

May 26, 2021

Mr. Joseph Wagner, Wetlands Agent Andover Inland Wetlands and Watercourses Commission 17 School Road Andover, CT 06232

RE: IWWC 20-36 26 Old Farms Road

Dear Mr. Wagner,

As requested, I performed a review of the supplemental information submitted for the above referenced application on behalf of the Inland Wetlands and Watercourses Commission. The purpose of my review was to evaluate potential upstream impacts and flooding concerns associated with the new crossing. The following documents were reviewed:

1. Report entitled "Supplemental Information Driveway Drainage Crossing", prepared by Karl F. Acimovic, PE, dated 5/25/21.

The report submitted concludes that there are increases in water surface elevations upstream of the culvert crossing on the property located at 68 Pine Ridge Drive. The increase ranges from $0.9' \pm 100'$ upstream of the crossing to 2.7' immediately upstream of the culvert. Further upstream the existing and proposed water surface elevations converge. The results of the study are reasonable given the slope and physical characteristics of the channel.

I agree with the engineer's conclusion that there will be no impact on houses located upstream related to the increase in water surface elevations. This conclusion is supported by calculated freeboard depths in excess of 10' from the water surface to the lowest ground surface elevations to the adjacent foundation.

However, as there are increases in water surface elevations on the 68 Pine Ridge Drive property, I recommend the engineer provide the following for the Commission's review and consideration.

- 1. A description of the area where increases will occur, and professional certification that the increases will not adversely impact the stability of the slopes, soils, vegetation, or other features.
- 2. Professional certification that the downstream channel will not be adversely impacted by the discharge flows and velocities.

Should you have any questions, please don't hesitate to contact me at (860) 367-7264.

Sincerely,

Brandon Handfield, PE

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Civil Engineer