TP 1 & 2

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 422D (Soil Map Unit)

   CANTON FINE SANDY LOAM (Soil Name) NONE (Soil Limitations)

   GLACIAL TILL (Geologic/Parent Material) MORAIN (Landform)

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: (Year Published/Source) (Publication Scale) (Map Unit)

4. Flood Rate Insurance Map

   Above the 500-year flood boundary? ☒ Yes ☐ No Within the 100-year flood boundary? ☐ Yes ☒ No
   If Yes, continue to #5.

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No MassGIS Wetland Data Layer: (Wetland Type)

7. Current Water Resource Conditions (USGS): (Month/Year) Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed:

Commonwealth of Massachusetts
City/Town of BYFIELD

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 | 11/02/2015 (Date) | 10:30 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 71 feet Latitude/Longitude: /

   Description of Location: TOP OF HILL

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME STONES, BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 20 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>100 feet	Wetlands	140 feet
Property Line	35 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 48 inches | 67 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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			
-2-0	Oi										
0-6	A	10yr 3/2				SL					
6-26	Bw	10yr 4/6				SL					
26-110	C	5yr 5/4	48	10 YR 5/8	>15	LS					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP2 | 11/02/2015 (Date) | 10:30 (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 72.5 feet Latitude/Longitude: /

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME STONES (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 20% (Slope (%))

   Vegetation | Landform | SEE PLAN (Position on Landscape (SU, SH, BS, FS,

3. Distances from:

Open Water Body	>400 feet	Drainage Way	130 feet	Wetlands	130 feet
Property Line	35 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 48 inches | 68.5' elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP2

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			
2-0	Oi										
0-6	A	10yr 3/2				SL					
6-26	Bw	10yr 4/6				SL					
26-110	C	2.5y 5/4	48	10 YR 5/8	>15	LS					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP1	Obs. Hole #TP2
☐ Depth observed standing water in observation hole	inches	inches
☐ Depth weeping from side of observation hole	inches	inches
☒ Depth to soil redoximorphic features (mottles)	48 inches	48 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 # _____ 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: 6 inches Lower boundary: 110 inches

   c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of BYFIELD

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

F. Board of Health Witness

DEBORAH ROGERS
Name of Board of Health Witness

NEWBURY
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

11/02/2017
Date

BENJAMIN C. OSGOOD, JR. #1818
Typed or Printed Name of Soil Evaluator / License #

6/30/2018
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.

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

Field Diagrams

Use this sheet for field diagrams:

TP 3 & 4

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 422D (Soil Map Unit)

   CANTON FINE SANDY LOAM
   Soil Name

   NONE
   Soil Limitations

   GLACIAL TILL
   Geologic/Parent Material

   MORAIN
   Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: _____ (Year Published/Source) _____ (Publication Scale) _____ (Map Unit)

4. Flood Rate Insurance Map

   Above the 500-year flood boundary? ☒ Yes ☐ No Within the 100-year flood boundary? ☐ Yes ☒ No
   If Yes, continue to #5.

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No MassGIS Wetland Data Layer: _____ (Wetland Type)

7. Current Water Resource Conditions (USGS): _____ (Month/Year) Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed: _____

Commonwealth of Massachusetts
City/Town of BYFIELD

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 | 11/02/2015 (Date) | 11:00 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 72 feet Latitude/Longitude: /

   Description of Location: TOP OF HILL

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME STONES (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 20 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>120 feet	Wetlands	120 feet
Property Line	75 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 48 inches 68 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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			
2-0	Oi										
0-6	A	10yr 3/2				SL					
6-28	Bw	10yr 4/6				SL					
28-76	C	2.5yr 5/4	48	10YR 5/8	> 15	LS					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP4 | 11/02/2015 (Date) | 11:00 (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 71.5 feet | Latitude/Longitude: /

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME STONES (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | Slope (%)

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS,

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>140 feet	Wetlands	140 feet
Property Line	70 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 48 inches | 67.5' elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP4

