

March 17, 2020

Mr. Bill Pastyrnak  
Counter Weight Brewing Co.  
23 Raccio Park Road  
Hamden, CT 06514

**RE: Soil Scientist Report  
Proposed Brewery  
7 Diana Court  
Cheshire, Connecticut  
MMI #7073-01-02**

Dear Mr. Pastyrnak:

On March 5, 2020, Matthew J. Sanford, professional wetland scientist (PWS) and registered soil scientist, and Alyse Oziolor, wetland professional in training (WPIT), with Milone & MacBroom, Inc. (MMI) completed a wetland delineation on the property located at 7 Diana Court in Cheshire, Connecticut (Figure 1). Inland wetlands and watercourses within the project area were delineated in accordance with the regulations of the Town of Cheshire, 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 Soil 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). Intermittent watercourses are defined as having a defined 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 a duration longer than a particular storm incident, and C) the presence of hydrophytic vegetation.

Weather conditions were suitable for delineation activities (i.e., no snow or ice was present). Ambient temperature was 60 °F, and conditions were clear and sunny on the day of the delineation.

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:

- Raynham silt loam (10)
- Ellington silt loam (20A)
- Belgrade silt loam (27A)
- Manchester gravelly sandy loam (37C)
- Udorthents-Urban land complex (306)

Though NRCS resource mapping identified hydric soils (Raynham silt loam) across the northern portion of the project area, only upland and udorthent soils were identified on the site except for one man-made stormwater basin adjacent to Diana Court. Soils across the site have been significantly altered due to past site development. The northern half of the property is occupied by a commercial building, parking area, maintained lawn areas, and man-made drainage features (stormwater basin and drainage swales). A gas pipeline runs north-south along the eastern property limits, and large fill piles and excavated areas comprise the southern half of the property. Urban fill material and compacted soils characterize much of the site.

An intermittent watercourse/drainage swale was delineated along the northwest portion of the property. This watercourse/drainage swale appears to be man-made based on the presence of abrupt banks (i.e., made by an excavator) and evidence of small fill piles deposited along its banks. This intermittent watercourse/drainage swale flows north and discharges into a second intermittent watercourse that enters the property from the west. This second intermittent watercourse is culverted beneath Diana Court and daylighted on the east side of Diana Court. The second intermittent watercourse flows south to the confluence with Honeyplot Brook, which discharges to the Quinnipiac River approximately 0.7 miles southeast of the property.

The delineated intermittent watercourse/drainage swale picks up seasonal groundwater discharges and surface water runoff from the properties located to the west and south. The intermittent watercourse/drainage swale consists of a silt-bottom channel though dumped riprap is incorporated within upstream reaches of its channel. The watercourse is approximately 2 to 3 feet wide. Hydrology within this channel is seasonal, and water depths range from 1 to 4 inches during the winter and spring months. During the drier portions of the year, this watercourse/drainage swale is dry. The banks of the intermittent watercourse are comprised of native and non-native woody vegetation including red maple (*Acer rubrum*), tree of heaven (*Ailanthus altissima*), black locust (*Robinia pseudoacacia*), black tupelo (*Nyssa sylvatica*), grey birch (*Betula populifolia*), eastern cottonwood (*Populus deltoides*), multiflora rose (*Rosa multiflora*), spicebush (*Lindera benzoin*), silky dogwood (*Cornus amomum*), wineberry (*Rubus phoenicolasius*), and Oriental bittersweet (*Celastrus orbiculatus*).

No other state or federal wetlands and/or watercourses were identified on the property. A constructed stormwater basin was observed adjacent to Diana Court to the east of the existing commercial building and parking area. This stormwater basin contains poorly drained hydric soils with riprap incorporated. The basin supports growth of woody vegetation including pussy willow (*Salix discolor*) and red maple trees, silky dogwood, spicebush, multiflora rose, and Oriental bittersweet. Common reed (*Phragmites australis*) was also observed within the basin. An outlet control riprapped berm located at the southern end of the basin separates the basin from a riprapped drainage swale that directs stormwater beneath Diana Court to the intermittent watercourse to the east.

In addition to the stormwater basin, a section of the gas line located south of the existing parking lot has the presence of hydrophytic vegetation including a few plants of common reed, soft rush (*Juncus effusus*), and meadowsweet (*Spirea latifolia*). The soils within this area have been heavily compacted by the installation of the gas line and the ongoing construction-related activities associated with the adjacent construction yard. Compacted tire ruts with shallow puddles of surface water are present. The soils within this area were reviewed, and based on our observations of the soil cores (i.e., soil chroma, value, and hue), this area does not qualify as a hydric soil wetland.

If you have any questions regarding this soil report, please do not hesitate to contact either of us at (203) 271-1773.

Very truly yours,

MILONE & MACBROOM, INC.

Handwritten signature of Matthew J. Sanford in blue ink.

