SWPPP Cut Sheet

Last Updated: 1-1-08

Section 1: Erosion and Sediment Control – Construction Activities

1.2 Filtrexx InletSoxx™

Sediment & Perimeter Control Technology

PURPOSE & DESCRIPTION

Filtrexx InletSoxx™ are a three-dimensional tubular sediment control and storm water runoff filtration device typically used for storm drain **inlet protection** of sediment and soluble pollutants (such as phosphorus and petroleum hydrocarbons) on and around construction activities.

APPLICATION

Drain inlets are located in areas that receive runoff from surrounding lands, often exposed and disturbed soils, and are located at a low point, or in a sump. InletSoxx™ used around drain inlets (or *Drain* InletSoxx™) should completely enclose the circumference of the drain and where possible should not be placed on a grade or slope. InletSoxx™ used around drain inlets should never be the only form of site sediment control and should be accompanied by erosion control/slope stabilization practices, such as compost erosion control blankets (CECB) or rolled erosion control blankets (RECB). InletSoxx™ should never be placed where they divert runoff flow from the drain inlet, or on top of the inlet, which can cause flooding. Under high runoff and sediment loading conditions placement of 1-2 in (25-50 mm) diameter rock (AASHTO #2) may be placed around the outer circumference of the InletSoxx™ up to ½ the height of the InletSoxx™. This will slow runoff velocity as it contacts the InletSoxx™ and will reduce sediment build-up and clogging of the InletSoxx™.

Curb inlets are generally located on paved surfaces and are designed to rapidly drain storm runoff from roadways to prevent flooding that poses a hazard to vehicular traffic. Inlet protection devices should be placed in a manner which intercepts runoff prior to entering the inlet, but does not block or divert runoff from the inlet. To prevent diversion of runoff, InletSoxx™ used around curbs (or *Curb* InletSoxx™) should be used in low points, or sumps, and minor slopes or grades. InletSoxx™ should never be placed in or on the curb inlet drain, or placed in a manner than obstructs vehicular traffic. InletSoxx™ height should be at least 1 in (25 mm) lower than top of curb inlet to allow for overflow into the drain and not over the curb. Maximum sediment removal efficiency occurs when minor ponding exists behind InletSoxx™ but should never lead to flooding.

Curb sediment containment systems are used to reduce the sediment and pollutant load flowing to a curb inlet. They are generally placed on paved surfaces perpendicular to runoff flow and should be lower than the height of the curb. Curb sediment containment systems should never cause flooding or placed where they are a hazard to vehicular traffic. InletSoxx™ used for curb sediment containment (or *Curb Sediment Containment* InletSoxx™) can be placed on a grade but should never be placed directly upslope from curb inlet where it may inadvertently divert runoff from entering curb inlet.

INSTALLATION

1. InletSoxx™ used for inlet protection to reduce sediment and soluble pollutants entering storm drains shall meet Filtrexx FilterSoxx™ Material Specifications and use Certified Filtrexx FilterMedia™.
2. Contractor is required to be a Filtrexx Certified™ Installer as determined by Filtrexx International, LLC (440-926-2607 or visit website at Filtrexx.com). Certification shall be considered current if appropriate identification is shown during time of bid or at time of application (current list of installers can be found at www.filtrexx.com). Look for the Filtrexx Certified™ Installer Seal.
3. Filtrexx InletSoxx™ shall be placed at locations indicated on plans as directed by the Engineer. InletSoxx™ should be installed in a pattern that allows complete protection of the inlet area.
4. Installation of curb InletSoxx™ will ensure a minimal overlap of at least 1 ft (300mm) on either side of the opening being protected. The InletSoxx™ will be anchored to the soil behind the curb using staples, stakes or other devices capable of holding the InletSoxx™ in place.
5. Standard InletSoxx™ for curb inlet protection and curb sediment containment will use 8 in (200mm) diameter InletSoxx™, and drain inlets on soil will use 12 in (300mm) or 18 in (450mm) diameter InletSoxx™. In severe flow situations, larger InletSoxx™ may be specified by the Engineer. During curb installation, InletSoxx™ shall be compacted to be slightly shorter than curb height.
6. If InletSoxx™ becomes clogged with debris and sediment, they shall be maintained so as to assure proper drainage and water flow into the storm drain. In severe storm events, overflow of the InletSoxx™ may be acceptable in order to keep the area from flooding.
7. Curb and drain InletSoxx™ shall be positioned so as to provide a permeable physical barrier to the drain itself, allowing sediment to collect on the outside of the InletSoxx™.
8. For drains and inlets that have only curb cuts, without street grates, a spacer is required in order to keep the InletSoxx™ away from the drain opening. This spacer should be a hog wire screen bent to overlap the grate opening and keep the sock from falling into the opening. Use at least one spacer for every 4 ft (1.2m) of curb drain opening. The wire grid also prevents other floatable waste from passing over the InletSoxx™.
9. Stakes shall be installed through the middle of the Drain InletSoxx™ on 5 ft (1.5m) centers, using 2 in (50mm) x 2 in (50mm) x 3 ft (1m) wood stakes.
10. Staking depth for sand and silt loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.

