APPENDIX F
Noise and Vibration Assessment

SECOND HARVEST FOOD BANK NOISE AND VIBRATION ASSESSMENT

San José, California

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INTRODUCTION

The Second Harvest Food Bank project proposes the construction of two warehouses on a 10.47-acre vacant site located at 4553 and 4653 North First Street in the City of San José, California. Building 1 would be a one story, 85,860-square-foot building with 39,630 square feet of office space. Building 2 would also be one story and consist of 103,239 square feet. The site would be accessed via two new 26-foot-wide driveways on North First Street. The proposed project would include a surface parking lot with 161 vehicular parking stalls, including 35 truck parking spaces. A total of 25 truck loading docks would be included in the proposed project, with nine at Building 1 and 16 at Building 2.

This report evaluates the project's potential to result in significant impacts with respect to applicable California Environmental Quality Act (CEQA) guidelines. The report is divided into three sections: 1) the Setting Section provides a brief description of the fundamentals of environmental noise and groundborne vibration, summarizes applicable regulatory criteria, and discusses ambient noise conditions in the project vicinity; 2) the Plan Consistency Analysis section discusses noise and land use compatibility utilizing policies in the City's General Plan; and 3) the Impacts and Mitigation Measures Section describes the significance criteria used to evaluate project impacts, provides a discussion of each project impact, and presents mitigation measures, where necessary, to mitigate project impacts to a less-than-significant level.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (*frequency*) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA).* This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA

are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound/noise descriptor* is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level* (*CNEL*) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level* (*DNL* or L_{dn}) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Effects of Noise

Sleep and Speech Interference

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noises of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA DNL. Typically, the highest steady traffic noise level during the daytime is about equal to the DNL and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12 to 17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57 to 62 dBA DNL with open windows and 65 to 70 dBA DNL if the windows are closed. Levels of 55 to 60 dBA are common along collector streets and secondary arterials, while 65 to 70 dBA is a typical value for a primary/major arterial. Levels of 75 to 80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed, those facing major roadways and freeways typically need special glass windows.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The DNL as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 50 dBA DNL. At a DNL of about 60 dBA, approximately 12 percent of the population is highly annoyed. When the DNL increases to 70 dBA, the percentage of the population highly annoyed increases to about 25 to 30 percent of the population. There is, therefore, an increase of about 2 percent per dBA between a DNL of 60 to 70 dBA. Between a DNL of 70 to 80 dBA, each decibel increase increases by about 3 percent the percentage of the population highly annoyed. People appear to respond more adversely to aircraft noise. When the DNL is 60 dBA, approximately 30 to 35 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 3 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 4 percent increase in the percentage of the population highly annoyed.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e. g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: Technical Noise Supplement (TeNS), California Department of Transportation, September 2013.

Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous or frequent intermittent vibration levels produce. The guidelines in Table 3 represent syntheses of vibration criteria for human response and potential damage to buildings resulting from construction vibration.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to cause damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as paint flaking or minimal extension of cracks in building surfaces; minor, including limited surface cracking; or major, that may threaten the structural integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher. The damage criteria presented in Table 3 include several categories for ancient, fragile, and historic structures, the types of structures most at risk to damage. Most buildings are included within the categories ranging from “Historic and some old buildings” to “Modern industrial/commercial buildings”. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

TABLE 3 Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings.
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential structures
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures

Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, April 2020.

Regulatory Background – Noise

This section describes the relevant guidelines, policies, and standards established by State Agencies, Santa Clara County, and the City of San José. The State CEQA Guidelines, Appendix G, are used to assess the potential significance of impacts pursuant to local General Plan policies or the applicable standards of other agencies. A summary of the applicable regulatory criteria is provided below.

State of California

State CEQA Guidelines. The California Environmental Quality Act (CEQA) contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Under CEQA, noise impacts would be considered significant if the project would result in:

(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

(b) Generation of excessive groundborne vibration or groundborne noise levels;

(c) For a project located within the vicinity of a private airstrip or an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels.

2019 California Building Code, Title 24, Part 2. The current version of the California Building Code (CBC) requires interior noise levels in multi-family residential units attributable to exterior environmental noise sources to be limited to a level not exceeding 45 dBA DNL/CNEL in any habitable room.

2019 California Building Cal Green Code. The State of California established exterior sound transmission control standards for new non-residential buildings as set forth in the 2019 California Green Building Standards Code (Section 5.507.4.1 and 5.507.4.2). The sections that pertain to this project are as follows:

> **5.507.4.1 Exterior noise transmission, prescriptive method.** Wall and roof-ceiling assemblies exposed to the noise source making up the building envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 when the building falls within the 65 dBA L_{dn} noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway noise source, as determined by the local general plan noise element.
>
> **5.507.4.2 Performance method.** For buildings located, as defined by Section 5.507.4.1, wall and roof-ceiling assemblies exposed to the noise source making up the building envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level ($L_{eq\ (1\text{-}hr)}$) of 50 dBA in occupied areas during any hour of operation.

The performance method, which establishes the acceptable interior noise level, is the method typically used when applying these standards.

Santa Clara County

Santa Clara County Airport Land Use Commission Comprehensive Land Use Plan. The Comprehensive Land Use Plan (CLUP) adopted by the Santa Clara County Airport Land Use Commission contains standards for projects within the vicinity of San José International Airport which are relevant to this project;

4.3.2.1 Noise Compatibility Policies

N-1 The Community Noise Equivalent Level (CNEL) method of representing noise levels shall be used to determine if a specific land use is consistent with the CLUP.

N-2 In addition to the other policies herein, the Noise Compatibility Policies presented in Table 4-1 shall be used to determine if a specific land use is consistent with this CLUP.

N-3 Noise impacts shall be evaluated according to the Aircraft Noise Contours presented on Figure 5 (not shown in this report).

N-6 Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 4-1 presents acceptable noise levels for other land uses in the vicinity of the Airport.

Table 4 - 1

NOISE COMPATIBILITY POLICIES

LAND USE CATEGORY	CNEL					
	55-60	60-65	65-70	70-75	75-80	80-85
Residential – low density Single-family, duplex, mobile homes	*	**	***	****	****	****
Residential – multi-family, condominiums, townhouses	*	**	***	****	****	****
Transient lodging - motels, hotels	*	*	**	****	****	****
Schools, libraries, indoor religious assemblies, hospitals, nursing homes	*	***	****	****	****	****
Auditoriums, concert halls, amphitheaters	*	***	***	****	****	****
Sports arena, outdoor spectator sports, parking	*	*	*	**	***	****
Playgrounds, neighborhood parks	*	*	***	****	****	****
Golf courses, riding stables, water recreation, cemeteries	*	*	*	**	***	****
Office buildings, business commercial and professional, retail	*	*	**	***	****	****
Industrial, manufacturing, utilities, agriculture	*	*	*	***	***	****
* Generally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Mobile homes may not be acceptable in these areas. Some outdoor activities might be adversely affected.					
** Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Outdoor activities may be adversely affected. Residential: Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.					
*** Generally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor activities are likely to be adversely affected.					
**** Unacceptable	New construction or development shall not be undertaken.					

Source: Based on General Plan Guidelines, Appendix C (2003), Figure 2 and Santa Clara County ALUC 1992 Land Use Plan, Table 1

Source: Comprehensive Land Use Plan Santa Clara County, Norman Y Mineta San José International Airport, May 25, 2011, Amended May 23, 2019.

City of San José

City of San José General Plan. The Environmental Leadership Chapter in the Envision San José 2040 General Plan sets forth policies with the goal of minimizing the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies in the City of San José. The following policies are applicable to the proposed project:

EC-1.2 Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Categories 1, 2, 3 and 6) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would:

- Cause the DNL at noise sensitive receptors to increase by five dBA DNL or more where the noise levels would remain "Normally Acceptable;" or

- Cause the DNL at noise sensitive receptors to increase by three dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level.

EC-1.3 Mitigate noise generation of new nonresidential land uses to 55 dBA DNL at the property line when located adjacent to existing or planned noise sensitive residential and public/quasi-public land uses.

EC-1.6 Regulate the effects of operational noise from existing and new industrial and commercial development on adjacent uses through noise standards in the City's Municipal Code.

EC-1.7 Require construction operations within San José to use best available noise suppression devices and techniques and limit construction hours near residential uses per the City's Municipal Code. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:

- Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.

For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses.

EC-1.11 Require safe and compatible land uses within the Mineta International Airport noise zone (defined by the 65 CNEL contour as set forth in State law) and encourage aircraft operating procedures that minimize noise.

Regulatory Background – Vibration

City of San José

City of San José General Plan. The Environmental Leadership Chapter in the Envision San José 2040 General Plan sets forth policies to achieve the goal of minimizing vibration impacts on people, residences, and business operations in the City of San José. The following policies are applicable to the proposed project:

EC-2.3 Require new development to minimize continuous vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or building that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to a building. A continuous vibration limit of 0.20 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. Equipment or activities typical of generating continuous vibration include but are not limited to: excavation equipment; static compaction equipment; vibratory pile drivers; pile-extraction equipment; and vibratory compaction equipment. Avoid use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings, or buildings in poor condition. On a project-specific basis, this distance of 300 feet may be reduced where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction. Transient vibration impacts may exceed a vibration limit of 0.08 in/sec PPV only when and where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

Existing Noise Environment

The project site is located at 4553 and 4653 North First Street in the City of San José, California. Adjoining the site to the east are two office buildings and a hotel. To the south is a surface parking lot, a detention basin, Guadalupe River, and an open field where a future Alviso Hotel is planned. To the west are recreation uses and an open field where a future approved hotel will be constructed. To the north, opposite North First Street, are office/research and development buildings, a school, a temple,[1] and a library.

[1] The temple north of the site has been evaluated as a noise-sensitive receptor equivalent to a residential use. The same noise standards were used in assessing impacts to the temple and residential uses.

The existing noise environment at the site results primarily from local vehicular traffic along nearby State Route 237 (SR 237) and North First Street. Aircraft associated with Mineta San José International Airport also contributes to the noise environment.

A noise monitoring survey consisting of two long-term (LT-1 and LT-2) and three short-term (ST-1, ST-2, and ST-3) noise measurements was made at the site between Tuesday, November 16, 2021, and Friday, November 19, 2021. All measurement locations are shown in Figure 1.

Long-term noise measurement LT-1 was made from a utility pole near the corner of North First Street and Bay Vista Drive and quantifies the traffic noise along North First Street. The measurement was made approximately 30 feet from the centerline of the roadway. Hourly average noise levels at LT-1 typically ranged from 65 to 69 dBA L_{eq} during daytime hours (7:00 a.m. and 10:00 p.m.) and from 45 to 67 dBA L_{eq} during nighttime hours (10:00 p.m. and 7:00 a.m.). The day-night average noise level on Wednesday, November 17, 2021 and Thursday, November 18, 2021, ranged from 70 to 71 dBA DNL. The daily trend in noise levels at LT-1 is shown in Figures A1 through A4 of Appendix A.

