

Date: November 21, 2025
Revised November 26, 2025

Job No: 25.11857.00

To: Patricia Betro

Cc: Jonathan Niro, PWS, Project Manager

From: Laura Krause, Senior Project Manager
Elyse Tripp, Project Scientist

**Subject: 483 Thurston Street – Wrentham, MA
Site Assessment**

Introduction

On November 6th, 2025, a BETA Group, Inc. (BETA) Wetland Scientist visited 483 Thurston Street in Wrentham, MA (the Site) to review the Site for the presence of wetland resource areas Subject to Protection under the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131 Section 40 - the Act), the Town of Wrentham Wetlands Protection Bylaw (the Bylaw) and its Regulations.

This memorandum was revised on November 26, 2025 to confirm whether additional Resource Areas are present at 483 Thurston Street per the Client's request. Additional Resource Areas discussed in this revised memorandum include Riverfront Area and Isolated Land Subject to Flooding. The scope of services dated September 16, 2025 included only the delineation of vegetated wetlands at the Site, if any, and the preparation of a technical memorandum describing the delineated resource areas. No resource areas were delineated at the Site as noted in this memorandum.

Desktop Analysis

The Site consists of a 6.8-acre wooded property located east of the intersection of Thurston Street and Washington Street (Route 1) in Wrentham, MA. Based on a desktop review of the Site using MassMapper, an isolated wetland¹ is present at the southwest portion of the property within a topographic depression.

The presence of a wetland at 483 Thurston Street appears to be supported by historical aerial imagery available on MassMapper. This is represented by a visually darker area which typically represents water and is suggestive of a potential wetland in the 1990, 2001, and 2005 aerials (see attached). The 2005 aerial imagery shows potential disturbance at the Site and reduction in size of the potential wetland. Conditions at the Site within the location of a potential wetland appear generally consistent from the 2008/2009 aerial imagery to the 2023 aerial imagery (see attached).

Riverfront Area

According to 310 CMR 10.58(2), Riverfront Area is defined as the area of land between a river's Mean Annual High Water (MAHW) line, and a parallel line measured 200' away horizontally. Based on a review of recent USGS topographic maps, an unnamed perennial stream is located west of the Site across Route 1. Using aerial imagery and USGS maps as a reference, the perennial stream was conservatively measured to be approximately 250 feet from the property boundary at 483 Thurston Street at its closest point. Based on this assessment, there does not appear to be Riverfront Area located onsite.

¹ Using the MassDEP Wetlands (2005) data layer last updated in December 2017.



Isolated Land Subject to Flooding (ILSF)

According to 310 CMR 10.57(2)(b)1., ILSF is an isolated depression or closed basin without an inlet or an outlet. It is an area which at least once a year confines standing water to a volume of at least ¼ acre-foot and to an average depth of at least six inches. ILSF is also regulated under Section 7.2 of the Regulations of the Town of Wrentham Conservation Commission if the depression has a potential volume of at least 3,000 cubic feet and is not completely dry for more than one month of the year except during periods of extended drought as defined by the Massachusetts DEP.

No hydrologic connections were observed in the field, which indicates that this depression is isolated. Using the elevation 201 contour (per LiDAR data) as the conservative boundary of the depression, the volumetric capacity of the land area is 65,400 cubic feet, which takes into account a conservative average depth of 2 feet. Therefore, it was determined that the land area has the volume to support over a ¼ acre-foot (10,890 cubic feet) of standing water per the Wetlands Protection Act, as well as standing water in excess of 3,000 cubic feet per the Regulations of the Town of Wrentham Conservation Commission. However, there is no evidence from the field analysis to support that the area has confined standing water to any depth. As indicated below in the previously submitted memorandum, no evidence of hydrology was observed in the field. Common indicators of hydrology such as water-stained leaves, saturation, surface water, water marks, aquatic fauna, sediment deposits, moss trim lines, or drainage patterns were not observed. The lack of hydrology within the depression, regardless of its volume, indicates that it would not qualify as ILSF under the Act or the Bylaw.

