December 31, 2020

Dave Liskany (Countrytyme Land Specialist, Ltd)
3451 Cincinnati-Zanesville Rd, SW
Lancaster, OH 43130

Dear Mr. Liskany:

We would like to thank you for requesting our assistance to identify the specific soil properties on your property **(Track # 3, Pleasant Valley Woods - Union Road),** Chillicothe, in Ross County, Ohio.

Enclosed are the following:

1. Location map
2. Aerial Photo Sketch Map of Site
3. Soil Site Descriptions for the different Soil Areas
4. Soil and Site Evaluation and discussion, for the proposed waste water disposal

The information in this report is basic soils information as found on-site. This does not mean that this site is suitable for an STS, that is up to the Ross County Health Department. If I can be of further assistance, in helping to interpret, clarify or add additional information from my notes, please let me know at 304-372-4809 home or 304-532-4711 cell.

Thanks,

Carlos Cole
Soil Scientist

Cc: Logan Calhoun, R. S., Director of Environmental Health

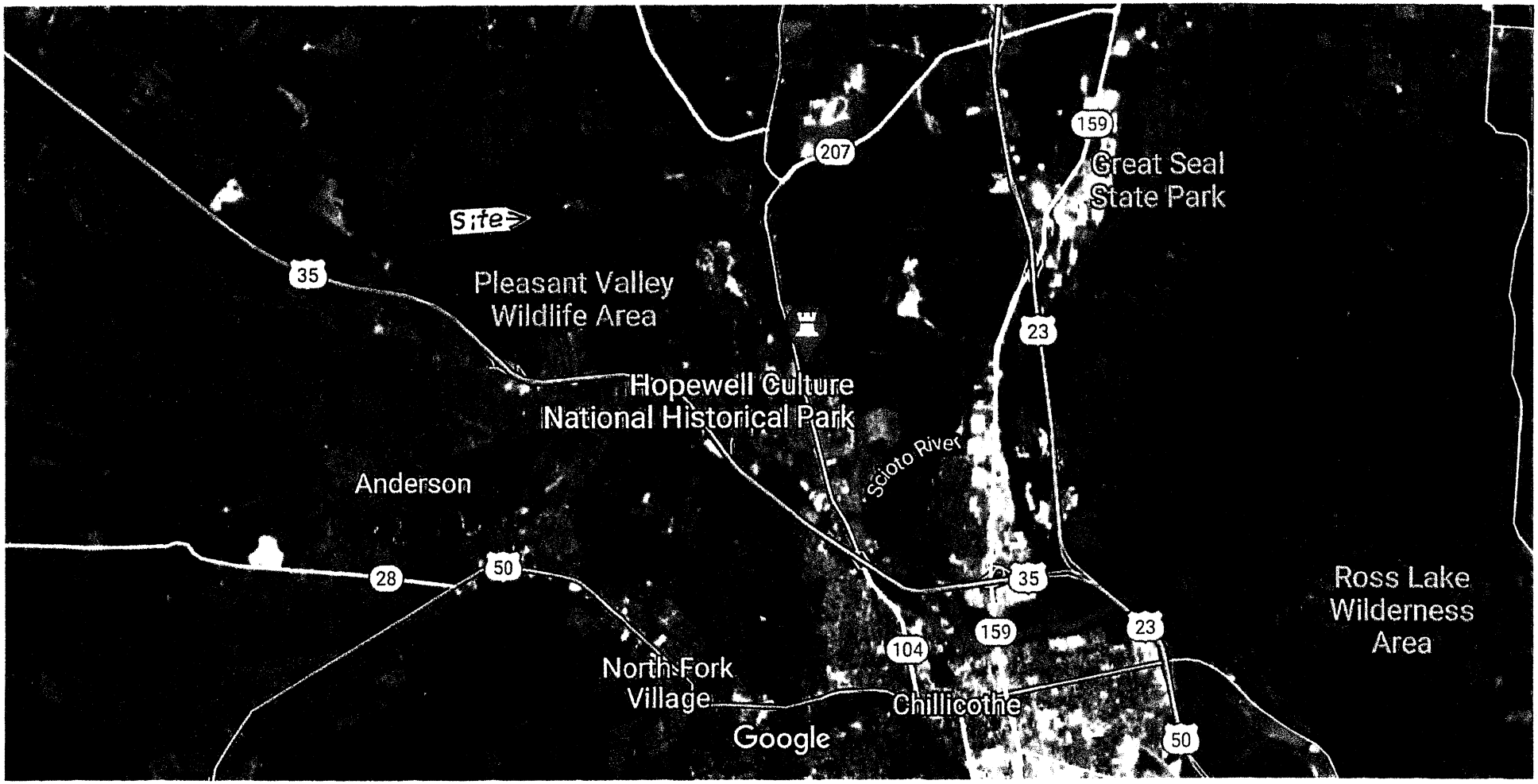
Soil and Site Evaluation Discussion

This soil evaluation is for a new STS (sewage treatment system) for a new home (location may change, but make sure waste water can gravity flow to leach field) on your property. We used a soils probe and examined the soils as best as possible to the find the depth to seasonal high water table, soil textures, percent clay and any compacted or dense layers that would impact the ability of a leach field to work properly. We located this proposed leach field on the most sloping area of this property on the outer edge of a slight knoll or mound landform. The soils in the proposed leach field area have a wind blown loess cap on the lower side of the proposed leach field (soil site descriptions #1 & #2). The #3 soil site description parent material is glacial till with no loess cap. The silt cap or loess deposit appears to be on the north and eastern part of the proposed leach field with under lying glacial till developed soils.

We do not know just how these soil deposits originated in the location on the landscape originally, but we are just describing the soils as they are today. The more silty (loess cap deposits) soils are younger and have fewer limitations, comparingly to the glacial till developed soils. The depth to a seasonal high water table in the #1 soil is 23 inches, #2 soil is 26 inches and the glacial till soil (#3 soil) is 19-20 inches. We did not find any totally restricting layers, like heavy clay or hard pans but all of these soils have some restrictions that limit downward water movement at an approximate depth of 30 to 40 inches. These soils do not have any bedrock to a depth of 60 inches or more. These silty soils (#1 & #2 soils) are susceptible to erosion, if disturbed with no mulch or vegetative cover. The lower part of this leach field seems to be a little better for use as an STS leach field area, however water flows down hill so wherever you locate the filter lines may work the same. This proposed filter field area is large and can serve as both the primary and secondary leach field areas.

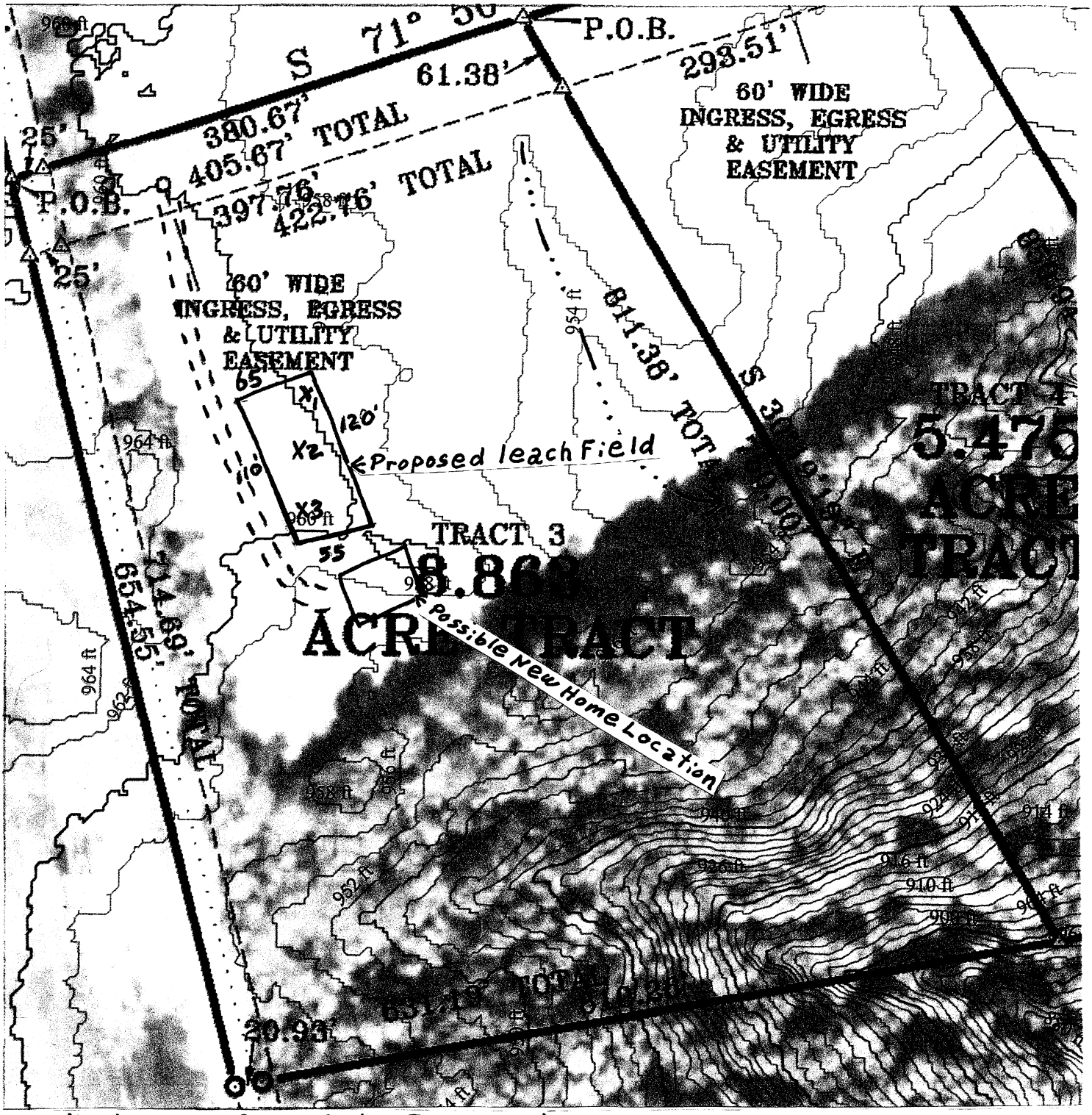
We have shown the location of the proposed STS leach field on the sketch map. We have marked the proposed filter field area with pink wire flags along the boundary and/or on the boundary corners. The soil description sites are marked with orange wire flags and the number of the description is marked on the flag. The approximate dominion, of the proposed filter field area, is marked on the sketch map. The proposed leach field area is just an indication of the area that can be used, the installer or the health department will determine where the filter lines will be located. The filter field lines would need to be located level on the contour around the slope. These soil descriptions were taken at random to show the soil properties at different areas within the proposed filter field area and the sketch map is not to scale. The proposed leach field can be extended around the slope, if needed. We gave a house site location (example that may change with new owner) on the sketch map to give you a possible reference point, for this report.

Location Map



Sketch Map for Countrytyme Property

Pleasant Valley Woods-Track #3 Ross County



X_1, X_2, X_3 - Soil Site Descriptions

= = = = = Approximate Driveway Location

←·····— Swale in Landscape for Surface water Drainage

These are all Approximate Locations (not to scale)

(2) we used the 12-24" Depth For H. Linear Loading Rate
used 5-9 % slope

Site and Soil Evaluation for Sewage Treatment and Dispersal

Lot #3

County: Ross
Township / Sec.: Union
Property Address/Location: S. Union Rd. Chillicothie, OH 45601
Applicant Name: Countrytyme Reality
Address: Att: Dave Lisheny - Land specialist 3451 Cincinnati-Zanesville Rd., SW
Phone #: 614-427-8152
Lot #: 3
#1 Test Hole #: 1
Latitude/Longitude: N39° 23.595', W83° 03.181'
Method: ✓ Pit ✓ Auger ___ Probe

