

## Three Oaks Environmental

P.O. Box 404  
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July 9, 2020

David Brunelle  
AH & DB Custom Homes Inc  
193 W. Boylston St.  
West Boylston, MA 01583

Re: Wetlands delineation, 227 Podunk Rd  
Sturbridge, conducted on 6/29/20  
9 AM, sunny, 77°F

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I was tasked with determining if there were any wetland resource areas subject to either the MA Wetlands Protection Act or the Sturbridge Wetlands Bylaw on or near the above-referenced parcel. The property has been subdivided from a larger farm field parcel. Along the eastern side of the field is a forested area. The NRCS soils mapping indicates the presence of Ridgebury fine sandy loam which is a hydric soil. The wetland boundary in the woods is uneven coming close to the edge of the woods and then moving away. Though I delineated the entire wetland boundary parallel to the field, only that portion at the rear of lot 227 is relevant to the Notice of Intent that will be filed for construction of a single-family home and septic system partly within the 200-foot Sturbridge Wetlands Bylaw Buffer Zone. There is about 125 -130 feet of wetland boundary that extends the 200-foot Buffer Zone onto the farm field.

I used pink flagging beginning with number W1 by the stonewall on the property line to the south where the vegetation exceeded 50% wetland plant species as noted below. Evidence of hydrology included water-stained leaves and occasional puddles at the surface.



Vegetation in the wetland includes: sensitive fern, red maple, jewelweed, poison ivy  
Cinnamon fern, jack-in-the-pulpit, wild geranium, and winterberry holly.

Vegetation in the upland includes: Virginia creeper, black cherry, witch hazel,  
Bracken fern, white pine, red oak, white ash, red clover, daisies, hay-scented  
fern, blackberries, Japanese barberry, true Solomon's seal, and Asian bittersweet.

The soil in the upland is a Woodbridge fine sandy loam as noted on the NRCS soil mapping (see attached). This is consistent with soils I augered in the field. I have attached the MassGIS data layers depicting the area noting the lack of any FEMA floodplain, designated rare species habitat, or certified vernal pools on the site. MassGIS mapping also shows that there are no Outstanding Resource Waters (ORW) on the site. I have attached copies of the various MassGIS maps.

Please let me know if there is any other information you need for this site.