LT-2 was made from a utility pole near the entrance of the Homewood Suites Hotel along North First Street. LT-2 measures the traffic noise along SR 237 and North First Street, with a setback of approximately 40 feet from the centerline of North First Street. Hourly average noise levels at LT-2 typically ranged from 71 to 75 dBA L_{eq} during daytime hours and from 57 to 72 dBA L_{eq} during nighttime hours. The day-night average noise levels on Wednesday, November 17, 2021 and Thursday, November 18, 2021, was 76 dBA DNL. The daily trend in noise levels at LT-2 is shown in Figures A5 through A8 of Appendix A.

Short-term noise measurements were made on Tuesday, November 16, 2021, between 12:00 p.m. and 1:20 p.m. in 10-minute intervals. Results of the measurements are summarized in Table 4.

ST-1 was made at the rear of the project site, approximately 500 feet from the centerline of North First Street. Distant traffic noise was the primary noise source at this location, with noise levels ranging from 50 to 52 dBA. Occasional airplane flyovers during the ST-1 measurement period generated noise levels of 53 to 54 dBA. The 10-minute L_{eq} measured at ST-1 was 51 dBA.

ST-2 was made near the playground at the George Mayne Elementary School, along Tony P Santos Way. The primary noise source at the ST-2 measurement location was traffic noise along North First Street, which generated noise levels of 48 to 52 dBA. Vehicular noise levels along Tony P Santos Way consisted of heavy trucks with noise levels ranging from 68 to 70 dBA and automobiles with noise levels ranging from 62 to 64 dBA. During the measurement, a school bell generated noise levels of 62 dBA, and airplane flyovers generated noise levels of 63 to 66 dBA. Nearby construction was also a contributing noise source at ST-2, with a saw generating noise levels of 62 to 66 dBA. The 10-minute L_{eq} measured at ST-2 was 61 dBA.

ST-3 was made at the mobile home park southwest of the project site, along Channel Drive. Typical ambient noise levels at ST-3 ranged from 42 to 44 dBA. The primary noise source impacting the ST-3 measurement was airplane flyovers, which generated noise levels of 52 to 73 dBA. The 10-minute L_{eq} measured at ST-3 was 59 dBA.

TABLE 4 Summary of Short-Term Noise Measurements (dBA)

Noise Measurement Location	Date, Time	Measured Noise Level, dBA					
		L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-1: Rear of the project site	11/16/2021, 12:00-12:10	56	54	53	50	48	51
ST-2: Near George Mayne Elementary School playground	11/16/2021, 12:30-12:40	73	71	66	55	46	61
ST-3: At the mobile home park southwest of the project site	11/16/2021, 13:10-13:20	73	71	64	45	43	59

FIGURE 1 Aerial Image of the Project Site and Surrounding Area with Long- and Short-Term Measurement Locations Identified

Source: Google Earth, 2021.

PLAN CONSISTENCY ANALYSIS

Noise and Land Use Compatibility

The Cal Green Code standards specify an interior noise environment attributable to exterior sources not to exceed an hourly equivalent noise level ($L_{eq\ (1\text{-}hr)}$) of 50 dBA in occupied areas of nonresidential uses during any hour of operation.

The future noise environment at the site would continue to result primarily from vehicular traffic along nearby SR 237 and North First Street. The traffic study completed for the proposed project did not include future traffic volumes. However, the traffic study did show that the project would result in an immeasurable noise level increase over existing volumes. According to the noise assessment completed for the *Envision San Jose 2040 General Plan Comprehensive Update Draft Environmental Impact Report*,[2] the traffic noise level increase at the project site would be 0 dBA DNL above existing conditions in the year 2035. Conservatively, it is assumed that a 1% traffic volume increase would occur annually through 2040, resulting in a 1 dBA DNL increase at the project site.

Future Interior Noise Environment

The nearest building façades are approximately 135 to 140 feet from the centerline of North First Street. At these distances, daytime hourly average noise levels at the building exterior would range from 56 to 60 dBA L_{eq}, with day-night average noise levels up to 65 dBA DNL.

Standard construction materials for nonresidential uses would provide about 25 dBA of noise reduction in interior spaces. The inclusion of adequate forced-air mechanical ventilation systems is normally required so that windows may be kept closed at the occupant's discretion and would provide an additional 5 dBA reduction. The standard construction materials in combination with forced-air mechanical ventilation would satisfy the daytime threshold of 50 dBA $L_{eq(1\text{-}hr)}$.

NOISE IMPACTS AND MITIGATION MEASURES

This section describes the significance criteria used to evaluate project impacts under CEQA, provides a discussion of each project impact, and presents mitigation measures, where necessary, to reduce project impacts to less-than-significant levels.

Significance Criteria

The following criteria were used to evaluate the significance of environmental noise resulting from the project:

- A significant noise impact would be identified if the project would generate a substantial temporary or permanent noise level increase over ambient noise levels at existing noise-sensitive receptors surrounding the project site and that would exceed applicable noise

[2] Illingworth & Rodkin, Inc., *Envision San José 2040 General Plan Comprehensive Update Environmental Noise Assessment*, December 2010.

standards presented in the General Plan at existing noise-sensitive receptors surrounding the project site.

  - A significant noise impact would be identified if construction-related noise would temporarily increase ambient noise levels at sensitive receptors. The City of San José considers large or complex projects involving substantial noise-generating activities and lasting more than 12 months significant when within 500 feet of residential land uses or within 200 feet of commercial land uses or offices.

  - A significant permanent noise level increase would occur if the project would result in: a) a noise level increase of 5 dBA DNL or greater, with a future noise level of less than 60 dBA DNL, or b) a noise level increase of 3 dBA DNL or greater, with a future noise level of 60 dBA DNL or greater.

  - A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan.

- A significant impact would be identified if the construction of the project would generate excessive vibration levels surrounding receptors. Groundborne vibration levels exceeding 0.08 in/sec PPV would have the potential to result in cosmetic damage to historic buildings, and groundborne vibration levels exceeding 0.2 in/sec PPV would have the potential to result in cosmetic damage to normal buildings.

- A significant noise impact would be identified if the project would expose people residing or working in the project area to excessive aircraft noise levels.

Impact 1a: **Temporary Construction Noise.** Existing noise-sensitive land uses would be exposed to a temporary increase in ambient noise levels for a period of more than one year; however, with the implementation of the City's Standard Permit Condition, this temporary noise increase would be reduced to a **less-than-significant** level.

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Policy EC-1.7 of the City's General Plan requires that all construction operations within the City to use best available noise suppression devices and techniques and to limit construction hours near residential uses per the Municipal Code allowable hours, which are between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday when construction occurs within 500 feet of a residential land use. Further, the City considers significant construction noise impacts to occur if a project that is located within 500 feet of residential uses or 200 feet of commercial or office uses would

involve substantial noise-generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.

Daytime ambient levels at the school and temple located north of the project site, as well as the residential land uses west of the project site, would range from 65 to 69 dBA L_{eq}. Daytime ambient noise levels at the existing commercial and hotel uses east of the project site would range from 71 to 75 dBA L_{eq}.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The construction of the proposed project would involve excavation, grading, building construction, and paving. The hauling of excavated materials and construction materials would generate truck trips on local roadways, as well. For the proposed project, pile driving, which generates excessive noise levels, is not expected.

Construction activities for individual projects are typically carried out in phases. During each phase of construction, there would be a different mix of equipment operating, and noise levels would vary by phase and vary within phases, based on the amount of equipment in operation and the location at which the equipment is operating. The typical range of maximum instantaneous noise levels for the proposed project would be 70 to 90 dBA L_{max} at a distance of 50 feet (see Table 5) from the equipment. Table 6 shows the hourly average noise level ranges, by construction phase, typical for various types of projects. Hourly average noise levels generated by construction are about 75 to 89 dBA L_{eq} for warehouse buildings, measured at a distance of 50 feet from the center of a busy construction site. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

A detailed list of equipment expected to be used during each phase of project construction was provided by the applicant for this analysis and is summarized in Table 7. Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM) was used to calculate the hourly average noise levels for each phase of construction, assuming every piece of equipment would operate simultaneously, which would represent the worst-case scenario. This construction noise model includes representative sound levels for the most common types of construction equipment and the approximate usage factors of such equipment that were developed based on an extensive database of information gathered during the construction of the Central Artery/Tunnel Project in Boston, Massachusetts (CA/T Project or "Big Dig"). The usage factors represent the percentage of time that the equipment would be operating at full power.

For each phase, the worst-case hourly average noise levels were estimated at the property line of each surrounding land use. For overall construction noise levels, multiple pieces of equipment used simultaneously would add together creating a collective noise source. While every piece of equipment per phase would likely be scattered throughout the site, the noise-sensitive receptors surrounding the site would be subject to the collective noise source generated by all equipment operating at once. Therefore, to assess construction noise impacts at the receiving property lines of noise-sensitive receptors, the collective worst-case hourly average noise level for each phase was positioned at the geometrical center of the site and propagated to the nearest property line of

the surrounding land uses. These noise level estimates are also shown in Table 7. Noise levels in Table 7 do not assume reductions due to intervening buildings or existing barriers.

The Alviso Hotel south of the project site is currently under the planning review, and an approved hotel is planned to the west. However, these uses would potentially be a noise-sensitive receptors with occupants during project construction. Conservatively, this study is treating these hotels as if they would be occupied prior to the start of construction. In addition to the nearest receptors shown in Table 7, the nearest single-family residences would be 985 feet west, the mobile home park would be approximately 1,635 feet southwest of the center of the construction site, and the nearby existing hotel to the east would be approximately 1,260 feet east of the center of the site. Noise levels during construction activities would range from 48 to 63 dBA L_{eq} at the nearest residences, from 43 to 58 dBA L_{eq} at the mobile home park, and from 46 to 60 dBA L_{eq} at the hotel. These noise levels would be within or below the range of ambient daytime hourly average noise levels. Therefore, disruption would be minimal.

TABLE 5 Construction Equipment 50-Foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes:

[1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

[3]Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

TABLE 6 Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

TABLE 7 Estimated Construction Noise Levels at Nearby Land Uses

Phase of Construction (Time Duration)	Construction Equipment (Quantity)	Calculated Hourly Average Noise Levels, L_{eq} (dBA)									
		Ambient Noise Levels = 65 to 69 dBA L_{eq}								Ambient Noise Levels = 71 to 75 dBA L_{eq}	
		North Temple, School & Office (300ft)		West Top Golf (815ft)		West Future Hotel (570ft)		South Alviso Hotel (220ft)		East Comm. (520ft)	
		Level, dBA	Exceed Amb. by 5 dBA or more?	Level, dBA	Exceed Amb. by 5 dBA or more?	Level, dBA	Exceed Amb. by 5 dBA or more?	Level, dBA	Exceed Amb. by 5 dBA or more?	Level, dBA	Exceed Amb. by 5 dBA or more?
Site Preparation (10 days)	Rubber-Tired Dozer (3) Tractor/Loader/Backhoe (4)	72	No	63	No	67	No	75	Yes	67	No
Grading/ Excavation (30 days)	Excavator (2) Grader (1) Rubber-Tired Dozer (1) Scraper (2) Tractor/Loader/Backhoe (2)	73	No	64	No	67	No	75	Yes	68	No
Trenching/ Foundation (30 days)	Tractor/Loader/Backhoe (1) Excavator (1)	66-74[a]	Yes	57-65[a]	No	61-68[a]	No	69-76[a]	Yes	61-69[a]	No
Building – Exterior (300 days)	Crane (1) Forklift (3) Generator Set (1) Tractor/Loader/Backhoe (3) Welder (1)	71	No	62	No	65	No	73	No	66	No
Building – Interior/ Architectural Coating (20 days)	Air Compressor (1)	58	No	50	No	53	No	61	No	53	No
Paving (20 days)	Paver (2) Paving Equipment (2) Roller (2)	71[b]	No	62-63[b]	No	65-66[b]	No	74[b]	Yes	66[b]	No

[a] Range in noise levels represents the trenching/foundation phase only and during potential overlapping with the grading/excavation phase.
[b] Range in noise levels represents the paving phase only and during potential overlapping with the building – interior/architectural coating phase.