Land Use / Vegetation: Crop Field
Landform: Glacial Till (with Loess cap)
Position on Landform: side small knoll
Percent Slope: 5-6
Shape of Slope: convex
Date: 12-28-20
Evaluator: Carlos Cole

Certification Stamp or Certification #: 24835
Signature: Carlos Cole
Phone#: 304-372-4809 Home
304-532-4711 cell

Dug to 30" + Augered Remainder

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Infiltration Rate Loading gal/day/ft²	Hydraulic Linear Loading Rate (2)
		Munsell Color (hue, value, chroma)			Texture			Structure					
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features: Concentrations	Redoximorphic Features: Depletions	Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	Other Soil Features	
Ap	0-7	10YR 4/4	–	–	L/siL	15-18	–	2-1	F+m	Gr	Fr-vfr	.6	4.1
BA	7-13	10YR 5/4	–	–	L/siL	19-22	–	2-1	m	sbk	fr	.6	4.1
Ap	13-18	10YR 4/3 + 4/4	–	–	siL/fSL	14-18	–	2-1	F+m	Gr	Fr	.6	3.5
2 B_{t_1}	18-23	10YR 6/6	10YR 6/3	–	CL	28-30	0-2+	2-1	m	sbk	Fr	.4	3.0
2 B_{t_2}	23-30	10YR 5/6		10YR 6/2	CL	28-30	1-2+	1-2	m	sbk	fr	.2	2.7
2 BC	30-41	10YR 5/6	+5/4	10YR 6/2	CL	33-36	0-2+	1	m	sbk	Fr-Fi	.2	2.7
2 C	41-60	10YR 5/4	+5/6	10YR 6/2	L/CL	24-30	2-5+	–	–	–	fr	–	

Limiting Conditions	Depth to (in.)	Descriptive Notes
Perched Seasonal Water Table	23	
Apparent Water Table	–	
Highly Permeable Material	–	
Bedrock	none	to 60"
Restrictive Layer	some	AT 30-41" *gravel

Remarks / Risk Factors:

Note: The evaluation should include a complete site plan or site drawing.

(2) we used the 12-24" Depth For H. Linear Loading Rate used 5-9 % slope

Site and Soil Evaluation for Sewage Treatment and Dispersal

Lot #3

County: Ross
Township / Sec.: Union
Property Address/Location: S. Union Rd. Chillicothie, OH 45601
Applicant Name: Countrytyme Reality
Address: Att: Dave Lishney - Land specialist 3451 Cincinnati-Zanesville Rd., SW
Phone #: 614-429-8152
Lot #: 3
2 Test Hole #: 2
Latitude/Longitude: N 39° 23.590' W83° 03.181'
Method: ✓ Pit ✓ Auger ___ Probe

Land Use / Vegetation: crop Field
Landform: Glacial Till (with Loess cap)
Position on Landform: side small knoll
Percent Slope: 5-6
Shape of Slope: convex
Date: 12-28-20
Evaluator: Carlos Cole

Certification Stamp or Certification #: 24835
Signature: Carlos Cole
Phone#: 304-372-4809 Home
304-532-4711 cell

