Martin Brogie, Inc.
ENVIRONMENTAL SERVICES

• Environmental Site Investigations
• Building Contaminant Surveys
• Wetlands Consulting
• Remediation Contract Management

October 10, 2023

Ryan Scrittorale, PE
Senior Project Manager | Associate
Alfred Benesch & Company
120 Hebron Avenue - 2nd Floor
Glastonbury, CT
06033

RE: Wetland Delineation Report
Proposed Glastonbury Housing Authority Project
53 Nye Road
Glastonbury, CT

Dear Ryan:

Martin Brogie, Inc. (MBI) is pleased to submit the following information regarding a wetland delineation performed for the above referenced property on August 23, 2023. The work was completed to evaluate the presence and extent of wetlands and watercourses on the property for the purpose of assessing the potential wetland impacts associated with proposed site residential development improvements associated with a Glastonbury Housing Authority project.

Site Description

The subject property consists of an approximate 8.62-acre parcel improved with a one-story commercial office building and associated paved parking and driveway areas in the western portion of the property and mature, forested land in the eastern portion of the property. The property slopes generally down toward the southeast to a perennial watercourse that generally flows southwest and then south across the eastern side of the property and joining Salmon Brook approximately 400 feet to the south.

28 Arbor Lane
Madison, CT 06443

martinbrogieinc@gmail.com
860-208-0360

A Site Location Topographic Map is provided as Figure 1 and Figure 2 depicts an aerial view with the approximate property boundary and wetland delineation line.

Wetland Delineation

On August 23, 2023, MBI's Soil Scientist Martin Brogie, LEP reported to the site to assess the presence of wetlands and watercourses/intermittent watercourses in accordance with the definitions provided in Connecticut General Statutes Section 22a-38 definitions (15) and (16) including: soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey; and, rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. In addition, intermittent watercourses defined as having a permanent channel and bank and the occurrence of two or more of the following characteristics: evidence of scour or deposits of recent alluvium or detritus; the presence of standing or flowing water for a duration longer than a storm incident; and/or the presence of hydrophytic vegetation were delineated.

MBI accessed the property via Nye Road, proceeded through the developed area of the site and entered the woods located along the northern portion of the property. The property sloped to the southeast, east of the developed area. An abandoned road was noted along the northern boundary and a small foundation was observed just south of the road. An open, unforested area was noted further to the east and contained several dirt roads along with a north to south oriented power line right of way. MBI proceeded, offsite, further to the northeast and encountered a perennial watercourse flowing generally toward the south. The watercourse contained several floodplain areas which extended westward from the watercourse to the base of steeply sloping sand and gravel embankments.

The wetland delineation commenced with flag WF#1 placed along the west side of the watercourse and proceeding southward along the edge of high water or into floodplain areas containing poorly and very-poorly drained soil. The line extended generally to the southwest and terminated east of the commercial building on the southerly bordering property with flag number WF#42.

Wetland vegetation consisted of Eastern Cottonwoods, American Sycamore, and Red Maple in the overstory and Spicebush, Winterberry, Hornbeam, and Witch Hazel in the shrub layer. Skunk Cabbage, Jewelweed and Tussock Sedge were noted herbaceous plants in the flood plain areas. A large stand of Knotweed was noted along the edge of the watercourse in the area of WF#13.

Photographs of the site wetlands are provided in Exhibit A.

The Natural Resource Conservation Service WEB Soil Survey depicts Saco Silt Loam along the delineated watercourse and associated floodplain areas. The Saco series consists of very deep, very poorly drained soils formed in silty alluvial deposits. They are nearly level soils on flood plains, subject to frequent flooding. The slope ranges from 0 to 2 percent. Permeability is moderate in the silty layers