As shown in Table 7, ambient levels at the surrounding uses would potentially be exceeded by 5 dBA L_{eq} or more at various times throughout construction. Project construction is expected to last for a period of approximately 15 months. Since project site is within 500 feet of existing residential uses and within 200 feet of existing commercial uses, this temporary construction impact would be considered significant in accordance with Policy EC-1.7 of the City's General Plan.

Policy EC-1.7 of the City's General Plan would be enforced as part of the conditions of approval. Policy EC-1.7 states the following:

> Construction operations within the City will be required to use available noise suppression devices and techniques and continue to limit construction hours near residential uses per the City's Municipal Code. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:
>
> - Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.
>
> For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses.

Additionally, the City requires that reasonable noise reduction measures be incorporated into the construction plan and implemented during all phases of construction activity as part of their Standard Permit Condition. The following measures shall be included as part of the proposed project construction:

- Limit construction hours to between 7:00 a.m. and 7:00 p.m., Monday through Friday, unless permission is granted with a development permit or other planning approval. No construction activities are permitted on the weekends at sites within 500 feet of a residence.

- Construct solid plywood fences around ground level construction sites adjacent to operational businesses, residences, or other noise-sensitive land uses.

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.

- Prohibit unnecessary idling of internal combustion engines.

- Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. Construct temporary noise

barriers to screen stationary noise-generating equipment when located near adjoining sensitive land uses.

- Utilize "quiet" air compressors and other stationary noise sources where technology exists.

- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.

- Notify all adjacent business, residences, and other noise-sensitive land uses of the construction schedule, in writing, and provide a written schedule of "noisy" construction activities to the adjacent land uses and nearby residences.

- If complaints are received or excessive noise levels cannot be reduced using the measures above, erect a temporary noise control blanket barrier along surrounding building facades that face the construction sites.

- Designate a "disturbance coordinator" who shall be responsible for responding to any complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., bad muffler, etc.) and shall require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

- Limit construction to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday for any on-site or off-site work within 500 feet of any residential unit. Construction outside of these hours may be approved through a development permit based on a site-specific "construction noise mitigation plan" and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential uses.

With the implementation of GP Policy EC-1.7, Municipal Code requirements, and the City's Standard Permit Conditions, the temporary construction noise impact would be reduced to a less-than-significant level.

Mitigation Measure 1a: No mitigation required. Only City's standard permit conditions are required to reduce construction noise impacts to a less than significant level.

Impact 1b: Permanent Noise Level Increase/Exceed Applicable Standards. The proposed project would not result in a substantial permanent noise level increase. The proposed project would not exceed applicable standards at the future noise-sensitive uses with the incorporation of planning considerations during final project design. **This is a less-than-significant impact.**

According to Policy EC-1.2 of the City's General Plan, a significant permanent noise increase would occur if the project would increase noise levels at noise-sensitive receptors by 3 dBA DNL

or more where ambient noise levels exceed the "normally acceptable" noise level standard. Where ambient noise levels are at or below the "normally acceptable" noise level standard, noise level increases of 5 dBA DNL or more would be considered significant. The City's General Plan defines the "normally acceptable" outdoor noise level standard for the nearby residential land uses to be 60 dBA DNL. Existing ambient levels, based on the measurements made in the project vicinity, exceed 60 dBA DNL. Therefore, a significant impact would occur if noise due to the proposed project would permanently increase ambient levels by 3 dBA DNL.

Under the City's Noise Element, noise levels from new nonresidential building equipment shall not exceed a noise level of 55 dBA DNL at receiving noise-sensitive land uses. Noise-sensitive receptors surrounding the site would include existing residences west and southwest of the site, the elementary school and religious temple north of the site, an existing hotel east of the site, and future hotels to the west and to the south. Additionally, the City's Municipal Code limits noise levels from industrial uses to 55 dBA DNL at existing residential uses and to 60 dBA DNL at existing commercial uses, which are located to the east, to the west, and to the northeast. While exceeding the Municipal Code thresholds would not constitute a significant CEQA impact, these thresholds should be used during the final design phase of the project to control noise at existing receptors in the project vicinity.

Project Traffic Increase

The traffic study included peak hour turning movements for the existing traffic volumes and project trips at four intersections in the vicinity of the project site. The peak hour project trips were added to the existing traffic volumes to establish the existing plus project traffic scenario. By comparing the existing plus project traffic scenario to the existing scenario, the project's contribution to the overall noise level increase would not be measurable or detectable (0 dBA DNL increase).

Mechanical Equipment

The site plan for the proposed project does not show details pertaining to mechanical equipment, such as type, number, location, etc. Based on known information about the proposed warehouses, these buildings would likely include mechanical equipment, such as heating, ventilation, air conditioning systems, exhaust fans, chillers, etc. Typically, most of the equipment would be located on the roof or in the loading dock areas. For warehouse buildings similar to the proposed project, this type of equipment can generate noise levels ranging from 61 to 62 dBA at a distance of 20 feet.

For purposes of assessing worst-case scenario conditions, the locations of such equipment were assumed to be the nearest building façade to the surrounding land uses. Assuming no reductions due to shielding effects or building elevations, the estimated mechanical equipment noise levels due to such equipment is summarized in Table 8 at the property lines of the surrounding receptors.

TABLE 8 Estimated Mechanical Equipment Noise Levels at Receiving Land Uses

Receptor	Distance from Nearest Warehouse Building Façade	Hourly L_{eq}	DNL	Noise Level Increase, DNL
School, north	180 feet	42 to 43 dBA	49 dBA	0 dBA
Religious Temple, north	190 feet	41 to 42 dBA	49 dBA	0 dBA
Residences, west	465 feet	34 to 35 dBA	41 dBA	0 dBA
Mobile Homes, southwest	1,185 feet	26 to 27 dBA	33 dBA	0 dBA
Topgolf, west	295 feet	38 to 39 dBA	45 dBA	0 dBA
Future Hotel, west	100 feet	47 to 48 dBA	54 dBA	N/A[a]
Future Alviso Hotel, south	120 feet	45 to 46 dBA	53 dBA	N/A[a]
Commercial, east	165 feet	43 to 44 dBA	50 dBA	0 dBA
Commercial, north	195 feet	41 to 42 dBA	49 dBA	0 dBA
Hotel, east	840 feet	29 to 30 dBA	36 dBA	0 dBA

[a] These are future receptors; therefore, the future occupants would not be exposed to a noise level increase over existing levels.

Hourly average noise levels would not exceed 55 dBA at the property lines of the surrounding noise-sensitive land uses, and the day-night average thresholds included in the General Plan and Municipal Code would not be exceeded. Additionally, mechanical equipment noise would not result in a measurable or detectable increase over existing ambient noise levels (0 dBA DNL increase).

Other mechanical equipment proposed at the project site would be two emergency generators, with capacities of 3,000 kilowatts (kW) and 600 kW. The site plan does not show the specific location of each generator, but it is assumed that they would be located at the rear of the buildings. Under this assumption, the school, temple, and commercial office buildings to the north of the site would be well shielded from the generator noise.

Typically, an unhoused 3,000-kW generator would produce noise levels up to 99 dBA at a distance of 23 feet, while a 600-kW generator would produce noise levels up to 91 dBA at 23 feet when unhoused. With the inclusion of industrial silencers, exhaust noise would be reduced by 12 to 18 dBA, and with critical grade silencers, exhaust noise would be reduced by 25 to 35 dBA. Emergency generators are typically tested monthly for a period of one hour between 7:00 a.m. and 10:00 p.m. Further, it is assumed that the City's thresholds would not apply during emergency conditions when the generators would run continuously during daytime and nighttime hours. During the testing periods, however, the thresholds would apply. Assuming worst-case scenario conditions, testing for both generators would occur in the same 24-hour period. Table 9 summarizes the hourly average noise levels and day-night average noise levels expected at the property lines of the surrounding receptors, assuming the unhoused generators are located at the rear of the buildings.

TABLE 9 Estimated Operational Noise Levels During Testing of the Emergency Generators at the Receiving Property Lines of the Surrounding Receptors

Receptor	Distance to Receiving Property Lines	Hourly L_{eq}, dBA	DNL, dBA	Noise Level Increase, DNL dBA
Residences, west	585 feet (west warehouse), 1,035 feet (east warehouse)	Up to 71 dBA[a] Up to 56 dBA[b] Up to 41 dBA[c]	58 dBA[a] 43 dBA[b] 28 dBA[c]	0 dBA[a] 0 dBA[b] 0 dBA[c]
Mobile Homes, southwest	1,200 feet (west warehouse), 1,540 feet (east warehouse)	Up to 65 dBA[a] Up to 50 dBA[b] Up to 35 dBA[c]	51 dBA[a] 36 dBA[b] 21 dBA[c]	0 dBA[a] 0 dBA[b] 0 dBA[c]
Topgolf, west	300 feet (west warehouse), 800 feet (east warehouse)	Up to 77 dBA[a] Up to 62 dBA[b] Up to 47 dBA[c]	63 dBA[a] 48 dBA[b] 33 dBA[c]	1 dBA[a] 0 dBA[b] 0 dBA[c]
Future Hotel, west	100 feet (west warehouse), 595 feet (east warehouse)	Up to 86 dBA[a] Up to 71 dBA[b] Up to 56 dBA[c]	73 dBA[a] 58 dBA[b] 43 dBA[c]	N/A[d]
Future Alviso Hotel, south	120 feet (west warehouse), 180 feet (east warehouse)	Up to 85 dBA[a] Up to 70 dBA[b] Up to 55 dBA[c]	71 dBA[a] 56 dBA[b] 41 dBA[c]	N/A[d]
Commercial, east	630 feet (west warehouse), 175 feet (east warehouse)	Up to 82 dBA[a] Up to 67 dBA[b] Up to 52 dBA[c]	68 dBA[a] 53 dBA[b] 38 dBA[c]	1 dBA[a] 0 dBA[b] 0 dBA[c]
Hotel, east	1,300 feet (west warehouse), 840 feet (east warehouse)	Up to 68 dBA[a] Up to 53 dBA[b] Up to 38 dBA[c]	54 dBA[a] 39 dBA[b] 24 dBA[c]	0 dBA[a] 0 dBA[b] 0 dBA[c]

[a] Assuming the 3,000-kW generator is located at the nearest warehouse building, and both generators are unhoused.
[b] Assuming the 3,000-kW generator is located at the nearest warehouse building, and both generators have industrial silencers with an average reduction of 15 dBA.
[c] Assuming the 3,000-kW generator is located at the nearest warehouse building, and both generators have critical grade silencers with an average reduction of 30 dBA.
[d] These are future receptors; therefore, the future occupants would not be exposed to a noise level increase over existing levels.

