

MC-3500 STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-3500 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.
- 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.
- 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-3500 TYPICAL CROSS-SECTION

SCALE: NTS
DATE: 7-17-09
DRAWN BY: JLM
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MC-3500 OUTLET/ UNDERDRAIN DETAIL

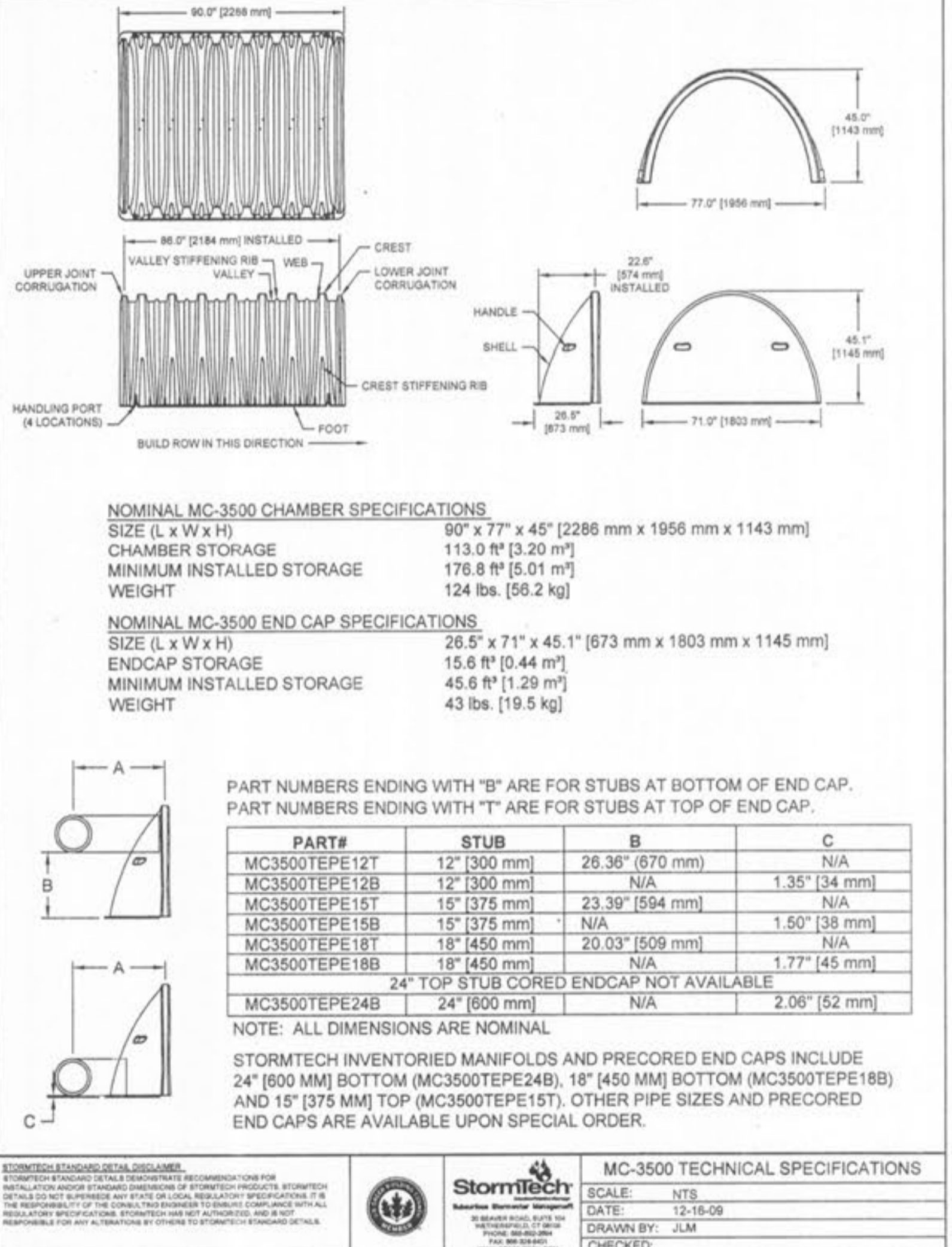
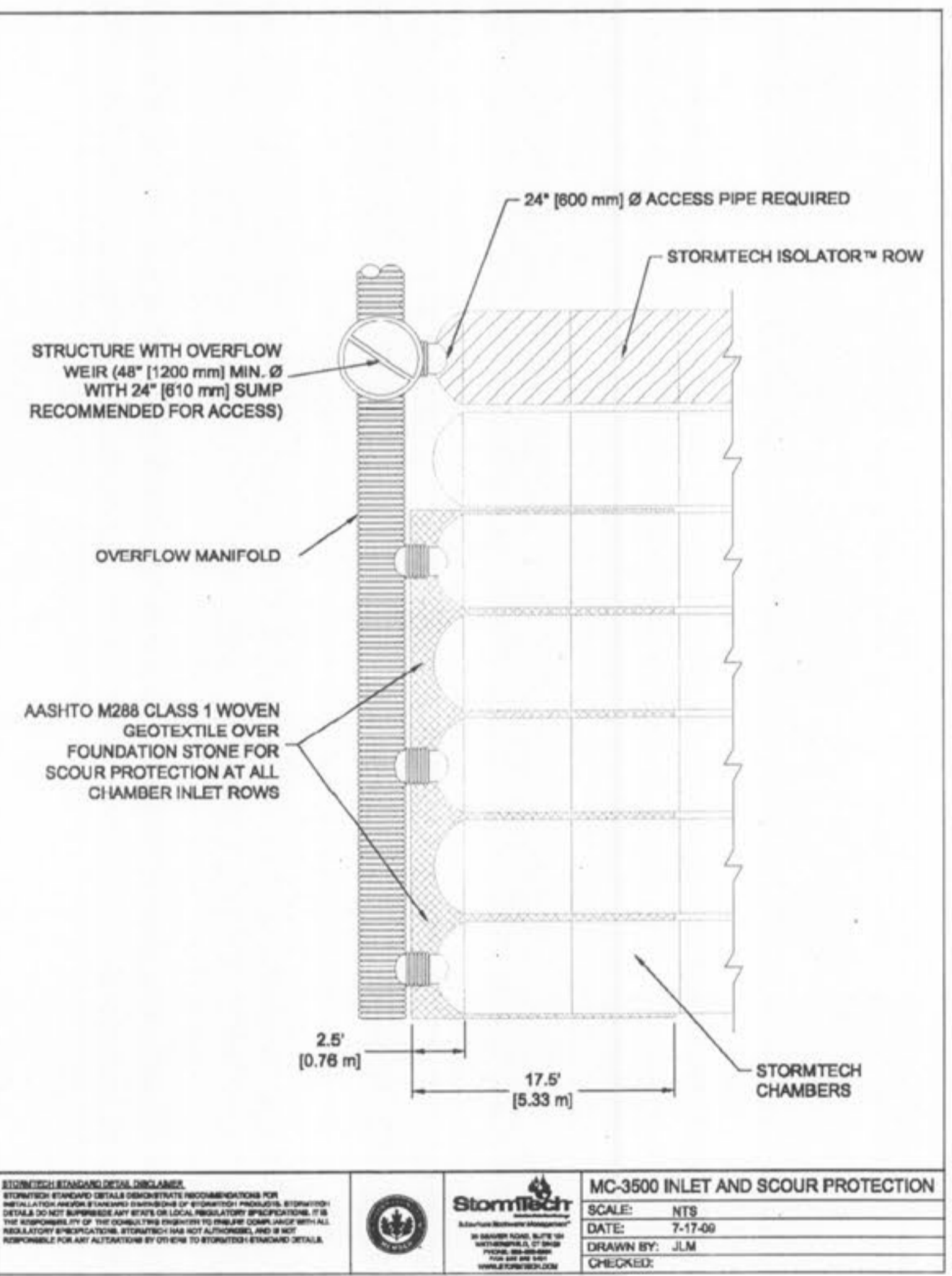
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MC-3500 ISOLATOR™ ROW PROFILE

