

Site Visit Report

RECEIVED



100 Grove Street
 Worcester, MA 01605
 T:(508)856-0321
 F:(508)856-0357

MAY 9 2016

PLANNING BOARD
 GRAFTON, MA
www.gravesengineering.com

Date:	03/30/16	Prepared By:	Jeffrey Walsh
Client:	Grafton Planning Board	Arrived on site:	9:55 AM
Project:	The Village at Institute Road	Left site:	4:10 PM
Contractor:	Guerriere & Halnon, Inc.	Site Conditions:	Damp
Contractor Contact:	Normand Gamache	Weather:	45-50°, Clear

Transmitted by:	
<input checked="" type="checkbox"/> Mail	<input checked="" type="checkbox"/> E-mail
<input type="checkbox"/> Hand	<input type="checkbox"/> Other:
<input type="checkbox"/> Fax	

Comments:
 GEI was on-site to witness deep hole test pits along the proposed roads (following a conventional development road layout) and at the location of a proposed stormwater management facility. Guerriere & Halnon, Inc. located the test pits, which were excavated by D&F Afonso, Inc. Test pit excavation in the morning was performed using a mini-excavator. At about 12:00 PM a larger excavator arrived at the site and was used for the remainder of the testing. The test pits were evaluated in the morning by Peter Lavoie and in the afternoon by Normand Gamache, both of Guerriere & Halnon, Inc. It is the responsibility of the design engineer to verify compliance with the MassDEP Stormwater Management Guidelines and Town of Grafton requirements relative to test pit locations and depths. Eighteen test pits were evaluated along the roadways today. The findings of the soil evaluations are presented below.

DTH #1 - Road B sta. 1+00, 30'+/- left (Lot #1)		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 7"	A	Sandy loam (SL)
7 - 24"	B	SL
24 - 84"	C	SL, large rock
Weeping Water: NA		
Standing Water: NA		
Mottling: 40"		
Estimated Seasonal High Groundwater Table @ 40" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #2 - Road B sta. 1+25, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 6"	A	Sandy loam (SL)
6 - 24"	B	SL
24 - 36"	C1	SL, boulder
36 - 96"	C2	SL, stones
Weeping Water: NA		
Standing Water: NA		
Mottling: 68"		
Estimated Seasonal High Groundwater Table @ 68" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

CL - center line

DTH #3 – Road B sta. 3+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 6"	A	Sandy loam (SL)
6 – 24"	B	SL
24 – 96"	C	SL, stones and boulders
Weeping Water: NA		
Standing Water: NA		
Mottling: 60"		
Estimated Seasonal High Groundwater Table @ 60" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #4 – Road B sta. 3+00, 40'+/- right (Lot 44)		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 6"	A	Sandy loam (SL)
6 – 24"	B	SL
24 – 80"	C	SL
Weeping Water: NA		
Standing Water: NA		
Mottling: 60" (faint)		
Estimated Seasonal High Groundwater Table @ 60" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #5 – Road B sta. 5+00, 30'+/- left (Lot line of Lots 4 and 5)		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 – 6"	A	Sandy loam (SL)
6 - 26"	B	SL
26 – 36"	C1	Fine sand
36 – 92"	C2	SL
Weeping Water: NA		
Standing Water: NA		
Mottling: 80" (faint)		
Estimated Seasonal High Groundwater Table @ 80" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #6 – Road B sta. 6+50, CL (at intersection of Road C sta. 0+00)		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 6"	A	Sandy loam (SL)
6 – 28"	B	SL
28 – 82"	C	SL, boulders @ 82"
Weeping Water: NA		
Standing Water: NA		
Mottling: 64"		
Estimated Seasonal High Groundwater Table @ 64" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

An eight-inch diameter steel well casing was found on Lot 35. We understand that this casing was part of a well drilled years earlier during exploration to find a new source of water for the Grafton Water District. There was standing water in the well; the water level was unknown but was deeper than 25 feet below the ground surface.