Based on the estimated noise levels in Table 9, testing of the emergency generators would potentially exceed the City's General Plan threshold of 55 dBA DNL at the existing residences west of the project site, at the future hotels west and south of the project site, and at the existing hotel east of the project site if the generators are unhoused. The City's Municipal Code thresholds for receiving commercial uses would also potentially be exceeded at the adjoining commercial properties. Hourly average noise levels would also exceed 55 dBA at the residential and future hotel property lines and exceed 60 dBA at the commercial property lines. However, testing of the emergency generators would result in a noise level increase of 1 dBA DNL or less at all existing land uses in the project vicinity.

The final design plans should be reviewed by a qualified acoustical consultant to address any potential conflicts with the General Plan or Municipal Code. The City's standard permit condition

shall be implemented as condition of approval for the proposed project. The standard permit condition states the following:

> A detailed acoustical study shall be prepared during final building design to evaluate the potential noise generated by building mechanical equipment and demonstrate the necessary noise control to meet the City's 55 dBA DNL goal. Noise control features such as sound attenuators, baffles, and barriers shall be identified and evaluated to demonstrate that mechanical equipment noise would not exceed 55 dBA DNL at noise-sensitive locations around the project site. The noise control features identified by the study shall be incorporated into the project prior to issuance of a building permit.

The implementation of the standard permit condition would reduce noise levels originating from the project site to a less-than-significant level.

Parking Lot Noise

A surface parking lot located on site would include 161 vehicular parking stalls and 35 truck parking spaces. Noise sources associated with the use of the parking lots would include vehicular circulation, loud engines, door slams, and human voices. The maximum noise level of a passing car at 15 mph typically ranges from 45 to 55 dBA L_{max} at a distance of 100 feet. The noise generated during an engine start is similar. Door slams cause slightly lower noise levels. The hourly average noise levels resulting from all of these noise-generating activities in a busy parking lot typically ranges from 40 to 50 dBA L_{eq} at a distance of 100 feet from the parking area. Noise levels decrease at a rate of 6 dB per doubling of distance. Table 10 summarizes the estimated parking lot noise at the surrounding receptors when the noise source is centered at the nearest parking area on the project site. Note, the future Alviso Hotel would be shielded by vehicular parking lots located along the northeastern building façades, and therefore, is not considered a receptor for parking lot noise.

TABLE 10 Estimated Parking Lot Noise Levels at Receiving Land Uses

Receptor	Distance from Center of Nearest Parking Area	Hourly L_{eq}	DNL	Noise Level Increase, DNL
School, north	135 feet	37 to 47 dBA	41 dBA	0 dBA
Religious Temple, north	150 feet	37 to 47 dBA	40 dBA	0 dBA
Residences, west	570 feet	25 to 35 dBA	28 dBA	0 dBA
Mobile Homes, southwest	1,530 feet	16 to 26 dBA	20 dBA	0 dBA
Topgolf, west	475 feet	27 to 37 dBA	30 dBA	0 dBA
Future Hotel, west	220 feet	33 to 43 dBA	36 dBA	N/A[a]
Commercial, east	450 feet	27 to 37 dBA	30 dBA	0 dBA
Commercial, north	150 feet	37 to 47 dBA	40 dBA	0 dBA
Hotel, east	1,100 feet	19 to 29 dBA	22 dBA	0 dBA

[a] These are future receptors; therefore, the future occupants would not be exposed to a noise level increase over existing levels.

Noise levels resulting from parking activities would be well below ambient noise levels due to traffic along local roadways, and the proposed parking lot/parking activities would not measurably contribute to ambient noise levels in the area (0 dBA DNL increase).

Truck Deliveries

The proposed project would include 100 daily truck trips, 41 of which would be refrigerated trucks. Twenty-five total truck loading docks would be located at rear of the proposed warehouses. According to the traffic study, 96 truck trips at the project site would occur between 7:00 a.m. and 10:00 p.m., with peak AM and peak PM trips of 18 trucks each. The remaining four truck trips would occur between 10:00 p.m. and 7:00 a.m., which would be considered nighttime hours.

Truck delivery noise would include both maneuvering activities occurring at the loading docks and truck parking spaces at the rear of the buildings, as well as truck pass-by activities occurring at driveways and along roadways, specifically along the eastern and western boundaries of the project site.

Trucks maneuvering would generate a combination of engine, exhaust, and tire noise, as well as the intermittent sounds of back-up alarms and releases of compressed air associated with truck/trailer air brakes. Heavy trucks used for incoming deliveries typically generate maximum instantaneous noise levels of 70 to 75 dBA L_{max} at a distance of 50 feet. The noise level of backup alarms can vary depending on the type and directivity of the sound, but maximum noise levels are typically in the range of 65 to 75 dBA L_{max} at a distance of 50 feet. Hourly average noise levels due to truck maneuvering would range from 65 to 70 dBA L_{eq} at 50 feet. Due to the orientation of the buildings, the religious temple, elementary school, and the offices to the north of the project site would be well shielded from all traffic maneuvering and would not be considered receptors for this noise source. Table 11 summarizes the estimated truck maneuvering noise at the surrounding receptors.

TABLE 11 Estimated Truck Maneuvering Noise Levels at Receiving Land Uses

Receptor	Distance from Center of Nearest Truck Parking Area	Hourly L_{eq}	DNL	Noise Level Increase, DNL
School, north	525 feet	45 to 50 dBA	43 dBA	0 dBA
Residences, west	640 feet	43 to 48 dBA	41 dBA	0 dBA
Mobile Homes, southwest	1,100 feet	38 to 43 dBA	36 dBA	0 dBA
Topgolf, west	340 feet	48 to 53 dBA	46 dBA	0 dBA
Future Hotel, west	140 feet	56 to 61 dBA	54 dBA	N/A[a]
Future Alviso Hotel, south	100 feet	59 to 64 dBA	57 dBA	N/A[a]
Commercial, east	180 feet	54 to 59 dBA	52 dBA	0 dBA
Hotel, east	835 feet	41 to 46 dBA	39 dBA	0 dBA

[a] These are future receptors; therefore, the future occupants would not be exposed to a noise level increase over existing levels.

Noise levels resulting from truck maneuvering activities would be at or below ambient noise levels due to traffic along local roadways; however, the 55 dBA DNL threshold would be exceeded at the future Alviso Hotel property line. The proposed truck maneuvering activities would not measurably contribute to ambient noise levels in the area (0 dBA DNL increase).

Based on data from I&R's files, diesel-powered refrigeration truck units generate noise levels ranging from 81 dBA at 10 feet under low-speed conditions to 86 dBA at 10 feet under high-speed conditions. Electric-powered refrigeration truck units generate noise levels of 74 dBA at 10 feet. For this analysis, it is assumed that one refrigeration truck would be on-site for about 15 minutes. Table 12 summarizes the noise levels of refrigeration trucks propagated to the property lines of the nearest surrounding land uses under worst-case conditions, which would be high-speed maneuvering conditions.

TABLE 12 Estimated Refrigeration Truck Noise Levels at Receiving Land Uses, Assuming Worst-Case Conditions of High-Speed Maneuvering

Receptor	Distance from Center of Nearest Truck Parking Area	Hourly L_{eq}	DNL	Noise Level Increase, DNL
School, north	525 feet	52 dBA	48 dBA	0 dBA
Residences, west	640 feet	50 dBA	47 dBA	0 dBA
Mobile Homes, southwest	1,100 feet	45 dBA	42 dBA	0 dBA
Topgolf, west	340 feet	55 dBA	52 dBA	0 dBA
Future Hotel, west	140 feet	63 dBA	60 dBA	N/A[a]
Future Alviso Hotel, south	100 feet	66 dBA	63 dBA	N/A[a]
Commercial, east	180 feet	61 dBA	58 dBA	0 dBA
Hotel, east	835 feet	48 dBA	44 dBA	0 dBA

[a] These are future receptors; therefore, the future occupants would not be exposed to a noise level increase over existing levels.

Noise levels resulting from diesel refrigeration trucks under high-speed conditions would be at or below ambient noise levels. Since the source levels for diesel refrigeration trucks under low-speed conditions and electric refrigeration trucks were 5 to 12 dBA lower than the diesel refrigeration trucks under high-speed conditions, the noise levels propagated to the receiving property lines would be 5 to 12 dBA lower than those in Table 12. Under worst-case conditions, the 55 dBA DNL would be exceeded at the future hotels west and south of the site. Table 12 shows that refrigeration trucks under worst-case conditions would not measurably contribute to ambient noise levels in the area (0 dBA DNL increase).

To estimate the pass-by noise levels for heavy trucks traveling at speeds of 15 to 25 mph, Federal Highway Administration's Traffic Noise Model (FHWA TNM), version 2.5, was used to model various hourly scenarios for truck traffic, based on the daily trip distribution provided in the traffic study. Table 13 summarizes the estimated truck pass-by noise levels at the surrounding receptors.

TABLE 13 Estimated Truck Pass-by Noise Levels at Receiving Land Uses

Receptor	Distance from Center of Nearest Driveway	Hourly L_{eq}	DNL	Noise Level Increase, DNL
School, north	105 feet	47 to 54 dBA	49 dBA	0 dBA
Religious Temple, north	450 feet	34 to 41 dBA	36 dBA	0 dBA
Residences, west	390 feet	36 to 42 dBA	37 dBA	0 dBA
Mobile Homes, southwest	1,160 feet	26 to 33 dBA	28 dBA	0 dBA
Topgolf, west	270 feet	39 to 45 dBA	40 dBA	0 dBA
Future hotel, west	70 feet	51 to 57 dBA	52 dBA	N/A[a]
Future Alviso Hotel, south	40 feet	55 to 62 dBA	57 dBA	N/A[a]
Commercial, east	95 feet	48 to 54 dBA	49 dBA	0 dBA
Commercial, north	160 feet	43 to 50 dBA	45 dBA	0 dBA
Hotel, east	765 feet	30 to 36 dBA	31 dBA	0 dBA

[a] These are future receptors; therefore, the future occupants would not be exposed to a noise level increase over existing levels.

Hourly average noise levels would exceed 55 dBA at the property line of the future adjacent hotels, and the day-night average threshold of 55 dBA DNL would be exceeded at the future hotel south of the site. Hourly average and day-night average noise levels would not be exceeded at the other existing receptors surrounding the site. Additionally, project noise due to truck deliveries would not result in a measurable or detectable increase over existing ambient noise levels (0 dBA DNL increase).

