

THE SELECTION OF STANDARD INSTALLATION SELECTION SHOULD BE BASED ON AN EVALUATION OF THE QUALITY OF CONSTRUCTION AND INSPECTION ANTICIPATED. A TYPE 1 STANDARD INSTALLATION REQUIRES THE HIGHEST CONSTRUCTION QUALITY AND DEGREE OF INSPECTION. REQUIRED CONSTRUCTION QUALITY IS REDUCED FOR A TYPE 2 STANDARD INSTALLATION, AND REDUCED FURTHER FOR A TYPE 3 STANDARD INSTALLATION. A TYPE 4 STANDARD INSTALLATION REQUIRES VIRTUALLY NO CONSTRUCTION OR QUALITY INSPECTION. CONSEQUENTLY, A TYPE 4 STANDARD INSTALLATION WILL REQUIRE A HIGHER STRENGTH PIPE, AND A TYPE 1 STANDARD INSTALLATION WILL REQUIRE A LOWER STRENGTH PIPE FOR THE SAME DEPTH OF INSTALLATION.

STANDARD INSTALLATIONS SOIL AND MINIMUM COMPACTION REQUIREMENTS

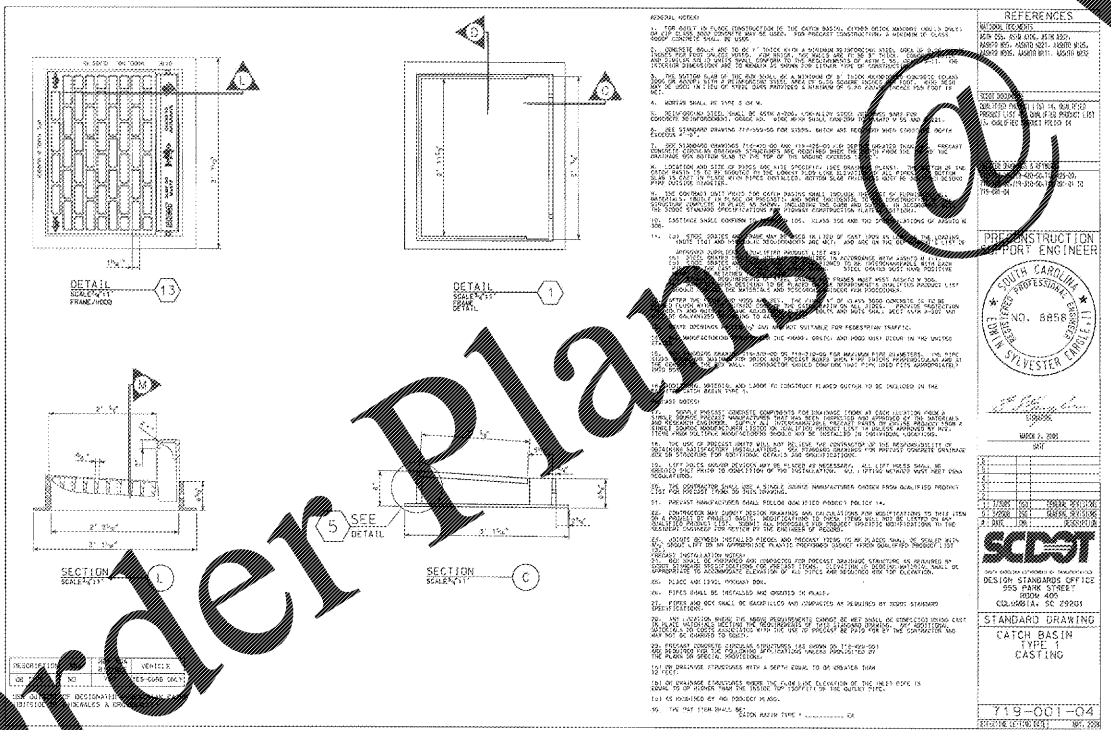
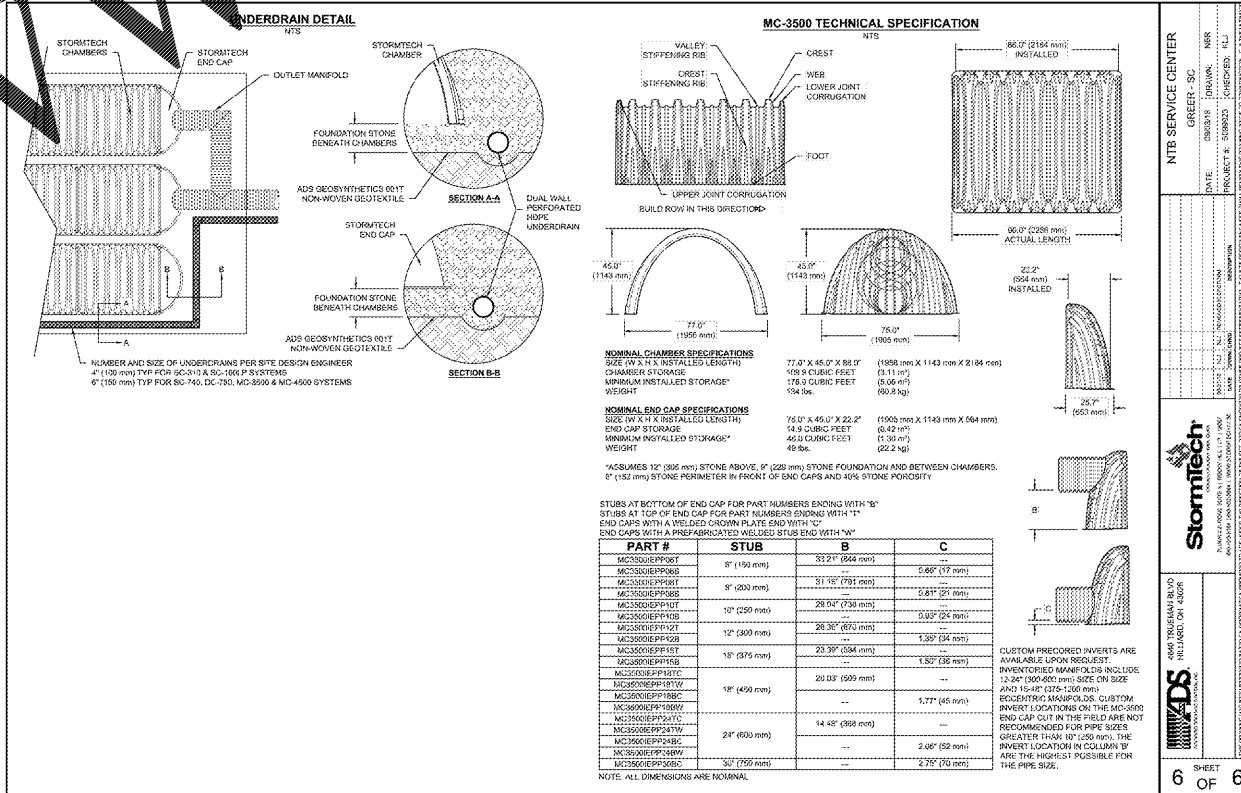
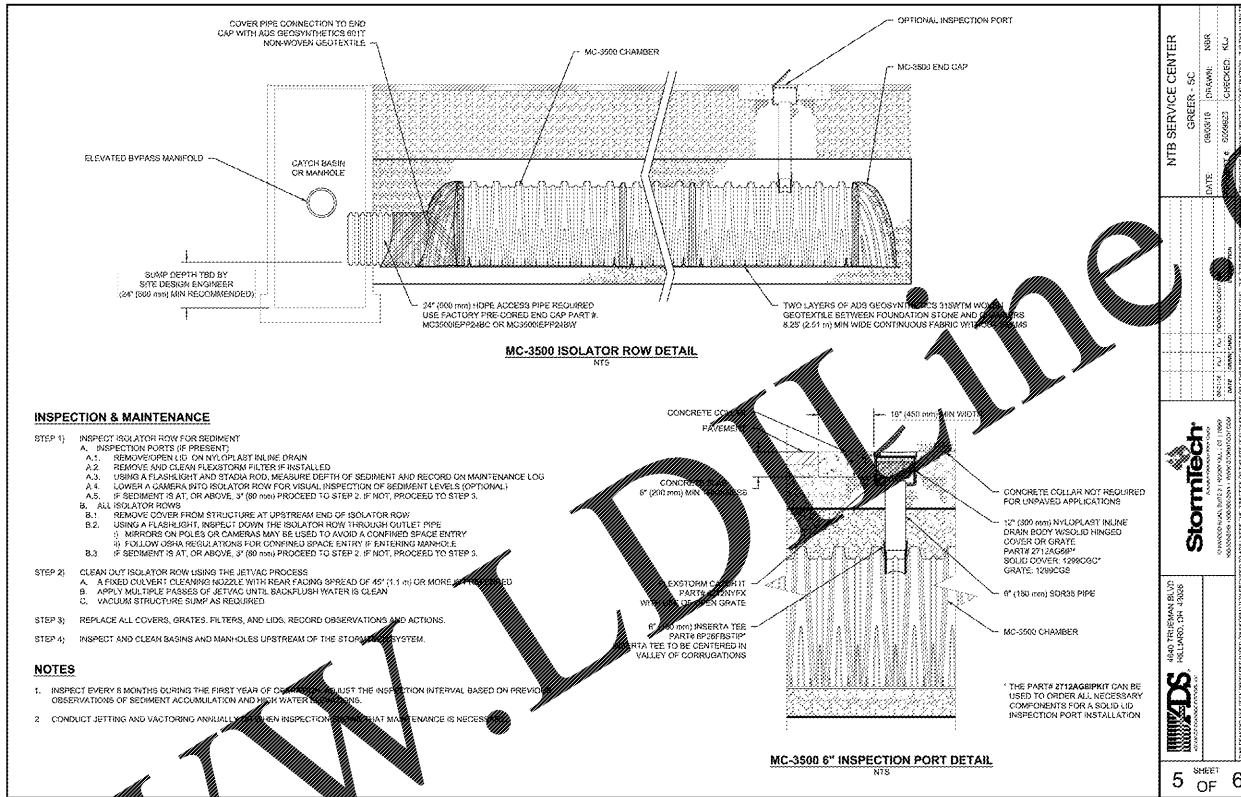
INSTALLATION TYPE	BEDDING THICKNESS	HAUNCH AND OUTER BEDDING	LOWER SIDE