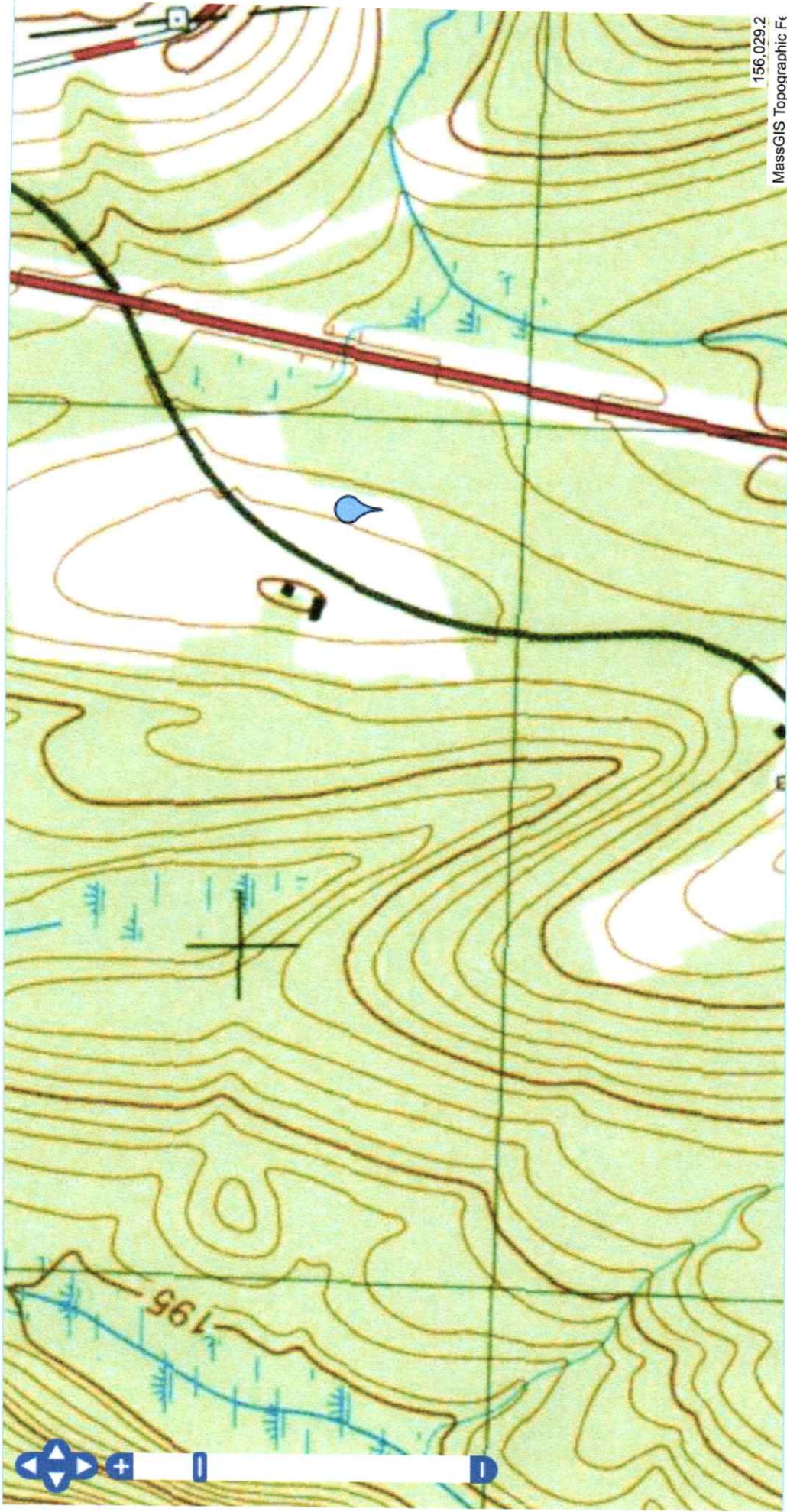
Sincerely  
MaryAnn DiPinto  
[threeoaksenvironmental@gmail.com](mailto:threeoaksenvironmental@gmail.com)  
Enclosures





