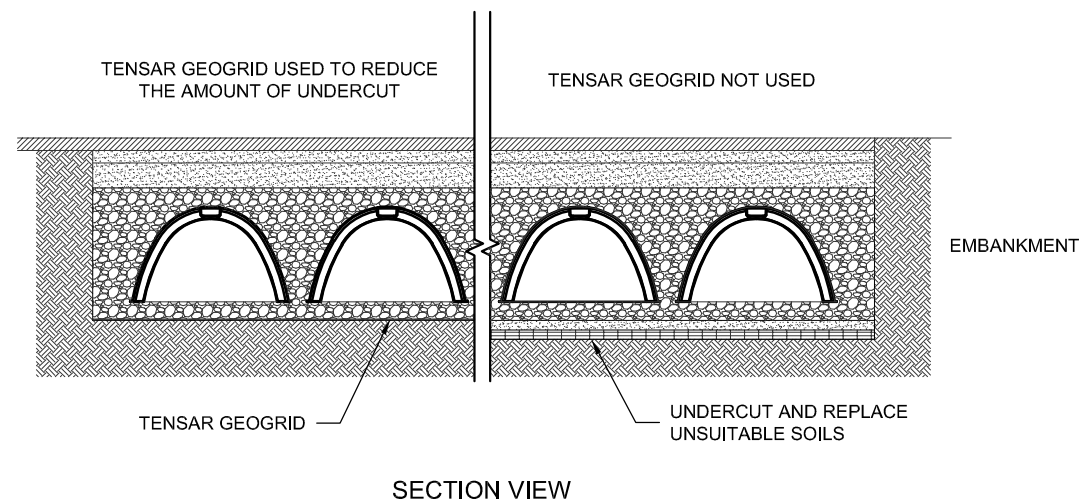
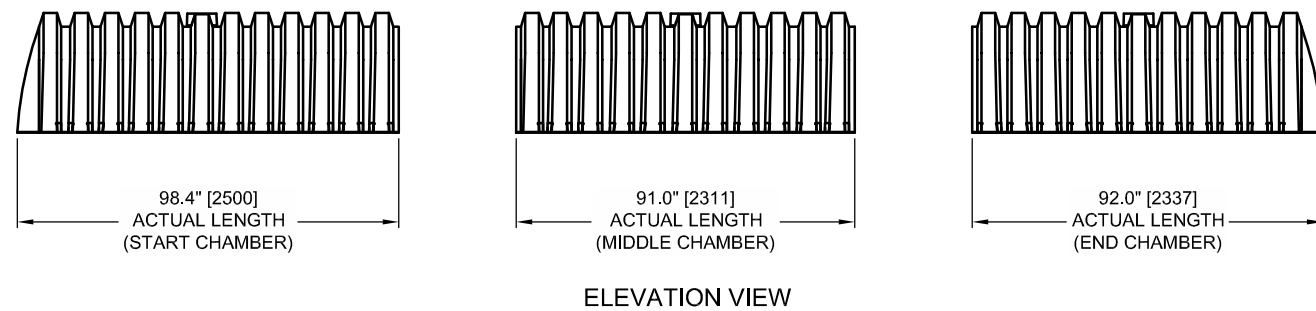


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**TYPICAL FOUNDATION DETAIL**