INSPECTION and MAINTENANCE

Routine inspection should be conducted within 24 hrs of a runoff event or as designated by the regulating authority. InletSoxx™ should be regularly inspected to make sure they maintain their shape and are producing adequate hydraulic flow-through. If ponding becomes excessive, additional InletSoxx™ may be required or sediment removal may be necessary. InletSoxx™ shall be inspected until contributing drainage area has been permanently stabilized and construction activity has ceased

1. The Contractor shall maintain the InletSoxx™ in a functional condition at all times and it shall be routinely inspected.
2. If the InletSoxx™ has been damaged, it shall be repaired, or replaced if beyond repair.
3. The Contractor shall remove sediment at the base of the upslope side of the InletSoxx™ when accumulation has reached 1/2 of the effective height of the InletSoxx™, or as directed by the Engineer. Alternatively, for drain InletSoxx™ a new Soxx™ may be placed on top of the original increasing the sediment storage capacity without soil disturbance.
4. InletSoxx™ shall be maintained until disturbed area above or around the device has been permanently stabilized and construction activity has ceased.
5. Regular maintenance includes lifting the InletSoxx™ and cleaning around and under them as sediment collects.
6. The FilterMedia™ will be removed from paved areas or dispersed on site soil or behind curb once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the Engineer.

Figure 2.1. Engineering Design Drawing for Curb and Drain InletSoxx™

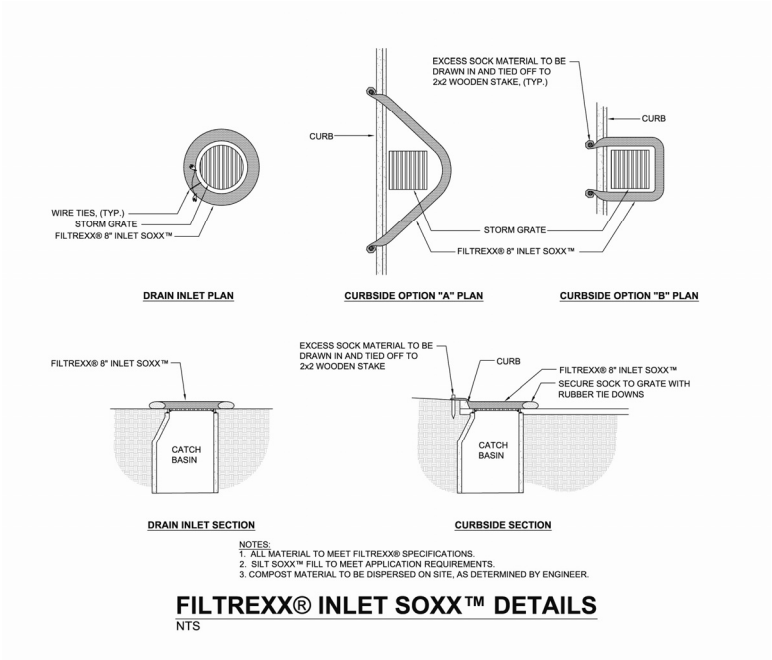

Figure 2.2. Engineering Design Drawing for Curb Sediment Containment InletSoxx™

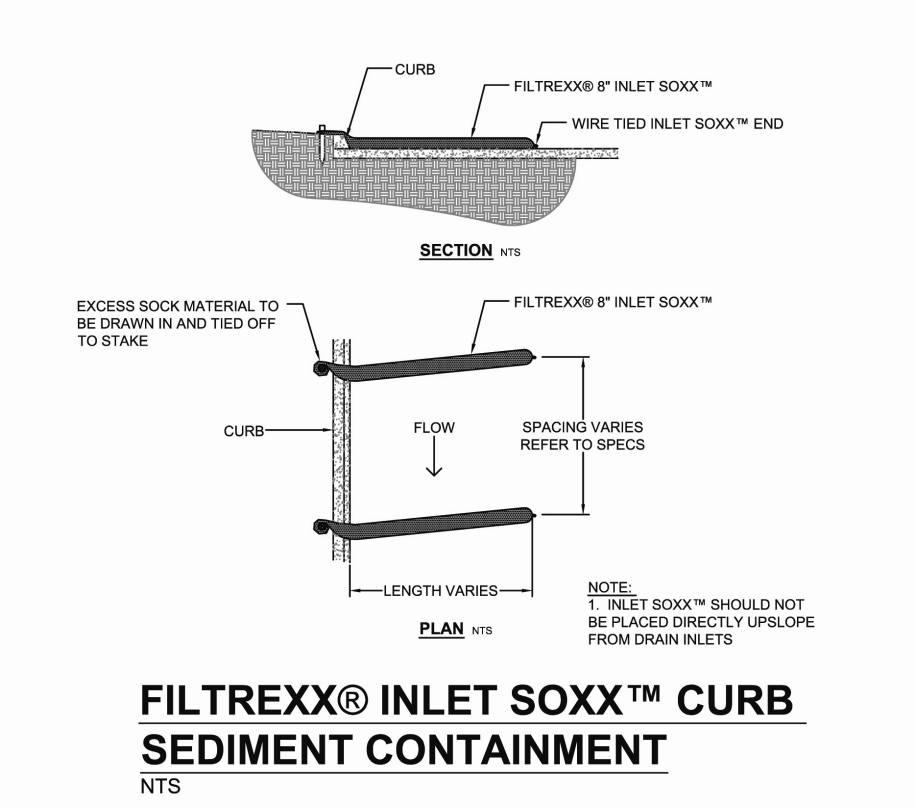

Table 2.4. Spacing for Curb Sediment Containment Systems.

Grade (%)	Spacing (ft)	Spacing (m)
0.5	100	30
1.0	50	15
2.0	25	8
3.0	16	5
4.0	13	4
5.0	10	3

Source: Fifield, 2001