

January 6, 2021

Mr. Jim Barrett, AIA
DRA Architects
225 Oakland Road, Studio 205
South Windsor, CT 06074

**Re: Wetland Delineation Report
Pleasant Valley Elementary School
591 Ellington Road
South Windsor, Connecticut
SLR #141.13057.00104.0070**

Dear Mr. Barrett:

On August 7, 2020, Matthew Sanford, Professional Wetland Scientist (PWS) and Registered Soil Scientist with SLR International Corporation (formerly Milone & MacBroom, Inc.) and Aidan Barry, Professional in Training, completed a wetland delineation around Pleasant Valley Elementary School in South Windsor, Connecticut. Our delineation was limited to the area bordering Ellington Road and Long Hill Road (Figure 1). The project area consists of seven parcels and totals approximately 24 acres of which approximately 0.32 acres of the property are flagged as wetlands.

Inland wetlands and watercourses on the project site were delineated in accordance with the regulations of the Town of South Windsor, Connecticut, and the State of Connecticut Inland Wetlands and Watercourses Act, CGS 22a-36 through 45. Regulated wetland areas consist of any of the soil types designated by the National Cooperative Soils Survey as poorly drained, very poorly drained, alluvial, or floodplain. Regulated watercourses consist of rivers; streams; brooks; waterways; lakes; ponds; marshes; swamps; bogs; and all other bodies of water, natural or artificial, vernal or intermittent, public or private, not regulated pursuant to Sections 22a-28 to 22a-35 inclusive (tidal wetlands).

Weather conditions were sunny and dry, with an air temperature of approximately 85 °F. Site conditions were suitable for wetland delineation work.

Soils were examined using a Dutch auger. Geospatial data was accessed via the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) web soil survey mapping. The soil survey mapping is appended. The survey identified the following soil mapping units with associated NRCS map number in the project area:

- Windsor (36)
- Udorthents (306)
- Ninigret (701)

Our field investigations confirmed the NRCS resource mapping with modified urban Udorthents complex covering the majority of the property adjacent to the school buildings. Much of the area to the east of the school was comprised of excessively drained Windsor sandy loam. North of the school, along Ellington Road was a small area of moderately well-drained Ninigret sandy loam. No poorly drained soils were indicated in the NRCS resource mapping. However, two wetlands were identified, north of the existing school building (see Figure 2). These wetlands are represented by the following wetland flags:

- Wetland A: flags WA-1 through WA-10
- Wetland B: flags W-1 through W-18

Wetland A

Wetland A is classified as a palustrine broad-leaved deciduous forested wetland and consists of a canopy dominated by red maple (*Acer rubrum*), American elm (*Ulmus americana*), and pin oak (*Quercus palustris*). The understory varies from relatively sparse areas to moderately dense areas consisting of common winterberry (*Ilex verticillata*), American elderberry (*Sambucus canadensis*), multiflora rose (*Rosa multiflora*), sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmundastrum cinnamomeum*), soft rush (*Juncus effusus*), poison ivy (*Toxicodendron radicans*), jewelweed (*Impatiens carpensis*), and various carex species. Along the northern portion of the wetland, there is evidence of seasonal ponding as indicated by the presence of dark stained leaves, buttressed tree trunks, and water lines/moss lines on tree trunks. Typical seasonal ponding depth varies from 2 to 4 inches of water. A small man-made earthen berm is found along the northern limits of the wetland and may cause part of the seasonal ponding within the wetland. Anthropogenic debris (i.e., old farm equipment) was found within this wetland. This wetland does not serve as a vernal pool. The wetland is supported hydrologically by stormwater runoff from adjacent upland areas. It should be noted that the wetland has no hydrologic connection to any other wetlands on or near the property.

Wetlands perform certain functions and possess values based on wetland type, hydrologic connectivity, habitat, and a variety of other measurable parameters. Based on our observations, Wetland A provides limited functions and values because of its small size, landscape position, and anthropogenic disturbance. The principal functions and values include nutrient retention and limited wildlife habitat.

Wetland B

Wetland B is classified as a mixed palustrine persistent emergent marsh/meadow. The meadow portion of the wetland is vegetated with common boneset (*Eupatorium perfoliatum*), blue vervain (*Verbena hastata*), common tearthumb (*Persicaria sagittata*), soft rush (*Juncus effusus*), and common fox sedge (*Carex vulpinoidea*). The emergent marsh wetland vegetation consists of broad-leaved cattail (*Typha angustifolia*), sensitive fern (*Onoclea sensibilis*), jewelweed (*Impatiens carpensis*), purple loosestrife (*Lythrum salicaria*), silky dogwood (*Swida racemosa*), and American elderberry. The periphery of the wetland is scattered with trees including red maple, pin oak, and willow (*Salix* sp). This wetland appears to be man-made and was likely established as a result of site grading associated with construction of the school. The wetland is supported hydrologically by groundwater breakout along the eastern sloped forested upland and stormwater surface runoff from surrounding forested, lawn, and paved areas. Similar

to Wetland A, Wetland B is hydrologically isolated from other wetlands on or near the project site. Yard drains convey excess surface water from this wetland into the school's existing stormwater drainage system.

Based on our observations, Wetland B provides limited functions and values because of its small size, landscape position, and anthropogenic disturbance. The principal functions and values of Wetland B are nutrient retention, limited wildlife habitat, and groundwater discharge.

If you have any questions regarding this soils report, please do not hesitate to call me at (203) 271-1773 or email me at msanford@slrconsulting.com.

Sincerely,

SLR International Corporation



Matthew J. Sanford, MS, PWS, RSS
US Manager of Ecology

Enclosures:

- NRCS Soil Survey Map (Figure 1)
- Wetland Flag Sequences (Figure 2)

3057.104.07.j621.ltr.docx

Soil Map—State of Connecticut
Pleasant Valley School
591 Ellington Road - South Windsor, CT

Figure 1



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 20, Jun 9, 2020

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

Date(s) aerial images were photographed: Jul 15, 2019—Aug 29, 2019

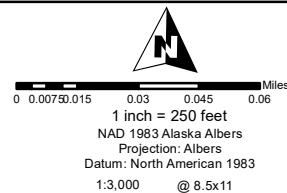
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
36A	Windsor loamy sand, 0 to 3 percent slopes	0.8	3.0%
36B	Windsor loamy sand, 3 to 8 percent slopes	13.8	51.7%
304	Udorthents, loamy, very steep	0.0	0.0%
306	Udorthents-Urban land complex	11.3	42.1%
701B	Ninigret fine sandy loam, 3 to 8 percent slopes	0.8	3.0%
Totals for Area of Interest		26.7	100.0%



- Legend:**
- Wetland Flags
 - Wetland Boundary
 - Wetland
 - Project Parcel
 - South Windsor Parcels



Project No.: 141.13571.00104

Site/Report: DRA ARCHITECTS
 PLEASANT VALLEY ELEMENTARY SCHOOL
 591 ELLINGTON ROAD
 SOUTH WINDSOR, CONNECTICUT

Drawing: **WETLAND DELINEATION**

Date: JANUARY 5, 2021
 By: ATB

Figure: 2