

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: 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 SUBBASE 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 SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	NO COMPACTION REQUIRED.
Α	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

- 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". STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGNS, CONTACT STORMTECH FOR
- 4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE ALL AROUND CLEAN, CRUSHED, ANGULAR STONE IN A & B LAYERS "TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED STALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR INCREASE COVER TO 24" (600 mm). PERIMETER STONE 18" (450 mm) (SEE NOTE 4) 12" (300 mm) MIN **EXCAVATION WALL** (CAN BE SLOPED OR VERTICAL) (1143 mm) DEPTH OF STONE TO BE DETERMINED BY SITE DESIGN ENGINEER 9" (230 mm) MIN 6" (150 mm) MIN MC-3500 — 77" (1956 mm) — — 12" (300 mm) MIN END CAP SUBGRADE SOILS -(SEE NOTE 3)

NOTES:

ELEVATED BYPASS MANIFOLD

CONVEYANCE PIPE

MATERIAL MAY VARY

INFORMATION.

POSSIBLE.

(PVC, HDPE, ETC.)

INSERTA TEE

PLACE ADSPLUS WOVEN GEOTEXTILE

PART NUMBERS WILL VARY BASED ON INLET PIPE

MATERIALS. CONTACT STORMTECH FOR MORE

CONTACT ADS ENGINEERING SERVICES IF INSERTA TEE

INLET MUST BE RAISED AS NOT ALL INVERTS ARE

(CENTERED ON INSERTA-TEE INLET) OVER

BEDDING STONE FOR SCOUR PROTECTION

AT SIDE INLET CONNECTIONS. GEOTEXTILE

MUST EXTEND 6" (150 mm) PAST CHAMBER

CONNECTION

SUMP DEPTH TBD BY

SITE DESIGN ENGINEER

(24" [600 mm] MIN RECOMMENDED)

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"

- CHAMBER CLASSIFICATION 45x76 DESIGNATION SS. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION
- FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- 4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 5. REQUIREMENTS FOR HANDLING AND INSTALLATION:

CATCH BASIN OR MANHOLE

NECESSARY

TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.

INSTALL FLAMP ON 24" (600 mm) ACCESS PIPE PART #: MC350024RAMP

MC-3500 CHAMBER

USE FACTORY PARTIAL CUT END CAP PART #: MC3500IEPP24BC OR MC3500IEPP24BW

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION, ADJUST THE INSPECTION INTERVAL

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS

BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
- TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

MC-3500 CROSS SECTION DETAIL

NOT TO SCALE

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT A INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPI AST INLINE DRAIN A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION
 - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B. ALL ISOLATOR PLUS ROWS B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR
 - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF
 - **ENTERING MANHOLE** B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH

FOUNDATION STONE AND CHAMBERS 8.25' (2.51 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS

DO NOT INSTALL

- INSERTA-TEE AT

HEIGHT FROM BASE O

CHAMBER (X)

4" (100 mm)

4" (100 mm)

4" (100 mm)

6" (150 mm)

8" (200 mm)

8" (200 mm)

CHAMBER JOINTS

MC-3500 ISOLATOR ROW PLUS DETAIL

NOT TO SCALE

Α--

SIDE VIEW

INSERTA TEE TO BE

OVER CORRUGATION

INSTALLED, CENTERED

MAX DIAMETER OF

INSERTA TEE

6" (150 mm)

10" (250 mm)

10" (250 mm)

12" (300 mm)

12" (300 mm)

12" (300 mm)

INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS

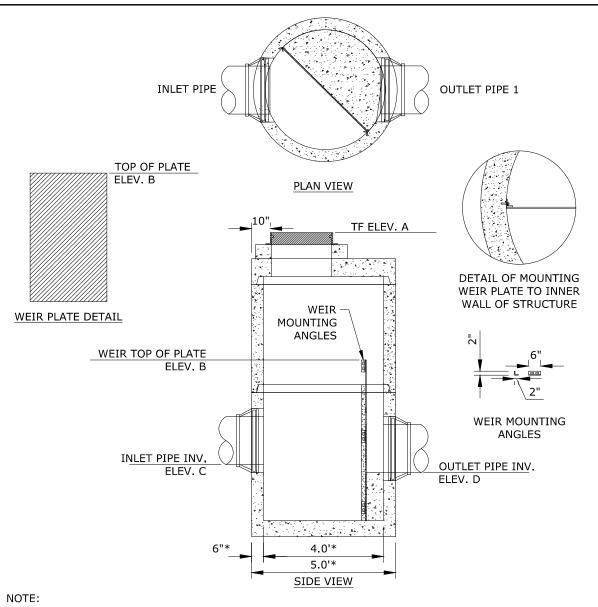
- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

— 12" (300 mm) MIN WIDTH CONCRETE COLLAR NOT REQUIRED FOR UNPAVED APPLICATIONS CONCRETE COLLAR 8" NYLOPLAST INSPECTION PORT **PAVEMENT** BODY (PART# 2708AG4IPKIT) OR TRAFFIC RATED BOX W/SOLID LOCKING COVER CONCRETE SLAB SDR 35 PIPE 6" (150 mm) MIN THICKNESS ' (100 mm) INSERTA TEE TO BE CENTERED ON CORRUGATION VALLEY STORMTECH CHAMBER -

INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)

NOT TO SCALE

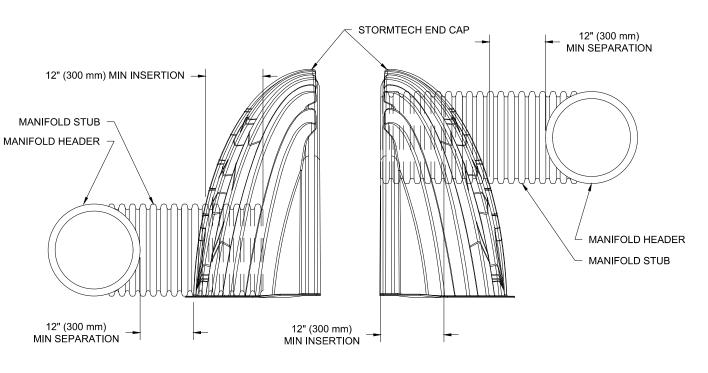


*5' OR 6' DIA. PRECAST BASES MAY BE USED WHEN REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE 5' AND 6' BASES. WALL THICKNESS TO INCREASE 1" FOR EACH 1' OF

OUTLET CONTROL STRUCTURE DETAIL

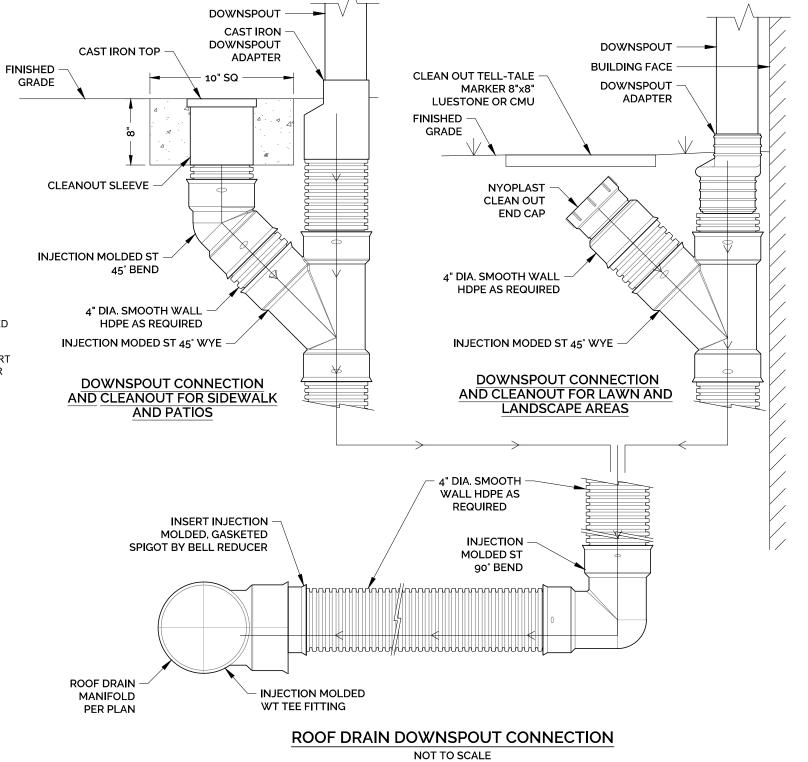
INLET/OUTLET CONTROL STRUCTURE ELEVATION SUMMARY TABLE						
STRUCTURE ID	TOP OF FRAME ELEV. A	TOP OF WEIR PLATE ELEV. B	INLET PIPE INVERT ELEV. C	OUTLET PIPE INVERT ELEV. D		
OCS-1	186.0	180.25	176.55 (15")	179.0 (6")		