227 PODUNK RD STURBRIDGE

Zoom to a town

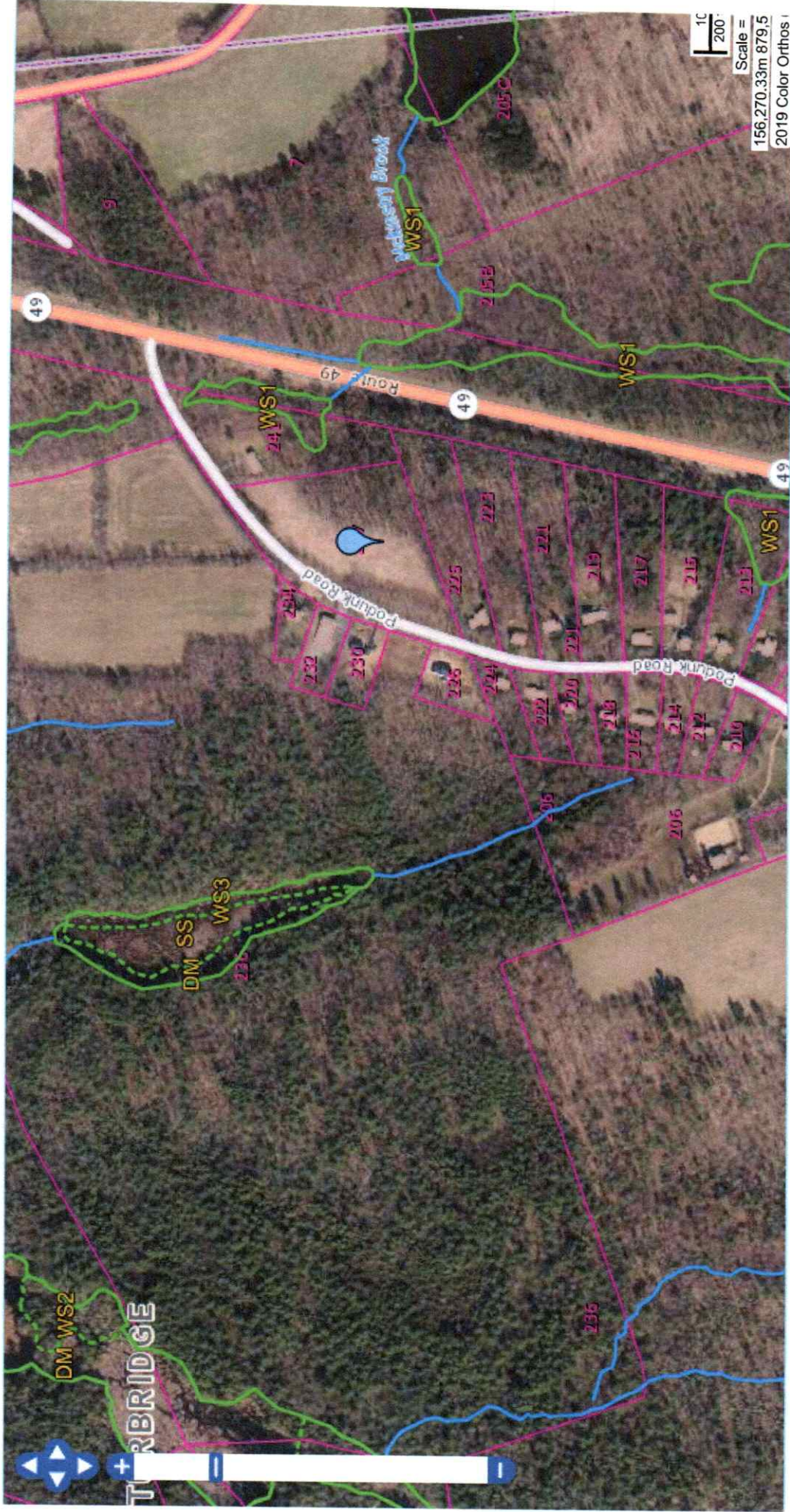


0 m

156,029.2  
MassGIS Topographic Fr

227 PODUNK RD STURBRIDGE

Zoom to a town



0 m

Basel

227 podunk rd sturbridge

Zoom to a town



0 m

50 m  
100 ft  
Scale = 1:4,514  
155,871.76m 879,573.09m

MassGIS Topographic Features Basemap

Basemaps

**Available Data Layers**

Search data layers

Status / Availability (maps showing where data is av

**Active Data Layers**

Check all Uncheck all

- NHESP Certified Vernal Pools
- NHESP Estimated Habitats of Rare Wildlife
- Potential Vernal Pools