**TYPICAL CHAMBER ROW DETAIL**

**BACKFILL MATERIAL**

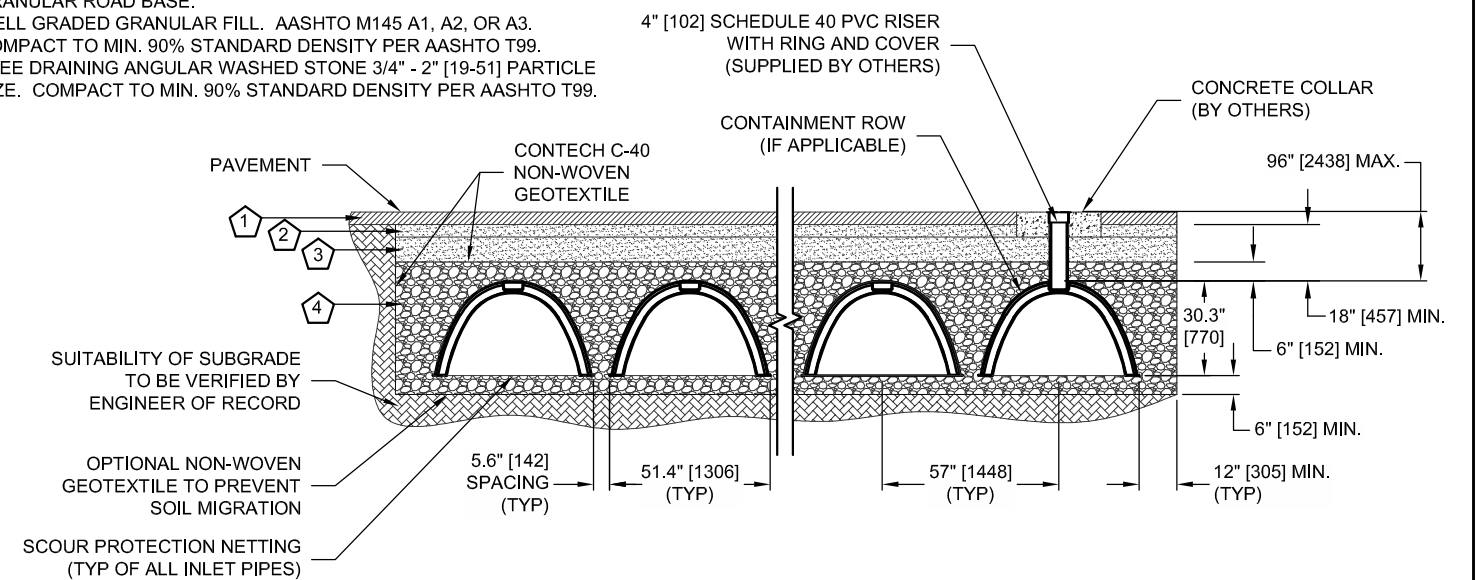
THE CHAMBER SYSTEM INCORPORATES TWO TYPES OF BACKFILL MATERIAL

FREE DRAINING ANGULAR WASHED STONE 3/4 TO 2-INCH [19 TO 51] PARTICLE SIZE COMPACTED TO 90% AASHTO T99 IS USED AROUND THE CHAMBERS. THIS MATERIAL IS USED AROUND THE CHAMBERS AND WITHIN A MINIMUM OF 6-INCHES (152 MM) BELOW AND 6-INCHES [152] ABOVE THE CHAMBERS. THE REMAINING SPACE SHOULD BE FILLED WITH AN ANGULAR, WELL-GRADED GRANULAR FILL MEETING THE REQUIREMENTS OF AASHTO M145 A1, A2 OR A3, COMPACTED TO 95% AASHTO T99.

CONTECH C-40 NON-WOVEN GEOTEXTILE SHOULD BE USED BETWEEN THE TWO LAYERS OF BACKFILL MATERIAL. SEE DETAIL BELOW.

**KEY**

1. RIGID OR FLEXIBLE PAVEMENT.
2. GRANULAR ROAD BASE.
3. WELL GRADED GRANULAR FILL. AASHTO M145 A1, A2, OR A3. COMPACT TO MIN. 90% STANDARD DENSITY PER AASHTO T99.
4. FREE DRAINING ANGULAR WASHED STONE 3/4" - 2" [19-51] PARTICLE SIZE. COMPACT TO MIN. 90% STANDARD DENSITY PER AASHTO T99.