TYPE 1	O.D./24 MIN., NOT LESS THAN 75 MM (3") IF ROCK FOUNDATION, O.D./12 MIN., NOT LESS THAN 150 MM (6").	95% CATEGORY I, OR 96% CATEGORY II, OR 100% CATEGORY III	90% CATEGORY I, 95% CATEGORY II, OR 100% CATEGORY III
TYPE 2	O.D./24 MIN., NOT LESS THAN 75 MM (3") IF ROCK FOUNDATION, O.D./12 MIN., NOT LESS THAN 150 MM (6").	90% CATEGORY I, OR 96% CATEGORY II, OR 95% CATEGORY III	85% CATEGORY I, 90% CATEGORY II, OR 95% CATEGORY III
TYPE 3	O.D./24 MIN., NOT LESS THAN 75 MM (3") IF ROCK FOUNDATION, O.D./12 MIN., NOT LESS THAN 150 MM (6").	85% CATEGORY I, OR 90% CATEGORY II, OR 95% CATEGORY III	80% CATEGORY I, 85% CATEGORY II, OR 90% CATEGORY III
TYPE 4	NO BEDDING REQUIRED, EXCEPT IF ROCK FOUNDATION. USE O.D./12 MIN., NOT LESS THAN 150 MM (6").	NO COMPACTION REQUIRED, EXCEPT IF CATEGORY III, THEN USE 85%.	NO COMPACTION REQUIRED, EXCEPT IF CATEGORY III, THEN USE 85%.