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			
3-0	Oi										
0-7	A	10yr 3/2				SL					
7-27	Bw	10yr 4/6				SL					
27-106	C	2.5y 5/4	48	10YR 5/8	>15	LS					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP3	Obs. Hole #TP4
☐ Depth observed standing water in observation hole	inches	inches
☐ Depth weeping from side of observation hole	inches	inches
☒ Depth to soil redoximorphic features (mottles)	48 inches	48 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 # _____ 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: 6 inches Lower boundary: 76 inches

   c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of BYFIELD

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

F. Board of Health Witness

DEBORAH ROGERS
Name of Board of Health Witness

NEWBURY
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

11/02/2017
Date

BENJAMIN C. OSGOOD, JR. #1818
Typed or Printed Name of Soil Evaluator / License #

6/30/2018
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.

Commonwealth of Massachusetts
City/Town of BYFIELD

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

Field Diagrams

Use this sheet for field diagrams:

TP5 & 6

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 422D (Soil Map Unit)

   CANTON FINE SANDY LOAM
   Soil Name

   NONE
   Soil Limitations

   GLACIAL TILL
   Geologic/Parent Material

   MORAIN
   Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: Year Published/Source ____ Publication Scale ____ Map Unit ____

4. Flood Rate Insurance Map

   Above the 500-year flood boundary? ☒ Yes ☐ No Within the 100-year flood boundary? ☐ Yes ☒ No
   If Yes, continue to #5.

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No MassGIS Wetland Data Layer: ____ Wetland Type

7. Current Water Resource Conditions (USGS): ____ Month/Year Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed: ____

Commonwealth of Massachusetts
City/Town of BYFIELD

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 | 11/02/2015 (Date) | 11:10 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 67 feet Latitude/Longitude: /

   Description of Location: SIDEOF HILL

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME STONES (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 17 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>70 feet	Wetlands	70 feet
Property Line	80 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 48 inches | 63 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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			
3-0	Oi										
0-6	A	10yr 3/2				SL					
6-26	Bw	10yr 4/6				SL					
26-56	C1	2.5yr 5/4	48	10YR 5/8	>15	LS					
56-72	C2	5y 4/3				L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP6 | 11/02/2015 (Date) | 11:30 (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 58 feet | Latitude/Longitude: /

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 4 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS,

3. Distances from:

Open Water Body	>400 feet	Drainage Way	100 feet	Wetlands	80 feet
Property Line	135 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 20 inches | 56.33' elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP6

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			
1-0	Oi										
0-6	A	10yr 2/2				SL					
6-20	Bw	10yr 4/4				SL					
20-110	C	5y 4/4	20	10YR 5/8	> 15	L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP5	Obs. Hole #TP6
☐ Depth observed standing water in observation hole	inches	inches
☐ Depth weeping from side of observation hole	inches	inches
☒ Depth to soil redoximorphic features (mottles)	48 inches	20 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 # _____ 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: 7 inches Lower boundary: 106 inches

   c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of BYFIELD

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

F. Board of Health Witness

DEBORAH ROGERS
Name of Board of Health Witness

NEWBURY
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

11/02/2017
Date

BENJAMIN C. OSGOOD, JR. #1818
Typed or Printed Name of Soil Evaluator / License #

6/30/2018
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.

Commonwealth of Massachusetts
City/Town of BYFIELD

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

Field Diagrams

Use this sheet for field diagrams:

TP 7 & 8

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 422D (Soil Map Unit)

CANTON FINE SANDY LOAM
Soil Name

NONE
Soil Limitations

GLACIAL TILL
Geologic/Parent Material

MORAIN
Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: ____ (Year Published/Source) ____ (Publication Scale) ____ (Map Unit)

4. Flood Rate Insurance Map

Above the 500-year flood boundary? ☒ Yes ☐ No Within the 100-year flood boundary? ☐ Yes ☒ No
If Yes, continue to #5.

