

A.	Facility Information					
	SMITH JEFFRY J , MCLAUGHLIN N Owner Name	MICHEAL S				~
	55 PEARSON DR.				R-20/75	
	Street Address				Map/Lot #	
	BYFIELD			MA	01922	
	City			State	Zip Code	
В.	Site Information					
1.	(Check one) New Constru	uction	☐ Upgrade	Repair		
2.	Soil Survey Available?		☐ No	If yes: NRCS		422D
	•			Source		Soil Map Unit
	CANTON FINE SANDY LOAM			NONE		
	Soil Name			Soil Limitations		
	GLACIAL TILL Geologic/Parent Material		-	MORAIN Landform		
3	Surficial Geological Report Available?	□ Ves	⊠ No	If yes:		
Ο.	outhicial Geological Report Available:			Year Published/Source	Publication Scale	Map Unit
4.	Flood Rate Insurance Map					
	Above the 500-year flood boundary? If Yes, continue to #5.	⊠ Yes	☐ No	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 N	lormal  Below	Normal
8.	Other references reviewed:					



C.	On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)									
	Deep Observat	tion Hole Number:	TP1	11/02/2015 Date	10:30 AM Time	SUNNY/ 70 Weather				
1.	Location									
	Ground Elevation	on at Surface of Hole:	71 feet	Latitu	ude/Longitude:					
	Description of L	ocation: TOP OF	HILL							
2.	Land Use	WOODLAND (e.g., woodland, agricultural the WOODED Vegetation	ield, vacant lot, etc.)	MORAIN Landform	SEI	cobbles, stones, boulders, etc E PLAN				
3.	Distances from:		>400 feet	_ Drainage Way	>100 feet	ition on Landscape (SU, SH, B Wetlands	140 feet			
4.	Parent Material:	Property Line GLACIAL TILL	35 feet	Drinking Water \	Well >100 feet ble Materials Pres	Other	feet ⊠ No			
5.	If Yes:	Disturbed Soil  bserved: Yes	Fill Material	☐ Impervious Layer(s)	☐ Weath	nered/Fractured Rock [	Bedrock			
	Estimated Depti	h to High Groundwater:	_	67 elevation	Depth Weeping		ding Water in Hole			



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	Coarse Fragments % by Volume		Soil Structure	Soil	Other
Depui (iii.)			Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones		(Moist)	Other
-2-0	Oi										
0-6	Α	10yr 3/2				SL					
6-26	Bw	10yr 4/6				SL					
26-110	С	5yr 5/4	48	10 YR 5/8	>15	LS					

Additional Notes:			



C.	On-Site Re	view (continued)					
	Deep Observat	ion Hole Number:	TP2	11/02/2015 Date	10:30 Time	SUNNY/ 70 Weather	
1.	Location						
	Ground Elevation	on at Surface of Hole:	72.5 feet	Latitude/L	ongitude:	1	
2.	Land Use	WOODLAND		;	SOME STONES		20%
		(e.g., woodland, agricultural	field, vacant lot, etc.)	-	Surface Stones (e.g.,	cobbles, stones, boulde	
						SEE PLAN	
		Vegetation		Landform		Position on Lands	cape (SU, SH, BS, FS,
3.	Distances from:	Open Water Body	>400	Drainage Way	130	Wetlands	130
			feet		feet		feet
		Property Line	35	_ Drinking Water V		Other	
			feet		feet		feet
4.	Parent Material:	GLACIAL TILL		Unsuitab	ole Materials Pres	ent: 🗌 Yes	⊠ No
	If Yes:	Disturbed Soil	Fill Material	☐ Impervious Layer(s)	☐ Weath	ered/Fractured Rock	☐ Bedrock
5.	Groundwater Ob	oserved: Yes	⊠ No	If yes:	N/A Depth Weeping fi	N/A	
	Estimated Depth	n to High Groundwater:	48 inches	68.5' elevation		онт к — Бер	th Standing Water in Hole



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	Coarse Fragments % by Volume			Soil	
. , ,			Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure	(Moist)	Other
2-0	Oi										
0-6	А	10yr 3/2				SL					
6-26	Bw	10yr 4/6				SL					
26-110	С	2.5y 5/4	48	10 YR 5/8	>15	LS					

Additional Notes:		



City/Town of BYFIELD

D.	De	etermination	on of Hi	gh Groun	idwater Ele	vatior	1				
1.	Me	thod Used:					Obs. Hole#	TP1	Obs. Hole #TP	2	
		Depth observe	ed standing	water in obse	ervation hole						
	<ul> <li>□ Depth weeping from side of observation hole</li> <li>□ Depth to soil redoximorphic features (mottles)</li> </ul>						inches		inches		
							inches		inches		
							48		48		
		Depth to adjusted seasonal high groundwater (S <sub>h</sub> ) (USGS methodology)					inches		inches		
		(OCCO MCCION	aciogy)				inches		inches		
		Index W	ell Number		Reading Date						
		$S_h = S_c - [S_r x$	(OWc – OV	$V_{max})/OW_r]$							
		Obs. Hole#		Sc	Sr	OWo	·	OW <sub>max</sub>	OW <sub>r</sub>	Sh	
		Obs. Hole#		Sc	Sr	OWo		OW <sub>max</sub>	OWr	Sh	
E.	De	epth of Per	vious <b>N</b>	laterial							
1.	Dep	oth of Naturally	Occurring I	Pervious Mate	rial						
	a. Does at least four feet of naturally occurring pervious ma absorption system?					aterial ex	ist in all areas	s observed through	out the area propo	sed for the soil	
			☐ No								
	b.	If yes, at what	depth was	it observed?		Upp	er boundary:	6 inches	Lower boundary:	110 inches	
	c. If no, at what depth was impervious material observed?				Upp	oper boundary:		Lower boundary:	inches		



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	
evaluations and that the above analysis has been be	ent of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil erformed by me consistent with the required training, expertise and experience he results of my soil evaluation, as indicated in the attached Soil Evaluation Form, 00 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 <u>Percolation Test Form 12</u>.



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

#### Field Diagrams

Use this sheet for field diagrams:



A	. Facility Information							
	SMITH JEFFRY J , MCLAUGHLIN Owner Name 55 PEARSON DR.	MICHEAL S						
	Street Address			R-20/75				
	BYFIELD			Map/Lot #				
	City			MA 01922 State Zin Code				
				State Zip Code				
В	. Site Information							
1.	(Check one) New Cons	truction	☐ Upgrade	Repair				
2.	Soil Survey Available?		☐ No	If yes: NRCS Source	422D			
	CANTON FINE SANDY LOAM			NONE	Soil Map Unit			
	Soil Name			Soil Limitations				
	GLACIAL TILL			MORAIN				
	Geologic/Parent Material			Landform				
3.	Surficial Geological Report Available	? 🗌 Yes	⊠ No	If yes:  Year Published/Source Publication Scal	e Map Unit			
4.	Flood Rate Insurance Map				13,3274(20)   Notinesta ett			
	Above the 500-year flood boundary? If Yes, continue to #5.	⊠ Yes	☐ No	Within the 100-year flood boundary?	⊠ No			
5.	Within a velocity zone?	☐ Yes	⊠ No					
6.	Within a Mapped Wetland Area?	☐ Yes	⊠ No	MassGIS Wetland Data Layer:	10			
7.	Current Water Resource Conditions	(USGS):	Month/Year	Wetland Type Range: ☐ Above Normal ☐ Normal ☐ Below Norm				
8.	Other references reviewed:							
	_							



