

INLAND WETLANDS DELINEATION REPORT

**THE UNITED ILLUMINATING COMPANY
OPERATIONS CENTER SITE
100-110 AND 114 MARSH HILL ROAD
ORANGE, CONNECTICUT**

August 17, 2009

MMI #2982-02-8

Prepared for:

The United Illuminating Company

Prepared by:

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1.0 INTRODUCTION

This Inland Wetland Delineation Report was prepared in connection with applications submitted by The United Illuminating Company (UI) to the Inland Wetlands and Watercourses Commission for the Town of Orange to construct an operations center (the "Application").

The 34-acre site is located in the southern portion of the Town of Orange at 100-110 and 114 Marsh Hill Road. It is bordered by I-95 to the south and southeast, Marsh Hill Road to the east, an existing hotel and restaurant development to the north, and residential properties to the west. The site was previously developed as a Showcase Cinema complex with access off Marsh Hill Road. The western portion of the property remains mostly wooded and undeveloped. The majority of this undeveloped area is located within a conservation easement, which was established as a condition of the original approval of the Showcase Cinema project.

The proposed project involves the construction of an operations center with office space, warehouse space, a training facility, a parking garage and surface parking areas and associated improvements.

2.0 DRAINAGE BASINS

The State of Connecticut has assigned identification numbers to each watershed in the state. The subject property is located in the South Central Coast Drainage Basin, #5306. Drainage flows generally from the north to the south toward Indian River and Indian Lake. These waterbodies receive substantial input from commercial and residential development areas adjacent to Route 1 and Route 152. As a result, these waterbodies are classified as Class B (Indian Lake) and Class C-D/B (Indian River).

3.0 SOIL TYPES

On November 4, 2008, William A. Root, a certified professional soil scientist with Milone & MacBroom, Inc. (MMI), conducted a site inspection of the subject property as it is depicted on the plans submitted in support of the Application (the "Plans"). Inland wetlands and watercourses on the site were delineated in accordance with the regulations of the Town of Orange, 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 clear and dry, and the ground was frost free. Ground water conditions were moderately high, and standing water was observed within many of the wetlands areas. Intermittent watercourses in the surrounding area were flowing. Site conditions were suitable for wetland delineation work. Soils were examined using a spade and Dutch auger. Generally, soils were explored to a depth of 24 inches looking for signs of wetness including redoximorphic features (mottling) and gleyed soil horizons. Hydrophytic vegetation was also observed as an aid to locating regulated wetland areas. Upland soils were explored by walking transects over the landscape and examining soils to a depth of 24 inches.

Wetland and watercourse boundaries were marked with sequentially numbered, colored flagging affixed to sturdy vegetation to facilitate survey work. Generally, flags were placed about 50 feet apart, or as needed, to best define the wetland/upland boundary. Geospatial data was accessed via the National Cooperative Soil Survey maintained by the United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) to determine current soil survey mapping for the project site. This soils map is attached as Figure 1. The field work and the survey identified the following mapping units on the property:

3.1 Upland Soils

The native soils on this site are a mix of stratified glaciofluvial soils and unstratified glacial till soils. The parent material consists of acidic crystalline rocks and schist, granite, and gneiss. There has been substantial reworking of the native soil and extensive areas of filling (*Udorthents*). The dominant native, upland soils are:

- *Ninigret and Tisbury* soils (moderately well drained)
- *Agawam*, fine sandy loam (well drained)
- *Canton and Charlton* soils (well drained)
- *Charlton-Chatfield* soils (well drained)
- *Paxton and Montauk* soils (well drained)
- *Udorthents-Urban* land

Upland soils were examined and sampled during the course of the wetland investigation, but their precise boundaries were not fully delineated in the field.

3.2 Wetland Soils

The NRCS resource mapping identifies only one area of wetland soils on the subject property. As shown on the attached Web Soil survey map, it is located immediately west of the former cinema building near I-95. This does not mean that no other wetland soils occur on the site. Typically, small pockets of wetland soils (less than two acres) and intermittent watercourses are not shown at the scale of these published maps. Our detailed site investigation identified several areas of wetlands and intermittent watercourses as indicated on the application drawings. The wetland soils are in the *Leicester* series, *Raypol* series, and the *Timakwa* series, as described below.