Field Analysis

During the Site Visit, BETA reviewed the Site and the approximate location of the mapped wetland for evidence of hydrology, hydric soils and hydrophytic vegetation. The area was observed in the field with clear evidence of fill material and anthropogenic waste and debris. Two PVC pipes were observed onsite that appeared to be monitoring wells. Piles of apparent fill material were observed in addition to metal debris, chunks of concrete, tires, and household objects. With reference to 1-foot contours as depicted on MassMapper, the upper limit of fill generally corresponded with elevation 200².

Within the approximate area of the mapped wetland, vegetation consisted primarily of invasive or nuisance species including glossy false buckthorn (*Frangula alnus*), oriental bittersweet (*Celastrus orbiculatus*), and multiflora rose (*Rosa multiflora*). Once pussy willow (*Salix discolor*) was observed in poor condition but with evidence of new growth from the past growing season. Other trees observed included several northern catalpa (*catalpa speciosa*) estimated to be 25 to 30 feet in height with shallow, exposed roots. Dominant vegetation consisted of glossy false buckthorn and oriental bittersweet.

Over 12 soil plots were taken but could not be advanced greater than a depth of 14 inches due to rocky soils and large stones up to 1 foot in diameter or greater. Fill material containing small fragments of brick, plastic, and glass with a matrix color of 10YR 3/3 were observed in all soil plots. No evidence of hydrology or visible hydrologic connections were observed.

The upland area at the Site was vegetated with glossy false buckthorn, northern catalpa, eastern white pine (*Pinus strobus*), northern red oak (*Quercus rubra*), and black walnut (*Juglans nigra*). The typical soil profile consisted of sandy loam. Two profiles were logged within the upland areas that surround the area mapped as a wetland as follows:

- 10YR 2/2 matrix from 0 to 18 inches in depth, sandy loam
- 10YR 3/3 matrix from 0 to 20 inches and 10YR 4/4 from 20 to 25 inches in depth, sandy loam

Conclusion

Based on desktop analysis and field review, an isolated wetland may have been historically present at 483 Thurston Street. During the field assessment of current site conditions, no evidence of hydrology or hydric soils could be found. The ground, vine, and tree layers were dominated by upland species and the shrub layer consisted of only false glossy buckthorn, an invasive species classified as a Facultative by the US Forest Service.

² Using 1-Foot Elevation Contours for Central and Eastern MA last updated May 2023.

Attachments:

Attachment A – Photographic Documentation

Attachment B – Figures

ATTACHMENT A – Photographic Documentation

Photo 1



View of the area mapped as a wetland on MassMapper with evidence of debris—facing southeast.

Photo 2



View of stony fill encountered within the mapped wetland area.

PHOTOGRAPHIC DOCUMENTATION

483 Thurston Street

Wrentham, Massachusetts

Photographs Documented November 06, 2025

Photo 3



Another view of the area mapped as a wetland on MassMapper—facing north.