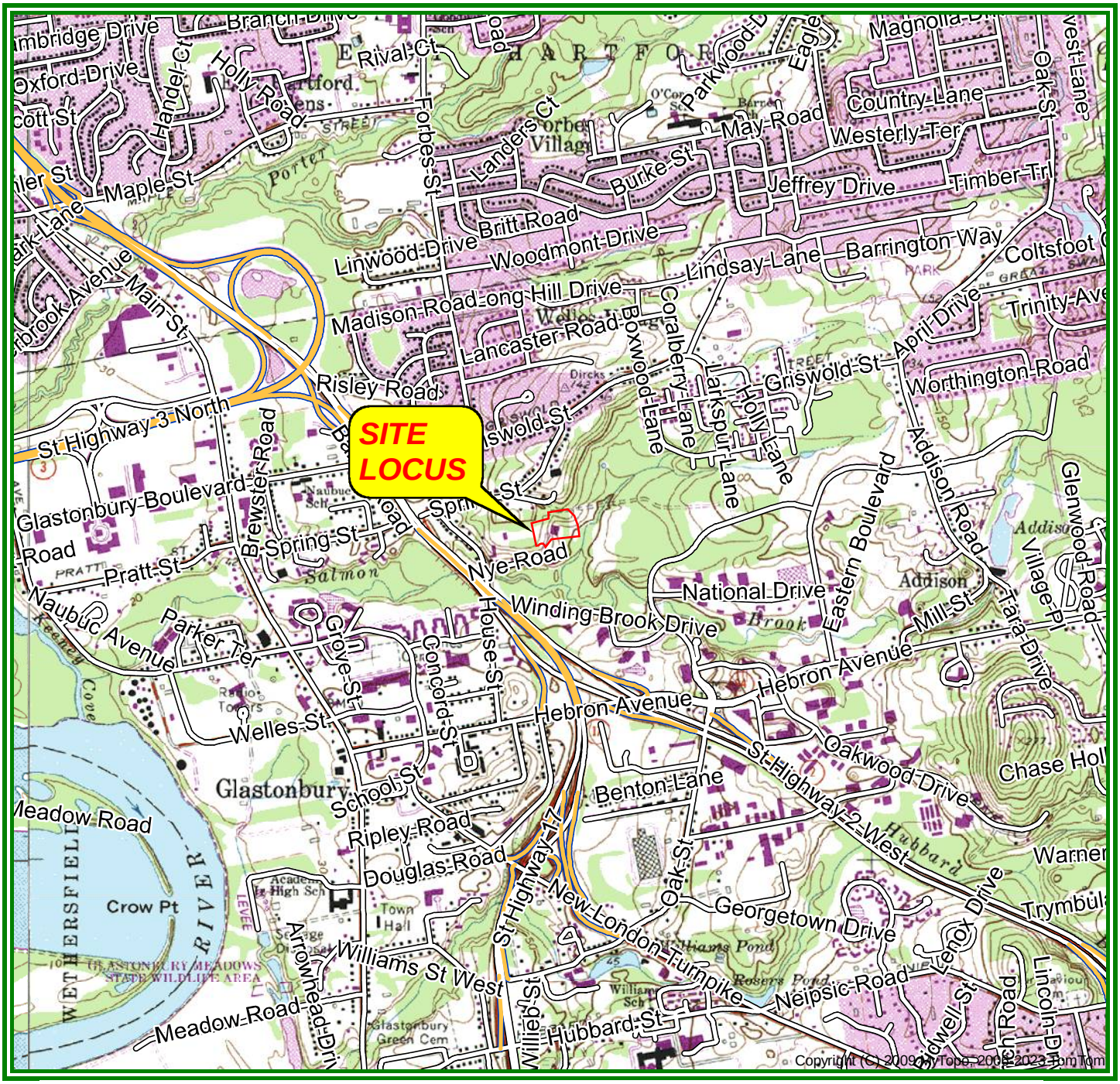
and rapid or very rapid in the underlying sandy materials. Penwood Loamy Sand and Manchester Gravelly Sandy Loam are depicted along the west side of the delineated wetlands. The Penwood series consists of very deep, excessively drained soils formed in sandy outwash. They are nearly level to strongly sloping soils on glaciofluvial landforms. Slope ranges from 0 to 15 percent. Saturated hydraulic conductivity is high or very high. The Manchester series consists of very deep, excessively drained soils formed in sandy and gravelly glacial outwash and stratified drift. They are nearly level to steep soils on outwash plains, terraces, kames, deltas and eskers. Slope ranges from 0 to 45 percent and saturated hydraulic conductivity is high or very high in the surface layer and subsoil, and very high in the substratum

The WEB Soil Survey Map is provided in Exhibit B.

Please contact the undersigned at 860-208-0360 if you have any questions or require further information. Thank you for the opportunity to be of service.

Sincerely,

Martin Brogie, LEP
Soil Scientist



GLASTONBURY Topographic 1964 41072-F5-TF-024 National Geodetic Vertical Datum 1929