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No MassGIS Wetland Data Layer: ____ (Wetland Type)

7. Current Water Resource Conditions (USGS): ____ (Month/Year) Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed:

Commonwealth of Massachusetts
City/Town of BYFIELD

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 | 11/02/2015 (Date) | 11:40 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 60.5 feet Latitude/Longitude: /

   Description of Location: FLATLAND

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) SOME BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) 1 (Slope (%))

   WOODS (Vegetation) MORAIN (Landform) SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	120 feet	Wetlands	90 feet
Property Line	120 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 36 inches 57.5 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

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			
1-0	Oi										
0-6	A	10yr 2/2				SL					
6-36	Bw	10yr 4/4				SL					
36-84	C1	2.5y 4/4	36	10YR 5/8	> 15	S					
84-110	C2	5y 4/4				L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP8 | 11/02/2015 (Date) | 11:45 (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 61 feet | Latitude/Longitude: /

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 4 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS,

3. Distances from:

Open Water Body	>400 feet	Drainage Way	130 feet	Wetlands	125 feet
Property Line	160 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 36 inches | 58' elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP8

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			
1-0	Oi										
0-6	A	10yr 2/2				SL					
6-30	Bw	10yr 4/4				SL					
30-90	C	5y 4/4	36	10YR 5/8	> 15	L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole # TP7	Obs. Hole # TP8
☐ Depth observed standing water in observation hole	inches	inches
☐ Depth weeping from side of observation hole	inches	inches
☒ Depth to soil redoximorphic features (mottles)	36 inches	36 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 # _____ 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: 6 inches Lower boundary: 110 inches

   c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of BYFIELD

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

F. Board of Health Witness

DEBORAH ROGERS
Name of Board of Health Witness

NEWBURY
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

11/02/2017
Date

BENJAMIN C. OSGOOD, JR #1818
Typed or Printed Name of Soil Evaluator / License #

6/30/2018
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.

Commonwealth of Massachusetts
City/Town of BYFIELD

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

Field Diagrams

Use this sheet for field diagrams:

TP 9 & 10

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 422D (Soil Map Unit)

CANTON FINE SANDY LOAM
Soil Name

NONE
Soil Limitations

GLACIAL TILL
Geologic/Parent Material

MORAIN
Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: (Year Published/Source) (Publication Scale) (Map Unit)

4. 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

5. Within a velocity zone? ☐ Yes ☒ No

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

MassGIS Wetland Data Layer: (Wetland Type)

7. Current Water Resource Conditions (USGS): (Month/Year)

Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed:

Commonwealth of Massachusetts
City/Town of BYFIELD

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: TP9 | 11/02/2015 (Date) | 1:30 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 59.5 feet Latitude/Longitude: /

   Description of Location: DEPRESSION

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 1 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	170 feet	Wetlands	110 feet
Property Line	175 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 28 inches | 57.17 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

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			
1-0	Oi										
0-6	A	10yr 2/2				SL					
6-18	Bw	10yr 4/4				SL					
18-77	C	2.5y 5/4	28	10YR 5/8	> 15	L					

Additional Notes:

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP10 | 11/02/2015 (Date) | 1:45 (Time) | SUNNY/ 70 (Weather)

1. Location
   Ground Elevation at Surface of Hole: 60 feet Latitude/Longitude: /
2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 4 (Slope (%))
   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS,
3. Distances from: Open Water Body >400 feet; Drainage Way >100 feet; Wetlands 60 feet; Property Line 160 feet; Drinking Water Well >100 feet; Other ____ feet
4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)
   Estimated Depth to High Groundwater: 30 inches 57.5' elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP10

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			
2-0	Oi										
0-8	A	10yr 2/2				SL					
8-20	Bw	10yr 4/4				SL					
20-70	C1	10yr 5/4	30	10YR 5/8	> 15	FS					
70-74	C2	2.5y 5/4				L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP9	Obs. Hole #TP10
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	28 inches	30 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 # _____ 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: 6 inches Lower boundary: 77 inches

   c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

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

F. Board of Health Witness

DEBORAH ROGERS
Name of Board of Health Witness

NEWBURY
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

11/02/2017
Date

BENJAMIN C. OSGOOD, JR. #1818
Typed or Printed Name of Soil Evaluator / License #

6/30/2018
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.

