

November 6, 2023

Ms. Elaine Vreeland
Conservation Agent
Town of Winchester Conservation Commission
71 Mt. Vernon Street
Winchester, MA 01890

RE: Nitsch Project #14767
Lynch Elementary School
Request for an Amended Order
of Conditions

Dear Ms. Vreeland:

As previously discussed, additional information regarding the design requirement for the Lynch Elementary School pedestrian bridge was recently received from the Hydraulic Engineer. The Commission indicated they would like to review the additional information and that an Amended Order of Conditions would be required. This memo and subsequent attachments are part of the request for the Amended Order of Conditions. As discussed, Nitsch Engineering will be at the November 14th, 2023 hearing.

Abutter notifications were sent in accordance with the requirements. Please see the attached copy of the Abutter Notification, as well as a signed Affidavit of Service.

Updates to the Pedestrian Bridge Design:

A scour analysis performed for the brook beneath the pedestrian bridge has indicated that although the abutments are beyond the annual high water and 100-Year flood elevation, they will still require additional scour protection. The Hydraulic Engineer has recommended a rip rap scour protection identical to the scour protection used at the adjacent vehicle bridge. Please see the attached scour analysis report.

The recommended rip rap scour protection would extend from the face of the proposed abutments and wingwalls down the Bank and into the Land Under Waterbodies and Waterways (LUWW). Our initial intent was to reproduce the Bank and LUWW with the same material that was removed during the installation of the bridge foundations. Instead, we are now proposing to backfill the excavations with the same existing material but replacing the top two feet of soil with riprap for scour protection. Please see attached Structural Plans showing the updated material change.

Initial Commission Questions:

The Commission raised a question about whether the proposed rip rap will need to extend to the culvert to provide further scour. The updated design does not show rip rap extended to the culvert; the rip rap was shown to the extents recommended by the scour analysis which was only for the areas of disturbed banks.

The Commission also raised a question about the Wildlife Habitat Assessment. This Assessment was previously completed by LEC Environmental; DEP requested it for the initial design, even though the impacts were to be temporary. The Assessment determined that the project will not impair the capacity of the bank to provide wildlife habitat functions and will not have a long-term adverse effect on wildlife habitat interests protected under the Wetlands Protection Act. LEC Environmental has confirmed that the change from temporary to permanent impacts does not change the conclusion of the assessment. Please see attached Wildlife Habitat Assessment.

Updated Wetland Impacts:

The total quantity of impacts to the Bank, LUWW, and 25' No-Disturb resource areas has not changed, but the impacts would become permanent rather than temporary due to the change in materials. There is no change to impervious area as a result of this change. The proposed grades will remain the same as well; there is no proposed filing within Bordering Land Subject to Flooding.

Table 3. Summary of alteration within jurisdictional wetland resource areas

Wetland Resource Area	Proposed Alteration Area (sf) (Temporary/Permanent)	New Impervious Area (sf)
Bordering Vegetated Wetland (BVW)	0 permanent	0
Bank – Perennial Stream / River	85 linear feet (temporary for bridge install)	0
Riverfront Area (200 foot)	72,730	17,611*
Land Under Waterbodies and Waterways (LUWW)	420 (temporary for bridge install) permanent	0
Bordering Land Subject to Flooding (BLSF)	200 (temporary)	0

*17,611 square feet is the sum of existing non-degraded area to impervious; however, overall the site is decreasing impervious in the 200-foot Riverfront Area by 7,569 square feet.

Table 3a. Summary of alteration within Buffer Zones and Local Resource Areas

Wetland Resource Area	Proposed Alteration Area (sf) (Temporary/Permanent)	New Impervious Area (sf)
100-ft Buffer Zone (to BVW)	0	0
25-ft No Disturb Zone (to BVW)	0	0
25-ft No Disturb Zone (from Bank)	910 490 permanent and 420 temporary	490 sf

We look forward to discussing the updates to the design and impact at the November 14th hearing. If there are additional requests for information in the meantime, please feel free to contact me.

Very truly yours,

Nitsch Engineering, Inc.

Michelle L. Callahan, PE
 Project Manager

Enclosures: Abutter Notification, Affidavit of Service, Scour Analysis Report, Structural Plans, Wildlife Habitat Assessment.