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**RECEIVED**

**AUG 17 2023**

**TOWN OF WESTPORT  
CONSERVATION DEPARTMENT**

**SOIL INVESTIGATION REPORT**  
**9 HUNT CLUB LANE**  
**WESTPORT, CONNECTICUT**  
**MARCH 30, 2020, APRIL 2, 15 AND 17, 2020**  
**REVISED AUGUST 11, 2023**

I conducted an on-site investigation of the soil on the residential property that is located at 9 Hunt Club Lane in Westport, Connecticut on March 30, and April 2, 15 and 17, 2020. The examination for wetland soils was conducted by inspection of soil samples taken with spade and auger. The entire property was investigated.

The definitions of wetlands and watercourses used in this investigation are as follows. Inland wetlands in Connecticut are lands, including submerged lands, which consist of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey of the NRCS. Watercourses include rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses are to be delineated by 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.

On April 2, 2020, a wetland boundary was marked out in the field on the left side of the front yard with pink flags numbered 1 through 3. The soil characteristics are consistent with those found in Walpole sandy loam soils (13). The holes within the flagged area displayed the matrix chroma and redoximorphic features characteristic of wetlands. There was, however, *no groundwater* within 20 or more inches in any of the several holes that were dug in the front yard, including those holes within the area described by flags 1 through 3. This was the case even though it had been a wet winter. Also, on the same day, there were several test holes in the rear yard that *had* groundwater within 20 inches of the ground surface, even though these *did not have wetland soil characteristics*. The area surrounding the subject property has been subject to considerable alterations, including significant piping of stormwater, as well as grading activities. Therefore,

based on the observations made during the four 2020 site visits, my professional opinion is that the subsoil features found between flags 1 through 3 were accurate. I returned to the site on June 29, 2023 to check the soil for the fifth time. At that time, I dug many test holes in the front yard. I found that the wetland boundary had not changed much in the front yard. There was some groundwater in a few of the test holes in the area in front of the 9 Hunt Club house. However, these test holes did not display subsoil features that would prove that there were additional wetlands in the front yard.

Even so, I did adjust the location of the wetland line somewhat. The neighbor to the west of the subject property found his corner pin and showed me where it was. That helped me to properly adjust and move the location of Flag 1 along the common property line instead of leaving it where it was. Flag 1 was thus moved approximately 15 feet from the road toward the house along the property line.

The non-wetland soils consist of Ninigret and Tisbury soils (21), Udorthents-Urban land complex (306) and Udorthents, smoothed (308). The soil map units contain inclusions of other soil types. Within the Ninigret and Tisbury soil map unit, for example, there are inclusions of somewhat poorly drained soils with a 3-chroma matrix in the B layer. Only one test hole had a 2-chroma matrix with mottles in the B layer *and* groundwater within 20 inches of the surface in the rear yard. This was treated as an inclusion within the Ninigret and Tisbury soil map unit.

There is a drainage swale, approximately 5 feet wide, that is located toward the rear of the subject property. It is part of the Udorthents, smoothed (308) soil map unit. At some point in time, water was apparently piped down to and discharged at a point approximately 25 feet east of the property's left rear corner. From here, the stormwater either sits or slowly flows from the discharge point eastward. The swale was partly or completely wet on all four days of the investigation.

The samples taken within the swale on April 17<sup>th</sup> revealed a 10YR 3/2 fine sandy loam topsoil layer. This horizon is underlain by a compacted layer of rocks and soil and large rocks. The compacted rocky layer does two things. (1) It has resulted in the formation of oxidized rhizospheres in the A layer. (2) It impedes flow to the soil layer underneath the compacted layer. The layer underneath the compacted rocky layer consists of a mottled fine sandy loam with a matrix of 3 or 4. In my professional opinion based on the four site visits, the swale does not qualify as a wetland, as a watercourse or as an intermittent watercourse. The results of this soil survey are subject to change until they are accepted by the Westport Conservation Department.