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

Field Diagrams

Use this sheet for field diagrams:

TP11 & 12

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 422D (Soil Map Unit)

CANTON FINE SANDY LOAM
Soil Name

NONE
Soil Limitations

GLACIAL TILL
Geologic/Parent Material

MORAIN
Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: _____ (Year Published/Source) _____ (Publication Scale) _____ (Map Unit)

4. Flood Rate Insurance Map

Above the 500-year flood boundary? ☒ Yes ☐ No Within the 100-year flood boundary? ☐ Yes ☒ No
If Yes, continue to #5.

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No MassGIS Wetland Data Layer: _____ (Wetland Type)

7. Current Water Resource Conditions (USGS): _____ (Month/Year) Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed: _____

Commonwealth of Massachusetts
City/Town of BYFIELD

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: TP11 | 11/02/2015 (Date) | 1:50 PM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 64 feet Latitude/Longitude: /

   Description of Location:

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 30 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>120 feet	Wetlands	115 feet
Property Line	65 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 30 inches | 61.5 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP11

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			
2-0	Oi										
0-8	A	10yr 2/2				SL					
8-24	Bw	10yr 4/4				SL					
24-72	C	2.5y 5/4	30	10YR 5/8	>15	L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP12 | 11/02/2015 (Date) | 2:00 PM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 69.5 feet Latitude/Longitude: /

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 20 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS,

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>70 feet	Wetlands	70 feet
Property Line	110 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 48 inches | 65.5 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP12

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			
1-0	Oi										
0-8	A	10yr 3/2				SL					
8-30	Bw	10yr 4/6				SL					
30-66	C1	2.5y 5/4	48	10YR 5/8	>15	SL					
66-84	C2	5y 4/4				L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP11	Obs. Hole #TP12
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	30 inches	48 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 # _____ 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: 8 inches Lower boundary: 66 inches
   c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

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

F. Board of Health Witness

DEBORAH ROGERS	NEWBURY
Name of Board of Health Witness	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	11/02/2017
	Date
BENJAMIN C. OSGOOD, JR #1818	6/30/2018
Typed or Printed Name of Soil Evaluator / License #	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.

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

Field Diagrams

Use this sheet for field diagrams:

TP 13 & 14

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 422D (Soil Map Unit)

CANTON FINE SANDY LOAM
Soil Name

NONE
Soil Limitations

GLACIAL TILL
Geologic/Parent Material

MORAIN
Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: ____ (Year Published/Source) ____ (Publication Scale) ____ (Map Unit)

4. Flood Rate Insurance Map

Above the 500-year flood boundary? ☒ Yes ☐ No Within the 100-year flood boundary? ☐ Yes ☒ No
If Yes, continue to #5.

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No MassGIS Wetland Data Layer: ____ (Wetland Type)

7. Current Water Resource Conditions (USGS): ____ (Month/Year) Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed: ____

Commonwealth of Massachusetts
City/Town of BYFIELD

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: TP13 | 11/02/2015 (Date) | 1:50 PM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 69 feet Latitude/Longitude: /

   Description of Location:

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 7 (Slope (%))

   WOODED (Vegetation) | HILL (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>100 feet	Wetlands	100 feet
Property Line	125 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 48 inches | 65 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP13

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			
1-0	Oi										
0-8	A	10yr 3/2				SL					
8-30	Bw	10yr 4/6				SL					
30-110	C	2.5y 5/4	48	10YR 5/8	>15	SL					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP14 | 11/03/2015 (Date) | 10:00 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 61.5 feet Latitude/Longitude: /

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 7 (Slope (%))

   WOODED (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS,

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>75 feet	Wetlands	75 feet
Property Line	6 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 28 inches | 59.17' elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP14

