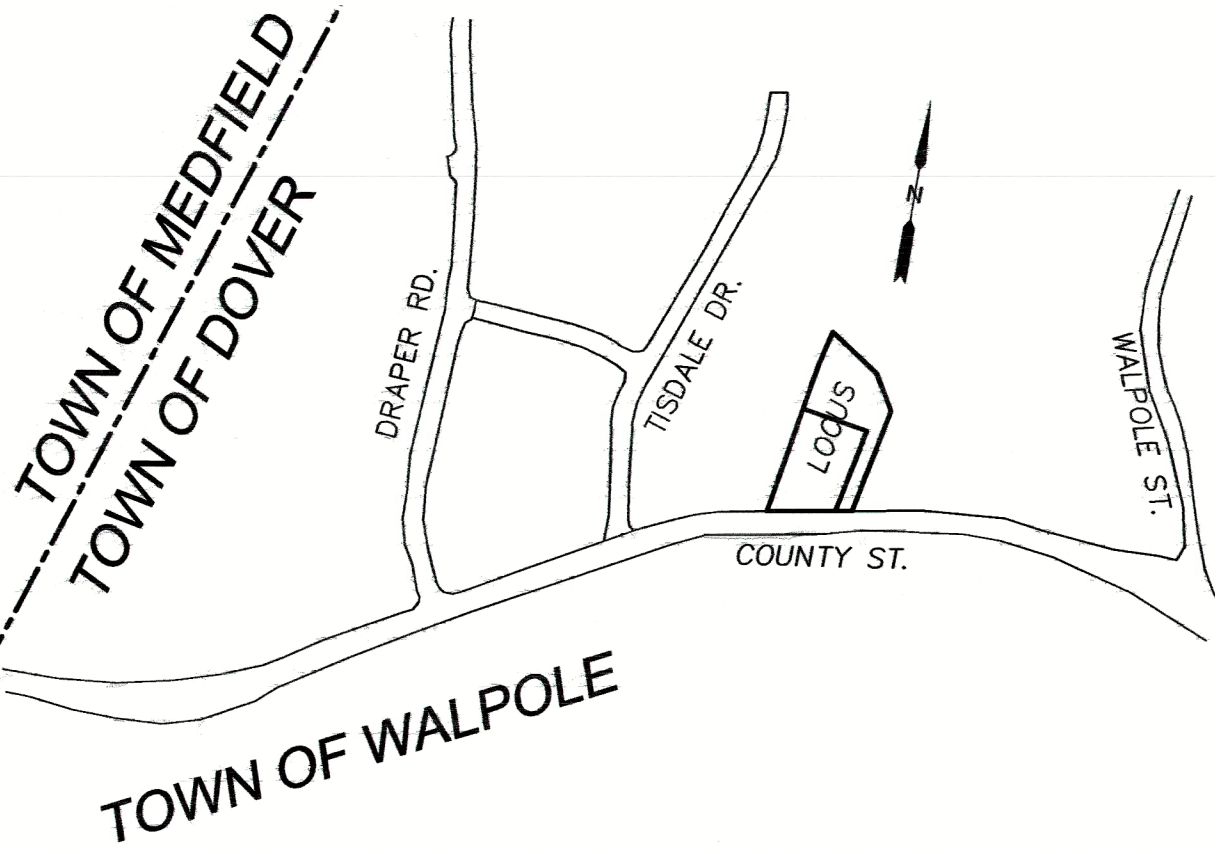




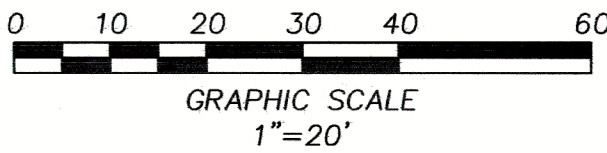
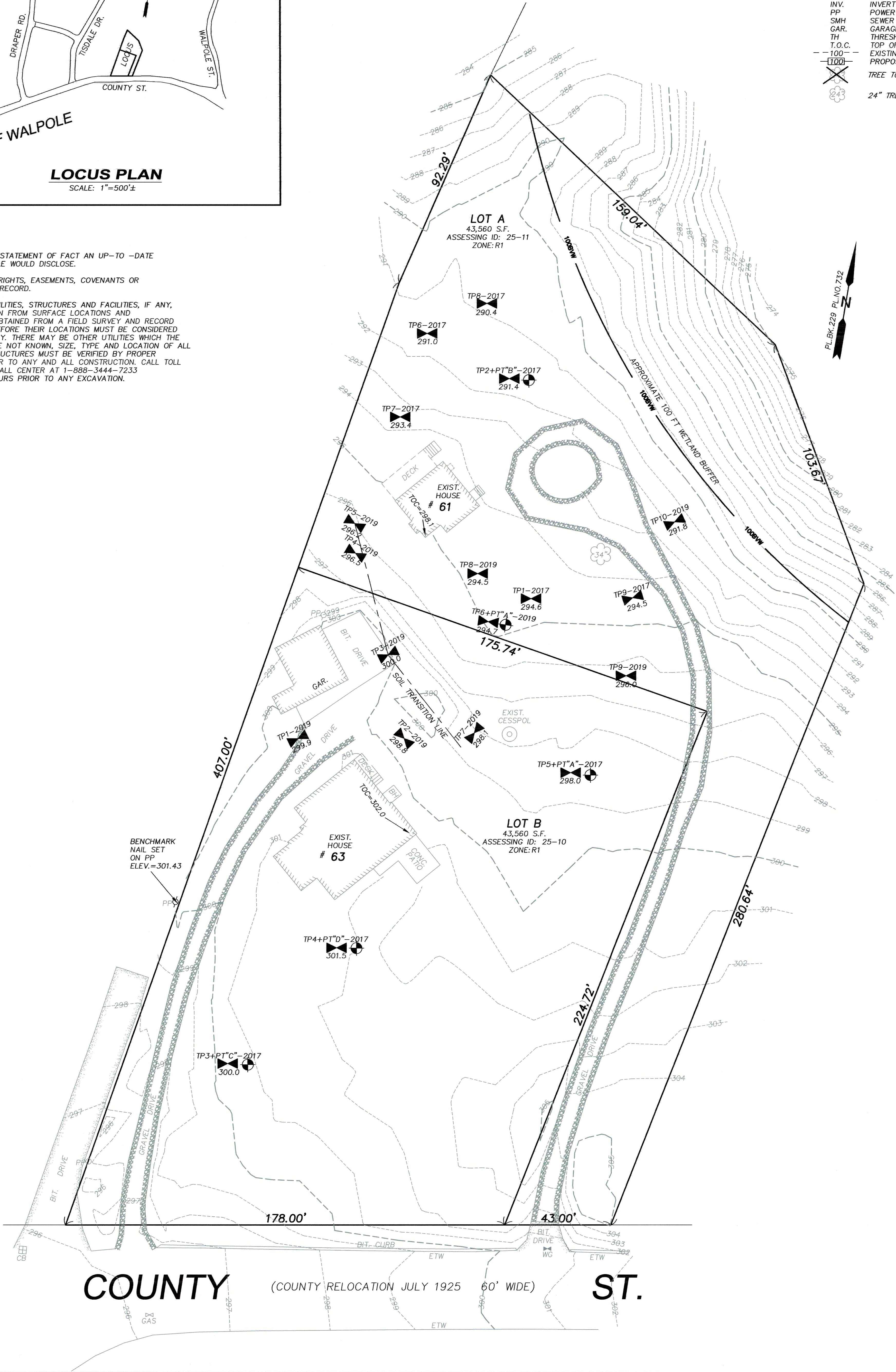
LOCUS PLAN
SCALE: 1"=500'±

NOTES:

- SUBJECT TO ANY STATEMENT OF FACT AN UP-TO -DATE ABSTRACT OF TITLE WOULD DISCLOSE.
- SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
- UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES, IF ANY, HAVE BEEN SHOWN FROM SURFACE LOCATIONS AND MEASUREMENTS OBTAINED FROM A FIELD SURVEY AND RECORD LOCATIONS. THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL TOLL FREE, DIG SAFE CALL CENTER AT 1-888-3444-7233 SEVENTY-TWO HOURS PRIOR TO ANY EXCAVATION.

