This plan has been prepared only to obtain a Disposal System Construction Permit allowing a licensed installer to construct the septic system shown hereon. Soil testing shown on this plan is intended to be used for the design of this proposed septic system only, and groundwater depths and elevations are not to be used for building or house construction.

This plan is not a boundary survey, and is not suitable for any purpose requiring boundary determination. The property lines and street lines shown may be approximate. This plan is not valid for use as a certified as-built or proposed plot plan for building construction.

Underground utilities shown on this plan may be from record information or from Dig Safe markings or may be shown in an estimated location. They were not field verified by Perley Engineering LLC and are not guaranteed to be complete or correct.
Other utilities may exist that are not shown on this plan.

The Installer must contact Dig Safe at 1-888-344-7233 at least 3 business days before starting work.

The Installer must be trained and certified by Cultec, Inc. before installing this system, as required by DEP's Certification for General Use of Cultec chambers.

The Installer must comply with the current version of 310 CMR 15.000 - Title 5 - The State Environmental Code and all other applicable codes and regulations.

HOLE # 21

Depth (feet)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix Color (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Coarse Fragments % by volume Gravel	Cobbles/stones	Soil Structure	Soil Consistence
220.0										
218.0 0.0'-0.5'	A	sandy Loam	10YR3/2	None			0%	0%		
0.5'-2.0'	B	sandy Loam	2.5Y6/6	None			15%	15%	massive	firm
2.0'-15.0'	C	sandy Loam	5Y4/4	None			15%	15%	massive	firm
207.2										

Groundwater encountered: None - use bottom of hole
Estimated offset: 2.0'
Estimated seasonal high: 15.0'-2.0'=13.0' (elev. 207.0)

HOLE # 22

Depth (feet)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix Color (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Coarse Fragments % by volume Gravel	Cobbles/stones	Soil Structure	Soil Consistence
222.6										
220.6 0.0'-0.5'	A	sandy Loam	10YR3/2	None			0%	0%		
0.5'-2.0'	B	sandy Loam	2.5Y6/6	None			15%	20%	massive	firm
2.0'-11.5'	C	sandy Loam	5Y4/4	None			15%	20%	massive	firm
211.1										

Groundwater encountered: None - use bottom of hole
Estimated offset: 2.0'
Estimated seasonal high: 11.5'-2.0'=9.5' (elev. 213.1)

HOLE # 23

Depth (feet)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix Color (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Coarse Fragments % by volume Gravel	Cobbles/stones	Soil Structure	Soil Consistence
225.4										
223.4 0.0'-0.5'	A	sandy Loam	10YR3/2	None			0%	0%		
0.5'-2.0'	B	sandy Loam	2.5Y6/6	None			20%	20%	massive	firm
2.0'-13.5'	C	sandy Loam	5Y4/4	None			20%	20%	massive	firm
211.9										

Groundwater encountered: None - use bottom of hole
Estimated offset: 2.0'
Estimated seasonal high: 13.5'-2.0'=11.5' (elev. 213.9)

