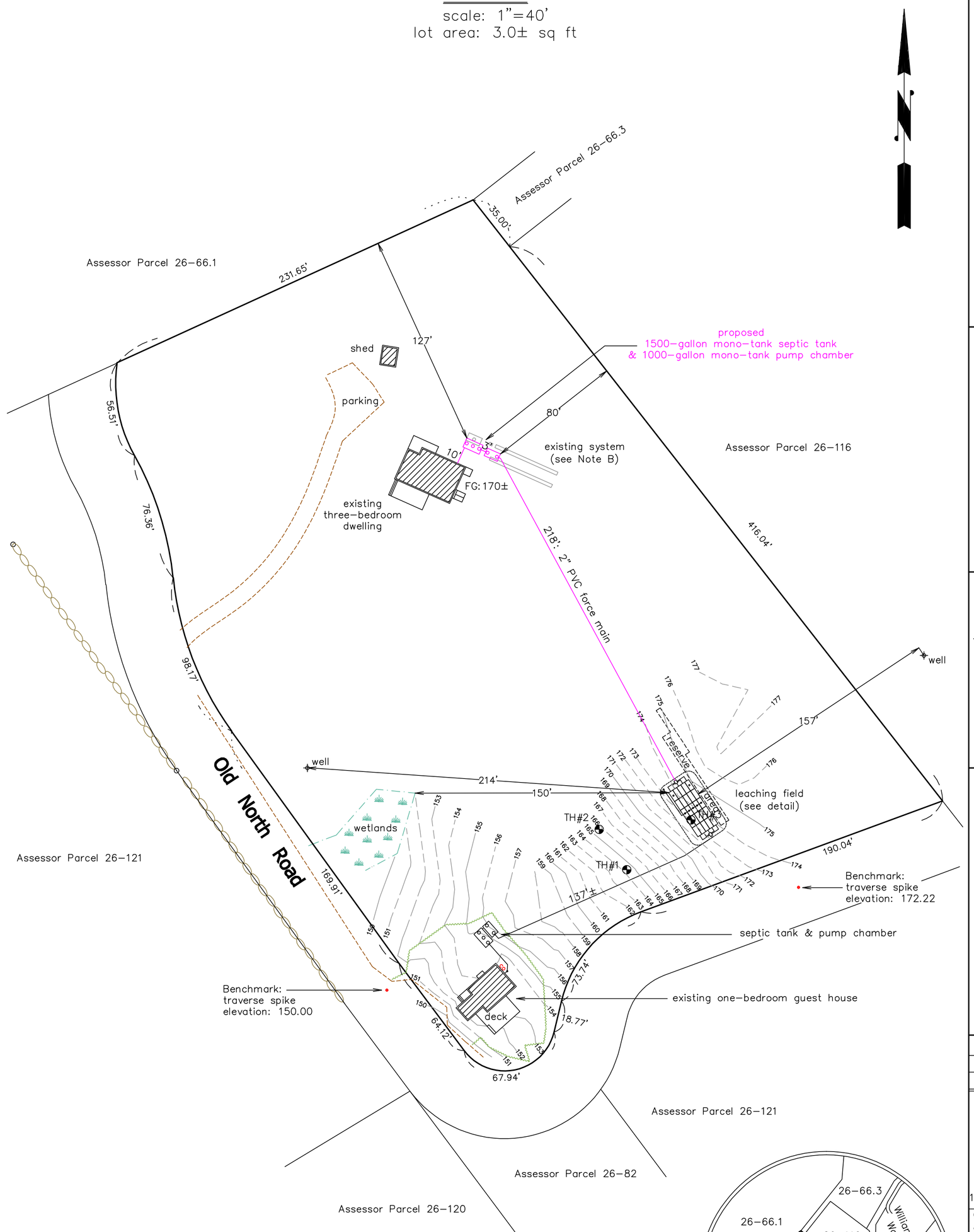
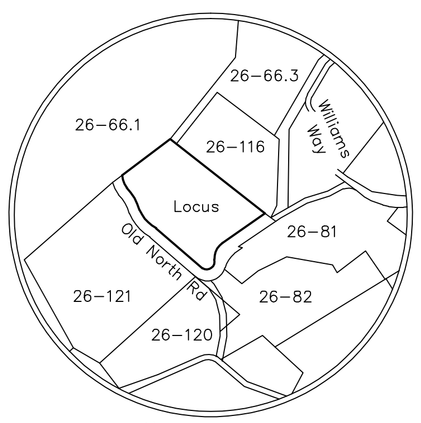
Plot Plan