On-Site Review (	On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)							
		TP3	11/02/2015 Date	11:00 AM Time				
Location								
Ground Elevation at Surf	ace of Hole:	72 feet	Latit	ude/Longitude			_	
Description of Location:	TOP OF	HILL						
(e.g., wood WOODE	lland, agricultural fie D	eld, vacant lot, etc.)	MORAIN		(e.g., cobbles, stones, be SEE PLAN	5.	20 Slope (%)	
		>400 feet	Drainage Way	>120 feet	Position on Landscape Wetlands	(SU, SH, BS, I	FS, TS) 120 feet	
		75 feet		feet	Other	Yes	feet No	
Groundwater Observed:	Yes Groundwater:	⊠ No 48	If yes:	N/A		N/A	Bedrock g Water in Hole	
	Deep Observation Hole  Location  Ground Elevation at Surf  Description of Location:  Land Use WOODL (e.g., wood WOODE Vegetation  Distances from: Ope  Pro  Parent Material: GL/  If Yes: Disturbed and Coundwater Observed:	Deep Observation Hole Number:  Location  Ground Elevation at Surface of Hole:  Description of Location: TOP OF  Land Use WOODLAND (e.g., woodland, agricultural fiele WOODED Vegetation  Distances from: Open Water Body Property Line  Parent Material: GLACIAL TILL  If Yes: Disturbed Soil For Groundwater Observed: Yes  Estimated Depth to High Groundwater:	Deep Observation Hole Number:  Location  Ground Elevation at Surface of Hole:  Description of Location:  TOP OF HILL  Land Use  WOODLAND  (e.g., woodland, agricultural field, vacant lot, etc.)  WOODED  Vegetation  Distances from:  Open Water Body  Property Line  Property Line  75  feet  Parent Material:  GLACIAL TILL  If Yes:  Disturbed Soil  Fill Material  Groundwater Observed:  Yes  No	Deep Observation Hole Number:  TP3  11/02/2015 Date  Location  Ground Elevation at Surface of Hole:  TOP OF HILL  Land Use  WOODLAND  (e.g., woodland, agricultural field, vacant lot, etc.) WOODED Vegetation  Distances from:  Open Water Body Property Line Property Line Parent Material:  GLACIAL TILL  Material  Impervious Layer(s)  Groundwater Observed:  Yes  Estimated Depth to High Groundwater:  48  At 11/02/2015 Date  11/02/2015 Date	Deep Observation Hole Number:         TP3         11/02/2015 Date         11:00 AM Time           Location         Ground Elevation at Surface of Hole:         72	Deep Observation Hole Number:         TP3         11/02/2015 Date         11:00 AM Time         SUNNY/ 7 Weather           Location           Ground Elevation at Surface of Hole:         72 feet         Latitude/Longitude:         /           Description of Location:         TOP OF HILL         SOME STONES         Surface Stones (e.g., cobbles, stones, b           WOODLAND         SUFFACE Stones (e.g., cobbles, stones, b         Surface Stones (e.g., cobbles, stones, b           WOODED         MORAIN         SEE PLAN           Vegetation         Drainage Way         >120 Set Nets           Property Line         75 feet         Drinking Water Well         >100 Set           Parent Material:         GLACIAL TILL         Unsuitable Materials Present:         Image: N/A Set           If Yes:         Disturbed Soil         Fill Material         Impervious Layer(s)         Weather d/Fractured Featured Featur	Date Time Weather  Location  Ground Elevation at Surface of Hole: 72   Latitude/Longitude: / feet  Description of Location: TOP OF HILL  Land Use   WOODLAND   SOME STONES	



City/Town of BYFIELD

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

C	On-S	ite	Rev	iew (	(continued)
<b>O</b> .	011-0	ILC	IZEA	ICAA (	continued)

Deep Observation Hole Number:

TP3

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color-	Redoximorphic Features		Soil Texture	Coarse Fragments % by Volume			Soil		
. , ,		Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure	(Moist)	Other
2-0	Oi										
0-6	Α	10yr 3/2				SL					
6-28	Bw	10yr 4/6				SL					
28-76	С	2.5yr 5/4	48	10YR 5/8	> 15	LS					
						37000					

Additional Notes:	



City/Town of BYFIELD

C.	On-Site Re	eview (continued)					
	Deep Observat	ion Hole Number:	TP4	11/02/2015 Date	11:00 Time	SUNNY/ 70 Weather	
1.	Location						
	Ground Elevation	on at Surface of Hole:	71.5 feet	Latitude/L	.ongitude:	1	
2.	Land Use	WOODLAND			SOME STONES		
		(e.g., woodland, agricultural	field, vacant lot, etc.)		Surface Stones (e.g., co	bbles, stones, boulders, etc.	Slope (%)
		WOODED		MORAIN		SEE PLAN	
		Vegetation		Landform		Position on Landscape (S	U, SH, BS, FS,
3.	Distances from:	Open Water Bod	>400	Drainage Way	>140	Wetlands	140
			feet		feet		feet
		Property Line	70	_ Drinking Water \	Vell >100	Other	
			feet		feet		feet
4.	Parent Material:	GLACIAL TILL		Unsuitat	ole Materials Preser	nt: Yes	No
	If Yes:	Disturbed Soil	Fill Material	☐ Impervious Layer(s)	☐ Weather	ed/Fractured Rock	Bedrock
5.	Groundwater Ob	oserved:	⋈ No	If yes:	N/A	N/A	
				*	Depth Weeping from		ling Water in Hole
	Estimated Depth	to High Groundwater:		67.5'	Sec. 980		maker markets in high state and the state of
			inches	elevation			



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	on/ Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture	Coarse Fragments % by Volume			Soil	
			Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure	(Moist)	Other
3-0	Oi			18							
0-7	А	10yr 3/2				SL					
7-27	Bw	10yr 4/6				SL					
27-106	С	2.5y 5/4	48	10YR 5/8	>15	LS					

Additional Notes:	



City/Town of BYFIELD

D	. D	etermination of High Groundwa	ter Elevation	on			
1.	Me	ethod Used:		Obs. Hole #Ţ	-P3	Obs. Hole #TP4	
		Depth observed standing water in observation	hole				
		Depth weeping from side of observation hole		inches		inches	
	2200000			inches		inches	
	$\boxtimes$	Depth to soil redoximorphic features (mottles)	)	48		48	
		David to Prince to the second		inches		inches	
	Ш	Depth to adjusted seasonal high groundwater (USGS methodology)	$(S_h)$				
		(0303 Methodology)		inches			
	Index Well Number Reading Date						
	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$						
		Obs. Hole # Sc Sr	OV	Wc	OW <sub>max</sub>	OW <sub>r</sub>	S <sub>h</sub>
		Obs. Hole # Sc Sr	OV	Nc	OW <sub>max</sub>	OW <sub>r</sub>	S <sub>h</sub>
E.	De	epth of Pervious Material		. 35 (1			
1.	De	oth of Naturally Occurring Pervious Material					
	a.	Does at least four feet of naturally occurring peabsorption system?	ervious material	exist in all areas	observed through	out the area propose	ed for the soil
		⊠ Yes □ No					
	b.	If yes, at what depth was it observed?	U	Jpper boundary:	6 inches	Lower boundary:	76
	C.	If no, at what depth was impervious material of	oserved? U	pper boundary:		Lower boundary:	inches



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
		Bould of Floatin
3.	Soil Evaluator Certification	
	I certify that I am currently approved by the Department of Environmevaluations and that the above analysis has been performed by me described in 310 CMR 15.017. I further certify that the results of my are accurate and in accordance with 310 CMR 15.100 through 15.10	consistent with the required training, expertise and experience soil evaluation, as indicated in the attached Soil Evaluation Form
	Signature of Soil Evaluator BENJAMIN C. OSGOOD, JR. #1818 Typed or Printed Name of Soil Evaluator / License #	11/02/2017 Date 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 <u>Percolation Test Form 12</u>.



