FILTREXX®

SWPPP Cut Sheet

Last Updated: 7-1-07

Section 1: Erosion and Sediment Control – Construction Activities

1.1 Filtrexx SiltSoxx™

Sediment & Perimeter Control Technology

PURPOSE & DESCRIPTION

Filtrexx SiltSoxx™ are a three-dimensional tubular sediment control and storm water runoff filtration device typically used for perimeter control of sediment and other soluble pollutants (such as phosphorus and petroleum hydrocarbons), on and around construction activities.

APPLICATION

Filtrexx SiltSoxx™ are to be installed down slope of any disturbed area requiring erosion and sediment control and filtration of soluble pollutants from runoff. SiltSoxx™ are effective when installed perpendicular to sheet or low concentrated flow. Acceptable applications include:

- Site perimeters
- Above and below disturbed areas subject to sheet runoff, interrill and rill erosion
- Above and below exposed and available slopes
- Around area drains or inlets located in a 'sump'
- On compacted soils where trenching of silt fence is difficult or impossible
- Around sensitive trees where trenching of silt fence is not beneficial for tree survival or may unnecessarily disturb established vegetation.
- On frozen ground where trenching of silt fence is impossible.
- On paved surfaces where trenching of silt fence is impossible.

INSTALLATION

1. SiltSoxx™ used for perimeter control of sediment and soluble pollutants in storm runoff shall meet Filtrexx Soxx™ Material Specifications and use Certified Filtrexx FilterMedia™.
2. Contractor is required to be Filtrexx Certified™ as determined by Filtrexx International, LLC (*440-926-3607* or visit website at www. filtrexx.com). Certification shall be considered current if appropriate identification is shown during time of bid or at time of application (current listing can be found at www.filtrexx.com). Look for the Filtrexx Certified™ Seal.
3. SiltSoxx™ will be placed at locations indicated on plans as directed by the Engineer.
4. SiltSoxx™ should be installed parallel to the base of the slope or other disturbed area. In extreme conditions (i.e., 2:1 slopes), a second SiltSoxx™ shall be constructed at the top of the slope.
5. Stakes shall be installed through the middle of the SiltSoxx™ on 10 0 (3m) centers, using 2 in (50mm) by 2 in (50mm) by 3 0 (3m) wooden stakes. In the event staking is not possible, i.e., when SiltSoxx™ are used on pavement, heavy concrete blocks shall be used behind the SiltSoxx™ to help stabilize during rainfall/runoff events.
6. Staking depth for sand and silt loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.
7. Loose compost may be backfilled along the upslope side of the SiltSoxx™, filling the seam between the soil surface and the device, improving filtration and sediment retention.
8. If the SiltSoxx™ is to be left as a permanent filter or part of the natural landscape, it may be seeded at time of installation for establishment of permanent vegetation. The Engineer will specify seed requirements.
9. Filtrexx SiltSoxx™ are not to be used in perennial, ephemeral, or intermittent streams.

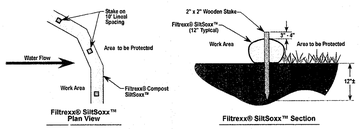
See design drawing schematic for correct Filtrexx SiltSoxx™ installation (Figure 1.1).

INSPECTION and MAINTENANCE

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

1. The Contractor shall maintain the SiltSoxx™ in a functional condition at all times and it shall be routinely inspected.
2. If the SiltSoxx™ 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 SiltSoxx™ when accumulation has reached 1/2 of the effective height of the SiltSoxx™, or as directed by the Engineer. Alternatively, a new SiltSoxx™ can be placed on top of and slightly behind the original one creating more sediment storage capacity without soil disturbance.
4. SiltSoxx™ shall be maintained until disturbed area above the device has been permanently stabilized and construction activity has ceased.
5. The FilterMedia™ will be dispersed on site once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the Engineer.
6. For long-term sediment and pollution control applications, SiltSoxx™ can be seeded at the time of installation to create a vegetative filtering system for prolonged and increased filtration of sediment and soluble pollutants (contained vegetative filter strip). The appropriate seed mix shall be determined by the Engineer.

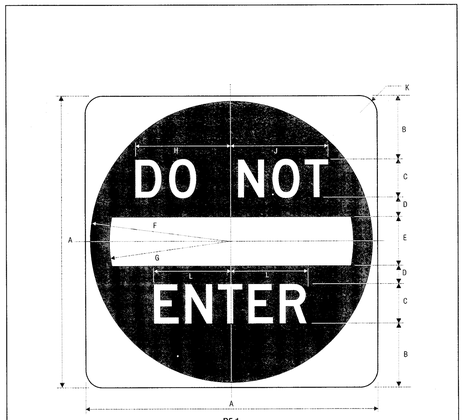
Filtrexx® SiltSoxx™ Details



Notes:
1. All material to meet Filtrexx® specifications.
2. SiltSoxx™ compost/soil mix/shaved fill to meet application requirements.
3. SiltSoxx™ depicted is for minimum slopes. Greater slopes may require larger socks per the Engineer.
4. Compost material to be dispersed on site, as determined by Engineer.

