

**Commonwealth of Massachusetts**  
**Duxbury, Massachusetts**  
**Soil Suitability Assessment for On-Site Septic System**

Performed By: Anthony Esposito, South Shore Survey

Witnessed By: Tracy L. Mayo, Duxbury Board of Health

Location, Address, or Lot #	Owner's Name, Address, and Telephone #
0 Keene St. Duxbury, MA Assessors # 023-403-02	Boys and Girls Club Inc. 119 Myrtle St. Duxbury, MA 02332

New Construction  Repair

Office Review

Published Soil Survey Available: No  Yes

Year Published 2020 Publication Scale 1:12,000 Soil Map Unit 110B

Drainage Class B Soil Limitations Not prime farmland

Surficial Geologic Report Available: No  Yes

Year Published 2020 Publication Scale 1:12,000

Geologic Material (Map Unit) sandy melt out till

Landform drumlin

Flood Insurance Rate Map:

Above 500 year flood boundary No  Yes

Within 500 year flood boundary No  Yes

Within 100 year flood boundary No  Yes

Wetland Area:

National Wetland Inventory Map (map unit) N/A

Wetlands Conservancy Program Map (map unit) N/A

Current Water Resource Conditions (USGS): Month September 2021

Range: Above Normal  Normal  Below Normal

Other References Reviewed: None

**On-Site Review**

Deep Hole Number T.P 1 Date 9-21-2021 Time: 9:30 AM Weather: sunny 60s

Location (identify on site plan) rear of site

Land Use vacant Slope (%) 5% Surface Stones <10%

Vegetation white pines

Landform drumlin

Position on Landscape (see septic plan)     

Distances from:

Open Water Body <u>200+</u> feet	Drainage way <u>&gt;25</u> feet
Possible Wet Area <u>150+</u> feet	Property Line <u>&gt;10</u> feet
Drinking Water Well <u>100+</u> feet	Other <u>N/A</u> feet

**DEEP OBSERVATION HOLE LOG**

Depth from Surface (Inches)	Soil Horizon	Soil Texture (U.S.D.A.)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-6"	A	SL	10yr3/3		Friable, 10% stones 50% gravel
6-30"	B	LS	10yr4/4		
30"-84"	C	LS	2.5y6/4		

Parent Material (geologic) sandy melt out till Depth to Bedrock 84"

Depth to Groundwater: Standing Water in the Hole: none Weeping from Pit Face: none

Estimated Seasonal High Ground Water? 84"

**On-Site Review**

Deep Hole Number T.P 2 Date 9-21-2021 Time: 10 AM Weather: sunny 60s

Location (identify on site plan) rear of site

Land Use vacant Slope (%) 5% Surface Stones <10%

Vegetation white pines

Landform drumlin

Position on Landscape (see septic plan)     

Distances from:

Open Water Body 200+ feet                      Drainage way >25 feet

Possible Wet Area 150+ feet                      Property Line >10 feet

Drinking Water Well 100+ feet                      Other N/A feet

**DEEP OBSERVATION HOLE LOG**

Depth from Surface (Inches)	Soil Horizon	Soil Texture (U.S.D.A.)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-9"	A	SL	10yr3/3		Friable, 10% stones 50% gravel
9-24"	B	LS	10yr4/4		
24"-96"	C	LS	2.5y6/4		

Parent Material (geologic) sandy melt out till Depth to Bedrock 96"

Depth to Groundwater: Standing Water in the Hole: none Weeping from Pit Face: none

Estimated Seasonal High Ground Water? 96"

**On-Site Review**

Deep Hole Number T.P 3 Date 9-21-2021 Time: 10:30 AM Weather: sunny 60s

Location (identify on site plan) rear of site

Land Use vacant Slope (%) 5% Surface Stones <10%

Vegetation white pines

Landform drumlin

Position on Landscape (see septic plan)     

Distances from:

Open Water Body 200+ feet

Drainage way >25 feet

Possible Wet Area 150+ feet

Property Line >10 feet

Drinking Water Well 100+ feet

Other N/A feet

**DEEP OBSERVATION HOLE LOG**

Depth from Surface (Inches)	Soil Horizon	Soil Texture (U.S.D.A.)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-6"	A	SL	10yr3/3		Friable, 10% stones 50% gravel
6-20"	B	LS	10yr4/4		
20"-118"	C	MS	2.5y6/3		

