metal stakes and some form of silt fence fabric. The proper installation that we are looking for is that the fence is trenched in at least 6 inches and has the wooden stakes on the downhill side of the fence, with the fabric secured on the uphill side. You can add wire mesh or chain link material to the back if you believe the situation calls for that amount of reinforcement.





Silt fences don't have to be on the property line. Placing them on slopes with the ends turned up to trap sheet flow provides better performance. Stagger fence sections to ensure total coverage. Clean out before sediment reaches halfway up. Repair as needed, and remove when grass is well established.

Use J-hooks to trap and pond muddy runoff flowing along uphill side of silt fence. Turn ends of silt fence toward the uphill side to prevent bypassing. Use multiple J-hooks every 50 to 150 feet for heavier flows.

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What we look for in silt fence placement:

- the fence runs generally along the contours (instead of up and down slopes)
- fabric is fastened to the correct side of the stakes
- fabric stands up straight, with no heavy sags
- ends of silt fence are fastened together by rolling the fabric together and fastening to stakes in such a way that the fabric will hold fast when under strain, and not split apart in a "V"
- the bottom edge of fabric is held firmly in the ground (J hooks)
- the fence is reinforced where flow will be greater than the fence's ability to withstand the flow during heavy rain. Some options are: T posts, wire mesh, chain link, hay bales, or placing #2 or other crushed stone on either side of fence. This is just for sections taking a heavy beating
- silt fence is inspected by construction staff, and maintained when needed. Any weak sections that develop should be reworked in a way that the section will withstand the extra strain being placed on it during heavy rain

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