

Department of Public Works

Town of Durham 100 Stone Quarry Drive Durham, N.H. 03824 603-868-5578 Fax 603-868-8063

Memorandum

From: April Talon, P.E., Town Engineer

Richard Reine, M.S.C.E., CA, Director of Public Works

Date: April 19, 2023

To: Michael Behrendt, Durham Town Planner

Subject: Comments from Durham Public Works | Amendment to Previously Approved Site Plan - Clark Properties, 74 Main St. Tax Map 106, Lot 59

The following comments are provided by the Town of Durham Department of Public Works (DPW) regarding the 74 Main St. Amendment to Previously Approved Site Plan as described in the Cover Letter and Plans provided by Horizons Engineering dated March 24, 2023, revised Site Plan and Details dated March 2023, and Drainage Plans and Stormwater Narrative dated March 24, 2023.

Durham Public Works provided previous comments to the Planning Board dated October 20, 2022. All comments are still applicable.

Revised Stormwater Management Plan

1. The Town has received the revised Stormwater Management Plan dated March 24, 2023, and in meeting with the applicant's engineer on April 17th, 2023, we conclude that based on the stormwater management system design and analysis, the peak flows for the 1 inch, 2-, 10-, 25-, 50- and 100-year storm events are decreased in the post development condition. Furthermore, volume of runoff leaving the site is less in post-development conditions than the pre-development conditions for similar storm events. This is consistent with the requirements of the Town's Site Plan Regulations for Stormwater the Durham Public Works Drainage Standards and Durham Public Works Drainage Connection Policy. The completed drainage design and results of the Hydrocad model is based on the infiltration rates, listed on Page C103, as tested by the applicant's engineer (with a factor of safety of 2).

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2. The Town requested that the applicant's engineer run an additional Hydrocad model assuming a failed underdrain system within the permeable paver reservoir to determine if there would be negative downstream impacts at analysis point PA-2 (catch basin structure located on Pettee Brook Lane). The results of the model run show the peak flows for the 1 inch, 2-, 10-, 25-, 50-year events are decreased in the post development condition for analysis point PA-2, except for the 100-yr storm. Furthermore, volume of runoff leaving the site is less in post-development conditions than the pre-development conditions for similar storm events, for analysis point PA-2.