scale: 1"=40'
lot area: 3.0± sq ft



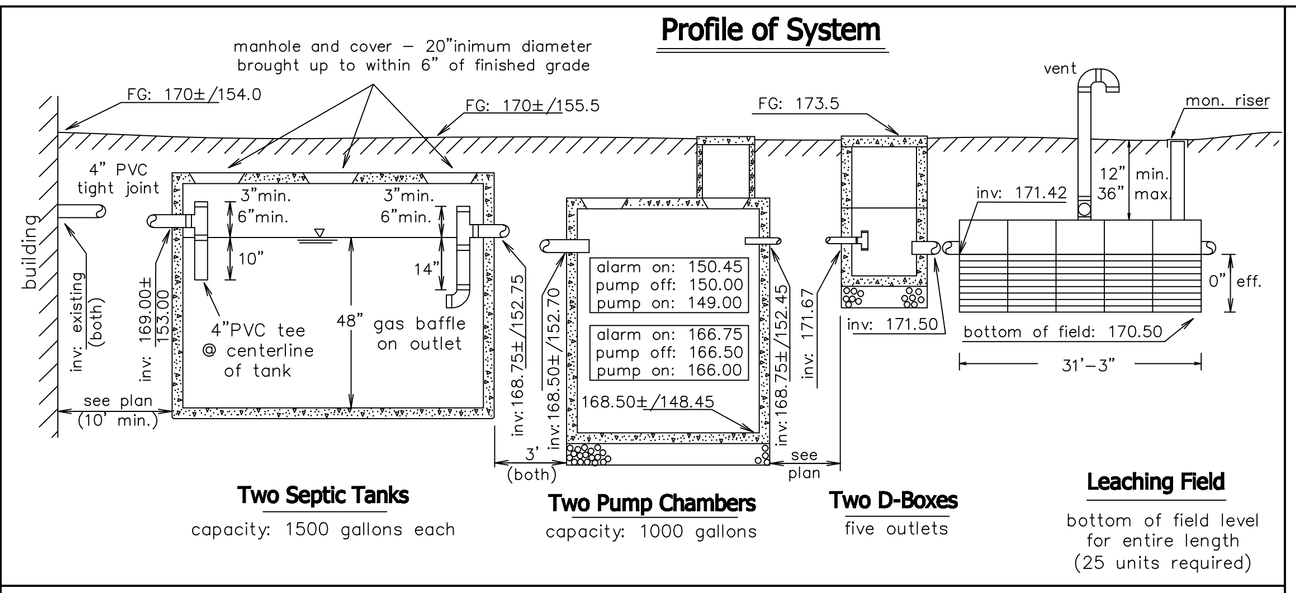
Project Notes:

A. Wetlands delineated by Cooper Environmental Services, Inc.
B. Existing "D–box" and leching trenches to be abandoned in place
C. Proposed septic tank and pump chamber to "mono–tank" style
D. Proposed septic tank and pump chamber to be set to provide 12" to 36" cover to finish grade
E. All tank penetrations to be waterproofed



Locus Map no scale

Profile of System



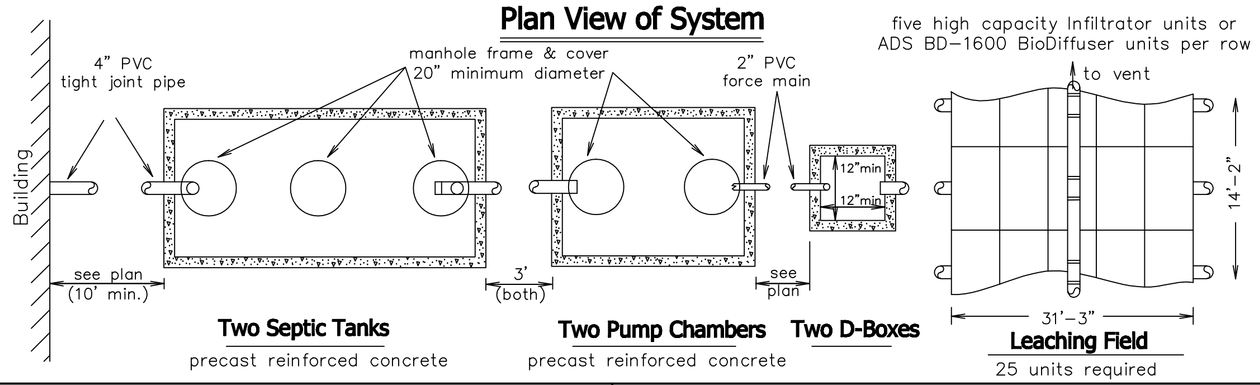
Two Septic Tanks
capacity: 1500 gallons each

