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June 29, 2020 Submitted via e-mail to: sreichert@fando.com

Steven Reichert, P.E.
Fuss & O'Neill, Inc.
The Gateway Building
50 Commercial Street, Unit 2S
Manchester, NH 03101

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| Subject: | Peer Review of the "Site Sound Evaluation and Control – Proposed Hudson Logistics Center, Hudson, NH" dated 18 May 2020 |
| Reference: | HMMH Project Number 311730 |

Dear Mr. Reichert:

Harris Miller Miller & Hanson Inc. (HMMH) was retained by Fuss & O'Neill, Inc. (F&O) to review and provide our professional opinion on a report prepared by Ostergaard Acoustical Associates for the proposed Hudson Logistics Center. This review was undertaken on behalf of the Planning Board of the Town of Hudson, New Hampshire. As part of this undertaking, I reviewed the following documents:

- "Site Sound Evaluation and Control – Proposed Hudson Logistics Center, Hudson, NH," Prepared by Benjamin C. Mueller, P.E., OAA File 4228A, 18 May 2020, i.e. the "Report".
- The Code of the Town of Hudson, NH, Part II: General Legislation, Chapter 249 Noise (accessed at https://ecode360.com/14323784), i.e. the "Noise Ordinance".
- "Hudson Logistics Center Site Plan & Wetland Conditional Use Applications," prepared by Langan Engineering and Environmental Services, Inc., issued on 21 May 2020 for Supplemental Planning and Zoning Submission, i.e. the "Plans".

It is my professional opinion that the applicant has not fully demonstrated a finding that "no negative acoustical impact is anticipated" in regard to future operational noise from the proposed Hudson Logistics Center (the "Project"). Based on my review of the above referenced documents, I offer the following preliminary comments and findings for your consideration.

1. The acoustical modeling software, CadnaA, is accepted throughout the industry for the prediction of environmental noise from a variety of sources. The Report does not document the sound propagation standard with CadnaA that was used for the predictions.
2. The narrative on page 2 of the Report describes an access road on the south side of the building on Lot B that would allow trucks to pass from the east side of the building to the west. The figures in the Report, as well as the Plans, suggest a similar access road will be located on the south side of the building on Lot C. It is assumed that trucks will use both of these access roads as described to pass from the east side of the building to the west. To the extent trucks will be traveling on the access roads to the south of the buildings on Lots B and C, these sources should be included in the model. Truck generated noise along these roads would be located closer to homes on Fairway and Eagle Drives and would emit higher sound levels than a truck idling at a loading dock / bay on either the east or west façade of either building.
3. The Report does not include an evaluation of the potential impact of Project noise on background noise levels. Section 249-4 (D) of the Noise Ordinance states that no person shall cause the background noise level, expressed in terms of the sound pressure level exceeded 90 percent of the time (or "$L_{90}$"), to increase by more than 10 dBA in any receptor area at any time of day. To demonstrate that the Project would operate in compliance with this section of the Noise Ordinance, the applicant should undertake a background noise monitoring program at a number locations around the site of the proposed Project that are representative of adjacent noise-sensitive land use. We

suggest up to five monitoring locations, two of which would be located adjacent to residence along Fairway and Eagle Drives. Since the proposed Project is expected to have 24/7 operation, the monitoring should take place over a period of seven consecutive days to capture weekend periods. The noise monitoring program should collect the applicable A-weighted noise metrics (including, but not limited to hourly $L_{eq}$ and $L_{90}$), as well as background noise levels in octave or 1/3-octave bands. A revised Report should provide full documentation of the background noise monitoring program

4. The report does not include an evaluation of potential for the Project to produce a pure tone conditions. Section 249-4 (E) of the Noise Ordinance states that no person shall produce a pure tone condition. To demonstrate that the Project would operate in compliance with this section of the Noise Ordinance, the noise model should use as input octave-band noise emission levels for Project-related sources of noise (i.e. rooftop fans and trucks). The octave-band noise emission levels used as input to the model should be documented in a revised Report. The applicant should provide tables of predicted octave band noise levels at representative locations in the community in a revised Report.
5. The Report shows the location of a sound barrier wall in Figures 2 and 3. While it is difficult to completely discern the location of the noise barrier due to the resolution of the figures, it appears to be located between the access road on the south side of the building on Lot C and the access road to the emergency boat ramp.
    a. Sheet LP126 of the "Landscape Planting Plan XXVI" dated 4/21/2020 shows plantings in this area.
    b. Sheet CG126 of the "Grading & Drainage Plan XXVI" shows a swale in this area.
    c. The final Plans should show the location of the proposed noise barrier and how it either ties into the proposed berm or how the barrier would overlap with the berm to minimize any "gaps" between the noise barrier wall and the berm. At a minimum, the final Plans also should provide an elevation view of the noise barrier, minimum requirements for a Sound Transmission Class (STC) rating, and "typical" foundation details.
6. The Report does not address noise during construction. Are blasting activities and/or pile driving activities anticipated for the construction of the proposed Project? If so, the Report should address potential noise impact from these activities.

Please note that these comments are a review of the information provided within the Site Sound Evaluation and Control report and highlight a few deficiencies of the sound evaluation that had been prepared for the application before the Hudson Planning Board. Please let me know if you have any questions.
Sincerely yours,

**Harris Miller Miller & Hanson Inc.**

Christopher Bajdek, INCE
Principal Consultant

enclosures: Resume for Christopher Bajdek

cc: John Weston, HMMH