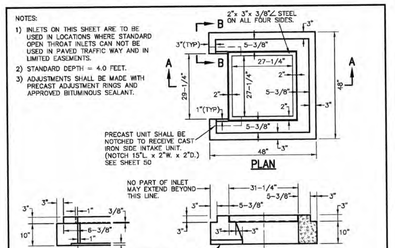
ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASEMENT	INSIDE DIMENSIONS OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASEMENT
4	30	2.50	3.28				
6	30	2.50	3.59				
8	30	2.50	3.87				
10	30	2.50	4.09				
12	30	2.50	4.25				
15	36	3.00	5.55				
18	36	3.00	5.77	14 x 23	41	3.42	5.94
21	39	3.25	6.61				
24	42	3.50	7.39	19 x 30	49	4.08	7.68
27	45	3.75	8.18	22 x 34	53	4.42	8.61
30	49	4.08	9.30	24 x 38	58	4.83	9.70
33	53	4.42	10.53	27 x 42	62	5.17	10.71
36	56	4.67	11.43	29 x 45	66	5.50	11.72
39	DISCONTINUED			32 x 49	71	5.92	13.14
42	63	5.25	13.38	34 x 53	75	6.25	14.05
48	70	5.83	15.67	38 x 60	83	6.92	16.18
54	77	6.42	18.15	43 x 68	92	7.67	18.81
60	84	7.00	20.73	48 x 76	101	8.42	21.59
66	91	7.58	23.45	53 x 83	109	9.08	24.35
72	98	8.17	26.37	58 x 91	118	9.83	27.45
78	105	8.75	29.39	63 x 98	126	10.50	30.50
84	112	9.33	32.57	68 x 106	135	11.25	33.91
90	119	9.92	35.90	72 x 113	143	11.92	36.99
96	126	10.50	39.37	77 x 121	152	12.67	40.69
102	133	11.08	42.99	82 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 136	168	14.00	47.79
114	147	12.25	50.65	92 x 143	176	14.67	51.70
120	154	12.83	54.72	97 x 151	185	15.42	56.01
126	161	13.42	58.92				
132	168	14.00	63.27	106 x 166	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	18.17	73.59

TABLE 1
PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

Dr. B.E.B. Ch. J.C.K.	2009	SHEET 1

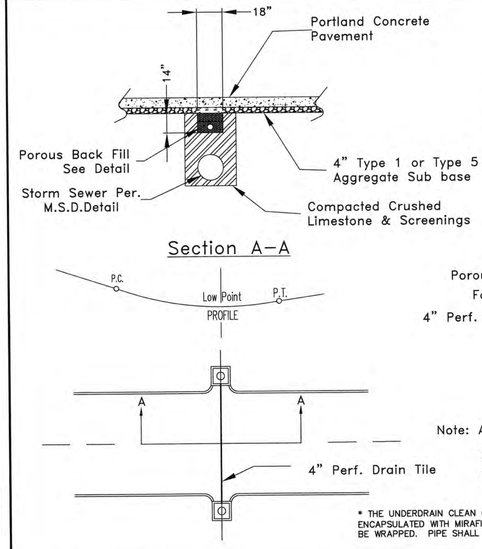
NOTES:
1) INLETS ON THIS SHEET ARE TO BE USED IN LOCATIONS WHERE STANDARD OPEN THROAT INLETS CAN NOT BE USED IN PAVED TRAFFIC WAY AND IN LIMITED EASEMENTS.
2) STANDARD DEPTH = 4.0 FEET.
3) ADJUSTMENTS SHALL BE MADE WITH PRECAST ADJUSTMENT RINGS AND APPROVED BITUMINOUS SEALANT.



GRATE SEAT FOR 2 GRATE INLET WITH SIDE INTAKE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

Dr. WSH/MCK Ch. J.C.K.	2009	SHEET 32

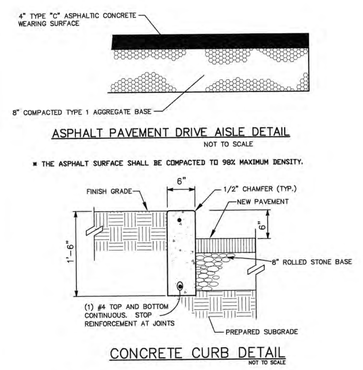


Note: At connections of 4" perforated pipe to sewer structure use an approved water stop gasket.

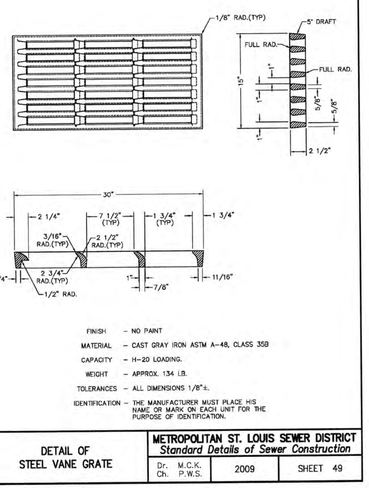
* THE UNDERDRAIN CLEAN (POROUS) BACKFILL SHALL BE ENCAPSULATED WITH MIRAFI 140N (OR EQUAL). 4" PIPE SHALL NOT BE WRAPPED. PIPE SHALL SLOPE TOWARD GI 101 AT 1% MIN. SLOPE.

CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

CLASS A UNDERDRAINS



* 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

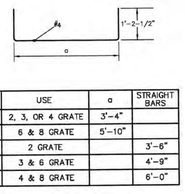


FINISH – NO PAINT
MATERIAL – CAST GRAY IRON ASTM A-48, CLASS 35B
CAPACITY – H-20 LOADING.
WEIGHT – APPROX. 134 LB.
TOLERANCES – ALL DIMENSIONS 1/8"±.
IDENTIFICATION – THE MANUFACTURER MUST PLACE HIS NAME OR MARK ON EACH UNIT FOR THE PURPOSE OF IDENTIFICATION.

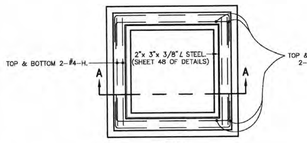
DETAIL OF STEEL VANE GRATE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

Dr. M.C.K. Ch. P.W.S.	2009	SHEET 49



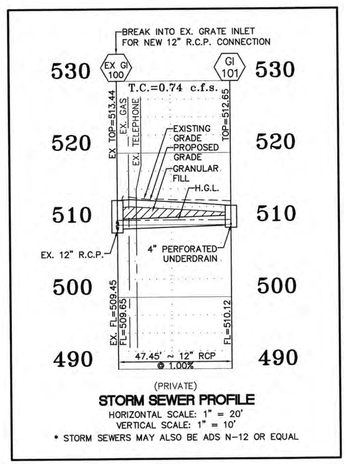
CALL	USE	a	STRAIGHT BARS
G-1	2, 3, OR 4 GRATE	3'-4"	
G-2	6 & 8 GRATE	5'-10"	
H-2	2 GRATE		3'-6"
H-3	3 & 6 GRATE		4'-9"
H-4	4 & 8 GRATE		6'-0"



STEEL REQUIREMENTS FOR GRATE INLET SEAT

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

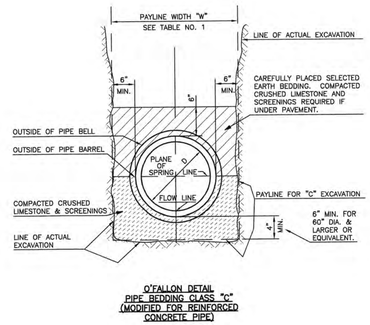
Dr. WSH/SAM Ch. J.C.K.	2009	SHEET 50



(PRIVATE)

STORM SEWER PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'

* STORM SEWERS MAY ALSO BE ADS N-12 OR EQUAL



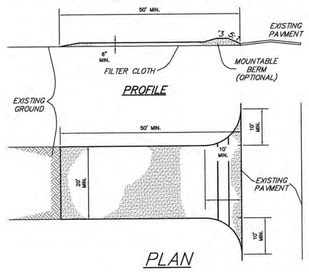
O'FALLON DETAIL
PIPE BEDDING CLASS "C"
(MODIFIED FOR REINFORCED CONCRETE PIPE)

BAX PROJECT NAME : DRIVE AISLE CONNECTION
BAX PROJECT NO. : 01-11336
DESIGN DATE : 10-15-18
FILENAME : 11336

UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH HY GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	JUNC LOSS	TURN LOSS	Q	TQ	PIPE CAP	LINE NUMBER	REMARKS
GI101	EXGI100	47	12	510.12	509.65	0.99	512.65	1.97	510.68	510.65	.00040	0.02	0.94	0.01	0.01	0.00	0.74	0.74	3.55	1	ITP=510.65

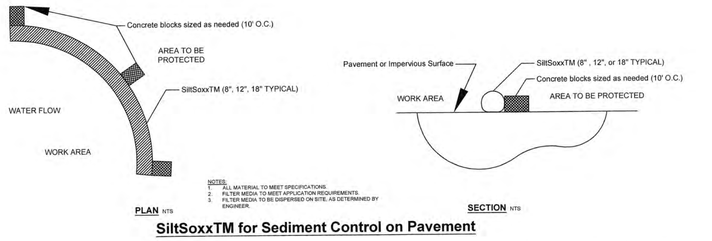
* INDICATES CRITICAL DEPTH

STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS

1. Stone Size – Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length – As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness – Not less than six (6) inches.
4. Width – Twenty (20) foot minimum, but not less than the full width at points where ingress or egress
5. Filter Cloth – Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water – All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance – The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing – Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain occurs.



SiltSoxxTM for Sediment Control on Pavement

FILTREXX® SOXX™ SYSTEMS

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 phosphorous 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 erodable slopes
- Around area drains or inlets (secured 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 (440-926-2607 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 ft (3m) centers, using 2 in (50mm) by 2 in (50mm) by 3 ft (1m) 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, ephermeral, 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™ should 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.

PROJECT TITLE:
CONSTRUCTION PLANS FOR DRIVE AISLE CONNECTION
3004 HIGHWAY K
O'FALLON, MISSOURI 63366

Bax Project # 01-11336 | Issue Date: 10/16/2018

ENGINEERING PLANNING SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5532
FAX 928-1718

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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 in this state.

STATE OF MISSOURI
LARRY DAVID WALKER
NUMBER PE-2007020343
PROFESSIONAL ENGINEER
10/16/18

Larry D. Walker
Civil Engineer
2007020343

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REVISIONS

Developer / Owner:
CISSELL MUELLER
5530 Salt River Road
St. Peters, Missouri 63376
(636) 970-0330

CONSTRUCTION DETAILS

P+Z No. #18-007793
Approval Date 09-06-18
City No. #

Page No. 5 of 5

ENGINEER SEAL DOES NOT APPLY TO MSD, CITY OF O'FALLON AND FILTREXX DETAILS

\\VAULTSERVER\Civil 3d Projects\11336\Construction\11336 CON.dwg, 10/16/2018 9:50:30 AM, XL 5000.pc3