N NE E SE S SW W NW

SCALE 1:24000

0 1000 2000 3000 4000 5000
FEET

0 1
MILE

Site Coordinates:
041° 43' 12.25" N, 072° 35' 55.69" W

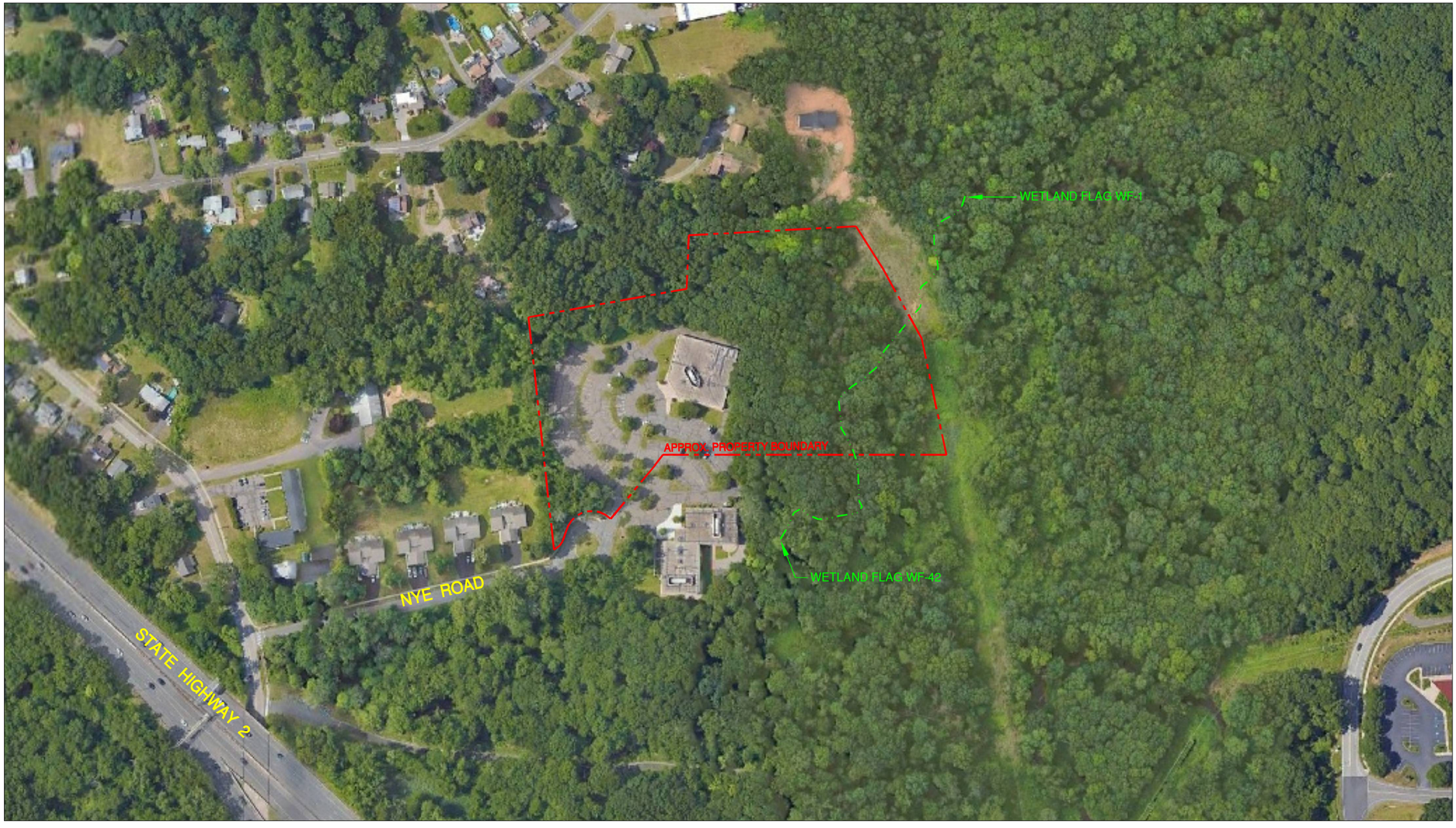
Project:
Nye Road

Martin Brogie, Inc.
ENVIRONMENTAL SERVICES

28 Arbor Lane, Madison, Connecticut 06443
ph: (860) 208-0360
email: martinbrogieinc@gmail.com

Site Location:
Nye Road,
Hartford County,
Glastonbury, Connecticut

Figure 1
Site Locus Map



SCALE

0 200 400

APPROXIMATE SCALE IN FEET

LEGEND

DELINEATED WETLAND LINES

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email: martinbrogieinc@gmail.com

Figure 2 - Aerial Site Plan

Nye Road, Glastonbury
Hartford County, Connecticut

Project:	Nye Road
Drawn by:	K. Hazel
Date:	10/7/23
Scale:	AS SHOWN

EXHIBIT A

PHOTOGRAPHS

Watercourse in northern portion of wetlands

Watercourse among Knotweed Stand

Floodplain bench area along adjacent slope.