**TYPICAL SECTION VIEW**

(H20/H25 LIVE LOAD)  
PER AASHTO 12

**CHAMBERMaxx™**  
PATENT PENDING

**CONTECH**  
ENGINEERED SOLUTIONS LLC

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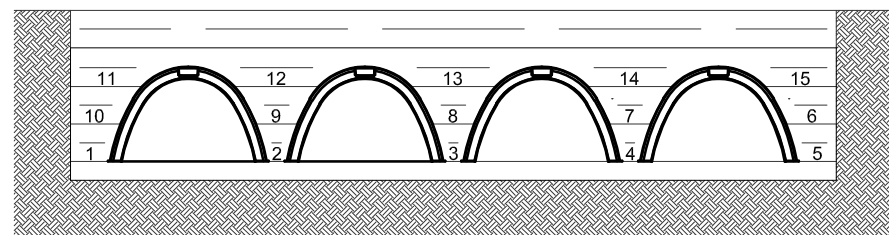
**CHAMBERMAXX STORMWATER RETENTION SYSTEM  
STANDARD INSTALLATION DETAIL**

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**BACKFILL PLACEMENT**

PLACE BACKFILL MATERIAL IN 6 TO 8-INCH [152 TO 203] LOOSE LIFTS AND COMPACT. USE MECHANICAL HAND TAMPERS OR APPROVED COMPACTING EQUIPMENT TO COMPACT ALL BACKFILL AND EMBANKMENT IMMEDIATELY ADJACENT TO EACH SIDE OF THE INSTALLATION AND OVER TOP OF THE INSTALLATION TO A MINIMUM DEPTH OF 18-INCHES [457]. PLACE BACKFILL SO THERE IS NO MORE THAN A TWO LIFT DIFFERENTIAL BETWEEN ANY OF THE CHAMBERS AT ANYTIME DURING THE BACKFILLING PROCESS. ADVANCE THE BACKFILL ALONG THE LENGTH OF THE CHAMBER SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON THE CHAMBERS. BACKFILLING AT DIFFERENTIAL HEIGHTS FROM ONE SIDE OF THE CHAMBER TO THE OTHER IN EXCESS OF 16" [407] CAN CAUSE CHAMBER DISTORTION OR POTENTIAL COLLAPSE. ADVANCE BALANCED LIFTS ACROSS THE WIDTH OF THE SYSTEM EVENLY ALONG THE LENGTH OF THE CHAMBERS AS YOU BACKFILL. SEE TYPICAL BACKFILL SEQUENCE.

USE ONLY LIGHTWEIGHT TRACKED DOZERS (D-4 DOZER OR SMALLER) NOT EXCEEDING 1,100 LBS/SF [0.54 kg/cm<sup>2</sup>] GROUND PRESSURE TO SPREAD BACKFILL LIFTS OVER TOP OF THE CHAMBER SYSTEM. MAINTAIN A MINIMUM OF 6-INCH [152] COVER ON TOP OF CHAMBERS FOR THE INITIAL LIFTS. FOR LARGE SYSTEMS USE CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED CHAMBER SYSTEM SHOULD BE LIMITED TO SIX FEET IN TOTAL HEIGHT ABOVE THE STRUCTURE AND MUST PROVIDE BALANCED LOADING ACROSS ALL CHAMBERS. TO DETERMINE THE PROPER COVER OVER THE CHAMBERS TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT, CONTACT YOUR LOCAL CONTECH REPRESENTATIVE.