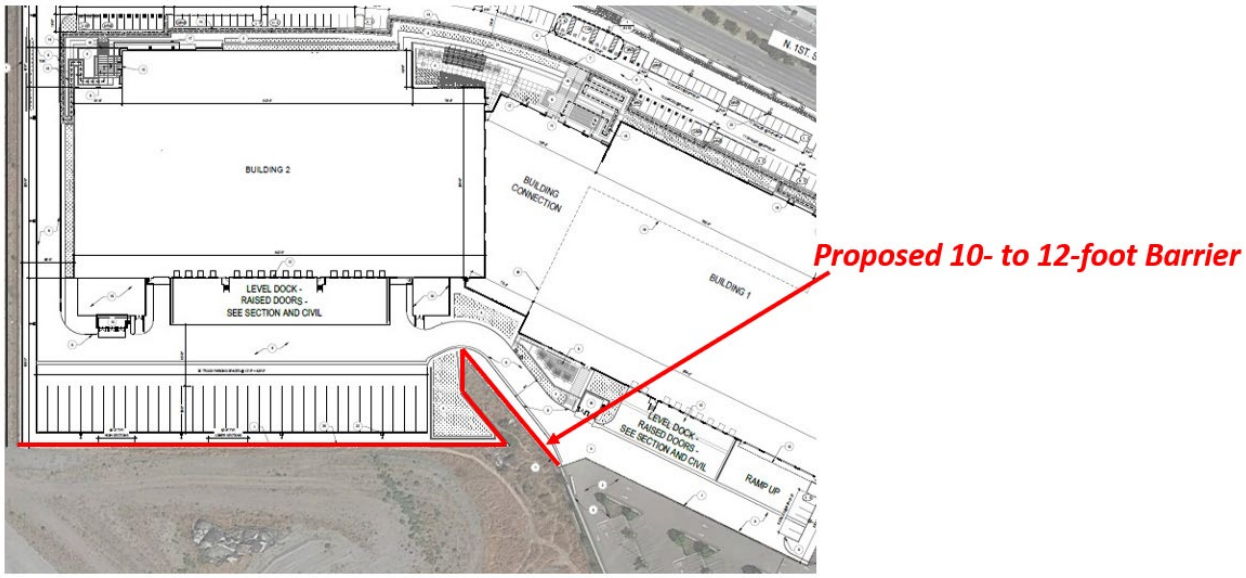
While refrigeration truck noise would exceed City's 55 dBA DNL threshold at the property line of the future hotel to the west, the ambient levels at this site range from 65 to 69 dBA DNL since it is located along North 1st Street. Since the noise levels generated at the site would be at or below the ambient levels, this would not be considered a significant impact. Due to the close proximity of the proposed pool deck area of the future Alviso Hotel, all truck activities would exceed allowable noise levels established by the City of San José at the shared property line by up to 8 dBA. Since the Alviso Hotel has not been approved yet and could change, this would not be considered a significant impact under CEQA; however, implementing measures to reduce noise levels from truck activities should be a planning consideration during final design of the proposed project.

Methods available to reduce truck idling, maneuvering, and pass-by noise levels at the future Alviso Hotel, which includes a pool area along the shared property line, would include site planning alternatives (e.g., increased setbacks and using the proposed buildings as noise barriers), the construction of traditional noise barriers, or a combination of the above. Relocating the loading areas and driveways would not be a feasible option since other potential locations on the site would create potential significant impacts at other receptors. One measure that could be used for noise reduction would be to construct a sound wall or a specially-designed barrier fence capable of reducing noise levels by up to 8 dBA.

For a barrier to be effective, the line-of-sight between the occupants of the outdoor spaces and the noise source(s) must be interrupted. A barrier along the shared property line (western boundary of the project site) with a minimum height of 10 to 12 feet would be required to block the exhaust stack of the heavy trucks. Figure 2 shows the proposed location of the barriers along the shared property lines, assuming refrigeration truck maneuvering would occur at both proposed on-site buildings. As shown in the figure, the total length of the barriers would be approximately 830 feet. Specific locations and lengths of the barriers should be confirmed during final design of the proposed project.

The proposed barriers should be continuous from grade to top, with no cracks or gaps, and have a minimum surface density of three lbs/ft^2 (i.e., one-inch thick marine-grade plywood or fence boards, concrete masonry units (CMU), masonry block, ½-inch laminated glass). Final recommendations shall be confirmed when detailed site plans and grading plans are available. With the implementation of this proposed barrier, the noise levels generated on-site by truck activities would be reduced to 55 dBA DNL or below.

FIGURE 2 Proposed Barriers Along the Southern Property Line



Other options to reduce noise at the future Alviso Hotel site could be pursued and would be subject to coordination between the two projects; solution(s) would be specified in the conditions of approval for each project, as determined by the City.

Total Combined Project-Generated Noise

The operational noise levels produced by the proposed project combined (i.e., traffic, mechanical equipment, parking lot, truck loading/unloading activities, refrigeration trucks, and truck pass-bys) would not substantially increase ambient noise levels in the project vicinity. The total noise level increase due to the proposed project would be 1 dBA DNL or less. Further, operational noise levels would not exceed 55 dBA DNL at the nearest residential land uses with the incorporation of the City's standard permit code as a condition of approval. This is a less-than-significant impact.

Mitigation Measure 1b: **None required.**

Impact 2: **Exposure to Excessive Groundborne Vibration.** Construction-related vibration levels could potentially exceed applicable vibration thresholds at nearby sensitive land uses. **This is a significant impact.**

The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities would include demolition, site preparation work, foundation work, and new building framing and finishing. Pile driving equipment, which can cause excessive vibration, is not expected to be required for the proposed project.

According to Policy EC-2.3 of the City of San José General Plan, a vibration limit of 0.08 in/sec PPV shall be used to minimize the potential for cosmetic damage to sensitive historical structures, and a vibration limit of 0.20 in/sec PPV shall be used to minimize damage at buildings of normal conventional construction. The vibration limits contained in this policy are conservative and designed to provide the ultimate level of protection for existing buildings in San José. As discussed in detail below, vibration levels exceeding these thresholds would be capable of cosmetically damaging adjacent buildings. Cosmetic damage (also known as threshold damage) is defined as hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects. Minor damage is defined as hairline cracking in masonry or the loosening of plaster. Major structural damage is defined as wide cracking or the shifting of foundation or bearing walls.

Table 14 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet.

Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Table 14 also summarizes the distances to the 0.08 in/sec PPV threshold for historical buildings and to the 0.2 in/sec PPV threshold for all other buildings.

TABLE 14 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	Minimum Distance to Meet 0.08 in/sec PPV (feet)	Minimum Distance to Meet 0.2 in/sec PPV (feet)
Clam shovel drop		0.202	59	26
Hydromill (slurry wall)	in soil	0.008	4	2
	in rock	0.017	7	3
Vibratory Roller		0.210	61	27
Hoe Ram		0.089	28	13
Large bulldozer		0.089	28	13
Caisson drilling		0.089	28	13
Loaded trucks		0.076	24	11
Jackhammer		0.035	12	6

Small bulldozer	0.003	2	<1

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., January 2022.

According to the City's Historic Resource Inventory,[3] the nearest historical building is located at 1391 Michigan Avenue, which is more than 1,600 feet northwest of the project site. At this distance, vibration levels due to construction activities at the project site would be 0.002 in/sec PPV or below. All buildings in the immediate vicinity of the project site would consist of normal conventional construction materials and would, therefore, be subject to the City's 0.2 in/sec PPV threshold.

Table 15 summarizes the vibration levels at each of the surrounding buildings in the project vicinity. Vibration levels are highest close to the source and then attenuate with increasing distance at the rate $\left({}^{D_{ref}}/_{D}\right)^{1.1}$, where D is the distance from the source in feet and D_{ref} is the reference distance of 25 feet. While construction noise levels increase based on the cumulative equipment in use simultaneously, construction vibration levels would be dependent on the location of individual pieces of equipment. That is, equipment scattered throughout the site would not generate a collective vibration level, but a vibratory roller, for instance, operating near the project site boundary would generate the worst-case vibration levels for the receptor sharing that property line. Further, construction vibration impacts are assessed based on damage to buildings on receiving land uses, not receptors at the nearest property lines. Therefore, the distances used to propagate construction vibration levels (as shown in Table 15), which are different than the distances used to propagate construction noise levels (as shown in Table 7), were estimated under the assumption that each piece of equipment from Table 14 was operating along the nearest boundary of the project site, which would represent the worst-case scenario.

As shown in Table 15, the nearest structure adjoining the project site would be the commercial buildings to the east, which are 100 to 160 feet from the boundary of the project site. At these distances, the conventional commercial buildings would be exposed to vibration levels at or below 0.046 in/sec PPV, which is well below the City's 0.2 in/sec PPV threshold. All other buildings in the project vicinity would be exposed to lower vibration levels due to project construction.

Neither cosmetic, minor, or major damage would occur at conventional buildings surrounding the project site. At these locations, and in other surrounding areas where vibration would not be expected to cause cosmetic damage, vibration levels may still be perceptible. However, as with any type of construction, this would be anticipated and would not be considered significant, given the intermittent and short duration of the phases that have the highest potential of producing vibration (use of jackhammers and other high-power tools). By use of administrative controls, such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration during hours with the least potential to affect nearby businesses, perceptible vibration can be kept to a minimum.

[3] www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/historic-preservation/historic-resources-inventory

In summary, the construction of the project would not generate vibration levels exceeding the General Plan threshold of 0.08 in/sec PPV at the nearest historic properties or the City's 0.2 in/sec PPV threshold at the nonhistorical buildings surrounding the project site. This would be a less-than-significant impact.

Mitigation Measure 2: **None required.**

TABLE 15 Vibration Levels at Nearest Receptors

Equipment		PPV (in/sec)							
		School, Temple, & Commercial - North (130 to 135ft)	**Residences - West (475ft)**	**Mobile Homes - Southwest (1,060ft)**	**Topgolf - West (280ft)**	**Future Hotel – West (100ft[a])**	**Future Alviso Hotel - South (70ft[a])**	**Commercial Buildings - East (100 to 160ft)**	**Hotel - East (835ft)**
Clam shovel drop		0.032 to 0.033	0.008	0.003	0.014	0.044	0.065	0.026 to 0.044	0.025
Hydromill (slurry wall)	in soil	0.001	0.0003	0.0001	0.001	0.002	0.003	0.001 to 0.002	0.001
	in rock	0.003	0.001	0.003	0.001	0.004	0.005	0.002 to 0.004	0.002
Vibratory Roller		0.033 to 0.034	0.008	0.001	0.015	0.046	0.068	0.027 to 0.046	0.026
Hoe Ram		0.014 to 0.015	0.003	0.001	0.006	0.019	0.029	0.012 to 0.017	0.011
Large bulldozer		0.014 to 0.015	0.003	0.001	0.006	0.019	0.029	0.012 to 0.017	0.011
Caisson drilling		0.014 to 0.015	0.003	0.001	0.006	0.019	0.029	0.012 to 0.017	0.011
Loaded trucks		0.012	0.003	0.001	0.005	0.017	0.024	0.010 to 0.017	0.010
Jackhammer		0.005 to 0.006	0.001	0.001	0.002	0.008	0.011	0.005 to 0.008	0.004
Small bulldozer		0.0005	0.0001	0.00005	0.0002	0.001	0.001	0.0004 to 0.001	0.0004

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., January 2022.

