



Ian Cole, LLC

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March 15, 2025

Mr. Anthony Nenna, P.E.
Boundaries LLC
PO Box 184
179 Patchaug River Road
Griswold, CT 06351

**RE: WETLAND AND WATERCOURSE DELINEATION REPORT
400 GAY HILL ROAD
ASSESSOR'S LOT 23
2.14 +/- ACRES
MONTVILLE, CONNECTICUT**

Dear Mr. Nenna:

At Boundaries LLC's request, I completed a field delineation of the leading edge of the Connecticut jurisdictional freshwater inland wetland and watercourses on the subject 2.14-acre residential property located at 400 Gay Hill Road in Montville, Connecticut.

DELINEATION METHODOLOGY

The wetland delineation was completed in accordance with the standards of the Natural Resources Conservation Services (NRCS) National Cooperative Soil Survey and the definitions of inland wetlands and watercourses as found in the Connecticut General Statutes, Chapter 440, Sections 22a-36 through 22a-45 as amended. Wetlands, as defined by the Statute, are those soil types designated as poorly drained, very poorly drained, floodplain or alluvial in accordance with the NRCS National Cooperative Soil Survey. Such areas may also include disturbed areas that have been filled, graded, or excavated and which possess an aquic (saturated) soil moisture regime.

Watercourses means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, vernal, or intermittent, public, or private, which are contained within, flow through or border upon the Town of Montville or any portion thereof not regulated pursuant to sections 22a-28 through 22a-35, inclusive, of the Connecticut General Statutes. Intermittent watercourses are defined as

having a permanent channel and bank and the occurrence of two or more of the following characteristics: (a) evidence of scour or deposits of recent alluvium or detritus, (b) the presence of standing or flowing water for duration longer than a particular storm incident, and (c) the presence of hydrophytic vegetation.

WETLAND SURVEY RESULTS

The wetland survey was completed on March 11, 2025. The on-site wetland delineation examined the upper 20" of the site's soil profile for the presence of hydric soil conditions and delineated any wetland and/or watercourse boundaries located on the parcel. Those areas meeting the criteria above were marked in the field with sequentially numbered wetland flagging labeled 1 through 13. The attached wetland sketch illustrates the approximate wetland locations and corresponding flag series. Please note this sketch is for high level planning and navigation purposes only and the wetland boundaries depicted are subject to refinement once traditionally located and mapped.

The subject 2.14 acre residential lot hosts an existing dwelling and detached garage centrally located along the road frontage. A watercourse and associated wetland fringe drains south through the eastern wooded side of the site. The regulated area is associated with drainage that discharges on the subject property at the northeast corner of the site and flows south down a straight linear rocky channel to a spot in the middle of the flow path there the topography levels out and the remnants of a relic farm pond that has long since filled in with sediment and reverted back to a forested / scrub-shrub wetland is located. The wetland boundary is well-defined, occurring along a distinct topographic break in the slope. The remainder of the property rises to the west where the uplands are a patchwork of lawn and early successional forest habitat.

The overall wetland vegetation community of the flagged wetlands includes the following vegetative species but is not limited to:

Shrubs: Alder, elm, Japanese barberry, spicebush, multiflora rose, and winterberry.

Herbaceous: Cattail, reed canary grass, skunk cabbage, jewelweed, false hellebore, sensitive fern, marsh fern, cinnamon fern.

The above is not an exhaustive list, but a sample of commonly encountered vegetation that characterizes the on-site wetland community. Representative photos are attached. Below.

SOIL SURVEY

The soils identified on-site are a refinement of the Natural Resources Conservation Service (NRCS) Websoil Soil Survey.

Wetland Soils

The wetlands soils are classified as (3) Ridgebury, Leicester, and Whitman fine sandy loams. The poorly drained soils along the wetland boundary belong to the Ridgebury and Leicester soil series. Ridgebury and Leicester soils are found within drainageways and

depressions on glacial till landscapes. Ridgebury and Leicester soils have a seasonal high-water table at a depth of about 6 inches. Very poorly drained Whitman soils are found in the lowest lying areas within the interior of the wetlands where the water table is at the surface throughout most of the growing season.

A typical soil profile along the wetland boundary consists of approximately 3"-0" of intermediately decomposed organic material (Oi), followed by 0"-6" of a thick dark topsoil horizon (A), underlain by 6-18" of a wet weakly developed grayish subsoil horizon (Bg) with common redoximorphic features (Common medium distinct strong brown mottles, masses) ranging from fine sandy loam to very fine sandy loam. This subsoil is underlain by a saturated sandy loam to fine sandy loam gray substratum (2Cg).

Upland Soils

The upland soils were not examined in great detail except as necessary to delineate the wetland boundary. The upland soils on the bulk of the property are mapped as Woodbridge soils. These moderately well-drained fine sandy loam soils are typically compact in place from dense glacial till deposits and as a result are often associated with a perched seasonal high watertable and slow permeability rates. A copy of the NRCS soil survey is attached for your reference.

