CONSERVATION SCIENCE, LLC

7942 HARTMAN ROAD, WADSWORTH, OH 44281 (330) 573-7811 * ConSci7942 @gmail.com

Soil Evaluation Report

Invoice: 2024-4504

January 8, 2024

Mrs. Laura Montini 8795 Glenarden Circle NW Massillon, OH 44646

> RE: Planned New Dwelling adjacent to 4841 Crystal Lake Ave. NW PPN 1601637 (Selected Area) Jackson Twp., Stark County, Ohio

Dear Mrs. Montini:

Enclosed is a copy of soil descriptions for logged profile #1 & 2, and corresponding site map based on the rules established in OAC 3701-29-07, standards described in *Field Book for Describing and Sampling Soils* (USDA/NRCS – V. 2.0 & 3.0,), and ODH instructions revised 9/2007.

In keeping with the above referenced ODH instructions, in cases where soil variability is observed within a soil component area(s), the range of all applicable limiting factors are represented within this report (9/2007, Page 2, *Soil Description* section).

Thanks again for the opportunity to work with you. If you have any questions or comments regarding these findings, please feel free to contact me.

Sincere regards,

for Conservation Science, LLC Soil Physicist & Soil Morphologist MS Soil Physics, CPSS #28033



Copy: Alyssa Sulzener, EHST – Stark County Health Department Josh Collins – Collins Excavating and Construction LLC

File: 2024-4504

~4841 Crystal Lake Ave. NW (New Dwelling/Selected Area) PPN 1601637 Applicant: Laura & Micheal Montini

Logged Soil Descriptions: 😣

Soil Evaluation Locations $(\geq 8 \text{ in. to redox. depletions/} higher bulk density): <math>\bullet$

Soil Evaluation Locations (< 8 in. to redox. depletions/ higher bulk density): •

Wooster silt loam (WuD2, well drained/oxyaquic, glacial till substratum

Chili and Conotton gravelly loams (C well drained, outwash substratum

> Bogart silt Ioam (BoB) moderately well drained, outwash substratum

> > Willette muck (Wt) very poorly drained, organic materials over glaciolacustrine substratum



Redox. depletions/higher bulk density at 8-20 in. depth, inclusions of eroded & aggraded surface horizons, fragic properties in subsoil, and moderate to high soil variability/textural discontinuities (natural)

Map Scale Line = 200 ft. N

Loudonville silt loam (LoE2) well drained, glacial till over residuum/bedrockcontrolled substratum

> Chili gravelly loam (CoD2) well drained, outwash substratum

> > Shoals silt loam (Sh) somewhat poorly drained flood prone, alluvium substratum

USDA/NRCS Web Soil Surve (2nd Order Soil Survey)

Soil component area is representative of T.H. #1 & 2 *Chili-Wooster complex* to *Bogart* and *Jimtown soil series* toposequence (well drained & well drained/oxyaquic to moderately well and somewhat poorly drained), glaciofluvial to alluvium and residuum substratum



MS Soil Physics, CPSS #28033



Certified Professional Soil Scientist

Soil Evaluation for Sewage Treatment and Dispersal

County:		Stark				Mapped Soil Serie		Loudonville/Chili/Wooster/Bogart/Shoals/Willette						
Towship/Sec.:		Jackson				Land Use/Vegetation:				Cropland				
Propert	y Addres	s/Locatio	n: ~4841	Crystal La	ake Ave. NW	Landform	Upland				/CPSS\			
Applica	int:	Laura & Michael Montini				Position on Landform:				Backslope				
Address:		8795 Glenarden Cir. NW, Massillon, OH				Percent Slope:				10-15				
Phone:		330-607-1686				Slope Shape:				Linear linea	r			
Email:		laura.jean.814@gmail.com				Date of evaluation	1/5/2024				Certified Professional			
Lot #:		NA PPN 1601637				Soil Physicist & Morphologist: Todd Houser, MS Soil Physics, CPSS #28033 Soil Scientist								
Test Ho	ole #:	1	New Dwe	elling/Sele	cted Area									
Lat./Long.:		40 ⁰ , 51', 05"/81 ⁰ , 32', 12"				.221								
Method:		Probe, auger & test hole												
						- all I alau								
Soil	Profile	Estimating Soil Saturation (Munsell Color)				Estimating Soil Permeability								
Horizon Depth		Matrix Re		doximorphic Features		Texture				Structure		Consistence	Other Soil Features	
	(inches)		Conc.	Deplet.	Quantity/size	Class	% Clay	% Frags.	Grade	Size	Туре			
Ар	0-10	10YR 4/4	NA	NA	NA	Silt loam	12-20	<15	WK (1)	Medium	SBK/GR	Friable	Plow layer	
													Root zone	
BE	10-14	2.5Y 5/4	NA	NA	NA	Silt loam	12-20	15-35	WK (1)	Medium	SBK	Friable	NA	
													Clay skins	
Bt	14-20	2.5Y 5/3	10YR 5/8	2.5Y 6/1	Medium, common	Silt loam	20-27	15-35	MOD (2)	Medium	SBK	Friable	Iron depletions	
BCg	20-26	2.5Y 5/2	NA	2.5Y 5/1	Coarse, common	Silt loam	12-20	15-35	WK (1)	Very coarse	SBK	Friable	Reduced matrix	
С	26-49	2.5Y 5/3	NA	2.5Y 5/1	Coarse, few	Silt loam	12-20	15-35	STRLS (0)	NA	М	Friable-Firm	Glaciofluvial	
							<u> </u>		Domorko/D	ok Footoro	ntornal di	ainaga of toot r	it profile	
Limiting Conditions Depth					th to (inches)	Destrictive Notes			remarks/risk ractors: internal urainage of test pit profile					
Seasona	al High Wa	ter lable		14		Redox. depletions (vadose zone)			Jobserved is representative of Bogart-Jimtown intergrade					
Apparent Water Table				NA		NA			(moderately well to somewhat poorly drained)					
	ermeable	Material		NA					/glaciofluvial substratum.					
Sedrock >60					>60	Lithic contact (so	I interpre	tation)						
Restrictive Layer				NA		NA			It is recommended that an infiltration distance of up to					
Compacted Layer(s)						I NA			14 inches (>10% slope)* be used to estimate hydraulic					
Infiltration Loading Rate (gal da ⁻¹ ft ⁻²)* Hori					Horizon	Note	ilinear loading rate (~3.5 gal da ⁻ ' ft ⁻ ')*.							
>30 mg L ⁻¹ (BOD ₅) <30 mg L ⁻¹ (BOD ₅)														
	0.4	0.6		6 Ap, BE		Soil structure grade 1								
									*E. Jerry Tyler, 2000					
CONSI	ERVATIC	N SCIEN	ICE, LLC	* 7942	HARTMAN ROA	D * WADSWORT	H, OHI	O 4428′	* 330-573-7811 * ConSci7942@gmail.com					