- NOTES:**
- COMPACTION AND SOIL SYMBOLS - I.E. "95% CATEGORY I" - REFERS TO CATEGORY I SOIL MATERIAL WITH MINIMUM STANDARD PROCTOR COMPACTION OF 95%. SEE TABLE FOR EQUIVALENT MODIFIED PROCTOR VALUES.
 - SOIL IN THE OUTER BEDDING, HAUNCH, AND LOWER SIDE ZONES, EXCEPT UNDER THE MIDDLE 1/3 OF THE PIPE, SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS THE MAJORITY OF SOIL IN THE OVERFILL ZONE. FOR TRENCHES, TOP ELEVATION SHALL BE NO LOWER THAN 0.1 H BELOW FINISHED GRADE OR, FOR ROADWAYS, ITS TOP SHALL BE NO LOWER THAN AN ELEVATION OF 1 FOOT BELOW THE BOTTOM OF THE PAVEMENT BASE MATERIAL.
 - FOR TRENCHES, WIDTH SHALL BE WIDER THAN SHOWN IF REQUIRED FOR ADEQUATE SPACE TO ATTAIN THE SPECIFIED COMPACTION IN THE HAUNCH AND BEDDING ZONES.
 - FOR TRENCH WALLS THAT ARE WITHIN 10 DEGREES OF VERTICAL, THE COMPACTION OR FIRMNESS OF THE SOIL IN THE TRENCH WALLS AND LOWER SIDE ZONE NEED NOT BE CONSIDERED.
 - FOR TRENCH WALLS WITH GREATER THAN 10 DEGREE SLOPES THAT CONSIST OF EMBANKMENT, THE LOWER SIDE SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS SPECIFIED FOR THE SOIL IN THE BACKFILL ZONE.
 - SUBTRENCHES
 - A SUBTRENCH IS DEFINED AS A TRENCH WITH ITS TOP BELOW FINISHED GRADE BY MORE THAN 0.1 H, OR, FOR ROADWAYS, ITS TOP IS AT AN ELEVATION LOWER THAN 1 FT. BELOW THE BOTTOM OF THE PAVEMENT BASE MATERIAL.
 - THE MINIMUM WIDTH OF A SUBTRENCH SHALL BE 1.33 OUTSIDE Ø OR WIDER IF REQUIRED FOR ADEQUATE SPACE TO ATTAIN THE SPECIFIED COMPACTION IN THE HAUNCH AND BEDDING ZONES.
 - FOR SUBTRENCHES WITH WALLS OF NATURAL SOIL, ANY PORTION OF THE LOWER SIDE ZONE IN THE SUBTRENCH WALL SHALL BE AT LEAST AS FIRM AS AN EQUIVALENT SOIL PLACED TO THE COMPACTION REQUIREMENTS SPECIFIED FOR THE LOWER SIDE ZONE AND AS FIRM AS THE MAJORITY OF SOIL IN THE OVERFILL ZONE, OR SHALL BE REMOVED AND REPLACED WITH SOIL COMPACTED TO THE SPECIFIED LEVEL.

