## FILL CHART

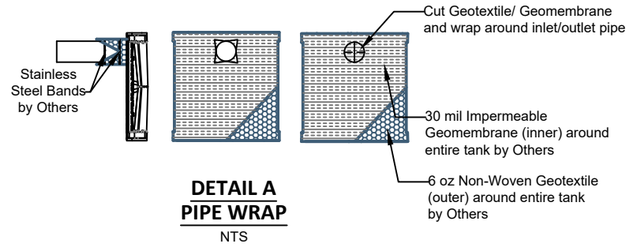
| Material Location | Description | Material Classification | | | Compaction/Density Requirement (NOTE 3) |
|---|---|---|---|---|---|
| **FINAL FILL**<br>Fill starting from the top of the embedment fill layer. (NOTE 1 and 2) | Suitable Fill Materials as noted in the Project Geotechnical Report and noted on the Site Design Engineer's Plans | See Project Geotechnical Report and Site Design Engineer's Plans | | | Plate Compact or Static Roll up to 8-inch loose lifts to densify fill. Use at least two full passes of the equipment to level the layer. Continue until 24 inches of total fill thickness has been placed above the tank. For AASHTO M145 soils, a minimum of 95% of the Standard Proctor Maximum Dry Density is recommended.<br><br>After 24 inches of fill is placed, place fill in accordance with the engineer of record's relative compaction requirement or to 95% of the Standard Proctor Maximum Dry Density - whichever is greater. |
| **EMBEDMENT FILL**<br>Fill Immediately Surrounding the sides and top of tank (NOTE 4)<br>**BEDDING FILL**<br>Fill Immediately below the tank (NOTE 4) | Sand-Gravel Mixtures or Open-Graded Crushed Aggregate Blends | AASHTO M145<br>A-1, A-2-4, A-3 | or | AASHTO M43<br>3, 357, 4, 467, 5, 56, 57 | Plate Compact or Static Roll up to 8-inch loose lifts to densify fill. Use at least two full passes of the equipment to level the layer. For AASHTO M145 soils, a minimum of 95% of the Standard Proctor Maximum Dry Density is recommended. |

NOTE 1: This layer can include pavement subbase
NOTE 2: If open-graded aggregates are used for embedment fill, fines migration from the final to embedment fill layer may be reduced by installing a layer of 6 oz non-woven geotextile fabric at the final and embedment fill interface.
NOTE 3: See Construction Equipment Table for more information for construction equipment limitations.
NOTE 4: Import or native soils may be used if the soils meet the material classification listed. Fill material should be selected based on classification, groundwater conditions, and tank invert elevation.

## CONSTRUCTION EQUIPMENT CHART

| Equipment Make (NOTE 1) | Maximum Gross Vehicle Weight (lbs) | Fill Depth over Tank (in) |
|---|---|---|
| Plate Compactor | 1,500 | 6 |
| Roller - Static Mode | 12,000 | 18 |
| Low Ground Pressure Tracked Vehicles (NOTE 2) | 20,000 | 14 |
| Roller - Vibratory Mode | 12,000 | 24 |
| Dump Trucks and Pans | NOTE 3 | |

NOTE 1: Vehicles shall make straight runs only across tank footprint.
NOTE 2: Maximum track pressure 7 psi for tracked vehicles.
NOTE 3: Dump trucks and pans shall not traverse or park over the system during construction. Backfill material may be temporarily unloaded near the excavation. Material shall not be stockpiled near the excavation for longer than 24 hours.




**DETAIL A**
**PIPE WRAP**
NTS

## COVER CHART

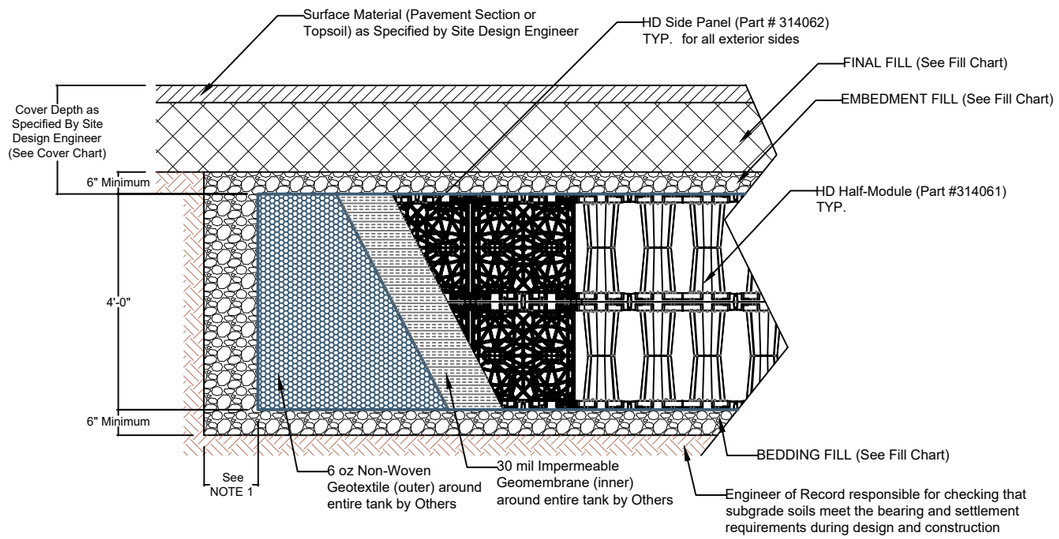
| Live Loading Condition | Cover Thickness | |
|---|---|---|
| | Minimum | Maximum |
| Non-Trafficked Areas (i.e. Landscaping) | 12 | 130 |
| Passenger Vehicles Parking Lot (i.e. Gross Vehicle Weight <10,000 lbs) | 18 | 130 |
| Passenger Vehicle Parking Lot with one weekly AASHTO HS-20 vehicle | 20 | 130 |
| Heavy AASHTO HS-20 Traffic | 22 | 130 |
| Passenger Vehicle Parking Lot with one weekly AASHTO HS-25 vehicle | 24 | 130 |
| Heavy AASHTO HS-25 Traffic | 26 | 130 |