Slope Percent	Maximum Slope Length Above SiltSoxx™ in Feet (meters)*				
	8 in (200 mm) SiltSoxx™	12 in (300 mm) SiltSoxx™	18 in (450 mm) SiltSoxx™	24 in (600mm) SiltSoxx™	32 in (800;mm) SiltSoxx™
	7 in (175 mm)**	10 in (250 mm) **	15 in (375 mm) **	20 in (500 mm) **	26 in (65o mm) **
2 (or less)	600 (180)	750 (225)	1000 (300)	1300 (400)	1o50 (500)
5	400 (120)	500 (150)	550 (165)	650 (200)	750 (225)
10	200 (60)	250 (75)	300 (90)	400 (120)	500 (150)
15	140 (40)	170 (50)	200 (60)	325 (100)	450 (140)
20	100 (30)	125 (38)	140 (42)	260 (80)	400 (120)
25	80 (24)	100 (30)	110 (33)	200 (60)	275 (85)
30	60 (18)	75 (23)	90 (27)	130 (40)	200 (60)
35	60 (18)	75 (23)	80 (24)	115 (55)	150 (45)
40	60 (18)	75 (23)	80 (24)	100 (30)	125 (38)
45	40 (12)	50 (15)	60 (18)	80 (24)	100 (30)
50	40 (12)	50 (15)	55 (17)	65 (20)	75 (23)

*Based on a failure point of 36 in (0.9 m) super silt fence (wire reinforced) at 1000 ft (303 m) of slope, watershed width equivalent to receiving length of sediment control device, 1 in/ 24 hr (25 mm/24 hr) rain event. **Effective height of Silt Soxx™ after installation and with constant head from runoff as determined by Ohio State University.

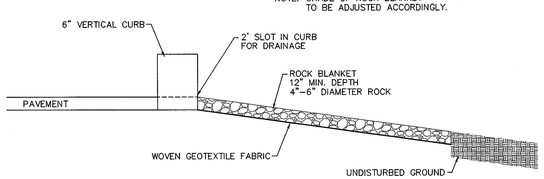


	A	B	C	D	E	F	G	H	J	K	L
C	30	6.5	4 0	2	5	14.5	12.5	9.75	10	1.875	7.875
	36	7.5	5 0	2.5	6	17.5	15	12	12.375	2.25	9.813
	48	11	6 0	3	8	23.5	20	14.5	15	3	11.75

COLORS: SYMBOL – RED (RETROREFLECTIVE)
LEGEND & BACKGROUND – WHITE (RETROREFLECTIVE)

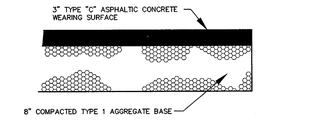
1-73

NOTE: GRADE OF ROCK BLANKET TO BE ADJUSTED ACCORDINGLY.



RIP RAP UNDERLAIN WITH WOVEN GEOTEXTILE FABRIC AT CURB OPENING

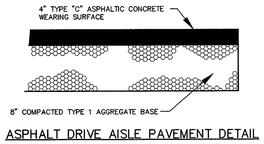
N.T.S.



ASPHALT PARKING SPACE PAVEMENT DETAIL

NOT TO SCALE

* ALL GRANULAR ROLLED STONE BASE UNDER PROPOSED CONCRETE MUST BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEXT AASHTO T–99. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI IN 28 DAYS



ASPHALT DRIVE AISLE PAVEMENT DETAIL

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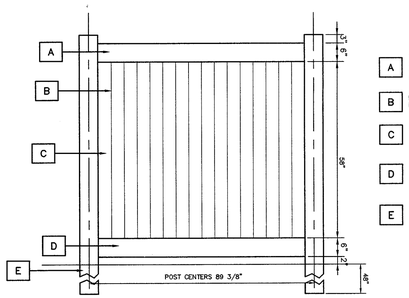
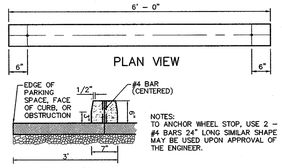


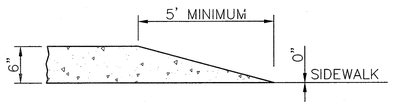
A	TOP RAIL 2"X 6"X 88" RIBBED CHANNELED TO ACCEPT PICKETS INCLUDES REINFORCING CHANNEL
B	PICKET SPACING NONE
C	PICKETS 28 PIECES OF 7/8"X 6"X 30–1/2"
D	BOTTOM RAIL 2"X 4"X 88" RIBBED CHANNELED TO ACCEPT PICKETS INCLUDES REINFORCING CHANNEL
E	POST 5"X 6' X 120" FOR IN GROUND INSTALLATION 5"X 6' X 84" FOR ABOVE GROUND INSTALLATION