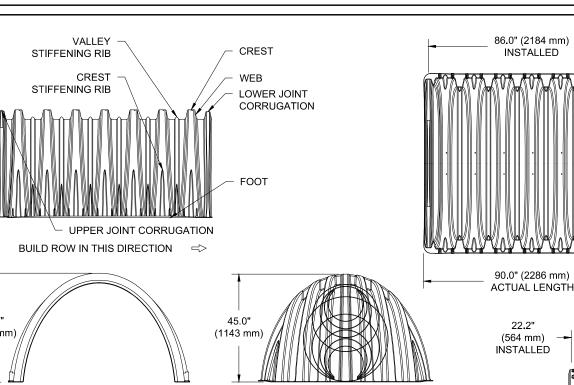
OUTLET CONTROL STRUCTURE (OCS) NOT TO SCALE



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER) NOT TO SCALE





22.2" (1143 mm) (564 mm) INSTALLED (1956 mm) NOMINAL CHAMBER SPECIFICATIONS SIZE (W X H X INSTALLED LENGTH) 77.0" X 45.0" X 86.0" (1956 mm X 1143 mm X 2184 mm) 109.9 CUBIC FEET CHAMBER STORAGE MINIMUM INSTALLED STORAGE* 175.0 CUBIC FEET (4.96 m³) 134 lbs. NOMINAL END CAP SPECIFICATIONS SIZE (W X H X INSTALLED LENGTH 75.0" X 45.0" X 22.2" (1905 mm X 1143 mm X 564 mm) 14.9 CUBIC FEET END CAP STORAGE (0.42 m³)

(1.28 m³)

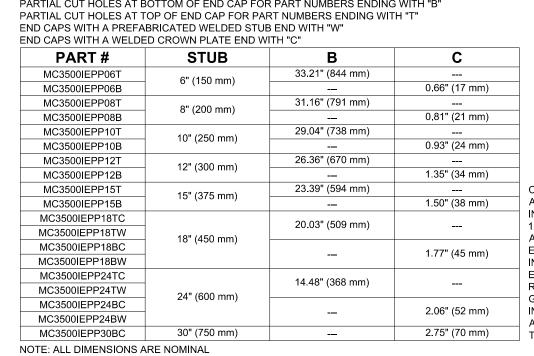
45.1 CUBIC FEET

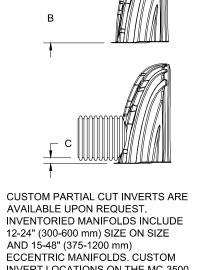
*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" (152 mm) STONE BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"

MINIMUM INSTALLED STORAGE*

6'-0" TYPE "C" & "CL" OVER 10'