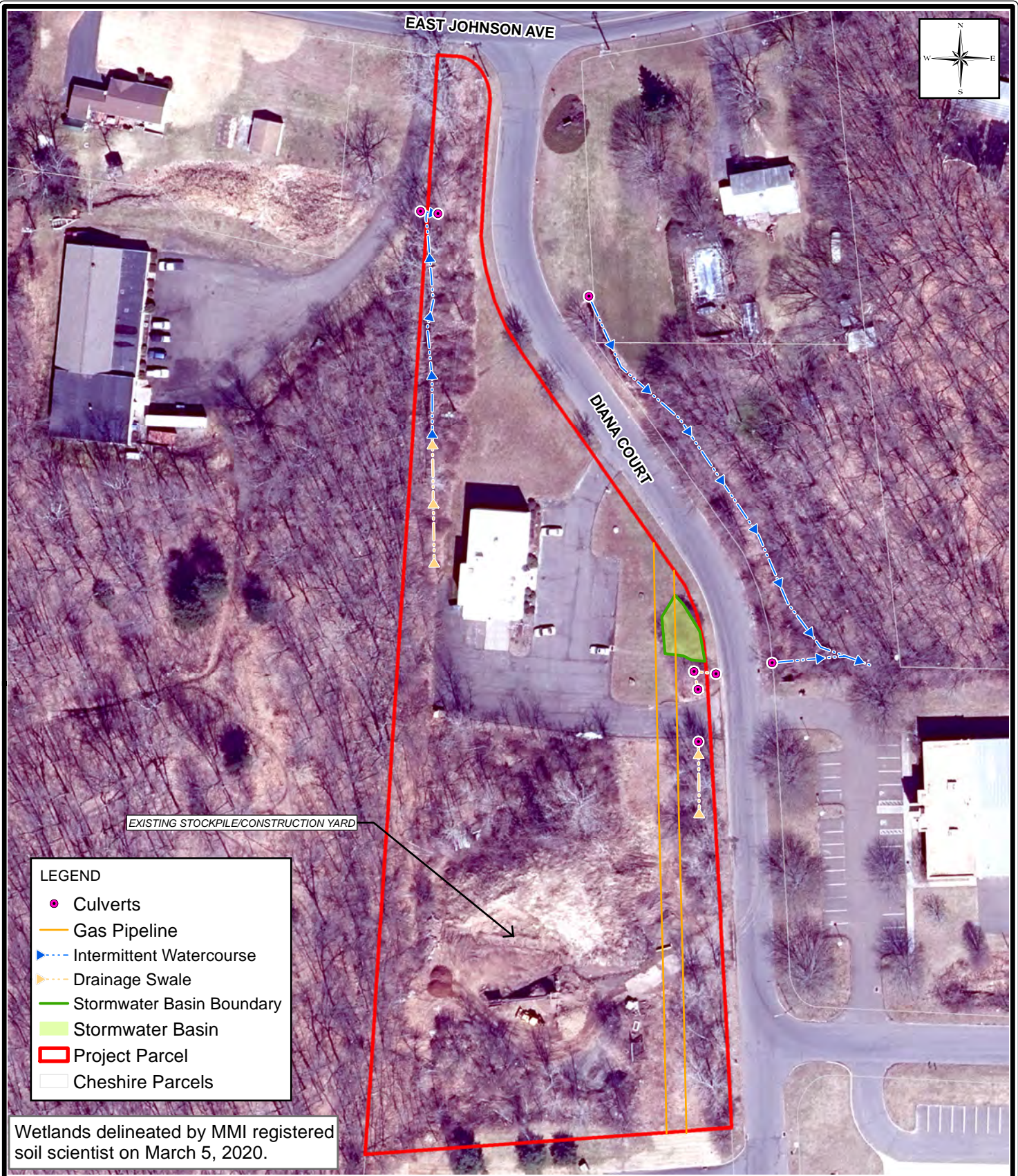
Matthew J. Sanford, MS, PWS, Registered Soil Scientist  
Manager of Natural Resources Planning

Handwritten signature of Alyse Y. Oziolor in blue ink.

Alyse Y. Oziolor, MS, WPIT  
Environmental Scientist

Enclosures

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EXISTING STOCKPILE/CONSTRUCTION YARD

**LEGEND**

- Culverts
- Gas Pipeline
- Intermittent Watercourse
- Drainage Swale
- Stormwater Basin Boundary
- Stormwater Basin
- ▭ Project Parcel
- ▭ Cheshire Parcels

Wetlands delineated by MMI registered soil scientist on March 5, 2020.



**MILONE & MACBROOM**  
 99 Realty Drive  
 Cheshire, Connecticut 06410  
 (203) 271-1773  
 www.mminc.com

**WETLAND DELINEATION**

PROPOSED BREWERY

7 DIANA COURT  
 CHESHIRE, CONNECTICUT

SOURCE: 2019 AERIAL PHOTO, CTDEEP

DATE: 17 MARCH 2020

SCALE: 1" = 100'

PROJ. NO.: 7073-01

DESIGNED AYO	DRAWN AYO	CHECKED MJS
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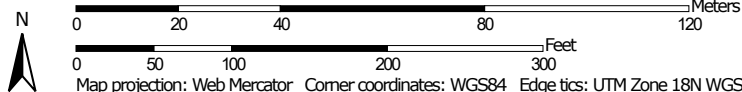
DRAWING NAME:

**FIG. 1**

Soil Map—State of Connecticut  
(Diana Court)



Map Scale: 1:1,480 if printed on A portrait (8.5" x 11") sheet.



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




Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey


3/13/2020  
Page 1 of 3

## 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 19, Sep 13, 2019

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

Date(s) aerial images were photographed: Aug 30, 2019—Oct 15, 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
10	Raynham silt loam	1.1	33.5%
20A	Ellington silt loam, 0 to 5 percent slopes	1.1	35.0%
27A	Belgrade silt loam, 0 to 5 percent slopes	0.9	29.3%
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	0.0	1.1%
306	Udorthents-Urban land complex	0.0	1.2%
<b>Totals for Area of Interest</b>		<b>3.2</b>	<b>100.0%</b>