DTH #7 – Road C sta. 2+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 4"	A	Sandy loam (SL)
4 - 22"	B	SL
22 - 96"	C	SL, sandier and fewer boulders than the other test pits
Weeping Water: NA		
Standing Water: NA		
Mottling: 60" (faint)		
Estimated Seasonal High Groundwater Table @ 60" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #8 – Road C sta. 3+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 6"	A	Sandy loam (SL)
6 - 18"	B	SL
18 - 52"	C1	SL
52 - 96"	C2	SL/Silt Loam
Weeping Water: NA		
Standing Water: NA		
Mottling: NA		
Estimated Seasonal High Groundwater Table @ 64" (damp soil)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #9 – Road C sta. 5+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 4"	A	Sandy loam (SL)
4 - 20"	B	SL
20 - 108"	C	Fine SL
Weeping Water: NA		
Standing Water: NA		
Mottling: 48" (faint)		
Estimated Seasonal High Groundwater Table @ 48" (mottling)		
Refusal: NA		
Parent Material: Dense glacial till		

DTH #10 – Road B sta. 8+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 4"	A	Sandy loam (SL)
4 - 20"	B	SL
20 - 144"	C	SL, stony
Weeping Water: NA		
Standing Water: NA		
Mottling: 60" (high chroma)		
Estimated Seasonal High Groundwater Table @ 60" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #11 – Road B sta. 10+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 4"	A	Sandy loam (SL)
4 - 30"	B	SL
30 - 132"	C	Loamy sand, 5-10% cobbles, stone
Weeping Water: NA		
Standing Water: NA		
Mottling: 96" (faint)		
Estimated Seasonal High Groundwater Table @ 96" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #12 – Road B sta. 12+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 6"	A	Sandy loam (SL)
6 - 20"	B	SL
20 - 112"	C	Loamy sand, gravelly, stony, boulder @ 42"
Weeping Water: NA		
Standing Water: NA		
Mottling: 88" (faint)		
Estimated Seasonal High Groundwater Table @ 88" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #13 – Road B sta. 14+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 5"	A	Sandy loam (SL)
5 - 26"	B	SL
26 - 112"	C	Loamy sand
Weeping Water: NA		
Standing Water: NA		
Mottling: 84" (faint)		
Estimated Seasonal High Groundwater Table @ 84" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #14 – Road A sta. 8+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 - 5"	A	Sandy loam (SL)
5 - 24"	B	SL
24 - 144"	C	Loamy sand, some cobbles and stones
Weeping Water: NA		
Standing Water: NA		
Mottling: 112" (faint)		
Estimated Seasonal High Groundwater Table @ 112" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #15 – Road A sta. 6+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 – 9"	A	Sandy loam (SL)
9 – 29"	B	SL
29 – 120"	C	Loamy sand, some cobbles
Weeping Water: NA		
Standing Water: NA		
Mottling: 102" (faint low chroma)		
Estimated Seasonal High Groundwater Table @ 102" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #16 – Road A sta. 4+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 – 6"	A	Sandy loam (SL)
6 – 30"	B	SL
30 – 132"	C	Loamy sand, gravel and cobbles
Weeping Water: NA		
Standing Water: NA		
Mottling: 102" (high chroma)		
Estimated Seasonal High Groundwater Table @ 102" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

DTH #17 – Road A sta. 2+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 – 9"	A	Sandy loam (SL)
9 – 30"	B	SL
30 – 108"	C	Loamy sand, gravel and cobbles, large boulder or refusal @ 108"
Weeping Water: NA		
Standing Water: NA		
Mottling: 96"		
Estimated Seasonal High Groundwater Table @ 96" (mottling)		
Refusal: Possibly @108"		
Parent Material: Loose glacial till		

DTH #18 – Road A sta. 1+00, CL		
DEPTH	SOIL HORIZON	SOIL TEXTURE
0 – 5"	A	Sandy loam (SL)
5 – 30"	B	SL
30 – 144"	C	Loamy sand
Weeping Water: NA		
Standing Water: NA		
Mottling: 100" (faint high chroma)		
Estimated Seasonal High Groundwater Table @ 100" (mottling)		
Refusal: NA		
Parent Material: Loose glacial till		

Action to be Taken:

Grafton Planning Board will be notified of this site visit by way of this report.