[a] The setback distance from the nearest boundary of the Second Harvest project site is estimated based on the most recently viewed site plans available for the individual projects.

Impact 3: **Excessive Aircraft Noise.** The project site is located about 3.9 miles from Norman Y. Mineta International Airport. The noise environment attributable to aircraft is considered normally acceptable under the Santa Clara County ALUC noise compatibility policies. This is a **less-than-significant** impact.

Norman Y. Mineta San José International Airport is a public-use airport located approximately 3.9 miles west of the project site. According to the City's new Airport Master Plan Environmental Impact Report,[4] the project site lies well outside the 60 dBA CNEL/DNL contour line (see Figure 3). The proposed project would be compatible with the City's exterior noise standards for aircraft noise. This would be a less-than-significant impact.

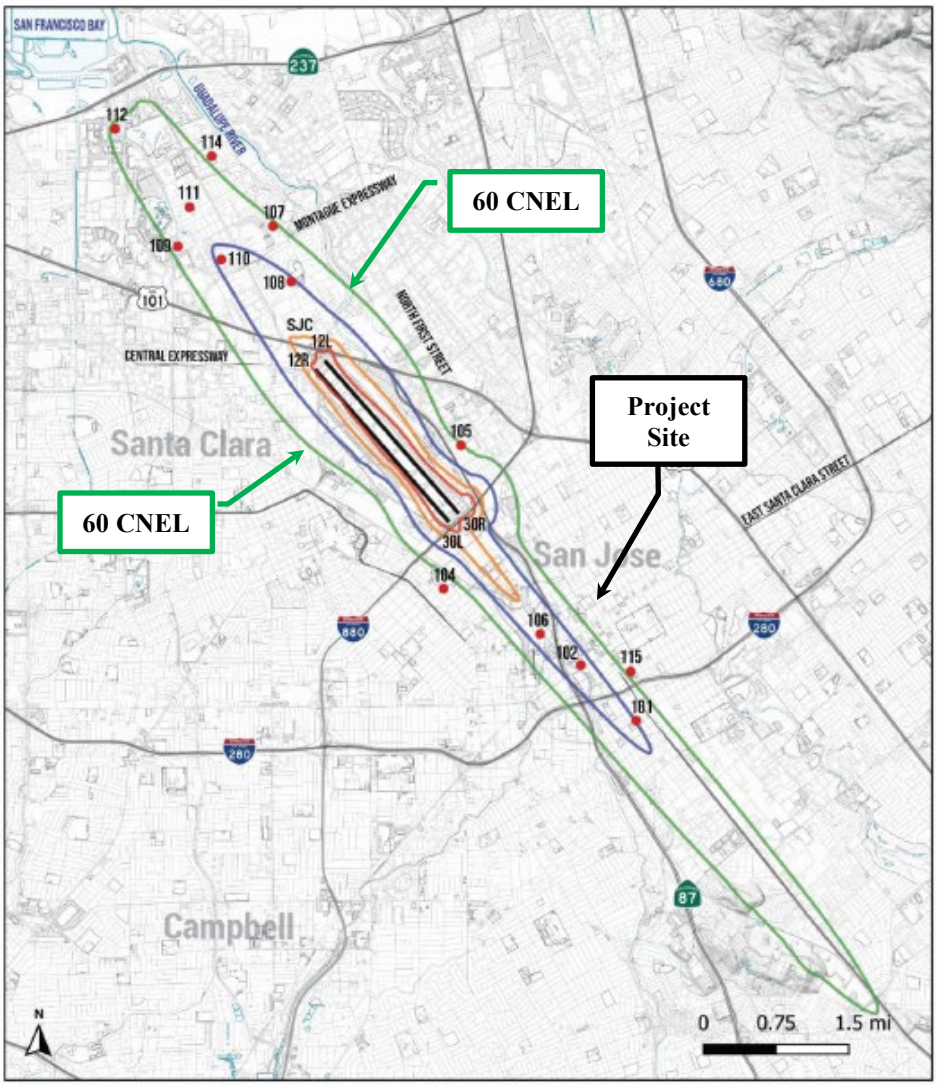
Mitigation Measure 3: **None required.**

[4] David J. Powers & Associates, Inc., Integrated Final Environmental Impact Report, Amendment to Norman Y. Mineta San Jose International Airport Master Plan, April 2020.

FIGURE 3 2037 CNEL Noise Contours for SJIA Relative to Project Site

Figure 5
Scenario 2: With Project 2037 Noise Contour Map

SAN JOSE INTERNATIONAL AIRPORT | Environmental Impact Report FINAL | October 2019



NORMAN Y. MINETA SAN JOSE INTERNATIONAL AIRPORT

- Noise Monitoring Station
- 101 Site ID
- Runway
- 75 dBA and Greater CNEL Contour
- 70 dBA and Greater CNEL Contour
- 65 dBA and Greater CNEL Contour
- 60 dBA and Greater CNEL Contour

Figure 5 Scenario 2: With Project 2037 Noise Contour Map

Source: BridgeNet International 2019

Cumulative Impacts

Cumulative noise impacts would include temporary construction noise from cumulative construction projects. From the City's website,[5] the nearest planned or approved project would be about 1.7 miles east of the project site (Industrial Center located at 1657 Alviso-Milpitas Road), which would not share receptors with the proposed project. The construction of the future hotels to the west and to the south of the project site are assumed in this study to be completed prior to project construction. Therefore, there would not be a cumulative construction impact.

Cumulative traffic volumes were not provided for the proposed project. Since the peak hour project trips would be reduced under the proposed warehouse/office project, compared to the original office building project, the project would not result in a more significant cumulative noise impact than identified in the Cisco Site 6 EIR.

[5] https://gis.sanjoseca.gov/maps/devprojects/

APPENDIX A

FIGURE A1 Daily Trend in Noise Levels for LT-1, Tuesday, November 16, 2021

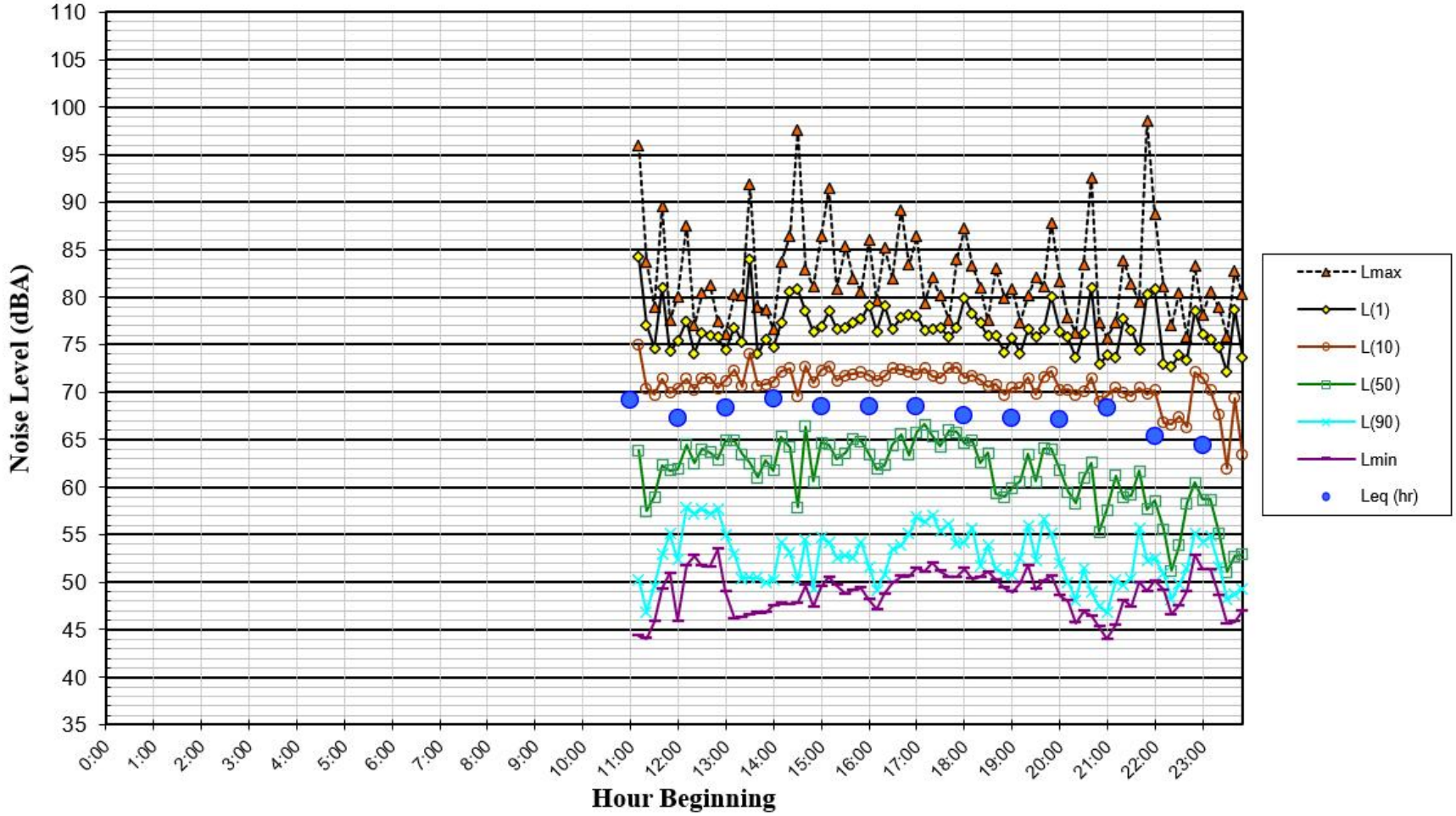


FIGURE A2 Daily Trend in Noise Levels for LT-1, Wednesday, November 17, 2021

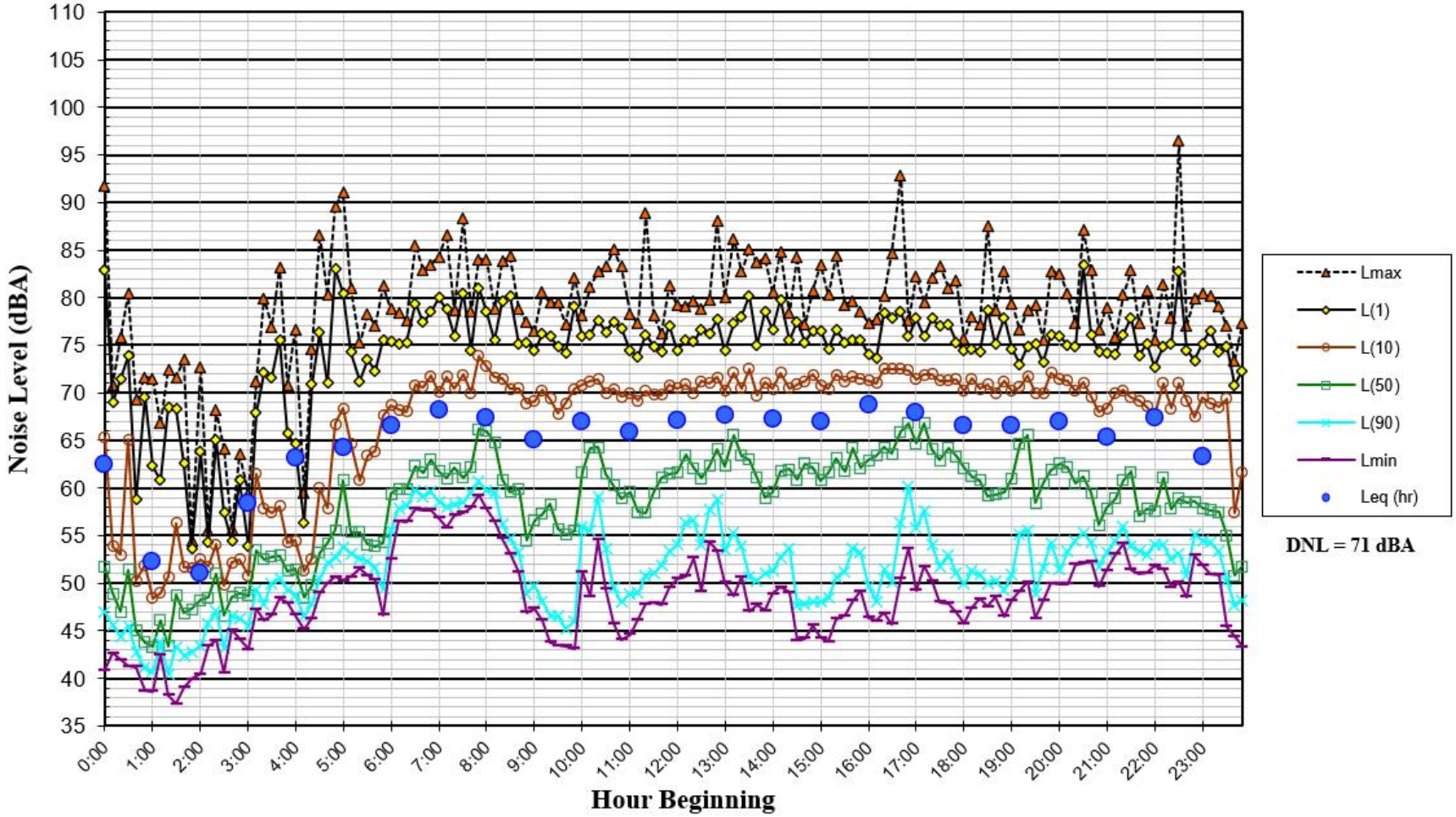


FIGURE A3 Daily Trend in Noise Levels for LT-1, Thursday, November 18, 2021

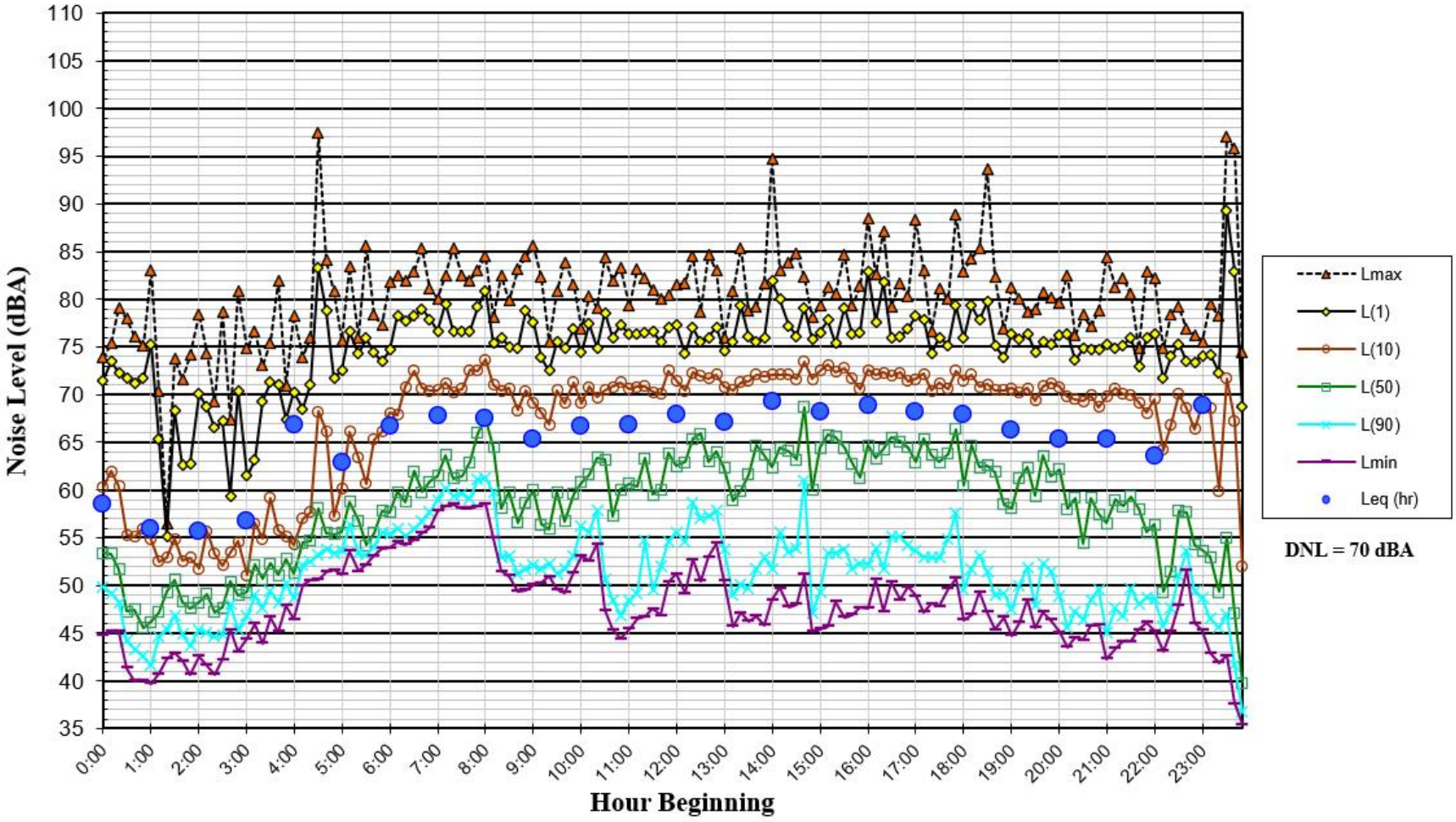


FIGURE A4 Daily Trend in Noise Levels for LT-1, Friday, November 19, 2021