City/Town of BYFIELD

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

#### Field Diagrams

Use this sheet for field diagrams:



A	. Facility Information					
	SMITH JEFFRY J , MCLAUGHLIN Owner Name	MICHEAL S				
	55 PEARSON DR.				R-20/75	
	Street Address				Map/Lot #	
	BYFIELD			MA	01922	
	City			State	Zip Code	
В.	Site Information		100			
1.	(Check one) New Const	truction	☐ Upgrade	Repair		
2.	Soil Survey Available?	⊠ Yes	☐ No	If yes: NRCS		422D
	CANTON FINE SANDY LOAM			Source NONE		Soil Map Unit
	Soil Name			Soil Limitations		
	GLACIAL TILL			MORAIN		
^	Geologic/Parent Material			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? If Yes, continue to #5.	⊠ Yes	☐ No	Within the 100-year flood boundary	? Yes	⊠ No
5.	Within a velocity zone?	☐ Yes	⊠ No			
3.	Within a Mapped Wetland Area?	☐ Yes	⊠ No	MassGIS Wetland Data Layer:	Wotland Tune	
7.	Current Water Resource Conditions	(USGS):		Range: Above Normal   1	Wetland Type Normal	Normal
3.	Other references reviewed:		Month/Year			TVOITIGI



C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposa							disposal	area)	
		on Hole Number:	TP5	11/02/2015 Date		0 AM	SUNNY/ Weather		
1.	Location								
	Ground Elevation at Surface of Hole:		67 feet	La	atitude/Lo	ongitude:			_
	Description of Lo	cation: SIDEOF	HILL						
2.	(« V	NOODLAND e.g., woodland, agricultural f NOODED /egetation	field, vacant lot, etc.)	MORAIN		SI	g., cobbles, stones, EE PLAN		17 Slope (%)
3.	Distances from:	Open Water Body	>400 feet	Landform Drainage Wa	ау	>70 feet	sition on Landscape Wetlands		FS, TS) 70 feet
4.	Parent Material:	Property Line GLACIAL TILL	80 feet	Drinking Wat		>100 feet laterials Pre	Other	Yes	feet No
5.	Groundwater Obs		Fill Material No No 48 inches	Impervious Laye  If ye  63  eleva	s: <u>N</u>	☐ Wea	thered/Fractured	N/A	Bedrock ig Water in Hole



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	Coarse Fragments % by Volume		 Soil	
			Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Consistence (Moist)	Other
3-0	Oi									
0-6	А	10yr 3/2				SL				13.500
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				
		18.								

Additional Notes:		



C.	On-Site Revie	(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:	1	
2.		ODLAND			SOME BOULDERS		4
	(e.g.,	woodland, agricultural	field, vacant lot, etc.)		Surface Stones (e.g., col	bles, stones, boulders, etc.)	Slope (%)
	7/11/00/15/2	ODED		MORAIN		SEE PLAN	
	54 543 <del>4</del> 68	tation		Landform		Position on Landscape (SU	, SH, BS, FS,
3.	Distances from:	Open Water Bod	y <u>&gt;400</u> feet	Drainage Way	100 feet	Wetlands	80 feet
		Property Line	135 feet	_ Drinking Water	Well >100 feet	Other	feet
4.	Parent Material:	GLACIAL TILL	90020 (3)	Unsuita	ble Materials Presen	t: Yes	⊠ No
	If Yes: Distu	rbed Soil	Fill Material	Impervious Layer(s)	☐ Weathere	d/Fractured Rock	Bedrock
5.	Groundwater Observ	ved: Yes	☐ No	If yes:	N/A Depth Weeping from	N/A	ng Water in Hole
	Estimated Depth to F	High Groundwater:	20 inches	56.33' elevation		Deptil Standir	ig vvalei in Hole



City/Town of BYFIELD

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

C. On-Site Review (	continued)
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Deep Observation Hole Number:

TP6

Depth (in.)	Soil Horizon/	Soil Matrix: Color-				Soil Texture	Coarse Fragments % by Volume			Soil	
	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure	Consistence (Moist)	Other
1-0	Oi										
0-6	А	10yr 2/2				SL					
6-20	Bw	10yr 4/4				SL					
20-110	С	5y 4/4	20	10YR 5/8	> 15	L					
		16.15/200									·

Additional Notes:		



City/Town of BYFIELD

D. I	Determination of High Groundwater E	levation			
1. N	Method Used:	Obs.	Hole #TP5	Obs. Hole #TP6	3
Ε	Depth observed standing water in observation hole				3
Г	Depth weeping from side of observation hole	inches		inches	
_		inches		inches	
	Depth to soil redoximorphic features (mottles)	48		20	
_	7 Danille Land Control	inches		inches	
L	Depth to adjusted seasonal high groundwater (S <sub>h</sub> ) (USGS methodology)	inches			
	(GGGG Methodology)	inches		inches	
	Index Well Number Reading Date	<b>e</b>			
	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$				
	Obs. Hole # S <sub>c</sub> S <sub>r</sub>	OWc	OW <sub>max</sub>	OW <sub>r</sub>	Sh
-	Obs. Hole # Sc Sr	OWc	OW <sub>max</sub>	OW <sub>r</sub>	S <sub>h</sub>
E. C	epth of Pervious Material				
1. D	epth of Naturally Occurring Pervious Material				
а	Does at least four feet of naturally occurring pervious absorption system?	material exist in a	ll areas observed throug	phout the area propos	ed for the soil
	⊠ Yes □ No				
b	If yes, at what depth was it observed?	Upper bou	ndary: 7	Lower boundary:	106 inches
C.	If no, at what depth was impervious material observed	d? Upper bou	100 T190 T0	Lower boundary:	inches



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	
G. Son Evaluator Certification	
evaluations and that the above analysis has been perform	of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil med by me consistent with the required training, expertise and experience esults of my soil evaluation, as indicated in the attached Soil Evaluation Form, trough 15.107.
By COX	11/02/2017
Signature of Sell Evaluator	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.

Expiration Date of License



City/Town of BYFIELD

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

#### Field Diagrams

Use this sheet for field diagrams:



A	Facility Information				
	SMITH JEFFRY J , MCLAUGHLIN MICHEAL S				
	Owner Name 55 PEARSON DR.				
	Street Address			R-20/75	
	BYFIELD		MA	Map/Lot # 01922	
	City		State	Zip Code	
B.	Site Information				
	(Check one) New Construction	☐ Upgrade	Repair		
2.	Soil Survey Available?	☐ No	If yes: NRCS Source		422D
	CANTON FINE SANDY LOAM		NONE		Soil Map Unit
	Soil Name	-	Soil Limitations		
	GLACIAL TILL Geologic/Parent Material		MORAIN		
3.	Surficial Geological Report Available?  Yes	⊠ No	Landform If yes:		
1.	Flood Pata Incurance Man		Year Published/Source	Publication Scale	Map Unit
τ.	Flood Rate Insurance Map				
	Above the 500-year flood boundary?  Yes If Yes, continue to #5.	☐ No	Within the 100-year flood boundary	? 🗌 Yes	⊠ No
5.	Within a velocity zone?	⊠ No			
8.	Within a Mapped Wetland Area?	⊠ No	MassGIS Wetland Data Layer:		
<b>.</b>	Current Water Resource Conditions (USGS):	Month/Year	Range: Above Normal N	Wetland Type Iormal	Normal
3.	Other references reviewed:	Month/ Year			



C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)										
	Deep Observation		TP7	11/02/2015 Date	11:40 AM Time	SUNNY/ 70 Weather				
1.	Location									
	Ground Elevation at	Surface of Hole:	60.5 feet	Latitu	ide/Longitude:					
	Description of Locati	on: FLATLA	ND							
2.	(e.g.,	ODLAND woodland, agricultural f ODS	ield, vacant lot, etc.)	MORAIN		DERS e.g., cobbles, stones, boulders, SEE PLAN	1 Slope (%)			
3.	Vege Distances from:	<sup>tation</sup> Open Water Body	>400 feet	Landform Drainage Way		Position on Landscape (SU, SH Wetlands	, BS, FS, TS) 90 feet			
4.	Parent Material:	Property Line GLACIAL TILL	120 feet	Drinking Water V	Vell >100 feet ble Materials P	Other	feet No			
5.	If Yes: Distur  Groundwater Observ  Estimated Depth to H	red: Yes	Fill Material   No  36 inches	Impervious Layer(s)  If yes:  57.5  elevation	N/A Depth Weepi	eathered/Fractured Rock N/A ng from Pit Depth St	Bedrock			



