

JMM WETLAND CONSULTING SERVICES, LLC

23 Horseshoe Ridge Road
Newtown, CT 06482
Phone: 203-364-0345

REPORT DATE: August 4, 2023
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ON-SITE SOIL INVESTIGATION REPORT

PROJECT NAME & SITE LOCATION:

Project Site
958 Route 163
Montville, Connecticut

JMM Job No.: 23-3237-MON-1

Field Investigation Date(s): 1/26/ & 2/15/ 2023

Field Investigation Method(s):

- Spade and Auger
 Backhoe Test Pits
 Other: _____

REPORT PREPARED FOR:

Casey Burch
Solli Engineering
11 Vanderbilt Avenue, Suite 240
Norwood, MA, 02062

Field Conditions:

Weather: Sunny, 50's
Soil Moisture: Moist
Snow Depth: N/A
Frost Depth: N/A

Purpose of Investigation:

- Wetland Delineation/Flagging in Field
 Wetland Mapping on Sketch Plan or Topographic Plan
 High Intensity Soil Mapping by Soil Scientist
 Medium Intensity Soil Mapping from USDA-NRCS Web Soil Survey Maps
 Other: _____

Base Map Source: USDA-NRCS Web Soil Survey (attached)

Wetland Boundary Marker Series: JMM-1 to JMM-20 and JMM-A-1 to JMM-A-7 (closed loop)

General Site Description/Comments: The site is located on the west side of Route 163, in Montville, CT. This +/- 30.6-acre site is currently comprised of a single-family residence, maintained lawn, landscaped areas, gravel/paved driveways, active hayfields, a barn, concrete slab, and forested upland and wetland areas, which includes intermittent watercourses (see Figure 1, attached). JMM reviewed the property outlined in red on Figure 1 for regulated wetlands. The soil types were found to be mainly undisturbed; however, disturbed soils were noted. The undisturbed soils are derived from glacial till (i.e., unstratified sand, silt, and rock) deposits. The undisturbed upland soils are comprised of the well-drained Canton-Charlton (60) soil series complex, and the moderately well drained Sutton (50) and Woodbridge (46) soil series. Any disturbed upland soils were mapped as the Udorthents (308) mapping unit while the disturbed wetland soils were mapped as the Aquents (308w) mapping unit. The undisturbed wetland soils were identified as the poorly to very poorly drained Ridgebury, Leicester, and Whitman (3) soil series complex. The regulated areas associated with the site consists of a stony intermittent watercourse and its associated seasonally saturated/flooded wooded swamp located along the northeastern portion of the site (JMM-#-series) and an intermittent watercourse and its associated wooded swamp adjacent to Route 163 near the southeastern property line (JMM-A-series). Typical vegetation observed within the regulated areas included such species as red maple, spicebush, multiflora rose, Japanese barberry, highbush blueberry, sedges, soft rush, skunk cabbage, green briar, fox grape, Christmas fern, sensitive fern, poison ivy, and Asiatic bittersweet, and to name a few.

ON-SITE SOIL INVESTIGATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: Project Site
958 Route 163, Montville, CT

SOIL MAP UNITS**Wetland Soils**

Ridgebury fine sandy loam (3). This soil series consists of deep, poorly and somewhat poorly drained soils formed in a coarse-loamy mantle underlain by firm, compact glacial till on uplands. They are nearly level to moderately steep soils on till plains, low ridges and drumloidal landforms. The soils formed in acid glacial till derived mainly from schist, gneiss or granite. Typically these soils have a black sandy loam surface layer 6 inches thick. The mottled subsoil from 6 to 16 inches is olive gray sandy loam. The mottled substratum from 16 to 60 inches is a light olive brown and olive, very firm and brittle gravelly sandy loam.

Leicester fine sandy loam (3). This series, which is some Connecticut counties is found only in complex with the Ridgebury and Whitman series, consists of deep, poorly drained loamy soils formed in friable glacial till on uplands. They are nearly level to gently sloping soils in drainage ways and low-lying positions on till covered uplands. The soils formed in acid glacial till derived mainly from schist, gneiss or granite. Typically, these soils have a surface layer of black fine sandy loam 6 inches thick. The subsoil from 6 to 23 inches is grayish brown, mottled fine sandy loam. The substratum from 26 to 60 inches or more is dark yellowish brown, mottled, friable, gravelly fine sandy loam.

Whitman fine sandy loam (3). This series, which is some Connecticut counties is only mapped in complex with the Ridgebury and Leicester series, consists of deep, very poorly drained soils formed in a coarse-loamy mantle underlain by firm, compact glacial till on uplands. They are nearly level and gently sloping soils on till plains, low ridges and drumloidal landforms. The soils formed in acid glacial till derived mainly from schist, gneiss or granite. Typically, these soils have a black fine sandy loam surface layer 8 inches thick. The mottled subsoil from 8 to 15 inches is gray sandy loam. The mottled substratum from 15 to 60 inches is firm, olive gray to gray dense glacial till.