Dug to 30" + Augered Remainder

Soil Profile		Estimating Soil Saturation: Munsell Color (hue, value, chroma)			Estimating Soil Permeability								
			Redoximorphic Features		Texture			Structure					
Horizon	Depth (inches)	Matrix Color	Concentrations	Depletions	Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	Infiltration Loading Rate gal/day/ft² Other	Hydraul. Linear Loading Rate (2) Soil Features
Ap	0-8	10YR 4/3	—	—	SiL	17-20	—	2	F+M	Gr	vfr	.6	3.5
BA	8-14	10YR 4/4	+5/4	—	SiL	21-24	—	2-1	F+M	Gr+sbk	Fr	.6	3.5
Bt1	14-20	10YR 5/6	—	—	SiCL/SiL	26-28	—	2	M	sbk	Fr	.4	3.0
Bt2	20-26	10YR 5/4	+5/6 · 6/3		SiCL	28-30	—	2	M	sbk	fr	.4	3.0
2Bt3	26-32	10YR 5/6	10YR 5/4	10YR 6/2	CL	28-32	2+	2-1	M	sbk	fr	.4	3.0
2BC	32-41	10YR 5/6	10YR 5/4	6/2	CL	30-36	1-2+	1	M+C	sbk	fr-fi	.2	2.7
2C1	41-45	10YR 5/4	+5/6	10YR 6/1	CL/L	26-32	2+	—	—	—	Fr	—	
2C2	45-49+	10YR 5/4			L	24-28	5-10+				Fr		

Limiting Conditions	Depth to (in.)	Descriptive Notes
Perched Seasonal Water Table	26	
Apparent Water Table	—	
Highly Permeable Material	—	
Bedrock	none	to 49"
Restrictive Layer	some	At 32-41"

Remarks: Risk Factors:

Auger stopped by loose Rock not Bedrock

Note: The evaluation should include a complete site plan or site drawing.

② we used the 12-24" Depth For H. Linear Loading Rate

used 5-9 % slope

Site and Soil Evaluation for Sewage Treatment and Dispersal

Lot #3

County: Ross
Township / Sec.: Union
Property Address/Location: S. Union Rd. Chillicothie, OH 45601
Applicant Name: Countrytyme Reality
Address: Att: Dave Lisheny - Land specialist 3451 Cincinnati-Zanesville Rd, SW
Phone #: 614-427-8152
Lot #: 3
Test Hole #: 3 (#3)
Latitude/Longitude: N 39° 23.580', W 83° 03.178'
Method: ✓ Pit ✓ Auger ___ Probe

Land Use / Vegetation: Crop Field
Landform: Glacial Till
Position on Landform: side small knoll
Percent Slope: 5-6
Shape of Slope: convex
Date: 12-28-20
Evaluator: Carlos Cole

Certification Stamp or Certification #: 24835
Signature: Carlos Cole
Phone#: 304-372-4809 Home; 304-532-4711 cell

Dug to 25" + Augered Remainder

Soil Profile		Estimating Soil Saturation: Munsell Color (hue, value, chroma)			Estimating Soil Permeability							Infiltration Loading Rate gal/day/ft²	Hydraulic Linear Loading Rate
			Redoximorphic Features		Texture			Structure				Other Soil Features	
Horizon	Depth (inches)	Matrix Color	Concentrations	Depletions	Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence		
Ap	0-5	10YR 4/3	+4/4	–	L	20-23	1-2+	2-1	F+m	Gr	Fr-vFr	.6	4.1
Bt1	5-11	10YR 5/4	–	–	L/CL	25-28	0-2+	2-1	m	sbk	Fr	.6	4.1
Bt2	11-19	10YR 5/4	+6/4	–	CL	27-30	1-2+	2-1	m	sbk	Fr	.4	3.0
Bt3	19-28	10YR 5/6	–	10YR 6/2	CL	27-30	1-2+	2-1	m	sbk	Fr	.4	3.0
Bt4	28-35	10YR 5/4	. 5/6	10YR 6/2	CL	29-35	1-2+	1-2	C	sbk	Fr-Fi	.2	2.7
BC	35-41	10YR 5/6	. 5/4	10YR 6/2	CL	27-30	2-5+	1	m+c	sbk	Fr	.2	2.7
C	41-60+	10YR 5/6	10YR 5/4	10YR 7/1	L/CL	24-29	2-5+	–	–	–	Fr	–	

②

Limiting Conditions	Depth to (in.)	Descriptive Notes	Remarks / Risk Factors:
Perched Seasonal Water Table	19-20		
Apparent Water Table	–		
Highly Permeable Material	–		
Bedrock	none	to 60"	
Restrictive Layer	some	At 28-35" + gravel	

Note: The evaluation should include a complete site plan or site drawing.