Photo 4



View of the upland area and potential monitoring well—facing southeast

PHOTOGRAPHIC DOCUMENTATION

483 Thurston Street

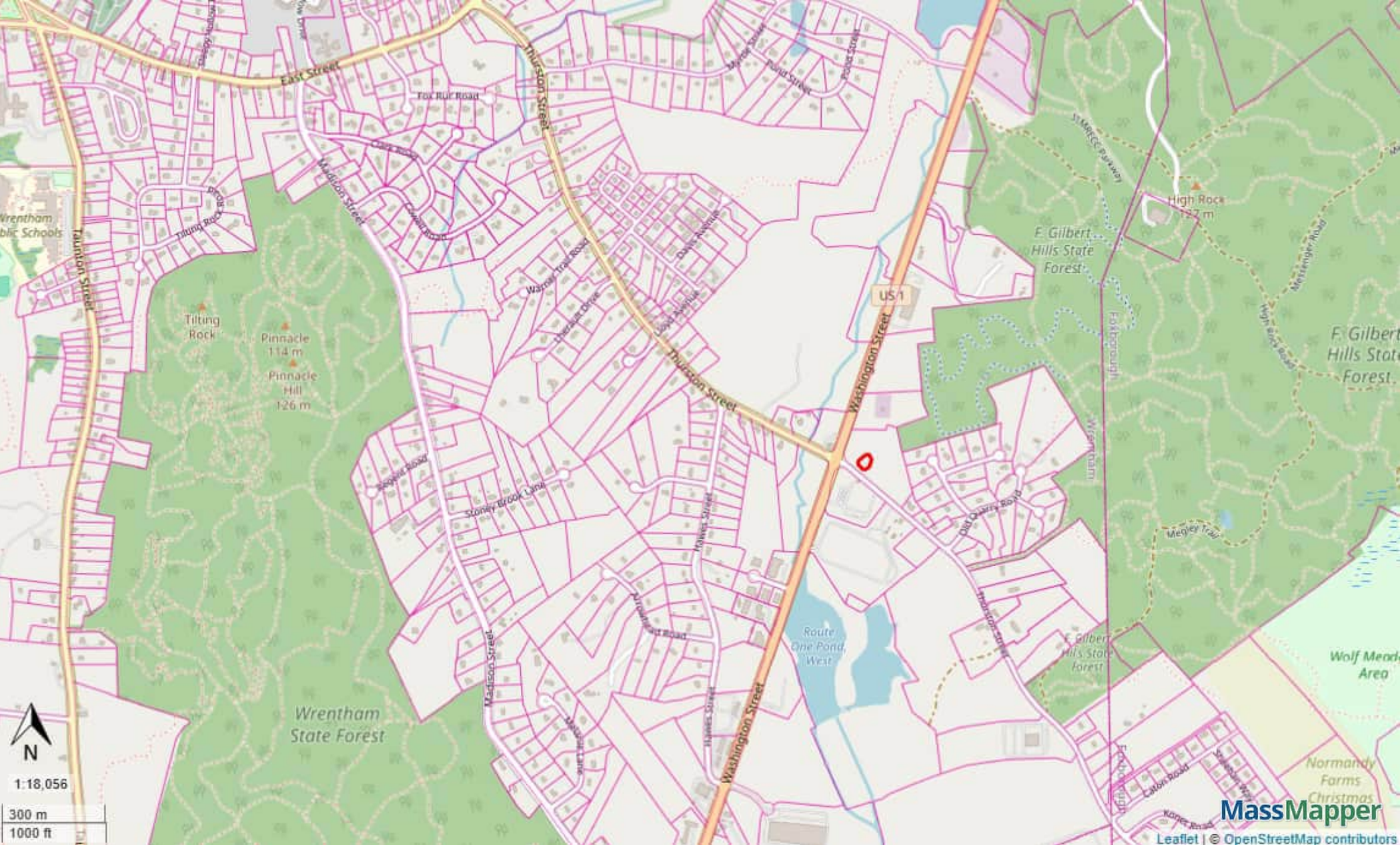
Wrentham, Massachusetts

Photographs Documented November 06, 2025

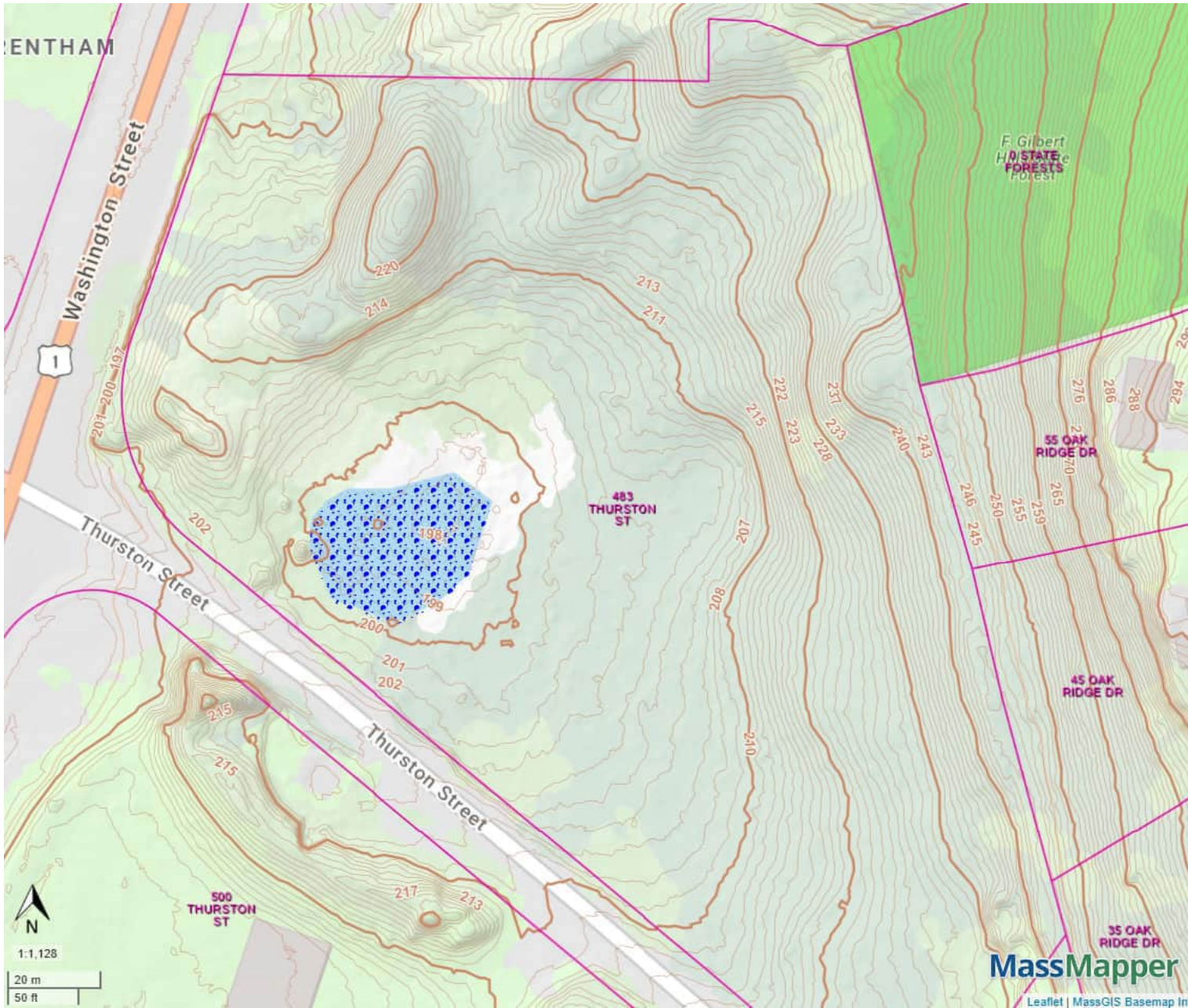
ATTACHMENT B – Figures

Site Locus

Property Tax Parcels



MassDEP Wetland

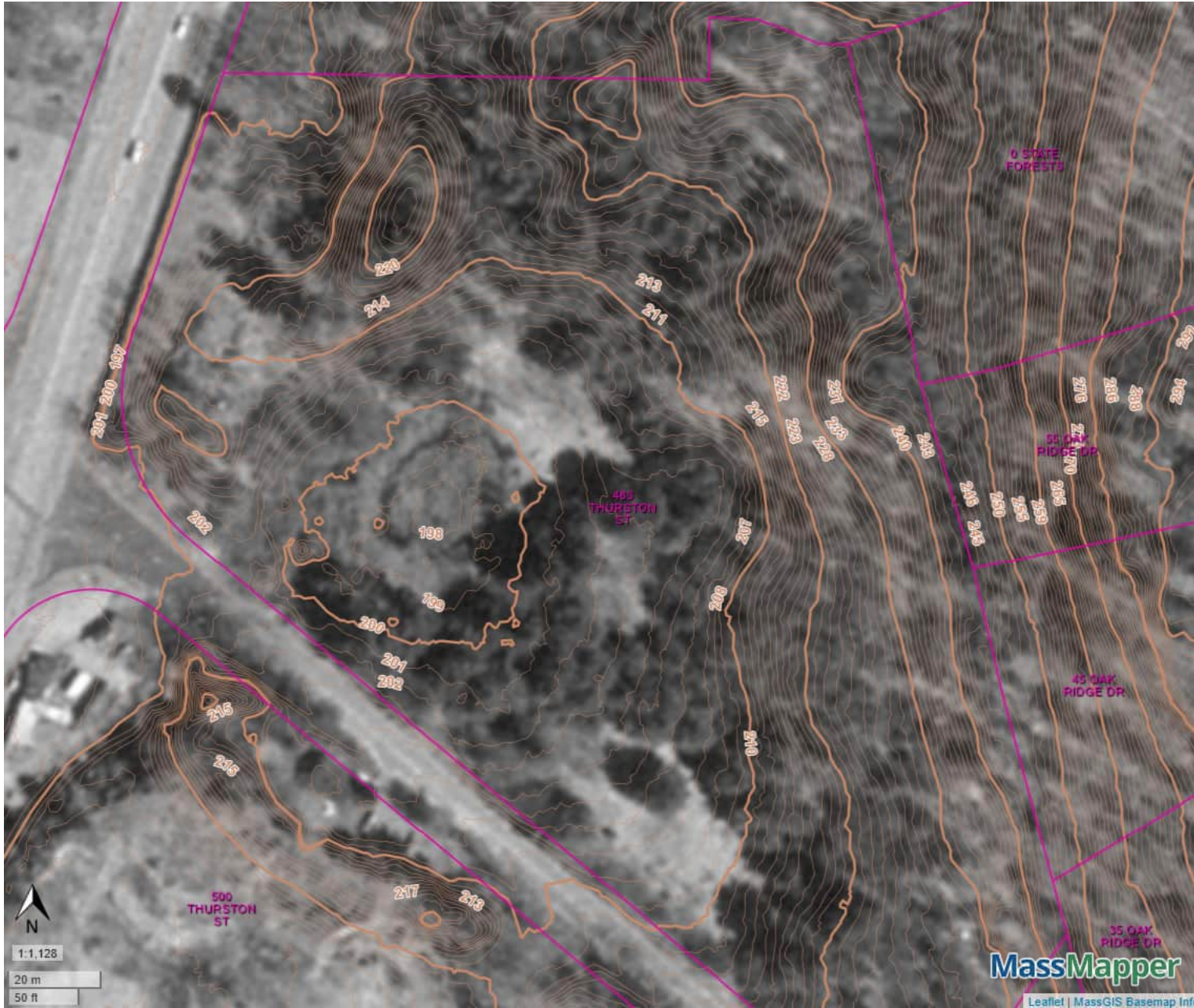


Property Tax Parcels
Contours 1ft (Labels in Feet)

DEP Wetlands Detailed

- Barrier Beach System
- Barrier Beach-Deep Marsh
- Barrier Beach-Wooded Swamp Mixed Trees
- Barrier Beach-Coastal Beach
- Barrier Beach-Coastal Dune
- Barrier Beach-Marsh
- Barrier Beach-Salt Marsh
- Barrier Beach-Shrub Swamp
- Barrier Beach-Wooded Swamp Coniferous
- Barrier Beach-Wooded Swamp Deciduous
- Bog
- Coastal Bank Bluff or Sea Cliff
- Coastal Beach
- Coastal Dune
- Cranberry Bog
- Deep Marsh
- Barrier Beach-Open Water
- Open Water
- Rocky Intertidal Shore
- Salt Marsh
- Shallow Marsh Meadow or Fen
- Shrub Swamp
- Tidal Flat
- Wooded Swamp Coniferous
- Wooded Swamp Deciduous
- Wooded Swamp Mixed Trees

