

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION ¹	COMPACTION/DENSITY REQUIREMENT
① FILL MATERIAL FOR LAYER 1 STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF THE FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE: THE FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS OR ENGINEERS' FILL. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE FOR ENGINEERS' FRAMES. FINISH INSTALLATIONS MAY HAVE 5% TOLERANCE. AND PREPARATION REQUIREMENTS.
② FILL MATERIAL FOR LAYER 2 STARTS FROM THE TOP OF THE EMBEDMENT STONE ('E' LAYER) TO 2" OF FINISHED GRADE OR THE TOP OF THE CHAMBER. NOTE: THAT PAVEMENT SUBGRADE MAY BE A PART OF THIS LAYER.	GRANULAR WELL GRADED SOIL/AGGREGATE MIXTURES, 4.75% FINES. MOST PAVEMENT SUBGRADE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 69, 7, 79, 8, 89, 9, 10	BROWN COMPACTOR TEST (90% RH) OF MATERIAL OVER THE CHAMBERS IS REQUIRED. COMPACT TO TYPICAL AASHTO IN 27 (90% RH) HAVING LIEU OF 90% STANDARD PROCTOR DENSITY.
③ 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.
④ 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 COMPACTOR SHALL BE USED TO ACHIEVE AASHTO M28 CLASS 2 (90% RH) TO 95% DENSITY.

PLEASE NOTE:
 1. THE AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. (EXAMPLE: SPECIFIC CATEGORIES OF SOILS & SILTS ARE NOT PERMITTED).
 2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTOR TESTING REQUIREMENTS ARE MET FOR A LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9\"/>

UNDERGROUND DETENTION CHAMBER
NIS

NOTE: ADS STORMTECH CHAMBERS SHOWN AS BASIS OF DESIGN. CONTRACTOR MAY SUBMIT ALTERNATE MANUFACTURER'S CHAMBERS FOR APPROVAL.

UNDERGROUND DETENTION CHAMBER
NIS

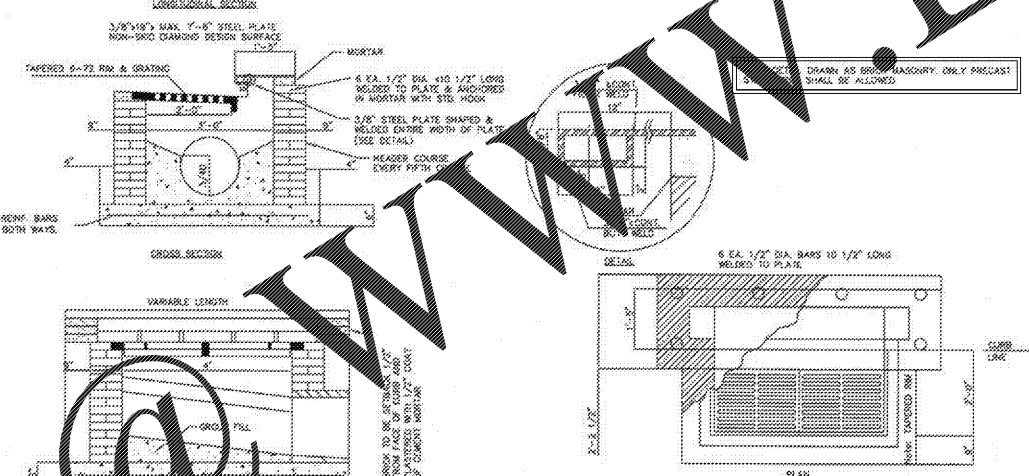
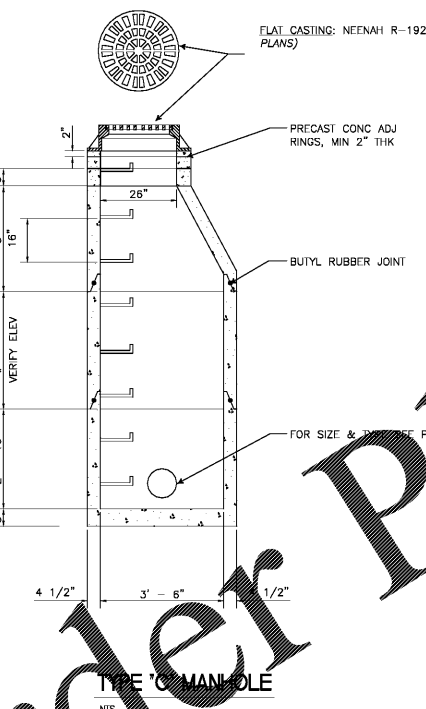
UNDERGROUND DETENTION CHAMBER
NIS