LEGEND

- | | |
|--------|----------------------|
| BIT. | BITUMINOUS |
| ETW | EDGE OF TRAVELED WAY |
| F.F. | FINISHED FLOOR |
| GG | GAS GATE |
| INV. | INVERT |
| PP | POWER POLE |
| SMH | SEWER MANHOLE |
| GAR. | GARAGE |
| TH | THRESHOLD |
| T.O.C. | TOP OF CONCRETE |
| 100 | EXISTING CONTOUR |
| 100 | PROPOSED CONTOUR |
| X | TREE TO BE CUT |
| 24" | 24" TREE |



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD.

EXISTING CONDITIONS PLAN
61 & 63 COUNTY STREET
DOVER, MASSACHUSETTS
NORFOLK COUNTY
AS PREPARED FOR
RED ROBINS PASTURE, LLC

CHENEY
ENGINEERING CO., INC.
53 MELLEEN STREET
NEEDHAM, MA 02494
TEL. 781-444-2188



DATE: 3/7/19	PROJECT # 6119
REV.	
9/5/19	NEW TEST PIT LOCATIONS & SOIL TRANSITION LINE



Commonwealth of Massachusetts
City/Town of Dover
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Site Information

Red Robbin Pasture LLC

Owner Name

61-63 County Road

Street Address or Lot #

Dover

City/Town

MA

State

Zip Code

Ardi Rappi

Contact Person (if different from Owner)

617-797-3132

Telephone Number

B. Test Results

	9/4/19 Date	10:00 Time	Date	Time
Observation Hole #	TP6+A -2019			
Depth of Perc	48"			
Start Pre-Soak	10:45			
End Pre-Soak	Unable to Soak			
Time at 12"	-			
Time at 9"	-			
Time at 6"				
Time (9"-6")				
Rate (Min./Inch)	unable to soak <2 mpi			
	Test Passed:	☒	Test Passed:	☐
	Test Failed:	☐	Test Failed:	☐

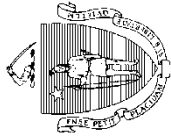
Thomas Ryder

Test Performed By:

Mike Angieri

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Dover

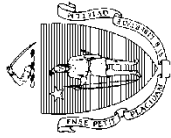
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Red Robins Pasture LLC
Owner Name
61-63 County Street
Street Address
Dover
City
MA
State
25-11, 25-10
Map/Lot #
Zip Code

B. Site Information

- (Check one) ☒ New Construction ☐ Upgrade ☐ Repair
- Soil Survey Available? ☒ Yes ☐ No
If yes: Web Soil Survey Source 420B
Soil Map Unit
Canton Fine Sandy Loam
Soil Name
coarse loamy over sandy melt-out
Geologic/Parent Material
Soil Limitations
ridges
Landform
well drained
If yes: Year Published/Source Publication Scale Map Unit
- Surficial Geological Report Available? ☐ Yes ☐ No
- Flood Rate Insurance Map
Above the 500-year flood boundary? ☒ Yes ☐ No
If Yes, continue to #5.
Within the 100-year flood boundary? ☐ Yes ☒ No
- Within a velocity zone? ☐ Yes ☒ No
- Within a Mapped Wetland Area? ☐ Yes ☒ No
- Current Water Resource Conditions (USGS): 9/19
Month/Year
MassGIS Wetland Data Layer: Wetland Type
Range: ☒ Above Normal ☐ Normal ☐ Below Normal
- Other references reviewed: FIRM 25021C0159E



Commonwealth of Massachusetts
City/Town of Dover

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP1 Date 9/4/19 Time 12:00 Weather sunny

1. Location

Ground Elevation at Surface of Hole: 299.9 feet Latitude/Longitude: 42.20402° / -71.26344

Description of Location: @63 County left side between Garage and house

2. Land Use SFH (e.g., woodland, agricultural field, vacant lot, etc.) no Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-8 Slope (%)

wooded Vegetation Moraine Landform TS

3. Distances from: Open Water Body >100 feet Drainage Way >50 feet Wetlands >100 feet

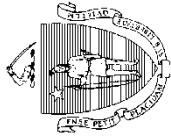
Property Line >25 feet Drinking Water Well >100 feet Other

4. Parent Material: gravely till Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 108 inches 209.9' elevation



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

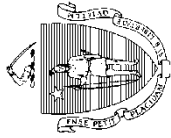
C. On-Site Review (continued)

