# TECHNICAL DATA

### DESIGN NOTES

(Per Title 5 and Local Requirements)

1. Type of establishment: Residence 2. Design Number of Bedrooms: 2 (min. design requirement) Flow Calculation: 110 gpd/bedroom x 2 bedrooms = 220 gpd 4. LTAR - 0.74 (Title 5) 0.60 (Sutton Title 5 Supplement)

Class I soil, <5mpi Percolation Rate. Required Leaching Field size: 220gpd/0.6gpd/sf = 367 sf

(Title 5 Leaching field: 220gpd / 0.74gpd/sf = 297 sf) Leaching field using four (4) CUR—TECH CTL—12 chambers in a bed configuration. These chambers are 8'L x 6.33'W x 14"H and provide 10.57sf/lf of chamber length. Provided leaching area is: 32lf \* 10.57sf/lf = 338 sf

7. Separation from groundwater: Bottom of chamber = 463.75. ESHGW = 458.62.

463.75 - 458.62 = 5.12' > 5.0' (OK)8. Requesting LUA for reduction of leaching field by 8%. (Note that provided leaching field is larger than required by Title 5) Élevations are based on NAVĎ 88

10. References • Deed Book 49963 Page 252

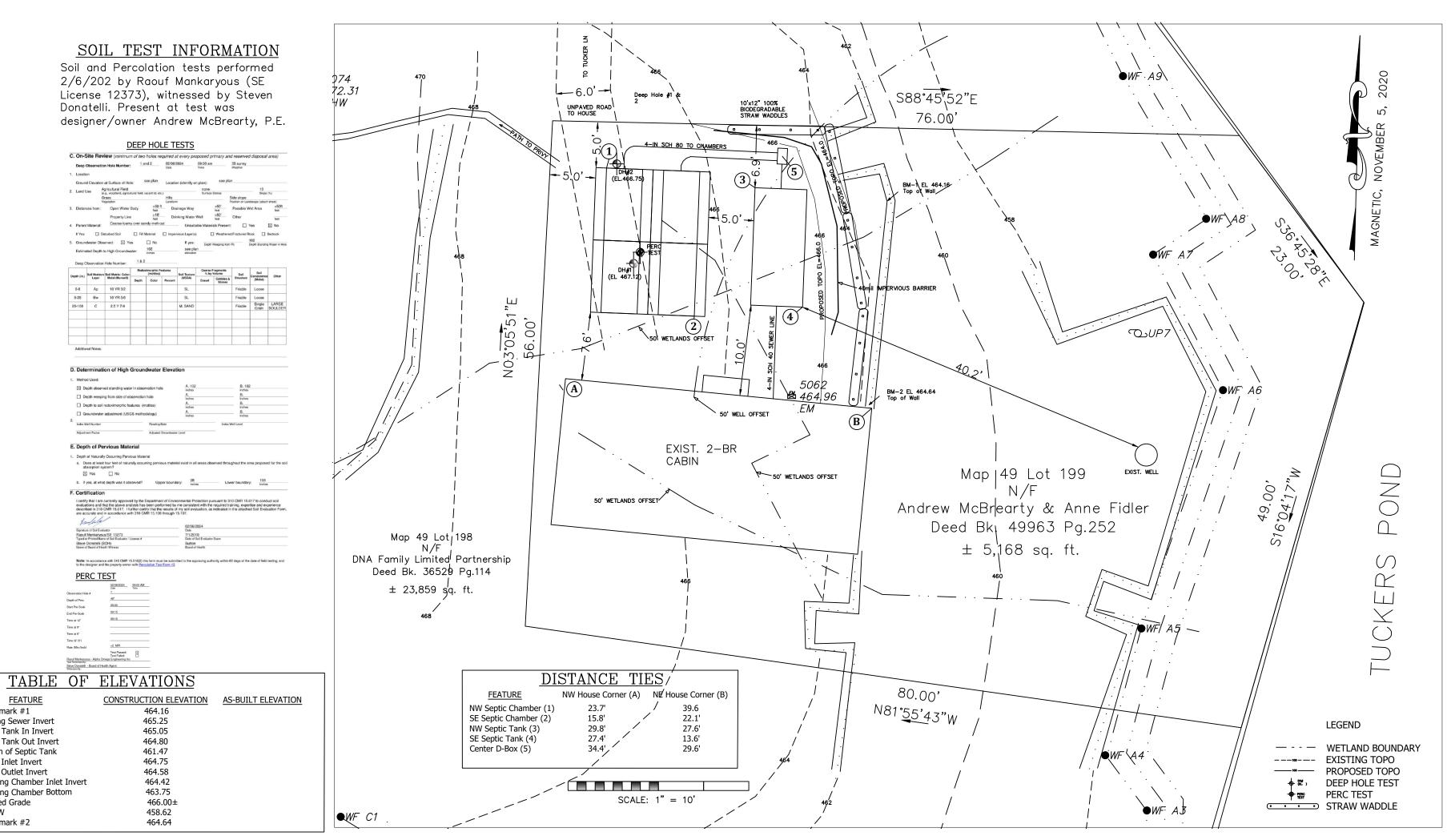
#### BUOYANCY CALCULATIONS

SEPTIC TANK (Norwesco, Dual Compartment 1,500 gallon ) Dimensions: 11.1'l x 4.58'w x 5.58'h Bottom of Tank = 461.47ESHGW el = 458.62

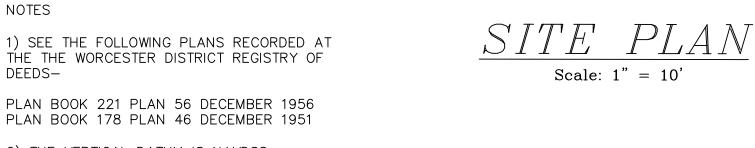
#### Uplift forces:

The ESHGW is 2.85' BELOW the bottom of the septic tank therefore there will be no uplift forces to contend with.

TANK IS NOT BOUYANT (OK)

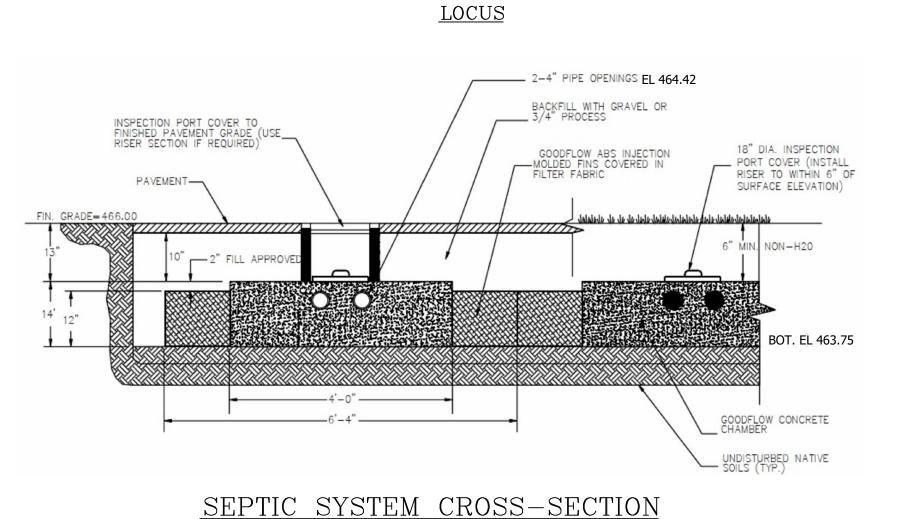


**EROSION CONTROL DETAIL** 



### 2) THE VERTICAL DATUM IS NAVD88 3) THE WETLANDS DEPICTED HEREON WERE DELINEATED IN THE FIELD IN OCTOBER 2020 BY GODDARD CONSULTING LLC 291 MAIN