NOTE 1: Minimum Cover Thickness in non-trafficked areas is based on landscape surface with a 40 degree load distribution. In trafficked areas, Minimum Cover Thicknesses are based on an asphalt-surfaced pavement with a 30 degree load distribution.
NOTE 2: Calculations assume backfill with a minimum 32-degree angle of internal friction and a maximum bulk density of 120 lbs per cubic foot, and a seasonal groundwater elevation at least 2 feet below the invert of the tank.

## SIDE PANEL PIPE DIAMETER CHART

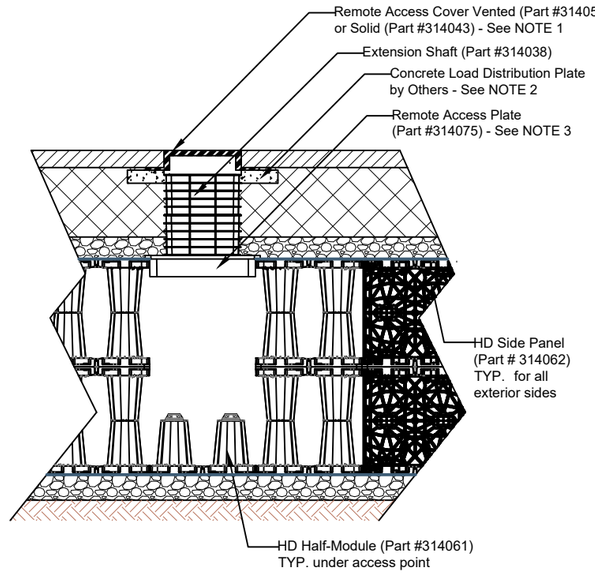
| Inlet/Outlet Pipe Diameter | |
|---|---|
| Minimum | Maximum |
| 4 inches | 18 inches* |

NOTE 1: Maximum pipe diameter directly into side panel is 15 inches. Remote access unit required for pipes larger than 15 inches.
NOTE 2: Cut inlet / outlet pipe hole prior to side panel installation.
*NOTE 3: Contact ACO for guidance for inlet / outlet pipes larger than 18-inch diameter



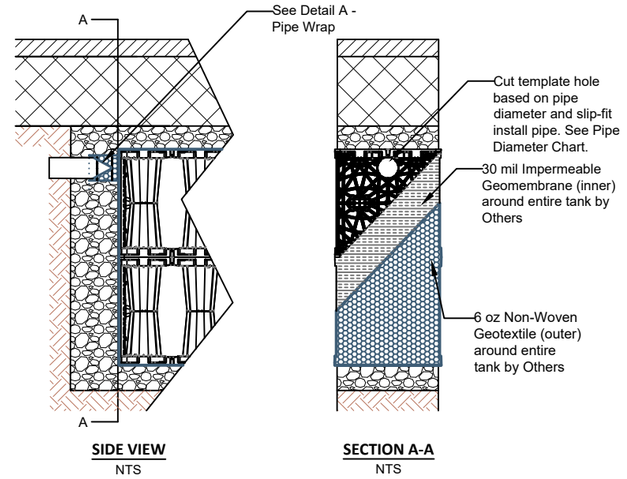

**2 LAYER HD**
**DETENTION CROSS SECTION**
NTS

NOTE 1: The minimum width of sidewall backfill is 12" or large enough to accommodate selected compaction equipment, whichever is greater.




**2 LAYER HD**
**ACCESS POINT CROSS SECTION**
NTS

NOTE 1: Ventilation may be crucial to reducing the pressure build up within the system. If solid access covers are used, alternative methods of ventilation are recommended.
NOTE 2: Concrete Load Plate not required for unpaved applications. Consult Engineer of Record for requirements
NOTE 3: The Remote Access Plate is approximately the size of half of a half-module. The half-module at the top of the tank must be cut in half to accommodate the Remote Access Plate




**SIDE VIEW**
NTS

**SECTION A-A**
NTS

**2 LAYER HD**
**PIPE INSTALLATION**
NTS

| DRAWN BY | CHECKED BY |
|---|---|
| **A Frye** | **J Jonke** |
| DATE | REV. |
| **04/26/2024** | **0** |

# STORMBRIXX STANDARD DETAILS

## HD SYSTEM - 2 LAYER - DETENTION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