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

### C. On-Site Review (continued)

Deep Observation Hole Number:

TP7

Depth (in.)		on/ Soil Matrix: Color-	Redoximorphic Features			Soil Texture	Coarse Fragments % by Volume			Soil	
	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure	Consistence (Moist)	Other
1-0	Oi										
0-6	А	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					

A 1 1141	
Additional Notes:	
AUGITIONAL NOTES	
, wallond Holes,	
20 C C C C C C C C C C C C C C C C C C C	



C.	On-Site Revi	<b>ew</b> (continued)					
	Deep Observation	Hole Number:	TP8	11/02/2015 Date	11:45 Time	SUNNY/ 70 Weather	
1.	Location						
	Ground Elevation a	t Surface of Hole:	61 feet	Latitude	Longitude:	1	
2.	(e.g	DODLAND J., woodland, agricultural DODED Jetation	field, vacant lot, etc.)	MORAIN	SOME BOULDERS Surface Stones (e.g., co	S obbles, stones, boulders, etc. SEE PLAN	3 Slope (%)
3.	Distances from:	Open Water Body Property Line	>400 feet 160	Landform  Drainage Way  Drinking Water	130 feet Well >100	Position on Landscape (S Wetlands	EU, SH, BS, FS, 125 feet
4.	Parent Material:	GLACIAL TILL	feet	Unsuita	feet able Materials Preser	nt: Yes	feet ⊠ No
5.	Groundwater Obse	urbed Soil  rved: Yes  High Groundwater:	Fill Material No No No Inches	Impervious Layer(s)  If yes:  58' elevation	☐ Weather N/A Depth Weeping from	ed/Fractured Rock  N/A  m Pit Depth Stand	Bedrock
	Estimated Depth to	High Groundwater:		58' elevation		,	



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.)		Horizon/ Soil Matrix: Color-	Redoximorphic Features			Soil Texture	Coarse Fragments % by Volume			Soil	
	Layer	Moist (Munsell)	Depth	Color	Percent	(USDA)	Gravel	Cobbles & Stones	Soil Structure	Consistence (Moist)	Other
1-0	Oi										
0-6	А	10yr 2/2				SL					
6-30	Bw	10yr 4/4				SL					71
30-90	С	5y 4/4	36	10YR 5/8	> 15	L					

Additional Notes:		



D	. De	etermination of High Ground	water Eleva	tion						
1.	Me	ethod Used: Depth observed standing water in observ	ation hole		Obs. Hole #	TP7	_	Obs. Hole #TP8		
		Depth weeping from side of observation h			inches		inches			
	$\boxtimes$	Depth to soil redoximorphic features (mo	ttles)	inches 36				inches 36		
		Depth to adjusted seasonal high groundwater (Sh) (USGS methodology)			inches			inches		
		Index Well Number $S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$	Reading Date							
		Obs. Hole # Sc	Sr	OWc		OW <sub>max</sub>	_	OWr	Sh	
_	Da		Sr	OWc		OW <sub>max</sub>	_	OW <sub>r</sub>	Sh	
		epth of Pervious Material oth of Naturally Occurring Pervious Materia	ıt							
	a.	Does at least four feet of naturally occurring absorption system?	ial exi	st in all areas	observed th	rougho	ut the area propos	sed for the soil		
	b.	If yes, at what depth was it observed?		Upp	er boundary:	6 inches	L	ower boundary:	110	
	C.	If no, at what depth was impervious mater	al observed?	Upp	er boundary:	inches	L	ower boundary:	inches	



## 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	
G. Son Evaluator Certification	
evaluations and that the above analysis has been beno	t of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil ormed by me consistent with the required training, expertise and experience results of my soil evaluation, as indicated in the attached Soil Evaluation Form through 15.107.
Signature of Soil Evaluator	11/02/2017
DENIA MINI O CONTRA	Date
BENJAMIN C. OSGOOD, JR #1818 Typed or Printed Name of Soil Evaluator / License #	6/30/2018
Types of Times 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 <u>Percolation Test Form 12</u>.



City/Town of BYFIELD

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

### Field Diagrams

Use this sheet for field diagrams:



Α.	Facility Information						
	Jeffry J. Smith and Micheal S. McLaughlin Owner Name			20-01 = 20-02			
	55 Pearson Drive		D00/75				
	Street Address		R20/75 Map/Lot #				
		MA					
		State	01922 Zip Code				
	olly	Otate	Zip Code				
В.	Site Information						
1.	(Check one) New Construction Upg	rade					
2.	Soil Survey Available? ☐ Yes ☐ No	If yes:		Web Soil Survey	422D		
	Canton Fine Sandy Loam	none		Source	Soil Map Unit		
	Soil Name	Soil Limitations					
	Ablation Till	Moraine					
	Soil Parent material	Landform					
3.		If yes:					
•	cameiar coolegicar repetit, transper 🗀 100 🔁 100	Year Published/	/Source I	Map Unit			
	Description of Geologic Map Unit:						
4.	Flood Rate Insurance Map Within a regulatory	r floodway? ☐ Yes ☒ No					
5.	Within a velocity zone? ☐ Yes ☐ No						
6	Within a Mapped Wetland Area?	No. If yes, Mass	GIS Wetland Data La	ayer:			
				Wetland T	2-1-1-1-1		
7.	- The state of the	05/2020	Range:  Above	Normal Norm	nal 🛛 Below Normal		
8.	Other references reviewed:	Month/Day/ Year					
		2					



C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)													
Deep			er: <u>TP 20-01</u> Hole #	06/09/2 Date	2020	8:00 Time		sunny/\ Weather		Latitude		Longitude:	
1. Land	Use woodla	and	iral field, vacant lot, e		wooded			few	s (o a cobbles		os oto )	15% Slope (%)	
1. Land Use (e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slo  Description of Location:									310pe (%)				
2. Soil Parent Material: ablation till moraine BS Landform Position on Landscape (SU, SH, BS, FS, TS)													
3. Distar	nces from:	Oper	n Water Body _≥	>100 feet			rainage W	/ay <u>40'</u> feet		2		<u>20'</u> feet	
			Property Line 1						eet			feet	
4. Unsuita	ble Materials	s Present:	] Yes 🛛 No	If Yes:	Disturbed S	Soil 🗌 F	Fill Material		Weathered/Fra	ctured Rock	□Ве	drock	
5. Groundwater Observed: Yes No If yes: Depth Weeping from Pit Depth Standing Water in Hole													
Soil Log  Redevimentia Features Coarse Fragments Call													
Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color- Moist (Munsell)	Redo Depth	Color	tures Percent		% by Volume Soil Structure		Soil Consistence (Moist)		Other	
				Бери		rereent	Giavei	Stones		(MOISL)			
6"	A	SL	10YR 3/2										
16"	В	SL	10YR 4/6						М	F			
68"	С	SiL	2.5Y 4/4	16"	10YR 5/8	>15%			М	F			
					5Y 5/2								
Additi	onal Notes:					4							



Doon	Observation	. Uala Numb	- TD 20	6	9/2020	0.00	0.11	anylwarm			
реер	Observation	i Hole Numi	<b>ber:</b> <u>TP 20</u>			8:00 Time		nny/warm ather	Latitude		Longitude:
	woo	dland	<u>02</u>			ods		few bould			20%
Land			icultural field, va	cant lot, etc		etation				stones, boulders, etc	
Descr	ption of Loca	ation:									
Soil P	arent Materia	al: Ablation	n Till				Moraine			MS Position on Landson	pe (SU, SH, BS, FS, TS
Dieter	ooo from:	Onon Moto	r Body <u>&gt;10</u>	0 64			age Way ≥	70 fort	\\/otla		pe (50, 5n, 65, F5, 15
Distai	ces ironi.		-		-					nds <u>50</u> feet	
Unsuita	hle	Propen	ty Line <u>50</u> f	eet	L	orinking vv	/ater Well ≥	100 feet	Ot	her feet	
		☐ Yes 🖂	No If Yes:	☐ Distu	rbed Soil	☐ Fill Mate	erial [	☐ Weathered/	Fractured Rock	Bedrock	
Grour	dwater Obse	erved: 🗌 Ye	s 🛛 No			1	f yes:	_ Depth Weepin	g from Pit	Depth Sta	nding Water in Hole
						So	il Log				
	Soil Horizon /Layer	Soil Texture	Soil Matrix: Color-Moist (Munsell)	Redo	ximorphic Fe	atures		Fragments Volume	- Soil Structure	Soil	
Depth (in)		(USDA)		Depth	Color	Percent	Gravel	Cobbles & Stones		Consistence (Moist)	Other
6'''	А	SL	10YR 3/2								
24"	В	SL	10YR 4/6						М	F	
80	С	SiL	2.5Y4/4	24"	10YR 5/8	>15%			М	F	
					5Y 5/2						
			1								



