

PLAN APPROVED

Date 6/13/13 Signed *AW*

Seep Ring:  
Approved watertight seep ring or equivalent method

Fernco Coupling

**Riser and Lid: (typ)**  
24" - 36" Dia. ribbed PVC or concrete riser w/latching lid and polyurethane gasket or approved

30" Dia. required per 340-071-0220 when depth of bury greater than 36"

All risers shall be attached in a permanent and watertight manner

Lids shall be kept securely fastened at all times with stainless steel bolts

Traffic Bearing  
Boltdown Lid (typ)

AC Pavement by Others (where occurring)

Position access port so that sanitary tee fittings are fully exposed. Edge of access 6" from outside edge of wall

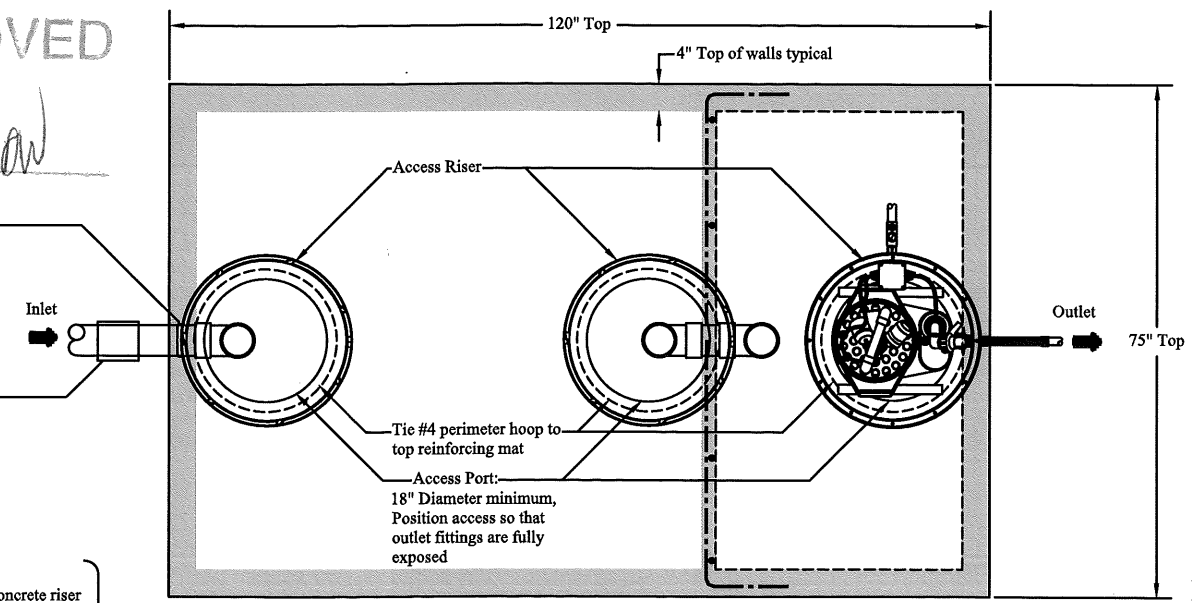
Install sanitary tee snugly against tank wall

Sanitary Tee(s):  
4" min. Dia. Sch. 40  
ABS, PVC or approved

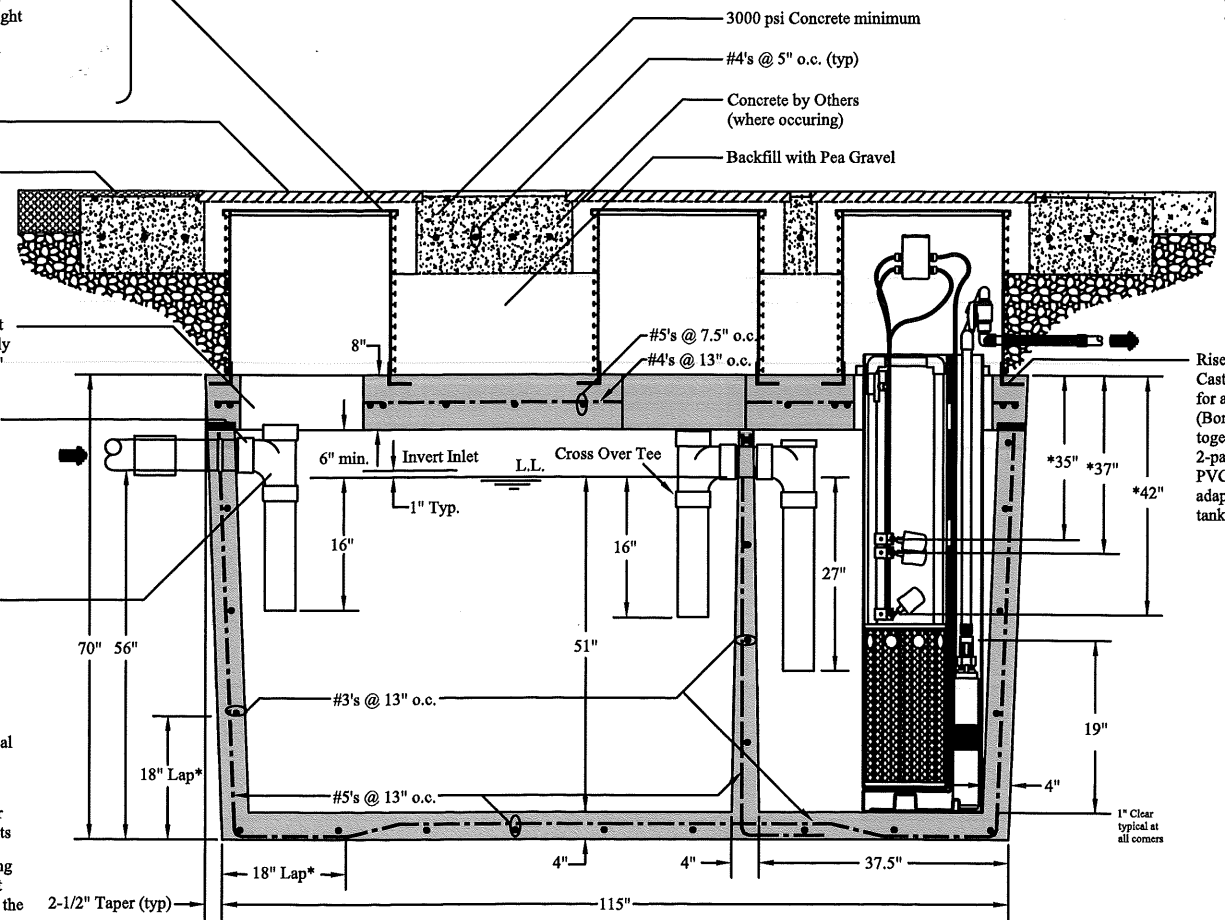
\* 18" Minimum Lap Typical at all corners top and bottom

\* Actual float levels set per specific permit requirements

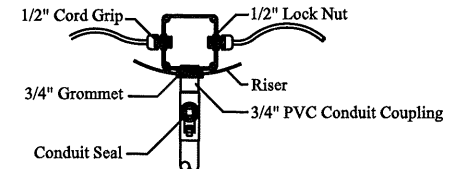
\* The inlet Tee to the dosing compartment should be cut down so that 1" remains at the top for proper ventilation



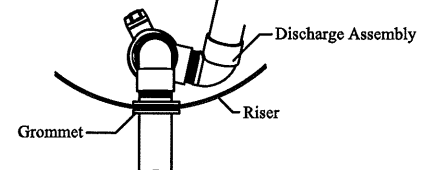
**Top View**



**Side View 1300 Gallon Tank**



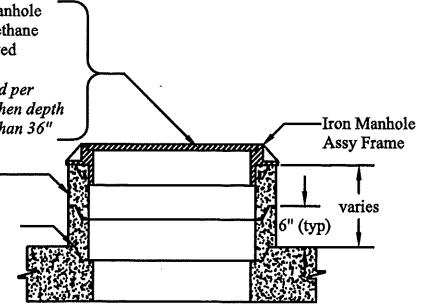
**Splice Box Detail**



**Discharge Grommet Detail**

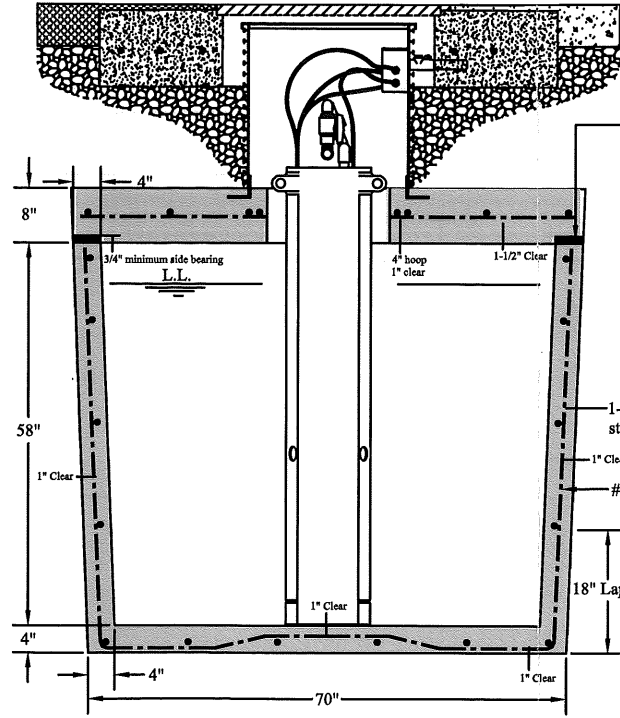
24" Dia. Iron Manhole Lid with polyurethane gasket or approved alternative  
30" Dia. required per 340-071-0220 when depth of bury greater than 36"

Grade Ring (typ) (to grade)  
Mastic Sealant at joints (typ)



**Concrete Riser Option**

Riser/Tank adapter: (typ)  
Cast into concrete top for adapting to riser. (Bond the riser and adapter together w/PVC cement or 2-part epoxy. Spread around PVC or fiberglass riser adapter. If riser cast into tank embed 1-1/2")



**End View**

**Tank Volumes:**  
Total Volume: 1,700 gal±  
Operating Volume: 1,300 gal±  
Unit volume at typical operating depth: 29.4 gal/in±  
First Compartment Volume: 1,000 gal±  
First Compartment Unit Volume: 19.6 gal/in±  
Second Compartment Volume: 300 gal±  
Second Compartment Unit Volume: 2.8 gal/in±  
Second Compartment Surge Volume: 200 gal±

**Loads:**  
Top = 400 psf  
Lateral Load = 62.4 pcf  
Concentrated Wheel Load = 16,000 lb.  
The septic tank shall be capable of withstanding long-term hydrostatic loading, in addition to the soil loading, due to a water table maintained at ground surface. Soil Bearing = 1,500 psf (re-evaluate support base if soil bearing is less or unequal)

**Concrete:**  
The walls and bottom slab shall be poured monolithically. Reinforcing steel shall be ASTM A-615 Grade 60, fy = 60,000 psi.  
  
The concrete shall achieve a minimum compressive strength of 4,000 psi in 28 days; f'c = 4,000 psi. Concrete shall be ready mix with cement conforming to ASTM C-150, Type II. There shall be a content of not less than six and one half (6 1/2) sacks per cubic yards and maximum aggregate size of 3/4 inch. Water/Cement ratio shall be kept below 0.4, (W/C 0.35±). Air-entraining agents and fibrous reinforcement will enhance workability, curing and watertightness of the tank; however, their usage is optional.

Tanks shall not be moved from the manufacturing site to the job site until the tank has cured for seven (7) days, or has reached two-thirds of the design strength. Proper curing techniques must be used to ensure watertight tanks.

**Installation:**  
Installation, bedding, compaction, etc. shall be in strict compliance with the manufacturers standards and state of Oregon's on-site rules 340-071 and 073. All tanks shall be set level on a minimum 3 inch thick compacted 3/4 minus pea gravel or approved granular bedding overlying a firm uniform base. The base shall be stable and uniform in order to ensure equal bearing across the tank bottom. Installations with 18 inches or less of ground cover may require additional buoyancy considerations as described in the installation manual.

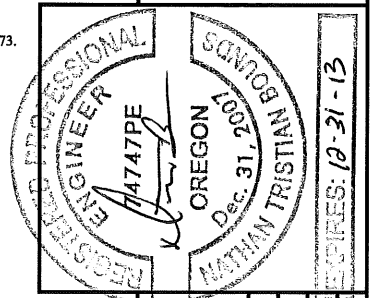
**Testing:**  
Tanks shall be tested and certified watertight per Oregon On-Site Rules 340-071 and 073.

**Tank Markings:**  
Place marking on the upper most surface over the outlet.  
Tank Manufacturer: Waite Concrete Products, LLC  
Liquid capacity: 1,300 gal.  
Min burial depth: 2 ft.  
Max burial depth: 6 ft.  
Max traffic (wheel): 16,000 lbs.  
Date manufactured:  
Permit no.:

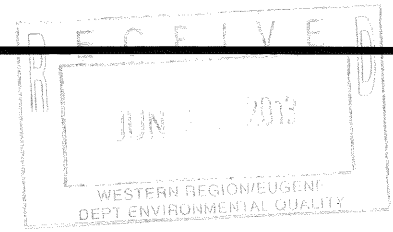
Mastic Sealant: (typ)  
Shall be acid resistant and non-degradable to ensure joint integrity watertightness  
  
Set-In-Place tank tops shall be assembled to remain in full contact with walls after installation to ensure lateral bearing support and watertightness

Waite Concrete Prod., LLC  
24525 S.W. Pacific Hwy.  
Canby, OR 97013  
Phone: 503-266-2670

AquaLogic Engineering LLC.  
334 Winchester Creek Ave.  
Winchester, OR 97495  
Phone: 541-672-6365



Waite Concrete Products, LLC, Canby, OR  
1,300 Gal Two-Compartment Dosing Septic Tank H20 Loading  
Approved By: NTB P.E.  
Designed By: NTB P.E.  
Drawing #: 1 of 1  
Date: 4/25/2013  
Project #:  
Scale: 1" = 2'-0"  
Revision #: Rev 1.0



# PLAN APPROVED

WASTE CONCRETE PRODUCTS, LLC

1300 Gallon H2O Two-Compartment Dosing Tank Installation Manual

Date 4/12/12 Signed AW

## 1) Hole Preparation

Ensure hole is at least 12" longer and wider than the size of the tank, providing the excavated walls are straight up and down. If over digging depth occurs or you have unstable soils, you must use sand, crushed rock, or pea gravel, to bring up to grade. Grade from the house is 1/4" per foot. From the bottom of said pipe, measure down the distance to the excavation, the same that is on the manufacturers card for inlet elevation. This would be the grade. Level from that point lengthwise, and crossways, to finish grading the bottom of the hole. All tanks shall be set level on a minimum 3-inch thick compacted 3/4 minus, pea gravel or approved granular material overlying a firm uniform base.

## 2) Setting the tank

Do not stand in hole while tank is being placed. OSHA restrictions apply. Watch for water coming into the hole and walls sliding off in the hole. Stay away from edge of hole and watch the equipment operator. Be sure the tank is level. Check for proper alignment between inlet pipe and tank inlet.

## 3) Risers and Installation

**Plastic Risers:** Plastic risers are either poured into the concrete, or attached to a poured in flanged adapter, to facilitate the holding of a 24" diameter access riser. If a groove is in the concrete top around the manhole, a riser can be attached by using a 2-part epoxy (Weld-On 812). **Concrete Risers:** Concrete risers shall be mortared on with speed-crete, jet plug, or equivalent. An O-ring gasket will be supplied to place between the top of the riser and the lid.

## 4) Lid

The lid of the riser shall be attached with stainless steel bolts.

## 5) Pipe Connection

Pipe connection is done by applying ABS cement to the inside of the 4" coupler in the tank wall, and applying ABS cement to the pipe to be fitted; push together and hold for a few seconds. If PVC 3034 pipe is coming into the tank, an adapter (ASTM D2751) is supplied with the tank, and weld-on glue (Weld-On 794 ABS to PVC) is applied to the inside of the coupler in the tank and on the pipe coming in. This adapter makes up the difference in outside measurements of the two pipes. Neoprene couplers are also an appropriate form of connection.

## 6) Buoyancy Countermeasures

Installations with 18 inches or less ground cover may require additional buoyancy considerations. This tank shall not be placed shallower than specified without engineered redesign. Or, pour a reinforced concrete slab 24" wider and longer than the tank lid from the tank lid to surface.

## 7) Test Procedures

If possible, backfill the tank to a point 10" down from the top of the tank. Fill the tank with water to point 2" above the top surface of the tank. No more than 2" of water into the riser. If water level drops in 24 hours--which may be due to concrete absorption, refill to the same mark for a re-test. The water level should not drop more than 1" in the riser.

## 8) Backfill Instructions

Backfill should be of proper size and gradation. No stones over 2 1/2" in diameter. No deleterious materials (i.e., any material that might puncture or damage the tank). Each layer should contain sufficient moisture to allow for proper compaction. If possible, the layers should be compacted with a hand tamper. Make sure inlet and outlet pipes have a compacted base under them to help provide support for the pipes. Ensure the final grade slopes away from the access riser. Proper bedding for traffic surface is required.

## \*Special Precautions

*When backfilling with loader or backhoe bucket, be especially careful not to disturb riser, inspection port, or any unit that may be attached to the tank.*