6' HIGH VINYL PRIVACY FENCE

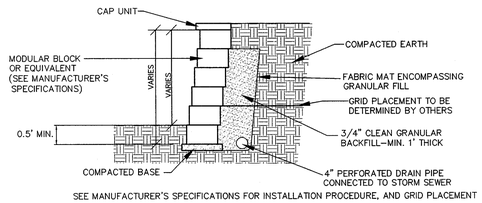
NOT TO SCALE



PRECAST CONCRETE WHEELSTOP



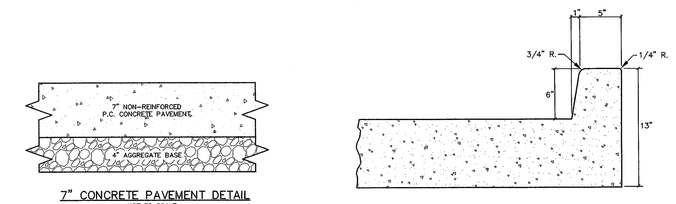
CURB TAPER DETAIL



SEE MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION PROCEDURE, AND GRID PLACEMENT

MODULAR BLOCK CONCRETE RETAINING WALL

(RETAINING WALL DESIGN BY OTHERS) NOT TO SCALE



7" CONCRETE PAVEMENT DETAIL

NOT TO SCALE

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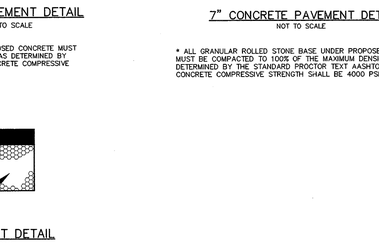

PROVIDE 1/2" PREMOLDED EXPANSION JOINT FILLER AT 60' CENTERS
PROVIDE TOOLED CONTRACTION JOINTS AT 10' C.C.

TURNED DOWN CONCRETE WALK

NOT TO SCALE

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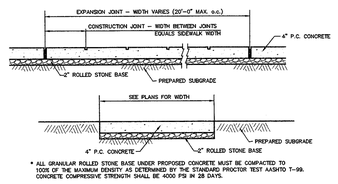

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CONCRETE SIDEWALK DETAIL

NOT TO SCALE

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TYPE "A" INTEGRAL CURB WITHIN R/W

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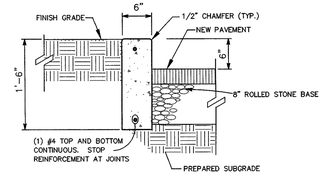

CONCRETE CURB DETAIL

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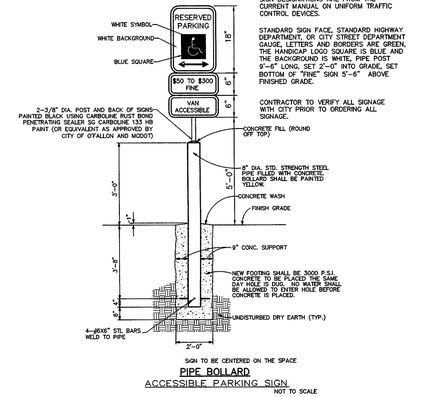


SIGN DESIGNATIONS ARE FROM THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS ARE GREEN, THE HANDICAP LOGO SQUARE IS BLUE AND THE BACKGROUND IS WHITE, PIPE POST 9'–6" LONG, SET 2'–0" INTO GRADE, SET BOTTOM OF "FINE" SIGN 5'–6" ABOVE FINISHED GRADE.

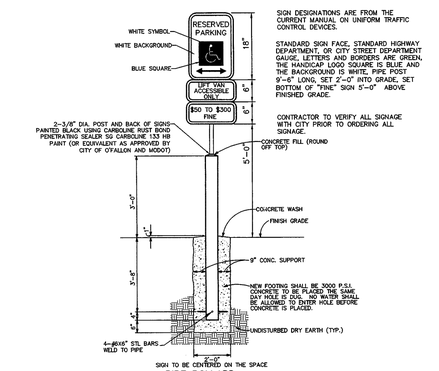
CONTRACTOR TO VERIFY ALL SIGNAGE WITH CITY PRIOR TO ORDERING ALL SIGNAGE.

SIGN TO BE CENTERED ON THE SPACE

PIPE BOLLARD

ACCESSIBLE PARKING SIGN

NOT TO SCALE



SIGN TO BE CENTERED ON THE SPACE

PIPE BOLLARD

ACCESSIBLE VAN PARKING SIGN

NOT TO SCALE

PROJECT TITLE:
SCCAD BASE 5
8430 MEXICO RD.
ST. PETERS, MO. 63376

Bax Project #00-11214G

ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

DISCLAIMER OF RESPONSIBILITY
I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project.

STATE OF MISSOURI
LARRY DAVID WALKER
NUMBER PE-2007020343
PROFESSIONAL ENGINEER
LARRY D. WALKER
CIVIL ENGINEER
2007020343
8/14/17

REVISIONS

5–10–17	CITY SUBMITTAL
6–9–17	BID SET
7–18–17	CITY COMMENTS
8–18–17	CITY COMMENT

Developer / Owner:
ST. CHARLES COUNTY AMBULANCE DISTRICT
4169 OLD MILL PARKWAY
ST. PETERS, MISSOURI 63376

CONSTRUCTION DETAILS

P+Z No. #1302.15.01
approved (5-5-2016)
extension (7-6-17)
City No. #17-003492

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