EQUIVALENT USCS AND AASHTO SOIL CLASSIFICATIONS FOR SIDD SOIL DESIGNATIONS

SIDD SOIL	REPRESENTATIVE USCS	PERCENT STANDARD PROCTOR	MODIFIED PROCTOR
GRAVELLY SAND (CATEGORY I)	SW, SP, GW, GP	A1, A3	100, 95, 90, 85, 80, 75
	GM, SM, ML, WITH LESS THAN 20% PASSING #200 SIEVE	A2, A4	100, 95, 90, 85, 80, 75, 49, 46
	CL, MH, GC, SC	A5, A6	100, 90, 85, 80, 75, 45, 40
	SLTY CLAY (CATEGORY III)	CL, MH, GC, SC	100, 90, 85, 80, 75, 45, 40

C-2.4 RCP BEDDING, TRENCHING, AND BACKFILL NOT TO SCALE



ENGINEER: **FORENTE GROUP**
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PROJECT: **NTB**
 TIRES • SERVICE • BRAKES • BATTERIES
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 PARCEL # TO15000300300 & TO15000300301

SEAL: **SOUTH CAROLINA PROFESSIONAL ENGINEER**
 No. 34332
 C. BRANNON
 11/5/18

REVISIONS	DATE
JURISDICTIONAL COMMENTS	2018-11-02
JURISDICTIONAL COMMENTS	2018-11-09
JURISDICTIONAL COMMENTS	2018-11-14
JURISDICTIONAL COMMENTS	2018-11-19
JURISDICTIONAL COMMENTS	2018-11-28

PROJECT MANAGER: JMJ
 DRAWING BY: JAM
 JURISDICTION: GREER, SC
 DATE: 2018-09-21
 SCALE: AS SHOWN
 TITLE: STORM DRAINAGE DETAILS

SHEET NUMBER: **C-2.4**
 COMMENTS: PERMIT SET
 JOB/FILE NUMBER: 814.026

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SCDOT 719-001-04 FRAME GRATE HOOD, TYP 1. NOT TO SCALE