Soil Evaluation for Sewage Treatment and Dispersal

County:		Stark				Mapped Soil Serie		Loudonville/Chili/Wooster/Bogart/Shoals/Willette						
Towship/Sec.:		Jackson				Land Use/Vegetat		Cropland						
Property Address/Locat			n: ~4841	Crystal La	ake Ave. NW	Landform				Upland / CPSS				
Applica	nt:	Laura & Michael Montini				Position on Landform:				Backslope				
Address:		8795 Glenarden Cir. NW, Massillon, OH				Percent Slope:				10-15				
Phone:		330-607-1686				Slope Shape:		Linear linear	r					
Email:		laura.jean.814@gmail.com				Date of evaluation			1/5/2024 Certified Professional					
Lot #:		NA PPN 1601637				Soil Physicist & Morphologist: Todd Houser, MS Soil Physics, CPSS #28033 Soil Scientist								
Test Ho	ole #:	2	New Dwe	lling/Sele	cted Area									
Lat./Long.:		40 [°] , 51', 05"/81 [°] , 32', 15"												
Method	Method:		uger & tes	t hole										
						- all I. Share								
Soil	Profile	Estimating Soil Saturation (Munsell Color)				Estimating Soil Permeability								
Horizon Depth		Matrix Redo		loximorphic Features		Texture			Structure			Consistence	Other Soil Features	
	(inches)		Conc.	Deplet.	Quantity/size	Class	% Clay	% Frags.	Grade	Size	Туре			
Ар	0-9	10YR 4/4	NA	NA	NA	Silt loam	12-20	<15	WK (1)	Medium	SBK/GR	Friable	Plow layer	
													Root zone	
BE	9-12	10YR 5/5	NA	NA	NA	Silt loam	12-20	15-35	WK (1)	Medium	SBK	Friable	NA	
Bt	12-18	2.5Y 5/5	NA	NA	NA	Silt loam	20-27	15-35	MOD (2)	Medium	SBK	Friable	Clay skins	
50	40.05				0		40.00	45.05			ODK	F aile b Le	lasa dentettene	
вс	18-25	2.51 5/4	1018 5/6	101R 6/2	Coarse, rew	Silt loam	12-20	15-35	VVK (1)	very coarse	SBK	Friable	Iron depietions	
C	25-40	2 5V 5/A	NΔ	10VR 6/1	Medium few	Loam	12-20	15-35		ΝΔ	М	Friable-Firm	Glaciofluvial	
Ŭ	20 40	2.01 0/4	1 1/ 1	10110,1	mediani, iew	Loan	12 20	10 00			IVI		Clacionavia	
	Limiting (Conditions	5 Depth to (inches)		Destrictive Notes			Remarks/Risk Factors: Internal drainage of test pit profile						
Seasona	al High Wa	ter Table	18			Redox. depletions (vadose zone)			observed is more representative of Chili-Bogart intergrade					
Apparent Water Table				NA		NA			(well to moderately well drained)glaciofluvial substratum.					
Highly Permeable Material				NA		NA								
Bedrock	ζ			>60		Lithic contact (soil interpretation)			It is recommended that an infiltration distance of up to					
Restrictive Layer					NA	NA			18 inches (>10% slope)* be used to estimate hydraulic					
Compac	ted Layer(s)		NA		NA			linear loading rate (~3.5 gal da ⁻¹ ft ⁻¹)*.					
Infi	Itration Lo	ading Rate	e (gal da ⁻¹	ft⁻²)* Horizon		Notes								
>30) mg L ⁻¹ (B	OD ₅)	<30 mg L	⁻¹ (BOD ₅)										
•••••	0.4		0.6		Ap, BE	Soil structur	e grade 1							
0.6		0.8).8 Bt		Soil structure grade 2								
						·			*E. Jerry Tyler, 2000					
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