



Commonwealth of Massachusetts
City/Town of Burlington

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

A. Facility Information

Burlington Public Schools

Owner Name

114 Winn Street

Street Address

Burlington

City

MA

State

Map/Lot #

01803

Zip Code

B. Site Information

1. (Check one) ☐ New Construction ☐ Upgrade
2. Soil Survey USDA WEeb Soil Survey 420B and 73B Canton Fine Sandy Loam and Whitman F.S.L.
Source Soil Map Unit Soil Series
Moraines Area includes filled soils 656- Udorthents - Urban Land Complex
Landform Soil Limitations
Fine Sandy Loam
Soil Parent material
3. Surficial Geological Report 2025
Year Published/Source 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:
7. Current Water Resource Conditions (USGS): 12/2/25 Range: ☐ Above Normal ☒ Normal ☒ Below Normal
Month/Day/ Year Wetland Type
8. Other references reviewed: Winchester is normal, Waltham is below normal. No data point for Burlington per USGS.
(Zone II, IWPA, Zone A, EEA Data Portal, etc.)



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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: 1 Hole # 12/2/25 Date 8:00 am Time 30s cloudy Weather Latitude Longitude

1. Land Use Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.) Grass Vegetation None Surface Stones (e.g., cobbles, stones, boulders, etc.) 2% Slope (%)

Description of Location: Corner of proposed field by existing track

2. Soil Parent Material: Sandy Loam Moraines Landform TS Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body 500 feet Drainage Way 100 feet Wetlands 100+ feet
Property Line 250+ feet Drinking Water Well 250+ 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 to Weeping in Hole 62" Depth to 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			
0-15	A(fill)	Sandy Loam	10YR 3/2	n/a	Cnc :n/a Dpl:	n/a	0-2%	0%	Granular	friable	
15-42	C1(fill)	Sandy Loam	10YR 5/6	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
42-62	C2(fill)	Sandy Loam	G1-5/10Y	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
62-66+	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc : Dpl:	n/a	0-2%	0%	Massive	friable	
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:

Standing water at 10:30 am. depth of standing water at 62" perched high ground water estimated at 42" at the interface of C1 and C2 soils due to depletion.



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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: 2 Hole # 12/2/25 Date 8:30 am Time 30s cloudy Weather Latitude _____ Longitude _____

1. Land Use: Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.) Grass Vegetation None Surface Stones (e.g., cobbles, stones, boulders, etc.) 2% Slope (%)

Description of Location: Backyard of Residence

2. Soil Parent Material: Sandy Loam Moraines Landform TS Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body 400 feet Drainage Way 50 feet Wetlands 50 feet

 Property Line 250+ feet Drinking Water Well 250+ 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 to Weeping in Hole _____ 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			
0-8	A(fill)	Sandy Loam	10 YR 3/2	na	Cnc :n/a Dpl:	n/a	0-2%	0%	granular	friable	
8-36	C1(fill)	Sandy Loam	10 YR 5/6	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
36-64	C2(fill)	Sandy Loam	G1-5/10Y	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
64-70+	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc : Dpl:		0-2%	0%	massive	friable	
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:

High ground water estimated at 36" at the interface of C1 and C2 soils due to depletion.



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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: 3 Hole # 12/2/25 Date 9:00 am Time 30s cloudy Weather _____ Latitude _____ Longitude

1. Land Use Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.) Grass Vegetation None Surface Stones (e.g., cobbles, stones, boulders, etc.) 2% Slope (%)

Description of Location: Corner of proposed field by existing track

2. Soil Parent Material: Sandy Loam Moraines Landform TS Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body 300 feet Drainage Way 50 feet Wetlands 50 feet
Property Line 100 feet Drinking Water Well 250+ 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 to Weeping in Hole _____ Depth to 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			
0-10	A(fill)	Sandy Loam	10YR 3/2	n/a	Cnc : n/a Dpl:	n/a	0-2%	0%	Granular	friable	
10-27	C1(fill)	Sandy Loam	10YR 5/6	n/a	Cnc : n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
27-55	C2(fill)	Sandy Loam	G1-5/10Y	n/a	Cnc : n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
55-58+	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc : Dpl:	n/a	0-2%	0%	Massive	friable	
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:

Perched high water table estimated at 27" at the interface between C1 and C2



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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: 4 Hole #
Date: 12/2/25 Time: 9:30 am Weather: 30s cloudy Latitude: _____ Longitude: _____

1. Land Use: Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.)
Vegetation: Grass Surface Stones (e.g., cobbles, stones, boulders, etc.): None
Slope (%): 2%

Description of Location: Backyard of Residence

2. Soil Parent Material: Sandy Loam Landform: Moraines Position on Landscape (SU, SH, BS, FS, TS, Plain): TS

3. Distances from: Open Water Body 110 feet Drainage Way 50 feet Wetlands 50 feet
Property Line 75 feet Drinking Water Well 250+ 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 to Weeping in Hole _____ 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			
0-8	A(fill)	Sandy Loam	10 YR 3/2	na	Cnc :n/a Dpl:	n/a	0-2%	0%	granular	friable	
8-24	C1(fill)	Sandy Loam	10 YR 5/6	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
24-50	C2(fill)	Sandy Loam	G1-5/10Y	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
50-52+	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc : Dpl:		0-2%	0%	massive	friable	
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:

Weeping at 50" high ground water estimated at 24" at the interface of C1 and C2 soils due to depletion.



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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: 5 Hole # 12/2/25 Date 10:00 am Time 30s cloudy Weather Latitude Longitude

1. Land Use Athletic Field (e.g., woodland, agricultural field, vacant lot, etc.) Grass Vegetation None Surface Stones (e.g., cobbles, stones, boulders, etc.) 2% Slope (%)

Description of Location: Corner of proposed field by existing track

2. Soil Parent Material: Sandy Loam Moraines Landform TS Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from: Open Water Body 300 feet Drainage Way 50 feet Wetlands 50 feet
Property Line 100 feet Drinking Water Well 250+ 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 to Weeping in Hole Depth to 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			
0-8	A(fill)	Sandy Loam	10YR 3/2	n/a	Cnc :n/a Dpl:	n/a	0-2%	0%	Granular	friable	
8-28	C1(fill)	Sandy Loam	10YR 5/6	n/a	Cnc :n/a Dpl:	n/a	2-5%	5-10%	Subangular	firm	
28-53	A(buried)	Sandy Loam	G1-2.5/N	n/a	Cnc :n/a Dpl:	n/a	0-2%	0%	Subangular	firm	
53-55+	Glau	Sandy Loam	G1-5/10Y	n/a	Cnc : Dpl:	n/a	0-2%	0%	Massive	friable	
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:
Seasonal High Groundwater at 53" (Glau Soil under buried topsoil)



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D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

☐ Depth to soil redoximorphic features

Obs. Hole # _____

_____ inches

Obs. Hole # _____

_____ inches

☐ Depth to observed standing water in observation hole

_____ inches

_____ inches

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

_____ inches

_____ inches

Index Well Number _____

Reading Date _____

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

Obs. Hole/Well# _____ 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 (exclude O, A, and E Horizons)?

Upper boundary: _____

_____ inches

Lower boundary: _____

_____ inches

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

Upper boundary: _____

_____ inches

Lower boundary: _____

_____ inches



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F. 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.

Arsen Hambardzumian
Signature of Soil Evaluator

Arsen Hambardzumian

Typed or Printed Name of Soil Evaluator / License #

Christine Mathis

Name of Approving Authority Witness

12/2/25

Date

6/30/26

Expiration Date of License

Burlington BOH

Approving Authority

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](#).

Field Diagrams: Use this area for field diagrams:

[See updated existing conditions plan with surveyed test pit locations and elevations.](#)

[Note: Additional witnesses at the time of test pits include Eileen Coleman \(Town of Burlington\) and Stephen Cadorette \(GM2\)](#)