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			
1-0	Oi										
0-6	A	10yr 2/2				SL					
6-28	Bw	10yr 4/4				SL					
28-72	C	2.5y 5/4	28	10YR 5/8	> 15	L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP13	Obs. Hole #TP14
☐ Depth observed standing water in observation hole	inches	inches
☐ Depth weeping from side of observation hole	inches	inches
☒ Depth to soil redoximorphic features (mottles)	48 inches	28 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 # _____ 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: 8 inches Lower boundary: 110 inches

   c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

Commonwealth of Massachusetts
City/Town of BYFIELD

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

F. Board of Health Witness

DEBORAH ROGERS
Name of Board of Health Witness

NEWBURY
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

11/02/2017
Date

BENJAMIN C. OSGOOD, JR. #1818
Typed or Printed Name of Soil Evaluator / License #

6/30/2018
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.

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

Field Diagrams

Use this sheet for field diagrams:

TP 15 & 16

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 422D (Soil Map Unit)

CANTON FINE SANDY LOAM
Soil Name

NONE
Soil Limitations

GLACIAL TILL
Geologic/Parent Material

MORAINE
Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: Year Published/Source | Publication Scale | Map Unit

4. 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

5. Within a velocity zone? ☐ Yes ☒ No

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

MassGIS Wetland Data Layer: Wetland Type

7. Current Water Resource Conditions (USGS): Month/Year

Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed:

Commonwealth of Massachusetts
City/Town of BYFIELD

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: TP15 | 11/03/2015 (Date) | 11:00 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 54 feet Latitude/Longitude: /

   Description of Location: STORMWATER AREA

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 3 (Slope (%))

   WOODED (Vegetation) | DEPRESSION (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>90 feet	Wetlands	90 feet
Property Line	15 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 18" inches | 52.5 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP15

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	A	10yr 3/2				SL					
6-16	B	10yr 4/4				SL					
16-37	C	2.5y 5/4	18"	10YR 5/8	>15	L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP16 | 11/03/2015 (Date) | 11:00 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 53 feet Latitude/Longitude: /

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | SOME BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 15 (Slope (%))

   WOODS (Vegetation) | MORAIN (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS,

3. Distances from:

Open Water Body	>400 feet	Drainage Way	>40 feet	Wetlands	40 feet
Property Line	120 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 24" inches | 51 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP16

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			
2-0	Oi										
0-6	A	10yr 3/2				SL					
6-24	Bw	10yr 4/4				SL					
24-72	C	2.5y 5/4	24	10 YR/5/8	> 15	L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP15	Obs. Hole #TP16
☐ Depth observed standing water in observation hole	____ inches	____ inches
☐ Depth weeping from side of observation hole	____ inches	____ inches
☒ Depth to soil redoximorphic features (mottles)	18 inches	24 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 # _____ 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: 6 inches Lower boundary: 72 inches

   c. If no, at what depth was impervious material observed? Upper boundary: ____ inches Lower boundary: ____ inches

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

F. Board of Health Witness

DEBORAH ROGERS
Name of Board of Health Witness

NEWBURY
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

11/02/2017
Date

BENJAMIN C. OSGOOD, JR. #1818
Typed or Printed Name of Soil Evaluator / License #

6/30/2018
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.

Field Diagrams

Use this sheet for field diagrams:

TP 17

Commonwealth of Massachusetts
City/Town of BYFIELD

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

A. Facility Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address

R-20/75
Map/Lot #

BYFIELD
City

MA
State

01922
Zip Code

B. Site Information

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

2. Soil Survey Available? ☒ Yes ☐ No If yes: NRCS (Source) 12A (Soil Map Unit)

   MAYBID SILT LOAM (Soil Name) NONE (Soil Limitations)

   GLACIAL TILL (Geologic/Parent Material) MORAIN (Landform)

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes: (Year Published/Source) (Publication Scale) (Map Unit)

4. Flood Rate Insurance Map

   Above the 500-year flood boundary? ☒ Yes ☐ No Within the 100-year flood boundary? ☐ Yes ☒ No
   If Yes, continue to #5.

