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MEMORANDUM

То:	Karen Sherman, Town Planner
	Town of Holliston
From:	Christopher Menge, INCE
Date:	January 10, 2022
Subject:	Peer review of noise study for proposed Adesa Vehicle Storage Facility, Holliston
Reference:	HMMH Project Number 313000

Harris Miller Miller & Hanson Inc. (HMMH) has completed our peer review of the noise analysis performed for the proposed Adesa Vehicle Storage Facility at 0 and 195 Lowland St. in Holliston, MA.

I reviewed the initial report by Cavanaugh Tocci "Sound Analysis, Proposed ADESA Boston Vehicle Storage Facility" dated October 22, 2021. We have also reviewed a letter and updated Sound Analysis report prepared by Cavanaugh Tocci on January 5 and 4, 2022, respectively, in response to comments we offered after an initial review requesting more information about noise source locations and noise event simultaneity.

I have found the noise study to be comprehensively and conservatively prepared, addressing all pertinent state and local noise regulations and bylaw provisions. The noise model developed and the modeling approach were sufficiently detailed, and appear to account for all significant noise sources and sound propagation paths to all the nearest homes and property lines. The noise modeling used the sound propagation equations of ISO 9613-2, which are conservative and assume slight downwind or temperature inversion conditions favorable to sound propagation.

The proposed project includes a noise barrier wall along the southeastern edge of the parking lot, the top edge of which will be 7 feet above the highest elevation of the parking lot. This barrier will serve to block the lines of sight and reduce noise from the parking lot noise sources to the nearest homes southeast of the site, such that they will comply with the Town of Holliston Bylaw and Massachusetts Department of Environmental Protection limits. Both jurisdictions require predicted noise levels to not exceed 46 dBA, which is based on the lowest measured background (L90) sound level of 36 dBA in the community during the facility's operating hours plus 10 dBA.

Brief, intermittent noise events are predicted from various noise sources associated with the car carriers and tow trucks delivering and removing cars from the lot. Predictions have been made at 15 of the nearest homes and are shown in Table 4 of the Cavanaugh Tocci January 4 Sound Analysis report. The loudest sources are expected to be the Ramp Slide and Car Off-load events from the car carriers and the back-up alarms from the tow trucks. The Ramp Slide events in locations closest to the community are predicted to reach up to 46 dBA the nearest home, but predicted event levels are lower for other noise sources and at other homes.

I evaluated the range of sound level maximum events from each of the 12 source types at each of the 15 homes modeled in the study, with the proposed noise barrier in place, as presented in Table 4 of the Cavanaugh Tocci report. I found that only three of the 12 sources are predicted to have a median maximum event at all the homes above 40 dBA. The median maximum event for all sources at all homes is 34 dBA, which is below the quietest measured background noise levels in the community during facility operating hours measured over a one-week period.

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I conclude that noise events from the facility are expected to be audible from time to time at many of the homes in the community, but mostly under quiet background conditions and with atmospheric conditions favorable for sound propagation to the community. Further, I don't expect the events that are audible to be considered loud or intrusive by the residents. I expect most of the maximum noise events generated by the facility as reported in Table 4 will go unnoticed in the community.

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