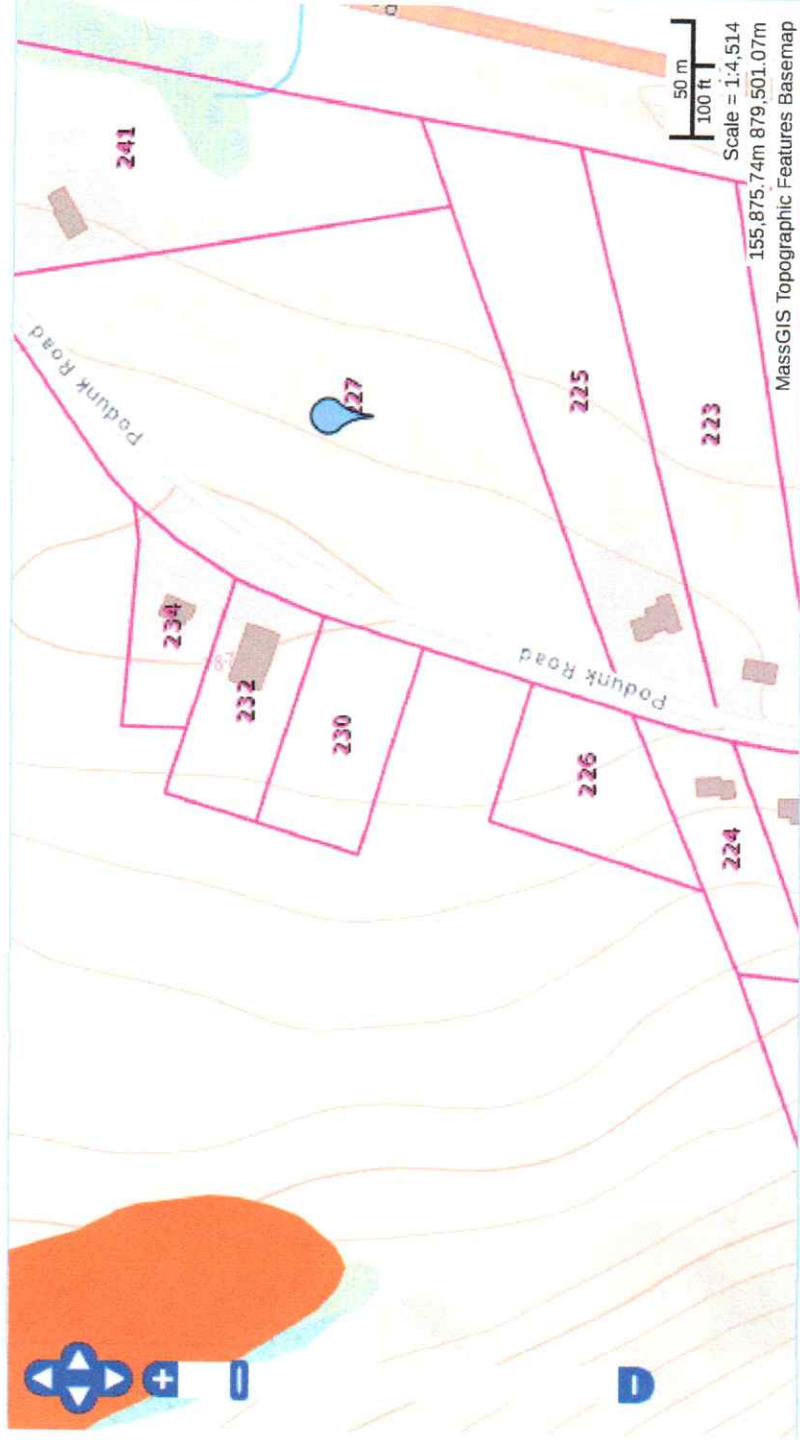
**Legend**

- NHESP Certified Vernal Pools
- NHESP Estimated Habitats of Rare Wildlife
- Potential Vernal Pools
- NHESP Priority Habitats of Rare Species

Tax Parcels for Query

227 podunk rd sturbridge

Zoom to a town



0 m

Basemaps

**Available Data Layers**

Search data layers

- FEMA Flood Data (Most Current)
- Q3 Flood Zones (from Paper FIRMs, where N)
- FEMA National Flood Hazard Layer Polygons
- FEMA Q3 Flood from Paper FIRMs
- Ground Water Discharge

**Active Data Layers**

Check all Uncheck all

**Legend**

FEMA National Flood Hazard Layer Polygons

- A: 1% Annual Chance of Flooding, no BFE
- AE: 1% Annual Chance of Flooding, with B
- AE: Regulatory Floodway
- AH: 1% Annual Chance of 1-3ft Ponding, v
- AO: 1% Annual Chance of 1-3ft Sheet Flow
- VE: High Risk Coastal Area
- D: Possible But Undetermined Hazard
- X: 0.2% Annual Chance of Flooding
- X: 1% Drainage Area < 1 Sq. Mi.
- X: Reduced Flood Risk due to Levee

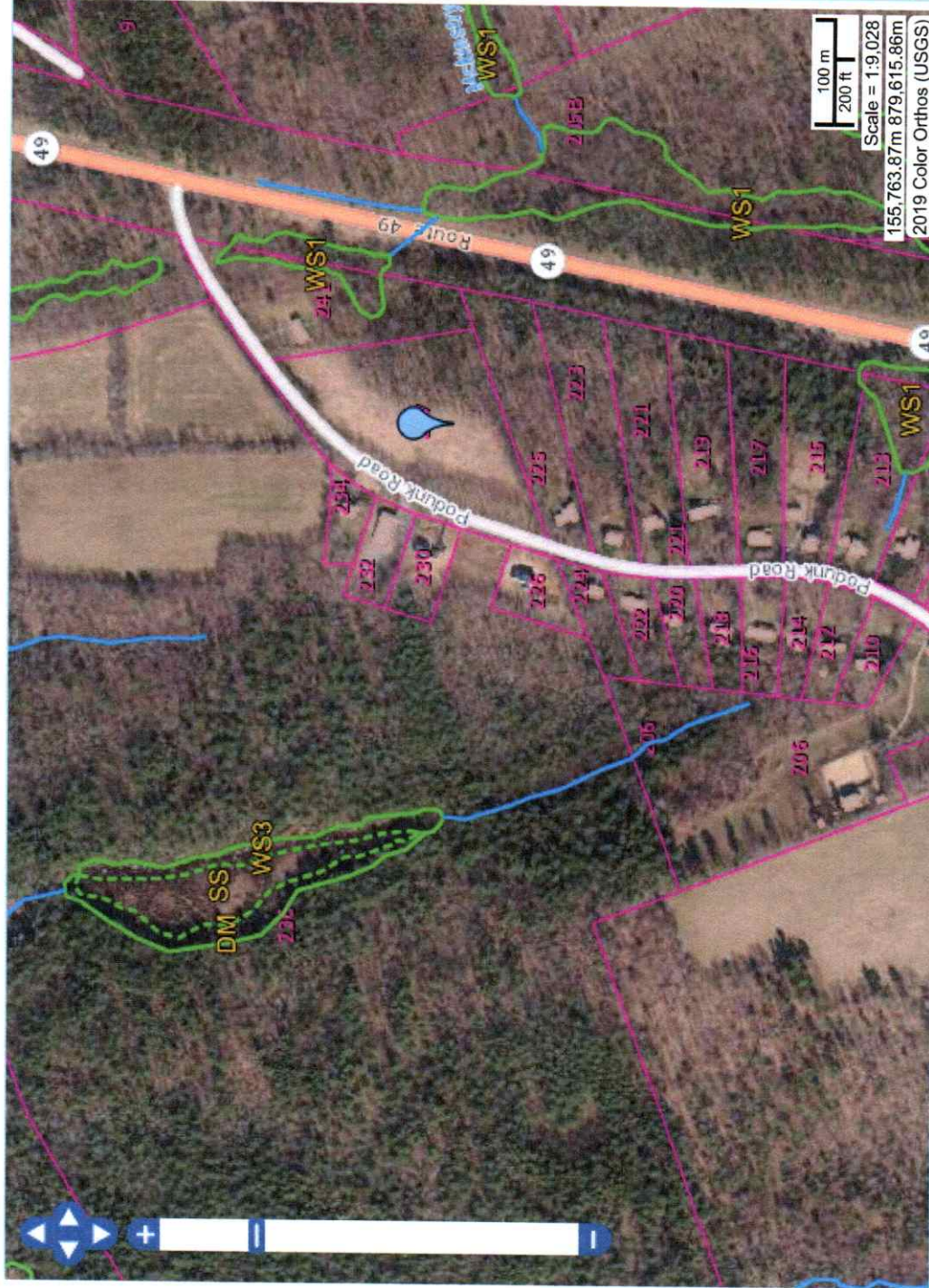
Area Not Included

Area with no DFIRM - Paper FIRMs in Effect



227 PODUNK RD STURBRRII

Zoom to a town



0 m

Basemaps

Available Data Layers

Search data layers

- Ocean Mask
- Outstanding Resource Waters

Active Data Layers

- Check all
- Uncheck all
- Outstanding Resource Waters

Legend

Outstanding Resource Waters

- ACEC
- Cape Cod National Seashore
- Protected Shoreline
- Public Water Supply Watershed
- Retired Public Water Supply
- Scenic/Protected River
- Wildlife Refuge
- DEP Wetlands

DEP Wetlands Arcs

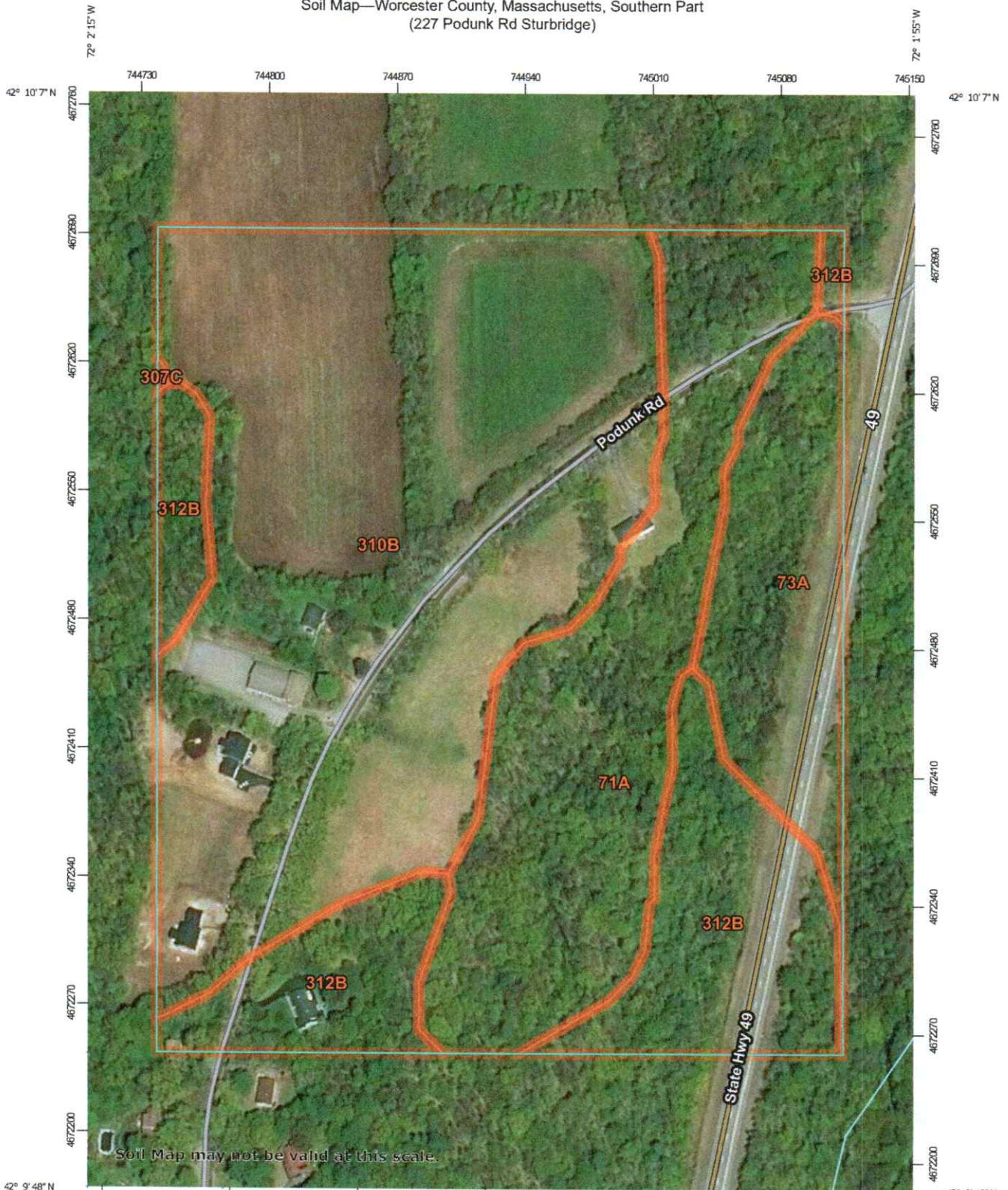
- SHORELINE
- HYDROLOGIC CONNECTION
- MEAN WATER LINE
- APPARENT WETLAND LIMIT
- CLOSURE LINE
- EDGE OF INTERPRETED AREA

Tax Parcels for Query





Soil Map—Worcester County, Massachusetts, Southern Part  
(227 Podunk Rd Sturbridge)



Map Scale: 1:2,910 if printed on A portrait (8.5" x 11") sheet.



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

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
71A	Ridgebury fine sandy loam, 0 to 3 percent slopes, extremely stony	9.1	21.6%
73A	Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony	4.4	10.4%
307C	Paxton fine sandy loam, 8 to 15 percent slopes, extremely stony	0.0	0.0%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	20.9	49.8%
312B	Woodbridge fine sandy loam, 0 to 8 percent slopes, extremely stony	7.6	18.1%
<b>Totals for Area of Interest</b>		<b>41.9</b>	<b>100.0%</b>

## Worcester County, Massachusetts, Southern Part

### 310B—Woodbridge fine sandy loam, 3 to 8 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2t2ql  
*Elevation:* 0 to 1,470 feet  
*Mean annual precipitation:* 36 to 71 inches  
*Mean annual air temperature:* 39 to 55 degrees F  
*Frost-free period:* 140 to 240 days  
*Farmland classification:* All areas are prime farmland