SCALE: NTS
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FOUNDATION GEOTEXTILE FABRIC

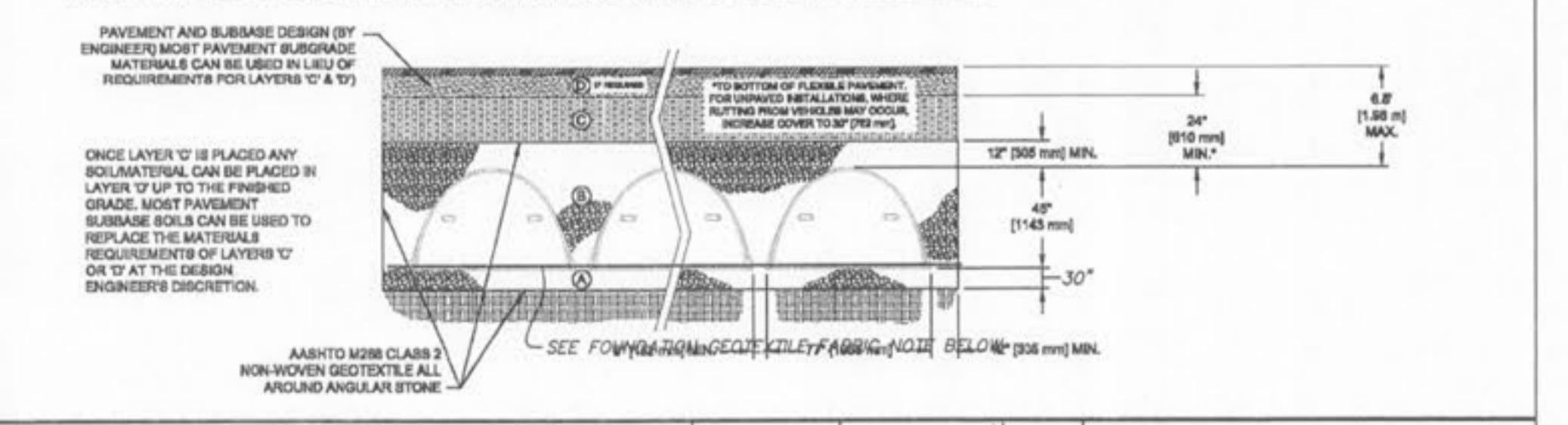
- GEOTEXTILE FABRIC AT BASE OF FOUNDATION ROCK FOR THE STORMTECH UNITS SHALL BE MIRAFI 600X OR EQUAL.
- GEOTEXTILE FABRIC SHALL BE PLACED DIRECTLY ON PREPARED SUBGRADE. THE FABRIC SHOULD BE ROLLED OUT FLAT AND TIGHT WITH NO FOLDS.
- GEOTEXTILE FABRIC SHALL BE ORIENTED IN THE DIRECTION OF THE STORMTECH UNITS.
- ADJACENT GEOTEXTILE ROLLS SHALL BE OVERLAPPED A MINIMUM OF 18\".
- PRIOR TO BASE ROCK PLACEMENT, THE GEOTEXTILE SHALL BE HELD IN PLACE USING PINS OR NAILS AND EACH END OF THE ROLL SHALL BE HELD IN PLACE WITH PILES OF BASE ROCK PRIOR TO ADDITIONAL BASE ROCK PLACEMENT.
- FILL OVER GEOTEXTILE FABRIC SHALL BE PLACED IN 8\" TO 12\" LOOSE LIFTS.
- TRACKED CONSTRUCTION EQUIPMENT SHOULD NOT BE OPERATED DIRECTLY UPON THE GEOTEXTILE. A MINIMUM OF 6\" OF COMPACTED FILL IS REQUIRED FOR TRACKED VEHICLE OPERATION.
- NO MORE THAN ONE SPlice PER RUN SHALL BE ALLOWED. SPlices IN A RUN SHALL BE OVERLAPPED AT LEAST 5\". SPlices IN ADJACENT RUNS SHALL BE STAGGERED A MINIMUM OF 15\".



ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION ¹	COMPACTION/DENSITY REQUIREMENT
(C) FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'C' LAYER.	ANY SOLID ROCK MATERIALS, NATIVE SOILS OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBBASE REQUIREMENTS.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRONGER MATERIAL AND PREPARATION REQUIREMENTS.
(C) FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (9\"/>			

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 6\"/>



STORMTECH MC-3500 ACCEPTABLE FILL

SCALE: NTS
DATE: 7-17-09
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STORMWATER CHAMBER SPECIFICATIONS

SCALE: NTS
DATE: 2-25-09
DRAWN BY: JLM
CHECKED: KAM

PLANNING & DEVELOPMENT #1709.03 APPROVED JANUARY 7, 2010

STORM SEWER DETAILS
HILLMANN PLACE
ST. CHARLES COUNTY, O'FALLON, MISSOURI

Engineering Surveys & Services
1113 Fay Street
Columbia, Missouri
573 - 449 - 2646
Missouri Engineering Corporation # 2004005105

Surveyed: -
Drawn: BR
Checked: MK

Scale: AS SHOWN
Date: JUNE 4, 2010
Job: 11481
Sheet: C125

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PROFESSIONAL ENGINEER
PE-2007002811