TWO ROWS

OF BUTYL

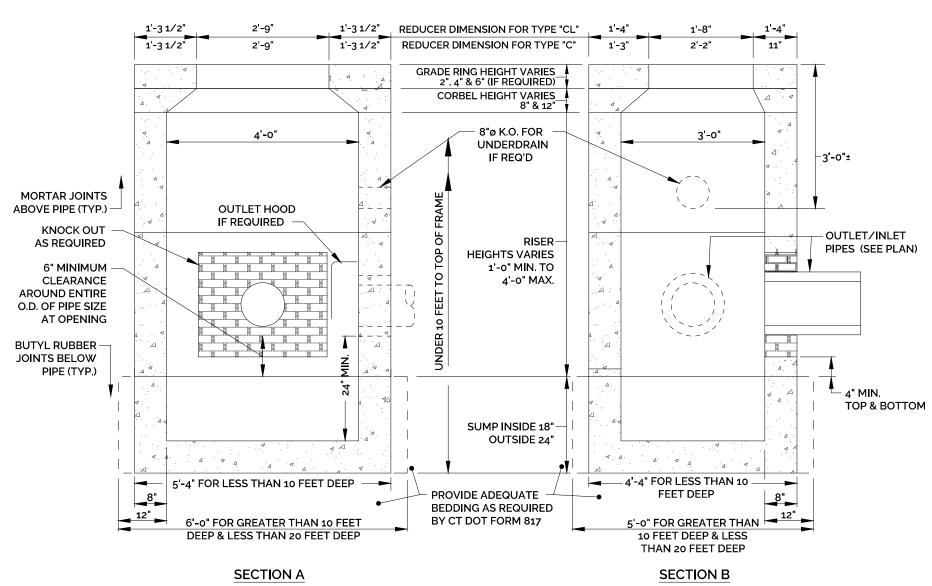
RUBBER

BELOW PIPE INVERT

25.7"

INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR

MC-3500 TECHNICAL SPECIFICATIONS NOT TO SCALE - GUTTER LINE ¦ TYPICAL JOINT ABOVE PIPE INVERT 4'-0" TYPE "C" & "CL" TYPICAL JOINT 5'-4" TYPE "C" & "CL" UNDER 10'



1. PRECAST CONCRETE CATCH BASIN COMPONENTS SHALL CONFORM TO CTDOT FORM 817 STANDARD SPECIFICATION FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION AND CTDOT HIGHWAY STANDARD SHEETS HW-507_04, HW-507_07 & HW-507_08, AS AMENDED.

- 2. THIS DETAIL IS BASED ON CTDOT PRECAST CONCRETE TYPE "C" & "CL" CATCH BASIN COMPONENTS, (UNDER 10' DEEP SHOWN). REINFORCING STEEL DEFORMED BARS ARE NOT SHOWN AND SHALL CONFORM TO LATEST CTDOT STANDARDS & SUPPLEMENTALS AND ASTM
- SPECIFICATION A615, GRADE 60, MINIMUM COVER 2" UNLESS OTHERWISE NOTED.
- 4. METHOD OF MANUFACTURE SHALL BE WET CAST.
- 5. SUMP SECTION SHALL BE MONOLITHIC.
- 6. DESIGN LOAD SHALL BE AASHTO H-20. REFERENCE: CT DOT HIGHWAY STANDARDS, SHEET HW_507_04, HW-507_07 & HW-507_08, CT DOT FORM 817, AND UNITED CONCRETE PRODUCTS, AUGUST 2015

TYPE "C" AND "CL" PRECAST CONCRETE CATCH BASIN DETAILS NOT TO SCALE

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PROJECT NO. SCALE: **NOT TO SCALE** 2022-0019 DRAWN BY SMM 11/1/2022 SMM 11/1/2022 SMD-1

SHEET NUMBER: 2 OF 2

NOT TO SCALE

SECTION A-A

SC-310

MC-3500

MC-4500

MC-7200

INSERTA-TEE SIDE INLET DETAIL

GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON