

M1500 Tank Side Detail
Scale: 1" = 2'-0"

General Notes:

Tank Volumes:

Total Volume: 1788 gal
 Operating Volume: 1502 gal @ 57"
 Unit volume at typical Operating Depth : 25 gal./in ±
 Chamber Options: 1000/500 or 876/625

Loads:

Top = 500 psf minimum
 Lateral Load = 0.2.4 pc.f. EFP
 Concentrated Wheel Load = 2500 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 = 1000 psf (re-evaluate support base if soil bearing is less or unequal)

Method of calculations:

1. Tanks shall be analyzed using strength design methods and finite element analysis for buried structures.
2. Calculations shall address the following:
 - strength
 - buckling
 - deflection of 0.5 - 1% of the tank diameter, based on service load (including long-term deflection lag)
 - buoyancy
3. Performance testing shall include vacuum testing followed by a hydrostatic test.

Material:

Resin: polycyclopentadiene

The properties listed here along with the minimum thickness as shown in the details are considered design minimums that must be maintained during the manufacturing of the tanks. The primary strength properties are listed below:

Property	DCPD
Flexural modulus E_f	274,000 psi
Tensile strength F_t	6,700 psi
Flexural strength F_b	10,500 psi
Compressive strength F_c	9,200 psi
Shear In-Plane F_s	7,180 psi
Flexural Rigidity	585 psi

Poisson ratio = 0.400 (Any permanent metal part shall be 300 series stainless steel)

Installation:

Installation, bedding, compaction, etc., shall be in "strict" compliance with the manufacturers standards and state or local rules and or guidelines. All tanks shall be set level on a minimum 4 inch thick compacted sand 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 manufacturers instructions. A minimum cover of 12 inches is required over the tank in areas subject to occasional light wheel loads.

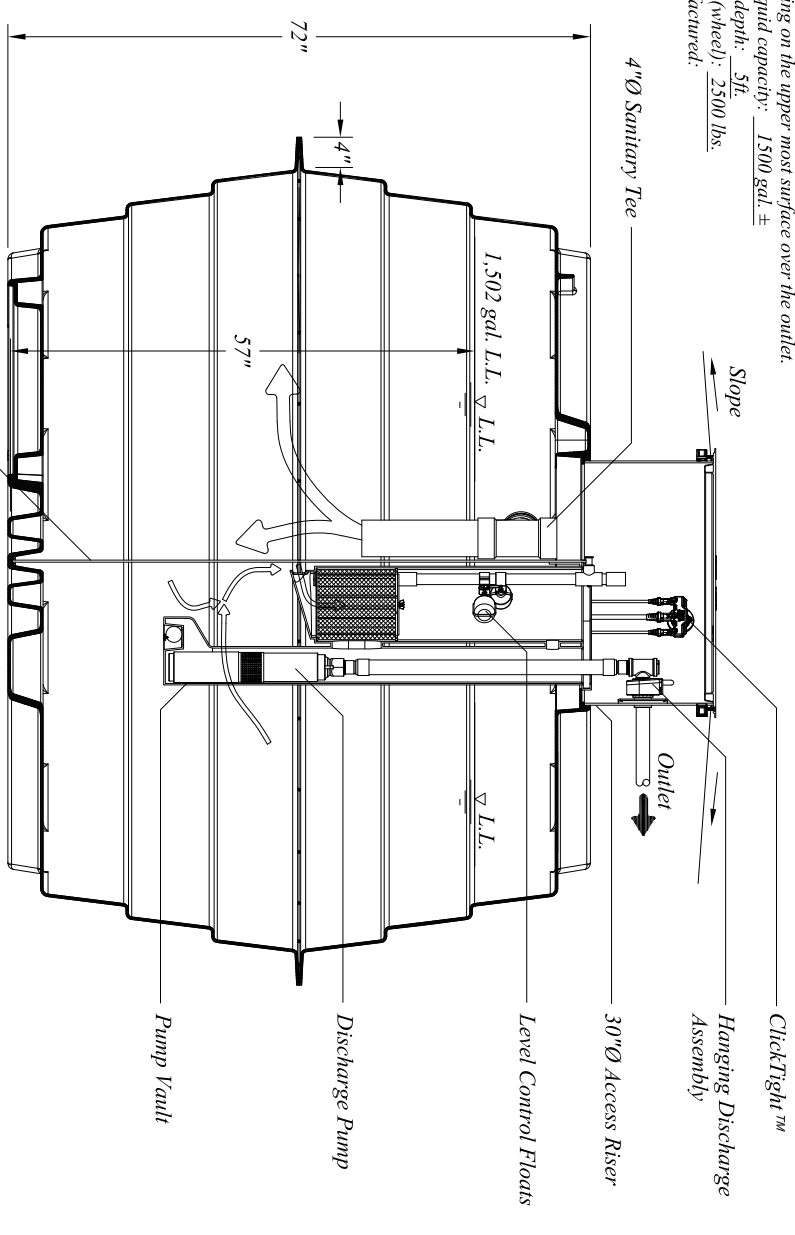
Test:

Tanks shall be tested and certified watertight per manufacturers recommendations and or any prevailing rules or guidelines, whichever is more restrictive.

Tank Markings:

Place marking on the upper most surface over the outlet.
 Nominal Liquid capacity: 1500 gal. ±
 Max burial depth: 5ft.
 Max traffic (wheel): 2500 lbs.
 Date manufactured:
 Permit no.:

Inside Height Inches	Total Gallons
71	1788
66	1714
60	1574
54	1425
48	1264
42	1090
36	906
30	721
24	544
18	382
12	230
6	89
0	0



M1500 Tank End Detail
Scale: 1" = 2'-0"



© Orencia Systems, Inc.
 Portions or all of this Proposed System Configuration Drawing, as appropriate, may be reproduced and integrated into the site-specific layout and configuration of a system by its designer.

Disclaimer: This Proposed System Configuration Drawing is provided solely as a design aid and illustrates one possible configuration of a system that would comply with Orencia's design criteria for the requirements and/or specifications that have been communicated to Orencia (based on third-party standards testing protocols and performance reports, as applicable). Design decisions, including the actual layout and configuration of the system and its viability for the project, are at the sole discretion of the system's designer.

Meander Tank 1500 with Pump Discharge
DESIGN AID

Drawn By:	CSU	Scale:	1" = 2'-0"
Reviewed By:	TB	Sheet:	1 OF 1
File Name:	NDW-TD-MEA-150-1.DWG	Rev:	1.0
		Date:	11/24/20