

November 1, 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 alternate driveway crossing design submitted for the above referenced application on behalf of the Inland Wetlands and Watercourses Commission. The purpose of my review was to evaluate the potential impact, if any, of installing a bridge structure in lieu of the previously approved precast concrete box culvert as shown on plans entitled:

- “Driveway Bridge, Pine Ridge Drive, Andover, CT”, prepared by Morrissey Engineering, LLC, dated 9-08-21.

Following are my observations and comments:

1. It appears that the alternate structure generally matches the previously approved box culvert dimensions, including span length, width, and height above streambed. The hydrologic and hydraulic calculations submitted for the previous application should not be impacted.
2. An open bottom structure (bridge) is preferable to a rigid bottom structure (culvert) in consideration of best management practices for stream crossings. The design engineer should confirm backfill conditions within the stream limits and certify whether scour will be of concern.
3. The resultant wetland impact will be comparable for both temporary and permanent conditions. It is unlikely that the temporary limit of disturbance associated with construction will be reduced with this alternate design in recognition of the substructure work, required excavation and forming limits, and placement of riprap.

I recommend the Town consider the following:

- Construction design plans and calculations, sealed and signed by a professional engineer licensed in the State of Connecticut, shall be submitted to the Town for review. Third party review may be warranted.
- Construction inspections shall be performed by a professional engineer licensed in the State of Connecticut. Special inspections may be warranted.

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

Sincerely,



Brandon Handfield, PE
Civil Engineer