Respectfully submitted:



Otto R. Theall

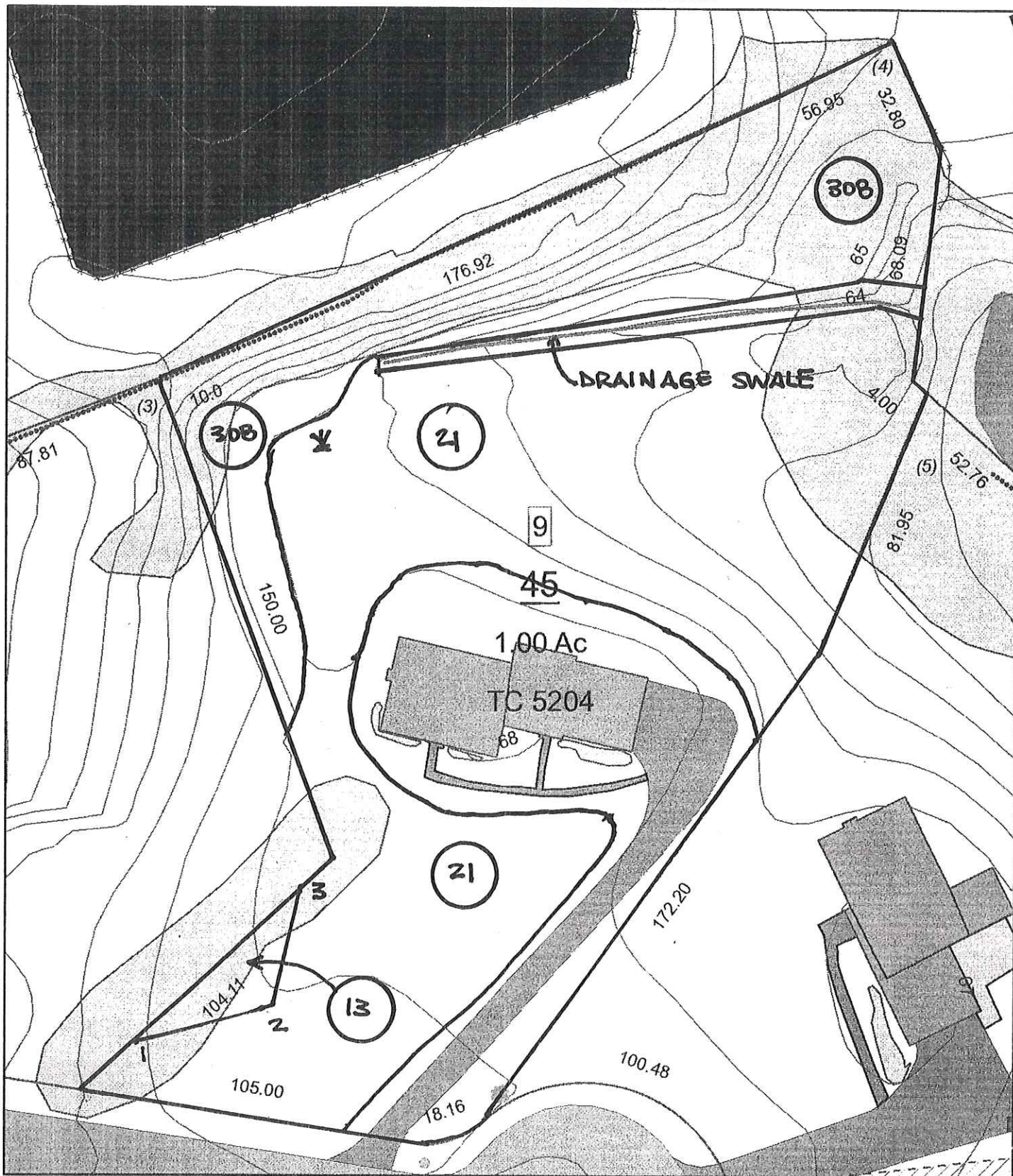


Westport, CT

1 inch = 40 Feet



April 30, 2020



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