Deep Observation Hole Number: TP1

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-4	Ap	10YR 3/4				SL			granular		
4-24	mix					SL			massive		
24-30	Bw1	10YR 8/8				SL			bulky		
30-48	Bw2	10YR 7/8				SL			massive		
48-108	C1	2.5 Y 6/2				L	some	few	massive		

Additional Notes:

Not a good location for SAS



Commonwealth of Massachusetts
City/Town of Dover
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: T2 9/4/19 12:00 Sunny
Date Time Weather

1. Location

Ground Elevation at Surface of Hole: 298.8 Latitude/Longitude: / feet

2. Land Use SFH NA 0-8
(e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
lawn moraine FS
Vegetation Landform

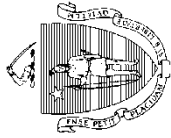
3. Distances from: Open Water Body >200 Drainage Way >50 Position on Landscape (SU, SH, BS, FS, Wetlands >100
feet feet feet feet
Property Line >25 Drinking Water Well 100 Other feet
feet feet feet

4. Parent Material: gravelly till Unsuitable Materials Present: ☒ Yes ☒ No

If Yes: ☐ Disturbed Soil ☐ Fill Material ☒ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 66 293.3 feet
inches elevation



Commonwealth of Massachusetts
City/Town of Dover
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

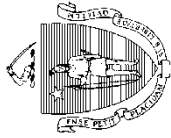
C. On-Site Review (continued)

Deep Observation Hole Number: TP 2

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume			Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones				
0-6	Ap	10 YR 3/4				SL				granular		
6-36	Bw	5 YR 7/8				SL				granular		
36-66	C1	2.5Y 6/4				SL	some	few		granular		
	R											

Additional Notes:

At edge of exist gravel drive. No good for SAS



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☒ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

	Obs. Hole # <u>TP1</u>	Obs. Hole # <u>TP2</u>
	na	na
	inches	inches
	na	na
	inches	inches
	na	na
	inches	inches
	inches	inches

Index Well Number _____ Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole #	_____	S_c	_____	S_r	_____	OW_c	_____	OW_{max}	_____	OW_r	_____	S_h	_____
Obs. Hole #	_____	S_c	_____	S_r	_____	OW_c	_____	OW_{max}	_____	OW_r	_____	S_h	_____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

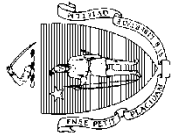
☒ Yes ☐ No

- b. If yes, at what depth was it observed?

Upper boundary: 48 inches Lower boundary: 108 inches

- c. If no, at what depth was impervious material observed?

Upper boundary: 36 inches Lower boundary: 66 inches



Commonwealth of Massachusetts
City/Town of Dover

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP3 Date: 9/4/19 Time: 12:00 Weather: sunny

1. Location

Ground Elevation at Surface of Hole: 300.0 feet Latitude/Longitude: 42.20402° / -71.26344

Description of Location: @ bit. drive

2. Land Use SFH (e.g., woodland, agricultural field, vacant lot, etc.) no Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-8 Slope (%)

wooded Vegetation Moraine Landform TS

3. Distances from: Open Water Body >100 feet Drainage Way >50 feet Wetlands >100 feet

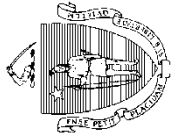
Property Line >25 feet Drinking Water Well >100 feet Other

4. Parent Material: gravely till Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 120 inches elevation 290.0



Commonwealth of Massachusetts
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Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

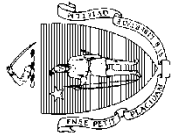
C. On-Site Review (continued)

Deep Observation Hole Number: TP3

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-6	Ap	10YR 3/4				SL			granular		
6-36	mix					SL			massive		
36-48	Bw	2.5YR 7/8				SL			massive		
48-120	C1	10YR 8/1				S		few	granular		fine sand

Additional Notes:

Transition area



Commonwealth of Massachusetts
City/Town of Dover

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: T4 Date: 9/4/19 Time: 12:00 Sunny Weather

1. Location

Ground Elevation at Surface of Hole: 296.5 feet Latitude/Longitude: /

2. Land Use SFH (e.g., woodland, agricultural field, vacant lot, etc.) wood Vegetation moraine Landform NA Surface Stones (e.g., cobbles, stones, boulders, etc.) 0-8 Slope (%)

