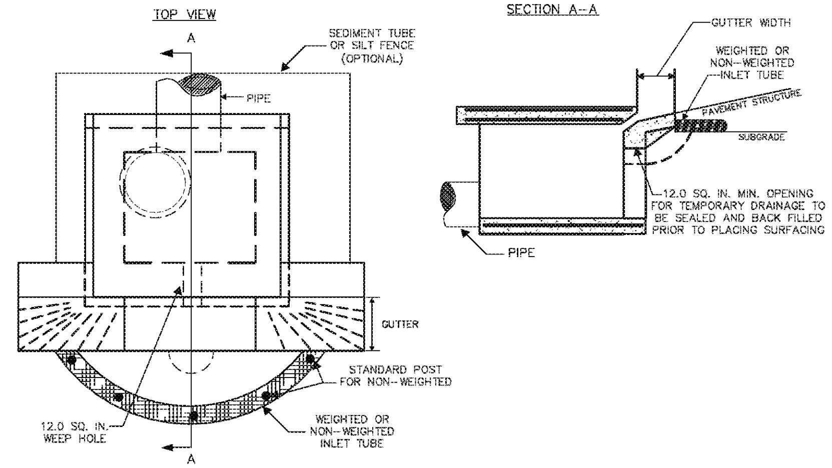


INLET TUBE INLET PROTECTION - TYPE F DETAIL

NOT TO SCALE

TYPE F – INLET TUBES INLET PROTECTION

GENERAL NOTES

1. Inlets tubes should be composed of compacted geotextiles, curled excelsior wood, natural coconut fibers, a hardwood mulch, or a mix of these materials enclosed by a flexible netting material.

2. Inlets tubes should utilize an outer netting that consists of seamless, high–density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high–density polyethylene non–degradable material. Curled wood excelsior fiber, or natural coconut fiber rolled erosion control products rolled up to create an inlet tube device are not allowed.

3. Do not use straw, straw fiber, straw bales, pine needles, or leaf mulch as fill material within inlet tubes.

4. Weighted inlet tubes must be capable of staying in place without external stabilization measures and may have a weighted inner core or other weighted mechanism to keep them in place.

5. Install weighted tubes lying flat on the ground, with no gaps between the underlying surface and the inlet tube. Do not stack inlet tubes. Do not completely block inlet with tube.

6. Non–weighted inlet tubes require staking or other stabilization methods to keep them safely in place.

7. Overflow or overtopping of inlet tubes must be allowed to flow into inlet unobstructed.

8. To avoid possible flooding, two or three concrete cinder blocks may be placed between the tube and the inlet.

INSPECTION AND MAINTENANCE

1. The key to functional inlet protection is weekly inspection, routine maintenance, and regular sediment removal.

2. Regular inspections of all inlet protection shall be conducted once every calendar week and, as recommended, within 24–hours after each rainfall event that produces 1/2–inch or more of precipitation.

3. Attention to sediment accumulations in front of the inlet protection is extremely important. Accumulated sediment should be continually monitored and removed when necessary.

4. Remove accumulated sediment when it reaches 1/3 the height of the blocks. If a sump is used, sediment should be removed when it fills approximately 1/3 the depth of the hole.

5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.

6. Large debris, trash, and leaves should be removed from in front of tubes when found.

7. Replace inlet tube when damaged or as recommended by manufacturer's specifications.

8. Inlet protection structures should be removed after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

FILTER FABRIC INLET PROTECTION

MATERIALS:
Use filter fabric that conforms to SCDOT standard specifications for highway construction (latest edition). Refer to the silt fence geotextile fabrics Approval Sheet #34.

Use steel posts that meet the following minimum physical requirements:
Be composed of high strength steel with minimum yield strength of 50,000 psi.
Have a standard "T" section with a nominal face width of 1.38–inches and nominal "T" length of 1.48–inches.
Weigh 1.25 pounds per foot (± 8%).
Be painted with a water based baked enamel paint.

Attach fabric to metal posts with heavy–duty plastic ties.

INSTALLATION:
Excavate a trench 6–inches wide and 6–inches deep around the outside perimeter of the inlet unless the fabric is pneumatically installed.

Extend the filter fabric a minimum of 12–inches into the trench. Backfill the trench with soil or crushed stone and compact over the filter fabric unless the fabric is pneumatically installed.