Two Pump Chambers
capacity: 1000 gallons

Two D–Boxes
five outlets

Leaching Field
bottom of field level
for entire length
(25 units required)

Plan View of System



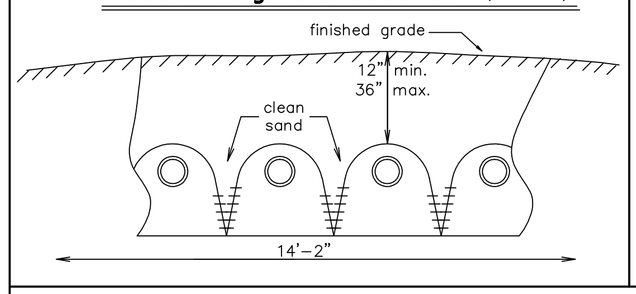
Two Septic Tanks
precast reinforced concrete

Two Pump Chambers
precast reinforced concrete

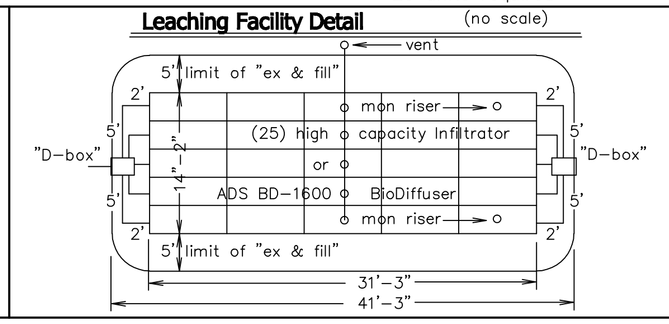
Two D–Boxes

Leaching Field
25 units required

Partial Leaching Field Cross–Section (no scale)



Leaching Facility Detail (no scale)



Schedule of Elevations

	main	guest	finished grade above structure			finished grade above structure
First floor elevation:	172.0±	154.5±				
Basement floor:	163.5±	n/a				
Invert at foundation:	existing	existing	170±	154.0	Invert at distribution box inlet: 171.67	
					Invert at distribution box outlet: 171.50	173.5
Invert at septic tank inlet:	169.00±	153.00				
Invert at septic tank outlet:	168.75±	152.75	170±	155.5	Invert at infiltrator inlet: 171.42	
					Elevation of field bottom: 170.50	
Invert at pump chamber inlet:	168.50±	152.70				
Invert at pump chamber outlet:	168.75±	152.45	170±	156.5		

Deep Test Pit 1 (Surface Elevation: 164.1)
Date of Test: April 27, 2016

Depth	Horiz.	Soil Description
0"– 6"	A	Silt Loam
6"–24"	B	Sandy LOAM & gravel
24"–74"	C1	Abilation (S. Loamw/gravel)
74"–108"	C2	Sand & Kaolin
108"–126"	C3	Sand & Kaolin

Groundwater was not encountered at a depth of 126" (elevation: 153.6)

Deep Test Pit 2 (Surface Elevation: 165.5)
Date of Test: July 7, 2016

Depth	Horiz.	Soil Description
0"–7"	A	Sandy Loam
7"–26"	B	Sandy Loam
26"–84"	C1	SAND & GRAVEL w/pockets of Sandy Loam
84"–126"	C2	SAND

Groundwater was not encountered at a depth of 126" (elevation: 155.5)

Deep Test Pit 3 (Surface Elevation: 173.0)
Date of Test: December 19, 2017

Depth	Horiz.	Soil Description
0"– 8"	A	f–m Sandy LOAM
8"–27"	B	Sandy LOAM – Silt LOAM
27"–64"	C1	Dense Sandy LOAM – Silt LOAM
64"–126"	C2	Loamy SAND w/ trace Kaolin

