

NOTES:
 1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY OF (2) CHAMBER CORRUGATION VALLEYS CONTAINING A STIFFENING RIB.
 2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED.

MC-4500 INSPECTION PORT DETAIL

SCALE:	NTS
DATE:	6/15/11
DRAWN BY:	KLJ
CHECKED:	KAM

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W x L x INSTALLED LENGTH)	100.0" x 80.0" x 48.3" (2540 mm x 1524 mm x 1227 mm)
CHAMBER STORAGE	106.5 ft ³ (3.01 m ³)
MINIMUM INSTALLED STORAGE*	162.6 ft ³ (4.60 m ³)
NOMINAL WEIGHT	120 lbs (54.4 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W x L x INSTALLED LENGTH)	90.2" x 59.4" x 30.7" (2291 mm x 1509 mm x 781 mm)
END CAP STORAGE	35.7 ft ³ (1.01 m ³)
MINIMUM INSTALLED STORAGE*	108.7 ft ³ (3.08 m ³)
NOMINAL WEIGHT	120 lbs (54.4 kg)

*ASSUMES 8" (203 mm) STONE FOUNDATION, 12" (305 mm) ROW SPACING, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PART #	STUB	A	B	C
MC4500EP001	8" (190 mm)	42.54" (1081 mm)	N/A	N/A
MC4500EP002	8" (190 mm)	40.50" (1029 mm)	0.88" (22 mm)	N/A
MC4500EP003	8" (190 mm)	N/A	N/A	1.01" (25 mm)
MC4500EP004	10" (250 mm)	38.57" (976 mm)	N/A	N/A
MC4500EP005	10" (250 mm)	N/A	N/A	1.13" (29 mm)
MC4500EP006	12" (300 mm)	35.89" (907 mm)	N/A	N/A
MC4500EP007	12" (300 mm)	N/A	N/A	1.55" (39 mm)
MC4500EP008	15" (375 mm)	N/A	N/A	N/A
MC4500EP009	15" (375 mm)	29.38" (748 mm)	N/A	1.70" (43 mm)
MC4500EP010	18" (450 mm)	N/A	N/A	N/A
MC4500EP011	18" (450 mm)	23.06" (580 mm)	N/A	1.97" (50 mm)
MC4500EP012	24" (600 mm)	N/A	N/A	N/A
MC4500EP013	24" (600 mm)	N/A	N/A	2.28" (57 mm)
MC4500EP014	30" (750 mm)	N/A	N/A	2.88" (73 mm)
MC4500EP015	36" (900 mm)	N/A	N/A	3.29" (83 mm)
MC4500EP016	42" (1050 mm)	N/A	N/A	3.89" (99 mm)

MC-4500 TECHNICAL SPECIFICATIONS

SCALE:	NTS
DATE:	11-22-11
DRAWN BY:	KAM
CHECKED:	

MC-4500 STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-4500 OR APPROVED EQUAL.
- CHAMBERS SHALL BE MADE FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F 2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- ONLY CHAMBERS THAT ARE APPROVED BY THE ENGINEER WILL BE ALLOWED. THE CONTRACTOR SHALL SUBMIT (3 SETS) OF THE FOLLOWING TO THE ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - A STRUCTURAL EVALUATION BY A REGISTERED STRUCTURAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET.
 - STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL CROSS SECTION IS BASED.
- THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

MC-4500 CHAMBER SPECIFICATIONS

SCALE:	NTS
DATE:	12-29-10
DRAWN BY:	JM
CHECKED:	KAM

MC-4500 ISOLATOR ROW PROFILE

SCALE:	NTS
DATE:	12-28-10
DRAWN BY:	JM
CHECKED:	KAM

ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION ¹	COMPACTION/DENSITY REQUIREMENT
ⓐ FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBGRADE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
ⓑ FILL MATERIAL FOR LAYER 'E' STARTS FROM THE TOP OF THE EMBEDMENT STONE (E' LAYER) TO 2" (51 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBGRADE MAY BE A PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, < 3/16" FINES. MOST PAVEMENT SUBGRADE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTION AFTER 2" (51 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (305 mm) MAX LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY.
ⓒ EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE. NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH (19 - 51 mm)	3, 4	NO COMPACTION REQUIRED.
ⓓ FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE. NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH (19 - 51 mm)	3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A 85% STANDARD PROCTOR DENSITY. ¹

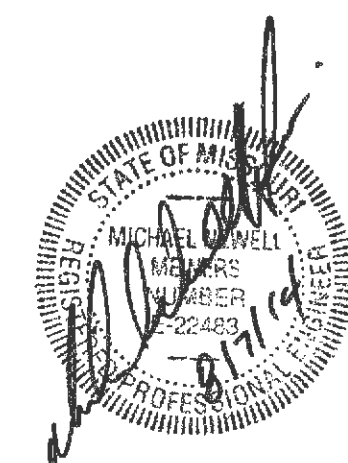
PLEASE NOTE:
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 8" (203 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

MC-4500 ACCEPTABLE FILL MATERIALS

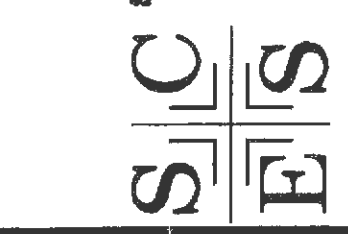
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MC-4500 TYP CROSS SECTION

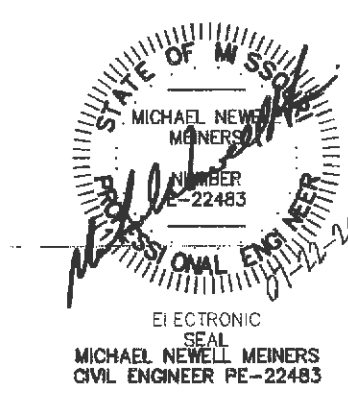
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ENGINEER SIGNATURE
 BLOCK



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 (314) 220-1205

P+Z No. 18-1205
 Approval Date: May 2, 2013
 City No.

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