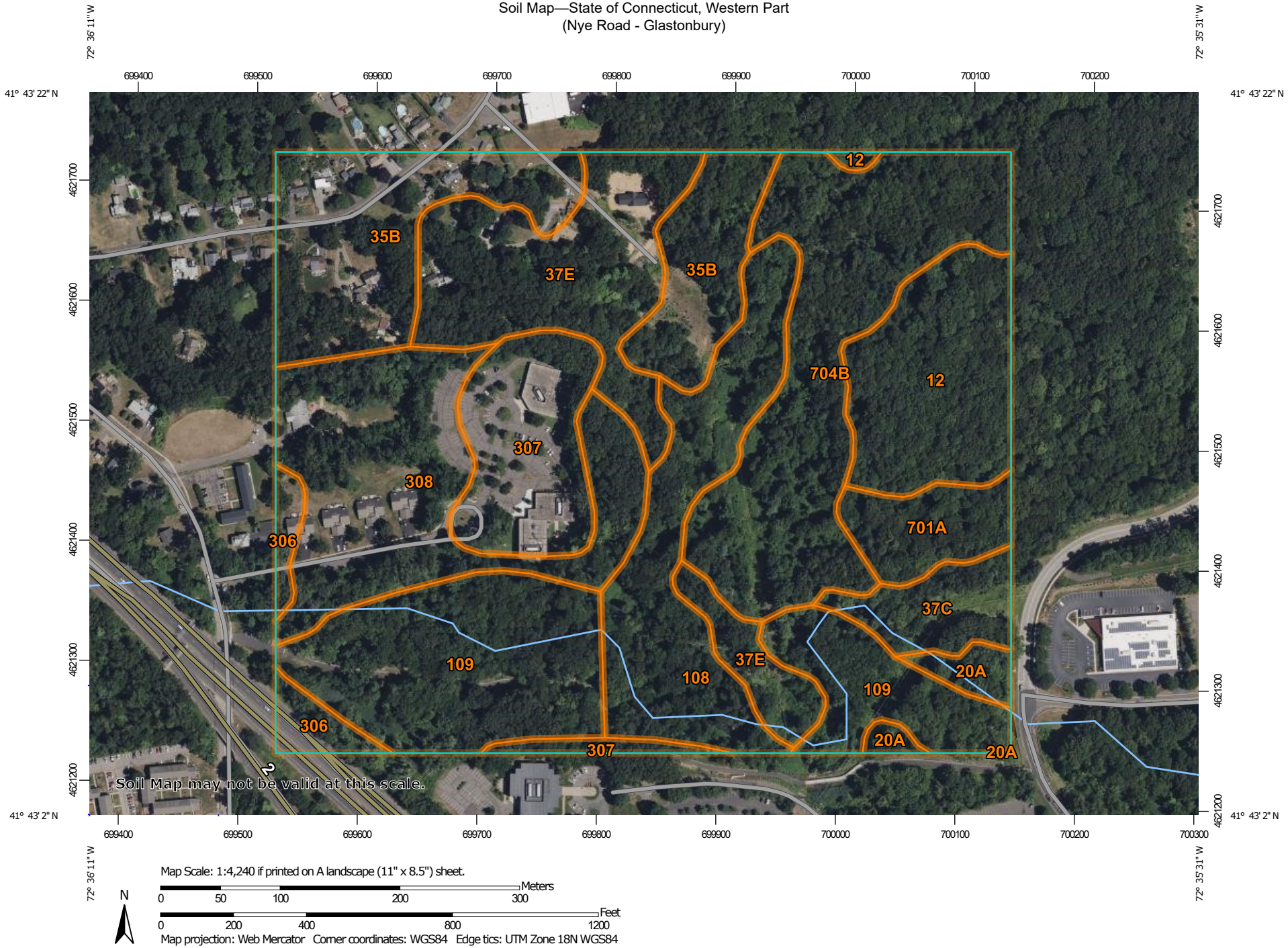
Cottonwood at Wetland Flag #10

Typical floodplain area

EXHIBIT B

SOIL SURVEY MAP

Soil Map—State of Connecticut, Western Part
(Nye Road - Glastonbury)



Map Scale: 1:4,240 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

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

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, Western Part
Survey Area Data: Version 1, Sep 15, 2023

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
12	Raypol silt loam, 0 to 3 percent slopes	6.0	7.9%
20A	Ellington silt loam, 0 to 5 percent slopes	1.0	1.2%
35B	Penwood loamy sand, 3 to 8 percent slopes	10.0	13.1%
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	2.2	2.8%
37E	Manchester gravelly sandy loam, 15 to 45 percent slopes	8.8	11.5%
108	Saco silt loam, frequently ponded, 0 to 2 percent slopes, frequently flooded	7.3	9.6%
109	Fluvaquents-Udifluvents complex, frequently flooded	11.3	14.8%
306	Udorthents-Urban land complex	1.3	1.8%
307	Urban land	5.2	6.8%
308	Udorthents, smoothed	9.7	12.7%
701A	Ninigret fine sandy loam, 0 to 3 percent slopes	2.3	3.0%
704B	Enfield silt loam, 3 to 8 percent slopes	11.2	14.7%
Totals for Area of Interest		**76.5**	**100.0%**