Parent Material (geologic) sandy melt out till Depth to Bedrock 118"

Depth to Groundwater: Standing Water in the Hole: none Weeping from Pit Face: none

Estimated Seasonal High Ground Water? 118"

**On-Site Review**

Deep Hole Number T.P 4 Date 9-21-2021 Time: 11 AM Weather: sunny 60s

Location (identify on site plan) rear of site

Land Use vacant Slope (%) 5% Surface Stones <10%

Vegetation white pines

Landform drumlin

Position on Landscape (see septic plan)     

Distances from:

Open Water Body <u>200+</u> feet	Drainage way <u>&gt;25</u> feet
Possible Wet Area <u>150+</u> feet	Property Line <u>&gt;10</u> feet
Drinking Water Well <u>100+</u> feet	Other <u>N/A</u> feet

**DEEP OBSERVATION HOLE LOG**

Depth from Surface (Inches)	Soil Horizon	Soil Texture (U.S.D.A.)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-8"	A	SL	10yr3/3		Friable, 10% stones 50% gravel
8-20"	B	LS	10yr4/4		
20"-84"	C	LS	2.5y5/3		

Parent Material (geologic) sandy melt out till Depth to Bedrock 84"

Depth to Groundwater: Standing Water in the Hole: none Weeping from Pit Face: none  
Estimated Seasonal High Ground Water? 84"

Location, Address, or Lot # 0 Keene St. Duxbury, MA

**Determination for Seasonal High Water Table**

Method Used:

- Depth to bottom of deep hole (assumed seasonal high groundwater) 84 inches
- Depth observed standing in observation hole \_\_\_\_\_ inches
- Depth weeping from side of observation hole \_\_\_\_\_ inches
- Depth to soil mottles \_\_\_\_\_ inches

Index Well Number Reading Date \_\_\_\_\_ Index Well Level \_\_\_\_\_  
Adjustment Factor \_\_\_\_\_ Adjusted Groundwater Level \_\_\_\_\_

Depth of Naturally Occurring Pervious Material

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

If not, what is the depth of naturally occurring pervious material? \_\_\_\_\_

Certification

I certify that on June 1999 I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise, and experience described in 310 CMR 15.017.

Signature Anthony Esposito Date 9/21/2021

Form 12 - PERCOLATION TEST

Location, Address, or Lot # 0 Keene St. Duxbury, MA

**Commonwealth of Massachusetts**  
**Duxbury, Massachusetts**

<b>*Percolation Test</b>	
Date: 9-21-2021	Time: 9:46 AM, 10:17 AM

Observation Hole #	T.P. 1	T.P. 2
Depth of Perc.	30+18"	25+18"
Start Pre-Soak	9:46	10:17
End Pre-Soak	10:01	10:32
Time at 12"	10:01	10:32
Time at 9"	10:06	10:47
Time at 6"	10:14	11:03
Time (9" - 6")	8	16 min
Rate (Minutes/Inch)	3 min/in	6 min/in

Site Passed     Site Failed

Performed By: Anthony Esposito, SE688, P.E.

Witnessed By Tracy Mayo, Duxbury Board of Health

Comments:

Form 12 - PERCOLATION TEST

Location, Address, or Lot # 0 Keene St. Duxbury, MA

**Commonwealth of Massachusetts**

**Duxbury, Massachusetts**

<b>*Percolation Test</b>	
Date: 9-21-2021	Time: 9:46 AM, 10:17 AM

Observation Hole #	T.P. 3	T.P. 4
Depth of Perc.	25+18"	30+18"
Start Pre-Soak	10:36	11:10
End Pre-Soak	10:51	11:25
Time at 12"	10:51	11:25
Time at 9"	10:56	11:57
Time at 6"	11:02	12:54
Time (9" - 6")	6	57 min
Rate (Minutes/Inch)	2 min/in	20 min/in

Site Passed     Site Failed

Performed By: Anthony Esposito, SE688, P.E.

Witnessed By Tracy Mayo, Duxbury Board of Health

Comments: