

IV. Environmental Impact Analysis

H. Noise

1. Introduction

This section analyzes the potential noise and vibration impacts of the Project. Included in this section are the following: a description of the existing noise and vibration levels within the Project Site area, an estimation of the future noise and vibration levels at surrounding sensitive land uses associated with construction and operation of the Project, an analysis of the potential noise impacts, and mitigation measures to address any identified potential significant impacts, as applicable. As indicated in Section II, Project Description, of this Draft EIR, the Project includes two options, a single building option (Option 1) and a three-building option (Option 2). Both of these options are included in the analysis below. Additionally, this section evaluates the Project's incremental contribution to potential cumulative noise and vibration impacts resulting from past, present, and probable future projects. This section summarizes the noise and vibration information analyses provided in the Noise and Vibration Calculation Worksheets included in Appendix H of the Draft EIR.

2. Environmental Setting

Due to the technical nature of noise and vibration impacts, a brief overview of basic noise principles and descriptors is provided below.

a. Noise and Vibration Basics

(1) Noise Principles and Descriptors

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as undesirable (i.e., loud, unexpected, or annoying) sound. Acoustics is defined as the physics of sound and addresses its propagation and control.¹ In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors

¹ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.2.1.

affecting the propagation path to the receiver determine the sound level and characteristics of the noise perceived by the receiver.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement and reflects the way people perceive changes in sound amplitude.² The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of feeling pain. Pressure waves traveling through air exert a force registered by the human ear as sound.³

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but, rather, a broad band of frequencies varying in levels of magnitude. When all of the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequencies spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.⁴

The typical human ear is not equally sensitive to the frequency range from 20 to 20,000 Hz. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as A-weighting, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements.⁵ Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in Figure IV.H-1 on page IV.H-3.

² All sound levels measured in decibel (dB), as identified in the noise calculation worksheets included in Appendix H of this Draft EIR and in this section of the Draft EIR, are relative to 2×10^{-5} N/m².

³ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.1.3.

⁴ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.1.3.

⁵ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.1.3.

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

Figure IV.H-1
Decibel Scale and Common Noise Sources

(2) Noise Exposure and Community Noise

Community noise exposure is typically measured over a period of time; a noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with many unidentifiable individual contributors. Single-event noise sources, such as aircraft flyovers, sirens, etc., may cause sudden changes in background noise level.⁶ However, generally, background noise levels change gradually throughout the day, corresponding with the addition and subtraction of distant noise sources, such as changes in traffic volume.

These successive additions of sound to the community noise environment change the community noise level from moment to moment, requiring the noise exposure to be measured over periods of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. The following noise descriptors are used to characterize environmental noise levels over time.⁷

- L_{eq}:** The equivalent sound level over a specified period of time, typically, 1 hour (L_{eq}). The L_{eq} may also be referred to as the energy-average sound level.
- L_{max}:** The maximum, instantaneous noise level experienced during a given period of time.
- L_{min}:** The minimum, instantaneous noise level experienced during a given period of time.
- L_x:** The noise level exceeded a percentage of a specified time period. For instance, L₅₀ and L₉₀ represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.
- L_{dn}:** The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dBA to measured noise levels between the hours of 10:00 P.M. and 7:00 A.M. to account for nighttime noise sensitivity. The L_{dn} is also termed the day-night average noise level (DNL).
- CNEL:** The Community Noise Equivalent Level (CNEL) is the time average A-weighted noise level during a 24-hour day that includes an addition of

⁶ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.2.1.

⁷ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.2.2.

5 dBA to measured noise levels between the hours of 7:00 P.M. and 10:00 P.M. and an addition of 10 dBA to noise levels between the hours of 10:00 P.M. and 7:00 A.M. the next day to account for noise sensitivity in the evening and nighttime, respectively.

(3) Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance);
- Interference effects (e.g., communication, sleep, and learning interference);
- Physiological effects (e.g., startled response); and
- Physical effects (e.g., hearing loss).

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep.

The World Health Organization's Guidelines for Community Noise details the adverse health effects of high noise levels, which include hearing impairment, speech intelligibility, sleep disturbance, physiological functions (e.g., hypertension and cardiovascular effects), mental illness, performance of cognitive tasks, social and behavioral effects (e.g., feelings of helplessness, aggressive behavior), and annoyance.⁸

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an

⁸ World Health Organization Team, edited by Birgitta Berglund, Thomas Lindvall, and Dietrich H. Schwela, *Guidelines for Community Noise*, 1999.

important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise levels, the following relationships generally occur:⁹

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived;
- Outside of the laboratory, a change of 3 dBA in ambient noise levels is considered to be a barely perceivable difference;
- A change of 5 dBA in ambient noise levels is considered to be a readily perceivable difference; and
- A change of 10 dBA in ambient noise levels is subjectively heard as doubling of the perceived loudness.

These relationships between change in noise level and human hearing response occur in part because of the logarithmic nature of sound and the dB scale. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but, rather, logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3-dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and 10 sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source.¹⁰

(4) Noise Attenuation

When noise propagates over a distance, the noise level reduces, or attenuates, with distance depending on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as “spherical spreading.” The rate of sound attenuation for a point source, such as a piece of mechanical or electrical equipment (e.g., air conditioner) or idling vehicle (e.g.,

⁹ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.2.1.

¹⁰ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.2.1.1.

bulldozer), is 6 dBA per doubling of distance from the noise source to the receptor over acoustically “hard” sites and 7.5 dBA per doubling of distance from the noise source to the receptor over acoustically “soft” sites.¹¹ Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, provide an excess ground attenuation value of 1.5 dBA (per doubling distance).¹² For example, an outdoor condenser fan that generates a sound level of 60 dBA at a distance of 50 feet from a point source at an acoustically hard site would attenuate to 54 dBA at a distance of 100 feet from the point source and attenuate to 48 dBA at 200 feet from the point source.

Roadways and highways consist of several localized noise sources on a defined path and, hence, are treated as “line” sources, which approximate the effect of several point sources.¹³ Noise from a line source propagates over a cylindrical surface, often referred to as “cylindrical spreading.”¹⁴ Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.¹⁵ Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

Structures (e.g., buildings and solid walls) and natural topography (e.g., hills and berms) that obstruct the line-of-sight between a noise source and a receptor further reduce the noise level if the receptor is located within the “shadow” of the obstruction, such as behind a sound wall. This type of sound attenuation is known as “barrier insertion loss.” If a receptor is located behind the wall but still has a view of the source (i.e., the line-of-sight is not fully blocked), barrier insertion loss would still occur but to a lesser extent. Additionally, a receptor located on the same side of the wall as a noise source may actually experience an increase in the perceived noise level as the wall can reflect noise back to the receptor, thereby compounding the noise. Noise barriers can provide noise level reductions ranging from approximately 5 dBA (where the barrier just breaks the line-of-sight between the source and

¹¹ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Sections 2.1.4.1 and 2.1.4.2.

¹² California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Sections 2.1.4.1 and 2.1.4.2.

¹³ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.1.4.1.

¹⁴ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.1.4.1.

¹⁵ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.1.4.1.

receiver) to an upper range of 20 dBA with a larger barrier.¹⁶ Additionally, structures with closed windows can further attenuate exterior noise by a minimum of 20 dBA to 30 dBA.¹⁷

Receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels.¹⁸ Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances. Other factors, such as air temperature, humidity, and turbulence can, under the right conditions, also have substantial effects on noise levels.¹⁹

(5) Vibration Fundamentals

Vibration can be interpreted as energy transmitted in waves through the ground or man-made structures, which generally dissipate with distance from the vibration source. Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Since energy is lost during its transfer from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual*, groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard.²⁰ In contrast to airborne noise, groundborne vibration is not a common environmental problem, as it is unusual for vibration from sources, such as rubber-tired buses and trucks, to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and certain construction activities, such as blasting, pile-driving, and operation of heavy earth-moving equipment.²¹ Groundborne vibration generated by man-made activities (e.g., road traffic, construction operations) typically weakens with greater horizontal distance from the source of the vibration.

¹⁶ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Sections 2.1.4.24 and 5.1.1.

¹⁷ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 7.4.2, Table 7-1.

¹⁸ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.1.4.3.

¹⁹ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, Section 2.1.4.3.

²⁰ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, Section 7.

²¹ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, Section 7.

Several different methods are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec) and is most frequently used to describe vibration impacts to buildings.²² The root mean square (RMS) amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body.²³ Decibel notation (VdB) is commonly used to express RMS vibration velocity amplitude. The relationship of PPV to RMS velocity is expressed in terms of the “crest factor,” defined as the ratio of the PPV amplitude to the RMS amplitude. PPV is typically a factor of 1.7 to 6 times greater than RMS vibration velocity; FTA uses a crest factor of 4.²⁴ The decibel notation VdB acts to compress the range of numbers required to describe vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include buildings where vibration would interfere with operations within the building or cause damage (especially older masonry structures), locations where people sleep, and locations with vibration sensitive equipment.²⁵

Groundborne noise specifically refers to the rumbling noise emanating from the motion of building room surfaces due to the vibration of floors and walls; it is perceptible only inside buildings.²⁶ The relationship between groundborne vibration and groundborne noise depends on the frequency of the vibration and the acoustical absorption characteristics of the receiving room. For typical buildings, groundborne vibration that causes low frequency noise (i.e., the vibration spectrum peak is less than 30 Hz) results in a groundborne noise level that is approximately 50 decibels lower than the velocity level. For groundborne vibration that causes mid-frequency noise (i.e., the vibration spectrum peak is between 30 and 60 Hz), the groundborne noise level will be approximately 35 to 37 decibels lower than the velocity level.²⁷ Therefore, for typical buildings, the groundborne noise decibel level is lower than the groundborne vibration velocity level at low frequencies.

b. Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines applicable to the Project regarding noise at the federal, State,

²² Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, Section 5.1.

²³ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, Section 5.1.

²⁴ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, Section 5.1.

²⁵ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, Section 6.1, 6.2, and 6.3.

²⁶ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, Section 5.4.

²⁷ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, Table 6-3 and Table 6-14.

regional, and local levels. As described below, these plans, guidelines, and laws include the following:

- Noise Control Act of 1972
- Federal Transportation Administration Vibration Standards Regarding Human Annoyance
- Occupational Safety and Health Act of 1970
- Office of Planning and Research Guidelines for Noise Compatible Land Use
- Caltrans Vibration Criteria for Building Damage
- Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan
- City of Los Angeles Municipal Code
- City of Los Angeles General Plan Noise Element

(1) Federal

(a) Noise Control Act of 1972

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (USEPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, USEPA issued guidance levels for the protection of public health and welfare in residential areas of an outdoor L_{dn} of 55 dBA and an indoor L_{dn} of 45 dBA.²⁸ These guidance levels are not standards or regulations and were developed without consideration of technical or economic feasibility. There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project. Moreover, the federal noise standards are not reflective of urban environments that range by land use, density, proximity to commercial or industrial centers, etc. As such, for purposes of determining acceptable sound levels and evaluate intrusive noise sources and increases, this section utilizes the City of Los Angeles Noise Regulations, discussed below.

²⁸ U.S. Environmental Protection Agency, *EPA Identifies Noise Levels Affecting Health and Welfare*, April 1974.

(b) Federal Transit Administration Vibration Standards Regarding Human Annoyance

There are no federal vibration standards or regulations adopted by any agency that are applicable to evaluating vibration impacts from land use development projects, such as the Project. However, the FTA has set forth standards for human annoyance associated with ground vibration at sensitive use buildings. These standards are used to evaluate potential human annoyance impacts associated with groundborne vibration from construction activities during nighttime hours (i.e., between the hours of 7 PM to 7 AM Monday through Friday and 6 PM to 8 AM on Saturdays) and anytime on Sundays or national holidays). With regard to sensitive use buildings, such as residential uses, the FTA has established a significance criterion of 80 VdB for infrequent events that is included in this analysis.

(c) Occupational Safety and Health Act of 1970

Under the Occupational Safety and Health Act of 1970 (29 United States Code [USC] Sections 1919 et seq.), the Occupational Safety and Health Administration (OSHA) has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.²⁹

(2) State

(a) Office of Land Use and Climate Innovation Guidelines for Noise Compatible Land Use

The State of California has not adopted Statewide standards for environmental noise, but the Governor's Office of Land Use and Climate Innovation (LCI) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as presented in Figure IV.H-2 on page IV.H-12.³⁰ The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise levels are divided into four general categories, which vary in range according to land use type: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." The City of Los Angeles (City) has developed its own compatibility guidelines in the Noise Element of the General Plan based in part on LCI

²⁹ U.S. Department of Labor, *Occupational Safety and Health Act, 1970*.

³⁰ State of California, *Governor's Office of Planning and Research, General Plan 2017 Guidelines*, p. 377.

