

Storm water inlet protection can be one of the most effective sediment control devices if they are installed properly. Storm sewer catch basins and yard drains are at high risk to receive sediment during construction.

All catch basins and yard drains should be fitted with a staked-in silt fence inlet protection. The reinforced silt fencing should remain in place until all areas that drain to the catch basin or yard drain are stabilized with permanent vegetation.

The silt fencing around these inlets is intended to pond or pool water temporarily so that sediment drops out of the storm water before it enters the storm sewer system. Regular removal of sediment and repair to the silt fence structure is critical to the effectiveness of this type of BMP.

ODNR Rainwater and Land Development Manual Specifications:

- Inlet protection shall be constructed either before the upslope land disturbance begins or before the storm drain becomes operational.
- The earth around the inlet shall be excavated completely to a depth of at least 18 inches.
- The wooden frame shall be constructed of a 2-by-4 inch construction grade lumber. The 2-by-4 inch posts shall be driven 1 foot into the ground and the top portion of the 2-by-4 inch frame assembled using the overlap joint shown (see diagram on back).
- The top of the frame shall be 6 inches below grade of adjacent road if ponded water would pose a safety hazard to traffic.
- Wire mesh shall be of sufficient strength to support fabric with water fully impounded with it. It shall be stretched tightly around the frame and fastened securely to the frame.
- Geotextile shall have an equivalent opening size of 20-40 sieve and resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall be extended from the top of the frame to 18 inches below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.
- Backfill shall be placed around the inlet in compacted 6-inch layers until the earth is even with the notch elevations on ends and top elevation on sides.
- A compacted earth dike or check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression and if runoff bypassing the inlet will not flow into a settling pond. The top of the earth dikes shall be at least 6 inches higher than the top of the frame.



Not only was the silt fence inlet protection in this picture installed properly, but also temporary seeding in conjunction with rock check dams were added to further impede sediment from entering this drain.

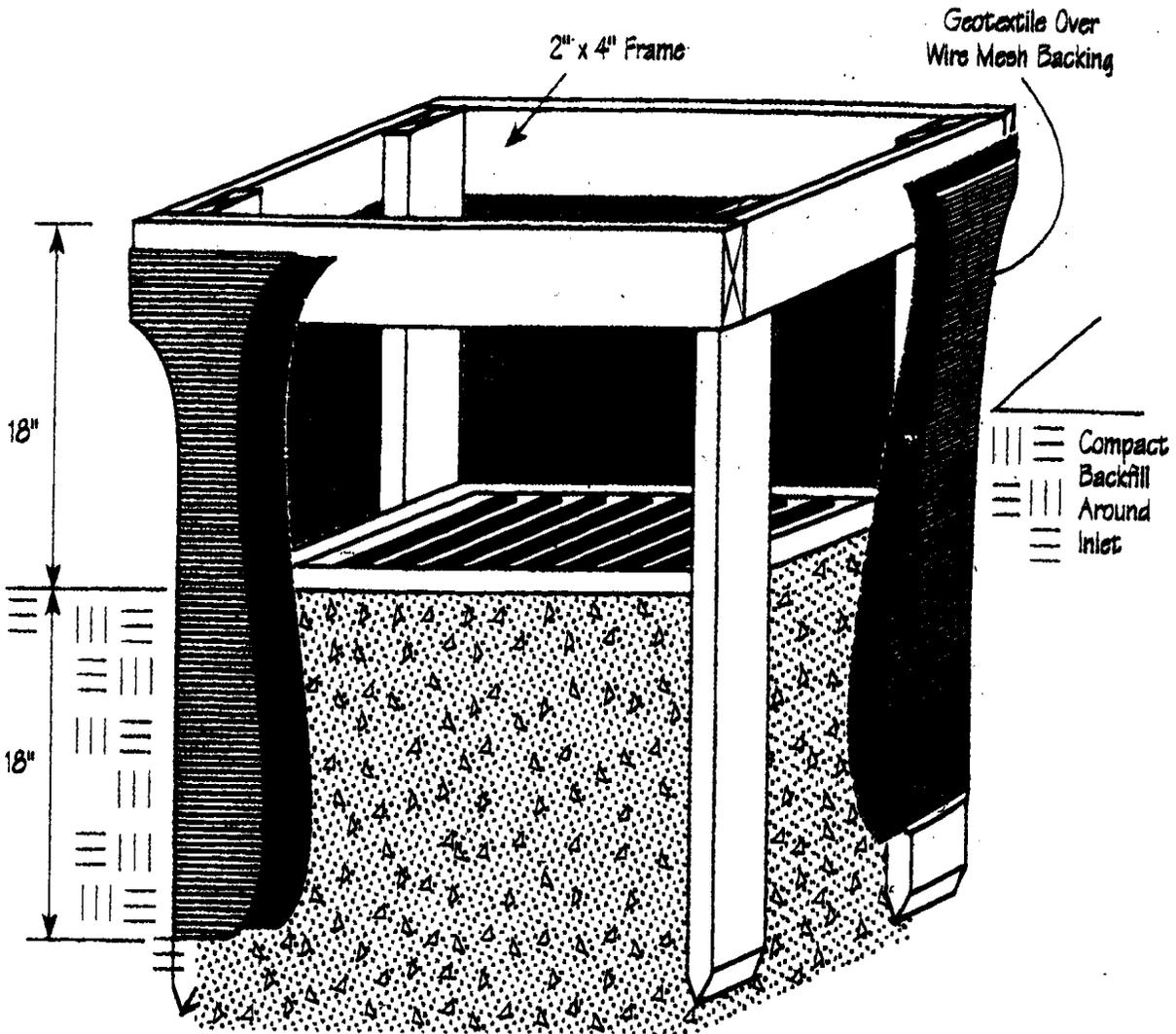


Straw bales are not accepted as a form of BMP for inlet protection in most situations because they deteriorate quickly and do not stop sediment-laden runoff as effectively as a trenched in silt fence does.



The inlet protection in this photograph is well trenched in and accumulated sediment from previous storm events has been removed from the perimeter of the silt fencing.

Inlet Protection Detail



Fence Posts—the length shall be a minimum of 32 inches. Wood Posts shall be 2-by-2 inches hardwood of sound quality. The maximum spacing between posts shall be 10 ft.

Silt Fence Fabric shall be ODOT Type C Geotextile Fabric

Note: Staked in straw bales are no longer an accepted practice for erosion and sediment control BMPs.