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No MassGIS Wetland Data Layer: (Wetland Type)

7. Current Water Resource Conditions (USGS): (Month/Year) Range: ☐ Above Normal ☐ Normal ☐ Below Normal

8. Other references reviewed:

Commonwealth of Massachusetts
City/Town of BYFIELD

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: TP17 | 11/03/2015 (Date) | 11:00 AM (Time) | SUNNY/ 70 (Weather)

1. Location

   Ground Elevation at Surface of Hole: 58 feet Latitude/Longitude: /

   Description of Location: STORMWATER AREA

2. Land Use: WOODLAND (e.g., woodland, agricultural field, vacant lot, etc.) | BOULDERS (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | <6 (Slope (%))

   WOODS (Vegetation) | DEPRESSION (Landform) | SEE PLAN (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from:

Open Water Body	>400 feet	Drainage Way	40 feet	Wetlands	20 feet
Property Line	50 feet	Drinking Water Well	>100 feet	Other	feet

4. Parent Material: GLACIAL 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: N/A (Depth Weeping from Pit) | N/A (Depth Standing Water in Hole)

   Estimated Depth to High Groundwater: 18 inches | 56.5 elevation

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: TP17

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			
2-0	Oi										
0-8	A	10yr 2/2				LS					
8-18	Bw	10yr 4/4	18	10YR 5/8	> 15	LS					
18-50	C1	2.5yr 5/4				S					
50-72	C2	2.5Y 5/4				L					

Additional Notes:

Commonwealth of Massachusetts
City/Town of BYFIELD

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

C. On-Site Review (continued)

Deep Observation Hole Number: _____ Date _____ Time _____ Weather _____

1. Location

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

2. Land Use _____ (e.g., woodland, agricultural field, vacant lot, etc.) _____ Surface Stones (e.g., cobbles, stones, boulders, etc.) _____ Slope (%)

   _____ Vegetation _____ Landform SEE PLAN Position on Landscape (SU, SH, BS, FS,

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

   Property Line _____ feet Drinking Water Well _____ feet Other _____ feet

4. Parent Material: _____ 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: _____ inches _____ elevation

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

C. On-Site Review (continued)

Deep Observation Hole Number: _____

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			

Additional Notes:

_____

_____

_____

Commonwealth of Massachusetts
City/Town of BYFIELD

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

D. Determination of High Groundwater Elevation

1. Method Used:

	Obs. Hole #TP17	Obs. Hole #_____
☐ Depth observed standing water in observation hole	_____ inches	_____ inches
☐ Depth weeping from side of observation hole	_____ inches	_____ inches
☒ Depth to soil redoximorphic features (mottles)	18 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 # _____ 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: 8 inches Lower boundary: 72 inches

   c. If no, at what depth was impervious material observed? Upper boundary: _____ inches Lower boundary: _____ inches

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

F. Board of Health Witness

DEBORAH ROGERS
Name of Board of Health Witness

NEWBURY
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

11/02/2017
Date

BENJAMIN C. OSGOOD, JR. #1818
Typed or Printed Name of Soil Evaluator / License #

6/30/2018
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.

Commonwealth of Massachusetts
City/Town of BYFIELD

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

Field Diagrams

Use this sheet for field diagrams:

Commonwealth of Massachusetts
City/Town of BYFIELD
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.

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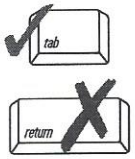

A. Site Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address or Lot #

BYFIELD	MA	01922
City/Town	State	Zip Code

KEVIN GOODWIN	978-360-2231
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	11/02/2015 Date	11:53 Time	11/02/2015 Date	12:10 Time
Observation Hole #	PT3 @ TP6		PT4 @ TP7	
Depth of Perc	14/20		16/24	
Start Pre-Soak	11:53		12:10	
End Pre-Soak	12:08		12:25	
Time at 12"	12:08		12:25	
Time at 9"	12:30		12:29	
Time at 6"	1:25		12:40	
Time (9"-6")	55 MIN.		11 MIN.	
Rate (Min./Inch)	20		4	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

BEN C. OSGOOD
Test Performed By:

DEBORAH ROGERS
Witnessed By:

Comments:

Commonwealth of Massachusetts
City/Town of BYFIELD
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.