Land Use Category	Noise Exposure (L_{dn} or CNEL, dBA)					
	55	60	65	70	75	80
Residential – Low Density Single-Family, Duplex, Mobile Home						
Residential – Multiple Family						
Transient Lodging – Motel, Hotel						
School, Library, Church, Hospital, Nursing Home						
Auditorium, Concert Hall, Amphitheater						
Sports Arena, Outdoor Spectator Sports						
Playground, Neighborhood Park						
Golf Course, Riding Stable, Water Recreation, Cemetery						
Office Building, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

-  **NORMALLY 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.
-  **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.
-  **NORMALLY UNACCEPTABLE:** New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
-  **CLEARLY UNACCEPTABLE:** New construction or development should generally not be undertaken. Construction costs to make the indoor environmental acceptable would be prohibitive and the outdoor environment would not be usable.

Figure IV.H-2
Guidelines for Noise Compatible Land Use

Guidelines. California Government Code Section 65302 requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(f) requiring a noise element to be included in the general plan. The noise element must identify and appraise noise problems in the community and analyze and quantify current and projected noise levels.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels. These requirements are collectively known as the California Noise Insulation Standards (Title 24 of the California Code of Regulations [CCR]). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. The standards require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

The State of California's noise insulation standards for nonresidential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards (CALGreen) Code. The CALGreen Code noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the prescriptive method (CALGreen Code Section 5.507.4.1) or the performance method (CALGreen Code Section 5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA $L_{eq}(1-hr)$.

(b) Caltrans Criteria for Building Damage

Caltrans uses specific criteria to assess potential building damage associated with construction activities. Specifically, Table 19 of its Transportation and Construction Vibration Guidance Manual includes the following criteria for building damage based on building type:³¹

- Fragile Buildings: 0.1 PPV
- Historic Buildings: 0.25 PPV
- Older³² Residential Structures: 0.3 PPV

³¹ Caltrans Transportation and Construction Vibration Guidance Manual, April 2020.

³² Caltrans does not specify the age of the building to be considered. For this vibration impact analyses, a building over 50 years old is considered an "older" residential structure.

- New Residential Structures: 0.5 PPV
- Modern Industrial/Commercial Buildings: 0.5 PPV

These criteria are used in the analysis below.

(3) Regional

(a) Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan

In Los Angeles County (County) the Regional Planning Commission has the responsibility for acting as the Airport Land Use Commission (ALUC) and for coordinating the airport planning of public agencies within the County. The ALUC coordinates planning for the areas surrounding public use airports. The Comprehensive Land Use Plan provides for the orderly expansion of Los Angeles County's public use airports and the area surrounding them. It is intended to provide for the adoption of land use measures that will minimize the public's exposure to excessive noise and safety hazards. In formulating the Comprehensive Land Use Plan, the Los Angeles County ALUC has established provisions for safety, noise insulation, and the regulation of building height within areas adjacent to each of the public airports in the County.

(4) Local

(a) Los Angeles Municipal Code

The City of Los Angeles Noise Regulations are provided in Chapter XI of the Los Angeles Municipal Code (LAMC). LAMC Section 111.02 provides procedures and criteria for the measurement of the sound level of "offending" noise sources. In accordance with the LAMC, a noise source that causes a noise level increase of 5 dBA over the existing average ambient noise level as measured at an adjacent property line creates a noise violation. This standard applies to radios, television sets, air conditioning, refrigeration, heating, pumping and filtering equipment, powered equipment intended for repetitive use in residential areas, and motor vehicles driven on-site. To account for people's increased tolerance for short-duration noise events, the Noise Regulations provide a 5-dBA allowance for a noise source that causes noise lasting more than 5 but less than 15 minutes in any one-hour period, and an additional 5-dBA allowance (for a total of 10 dBA) for a noise source that causes noise lasting 5 minutes or less in any one-hour period.³³

The LAMC provides that in cases where the actual ambient conditions are not known, the City's presumed daytime (7:00 A.M. to 10:00 P.M.) and nighttime (10:00 P.M. to 7:00 A.M.)

³³ *Los Angeles Municipal Code, Chapter XI, Article I, Section 111.02-(b).*

minimum ambient noise levels as defined in LAMC Section 111.03 should be used. The presumed ambient noise levels for these areas where the actual ambient conditions are not known as set forth in the LAMC Section 111.03 are provided in Table IV.H-1 on page IV.H-16. For example, for residential-zoned areas, the presumed ambient noise level is 50 dBA during the daytime and 40 dBA during the nighttime.

LAMC Section 112.01 limits noise from amplified voice and music and prohibits the operation of such devices (e.g., radio, musical instrument, phonograph, television receiver, or other machine) or other sounds in such a manner as to disturb the peace, quiet, and comfort of neighbors. Specifically, noise from such uses or operation that is audible at a distance in excess of 150 feet from the property line of the noise source within a residential zone of the City or within 500 feet thereof is prohibited.

LAMC Section 112.02 limits increases in noise levels from air conditioning, refrigeration, heating, pumping and filtering equipment. Such equipment may not be operated in such a manner as to create any noise which would cause the noise level on the premises of any other occupied property, or, if a condominium, apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than 5 dB.

LAMC Section 112.05 sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard shall not apply where compliance therewith is technically infeasible.³⁴ LAMC Section 41.40 prohibits construction between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, 6:00 P.M. and 8:00 A.M. on Saturday or any national holiday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 A.M. to 9:00 P.M. and Saturdays and national holidays between 8:00 A.M. to 6:00 P.M.). Construction may be permitted outside of these hours if a temporary noise variance is approved by the Los Angeles Board of Police Commissioners. In general, the City's Department of Building and Safety enforces provisions of the City's noise regulations relative to equipment, and the Los Angeles Police Department (LAPD) enforces provisions relative to noise generated by people.

LAMC Section 113.01 prohibits collecting or disposing of rubbish or garbage, operating any refuse disposal truck, or collecting, loading, picking up, transferring, unloading, dumping, discarding, or disposing of any rubbish or garbage, as such terms are defined in LAMC Section 66.00, within 200 feet of any residential building between the hours of

³⁴ *In accordance with the City's Noise Ordinances, "technically feasible" means that the established noise limitations can be complied with at a project site, with the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques employed during the operation of equipment.*

**Table IV.H-1
City of Los Angeles Presumed Ambient Noise Levels**

Zone	Daytime (7:00 A.M. to 10:00 P.M.) dBA (L_{eq})	Nighttime (10:00 P.M. to 7:00 A.M.) dBA (L_{eq})
Residential (A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5)	50	40
Commercial (P, PB, CR, C1, C1.5, C2, C4, C5, and CM)	60	55
Manufacturing (M1, MR1, and MR2)	60	55
Heavy Manufacturing (M2 and M3)	65	65
<i>Source: LAMC Section 111.03.</i>		

9:00 P.M. and 6:00 A.M. of the following day, unless a permit has been duly obtained beforehand from the Board of Police Commissioners.