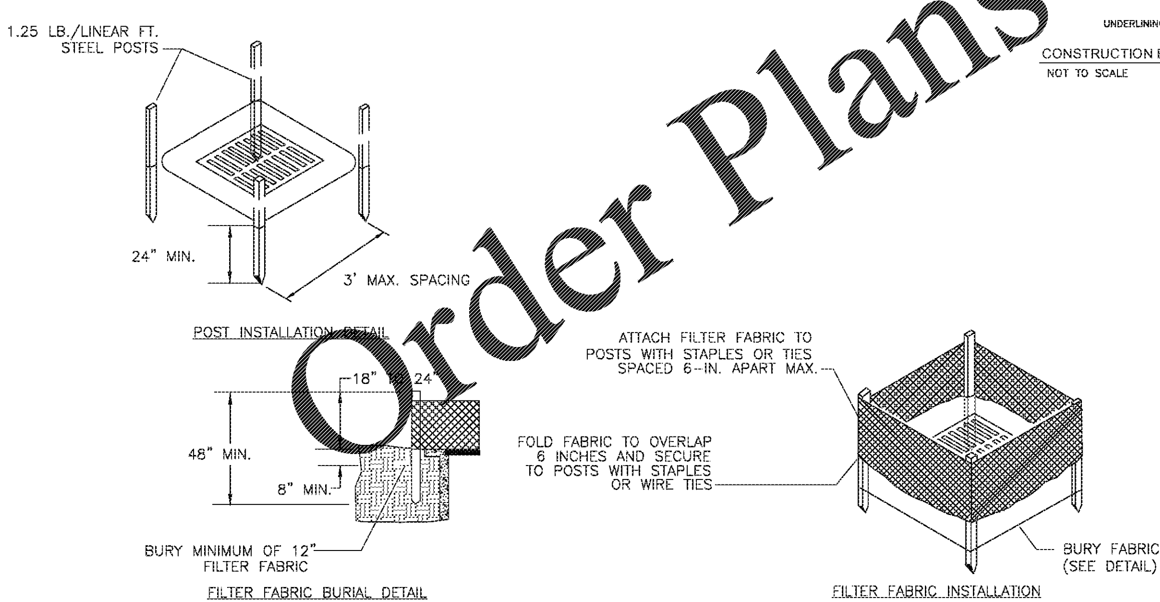
Use steel posts with a minimum post length of 60–inches consisting of standard "T" sections with a weight of 1.25 pounds per foot (±8%). Install the filter fabric to a minimum height of 24–inches above grade. Space the steel posts around the perimeter of the inlet a maximum of 3–feet apart and drive them into the ground a minimum of 24–inches. Cut the filter fabric from a continuous roll to the length of the protected area to avoid the use of joints. When joints are necessary, wrap filter fabric together only at a support post with both ends securely fastened to the post, with a minimum 6–inch overlap.

Attach fabric to steel posts with heavy–duty plastic ties.

Attach at least four (4) evenly spaced ties in a manner to prevent sagging or tearing of the fabric. In all cases, affix ties in no less than four (4) places.

INSPECTION AND MAINTENANCE:
Inspections should be made every 7 calendar days and within 24–hours after each storm that produces ½–inches or more of rain.If the fabric becomes clogged, it should be replaced.
Sediment should be removed when it reaches approximately 1/3 the height of the fence. Take care not to damage or undercut fabric when removing sediment.If a sump is used, sediment should be removed when it fills approximately 1/3 the depth of the hole.Maintain the pool area, always providing adequate sediment storage volume for the next storm.

Storm drain inlet protection structures should be removed only after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly.
Grade the disturbed area to the elevation of the drop inlet structure crest. Use appropriate permanent stabilization methods to stabilize bare areas around the inlet.



FILTER FABRIC INLET PROTECTION - TYPE A

NOT TO SCALE

When and Where to Use It

Stabilized construction entrances should be used at all points where traffic will be leaving a construction site and moving directly onto a public road.

Important Considerations

If washing is used, provisions must be made to intercept the wash water and trap the sediment before it is carried offsite. Washdown facilities shall be required as directed by SCDHEC as needed. Washdown areas in general must be established with crushed gravel and drain into a sediment trap or sediment basin.
Construction entrances should be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by vehicles.

Installation:
--Remove all vegetation and any objectionable material from the foundation area.
--Divert all surface runoff and drainage from stones to a sediment trap or basin.
--Install a non--woven geotextile fabric prior to placing any stone.
--Install a culvert pipe across the entrance when needed to provide positive drainage.
--The entrance shall consist of 1--inch to 3--inch D50 stone placed at a minimum depth of 6--inches.
--Minimum dimensions of the entrance shall be 24--feet wide by 100--feet long, and may be modified as necessary to accommodate site constraints.
--The edges of the entrance shall be tapered out towards the road to prevent tracking of mud at the edge of the entrance.