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

#### D. Determination of High Groundwater Elevation

1. [	Method Used:	Obs. Hole # <u>TP20-01</u>	Obs. Hole # <u>TP20-02</u>							
[	Depth observed standing water in observation hole	inches	inches							
[	Depth weeping from side of observation hole	inches	inches							
[	□ Depth to soil redoximorphic features (mottles)	16 inches	24 inches							
[	Depth to adjusted seasonal high groundwater (Sh) (USGS methodology)	inches	inches							
	Index Well Number Reading Date	e								
	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$									
	Obs. Hole/Well# S <sub>c</sub> S <sub>r</sub>	OWc	OW <sub>max</sub> OW <sub>r</sub>							
2. Es	stimated Depth to High Groundwater: inches									
E. I	Depth of Pervious Material									
1. I	Depth of Naturally Occurring Pervious Material									
	<ul> <li>Does at least four feet of naturally occurring pervious mate system?</li> </ul>	terial exist in all areas observed	throughout the area proposed for	r the soil absorption						
ļ	b. If yes, at what depth was it observed (exclude A and O	Upper boundary:	6 Lower boundary:	80						
	Horizons)? c. If no, at what depth was impervious material observed?	Upper boundary:	inches	inches						
,	6. If no, at what depth was impervious material observed?	opper boundary.	Lower boundary:	inches						



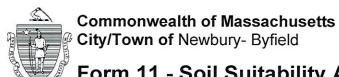
### Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

#### F. Certification

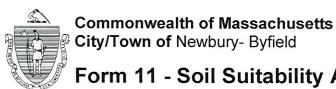
I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify 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.

Signature of Soil Evaluator	7/35/25 Date	
benjamin c osgood jr	06/2021	
Typed or Printed Name of Soil Evaluator / License #	Expiration Date of License	
N/A		
Name of Approving Authority Witness	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 <u>Percolation Test Form 12</u>.



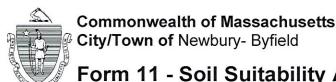
Facility Information							1
Jeffry J. Smith and Micheal S.	McLaughlin					20	0-037, 20
Owner Name							, 20
55 Pearson Drive			R20	0/75			
Street Address			Map	/Lot #			
Byfield	N	MΑ	019	922			
City	5	State	Zip	Code			
Site Information							
(Check one) New Cons	truction	ade 🗌 F	Repair				
Soil Survey Available?	Yes No	If yes:			Web Soil S		22D
Contan Fine Condultane					Source	So	oil Map Unit
Canton Fine Sandy Loam Soil Name		none					
Soli Name		Soil Limitations					
Ablation Till		Moraine					
Soil Parent material		Landform					
Surficial Geological Report Ava	lable? ∐ Yes⊠ No	If yes:			-		
			Year Published/Source	ce	Map Unit		
Description of Geologic Map Unit:							
Flood Rate Insurance Map	Within a regulatory	floodway?	] Yes 🛛 No				
Within a velocity zone?	] Yes 🛛 No						
Within a Mapped Wetland Are	a? ☐ Yes ⊠ I	No	If yes, MassGIS	Wetland Data	Layer:		
Willing a Mapped Welland Are						Wetland Type	
	litions (USGS):	05/2020	Ra	ange: 🗌 Abo	ve Normal	☐ Normal	⊠ Below Norma
Other references reviewed:		/lonth/Day/ Year					



C. On-	Site Revi	ew (minim	um of two hole	es requi	ired at ever	ry propo	sed prin	nary and r	eserve disp	osal area)			
Deep	Observation	n Hole Numb	er: <u>TP 20-03</u> Hole #	06/09/2	2020	8:00 Time		sunny/ Weather		Latitude			
1. Land	llse woodla				wooded			few				Longitude: 5%	
	scription of Lo		ural field, vacant lot, e					Surface Stone	es (e.g., cobbles,	stones, boulder	rs, etc.)	Slope (%)	
2. Soil F	arent Materia	al: ablation t	ill			oraine ndform		BS	tion on Landscap	ne (SU SH BS	FS TS)		
3. Distai	nces from:		n Water Body ≥			D		Vay <u>35'</u> feet		We	tlands	<u>20</u> feet	
4. Unsuita	able Materials		Property Line <u>€</u> ] Yes ⊠ No						eet Weathered/Fra			feet drock	
5. Grour	ndwater Obse	erved: Yes	⊠ No		If yes			eping from Pit	_	Depth S	tanding V	Vater in Hole	
				Dod	ovimoumbio Foo	Soil Log		Fragments		0.11			
Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color- Moist (Munsell)	Depth	Color	Percent		Volume Cobbles & Stones	Soil Structure	Soil Consistence (Moist)		Other	
6"	Α	SL	10YR 3/2										
16"	В	SL	10YR 4/6						M	F			
80"	С	SiL	2.5Y 4/4	16"	10YR 5/8	>15%			М	F			
					5Y 5/2			(9					
	onal Notes:												



C. On-S	Site Revi	ew (minin	num of two	holes r	equired a	t every p	roposed p	orimary and	reserve dis <sub>l</sub>	oosal area)		
Deep (	Observation	n Hole Numl	ber: <u>TP20-</u>	<u>·04</u> 6.		8:00	sur	nny/warm				
			Hole #	D	ate	Time	We	ather	Latitude		Longitude:	
		odland			wo	ods		few bould	ers		20%	
1. Land U	Jse: (e.g.	, woodland, agr	icultural field, va	cant lot, etc	c.) Veg	etation			nes (e.g., cobbles,	stones, boulders,		
Descri	ption of Loca	ation:										
2. Soil Pa	arent Materia	al: Ablation	n Till				Moraine			MS Position on Land	scape (SU, SH, BS, FS, TS)	
3. Distan	ces from:	Open Wate	r Body <u>&gt;10</u>	0 feet			age Way ≥	·25 feet	Wetla	nds <u>20</u> feet	30aps (30, 311, 20, 10, 10)	
		Propert	ty Line 50	- foot	r		/ater Well ≥			— her fe	ant	
4. Unsuitat	nle	riopen	ty Line <u>50</u>	icel .		Jiliking VV	alci vveil 2	100 leet	Oi	IE	eet .	
		□ Ves ⊠	No If Yes:	□ Diet	irbed Soil	☐ Fill Mat	orial I	☐ \Meathered	Fractured Rock	□ Rodrock		
					irbed 30ii							
b. Ground	dwater Obse	erved: 🗌 Ye	s 🛛 No			I	tyes:	_ Depth Weepin	g from Pit	Depth	Standing Water in Hole	
						So	il Log					
Danth (in)	Soil Horizon	Soil Texture	Soil Matrix:	Redo	ximorphic Fe	atures		Fragments Volume	Cail Churchina	Soil	011	
Depth (in)	/Layer	(USDA)	Color-Moist (Munsell)	Depth	Color	Percent	Gravel	Cobbles & Stones	Soil Structure	Consistence (Moist)	Other	
6'''	А	SL	10YR 3/2									
16"	В	SL	10YR 4/6						М	F		
80	С	SiL	2.5Y4/4	24"	10YR 5/8	>15%			М	F		
					5Y 5/2							
				ä								
Additio	onal Notes:		I								I	



#### D. Determination of High Groundwater Elevation Method Used: Obs. Hole #TP20-03 Obs. Hole #TP20-04 Depth observed standing water in observation hole inches inches Depth weeping from side of observation hole inches inches Depth to soil redoximorphic features (mottles) 16 inches 16 inches Depth to adjusted seasonal high groundwater (S<sub>h</sub>) inches inches (USGS methodology) Index Well Number Reading Date $S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$ Obs. Hole/Well# Sr $OW_c$ $OW_{max}$ $OW_r$ 2. Estimated Depth to High Groundwater: \_\_\_\_ inches 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 A and O Horizons)?