STREET NORTHBORO MA 01532



## NOTES TO THE SEPTIC SYSTEM INSTALLER

- 1. This system is NOT designed for a garbage grinder.
- 2. The designer wishes to be present to perform a final construction inspection. Please provide a minimum of 72 hours notice prior.
- 3. All work is to be performed in accordance with the local approving authority, Title 5 of the State Environmental Code, and any applicable local regulations and in the event of conflict with this
- design the other shall prevail. 4. Contractor is responsible for identifying all underground utilities and for all site safety during
- construction. DigSafe may be contacted at 1-888-DIGSAFE (344-7233).
- 5. Any intended revision to horizontal or vertical locations or substitution for a specified components must be approved by the designer. 6. Any discrepancies between the approved plan and actual field conditions should be noted to the
- designer before proceeding with septic system installation. 7. All pipes in the leaching area are to be 4" schedule 80 PVC unless otherwise specified and are to
- be placed on compacted crushed stone with crushed stone to be placed to top of pipes. Backfill
- over the pipes to be free of stones or debris. 8. Septic tank and distribution box (D-box) must be set level on a mechanically compacted base
- with 6" of crushed stone beneath. 9. Septic tank shall be a 1,500 gallon, two-compartment tank and watertight. Sutton regulations
- require the septic tank manufacturer to certify the water tightness of the tank installed at this location. Tank shall be filled with clean water to outlet invert and held for 24 hours. Tank will be re-filled to outlet and held for 24 hours without loss of water level.
- 10. Septic line from house to septic tank shall be run straigh, with no bends. After tank, angles greater than 22-½ degrees are not permitted.
- 11. All piping in the septic system is to be covered with magnetic tape labeled "Caution: Sewer Line Below" at a depth no greater than 12" (available from Forestry Suppliers, 800-647-5368).
- 12. All connections to the tank are to be sealed with hydraulic cement or a manufacturer-approved
- seal between pipe and tank. 13. The septic tank shall have two access ports brought to grade.

#### 14. No water softeners are to be connected to tank.

### NOTES TO THE PROPERTY OWNER

The septic system design on this plan meets the requirements of state and local health regulations except where noted. Construction must occur by a licensed professional and will be inspected by the local health department and by the design engineer. A Certificate of Compliance should be issued to you by the local health department at the completion of construction.

The septic tank should be pumped at lease once every five years under seasonal use and once every two years if occupied year-round or as needed to ensure proper operation. An annual inspection is recommended.

It is recommended that the well water be tested every two years at a minimum.

You should maintain a copy of this plan, the as-built plan, the Certificate of Compliance, pumping records and other relevant documents in a safe and accessible location.

# NOTES TO THE REVIEWING AGENCY

This septic system design includes the following requests for Local Upgrade Approvals from Title 5 of the Massachusetts Environmental Code or from the Sutton Board of Health Septic System Regulations:

- 1. Request to reduce the setback (15.211) from a leaching field to the property line from 10' to 5.0'.
- 2. Request to reduce the setback (15.211) from a septic tank to the property line from 10' to 6.9' 3. Request to reduce setback (15.211) from a leaching field to a cellar wall from 20' to 7.6' 4. Request to reduce setback (15.211) from a leaching field to a BVW from 50' to 32'
- 5. Request to reduce setback (15.211) from a leaching field to a private well from 100' to 50'
- 6. Request to reduce setback (15.211) from a septic tank to a private well from 50' to 40.2'
- 7. Request to reduce field from Sutton Supplemental requirements from 367sf to 338sf (8% reduction) Note: the standard Title 5 field size based on the LTAR is 297sf > 338sf provided.

Tucker Pond is not a drinking water supply. No public drinking water supply wells are within 400' of proposed system. There is no stormwater drainage on the property. No septic systems are located within 150' of the proposed system.