LAMC Section 91.1206.14.2 prohibits interior noise levels attributable to exterior sources from exceeding 45 dBA in any habitable room. The noise metric shall be either the day-night average sound level (L_{dn}) or the CNEL, consistent with the noise element of the local general plan.

With regard to vibration, LAMC Section 91.3307.1 states, “Adjoining public and private property shall be protected from damage during construction, remodeling, and demolition work. Protection must be provided for footings, foundations, party walls, chimneys, skylights, and roofs. Provisions shall be made to control water runoff and erosion during construction or demolition activities.”

With respect to construction noise and vibration, the City recently published and adopted a Construction Noise and Vibration Updates to Thresholds and Methodology Report.³⁵ This document provides updated construction noise and vibration significance threshold criteria to be used in assessing environmental impacts of projects in accordance with CEQA. These updated criteria are included in Subsection 3.a, Thresholds of Significance, below.

³⁵ *City of Los Angeles, Construction Noise and Vibration Updates to Threshold and Methodology Report, August 2024, adopted on September 25, 2024.*

(b) City of Los Angeles General Plan Noise Element

The Noise Element of the City's General Plan policies include the CNEL guidelines for land use compatibility as shown in Table IV.H-2 on page IV.H-18 and includes a number of goals, objectives, and policies for land use planning purposes. The overall purpose of the Noise Element is to guide policymakers in making land use determinations and in preparing noise ordinances that would limit exposure of citizens to excessive noise levels.³⁶ The following policies and objectives from the Noise Element apply to the Project.

Objective 2 (Non-Airport): Reduce or eliminate non-airport related intrusive noise, especially relative to noise sensitive uses.

Policy 2.2: Enforce and/or implement applicable city, state, and federal regulations intended to mitigate proposed noise producing activities, reduce intrusive noise and alleviate noise that is deemed a public nuisance.

Objective 3 (Land Use Development): Reduce or eliminate noise impact associated with proposed development of land and changes in land use.

Policy 3.1: Develop land use policies and programs that will reduce or eliminate potential and existing noise impacts.

Exhibit I of the Noise Element also contains guidelines for noise compatible land uses.³⁷ Table IV.H-2 summarizes these guidelines, which are based on LCI guidelines from 1990.

³⁶ City of Los Angeles, *General Plan Noise Element, Adopted February 3, 1999*, pp. 1.1–2.4.

³⁷ City of Los Angeles, *General Plan Noise Element, Adopted February 3, 1999*, p. I-1.

**Table IV.H-2
City of Los Angeles Land Use Compatibility for Community Noise**

Land Use	Community Noise Exposure CNEL (dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single-Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	Above 70
Multi-Family Homes	50 to 65	60 to 70	70 to 75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	Above 80
Transient Lodging—Motels, Hotels	50 to 65	60 to 70	70 to 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	—	50 to 70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50 to 75	—	Above 70
Playgrounds, Neighborhood Parks	50 to 70	—	67 to 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	—	70 to 80	Above 80
Office Buildings, Business, Professional Commercial	50 to 70	67 to 77	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	Above 75	—
Normally Acceptable: Specified land use is satisfactory, based upon assumption buildings involved are of normal conventional construction, without any special noise insulation requirements. 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 design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Normally Unacceptable: New construction or development should generally 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. Clearly Unacceptable: New construction or development should generally not be undertaken. Source: City of Los Angeles, 2006; L.A. CEQA Thresholds Guide, 2006.				

c. Existing Conditions

As discussed in Section II, Project Description, of this Draft EIR, the Project Site is in a highly urbanized area. The predominant source of noise in the vicinity of the Project Site is vehicular traffic on adjacent roadways, particularly along South Airport Boulevard and West Arbor Vitae Street, which have high volumes of traffic. Other ambient noise sources in the vicinity of the Project Site include aircraft noise associated the Los Angeles International Airport (LAX) southwest of the Project Site; commercial activities; surface parking lot activities; and other miscellaneous noise sources associated with typical urban activities, such as human voices and emergency vehicle sirens.

(1) Noise-Sensitive Receptors

The Noise Element defines noise-sensitive land uses as single-family and multi-unit dwellings, long-term care facilities (including convalescent and retirement facilities), dormitories, motels, hotels, transient lodging, and other residential uses; houses of worship; hospitals; libraries; schools; auditoriums; concert halls; outdoor theaters; nature and wildlife preserves; and parks.³⁸ In addition, based on the updates to the City's construction noise and vibration thresholds and methodology, recording studios are also considered a sensitive use relative to construction vibration impacts.

Based on a review of the land uses in the vicinity of the Project Site, five noise receptor locations were selected to represent existing noise-sensitive uses within 500 feet of the Project Site (receptor locations R1 through R5). These locations represent areas with land uses that could qualify as noise-sensitive uses according to the definition above. As discussed below, noise measurements were conducted at the five off-site locations to establish baseline noise conditions in the vicinity of the Project Site. In addition, the measurement locations provide an adequate basis to evaluate potential noise impacts at other sensitive receptors located beyond the measurement location in the same direction from the Project Site. The noise measurement locations are shown in Figure IV.H-3 on page IV.H-20 and described in Table IV.H-3 on page IV.H-21.

(2) Ambient Noise Levels

Noise measurements were conducted on September 12, 2024, using a Larson-Davis Model 870 and a Quest Technologies Model 2900 Integrating/Logging Sound Level Meters.³⁹ A 24-hour measurement was conducted at receptor location R1.⁴⁰ Two 15-minute measurements were conducted at each of the remaining receptor locations during daytime and nighttime hours. The daytime ambient noise levels were measured between 10:00 A.M. and 12:00 P.M., and the nighttime ambient noise levels were measured between 10:00 P.M. and 12:00 A.M. The ambient noise measurements procedure followed the City's standards, which require ambient noise to be measured over a period of at least 15 minutes.⁴¹

³⁸ *Noise Element, City of Los Angeles General Plan, Chapter IV, p. 4-1.*

³⁹ *These sound meters meet the minimum industry standard performance requirements for "Type 1" (Larson-Davis Model 870) and "Type 2" (Quest Technologies Model 2900) standard instruments as defined in the American National Standard Institute (ANSI) S1.4. It also meets the requirement specified in Section 111.01(I) of the LAMC that instruments be "Type S2A" standard instruments or better. The sound meter was calibrated prior to the measurements and operated according to the manufacturer's written specifications.*

⁴⁰ *A 24-hour measurement is typically conducted at one receptor location to obtain the pattern and validate the noise measurements at other receptor locations.*

⁴¹ *LAMC Section 111.01.*



Figure IV.H-3
Noise Monitoring Locations

**Table IV.H-3
Description of Noise Measurement Locations**

Receptor Location	Measurements Site Description	Approximate Linear Distance from Measurement Location to Nearest Project Site Boundary (feet)^a	Nearest Noise-Sensitive Land Use(s) to Measurements Locations
R1	Multi-family residential use located on the north side of Interceptor Street, north of the Project Site	60	Residential
R2	Single-family residential use located on the south side of Interceptor Street immediately adjacent to the eastern boundary of the Project Site.	Adjacent to the Project Site	Residential
R3	Multi-family residential use located at the southwestern corner of Ramsgate Avenue and Morley Street, immediately adjacent to the eastern boundary of the Project Site	Adjacent to the Project Site	Residential
R4	Motel use located on the south side of West Arbor Vitae Street, south of the Project Site	90	Motel
R5	Single-family residential use at the northwestern corner of South Airport Boulevard and South Interceptor Street, northwest of the Project Site.	120	Residential
^a Distances are horizontal distances estimated using Google Earth. Source: Acoustical Engineering Services (AES), 2025. See Appendix H of this Draft EIR.			

Table IV.H-4 on page IV.H-22 provides a summary of the ambient noise measurements conducted at the five noise receptor locations. Based on field observations, the current ambient noise at the measurement locations is dominated by local traffic and, to a lesser extent, helicopter flyovers and other typical urban noises. As indicated in Table IV.H-4, the existing daytime ambient noise levels at the off-site noise receptor locations ranged from 68.7 dBA (L_{eq}) at receptor locations R1 and R2 to 71.6 dBA (L_{eq}) at receptor location R4. The measured nighttime ambient noise levels ranged from 57.6 dBA (L_{eq}) at receptor location R3 to 69.5 dBA (L_{eq}) at receptor location R5. Thus, the existing ambient noise levels at all off-site locations are above the City's presumed daytime and nighttime ambient noise levels of 50 dBA (L_{eq}) and 40 dBA (L_{eq}), respectively, for residential/motel uses, as presented above in Table IV.H-1 on page IV.H-16.

In addition to the ambient noise measurements in the vicinity of the Project Site, the existing traffic noise on local roadways in the surrounding area was calculated to quantify the 24-hour CNEL noise levels using information provided in the Transportation Assessment prepared for the Project and included as Appendix I.1 of this Draft EIR. Five roadway segments were selected for the existing off-site traffic noise analysis included in this section

**Table IV.H-4
Existing Ambient Noise Levels**

Receptor Location	Noise-Sensitive Land Use	Measured Noise Levels, L_{eq} (dBA)		CNEL (24-hour)
		Daytime Hours (7:00 A.M.–10:00 P.M.)	Nighttime Hours (10:00 P.M.–7:00 A.M.)	
R1	Residential	68.7 ^b	62.6 ^b	71.3
R2	Residential	68.7	57.8	67.5 ^a
R3	Residential	70.8	57.6	69.1 ^a
R4	Motel	71.6	65.0	71.9 ^a
R5	Residential	71.5	69.5	74.6 ^a
^a Estimated based on short-term (15-minute) noise measurement based on FTA procedures. ^b Levels shown for R1 represent the average for the entire daytime and nighttime periods. Source: AES, 2025. See Appendix H of this Draft EIR.				

based on proximity to noise-sensitive uses along the roadway segments and potential increases in traffic volumes from the Project operation. Traffic noise levels were calculated using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) and traffic volume data provided in the Transportation Assessment prepared for the Project. The TNM calculates the hourly L_{eq} noise levels based on specific information including the hourly traffic volume, vehicle type mix, vehicle speed, and lateral distance between the noise receptor and the roadway. To calculate the 24-hour CNEL levels, the hourly L_{eq} levels were calculated during daytime hours (7:00 A.M. to 7:00 P.M.), evening hours (7:00 P.M. to 10:00 P.M.), and nighttime hours (10:00 P.M. to 7:00 A.M.). The TNM calculates the 24-hour CNEL noise levels based on specific information, including Average Daily Traffic (ADT); percentages of day, evening, and nighttime traffic volumes relative to ADT; vehicle speed; and distance between the noise receptor and the roadway. Vehicle mix/distribution information used in the noise calculations is shown in Table IV.H-5 on page IV.H-23.

Table IV.H-6 on page IV.H-24 provides the calculated CNEL for the analyzed local roadway segments based on existing traffic volumes. As shown therein, the existing CNEL due to surface street traffic volumes ranges from 58.2 dBA CNEL along West Interceptor Street (west of South Airport Boulevard) to 71.2 dBA CNEL along Arbor Vitae Street (between South Airport Boulevard and South Aviation Boulevard). Currently, the existing traffic-related noise levels along the roadway segments of Interceptor Street fall within the conditionally acceptable noise levels for residential uses (i.e., between 60 and 70 dBA CNEL). The existing traffic noise levels along South Airport Boulevard (between West Manchester Avenue and West Arbor Vitae Street) and West Arbor Vitae Street (between South Airport Boulevard and South Aviation Boulevard) are between 70 dBA CNEL and 75 dBA CNEL, which are considered normally unacceptable for residential uses and motels.

**Table IV.H-5
Vehicle Mix for Traffic Noise Model**

Vehicle Type	Percent of Average Daily Traffic (ADT)			Total Percent of ADT per Vehicle Type
	Daytime Hours (7 A.M.–7 P.M.)	Evening Hours (7 P.M.–10 P.M.)	Nighttime Hours (10 P.M.–7 A.M.)	
Automobile	77.6	9.7	9.7	97.0
Medium Truck ^a	1.6	0.2	0.2	2.0
Heavy Truck ^b	0.8	0.1	0.1	1.0
Total	80.0	10.0	10.0	100.0

^a Medium Truck—Trucks with 2 axles.
^b Heavy Truck—Trucks with 3 or more axles.
Source: AES, 2025. See Appendix H of this Draft EIR.

(3) Existing Ground-Borne Vibration Levels

Based on field observations during the noise measurements, the primary source of existing ground-borne vibration in the vicinity of the Project Site is vehicular travel (e.g., standard cars, refuse trucks, delivery trucks, construction trucks, school buses, and buses) on local roadways. According to the FTA technical study “Federal Transit Administration: Transit Noise and Vibration Impacts Assessments,” typical road traffic-induced vibration levels are unlikely to be perceptible by people. Specifically, the FTA study reports that “[i]t is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads.”⁴² Trucks and buses typically generate ground-borne vibration velocity levels of around 63 VdB (at a distance of 50 feet), and these levels could reach 72 VdB when trucks and buses pass over bumps in the road. According to the FTA, 75 VdB is the dividing line between barely perceptible (with regard to ground vibration) and distinctly perceptible.⁴³ Therefore, existing ground-borne vibration in the vicinity of the Project Site is generally below the perceptible level. However, ground-borne vibration associated with heavy trucks traveling on road surfaces with irregularities, such as speed bumps and potholes, could reach the perceptible threshold.

⁴² FTA, “Transit Noise and Vibration Impact Assessment,” Page 112, September 2018.

⁴³ FTA, “Transit Noise and Vibration Impact Assessment,” Table 5-5, September 2018.

**Table IV.H-6
Existing Roadway Traffic Noise Levels**

Roadway Segment	Adjacent Land Use	Approximate Distance to Roadway Center Line (feet)	Calculated Traffic Noise Levels, CNEL (dBA)^a	Noise-Sensitive Land Uses	Existing Noise Exposure Compatibility Category^b
S Airport Boulevard Between W Manchester Ave. and W Interceptor St.	Residential	40	71.1	No	Normally Unacceptable
Between W Interceptor St. and W Arbor Vitae St.	Commercial	45	71.0	Yes	Conditionally Acceptable
W Interceptor Street West of S Airport Boulevard	Commercial	30	58.2	Yes	Normally Acceptable
East of S Airport Boulevard	Residential	30	65.3	No	Conditionally Acceptable
W Arbor Vitae Street Between S Airport Blvd. and S Aviation Blvd.	Motel	40	71.2	Yes	Normally Unacceptable
^a Detailed calculation worksheets are included in Appendix H of this Draft EIR. ^b Noise compatibility is based on the most stringent land use, per City's land use compatibility as provided in Table IV.H-2 on page IV.H-18. Source: AES, 2025.					

3. Project Impacts

a. Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G (Appendix G), the Project would have a significant impact related to noise if it would result in the:

Threshold (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;

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

Threshold (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, expose people residing or working in the project area to excessive noise levels.

For this analysis, the Appendix G thresholds listed above are relied upon. The analysis utilizes factors and considerations identified in the Updates to Thresholds and Methodology for Construction Noise and Vibration, as well as the City's 2006 *L.A. CEQA Thresholds Guide*, as appropriate, to assist in answering the Appendix G threshold questions with respect to operational noise.

Generally, there are two types of noise standards, as follows:

- Relative or "increase" standards—these are quantified significance threshold criteria, expressed as an allowable increase in decibels, attributed to the construction noise contribution, over the pre-existing outdoor ambient sound level at a receptor.
- Absolute or "fixed" standards—these are quantified significance threshold criteria that represent a fixed noise limit and take into account a potential impact that is independent of the pre-existing outdoor ambient sound level at a receptor.

As discussed below, the City's daytime construction noise significance threshold criteria are based on an absolute noise level, while potential nighttime construction activities are based on both an increase standard and an absolute noise level.

(1) Construction Noise

In accordance with the Updates to Thresholds and Methodology for Construction Noise and Vibration, a project would normally have a significant impact on noise levels from on- and off-site construction if:

- During daytime hours (between 7:00 A.M. to 7:00 P.M. Monday through Friday and between 8:00 A.M. to 6:00 P.M. on Saturday), project construction-related noise exceeds 80 dBA $L_{eq}(8\text{-hour})$ at sensitive uses⁴⁴ (at the property line with outdoor uses or at the exterior of the building).
- During nighttime hours (between 7:00 P.M. to 7:00 A.M., Monday through Friday, and between 6:00 P.M. to 8:00 A.M. on Saturdays, and anytime on Sundays or national holidays), project construction-related noise level at sensitive uses,⁴⁵ where sleep is expected, exceeds the followings:
 - 55 dBA $L_{eq}(1\text{-hour})$ for sensitive uses within older buildings that would have operable windows that may be open,
 - 65 dBA $L_{eq}(1\text{-hour})$ for sensitive uses with windows closed and are single-glazed, or
 - 70 dBA $L_{eq}(1\text{-hour})$ for sensitive uses that have newer construction (i.e., the structures have been designed to ensure that an interior 45 dBA is obtained with double-paned windows).

Mat pour activities (and other types of concrete pour, which require an extended continuous pour beyond the allowable construction hours) that are required to occur during nighttime hours for less than five days are exempt from this threshold; or

- During nighttime hours (between 7:00 P.M. to 7:00 A.M., Monday through Friday, and between 6:00 P.M. to 8:00 A.M. on Saturdays, and anytime on Sundays or national holidays), project construction-related noise results in a 5-dBA increase above the ambient noise level at nighttime noise-sensitive uses (at the property line with outdoor uses are at the exterior of the building). Mat pour activities (and

⁴⁴ Daytime noise-sensitive uses include single-family and multi-unit dwellings, long-term care facilities (including convalescent and retirement facilities), dormitories, motels, hotels, transient lodging, and other residential uses; places of assembly, including churches or houses of worship; hospitals; libraries; schools; auditoriums; concert halls; outdoor theaters; nature and wildlife preserves; outdoor public recreational areas; and parks. This definition does not apply to private residential balconies, which may or may not extend past the exterior of a building, or to private outdoor spaces.

⁴⁵ Nighttime noise sensitive uses include single-family and multi-unit dwellings, long-term care facilities (including convalescent and retirement facilities), dormitories, motels, hotels, transient lodging, and other residential uses; nature and wildlife preserves; outdoor public recreational areas; and parks. This definition does not apply to private residential balconies or private outdoor spaces.

other types of concrete pour, which require an extended continuous pour beyond the allowable construction hours) that are required to occur during nighttime hours for less than five days, are exempt from this threshold.

(2) Operational Noise

The *L.A. CEQA Thresholds Guide* identifies the factors below to evaluate operational noise impacts. A project would normally have a significant impact on noise levels from operation if:

- The Project causes the ambient noise levels measured at the property line of affected noise-sensitive uses to increase by 3 dBA in CNEL to or within the “normally unacceptable” or “clearly unacceptable” category (see Table IV.H-2 on page IV.H-18 for a description of these categories); or
- The Project causes the ambient noise levels measured at the property line of affected noise-sensitive uses to increase by 5 dBA in CNEL or greater and remain within the “normally acceptable” or “conditionally acceptable” category: or
- Project-related on-site operational (i.e., non-roadway) noise sources, such as outdoor building mechanical/electrical equipment, outdoor activities, loading docks, or parking facilities, increase the ambient noise level (hourly L_{eq}) at noise-sensitive uses by 5 dBA and more.

The significance criterion used in the noise analysis for on-site operations presented above is an increase in the ambient noise level of 5 dBA (hourly L_{eq}) at the noise-sensitive uses in accordance with the LAMC. The LAMC does not apply to off-site traffic (i.e., vehicles traveling on public roadways). Therefore, based on the *L.A. CEQA Thresholds Guide*, the significance criterion for off-site traffic noise associated with Project operations is an increase in the ambient noise level by 3 dBA or 5 dBA in CNEL (depending on the land use category) at noise-sensitive uses. In addition, the significance criterion for composite noise levels (on-site and off-site sources) is also based on the *L.A. CEQA Thresholds Guide*, which is an increase in the ambient noise level of 3 dBA or 5 dBA in CNEL (depending on the land use category) for the Project’s composite noise (both Project-related on-site and off-site sources) at noise-sensitive uses.

(3) Ground-borne Vibration Standards and Guidelines

The City currently does not have significance criteria to assess vibration impacts during construction. The Updates to Thresholds and Methodology for Construction Noise and Vibration provides vibration limits based on Caltrans’ and FTA’s guidelines to evaluate potential vibration impacts related to building damage and human annoyance,

respectively.^{46,47} Based on Caltrans' guidance, impacts relative to ground-borne vibration associated with potential building damage would be considered significant if any of the following events were to occur:

- Project construction activities cause groundborne vibration levels to exceed the following building damage thresholds for identified structures:
 - Fragile Buildings: 0.1 PPV
 - Historic Buildings: 0.25 PPV
 - Older Residential Structures: 0.3 PPV
 - New Residential Structures: 0.5 PPV
 - Modern Industrial/Commercial Buildings: 0.5 PPV

Based on FTA guidance, construction vibration impacts associated with human annoyance would be significant if the following were to occur:

- During nighttime hours (between 7:00 P.M. to 7:00 A.M., Monday through Friday, and between 6:00 P.M. to 8:00 A.M. on Saturdays, and anytime on Sundays or national holidays), project construction activities generate groundborne vibration levels that exceed 80 VdB at the exterior of a sensitive use building.

There is no threshold for human annoyance when construction activities occur during the hours permitted by the LAMC (i.e., during daytime hours between 7:00 A.M. to 7:00 P.M., Monday through Friday, and between 8:00 A.M. to 6:00 P.M. on Saturday).

b. Methodology

(1) On-Site Construction Activities

Noise impacts due to on-site construction activities associated with the Project were evaluated by calculating the construction-related noise levels at representative sensitive receptor locations and comparing these estimated construction-related noise levels to the existing ambient noise levels (i.e., noise levels without construction noise from the Project). Construction noise associated with the Project was analyzed based on the Project's anticipated construction equipment inventory, construction durations, and construction schedule. The construction noise model for the Project is based on construction equipment

⁴⁶ Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2013.

⁴⁷ FTA, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

noise levels as published by the FHWA's "Roadway Construction Noise Model (FHWA 2006)."⁴⁸ These maximum noise levels would occur when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on a typical construction site often operates under less than full power conditions, or partial power. To more accurately characterize construction noise levels, the average (hourly L_{eq}) noise level associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used.⁴⁹ The analysis herein uses a significance criterion of an 80 dBA L_{eq} averaged over 8 hours, which is expressed as 80 dBA L_{eq} (8-hour). These noise levels are typically associated with multiple pieces of equipment operating simultaneously. The on-site construction-related noise levels were calculated by distributing all construction equipment over the entire construction site. The on-site construction noise levels were calculated using the SoundPLAN (version 8.2) computer noise prediction model.⁵⁰ SoundPLAN is widely used by acoustical engineers as a noise modeling tool for environmental noise analysis. The ambient noise levels at surrounding sensitive receptor locations were based on field measurement data (see Table IV.H-4 on page IV.H-22).

(2) Off-Site Construction Haul Trucks

Off-site construction noise impacts from haul trucks associated with the Project were analyzed using the FHWA's TNM. The TNM is the current Caltrans standard computer noise model for traffic noise studies. The noise model allows for the input of roadways, noise receivers, and sound barriers, if applicable. The construction-related off-site truck volumes were obtained from the Transportation Assessment prepared for the Project, which is included in Appendix I.1 of this Draft EIR. The TNM calculates the hourly L_{eq} noise levels generated by construction-related haul trucks. Noise impacts were determined by comparing the predicted noise level of construction-related haul trucks plus the ambient noise levels with that of the existing ambient noise levels along the Project's anticipated haul route(s).

(3) On-Site Stationary Noise Sources (Operation)

On-site stationary point-source noise impacts were evaluated by: (1) identifying the noise levels that would be generated by the Project's stationary noise sources, such as rooftop mechanical equipment, outdoor activities (e.g., use of the outdoor spaces), parking areas, and trash compactor; (2) calculating the noise level from each noise source at

⁴⁸ The reference noise levels for construction equipment from the FHWA are based on measurements of newer construction equipment (published in 2006), rather than the noise levels from the USEPA report referenced in the L.A. CEQA Thresholds Guide (published in 1971).

⁴⁹ Pursuant to the FHWA Roadway Construction Noise Model User's Guide, 2006, page 7, the usage factor is the percentage of time during a construction noise operation that a piece of construction is operating at full power.

⁵⁰ SoundPLAN GmbH, SoundPLAN version 8.2, 2020.

surrounding sensitive receptor property line locations; and (3) comparing such noise levels to ambient noise levels to determine significance. The on-site stationary noise sources were calculated using the SoundPLAN computer noise prediction model.