#### Map Unit Composition

*Woodbridge, fine sandy loam, and similar soils:* 82 percent  
*Minor components:* 18 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Woodbridge, Fine Sandy Loam

##### Setting

*Landform:* Hills, drumlins, ground moraines  
*Landform position (two-dimensional):* Backslope, footslope, summit  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Parent material:* Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

##### Typical profile

*Ap - 0 to 7 inches:* fine sandy loam  
*Bw1 - 7 to 18 inches:* fine sandy loam  
*Bw2 - 18 to 30 inches:* fine sandy loam  
*Cd - 30 to 65 inches:* gravelly fine sandy loam

##### Properties and qualities

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* 20 to 39 inches to densic material  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.14 in/hr)  
*Depth to water table:* About 18 to 30 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Salinity, maximum in profile:* Nonsaline (0.0 to 1.9 mmhos/cm)  
*Available water storage in profile:* Low (about 3.6 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* C/D

*Ecological site:* Moist Dense Till Uplands (F144AY037MA)  
*Hydric soil rating:* No

### Minor Components

#### Paxton

*Percent of map unit:* 10 percent  
*Landform:* Drumlins, hills, ground moraines  
*Landform position (two-dimensional):* Backslope, summit, shoulder  
*Landform position (three-dimensional):* Side slope, crest, nose slope  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

#### Ridgebury

*Percent of map unit:* 8 percent  
*Landform:* Drainageways, hills, ground moraines, depressions  
*Landform position (two-dimensional):* Backslope, footslope, toeslope  
*Landform position (three-dimensional):* Head slope, base slope, dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

## Data Source Information

Soil Survey Area: Worcester County, Massachusetts, Southern Part  
Survey Area Data: Version 13, Jun 11, 2020

## Worcester County, Massachusetts, Southern Part

### 71A—Ridgebury fine sandy loam, 0 to 3 percent slopes, extremely stony

#### Map Unit Setting

*National map unit symbol:* 2w69b

*Elevation:* 0 to 1,480 feet

*Mean annual precipitation:* 36 to 71 inches

*Mean annual air temperature:* 39 to 55 degrees F

*Frost-free period:* 140 to 240 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Ridgebury, extremely stony, and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Ridgebury, Extremely Stony

##### Setting

*Landform:* Drainageways, hills, ground moraines, depressions, drumlins

*Landform position (two-dimensional):* Toeslope, footslope

*Landform position (three-dimensional):* Base slope, head slope

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Parent material:* Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

##### Typical profile

*Oe - 0 to 1 inches:* moderately decomposed plant material

*A - 1 to 6 inches:* fine sandy loam

*Bw - 6 to 10 inches:* sandy loam

*Bg - 10 to 19 inches:* gravelly sandy loam

*Cd - 19 to 66 inches:* gravelly sandy loam

##### Properties and qualities

*Slope:* 0 to 3 percent

*Percent of area covered with surface fragments:* 9.0 percent

*Depth to restrictive feature:* 15 to 35 inches to densic material

*Natural drainage class:* Poorly drained

*Runoff class:* Very high

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.14 in/hr)

*Depth to water table:* About 0 to 6 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Salinity, maximum in profile:* Nonsaline (0.0 to 1.9 mmhos/cm)

*Available water storage in profile:* Low (about 3.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7s

*Hydrologic Soil Group:* D

*Ecological site:* Wet Till Depressions (F144AY009CT)

*Hydric soil rating:* Yes

### Minor Components

#### Whitman, extremely stony

*Percent of map unit:* 7 percent

*Landform:* Depressions

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Hydric soil rating:* Yes

#### Woodbridge, extremely stony

*Percent of map unit:* 7 percent

*Landform:* Hills, ground moraines, drumlins

*Landform position (two-dimensional):* Footslope, summit

*Landform position (three-dimensional):* Crest, base slope

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Hydric soil rating:* No

#### Paxton, extremely stony

*Percent of map unit:* 1 percent

*Landform:* Drumlins, hills, ground moraines

*Landform position (two-dimensional):* Shoulder, summit

*Landform position (three-dimensional):* Crest

*Down-slope shape:* Linear, convex

*Across-slope shape:* Convex, linear

*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Worcester County, Massachusetts, Southern Part

Survey Area Data: Version 13, Jun 11, 2020