Aquents (308w). This soil map unit consists of poorly drained and very poorly drained disturbed land areas. They are most often found on landscapes, which have been subject to prior filling and/or excavation activities. In general, this soil map unit occurs where two or more feet of the original soil surface has been filled over, graded or excavated. The *Aquents* are characterized by a seasonal to prolonged high ground water table and either support or are capable of supporting wetland vegetation. *Aquents* are recently formed soils, which have an aquic moisture regime. An aquic moisture regime is associated with a reducing soil environment that is virtually free of dissolved oxygen because the soil is saturated by groundwater or by water of the capillary fringe. The key feature is the presence of a ground water table at or very near to the soil surface for a period of fourteen days or longer during the growing season.

Upland Soils

Canton stony fine sandy loam (60). This series consists of deep, well drained soils formed in a coarse-loamy mantle underlain by sandy glacial till on uplands. They are nearly level to very steep soils on till plains and hills. The soils formed in acid glacial till derived mainly from schist, gneiss or granite. Typically, these soils have a surface layer of very dark grayish brown fine sandy loam 2 inches thick. The subsoil from 2 to 23 inches is yellowish brown fine sandy loam, gravelly fine sandy loam and gravelly sandy loam. The substratum from 23 to 60 inches is pale brown gravelly loamy sand.

Charlton very stony fine sandy loam (60). This series consists of very deep, well drained coarse-loamy soils formed in friable, glacial till on uplands. They are nearly level to very steep soils on till plains and hills. The soils formed in acid glacial till derived mainly from schist, gneiss or granite. In tilled areas, these soils have a surface layer of dark brown fine sandy loam 8 inches thick. The subsoil from 8 to 26 inches is yellowish brown fine sandy loam and sandy loam. The substratum from 26 to 60 inches or more is grayish brown gravelly fine sandy loam.

ON-SITE SOIL INVESTIGATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: Project Site
958 Route 163, Montville, CT

SOIL MAP UNITS

Sutton stony fine sandy loam (50). This series consists of deep, moderately well drained loamy soils formed in friable, glacial till on uplands. They are nearly level to steeply sloping soils on till plains, low ridges and hills, being typically located on lower slopes and in slight depressions. The soils formed in acid glacial till derived mainly from schist, gneiss or granite. Typically, these soils have a surface layer of dark brown fine sandy loam 8 inches thick. The subsoil from 8 to 28 inches is yellowish brown, mottled fine sandy loam and sandy loam. The substratum from 28 to 60 inches or more is light olive brown fine sandy loam.

Woodbridge fine sandy loam (46). This series consists of deep, moderately well drained soils formed in a coarse-loamy mantle underlain by firm, compact glacial till on uplands. They are nearly level to moderately steep soils on till plains, low ridges and drumoidal landforms. The soils formed in acid glacial till derived mainly from schist, gneiss or granite. In tilled areas, these soils typically have a very dark grayish brown fine sandy loam surface layer 7 inches thick. The subsoil from 7 to 30 inches is dark yellowish brown and light olive brown fine sandy loam, mottled below 18 inches. The substratum from 30 to 60 inches is light olive brown, very firm and brittle gravelly fine sandy loam.

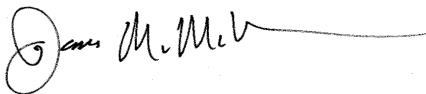
Udorthents (308). This soil mapping unit consists of well drained to moderately well drained soils that have been altered by cutting, filling, or grading. The areas either have had two feet or more of the upper part of the original soil removed or have more than two feet of fill material on top of the original soil. *Udorthents* or Made Land soils can be found on any soil parent material but are typically fluvial on glacial till plains and outwash plains and stream terraces.

Any accompanying soil logs and soil maps, and the on-site soil investigation narrative are in accordance with the taxonomic classification of the National Cooperative Soil Survey of the USDA Natural Resource Conservation Service, and with the Connecticut Soil Legend (DEP Bulletin No.5, 1983). Jurisdictional wetland boundaries were delineated pursuant to the Connecticut General Statutes (CGS Sections 22a-36 to 22a-45), as amended. The site investigation was conducted and/or reviewed by the undersigned Registered Soil Scientist(s) [registered with the Society of Soil Scientists of Southern New England (SSSSNE) in accordance with the standards of the Federal Office of Personnel Management].

All wetland boundary lines established by the undersigned Soil Scientist are subject to change until officially adopted by, local, state, and federal regulatory agencies.