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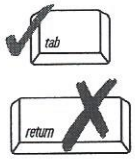

A. Site Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address or Lot #

BYFIELD	MA	01922
City/Town	State	Zip Code

KEVIN GOODWIN	978-360-2231
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	11/02/2015 Date	10:49 Time	11/02/2015 Date	11:07 Time
Observation Hole #	PT1 @ TP2		PT2 @ TP3	
Depth of Perc	32/16		28/16	
Start Pre-Soak	10:49		11:07	
End Pre-Soak	11:04		11:22	
Time at 12"	11:04		11:22	
Time at 9"	11:07		11:37	
Time at 6"	11:10		12:01	
Time (9"-6")	3 MIN		24	
Rate (Min./Inch)	<2		8	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

BEN C. OSGOOD
Test Performed By:

DEBORAH ROGERS
Witnessed By:

Comments:

PT1 BETWEEN TP1 AND TP2
PT2 AT TP3

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

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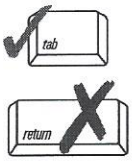

A. Site Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address or Lot #

BYFIELD	MA	01922
City/Town	State	Zip Code

KEVIN GOODWIN	978-360-2231
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	11/02/2015 Date	12:57 Time	11/02/2015 Date	1:30 Time
Observation Hole #	PT5 @ TP8		PT6 @TP9	
Depth of Perc	24/18		20/20	
Start Pre-Soak	12:57		1:30	
End Pre-Soak	1:12		1:45	
Time at 12"	1:12		1:45	
Time at 9"	1:20		2:15	
Time at 6"	1:40		3:08	
Time (9"-6")	20 MIN.		53 MIN.	
Rate (Min./Inch)	7		20	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

BEN C. OSGOOD
Test Performed By:

DEBORAH ROGERS
Witnessed By:

Comments:

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

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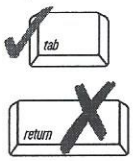

A. Site Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address or Lot #

BYFIELD	MA	01922
City/Town	State	Zip Code

KEVIN GOODWIN	978-360-2231
Contact Person (if different from Owner)	Telephone Number

B. Test Results

	11/02/2015 Date	1:47 Time	11/02/2015 Date	1:54 Time
Observation Hole #	PT7 @ TP10		PT8 @TP11	
Depth of Perc	20/18		24/18	
Start Pre-Soak	1:47		1:54	
End Pre-Soak	2:02		2:09	
Time at 12"	2:02		2:09	
Time at 9"	2:07		2:35	
Time at 6"	2:12		3:30	
Time (9"-6")	5 MIN.		55 MIN.	
Rate (Min./Inch)	<2		20	
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☒ Test Failed: ☐	

BEN C. OSGOOD
Test Performed By:

DEBORAH ROGERS
Witnessed By:

Comments:

Commonwealth of Massachusetts
City/Town of BYFIELD
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.

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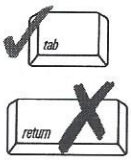

A. Site Information

SMITH JEFFRY J , MCLAUGHLIN MICHEAL S
Owner Name

55 PEARSON DR.
Street Address or Lot #

BYFIELD | MA | 01922
City/Town | State | Zip Code

KEVIN GOODWIN | 978-360-2231
Contact Person (if different from Owner) | Telephone Number

B. Test Results

	11/03/2015 Date	8:58 Time	Date	Time
Observation Hole #	PT9 @ TP12			
Depth of Perc	24/18			
Start Pre-Soak	8:58			
End Pre-Soak	9:13			
Time at 12"	9:13			
Time at 9"	9:57			
Time at 6"	11:15			
Time (9"-6")	78 MIN.			
Rate (Min./Inch)	26			
	Test Passed: ☒ Test Failed: ☐		Test Passed: ☐ Test Failed: ☐	

BEN C. OSGOOD
Test Performed By:

DEBORAH ROGERS
Witnessed By:

Comments: