



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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

A. Facility Information

Owner Name

0 Old School Street

Street Address

Manchester by the Sea

City

MA

State

Map 43 Lot 0 18

Map/Lot #

01944

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

MassGIS
Source

Soil Map Unit

Chatfield-Hollis-Rock Outcrop

Soil Name

Soil Limitations

Glacial Till

Soil Parent material

Kame

Landform

3. Surficial Geological Report Available? ☒ Yes ☐ No

If yes:

MassGIS

Year Published/Source

Till/Bedrock
Map Unit

Description of Geologic Map Unit:

4. Flood Rate Insurance Map Within a regulatory floodway? ☐ Yes ☒ No

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No

If yes, MassGIS Wetland Data Layer:

Wetland Type

7. Current Water Resource Conditions (USGS):

Range: ☐ Above Normal

☐ Normal

☐ Below Normal

Month/Day/ Year

8. Other references reviewed:



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-1 4-8-2020 AM Sunny
Hole # Date Time Weather Latitude Longitude:
1. Land Use Woodland Trees, light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Description of Location: _____
2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)
3. Distances from: Open Water Body >50 feet Drainage Way >10 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet
4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock
5. Groundwater Observed: ☐ Yes ☒ No If yes: NA Depth Weeping from Pit NA Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-9	Fill										
9-24	B	sandy loam					2	0			
24-45	C1	sandy loam									
45-108	C2	loamy sand									
108	R	refusal									

Additional Notes:

No water, no mottles, no redox



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-2 4-8-2020 AM Sunny
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees Some/outcrops 6-10%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet Drainage Way >50 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable

Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 24" Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-6	0										
6-24	Fill										
24-60	C1	sandy loam									
60	R	Refusal									

Additional Notes:
Water at 24-inches



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-3 4-8-2020 AM Sunny
Hole # Date Time Weather Latitude Longitude:
1. Land Use Woodland Trees, light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Description of Location: _____

2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet Drainage Way >10 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-6	O										
6-18	Bw	sandy loam					2	0			
18-60	C1	sandy loam									
60	R	Refusal									

Additional Notes:

No water, no mottles, no redox



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-4 4-8-2020 AM Sunny
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees Some/outcrops 6-10%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet Drainage Way >50 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable

Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 55" Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	0										
3-14	Bw	sandy loam									
14-60	C	sandy loam									
60	R	Refusal									

Additional Notes:

Mottles at 50" / Weeping at 55"



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-5 4-8-2020 AM Sunny
Hole # Date Time Weather Latitude Longitude:
1. Land Use Woodland Trees, light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Description of Location: _____
2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)
3. Distances from: Open Water Body >50 feet Drainage Way >10 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet
4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock
5. Groundwater Observed: ☐ Yes ☒ No If yes: NA Depth Weeping from Pit NA Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	O										
3-24	Bw	sandy loam									
24	R	Refusal									

Additional Notes:

No water, no mottles, no redox



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-6 4-8-2020 PM Sunny
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees Some/outcrops 6-10%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet Drainage Way >50 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable
Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	0										
3-21	Bw	sandy loam									
21-53	C	sandy loam									
53	R	Refusal									

Additional Notes:
No Water/No Mottles



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: TP-7 4/8/2020 PM Overcast Latitude Longitude:
Hole # Date Time Weather

1. Land Use Woodland Trees, light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame Position on Landscape (SU, SH, BS, FS, TS)
Landform

3. Distances from: Open Water Body > 100 feet Drainage Way > 50 feet Wetlands > 50 feet
Property Line > 10 feet Drinking Water Well > 100 feet Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	A/O	Sandy Loam									
3-23	Bw	Sandy Loam									
23-144	C1	Sandy Loam									

Additional Notes:

No water, no mottles



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: TP-8 4/8/2020 PM Overcast
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees, light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body > 100 feet Drainage Way > 50 feet Wetlands > 50 feet
Property Line > 10 feet Drinking Water Well > 100 feet Other _____ feet

4. Unsuitable

Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	O	Sandy Loam									
3-23	Bw	Sandy Loam									
23-60	C1	Sandy Loam									
60-108	C2	Sandy Loam									

Additional Notes:

No water, no mottles



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-9 4/8/2020 PM Overcast Latitude Longitude:
Hole # Date Time Weather

1. Land Use Woodland Trees, light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame Position on Landscape (SU, SH, BS, FS, TS)
Landform

3. Distances from: Open Water Body > 100 feet Drainage Way > 50 feet Wetlands > 50 feet
Property Line > 10 feet Drinking Water Well > 100 feet Other _____ feet

4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	A/O	Sandy Loam									
3-24	Bw	Sandy Loam									
24-144	C1	Sandy Loam									

Additional Notes:
No water, no mottles



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: TP-10 4/8/2020 PM Overcast
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees, light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body > 100 feet Drainage Way > 50 feet Wetlands > 50 feet
Property Line > 10 feet Drinking Water Well > 100 feet Other _____ feet

4. Unsuitable

Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	O	Sandy Loam									
3-23	Bw	Sandy Loam									
24-108	C1	Sandy Loam									

Additional Notes:

No water, no mottles



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: TP-11 4/9/2020 AM Overcast
Hole # Date Time Weather Latitude Longitude:

1. Land Use Woodland Trees, light underbrush Some
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body > 100 feet Drainage Way > 50 feet Wetlands > 50 feet
Property Line > 10 feet Drinking Water Well > 100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	O										
3-24	Bw	Sandy Loam									
24-84	C1d	Sandy Loam									Some Gravel
84	R										

Additional Notes:
No water, no mottles



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-12 4/9/2020 AM Overcast
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees, Light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body > 100 feet Drainage Way > 50 feet Wetlands > 50 feet
Property Line > 10 feet Drinking Water Well > 100 feet Other _____ feet

4. Unsuitable

Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	O										
3-24	Bw	Sandy Loam									
24-120	C1d	Sandy Loam									Cobbles

Additional Notes:

No water, no mottles



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-14 4-9-2020 PM Sunny
Hole # Date Time Weather Latitude Longitude:
1. Land Use Woodland Trees, light underbrush Some 3-8%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)
Description of Location: _____

2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet Drainage Way >10 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-4	O										
4-48	Fill										
48-82	C	sandy loam									
82	R	Refusal									

Additional Notes:

No water, no mottles, no redox



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-15 4-9-2020 PM Sunny
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees Some/outcrops 6-10%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet Drainage Way >50 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable

Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	0										
3-53	Fill										
53-100	C	sandy loam									
100	R	Refusal									

Additional Notes:

No Water/No Mottles



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-16
Hole #

4-9-2020
Date

PM
Time

Sunny
Weather

Latitude

Longitude:

1. Land Use Woodland
(e.g., woodland, agricultural field, vacant lot, etc.)

Trees, light underbrush
Vegetation

Some
Surface Stones (e.g., cobbles, stones, boulders, etc.)

3-8%
Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till

Kame
Landform

SH
Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet

Drainage Way >10 feet

Wetlands >50 feet

Property Line >10 feet

Drinking Water Well >100 feet

Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No

If yes: 44" Depth Weeping from Pit

80" Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	O										
3-33	Fill										
33-80	C	sandy loam									
80	R	Refusal									

Additional Notes:

Weeping at 44"/Standing at 80"



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-17 4-9-2020 PM Sunny
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees Some/outcrops 6-10%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet Drainage Way >50 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable

Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No If yes: 32" Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-3	0										
3-45	cobbles										
45-60	C	sandy loam									
60	R	Refusal									

Additional Notes:

Weeping at 32"



Commonwealth of Massachusetts
City/Town of Manchester by the Sea

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: TP-18 4-9-2020 PM Sunny
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Woodland Trees Some/outcrops 6-10%
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Glacial Till Kame SH
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >50 feet Drainage Way >50 feet Wetlands >50 feet
Property Line >10 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable
Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☒ Bedrock

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

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-31	O										
31-59	C	sandy loam									
59	R	Refusal									

Additional Notes:
No Water/No Mottles