Applicant/Owner: Anne T Fidler & Andrew McBrearty 115 Bower Road Braintree, MA 02184

Braintree, MA 02184

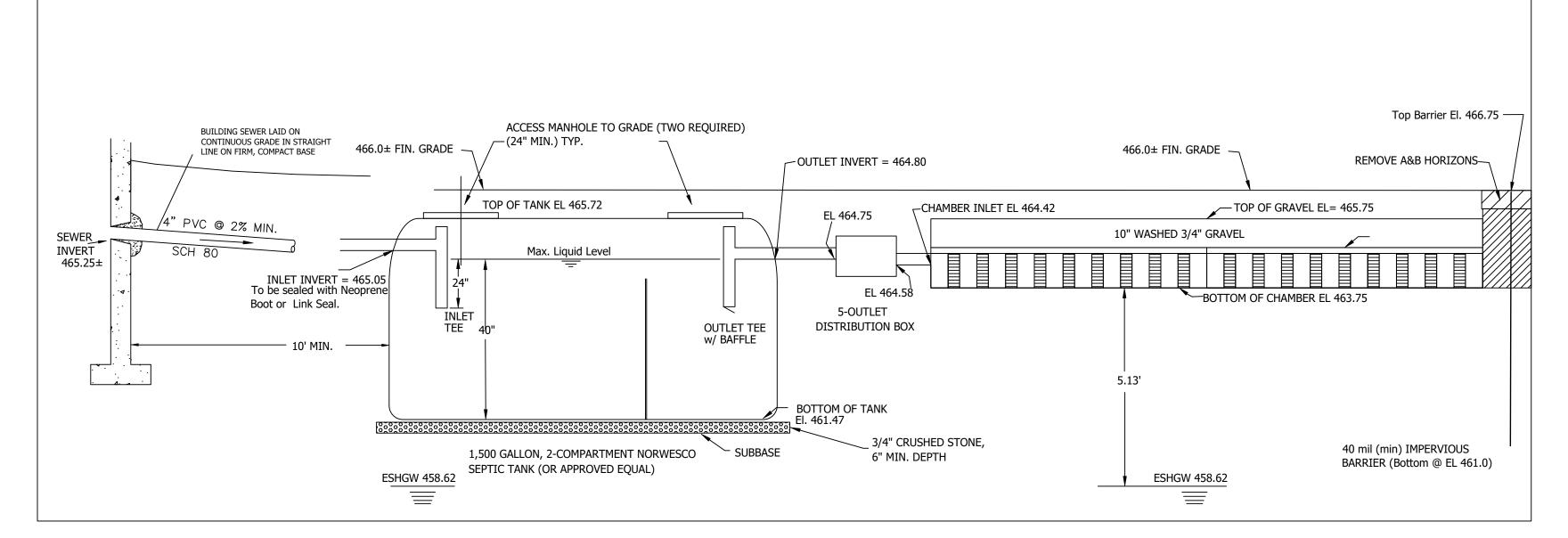
Andrew R McBrearty, P.E. Designer:

DATE

BOH# S24-02

REVISION

DAID	TOD VIDION	
04/02/24		e BM2 Closer to Work Path to Old Privy
03/04/24 B01		H Review -
	Add E	Barrier & Soil notes
02/14/24	Initial Release	
ANDREW R MCBREARTY, P.E	(781) 254–5561	Septic System Design for Fidler & McBrearty 34R Tucker Lane, Sutton, Massachusetts Map 49, Lot 199 January 12, 2024



Index Well Number

F. Certification

PERC TEST

**FEATURE** 

Benchmark #1

**Building Sewer Invert** 

Septic Tank In Invert

Septic Tank Out Invert

Bottom of Septic Tank

Leaching Chamber Inlet Invert

Leaching Chamber Bottom

D-Box Inlet Invert

D-Box Outlet Invert

Finished Grade

Benchmark #2

FSHGW

E. Depth of Pervious Material