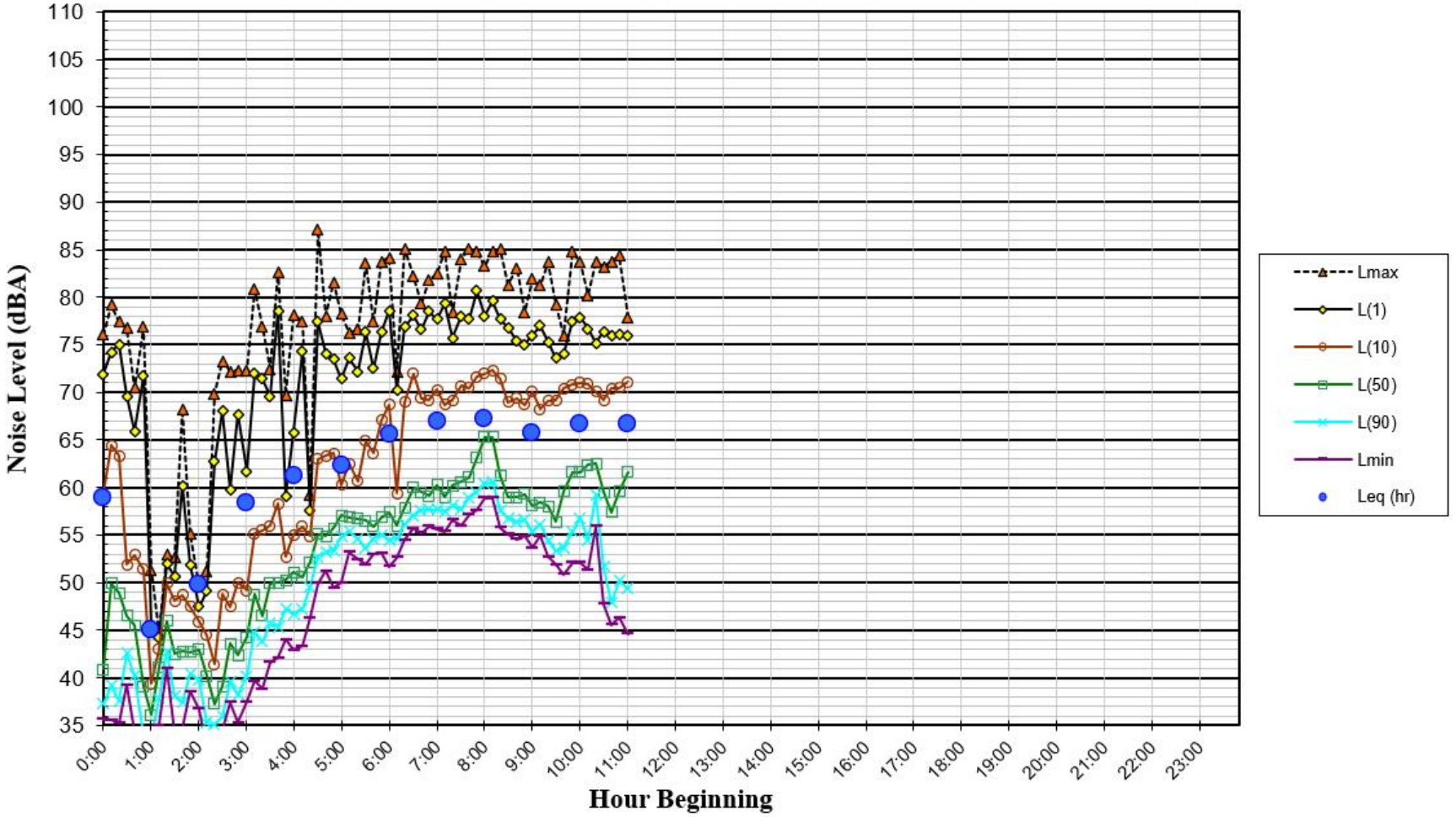


FIGURE A5 Daily Trend in Noise Levels for LT-2, Tuesday, November 16, 2021

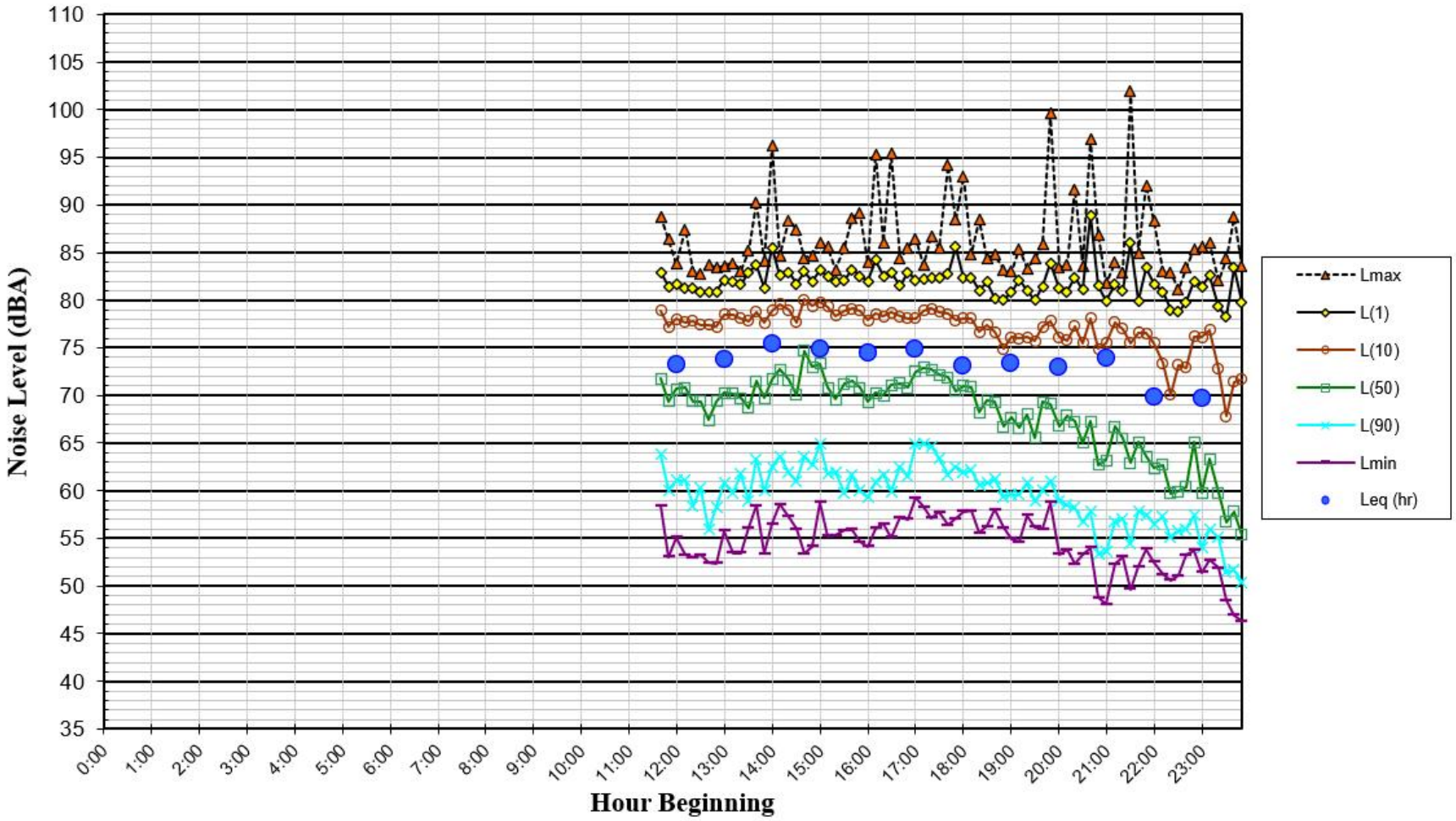


FIGURE A6 Daily Trend in Noise Levels for LT-2, Wednesday, November 17, 2021

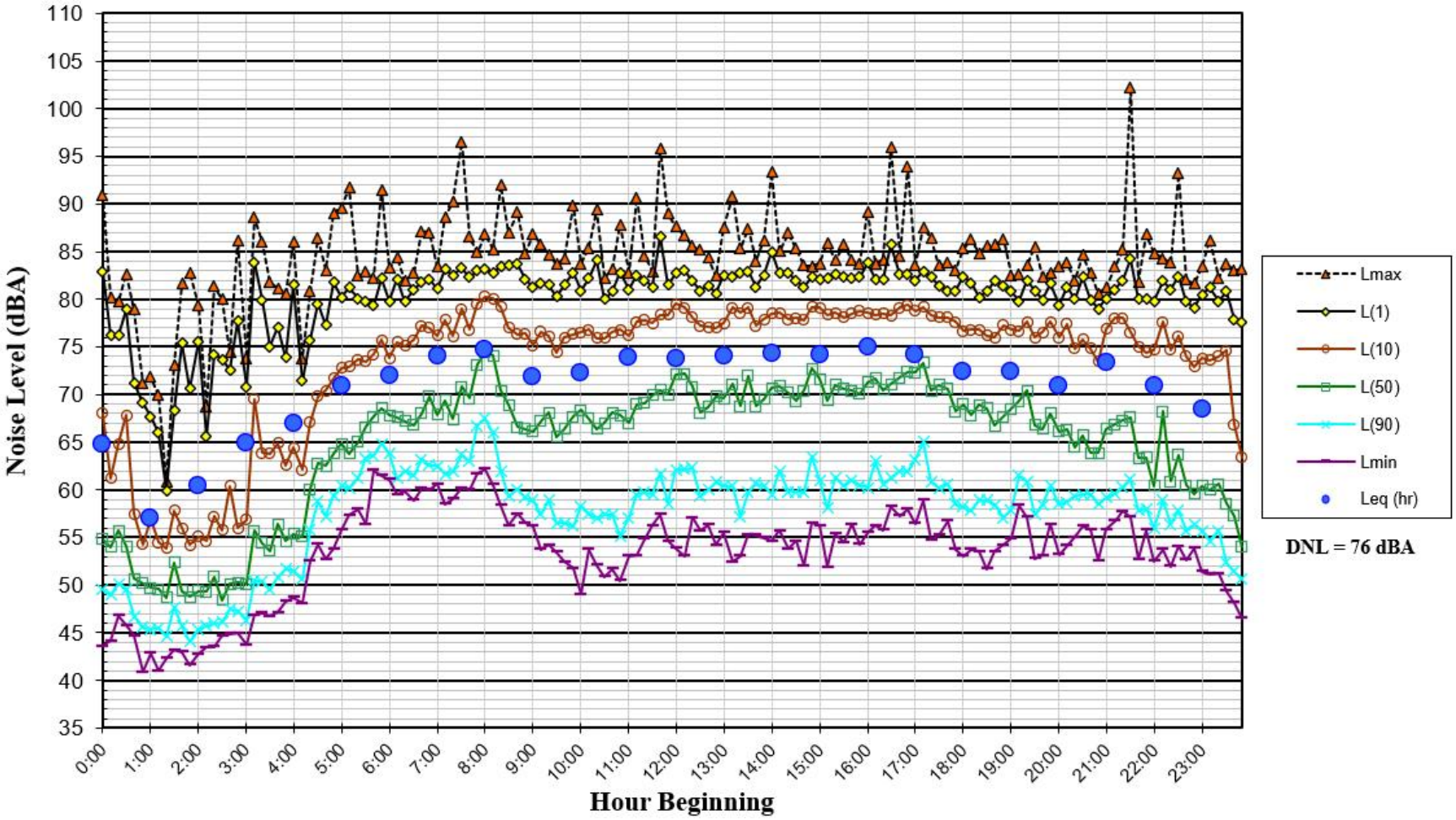


FIGURE A7 Daily Trend in Noise Levels for LT-2, Thursday, November 18, 2021

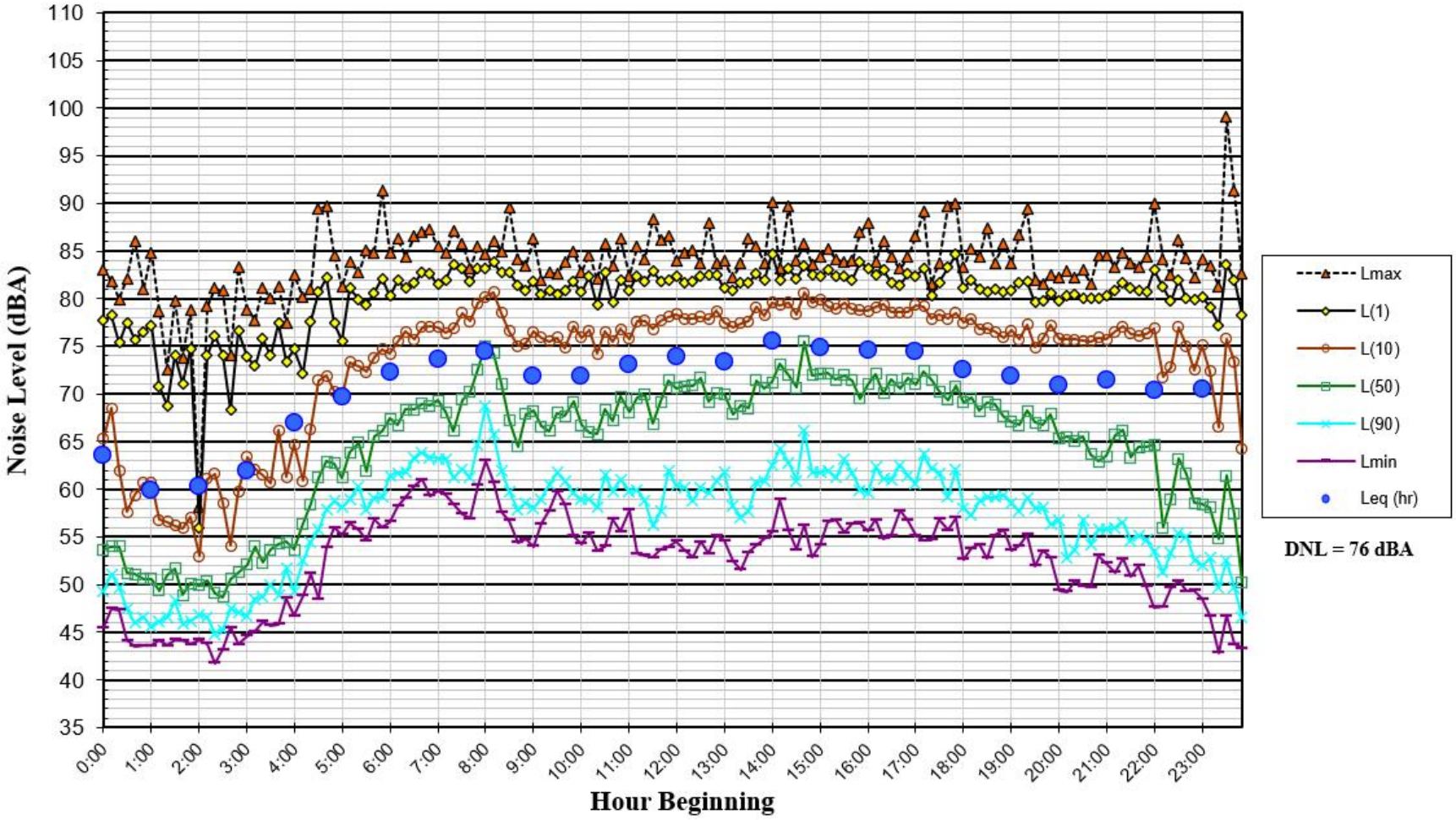


FIGURE A8 Daily Trend in Noise Levels for LT-2, Friday, November 19, 2021