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RE: INLAND WETLAND SOILS AND WATERCOURSES INVESTIGATION,
AND DELINEATION, 384 & 394 WILLETS AVENUE, EXT. WATERFORD CT

Dear Mr. Handfield:

In the end of July and the beginning of August I visited the site referenced above to delineate the inland wetlands and watercourses that may be on the site. This property is on the opposite side of the wetland system associated with Fenger Brook that is off of Miner Lane which I delineated back in August of 2018.

I sampled the soil throughout the site using a soil auger to a depth of two to three feet. Based on my field observations and using the guidelines established by the National Cooperative Soil Survey and as defined by the Connecticut General Statutes I delineated the inland wetland soils and watercourses on the property. I delineated the inland wetlands and watercourses using pink and blue flagging numbered 1-47 and 48-96 respectively. There is 9.19 acres of regulated wetlands on the site.

The inland wetland soils on the site are classified as poorly drained and very poorly drained Leicester, Ridgebury and Whitman fine sandy loam. These soils are often found in depressions and drainageways on glacial till uplands and are mapped together as a complex due to their similar physical characteristics, use and management.

The majority of the upland soils on the site are classified as a well drained Charlton-Hollis fine sandy loam. These soils are well drained soils found on glacial till uplands.

There are two areas of inland wetland soils that occur on the property. One area is located to the northwest part of the property identified by flag numbers 1-47. This wetland area is associated with a much larger wetland system along Fenger Brook which flows in a southerly direction. The inland wetland soils along Fenger Brook are classified as a very poorly drained Adrian and Palm muck.

The other wetland system is located in the southern part of the property and continues along the entire length of the southern property line. This wetland area was delineated by flags numbered 48-96.

The inland wetlands and watercourses delineation is shown correctly on a site plan entitled "Property & Topographic Survey of Nos. 384 & 394, Willets Avenue Extension, Waterford, CT, dated August 12, 2020, sheets 1 of 2 and sheets 2 of 2, Scale 1"=50', prepared by Franklin Surveys"

All of the wetland areas are classified as a forested wetland general classification. Both wetland areas have functions that include: groundwater recharge and discharge, sediment stabilization, nutrient removal and transformation, product export, and wildlife diversity. The vegetative over-story includes maples, ash, black cherry, and poplar. Shrub species include, winterberry, spice bush, silky dogwood. The herbaceous layer includes sensitive fern, poison ivy, wildly grape, jack in the pulpit and skunk cabbage.

The wetland in the northwest portion of the property is of slightly higher value due to its size and in its core, there is great potential for a vernal pool to exist. The core and center of this wetland had evidence of standing water in August. It has a higher value to provide a more diverse wildlife population including reptiles and amphibians due to the evidence of standing water for long periods of time in the early spring. While I did not visit the site during optimal times to view vernal pools (March/April) my years of experience lead me to this conclusion.

Both wetlands have a diverse native vegetation population at the herbaceous, shrub and tree layers. No evidence of invasive species was observed. One function, aquatic diversity and abundance can be added to the wetlands also because of the flowing water in Fenger Brook. Fenger Brook can be described as a perennial watercourse. An abundance of wildlife utilizes the brook's corridor as a source of food, water, and shelter.

The proposed development in the upland review area will not be disturbing any wetlands and/or watercourses on the site or adjacent to the site. For that reason, the inland wetlands will continue to perform their functions as they currently do.

With any proposed project a comprehensive erosion and sedimentation control plan well designed and properly installed and maintained is the key to a successful project. Regular inspections should occur, especially after storm events of more than 1.5" of rain.

After reviewing the erosion and sedimentation control plans and the storm water design features it is my professional opinion that the proposed construction activities will not have a significant adverse effect on the adjacent inland wetlands and/or watercourse on or off the site.

If you have any questions or require additional information, please contact me at the telephone number referenced above.

Very truly yours,

James Sipperly
Certified Soil Scientist, Society of Soil Scientists of Southern New England
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