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

Upper boundary:

6 inches Lower boundary:

80 inches

Upper boundary:

Lower boundary:

inches

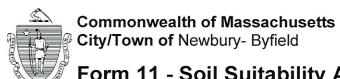


#### F. Certification

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.

Signature of Soil Evaluator	7/30/20 Date	
benjamin c osgood jr	06/2021	
Typed or Printed Name of Soil Evaluator / License #	Expiration Date of License	
N/A		
Name of Approving Authority Witness	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 <u>Percolation Test Form 12</u>.



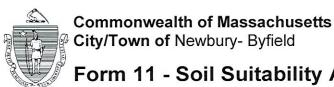
Α.	. Facility Information					,	
	Jeffry J. Smith and Micheal S. McLaughlin				20-0	05 5	20-06
	Owner Name					,	
	55 Pearson Drive		R20/75				
	Street Address		Map/Lot #				
		MA	01922				
	City	State	Zip Code				
В.	. Site Information						
1.	(Check one) New Construction Upg	rade 🗌 Repair					
2.	Soil Survey Available? ☐ Yes ☐ No	If yes:		Web Soil Su	rvev 42	22D	
		, , , , , , , , , , , , , , , , , , ,		Source		il Map Unit	
	Canton Fine Sandy Loam	none				•	
	Soil Name	Soil Limitations					
	Ablation Till	Moraine					
	Soil Parent material	Landform					
3.	Surficial Geological Report Available? ☐ Yes ☒ No	If yes:					
		Year Published	/Source	Map Unit			
	Description of Geologic Map Unit:						
4.	Flood Rate Insurance Map Within a regulatory	r floodway? ☐ Yes ☒ No	0				
5.	Within a velocity zone? ☐ Yes ☐ No						
6.	Within a Mapped Wetland Area? ☐ Yes ☐	No If yes, Mass	GIS Wetland Data I		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
		05/2020	Danner 🗆 Abarr		Wetland Type	<b>□ n</b>	1 1
1.	` ,	05/2020 Month/Day/ Year	Range: Abov	e ivormai [	Normal	⊠ B	elow Normal
8.	Other references reviewed:	world/Day/ Teal					



C. On-	Site Revi	ew (minim	um of two hole	es requi	red at ever	ry propo	sed prim	ary and r	eserve disp	osal area)			
Deep	Observation	Hole Numb	er: <u>TP 20-05</u>	06/09/2	2020	9:00		sunny/\					
	woodla	and	Hole #	Date	wooded	Time		Weather few		Latitude		Longitude: 5%	
1. Land	Use (e.g., wo	oodland, agricultu	ural field, vacant lot, e	etc.)	Vegetation			Surface Stone	s (e.g., cobbles,	stones, boulder	s, etc.)	Slope (%)	
Des	scription of Lo	cation:											
2. Soil P	arent Materia	al: ablation t	ill			oraine		BS					
0 0:-1-		0	- Wataa Daala	100 -	1,000	ndform			tion on Landscap		(A) (A)		
3. Distai	nces from:		n Water Body ≥				47	/ay <u>&gt;100</u> fe				<u>&gt;100</u> feet	
4. Unquita	bla Matarial		Property Line $\underline{6}$ Yes $oxtimes$ No						et		Other	feet	
4. Unsulta	ible Materials	s Present.	res 🖂 No	ii res: L	_ Disturbed S	SOII I	-III Materiai		/veatnered/Fra	cturea Rock	∐ ве	arock	
5. Grour	ndwater Obse	rved: Yes	⊠ No		If yes	3:	Depth Wee	ping from Pit	_	Depth S	tanding V	Vater in Hole	
						Soil Log							
Depth (in)	Soil Horizon	Redo	oximorphic Fea	tures		Fragments Volume	Cail Churchina	Soil		041			
Depth (III)	/Layer	(USDA	Moist (Munsell)	Depth	Color	Percent	Gravel	Cobbles & Stones	Soil Structure	(Moist)		Other	
6"	А	SL	10YR 3/2										
16"	В	SL	10YR 4/6						М	F			
72"	С	L	2.5Y 4/4	16"	10YR 5/8	>15%			М	F			
					5Y 5/2								
Additi	onal Notes:												



C. On-S	Site Revi	ew (minin	num of two	holes r	required	at every p	roposed p	orimary and	reserve disp	oosal area)	
Deep	Observation	n Hole Numl			/9/2020	9:00		nny/warm			
			Hole #	D	ate	Time	We	ather	Latitude		Longitude:
1. Land l		odland				oods/		few bould			20%
i. Land C	lse. (e.g.	, woodland, agr	icultural field, va	cant lot, et	c.) V	egetation		Surface Stor	nes (e.g., cobbles,	stones, boulders,	etc.) Slope (%)
Descri	ption of Loca	ation:									
2. Soil Pa	arent Materia	al: Ablation	n Till				Moraine Landform			MS Position on Land	scape (SU, SH, BS, FS, TS)
3 Dietan	cos from:	Open Wate	r Body >10	O foot			nage Way ≥	100 foot	\\/otla		
J. Distair	ces nom.	2.5								inds <u>&gt;100</u> fee	
4 11 3 1	(- <b>T</b>	Propert	ty Line <u>75</u> f	feet		Drinking W	/ater Well ≥	<u>100</u> feet	Ot	her fe	eet
4. Unsuital		7 v 17	NI- 1537					¬			
	an and the same		No If Yes:	☐ Disti	urbed Soil	☐ Fill Mat			Fractured Rock		
5. Groun	dwater Obse	erved:	s 🛛 No			I	f yes:	_ Depth Weepin	g from Pit	Depth	Standing Water in Hole
						So	il Log				
Depth (in)	Soil Horizon	Soil Texture	Soil Matrix:	Redo	oximorphic l	Features		Fragments Volume	Soil Structure	Soil Consistence	Other
Deput (III)	/Layer	(USDA)	Color-Moist (Munsell)	Depth	Color	Percent	Gravel	Cobbles & Stones	Jon Structure	(Moist)	Other
6'''	Α	SL	10YR 3/2								
16"	В	SL	10YR 4/6						М	F	
80	С	SiL	2.5Y4/4	24"	10YR 5/	8 >15%			М	F	
					5Y 5/2						
Additio	onal Notes:			1							
				and the second s							



### D. Determination of High Groundwater Elevation

1. [	Method Used:	Obs. Hole # <u>TP20-05</u>	Obs. Hole # <u>TP20-06</u>	
[	Depth observed standing water in observation hole	inches	inches	
[	Depth weeping from side of observation hole	inches	inches	
[	☑ Depth to soil redoximorphic features (mottles)	16 inches		
[	Depth to adjusted seasonal high groundwater (S <sub>h</sub> ) (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 <sub>c</sub> S <sub>r</sub>	OWc OWn	nax OWr	S <sub>h</sub>
2. Es	timated Depth to High Groundwater: inches			
E. I	Depth of Pervious Material			
1. I	Depth of Naturally Occurring Pervious Material			
	a. Does at least four feet of naturally occurring pervious material exists as a second of the control of the	st in all areas observed throu	ighout the area proposed for	the soil absorption
	⊠ Yes □ No			
ı	o. If yes, at what depth was it observed (exclude A and O	Upper boundary: 6	Lower boundary:	80
(	Horizons)? b. If no, at what depth was impervious material observed?	inche: Upper boundary:	s Lower boundary:	inches
		inche		inches



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

#### 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.

Signature of Soil Evaluator	7/30/20 Date
benjamin c osgood jr	06/2021
Typed or Printed Name of Soil Evaluator / License #	Expiration Date of License
N/A	
Name of Approving Authority Witness	Approving Authority

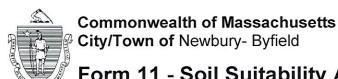
**Note:** In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with <u>Percolation Test Form 12</u>.



