

## L. Noise

### 1. Introduction

This Section provides a summary of the Noise Measurements and Analysis Report, which can be found in the Appendix to this DEIS. Discussion of methodology used to determine the noise impacts of the proposed project can be found in the full Report.

### 2. Existing Conditions

Noise levels, in the existing condition, were measured at the site's entrance on NYS Route 22/55 and Wheeler Road, NYS Route 22 and Pleasant Ridge Road and, the intersection of Hoags Corners Road and Wheeler Road. Noise measurements taken from the proposed Route 22/55 "entrance" varied from 50 dB(A) to 90 dB(A). These sound levels result largely from the existing traffic on Route 22/55. The peak measurement of 90 dB(A) was recorded when a truck queued at the intersection. Noise measurements taken at this intersection also include train sound idling and moving. When idling, the train produced an average of 75 dB(A) versus a 83 dB(A) when traveling. Since every 3 dB(A) is a doubling of sound pressure, the existing sound levels at the site's entrance are six to eight times higher than would be expected for a "typical" residential land use site. Similar recordings were observed at NYS Route 22 and Pleasant Ridge Road.

Traffic on Hoags Corners Road and Wheeler was minimal during the early afternoon and few vehicles passed in the measurement period. The ambient measurement for this point was between 30 and 40 dB(A). The peak measurements at this intersection ranged from 65 to 80 dB(A) with cars and trucks passing.

**Table III.L-1**  
**Measured Noise Levels at Selected Intersection**

INTERSECTION	1 <sup>ST</sup> PERIOD	2 <sup>ND</sup> PERIOD	PEAK/LOW	AVERAGE
NYS RT 22/55 Wheeler Road	15 minutes	30 minutes		
	72	68	90/50	76.5
NYS RT 22 Pleasant Ridge Rd	15 minutes	30 minutes		
	70	71	86/50	68
Hoags Corner Wheeler Road	15 minutes	30 minutes		
	65	65	85/30	58

The noise levels recorded above all are approximately as expected for "typical" commercial and residential neighborhoods. At the entrance of the site on Hoags Corner Road and Wheeler Road, the site does not exceed the 67 dB(A) threshold at which FHWA (Federal Highway Administration) and NYSDOT (New York State Department of Transportation) (pursuant to 23 CFR 772.9 (b) (1)) which would require a noise barrier for any new highway construction.<sup>1</sup> At the entrance of the site on NYS Route 22/55 and Wheeler Road, the site does exceed the 72 dB(A) threshold which is listed under the FHWA (Federal Highway Administration) Noise Abatement Criteria for developed lands, properties or activities.

<sup>1</sup> This level is used only to provide a basis for comparison as no new highway construction is proposed.

Noise levels at other intersection were also above criteria standards. Interior noise levels (i.e., inside a typical residence) will be some 20 dB(A) lower than the existing ambient levels due to the insulating effects of the house framing and windows (NYSDOT EPM-3.1). Modern development materials (i.e., double pane windows, insulation, etc.) will decrease interior noise levels more than 20 dB(A).

### 3. The Future Without the Proposed Project

#### a. Local Roadways

Future noise levels on local roadways in the No Build site condition will also increase but somewhat less than the build condition. In the existing condition, noise levels already “exceed” FHWA levels. In the No Build condition, traffic volumes only increase slightly, thus, noise levels will not significantly deviate from their current sound level.

### 4. Potential Impacts of the Proposed Project

The proposed project will include stationary sources of sound level such as heating, ventilating and air conditioning (HVAC). The HV/AC units will be used on-site for both the residential and commercial structures. HV/AC noises tend to be dominated externally by compressor and fan noises. Residential units are generally smaller and have sound levels of 60 to 65 dBA at 10 feet. In this case, it is entirely possible to place all residential AC compressor units behind the proposed residential units. As such, the separation distances and the additional effects of the buildings themselves will make them indistinguishable from ambient residential noises in the neighborhood around Route 22/55.

With regard to commercial AC units, they will be in the “Village Center” and usually are placed on roof tops of commercial buildings. This will place the units well away (hundreds of feet) from existing residences. Commercial units are generally larger and have sound levels ranging from 65 to 75 dBA at 10 feet. However, these units will be separated from the new residential units by height and distance. Finally, sound/noise levels at the intersection of Route 22/55 and Wheeler Road (to become Main Street) already are at a peak of 90 dB(A) due to traffic and the railroad. For the above reasons, the commercial AC units will not significantly increase sound levels at this location.

#### a. Construction Impacts

During construction, noise levels will be temporary and will occur at two distinctly different levels. The temporary component results from the transient nature of the construction process. Noise levels of “heavy” construction equipment ranges from 79 to 92 dBA at 50 feet. The U.S. EPA reports noise levels at housing projects range from a high of 88 to a low of 75 dBA from grading through finishing operations. In this case, noise levels of up to 78 to 88 dBA will occur for periods of several hours up to several weeks. The temporary sound levels will also occur due to the site and receptor’s relative topographic positions to that point in the construction. No “screen” for this temporary noise level will occur.

The proposed project’s use and long term activities will not contravene the local noise ordinance (Town of Dover Code Chapter 107 Noise). Construction, demolition and

excavation: the erection, including excavating, demolition, alteration or repair, of any building is permissible between the hours of 7:00 a.m. and 9:00 p.m., except in case of an urgent necessity in the interest of public safety. Thus, commercial noise is prohibited from the hours of 10:00 p.m. and 7:00 a.m. on weekdays or at any time on Sundays/weekends or holidays. The proposed construction traffic at times may exceed these values. However, these numbers are exceeded themselves periodically as shown in Table III.L-1 of the three intersections observed.

#### b. Local Roadways

The levels of sound which would be “created” at this site by traffic generated by long term use will have no significant impact on the upper, existing noise levels which already occur in the area’s neighborhoods. The traffic from the site will be largely residential and so, will generate sound at 55 to 62 dB(A)’s.

The existing condition at NYS Route 22/55 is already 50 to 90 dB(A) or at a sound level typical of more suburban residential areas. This higher existing noise level is due to Route 22/55 acting as a primary collector road for residential and commercial traffic. The railroad and associated traffic also add to the sound peaks at this location. The project will not create a level of noise that would noticeably elevate the existing sound levels on NYS Route 22/55. It will increase the percentage of time that the area experiences an increase in sound levels but should not create a detectable increase in peak sound levels. This will be due to increased frequency of residential, railroad and truck traffic. The result will be an increased duration of higher and peak sound levels for both construction deliveries and operational deliveries (see Section 2.1 above for prior truck activity levels).

The intersection of NYS Route 22/55 and Wheeler already experiences a sound level somewhat above the “norm” for a “rural” residential/commercial neighborhood, mid-day (decibel levels in the upper 50’s versus upper 40’s). That is, it is more suburban than rural in character. The proposed project is also residential and NYS Route 22/55 will operate at an acceptable Level of Service. The proposed action shows increase in traffic on these streets. This will increase the percentage of time that the area experiences an increase in sound levels but should not create a detectable increase in peak sound levels.

#### 5. Proposed Mitigation

As described, the project would not result in significant adverse noise impacts. In addition, construction hours will be limited for outdoor activities from 7 a.m. to 9 p.m. Architectural “irregularities” such as offset walls, balconies, roof formers, etc. can also be maximized to reflect/scatter sound in many directions.