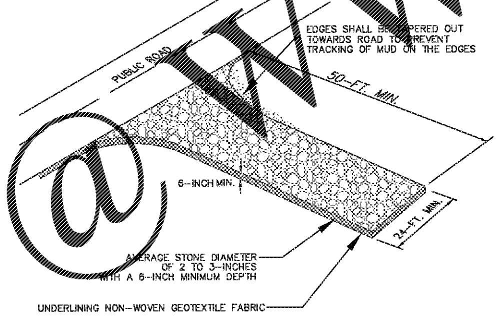
Inspection and Maintenance:

Inspect construction entrances every seven (7) calendar days and within 24–hours after each rainfall event that produces ½–inches or more of precipitation or after heavy use. Check for mud and sediment buildup and pad integrity. Make daily inspections during periods of wet weather. Maintenance is required more frequently in wet weather conditions. Reshape the stone pad as needed for drainage and runoff control.

Wash or replace stones as needed and as directed by the inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce mud being carried off–site by vehicles.
Frequent washing will extend the useful life of stone.

Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping.
Flushing should only be used when the water can be discharged to a sediment trap or basin.

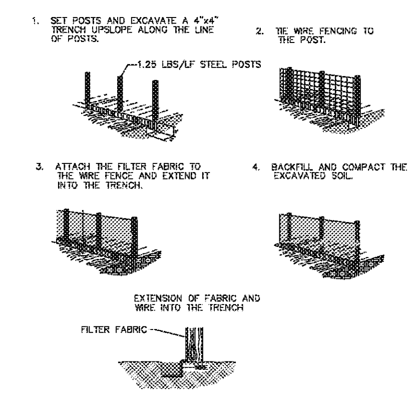
Repair any broken pavement immediately.



CONSTRUCTION ENTRANCE DETAIL

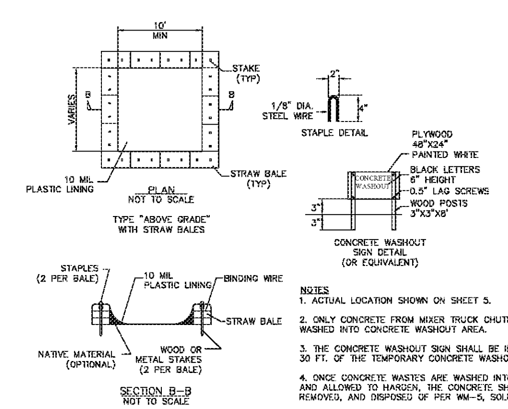
NOT TO SCALE

NOTES:
1. THE HEIGHT OF A SILT FENCE SHOULD NOT EXCEED 36 INCHES. HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE THE STRUCTURE TO FAIL.
2. THE FILTER FABRIC SHOULD BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE FENCE TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, A FILTER CLOTH SHOULD BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6–INCH OVERLAP AND SEALED SECURELY.
3. METAL POSTS SHOULD BE SPACED A MAXIMUM OF 10 FEET APART AT THE FENCE LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE. POST SPACING SHOULD NOT EXCEED 6 FEET.
4. A TRENCH SHOULD BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS, UPSLOPE FROM THE FENCE.
5. WHEN STANDARD STRENGTH FILTER IS USED, A WIRE MESH SUPPORT FENCE SHOULD BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY TIE WIRES OR HOG RINGS. THE WIRE SHOULD EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHOULD NOT EXCEED MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHOULD BE WIRED TO THE FENCE, AND 8 INCHES OF THE THE FABRIC SHOULD BE EXTENDED INTO THE TRENCH. THE FABRIC SHOULD NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. DO NOT STAPLE FILTER FABRIC TO TREES.
7. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF NO. 6 APPLYING.
8. THE TRENCH SHOULD BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.



TEMPORARY SILT FENCE DETAIL

NOT TO SCALE



NOTES
1. ACTUAL LOCATION SHOWN ON SHEET 5.

2. ONLY CONCRETE FROM MIXER TRUCK CHUTES SHOULD BE WASHED INTO CONCRETE WASHOUT AREA.

3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

4. ONCE CONCRETE WASTES ARE WASHED INTO THE WASHOUT AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF PER WM–5, SOLID WASTE MANAGEMENT.

5. WASHOUT AREAS MUST BE CLEANED OUT WHEN IT IT 75% FULL.

6. WHEN WASHOUT AREA IS NO LONGER NEEDED, MATERIALS USED TO CONSTRUCT THE WASHOUT AREA SHOULD BE REMOVED FROM THE SITE AND DISPOSED OF.

7. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE CONCRETE WASHOUT AREA SHOULD BE BACKFILLED AND REPAIRED.

CONCRETE WASHOUT AREA DETAIL (IF NECESSARY)

NOT TO SCALE

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REV.	DATE	DESCRIPTION
1.	11.22.19	Revised based on changes to FEMA flood maps.
2.	8.11.20	Bid Set

JOB #: 16–039–1 07.15.2019
TLPGS NO. 803–A

DETAILS

C10.0