Respectfully submitted,

JMM WETLAND CONSULTING SERVICES, LLC



James M. McManus, MS, CPSS
Certified Professional Soil Scientist
Field Investigator/Reviewer



FIGURE 1: 958 Route 163

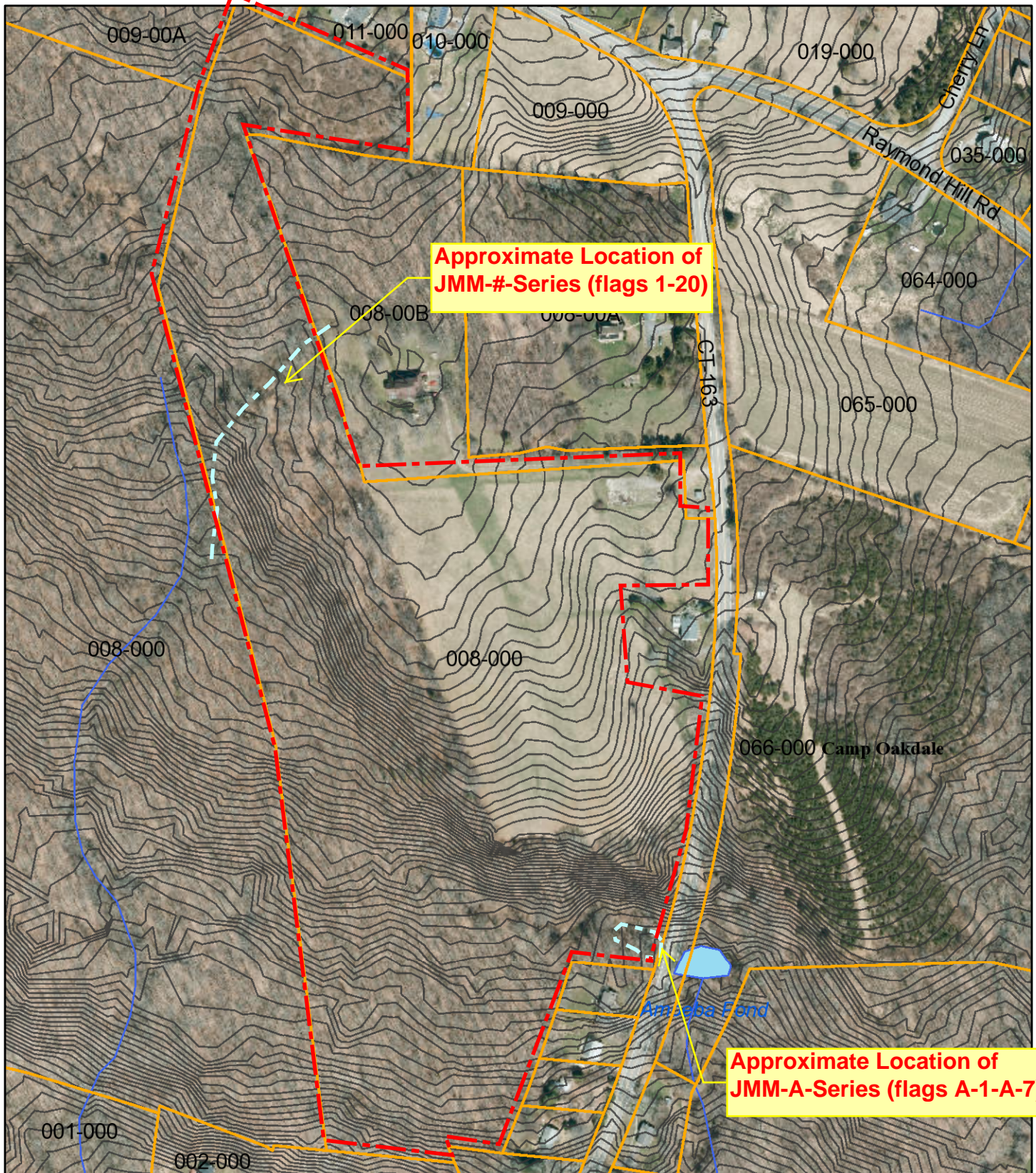
Montville, CT



January 8, 2023

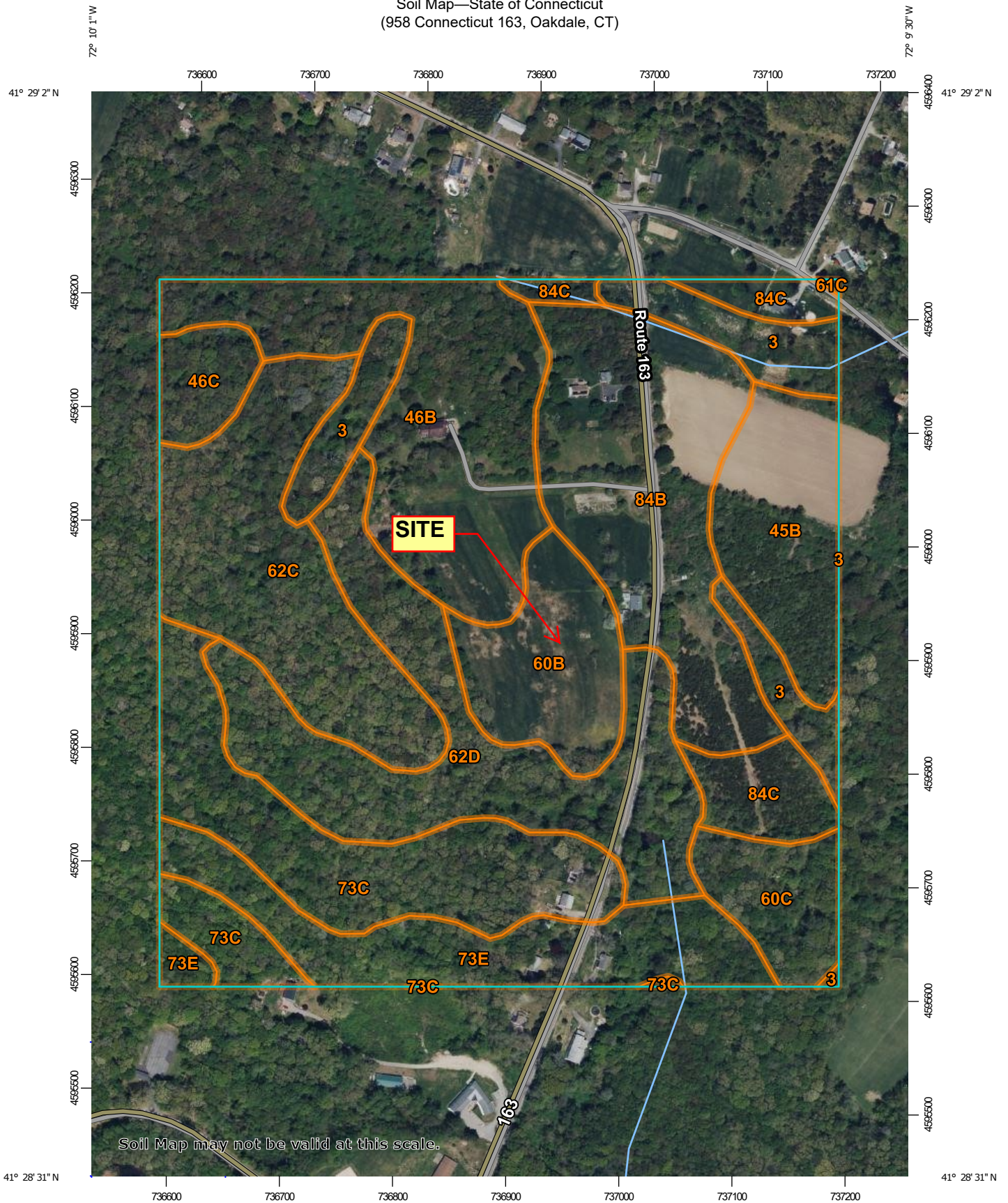
1 inch = 282 Feet

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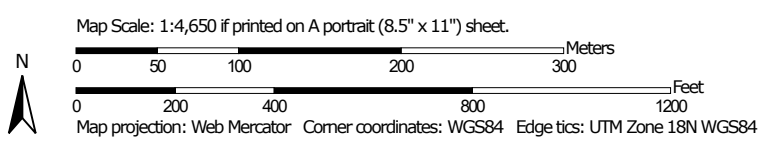


Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

Soil Map—State of Connecticut
(958 Connecticut 163, Oakdale, CT)



Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut

Survey Area Data: Version 22, Sep 12, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	5.6	6.1%
45B	Woodbridge fine sandy loam, 3 to 8 percent slopes	5.9	6.3%
46B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	12.3	13.2%
46C	Woodbridge fine sandy loam, 8 to 15 percent slopes, very stony	1.9	2.1%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	5.3	5.7%
60C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes	3.2	3.4%
61C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes, very stony	0.0	0.0%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	10.7	11.5%
62D	Canton and Charlton fine sandy loams, 15 to 35 percent slopes, extremely stony	12.9	13.9%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	11.0	11.9%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	8.0	8.6%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	12.4	13.4%
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	3.6	3.9%
Totals for Area of Interest		92.7	100.0%