Α.	Facility Information					ì
	Jeffry J. Smith and Micheal S. McLaughlin				20 -	07 720-09
	Owner Name					•
	55 Pearson Drive		R20/75			
	Street Address		Map/Lot #			
		MA	01922			
	City	State	Zip Code			
В.	Site Information					
1.	(Check one) New Construction Upg	rade				
2.	Soil Survey Available? ⊠ Yes □ No	If yes:		Web Soil Su		2D il Map Unit
	Canton Fine Sandy Loam	none				
	Soil Name	Soil Limitations				
	Ablation Till	Moraine				
	Soil Parent material	Landform				
3.	Surficial Geological Report Available? ☐ Yes ☒ No	If yes:				
		Year Published	/Source	Map Unit		
	Description of Geologic Map Unit:					
4.	Flood Rate Insurance Map Within a regulatory	/ floodway? ☐ Yes ☒ N	0			
5.	Within a velocity zone?					
6.	Within a Mapped Wetland Area? ☐ Yes ☐	No If yes, Mass	GIS Wetland Data L		Wetland Type	
7.	, ,	05/2020 Month/Day/ Year	Range: Abov		☐ Normal	⊠ Below Normal
8.	Other references reviewed:					



C. On-	Site Revi	ew (minim	um of two hol	es requi	ired at ever	ry propo	sed prin	nary and r	eserve disp	osal area)			
Deep	Observation	n Hole Numb	er: <u>TP 20-07</u>	06/09/2		10:00		sunny/\					
1	woodla	and	Hole #	Date	wooded	Time		Weather few		Latitude		Longitude: 2%	
			ural field, vacant lot,	etc.)	Vegetation			Surface Stone	es (e.g., cobbles,	stones, boulder	rs, etc.)	Slope (%)	
	scription of Lo					NS							
2. Soil F	arent Materia	al: ablation t	ill			oraine ndform		BS Posi	tion on Landscap	e (SU, SH, BS,	FS, TS)		
3. Distai	nces from:	Oper	n Water Body	>100 feet		D	rainage V	Vay <u>&gt;100</u> fe				<u>&gt;100</u> feet	
			Property Line	On specialization					eet		Other	feet	
4. Unsuita	able Materials	s Present:	] Yes 🛛 No	If Yes:	☐ Disturbed S	Soil 🗌 F	Fill Materia	al 🔲 '	Weathered/Fra	ctured Rock	□ Ве	drock	
5. Grou	ndwater Obse	erved: Yes	No ⊠ No		If yes	s:	Depth Wee	eping from Pit	_	Depth S	tanding V	Vater in Hole	
			T	1		Soil Log			T				
Depth (in)	Soil Horizon	Soil Texture	Soil Matrix: Color-	Redo	oximorphic Fea	itures		Fragments Volume	Soil Structure	Soil Consistence		Other	
	/Layer	(USDA	Moist (Munsell)	Depth	Color	Percent	Gravel	Cobbles & Stones		(Moist)			
6"	А	SL	10YR 3/2										
16"	В	SL	10YR 4/6						M	F			
70"	С	L	2.5Y 4/4	16"	10YR 5/8	>15%			М	F			
					5Y 5/2								
	onal Notes: efusal												



Deep (	Observation	Hole Numl	Der: <u>TP20-</u> Hole #			10:00 Time		nny/warm ather	Latitude		Longitude:
. Land U		dland				ods		few bould	ers		5%
Land	(e.g.,	, woodland, agr	icultural field, va	cant lot, etc	c.) Veg	etation		Surface Sto	nes (e.g., cobbles,	stones, boulders, e	etc.) Slope (%)
Descri	ption of Loca	ation:	-								
Soil Pa	rent Materia	Ablation	n Till				Moraine			MS	
							Landform				cape (SU, SH, BS, FS,
Distan	ces from:	700 CO 200 CO 20	r Body <u>&gt;10</u>				age Way ≥			nds <u>&gt;25</u> feet	
		Propert	ty Line <u>25</u> f	eet	[	Orinking W	ater Well >	·100 feet	Ot	her fee	et
Unsuital		7 Yes ⊠	No If Yes:	□ Dist	irhed Soil	☐ Fill Mate	erial [	□ Weathered	Fractured Rock	☐ Bedrock	
		erved:  Ye		_ Disto	il Dea Coll				g from Pit		tanding Water in Hole
Oroun	awater obse	.rvcu rc	5 Z 110				il Log	_ Deptil Weepill	gnomin	Deptil 3	tanding water in Flore
	Soil Horizon	Soil Texture	ure Soil Matrix:	Redo	Redoximorphic Fea		Coarso Eraam			Soil	
epth (in)	/Layer	(USDA)	Color-Moist (Munsell)	Depth	Color	Percent	Gravel	Cobbles & Stones	Soil Structure	Consistence (Moist)	Other
Depth (in)			Color-Moist	Depth	Color	Percent		Cobbles &	- Soil Structure	Consistence	Other
	/Layer	(USDA)	Color-Moist (Munsell)	Depth	Color	Percent		Cobbles &	Soil Structure	Consistence	Other
6'''	/Layer	(USDA)	Color-Moist (Munsell) 10YR 3/2	Depth	Color 10YR 5/8	Percent >15%		Cobbles &		Consistence (Moist)	Other
6''' 16''	/Layer A B	(USDA) SL SL	Color-Moist (Munsell) 10YR 3/2 10YR 4/6		Parison 2 (2012)			Cobbles &	M	Consistence (Moist)	Other
6"' 16"	/Layer A B	(USDA) SL SL	Color-Moist (Munsell) 10YR 3/2 10YR 4/6		10YR 5/8			Cobbles &	M	Consistence (Moist)	Other
16"	/Layer A B	(USDA) SL SL	Color-Moist (Munsell) 10YR 3/2 10YR 4/6		10YR 5/8			Cobbles &	M	Consistence (Moist)	Other



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

### D. Determination of High Groundwater Elevation

1. Me	thod Used:  Depth observed standing water in observation hole  Depth weeping from side of observation hole  Depth to soil redoximorphic features (mottles)	Obs. Hole #TP20-07 inches inches 16 inches	Obs. Hole # TP20-08 inches inches inches	
	Depth to adjusted seasonal high groundwater ( $S_h$ ) (USGS methodology)  Index Well Number  Reading Date $S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$	inches	inches	
	Obs. Hole/Well# S <sub>c</sub> S <sub>r</sub> nated Depth to High Groundwater: inches	OWc	OW <sub>max</sub> OW <sub>r</sub>	_ Sh
	epth of Pervious Material			
1. De	pth of Naturally Occurring Pervious Material			
	Does at least four feet of naturally occurring pervious material existem?	st in all areas observed t	hroughout the area proposed fo	r the soil absorption
	If yes, at what depth was it observed (exclude A and O rizons)?		Lower boundary:	72 inches
C.	If no, at what depth was impervious material observed?	Upper boundary:	Lower boundary:	inches



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

#### F. Certification

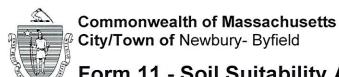
I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify 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.