If you have any questions or comments, please do not hesitate to contact me at itcole@gmail.com or (860) 514-5642.

Sincerely,



Ian T. Cole
Professional Registered Soil Scientist
Professional Wetland Scientist #2006

ATTACHMENTS

GIS LOCUS MAP
WETLAND SKETCH
NRCS SOIL SURVEY
SITE PHOTOS



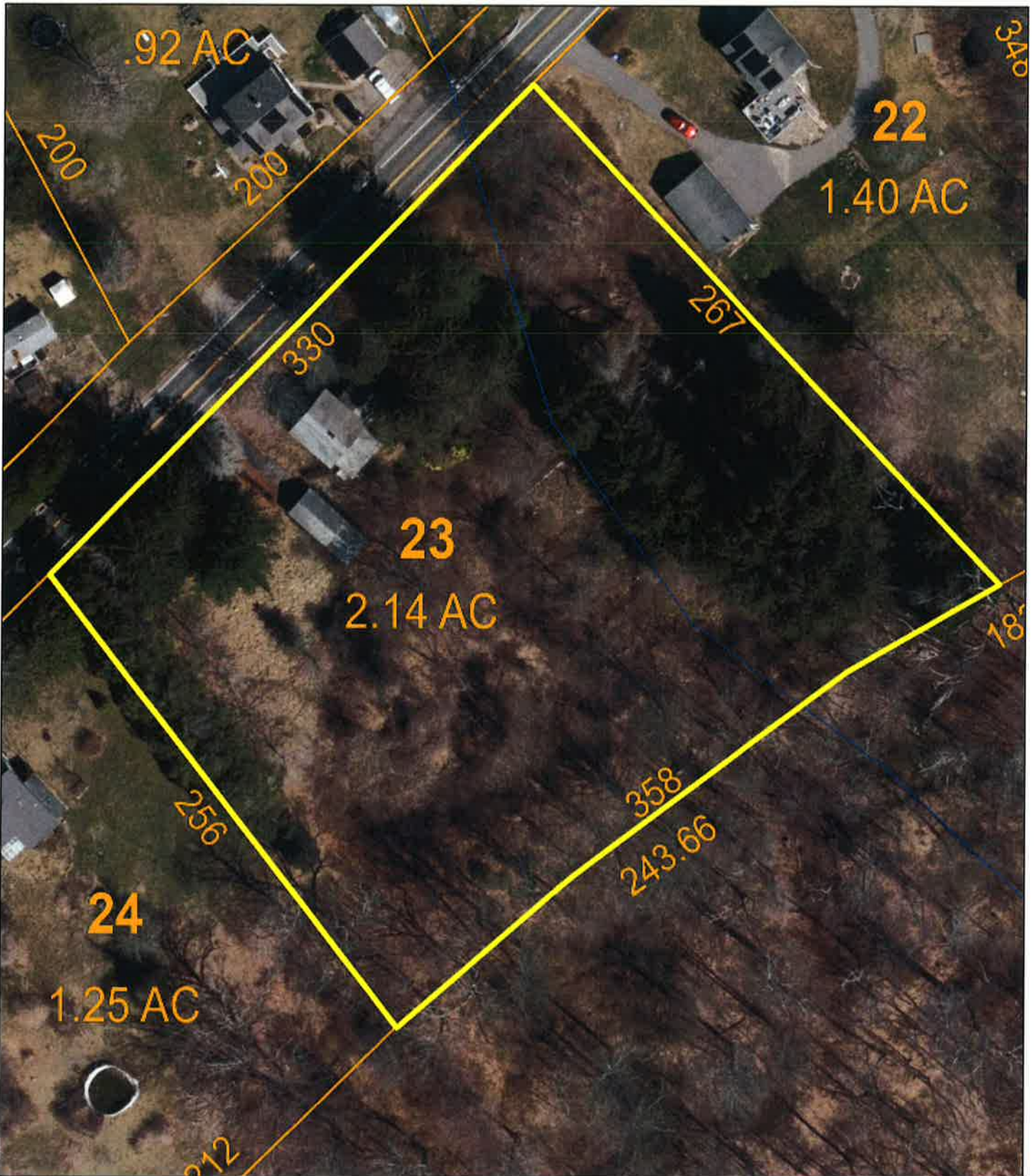
Town of Montville, CT

1 inch = 65 Feet



www.cai-tech.com

March 11, 2025



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.

