## CONSTRUCTION EQUIPMENT CHART

| Material Location   | Description  | Mate  | rial Cl | assification                            | Compaction/Density Requirement (NOTE 3)   | Equipment Make (NOTE 1)   | Maximum Gross Vehicle Weight (lbs)             | Minimu                           |
|---|--|---|---------|---|---|---|--|----------------------------------|
|   | ·  |   |         |   | Plate Compact or Static Roll loose lifts to densify fill.   | Plate Compactor   | 1,500  |                                  |
|   |  |   |         |   | Use at least two full passes of the equipment to level  | Compact Track Loader (NOTE 2)   | 7,500  |                                  |
|   |  |   |         |   |   | Rubber-Tired Skid Steer (NOTE 3)  | 7,500  |                                  |
|   |  |   |         |   | the layer. Continue until 24 inches of total fill thickness   | Low Ground Pressure Tracked Vehicles (NOTE 4)   | 20,000   |                                  |
| FINAL FILL<br>Fill starting from the top of the   | Suitable Fill Materials as noted in the<br>Project Geotechnical Report and noted |   |         |   | has been placed above the tank. For AASHTO M145 soils,  | Roller - Static Mode  | 12,000   |                                  |
|   |  | See Project Geotechnical Report and Site<br>Design Engineer's Plans |         |   | a minimum of 95% of the Standard Proctor Maximum Dry  | Roller - Vibratory Mode   | 12,000   |                                  |
|   |  |   |         |   | Density is recommended.   | Dump Trucks and Pans  | NOTE   | ÷5                               |
| embedment fill layer. (NOTE 1 and 2)  | on the Site Design Engineer's Plans  |   |         |   | After 24 inches of fill is placed, place fill in accordance<br>with the engineer of record's relative compaction<br>requirement or to 95% of the Standard Proctor Maximum<br>Dry Density - whichever is greater.                            | NOTE 1: Vehicles shall make straight runs only acro<br>NOTE 2: Maximum ground pressure = 5 psi<br>NOTE 3: Maximum axle load = 5,250 lbs<br>NOTE 4: Maximum ground pressure = 7 psi<br>NOTE 5: Contact ACO for more information regardir<br>NOTE 6: Backfill material may be temporarily unload<br>longer than 24 hours. | ng dump truck and pan traffic during construct |                                  |
| EMBEDMENT FILL<br>Fill Immediately Surrounding the sides<br>and top of tank (NOTE 4)<br>BEDDING FILL<br>Fill Immediately below the tank<br>(NOTE 4) | Sand-Gravel Mixtures or Open-Graded<br>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 loose lifts to densify fill.<br>Use at least two full passes of the equipment to level<br>the layer. For AASHTO M145 soils, a minimum of 95% of<br>the Standard Proctor Maximum Dry Density is<br>recommended. | Stainless<br>Steel Bands<br>by Others   |  | tlet pipe<br>z Non-V<br>ter) aro |

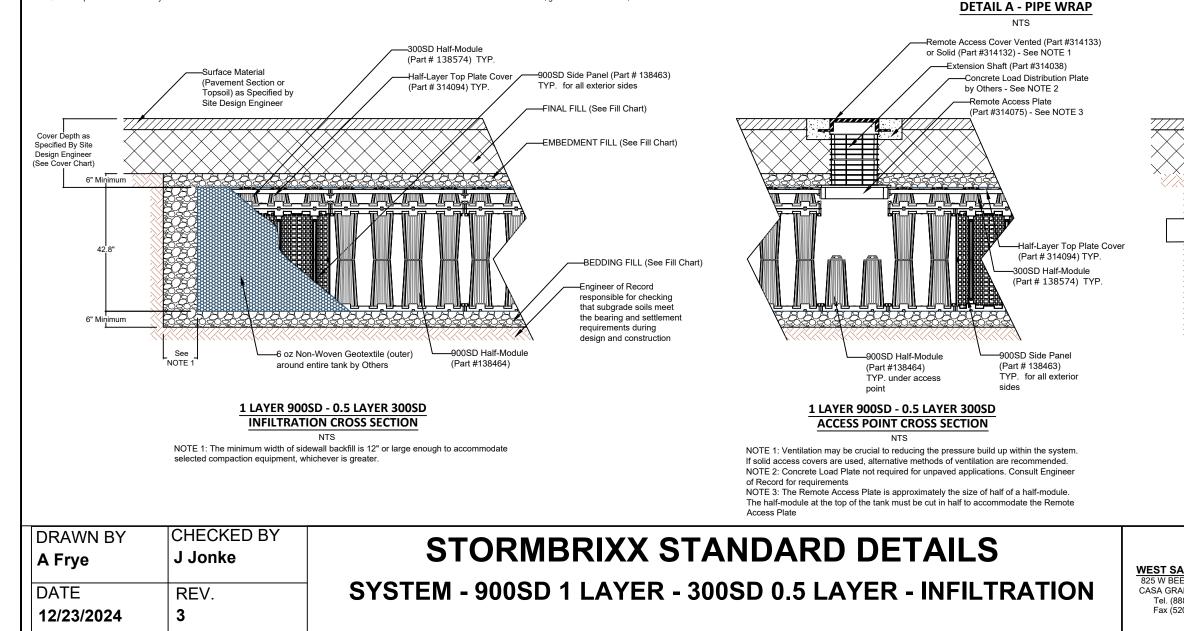
NOTE 1: This layer can include pavement subbase

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.

**FILL CHART** 

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



| num Fill Depth over Tank (in) |  |  |  |  |
|-------------------------------|--|--|--|--|
| 6                             |  |  |  |  |
| 6                             |  |  |  |  |
| 14                            |  |  |  |  |
| 14                            |  |  |  |  |
| 18                            |  |  |  |  |
| 24                            |  |  |  |  |
|                               |  |  |  |  |

temporarily unloaded near the excavation. Material shall not be stockpiled near the excavation for

-Cut Geotextile and wrap around inlet/outlet pipe

> -6 oz Non-Woven Geotextile (outer) around entire tank by

## **COVER CHART**

| Live Loading Condition         | Cover Thickness (inches) |         |  |
|--------------------------------|--------------------------|---------|--|
| Live coading condition         | Minimum                  | Maximum |  |
| Non-Trafficked Areas           | 12                       | 78      |  |
| (i.e. Landscaping)             | 12                       | /8      |  |
| Passenger Vehicles Parking Lot |                          |         |  |
| (i.e. Gross Vehicle Weight     | 18                       | 78      |  |
| <10,000 lbs)                   |                          |         |  |
| Passenger Vehicle Parking Lot  |                          |         |  |
| with one weekly AASHTO HS-20   | 24                       | 78      |  |
| vehicle                        |                          |         |  |
| Frequent AASHTO HS-20 Traffic  | 26                       | 78      |  |

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 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 |                    |  |
|-------------|----------------------------|--------------------|--|
| Module Type | Minimum                    | Maximum            |  |
| 900SD       | 4 inches                   | 24 inches (Note 2) |  |
| 300SD       | 4 inches                   | 4 inches           |  |

NOTE 1: Cut inlet/outlet pipe hole prior to side panel installation NOTE 2: Pipe holes should be aligned with the vertical centerline of the side panel. For pipes larger than 18 inches, center the pipe hole along the seam of two side panels. NOTE 3: 0.5-layer 300SD module does not have side panels. Pipe may be set between top plate cover and bottom of module body. Contact ACO for guidance.

NOTE 4: Contact ACO for guidance for inlet / outlet pipes larger