**TYPICAL BACKFILL SEQUENCE**

**CHAMBERMaxx™**  
PATENT PENDING

**EQUIPMENT RESTRICTIONS DURING CHAMBERMAXX INSTALLATION**

BACKFILL LEVEL (SEE TYP. SECTION VIEW ON SHEET 1)	ALLOWABLE CONSTRUCTION EQUIPMENT*
4 - BEDDING	NO RESTRICTIONS.
4 - BACKFILL TO TOP OF CHAMBERS	NO EQUIPMENT IS PERMITTED ON OR NEARBY THE CHAMBERS. CONVEYORS OR EXCAVATORS LOCATED SUCH THAT THEIR LOADS DO NOT INFLUENCE THE CHAMBERS SHOULD BE USED TO PLACE THE BACKFILL STONE. STONE SHOULD BE WORKED BETWEEN THE CHAMBERS BY HAND.
4 - BACKFILL OVER THE TOP OF THE CHAMBERS	NO WHEEL LOADS SHOULD BE APPLIED OVER THE SYSTEM. ONCE 6" [152] OF STONE HAS BEEN PLACED OVER THE CROWN OF THE CHAMBERS, LIGHTWEIGHT TRACKED DOZERS WITH A MAXIMUM GROUND PRESSURE OF 1,100 PSF ARE PERMITTED OVER THE STRUCTURE. DOZERS MUST SPREAD STONE WORKING IN A DIRECTION PARALLEL WITH THE CHAMBER ROWS; NOT WORKING ACROSS THE CHAMBER ROWS. ALSO, ONLY SMALL, WALK BEHIND COMPACTION EQUIPMENT CAN BE USED OVER THE CHAMBERS UNTIL A MINIMUM OF 12" [305] OF COVER IS OVER THE CHAMBERS.
2 OR 3 - SELECT FILL OVER THE CHAMBERS	ONCE 18" [457] OF COMPACTED MATERIAL IS OVER THE CHAMBERS, HIGHWAY VEHICLES WITH AXLE LOADS OF 32,000 POUNDS OR LESS CAN BE OPERATED OVER THE STRUCTURES. FRONT END LOADERS CAN BE OPERATED OVER THE STRUCTURES AS LONG AS THE MAXIMUM WHEEL LOAD DOES NOT EXCEED 16,000 POUNDS. COMPACTION EQUIPMENT CAN BE OPERATED OVER THE STRUCTURES AS LONG AS THE DYNAMIC FORCE FROM THE DRUM DOES NOT EXCEED 20,000 POUNDS AND THE GROSS VEHICLE WEIGHT DOES NOT EXCEED 12,000 POUNDS.

\*ASK YOUR CONTECH REPRESENTATIVE IF YOU HAVE QUESTIONS ABOUT THE USE OF SPECIFIC PIECES OF CONSTRUCTION EQUIPMENT.

**NOTES**

- 36" (900 MM) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR FULL DUMP TRUCK TRAVEL AND DUMPING.
- DURING PAVING OPERATIONS, DUMP TRUCK AXLE LOADS ON 18" (450 MM) OF COVER MAY BE NECESSARY. PRECAUTIONS SHOULD BE TAKEN TO AVOID RUTTING OF THE ROAD BASE LAYER, TO ENSURE THAT COMPACTION REQUIREMENTS HAVE BEEN MET, AND THAT A MINIMUM OF 18" (450 MM) OF COVER EXISTS OVER THE CHAMBERS. CONTACT CONTECH FOR ADDITIONAL GUIDANCE ON ALLOWABLE AXLE LOADS DURING PAVING.
- MINI-EXCAVATORS (<8,000LBS / 3,628KG) CAN BE USED WITH AT LEAST 12" (930MM) OF STONE OVER THE CHAMBERS.
- STORAGE OF MATERIALS SUCH AS CONSTRUCTION MATERIALS, EQUIPMENT, SPOILS, ETC. SHOULD NOT BE LOCATED OVER THE CHAMBERMAXX SYSTEM. PLEASE CONTACT CONTECH FOR MORE INFORMATION.
- ALLOWABLE TRACK LOADS BASED ON VEHICLE TRAVEL ONLY. EXCAVATORS SHALL NOT OPERATE ON CHAMBER BEDS UNTIL THE TOTAL BACKFILL REACHES 3 FEET (900MM) OVER THE ENTIRE BED.

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