STORMTECH GENERAL NOTES

- STORMTECH LLC ("STORMTECH") REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST MC-3500 INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
- STORMTECH OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICE DEPARTMENT OR LOCAL STORMTECH REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 800-529-8188 TO SPEAK TO A TECHNICAL SERVICE REPRESENTATIVE OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
- STORMTECH REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.): MINIMUM COVER IS 24\"/>

- STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH MC-3500 CONSTRUCTION GUIDE.
- BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH MC-3500 INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR MUST REFER TO STORMTECH MC-3500 CONSTRUCTION GUIDE FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE ON THE STORMTECH WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
- THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
- STORMTECH PRODUCT WARRANTY IS LIMITED.** CONTACT STORMTECH FOR WARRANTY INFORMATION.

NOTE: ALL INLETS AND MANHOLES SHALL BE REINFORCED CONCRETE, PRECAST OR CAST IN PLACE. PROVIDE SUBMITTAL SHOP DRAWINGS FOR EACH TYPE PRIOR TO STARTING CONSTRUCTION.

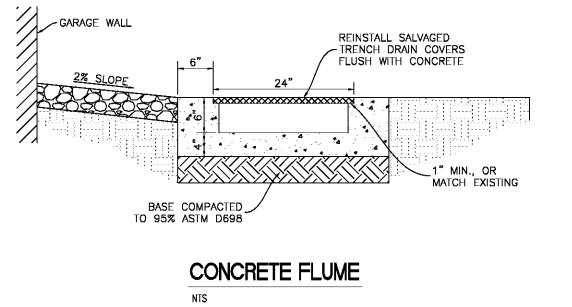


TYPE C MANHOLE
NIS

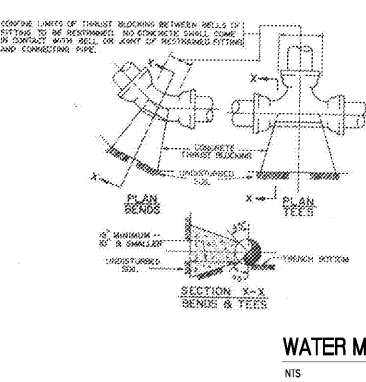
FIRE HYDRANT ASSEMBLY
NIS

CURB INLET (CITY OF MEMPHIS 6-72 INLET)
NIS

UNDERGROUND DETENTION CHAMBER
NIS



CONCRETE FLUME
NIS



CONCRETE THRUST BLOCKING SCHEDULE IN SQUARE FEET

PIPE SIZE	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	SPACING	
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
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27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42

INDICATES FITTINGS SUBGRADE RESTRAINED JOINTS IN ACCORDANCE TO STATE THRUST BLOCKING SEE REFINISHED DRAWING SHEETS.

WATER MAIN THRUST BLOCK
NIS

							BID SET					
							Drawing Title UTILITY DETAILS	Project Title CONSTRUCT PARKING GARAGE ON WEST LOT	Project Number 15.1067	Building Number	Office of Facilities Management	VA Project Number 614-319
							Approved for Design Concept FACILITY MANAGEMENT DIVISION MANAGER	Location MEMPHIS, TN	Drawing Number CU501	Date 11/14/2016	Checked By KJC	Drawn By CMB