



FUSS & O'NEILL

October 15, 2021

Mr. Brian Groth
Town Planner
Town of Hudson
12 School Street
Hudson, NH 03051

Re: Town of Hudson Planning Board Review – Drainage Review
Friars Drive Industrial Facility Site Plan, 161 Lowell Road
Tax Map 209 Lot 1; Acct. #1350-975
Reference No. 20030249.2060

Dear Mr. Groth:

Fuss & O'Neill, Inc. has reviewed the stormwater report and plans prepared by The Dubay Group and received between October 6 and October 13, 2021, for the proposed warehouse development on Friars Drive at the north end of the Sagamore Industrial Park in Hudson, New Hampshire (Parcel 209-001-000). The project proposes the development of a 504,000 square foot (sf) commercial building on the currently vacant land.

Please note that site plan, traffic, and other project related review comments were provided under separate letters dated August 27, September 21, and October 7, 2021.

6. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

Previous project review letters addressed review items a through d. In review of the current drainage report and plans we have the following comments:

- e. HR 275.9.A.1 and 290.5.A.5. The applicant provided reasoning for an increase in runoff at Analysis Point #2 within the Drainage Analysis. The applicant should discuss if this project requires a waiver with the Town Engineer as well as the NHDES Alteration of Terrain (AoT) reviewer. F&O takes no exception to the request of a waiver if deemed necessary.
- f. HR 290-5.A.1 and 290-5.A.3. The applicant should provide language in the Drainage Analysis Report stating if and how low impact development (LID) strategies for stormwater runoff were evaluated for this project.
- g. HR 290-5.A.5. The northwest property line, representing Analysis Design Point #4, abuts numerous properties along Hickory Street. The applicant should ensure runoff at every property line is analyzed to ensure runoff does not exceed pre-development rates, as is also required by NHDES AoT regulations.
- h. HR 290-5.A.10. The applicant should review with NHDES AoT the need for a double row of silt sock along the 50' wetland setback lines.

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- i. HR 290-5.A.11. The applicant should note upon the plan set the requirement to keep the Town informed of the Soil Testing required for the soil amendment as noted upon the Site Details-9 plan sheet.
- j. HR 290-5.A.11. The applicant should expand upon the required soil amendment and testing, noting the required infiltration rate (or a range) proposed/required to meet design calculations.
- k. HR 290-5.A.12. The applicant should review with Town if a signed long-term maintenance plan and agreement is required.
- l. HR 290-6.A.8. The applicant should add a note to the plan for the requirement to coordinate a pre-construction meeting with the Town Engineer.
- m. HR 290-6.A.9. The applicant should add a note to the plan set regarding the time limits for stabilization of disturbed soil areas
- n. HR 290-7.A.7. The applicant should keep the Town informed of all communication with the local advisory committee (LAC).
- o. HR 290-7.A.7. The applicant has provided information on the proposed cut and fill volumes of the project. The applicant should confirm that this information has been considered in any potential impacts to traffic and the surrounding Town/State roads.
- p. HR 290-7.A.7. Although the test pits provided within the Infiltration Feasibility Report do not illustrate potential ledge, blasting of ledge may be found to be required for this project. If so, the applicant must provide additional information on blasting locations, schedules, and quantities proposed to the Town prior to those events as part of the permitting process. Also, abutting residential property owners will need at a minimum to be provided advanced notice of pending blasting operations, and the applicant will be required to follow all other notification requirements of blasting permits.
- q. HR 290-7.B.13. The applicant should provide the Site Specific Soils report and mapping required by NHDES AoT upon the plan set as well as documentation within the Drainage Report.
- r. HR 290-8.A.4 & 5. We note the requirement of the applicant to coordinate the need for a Bond or Escrow with the Town Engineer.
- s. HR 290-8.A.10.A. The applicant should keep the Town informed of all communication with NHDES in relation to the required Alteration of Terrain and Wetlands Permits being requested to ensure NHDES comments do not alter the drainage design/calculations.
- t. HR 290-8.A.10.A. We note that additional items will be required for the NHDES AoT Permit, which could potentially affect the stormwater calculations and/or construction of the site. Please provide additional detail on the following items:
 - i. The applicant should review typical NHDES screening layers as well as the NHDES PFAS sampling maps.
 - ii. We note the phasing of the site will be required to meet the 5-acre disturbed area limit from NHDES Env-1505.03 unless a waiver is requested.

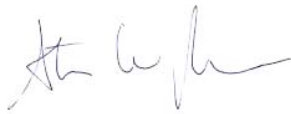
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- iii. We note the phasing of the site will be required to meet the 1-acre winter disturbed area limit from NHDES Env-1505.06(b)(1) unless a waiver is requested.
- u. Engineering Technical Guidelines and Typical Details (ETGTD) Section 930.13. Although this is not a public roadway cut section, due to some areas of significant cut upon the site (in the range of 10'-15'), the applicant should review the need for underdrain to help prolong the life of the pavement, drainage system, and building structures. The applicant should also comment on how this ground water, soon to be surface stormwater, is accounted for within the drainage calculations.
- v. ETGTD Section 920.4.2. The applicant has not shown equipment storage locations on the plans.
- w. ETGTD Section 930.3. The applicant should provide a detail for outlet structures E and H which illustrate the proposed orifices within the outlet structures.
- x. ETGTD Section 930.3. The applicant should provide a detail of the cross section of ponds E and H to coincide with other cross sections provided upon the detail sheet.
- y. ETGTD Section 930.3. The applicant should add the required 4' minimum cover to the "Typical Trench Detail" on the Site Details-10 plan sheet.
- z. ETGTD Section 930.4. We note that the majority of the stormwater design utilizes pipe slopes of less than the required 2.0%. The applicant should discuss with the Town Engineer if this pipe slope is adequate. F&O takes no exception to the request of a waiver if deemed necessary if the applicant can illustrate the drain line velocities are self-cleaning.
- aa. The applicant will be required to comply with all provisions of the Town of Hudson's MS4 permit, including but not limited to annual reporting requirements, construction site stormwater runoff control, and record keeping requirements.
- bb. Please note that this review was carried out in accordance with applicable regulations and standards in place in New Hampshire at this time. Note that conditions at the site, including average weather conditions, patterns and trends, and design storm characteristics, may change in the future. In addition, future changes in federal, state, or local laws, rules, or regulations, or in generally accepted scientific or industry information concerning environmental, atmospheric, and geotechnical conditions and developments may affect the information and conclusions set forth in this review. In no way shall Fuss & O'Neill be liable for any of these changed conditions that may impact the review, regardless of the source of or reason for such changed conditions. Other than as described herein, no other investigation or analysis has been requested by the Client or performed by Fuss & O'Neill in preparing this review.

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Please feel free to call if you have any questions.

Very truly yours,



**Steven W.
Reichert, PE**

Digitally signed by Steven W. Reichert,
PE
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O'Neill, Inc.,
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Steven W. Reichert, P.E.

SWR:

Enclosure

cc: Town of Hudson Engineering Division – File
The Dubay Group – karl@thedubaygroup.com