WETLAND SKETCH

400 GAY HILL ROAD

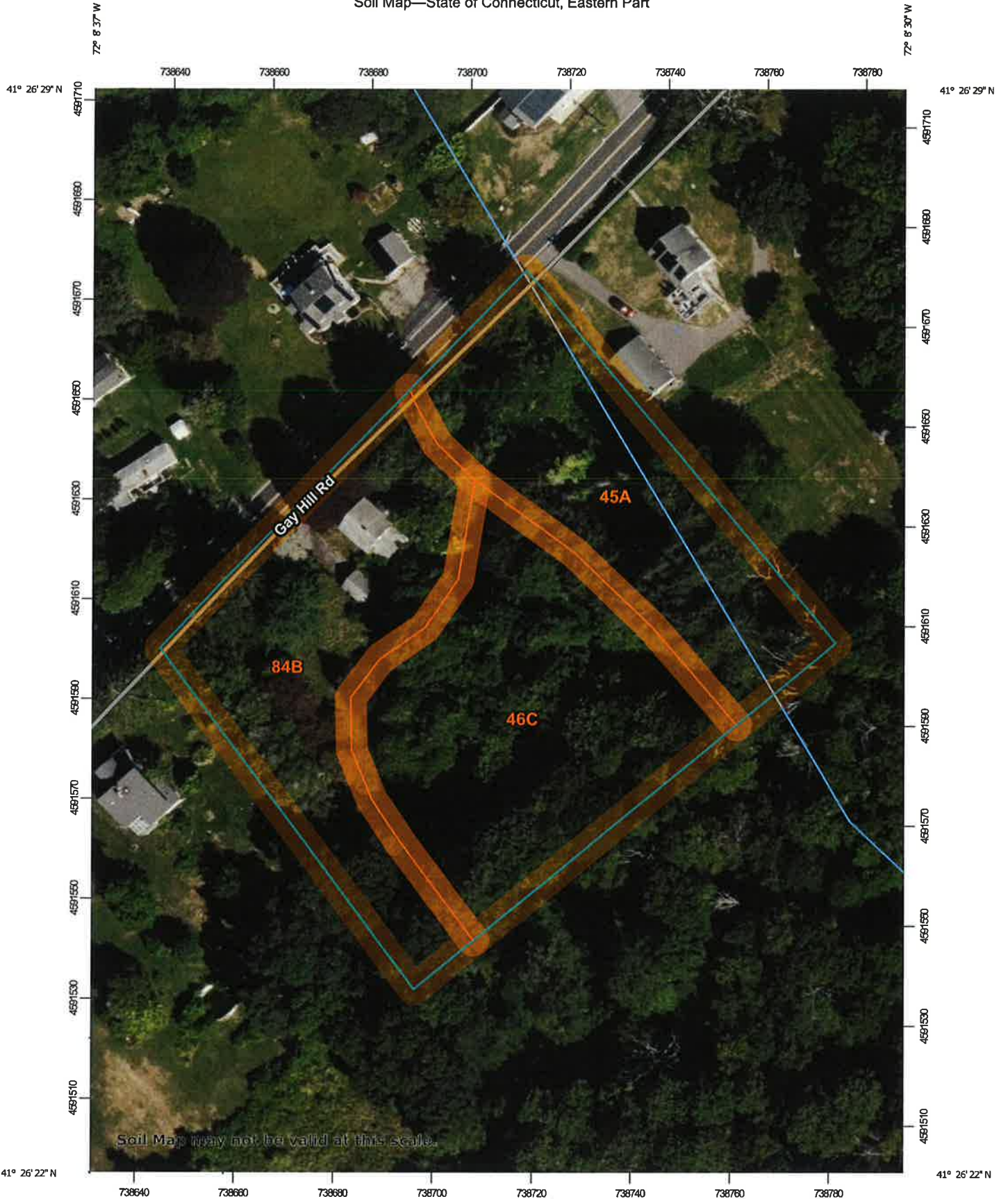
MBL: 016/023/000

MONTVILLE



Disclaimer: This map is for planning purposes only. Verification of its accuracy, currency and completeness is the responsibility of the reader's own independent research. All inland wetland and watercourse boundaries are subject to refinement once traditionally field located by a Licensed Land Surveyor and formally adopted by the Town. Ian Cole LLC shall not be held liable for any loss, damages or claims made in relation to anyone referring to this map.

Soil Map—State of Connecticut, Eastern Part



Soil Map may not be valid at this scale.































Map Scale: 1:1,060 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



MAP LEGEND

-  Area of Interest (AOI)
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- 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
- 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, Eastern Part
 Survey Area Data: Version 2, Aug 30, 2024

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

Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

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
45A	Woodbridge fine sandy loam, 0 to 3 percent slopes	0.7	29.3%
46C	Woodbridge fine sandy loam, 8 to 15 percent slopes, very stony	0.9	37.8%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	0.8	32.8%
Totals for Area of Interest		2.4	100.0%

WETLAND SURVEY PHOTOS

MARCH 8, 2025

400 GAY HILL ROAD

MONTVILLE

CONNECTICUT



Photo 1: Example of drainage / watercourse where it discharges onto the northeast corner of the site.



Photo 2: Example of the linear stony watercourse channel that flows south down the east side of the site.



Photo 3: Flagged wetlands around relic farm pond long since filled in with sediment and vegetated by shrubs and sedges.



Photo 4: Conditions of the upland in the vicinity of the existing dwelling.