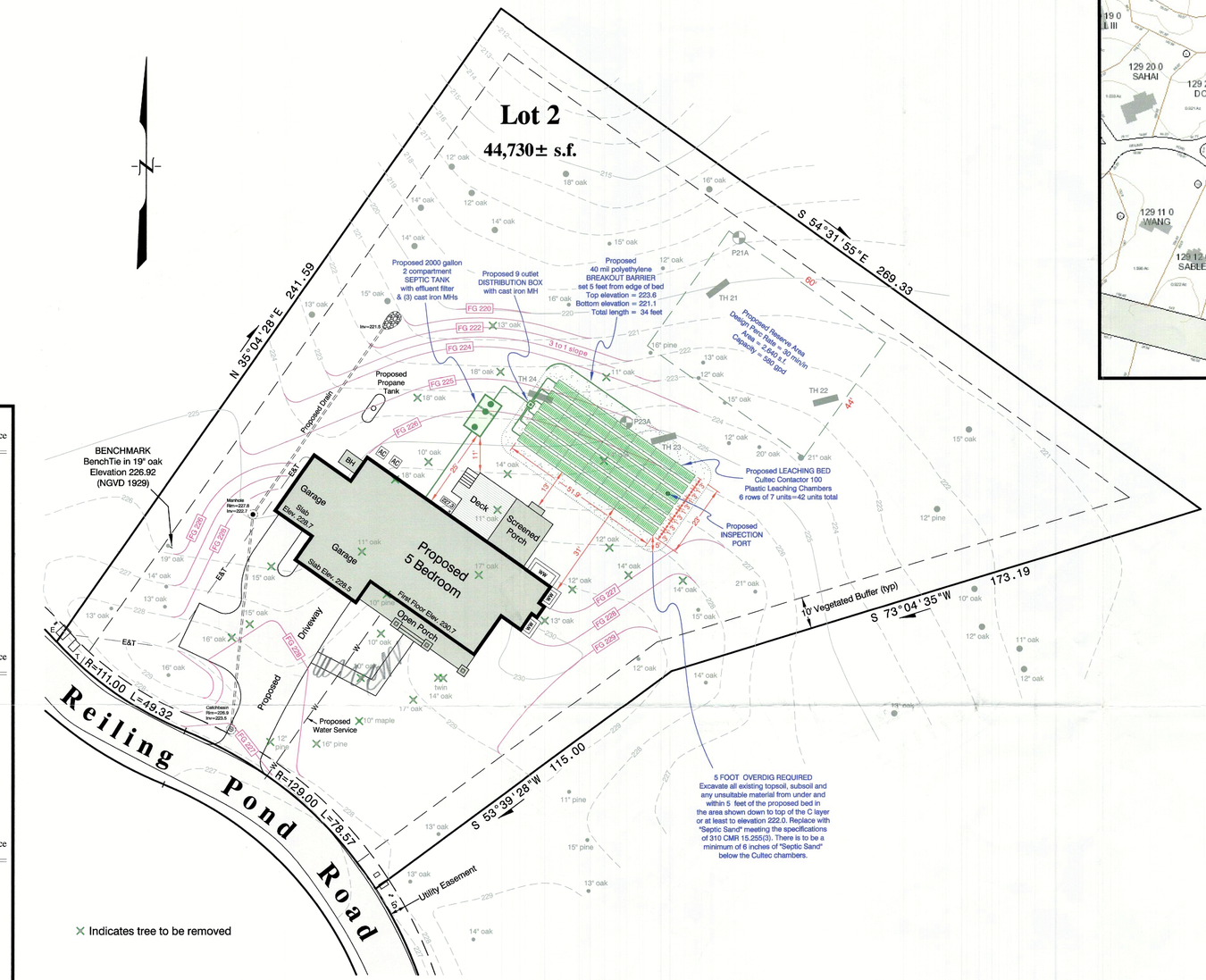
HOLE # 24

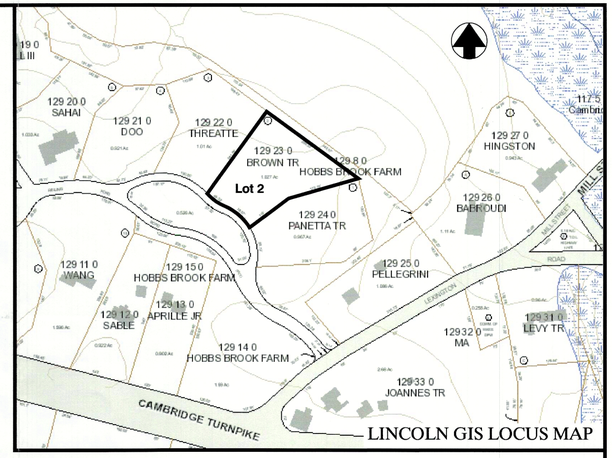
Depth (feet)	Soil Horizon/ Layer	Soil Texture (USDA)	Soil Matrix Color (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Coarse Fragments % by volume Gravel	Cobbles/stones	Soil Structure	Soil Consistence
223.1										
221.1 0.0'-0.5'	A	sandy Loam	10YR3/2	None			0%	0%		
0.5'-2.0'	B	sandy Loam	2.5Y6/6	None			20%	20%	massive	firm
2.0'-13.0'	C	sandy Loam	5Y4/4	None			20%	20%	massive	firm
210.1										

Groundwater encountered: None - use bottom of hole
Estimated offset: 2.0'
Estimated seasonal high: 13.0'-2.0'=11.0' (elev. 212.1)

soil evaluator: Jefferson G. Perley
witnessed by: Stanley J. Sosnicki
date of testing: July 18, 2007
location on plan indicated by ■

