



16 Gleasondale Rd., Suite 1-1
Stow, Massachusetts 01775
Phone: (978) 461-2350
Fax: (978) 841-4102
www.foresite1.com

January 12, 2021

Bolton Conservation Commission
663 Main Street
Bolton, Massachusetts 01740

LOTS 1-4 CENTURY MILL ROAD FLOOD STORAGE ANALYSIS

Dear Commissioners,

Attached please find revised “Common Driveway Plan & Profile, Lots 1-4 Century Mill Road” dated 1/9/21. Our office has further evaluated Lot 2 & Lot 4 with respect to loss of flood storage and the potential jurisdiction of Depression ‘A’ and Depression ‘B’ on these lots under the Bolton Wetland Bylaw definition of land subject to flooding. Clearly neither of these depressions are jurisdictional under the WPA $\frac{1}{4}$ acre-ft threshold for land subject to flooding.

based on the size, shape, and tributary watersheds of these areas (Depression ‘A’ would need to impound approximately 1.6 ft in depth and Depression ‘B’ would need to impound 1.3 ft in depth to meet the $\frac{1}{4}$ acre-ft WPA threshold).

In an effort to simplify analysis and definitively mitigate loss of any form of flood storage on Lot 2 & Lot 4 (and notwithstanding whether the depressions on these lots are jurisdictional under the Bylaw), we have conservatively presumed that any land on these lots below the adjacent bordering land subject to flooding elevation (FEMA BFE, Elevation = 310) to be areas subject to flooding for purposes of calculation of flood storage loss on these lots.

On Lot 2, grading has been revised so that **no filling/grading/alteration of land below Elevation 310 occurs within Depression ‘A’**. Erosion control barrier has been extended from the common driveway to beyond the area of construction between Depression ‘A’ and the extent proposed site work on Lot 2.

Portions of Depression ‘B’ on Lot 2 and Lot 4 are proposed to be filled below elevation 310, with a proposed loss of storage volume below this elevation in Depression ‘B’ on Lot 2 of 591 cu.ft. and on Lot 4 of 1,749 cu.ft. for a **total loss of 2,340 cu.ft. of storage volume below elevation 310** proposed in Depression ‘B’.

To mitigate this loss of flood storage in Depression 'B', flood storage is proposed to be created by removal of soil material in Mitigation Areas 'A' (Lot 3; 1,383 cu.ft.) and Mitigation Area 'B' (Lot 3 & Lot 4; 1,873 cu.ft.) for a total of **3,256 cu.ft. of flood storage below elevation 310 proposed; a net increase in flood storage below the BFE of 916 cu.ft. or an increase of net flood storage for the site of 39%.**

This analysis provides a very conservative approach to calculating flood storage loss within these isolated depressions. The compensatory storage areas proposed far exceed the volume filled on these below the BFE resulting in a substantial net increase in available flood storage for the site.

We look forward to discussing these revisions further with the Commission at the continuation of the public hearing. If you should have any questions regarding this submittal or require any additional information prior to the hearing, please contact our office.



Respectfully,

A handwritten signature in black ink, appearing to read "A H", positioned above the typed name.

FORESITE Engineering Associates, Inc.
By: Scott P. Hayes, PE

cc: Goddard Consulting LLC
Matthew Watsky, Esq.

Attachment