Signature of Soil Evaluator	7/30/20 Date	
benjamin c osgood jr	06/2021	
Typed or Printed Name of Soil Evaluator / License #	Expiration Date of License	
N/A		
Name of Approving Authority Witness	Approving Authority	

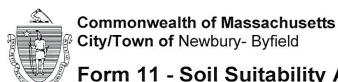
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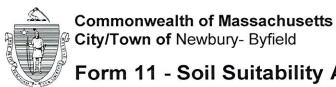
Α.	. Facility Information				(
	Jeffry J. Smith and Micheal S. McLaughlin				01-05 790-0
	Owner Name		D00/75		
	55 Pearson Drive		R20/75		
	Street Address		Map/Lot #		
		MA	01922		
	City	State	Zip Code		
В.	. Site Information				
1.	(Check one) New Construction Upg	grade Repair			
2.	Soil Survey Available?   ☐ Yes ☐ No	If yes:		Web Soil Survey	422D
				Source	Soil Map Unit
	Canton Fine Sandy Loam	none			
	Soil Name	Soil Limitations			
	Ablation Till	Moraine			
	Soil Parent material	Landform			
3.	Surficial Geological Report Available? ☐ Yes ☒ No	If yes:			
		Year Published	/Source	Map Unit	
	Description of Geologic Map Unit:				
4.	Flood Rate Insurance Map Within a regulatory	y floodway? 🗌 Yes 🛛 No	0		
5.	Within a velocity zone? ☐ Yes ☐ No	15			
6.	Within a Mapped Wetland Area? ☐ Yes ☐	No If yes, Mass	GIS Wetland Data L	.ayer: Wetland	Type
7.		05/2020	Range: Abov		10 to
_		Month/Day/ Year			
8.	Other references reviewed:				



woodla	and	er: <u>TP 20-09</u> Hole #	06/09/2 Date		11:00							
se (e.g., wo				wooded	Time		sunny/\ Weather few		Latitude		Longitude:	
ription of Lo	iodiand, agriculti	ural field, vacant lot, e	tc.)	Vegetation				es (e.g., cobbles,	stones, boulder	s, etc.)	Slope (%)	
	cation:											
rent Materia	l: ablation t	ill			oraine		BS					
os from:	Oper	. Water Body	100 foot		ndform	rainago M					>2F 6	
es nom.	1.00											
la Matarials					-						feet	
ile ivialeriais	s rieseiii	j res 🖂 No	ii ies. L		9011 L	-III Wateria	"	vveathered/Fra	ctured Rock	⊔ ве	UTOCK	
lwater Obse	rved:  Yes	No 🖂 No		If yes	3:	Depth Wee	eping from Pit	_	Depth S	tanding V	Vater in Hole	
					Soil Log							
Soil Horizon	Soil Texture	Soil Matrix: Color-	Red	Redoximorphic Features		Coarse Fragments % by Volume		Cail Church	Soil		Other	
/Layer	(USDA	Moist (Munsell)	Depth	Color	Percent	Gravel	Cobbles & Stones	Soil Structure	(Moist)		Other	
Α	SL	10YR 3/2										
В	SL	10YR 4/6						М	F			
С	L	2.5Y 4/4	16"	10YR 5/8	>15%			М	F			
				5Y 5/2								
N	le Materials water Obse  Soil Horizon /Layer  A  B	le Materials Present:  water Observed:  Yes  Soil Horizon /Layer  A SL B SL C L	Property Line 7  le Materials Present:  Yes No  water Observed: Yes No  Soil Horizon /Layer (USDA Soil Matrix: Color-Moist (Munsell)  A SL 10YR 3/2  B SL 10YR 4/6  C L 2.5Y 4/4	Property Line 70 feet    Property Line 70 feet	Property Line   70   feet	Property Line	Property Line 70 feet Drinking Water Volume Materials Present: Yes No If Yes: Disturbed Soil Depth Weet Soil Log  Soil Horizon /Layer Sul No Soil Texture (USDA Noist (Munsell) Depth Color Percent Gravel  B SL 10YR 4/6  C L 2.5Y 4/4 16" 10YR 5/8 >15%	Property Line 70 feet Drinking Water Well >100 feet Property Line 70 feet Drinking Water Well >100 feet Property Line 70 feet Drinking Water Well >100 feet Property Line 70 feet Drinking Water Well >100 feet Property Line 70 feet Drinking Water Well >100 feet Property Line 70 feet Drinking Water Well >100 feet Property Line 70 feet Drinking Water Well >100 feet Property Line 70 feet Property Line 70 feet Drinking Water Well >100 feet Property Line 70 feet L	Soil Horizon   A	Soil Horizon   A SL   10YR 3/2   B SL   10YR 4/6   C L   2.5Y 4/4   16"   10YR 5/8   5/12   C   10   1   10   10   1   10   1   10   1   1	Open Water Body	



C. On-S	Site Revi	ew (minin	num of two	holes r	equired a	at every p	roposed p	orimary and	reserve dis <sub>l</sub>	posal area)	
Deep (	Observation	n Hole Numl			/9/2020	11:00		nny/warm			
			Hole #	D	ate	Time	Wea	ather	Latitude		Longitude:
1. Land U		odland			woods			few bould			5%
i. Lana c	(e.g.	, woodland, agr	icultural field, va	cant lot, et	c.) Ve	getation		Surface Stor	nes (e.g., cobbles,	stones, boulders,	etc.) Slope (%)
Descri	ption of Loca										
2. Soil Pa	arent Materia	al: Ablation	n Till				Moraine			MS	
							Landform				cape (SU, SH, BS, FS, TS)
<ol><li>Distant</li></ol>	ces from:	Open Wate	r Body <u>&gt;10</u>	0 feet		Drain	nage Way ≥	·100 feet	Wetla	inds <u>35</u> feet	
		Propert	ty Line 110	feet		Drinking W	/ater Well >	·100 feet	Ot	her fee	et
<ol><li>Unsuital</li></ol>						,					
Material	s Present: [	☐ Yes 🖂	No If Yes:	☐ Distu	urbed Soil	☐ Fill Mat	erial [	□ Weathered/	Fractured Rock	☐ Bedrock	
5. Ground	dwater Obse	erved: Ye	s 🛛 No			1	f yes:	_ Depth Weepin	g from Pit	Depth S	standing Water in Hole
			2000 CON			So	il Log				
Depth (in)	Soil Horizon		Soil Matrix: Color-Moist	Redoximorphic		eatures		% by Volume Soil Structu		Soil Consistence	Other
	/Layer	(USDA)	(Munsell)	Depth	Color	Percent	Gravel	Cobbles & Stones	Jon Juliustano	(Moist)	Calci
6'''	Α	SL	10YR 3/2								
16"	В	SL	10YR 4/6						М	F	
60"	С	SiL	2.5Y4/4	24"	10YR 5/8	>15%			М	F	
					5Y 5/2						
	onal Notes: ooulders at b	ottom			1			1			



### D. Determination of High Groundwater Elevation

1. M	ethod Used:  Depth observed standing water in observation hole  Depth weeping from side of observation hole	Obs. Hole #TP20-09inchesinches	Obs. Hole #TP20-10 inches inches	
	Depth to soil redoximorphic features (mottles)  Depth to adjusted seasonal high groundwater (Sh) (USGS methodology)	<u>22</u> inches inches	24 inches inches	
2. Est	$S_h = S_c - [S_r \times (OW_c - OW_{max})/OW_r]$ $Obs. \   Hole/Well\#                                   $	OWc	OW <sub>max</sub> OWr	_ Sh
E. D	epth of Pervious Material			
1. D	epth of Naturally Occurring Pervious Material			
a. sy	stem?	st in all areas observed t	hroughout the area proposed for	the soil absorption
	⊠ Yes □ No			
b.	If yes, at what depth was it observed (exclude A and O	- In the second	6 Lower boundary:	96
C.	orizons)?  If no, at what depth was impervious material observed?	Upper boundary:	inches Lower boundary:	inches
		(1	inches	inches



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

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By CO/	7/30/20
Signature of Soil Evaluator	Date /
Benjamin C Osgood Jr	06/2021
Typed or Printed Name of Soil Evaluator / License #	Expiration Date of License
N/A	
Name of Approving Authority Witness	Approving Authority

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