

11/30/2021

Steven Reichert, P.E.
Fuss & O'Neill, Inc.
The Gateway Building
50 Commercial Street, Unit 25
Manchester, NH 03101

Transmitted via email to: SReichert@fando.com

Re: Peer Review of the Updated Sound Study for the Proposed Lowell Road Warehouse Facility
in Hudson, New Hampshire

Reference: HMMH Project No. 312910

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 the updated sound study prepared by Tech Environmental for the proposed industrial facility on Friars Drive/Lowell Road in Hudson, New Hampshire. This review was undertaken on behalf of the Planning Board of the Town of Hudson. As part of this undertaking, I reviewed the following documents:

- "Sound Study of 161 Lowell Road, Hudson, NH," prepared by Marc C. Wallace, Ref 4686, November 3, 2021, 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".
- "Site Plan Friars Drive, Tax Map 209, Lot 001-000, 161 Lowell Drive, Hudson, NH," prepared by The Dubay Group, Inc., dated August 3, 2021, i.e. the "Plans".

It is my professional opinion that the applicant has not fully demonstrated a finding that operation of the proposed facility "will fully comply with the Hudson Noise Ordinance." Based on my review of the above referenced documents, I offer the following preliminary comments and findings for your consideration.

1. Appendix A of the November 3rd Report provides a table of reference sound power levels for office and warehouse roof top units (RTUs) and for idling trucks and truck traffic. The sound power levels for truck activities are lower than what had been assumed for another project that was recently before the Planning Board. The sound study for the proposed Hudson Logistics Center was based on sound power levels for various truck activities that ranged from 108 to 116 dBA.¹ In additions, based on the reference energy-mean emission levels in the Federal Highway Administration Traffic Noise Model, the sound power level for idling medium and heavy trucks would range from 100 to 106 dBA.² Trucks in motion would have greater sound power levels. In

¹ Ostergaard Acoustical Associates, "Site Sound Evaluation and Control – Proposed Hudson Logistics Center, Hudson, NH – Revision 2," OAA File 4228A, December 1, 2020.

² See Figure 6 in Menge, Christopher W., et al, "FHWA Traffic Noise Model (FHWA TNM®) Technical Manual," U.S. Department of Transportation, Federal Highway Administration, Final Report, FHWA-PD-96-010, DOT-VNTSC-FHWA-98-2, February 1998.

my opinion, the use of the sound power levels in Appendix A of the November 3rd Report underestimates the potential effects of truck noise in the community.

2. What kind of trucks will access the loading docks, e.g. medium trucks³ or heavy trucks⁴?
3. Appendix A does not include sound power levels for trucks with backup alarms. The noise study should address the effects of backup alarms during trucking activity, since this type of sound is tonal in nature.
4. The figure in Appendix B shows the location of a single idling truck at the loading docks along the center of the south facade of the building and one truck along north facade. Is this a realistic scenario? The noise model should consider a worst-case scenario in which multiple trucks are idling at the loading docks.
5. Based on the figure in Appendix B of the November 3rd Report, trucking operations into and out of the facility appear to have been modeled as a line source. The Report should indicate the volume of truck traffic, as well as the operating speed of trucks used in the model.

Please let me know if you have any questions.

Sincerely yours,

Harris Miller Miller & Hanson Inc.



Christopher Bajdek, INCE
Principal Consultant

cc:

enclosures:

³ Trucks with 2 axles and 6 tires; generally with a gross vehicle weight from 4,500 kg (9,900 lb) to 12,000 kg (26,400 lb).

⁴ All cargo vehicles with more than six tires, or three or more axles; generally, with a gross vehicle weight greater than 12,000 kg (26,400 lb).

