August 7, 2020

Ms. Lisa Wilson-Foley
Blue Fox Run Golf Course, LLC
65 Nod Road
Avon, CT 06001

RE: Wetland Boundary Map Amendment
Blue Fox Run Golf Course property
Nod Road, Avon, CT

Dear Ms. Foley:

I am writing to report the results of additional investigations conducted by this office with respect to the delineation of wetlands and watercourses on the portion of the subject property east of the Farmington River. Davison Environmental (DE) has completed the following:

1. Inspect deep test pits and shovel test pits excavated at the site in late 2019 and early 2020.
2. Consulted with the Town of Avon's peer reviewer (Northwest Connecticut Conservation District).
3. Reviewed the Hesketh & Associates Perimeter Survey (revised 8.7.2020) and the Richter and Cegan Inc. plan FIELD DELINEATED WETLANDS AND WATERCOURSES 8.7.2020, depicting the wetland boundary, and the Richter and Cegan, Inc. plan COMPILATION PLAN- LOGGED SOIL TEST LOCATIONS, 8.7.2020.
4. Reviewed CLA Engineers, Inc. 8.7.2020 report in support of the boundary amendment.

Wetlands subject to jurisdiction under the CT Inland Wetlands and Watercourses Act and Town of Avon regulations are defined as areas of poorly drained, very poorly drained, floodplain and alluvial soils, as determined by a soil scientist. Watercourses are defined as bogs, swamps, marshes, lakes, ponds, rivers, streams, etc., whether natural or man-made, permanent or intermittent. I have walked over the site on many occasions over the last 25 years, and examined the soils with a spade and auger and with a backhoe. I have also reviewed numerous soil test pit logs prepared by other professionals, historic and recent aerial photography, and the mapping noted.

The property is in Avon, on the east side of the Farmington River, north of East Main Street (Rte. 44) and west of Nod Road. The land is currently occupied by portions of the Blue Fox Run Golf Course. Prior to its conversion to golf use, it was under active agriculture since at least

1934; most likely for many decades (if not centuries) before that. The soils have been altered by plowing, drainage, grading, dredging, and filling. The vegetation has also been altered, now consisting primarily of crops and/or turf. In addition, the local hydrology has been altered by drainage, filling and channelization; and the overall hydrology of the lower Farmington River has been substantially altered by upstream flood control projects installed after the 1955 flood.

Determining the extent of the poorly drained and very poorly drained soils and watercourses at the site is straightforward. However, due to the degree of disturbance at the site, the extent of the floodplain and alluvial soils is not. After consultation with CT DEEP and Soil Conservation Service (now Natural Resources Conservation Service) staff, I had previously recommended use of the elevation of the 100 year return frequency flood as a conservative representation of the limit of floodplain and alluvial soils at the site. The Avon Inland Wetlands and Watercourses Commission and town staff concurred with this approach on several occasions, most recently in 2004.

This methodology was also adopted by Professional Soil Scientist Robert Russo of CLA Engineers in 2019. Mr. Russo supplemented conventional spade and auger soil testing with numerous deep test pits that were excavated and logged in January and February of 2019. I reviewed those test pits, and the logs of additional deep test pits and soil borings prepared by F.A. Hesketh and Associates, Clarence Welti and Associates, and Heritage Consultants. That work confirmed that were no alluvial or floodplain soils outside of the area defined by the 100 year flood elevation.

However, in its 2019 decision, the Avon Inland Wetlands and Watercourses Commission rejected this approach and requested a more "precise" delineation of the alluvial soils, as determined by more extensive soil testing. Accordingly, your soil scientist, Mr. Robert Russo, conducted additional soil testing. I inspected 12 additional test pits that were excavated in November of 2019. I also reviewed the logs of 38 additional shovel test pits that Mr. Russo logged. We presented the additional data to the Town, who retained the Northwest Connecticut Conservation District (NCCD) to review our results. The soil scientists at the NCCD reviewed our data and excavated additional test pits at the site for their own examination. We met with them via GoToMeeting on June 18, 2020.

It was their opinion that the limit of the poorly drained and very poorly drained soils and the watercourses flagged in the field was substantially correct. It was also their opinion that, for all of the reasons noted above, the extent of the land inundated by the 100 year return frequency flood, as defined by the latest Federal Emergency Management Agency study, is an accurate limit of the alluvial and floodplain soils at this site.

I have reviewed Mr. Russo's 8.7.2020 report, the Perimeter Survey (8.7.2020 revision) prepared by F.A. Hesketh & Associates, and the Richter and Cegan, Inc. plans "FIELD DELINEATED WETLANDS AND WATERCOURSES" and "COMPILATION PLAN- LOGGED SOIL TEST LOCATIONS" both dated 8.7.2020. In my professional opinion, the wetland (poorly drained,

very poorly drained, floodplain and alluvial soils) and watercourse limits flagged in the field and depicted on the survey and the plans are substantially correct.

Please feel free to contact me if you have any questions regarding my findings.

Yours truly,

Michael S. Klein, Principal
Professional Soil Scientist
Professional Wetland Scientist

cc: R. Russo
M. Cegan
D. Ziaks
J. Brooks