1990's Imagery



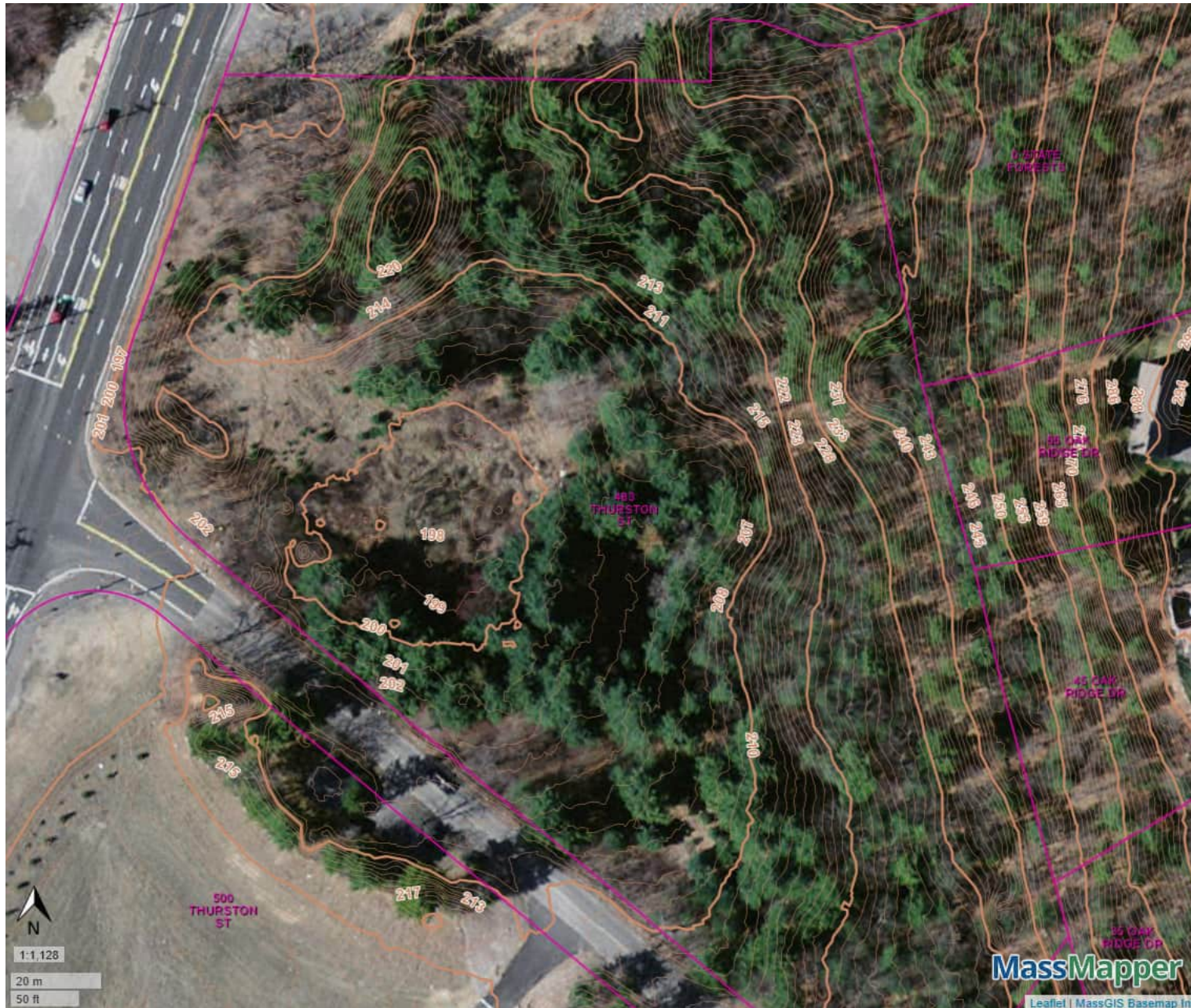
Property Tax Parcels
Contours 1ft (Labels in Feet)
1990s Black and White Aerial Imagery

2005 Imagery



Property Tax Parcels
Contours 1ft (Labels in Feet)
2005 Aerial Imagery

2008/2009 Imagery



Property Tax Parcels
Contours 1ft (Labels in Feet)
2008/2009 Aerial Imagery

2025 Imagery



Property Tax Parcels
Contours 1ft (Labels in Feet)
2023 Aerial Imagery