DEEP OBSERVATION HOLE LOG

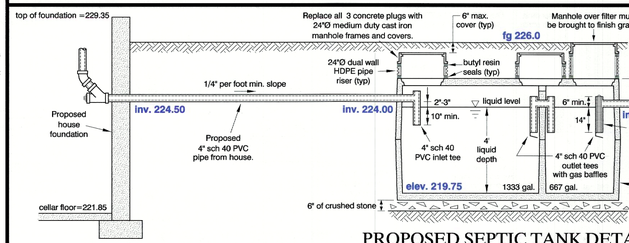




NOTE TO HOMEOWNER:
The design engineer recommends that no vehicles or heavy equipment be parked over or be driven over the Cultec chambers to avoid possible damage to the chambers or compaction of the soil.

DISTURBED AREAS:
All disturbed areas are to receive 4 to 6 inches of screened topsoil, then be seeded with grass. The Installer is responsible for preventing excessive soil movement and washouts by using appropriate erosion controls.

*USE ONLY FOR SEPTIC INSTALL + GRADES/ELEV. ALL OTHER SITE LAYOUT+GRADES REFER TO SITE PLAN. SUBMITTED TO PLANNING BOARD.



PROPOSED SEPTIC TANK DETAIL

PROPOSED DISTRIBUTION BOX DETAIL

PROPOSED CULTEC BED DETAIL

PERCOLATION TEST DATA

Test #	Rate	Depth	Elevation	Date of testing
21A	26 min/in	4.0'	214.9	July 18, 2007
23A	18 min/in	4.0'	220.5	July 18, 2007

performed by: Jefferson Perley
location on plan indicated by ◔

DESIGN CRITERIA

type: New Construction
number of bedrooms: 5 design flow: 550 gallons per day
garbage grinder permitted: YES (per Lincoln Reg. 1.06(A)(1)
septic tank capacity: 2000 (1333+667) gallons
type of leaching system: Cultec Contactor 100 leaching bed
number of chambers: 42 effective leaching area: 5.0 sf/lf
soil class: Class II design percolation rate: 18 min/inch
effluent loading rate: 0.53 gpd/sf
system area: 42 units x 7.42' x 5.0 sf/lf = 1,558 square feet
system capacity: 0.53 x 1,558 sf / 1.5 (grinder) = 550 gpd

DESIGN ELEVATIONS

top of foundation: 229.35 cellar floor: 221.85
invert of building sewer at foundation: 224.50
invert of septic tank inlet: 224.00 outlet: 223.75
invert of distribution box inlet: 223.50 outlet: 223.33
invert at start of Cultec chambers: 223.00
bottom of Cultec chambers: 222.50
bottom of bed excavation: 220.0± – 222.00
design groundwater elevation: 227.5 – 11.0 = 216.5
finish grade over septic tank: 226.0
finish grade over leaching system: 224.7 – 226.5

AS-BUILT ELEVATIONS

top of foundation: cellar floor:
invert of building sewer at foundation:
invert of septic tank inlet: outlet:
invert of distribution box inlet: outlet:
invert at start of Cultec chambers:
bottom of Cultec chambers:
bottom of bed excavation:
DATE OF AS-BUILT:

NOTES FOR INSTALLER

The installer must contact Perley Engineering at least **five business days** before starting construction to schedule the following site visits for the engineer:

- to stake the leaching area for construction;
- to observe the bottom of the leaching area excavation;
- to observe and take as-built measurements of the completed system. All components (including manholes) must be installed and remain exposed.

This system must be installed exactly as shown on this plan. Any variations must be approved by Perley Engineering **before** construction or as-built certification may be denied.

REVISIONS

0 10 20 40 60 80
Scale in Feet

PERLEY ENGINEERING LLC
LAND SURVEYING & CIVIL ENGINEERING
90 Picnic Street, Boxborough, MA 01719
perleyengineering@verizon.net (978) 369-2689

Seal applies to the design of the septic system only.

JEFFERSON G. PERLEY STRUCTURAL No. 33291 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

07-20-2018

PROPOSED SEPTIC SYSTEM

For: Donald Street Realty Trust
Lot: 2 Assessor's ID: 129 23 0
3 Reiling Pond Road
Lincoln, Massachusetts
Scale: 1"=20'
Date: July 20, 2018

File No: 607
Dwg: 18-335B0
Sheet: 1 of 1

7/20/2018 12:04:59 PM, 1:20

SAME AS APPROVED