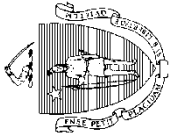
3. Distances from: Open Water Body >200 feet Drainage Way >50 feet Wetlands >100 feet Property Line >25 feet Drinking Water Well 100 feet Other 100 feet

4. Parent Material: gravelly till Unsuitable Materials Present: Yes No

If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5. Groundwater Observed: Yes No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 52 inches elevation 292.2



Commonwealth of Massachusetts
City/Town of Dover
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

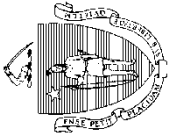
C. On-Site Review (continued)

Deep Observation Hole Number: TP 4

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume			Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones				
0-6	Ap	10 YR 3/4				SL				granular		
6-24	Bw	5 YR 7/8				SL				granular		
24-52	C1	10YR 8/1				SL	some	many		granular		
	R											

Additional Notes:

transition. No good for SAS



Commonwealth of Massachusetts
City/Town of Dover
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☒ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

	Obs. Hole # <u>TP3</u>	Obs. Hole # <u>TP4</u>
	na	na
	inches	inches
	na	na
	inches	inches
	na	na
	inches	inches
	inches	inches

Index Well Number	Reading Date
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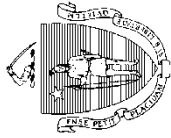
$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole #		S_c		S_r		OW_c		OW_{max}		OW_r		S_h
Obs. Hole #		S_c		S_r		OW_c		OW_{max}		OW_r		S_h

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?
☒ Yes ☐ No
- b. If yes, at what depth was it observed?
Upper boundary: 48 inches Lower boundary: 120 inches
- c. If no, at what depth was impervious material observed?
Upper boundary: 24 inches Lower boundary: 52 inches



Commonwealth of Massachusetts
City/Town of Dover

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP5 Date: 9/4/19 Time: 12:00 Weather: sunny

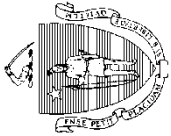
1. Location

Ground Elevation at Surface of Hole: 296.2 feet Latitude/Longitude: 42.20402° / -71.26344

Description of Location: behind exit garage

2. Land Use SFH (e.g., woodland, agricultural field, vacant lot, etc.) no Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-8
wooded Vegetation moraine Landform BS
3. Distances from: Open Water Body >100 feet Drainage Way >50 feet Wetlands >100 feet
Property Line >25 feet Drinking Water Well >100 feet Other
4. Parent Material: gravely till Unsuitable Materials Present: ☐ Yes ☒ No

If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock
5. Groundwater Observed: ☐ Yes ☒ No If yes: Depth Weeping from Pit Depth Standing Water in Hole
Estimated Depth to High Groundwater: 108 inches elevation 287.2



Commonwealth of Massachusetts
City/Town of Dover
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

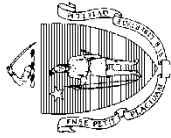
C. On-Site Review (continued)

Deep Observation Hole Number: TP5

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-6	Ap	10YR 3/4				SL			granular		
6-40	Bw	5YR 7/8				SL			massive		
36-48	Bw	2.5YR 7/8				SL			massive		
48-120	C1	10YR 8/1				S		many	granular		

Additional Notes:

Transition area



Commonwealth of Massachusetts
City/Town of Dover

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: T6 9/4/19 12:00 Sunny
Date Time Weather

1. Location

Ground Elevation at Surface of Hole: 294.7 Latitude/Longitude: /
feet

2. Land Use SFH NA Surface Stones (e.g., cobbles, stones, boulders, etc.) 0-8
(e.g., woodland, agricultural field, vacant lot, etc.) Slope (%)

wood moraine FS
Vegetation Landform

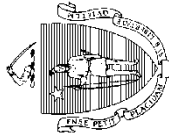
3. Distances from: Open Water Body >200 Drainage Way >50 Position on Landscape (SU, SH, BS, FS, 0-8
feet Wetlands >100
Property Line >25 Drinking Water Well 100 Other feet
feet feet

4. Parent Material: gravelly till Unsuitable Materials Present: ☒ Yes ☐ No

If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 96 286.7
inches elevation



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

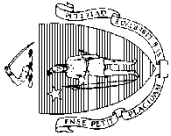
C. On-Site Review (continued)

Deep Observation Hole Number: TP 6

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-12	Ap	10 YR 3/4				SL			granular		
12-30	Bw	10 YR 8/8				SL			granular		
30-96	C1	10YR 6/1				S	some	many	granular		

Additional Notes:

Adjacent to Perc A



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☒ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

	Obs. Hole # <u>TP5</u>	Obs. Hole # <u>TP6</u>
	na	na
	inches	inches
	na	na
	inches	inches
	na	na
	inches	inches
	inches	inches

Index Well Number _____ Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole #	_____	S_c	_____	S_r	_____	OW_c	_____	OW_{max}	_____	OW_r	_____	S_h	_____
Obs. Hole #	_____	S_c	_____	S_r	_____	OW_c	_____	OW_{max}	_____	OW_r	_____	S_h	_____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

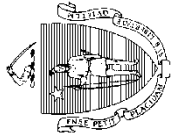
☒ Yes ☐ No

- b. If yes, at what depth was it observed?

Upper boundary: 30 inches Lower boundary: 96 inches

- c. If no, at what depth was impervious material observed?

Upper boundary: _____ inches Lower boundary: _____ inches



Commonwealth of Massachusetts
City/Town of Dover

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP7 Date: 9/4/19 Time: 12:00 Weather: sunny

1. Location

Ground Elevation at Surface of Hole: 298.1 feet Latitude/Longitude: 42.20402° / -71.26344

Description of Location: near old SAS

2. Land Use SFH (e.g., woodland, agricultural field, vacant lot, etc.) no Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-8 Slope (%)

wooded Vegetation moraine Landform BS

3. Distances from: Open Water Body >100 feet Drainage Way >50 feet Wetlands >100 feet

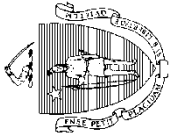
Property Line >25 feet Drinking Water Well >100 feet Other

4. Parent Material: gravely till Unsuitable Materials Present: ☐ Yes ☒ No

If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 120 inches elevation 288.1



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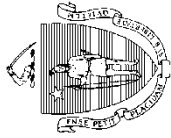
C. On-Site Review (continued)

Deep Observation Hole Number: TP7

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-8	Ap	10YR 3/4				SL			granular		
8-48	Bw	5YR 7/8				SL			massive		
48-54	C1	10YR 8/1				SL			granular		
54-120	C1	10YR 6/1				LS		many	granular		

Additional Notes:

Transition area



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C. On-Site Review (continued)

Deep Observation Hole Number: T8 9/4/19 12:00 Sunny
Date Time Weather

1. Location

Ground Elevation at Surface of Hole: 294.5 Latitude/Longitude: /
feet

2. Land Use SFH NA Surface Stones (e.g., cobbles, stones, boulders, etc.) 0-8
(e.g., woodland, agricultural field, vacant lot, etc.) Slope (%)

wood moraine FS
Vegetation Landform

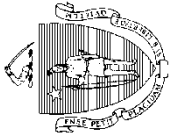
3. Distances from: Open Water Body >200 Drainage Way >50 Position on Landscape (SU, SH, BS, FS, 0-8
feet Wetlands >100
Property Line >25 Drinking Water Well 100 Other feet
feet feet

4. Parent Material: gravelly till Unsuitable Materials Present: ☒ Yes ☐ No

If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 108 285.5
inches elevation



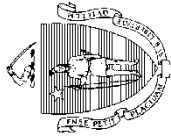
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C. On-Site Review (continued)

Deep Observation Hole Number: TP 8

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume			Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones				
0-14	Ap	10 YR 3/4				SL				granular		
14-36	Bw	10 YR 8/8				SL				granular		
36-108	C1	10YR 6/1				S	some	many		granular		

Additional Notes:



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D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☒ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

	Obs. Hole # <u>TP7</u>	Obs. Hole # <u>TP8</u>
	na	na
	inches	inches
	na	na
	inches	inches
	na	na
	inches	inches
	inches	inches

Index Well Number _____ Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole #	_____	S_c	_____	S_r	_____	OW_c	_____	OW_{max}	_____	OW_r	_____	S_h	_____
Obs. Hole #	_____	S_c	_____	S_r	_____	OW_c	_____	OW_{max}	_____	OW_r	_____	S_h	_____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

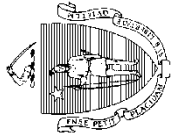
☒ Yes ☐ No

- b. If yes, at what depth was it observed?

Upper boundary: 37 inches Lower boundary: 108 inches

- c. If no, at what depth was impervious material observed?

Upper boundary: _____ inches Lower boundary: _____ inches



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C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP9 Date: 9/4/19 Time: 12:00 Weather: sunny

1. Location

Ground Elevation at Surface of Hole: 296.0 feet Latitude/Longitude: 42.20402° / -71.26344

Description of Location: near exist drive

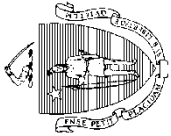
2. Land Use SFH (e.g., woodland, agricultural field, vacant lot, etc.) no Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-8
wooded Vegetation moraine Landform BS Slope (%)

3. Distances from: Open Water Body >100 feet Drainage Way >50 feet Wetlands >100 feet
Property Line >25 feet Drinking Water Well >100 feet Other Other
Parent Material: gravely till Unsuitable Materials Present: ☐ Yes ☒ No

If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 108 inches elevation 287.0



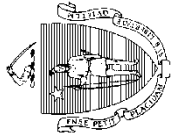
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C. On-Site Review (continued)

Deep Observation Hole Number: TP9

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-8	Ap	10YR 3/4				SL			granular		
8-48	Fill					SL			massive		
48-108	C1	10YR 8/1				S	some	some	granular		

Additional Notes:



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C. On-Site Review (continued)

Deep Observation Hole Number: T10 Date: 9/4/19 Time: 12:00 Sunny Weather

1. Location

Ground Elevation at Surface of Hole: 291.8 feet Latitude/Longitude: /

2. Land Use SFH (e.g., woodland, agricultural field, vacant lot, etc.) wood Vegetation moraine Landform NA Surface Stones (e.g., cobbles, stones, boulders, etc.) 0-8 Slope (%)

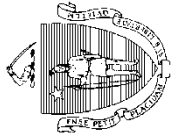
3. Distances from: Open Water Body >200 feet Drainage Way >50 feet Wetlands >100 feet Property Line >25 feet Drinking Water Well 100 feet Other 100 feet

4. Parent Material: gravelly till Unsuitable Materials Present: ☒ Yes ☐ No

If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: 84 inches elevation 284.8



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

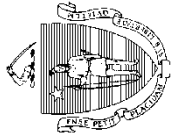
C. On-Site Review (continued)

Deep Observation Hole Number: TP 10

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-10	Ap	10 YR 3/4				SL			granular		
10-24	Bw1	5YR 7/8				SL			massive		
24-30	Bw2	2.5Y 8/8				SL			granular		
30-84	C1	10YR 8/1				SL		many	granular		
	R										boulder

Additional Notes:

Transition not ideal



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used:

☒ Depth observed standing water in observation hole

☒ Depth weeping from side of observation hole

☒ Depth to soil redoximorphic features (mottles)

☐ Depth to adjusted seasonal high groundwater (S_h)
(USGS methodology)

Obs. Hole # <u>TP9</u>	Obs. Hole # <u>TP10</u>
na	na
inches	inches
na	na
inches	inches
na	na
inches	inches
inches	inches

Index Well Number _____ Reading Date _____

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

Obs. Hole # _____ S_c _____ S_r _____ OW_c _____ OW_{max} _____ OW_r _____ S_h _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?

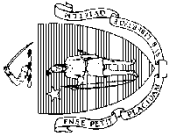
☒ Yes ☐ No

b. If yes, at what depth was it observed?

Upper boundary: 30 inches Lower boundary: 84 inches

c. If no, at what depth was impervious material observed?

Upper boundary: _____ inches Lower boundary: _____ inches



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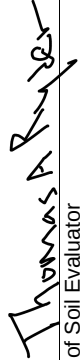
F. Board of Health Witness

Mike Angieri
Name of Board of Health Witness

Dover
Board of Health

G. Soil Evaluator Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.


Signature of Soil Evaluator

Thomas Ryder /2121
Typed or Printed Name of Soil Evaluator / License #

9/4/19
Date

6/2021
Expiration Date of License

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).