Groundwater was not encountered at a depth of 126" (elevation: 162.5)

Percolation Test Data

test pit #	date	top of 12" of water: depth from top of pit	top of 12" of water: elevation	rate: (mpi)
1	4/27/16	26"	157.9	<10
2	4/27/16	26"	163.3	<10
3	12/19/17	64"	167.7	<10

General Notes

1. Elevations refer to mean sea level datum. See bench mark on plot plan located on traverse spikes (elevations: see plan)
2. Finished grading to be done in accordance with plot plan.
3. Percolation tests to be performed in accordance with the instructions of Title V of the Massachusetts State Environmental Code.
4. All construction to conform to Title V and Board of Health requirements.
5. All topsoil, subsoil and deleterious material, if any, must be excavated and removed below the leaching field and to a distance of 5 feet from all sides of the leaching field. Excavate down to 6 inches below the surface of the natural permeable soil. Backfill as required with materials meeting the requirements of section 15.255(3) of Title V. Construct trenches in this material. (see plan)
6. Septic tank and distribution box shall be watertight after construction, including covers.
7. No driveway, parking or turning area or other impervious areas shall be located above the soil absorption system.
8. No permanent structure may be constructed over the 100% expansion area.
9. Schofield, Barbini & Hoehn Inc. will not be responsible for the performance of the system unless constructed as shown. Any alterations must be approved in writing by Schofield, Barbini & Hoehn Inc.
10. The Board of Health shall require inspection of all construction by the design engineer and by the agent of the Board of Health.
11. The design engineer and the system installer shall certify in writing to the approving authority that the system has been constructed in compliance with the approved plans.
12. For proper performance, the septic tank should be inspected at least once a year and when the total depth of scum and solids exceed 1/3 the liquid depth of the tank, the tank should be pumped.
13. Distribution box cover to be brought to finish grade.

Pump Notes

1. Guest house pump to be Myers WHR7, 3/4 hp, single phase, 120/240 volts (oae)
   Main house pump to be Myers WHR5, 1/2 hp, single phase, 120/240 volts (oae)
2. Controls to be for a simplex pumping systems
3. Force main to be 2" PVC, sch 40 with pressure fittings or approved equal and shall be laid with 48" minimum cover or insulated for frost protection
4. Pump chamber to be water–proofed mono–tank style 1000–gallon septic tank
5. A high water alarm shall be installed on a circuit other than the pump control circuit

Design Data

1. Estimated Hydraulic Loading:
   One + three bedrooms at 110 gallons per day per bedroom = 440 GPD
   Garbage disposal is not allowed with this design.
2. Septic Tank Size:
   Required tank capacity: 110 x 200% = 220 gallons (minimum)
   Septic tank provided: 1500 gallons
3. Design percolation rate: 10 MPI
   Soil textural class: II
   Loading rate: 0.60 GPD/SF
4. Leaching Area:
   Total leaching area provided: 442 SF
5. Maximum Allowable Loading:
   442 SF x 1.67 (chamber general permits) x 0.60 GPD/SF = 443 GPD
   Actual hydraulic loading: 440 GPD

Legend

---XX---	Denotes proposed contour
F.G. = XX.X	Denotes proposed finished grade
XX	Denotes existing contour
	Denotes test hole location
P.V.C.	Denotes polyvinyl chloride pipe, Sch. 40, unless noted
	Denotes catch basin
E.H.C.I.	Denotes extra heavy cast iron
— W —	Denotes water service

Proposed Sewage Disposal System

To Serve an Existing One–Bedroom Guest House
And an Existing Three–Bedroom Main House
1 Old North Road – Assessor Parcel 26–119
Chilmark, Massachusetts

Applicant: Tamara Sloan & David Kulp
183 Phillips Road
Shelburne Falls, MA 01370
Phone: (508) 693–2781

Date: January 30, 2023

designed by: CPA | drawn by: CPA | checked by: CHD

Schofield, Barbini & Hoehn, Inc.
Land Surveying Civil Engineering
12 Surveyor's Lane, Box 339
Vineyard Haven, Mass. 02568
508–693–2781
www.sbhinc.net

MV 8094