(4) Off-Site Roadway Noise (Operation)

Off-site roadway noise was analyzed using the SoundPLAN computer noise prediction model (based on FHWA's TNM emission levels) and traffic data from the Project's Transportation Assessment, included as Appendix I.1 of this Draft EIR. Roadway noise levels were calculated at the sensitive receptor locations based on the estimated Project-generated traffic volumes and were then compared to ambient noise levels to determine Project-related noise impacts for operational off-site roadway noise.

(5) Construction Vibration

Ground-borne vibration impacts due to the Project's construction activities were evaluated by identifying potential vibration sources (i.e., construction equipment), estimating the vibration levels at the potentially affected receptor locations, and comparing the Project's activities to the applicable vibration significance threshold criteria, as described below.

(6) Operational Vibration

The primary source of vibration related to the operation of the Project would include vehicle circulation within the proposed parking areas and off-site vehicular trips. However, as discussed above, vehicular-induced vibration is unlikely to be perceptible by people. The Project would also include typical commercial-grade stationary mechanical equipment, such as air-handling units (mounted at grade or roof level), that would include appropriate vibration-attenuation mounts to reduce the vibration transmission. The Project does not include land uses that would generate high levels of vibration. In addition, ground-borne vibration attenuates rapidly as a function of distance from the vibration source.

c. Project Design Features

The following project design features are proposed with regard to noise and vibration:

Project Design Feature NOI-PDF-1: Outdoor mounted mechanical equipment will be enclosed or screened by the building design (e.g., a roof parapet) from view of the surrounding off-site noise-sensitive receptors at the street level.

Project Design Feature NOI-PDF-2: Under Option 1, a 14-foot tall wall will be provided along the northern, western, and southern sides of the parked

trailers to block transmission of noise to the off-site noise-sensitive receptors.

Project Design Feature NOI-PDF-3: During construction, the Project will retain and improve the existing masonry wall along the northern and eastern property lines to a minimum height of 6.5 feet. If it is deemed structurally infeasible to retain and improve the existing masonry wall, at the start of construction activities, the Project will first replace the wall with a temporary sound wall that is minimum of 6.5 feet in height as measured from the grade on the Project Site.

Project Design Feature NOI-PDF-4: During operation, the Project will retain and improve the existing masonry wall along the eastern property line to a minimum height of 6.5 feet or replace with a wall that is a minimum of 6.5 feet in height as measured from the grade on the Project Site.

d. Analysis of Project Impacts

Threshold (a): Would the Project result in 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?

(1) Impact Analysis

(a) Construction Noise

Project construction is expected to occur over the course of 17 months and be completed in 2027. Construction of the Project would commence with the site preparation/demolition of existing structures and surface parking, followed by grading and excavation, building foundations, building construction, paving/concrete installation, and landscape installation. In accordance with LAMC requirements, construction activities generally would be permitted to occur Monday through Friday from 7:00 A.M. to 9:00 P.M. and between 8:00 A.M. and 6:00 P.M. on Saturday or national holidays, or outside of these hours if an after-hours construction permit is approved by the Los Angeles Board of Police Commissioners. Construction delivery/haul trucks would travel on approved truck routes between the Project Site and Interstates 105 and 405 (I-105 and I-405), as follows:

- Haul Route #1 (I-405 via Manchester Avenue)
 - Incoming Trucks: From I-405 northbound, exit Manchester Boulevard, west on West Manchester Boulevard, then turn left on South Airport Boulevard, and then turn left into the Project Site.

- Outgoing Trucks: Exit the Project Site onto South Airport Boulevard, north on South Airport Boulevard, turn right onto West Manchester Avenue, merge onto the I-405 South on-ramp.
- Haul Route #2 (I-105 via Arbor Vitae Street)
 - Incoming Trucks: From I-105 westbound, exit Imperial Highway, west on Imperial Highway, then turn right onto South Aviation Boulevard, turn left onto West Arbor Vitae Street, and then turn right into the Project Site.
 - Outgoing Trucks: Exit the Project Site onto South Airport Boulevard, south on South Airport Boulevard, turn left onto West Arbor Vitae Street, right onto South Aviation Boulevard, left on Imperial Highway, merge onto the I-105 East on-ramp.

(i) On-Site Construction Noise

Noise impacts from Project-related construction activities occurring within or adjacent to the Project Site would be a function of the noise generated by construction equipment, the location of the equipment, the timing and duration of the noise-generating construction activities, and the relative distance to noise-sensitive receptors. Construction activities for the Project would generally include demolition, site grading and excavation, building foundation, building construction, and paving/landscape. Each stage of construction would involve the use of various types of construction equipment and would, therefore, have its own distinct noise characteristics. Demolition generally involves the use of backhoes, front-end loaders, and heavy-duty trucks. Grading and excavation typically require the use of earth-moving equipment, such as excavators, front-end loaders, and heavy-duty trucks. Building construction typically involves the use of cranes, forklifts, concrete trucks, pumps, and delivery trucks. Noise from construction equipment would generate both steady-state and episodic noise that could be heard within and adjacent to the Project Site. In addition, Project construction stages would have the potential to overlap. Therefore, overlapping construction noise activities were evaluated to determine the potential impacts.

On-site construction equipment would be similar under Option 1 and Option 2. Individual pieces of construction equipment anticipated to be used during construction of both Option 1 and Option 2 could produce maximum noise levels of 74 dBA L_{max} to 90 dBA L_{max} at a reference distance of 50 feet from the noise source, as shown in Table IV.H-7 on page IV.H-33. These maximum noise levels would occur when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on construction sites often operates under less than full power conditions, or partial power. To more accurately characterize construction noise levels, the average (hourly L_{eq}) noise level associated with each construction phase is calculated based on the quantity, type, and usage factors for each type of equipment that would be used. These noise levels

**Table IV.H-7
Construction Equipment Noise Levels**

Equipment	Estimated Usage Factor^a (%)	Typical Noise Level at 50 feet from Equipment, dBA (L_{max})
Air Compressor	40	78
Aerial Lift	10	75
Cement and Mortar Mixer	50	80
Concrete Mixer Truck	40	79
Concrete/Industrial Saw	20	90
Crane	16	81
Crawler Tractor	40	84
Delivery Truck	40	74
Dozer	40	82
Drill Rig	20	84
Dump/Haul Truck	40	76
Excavator	40	81
Forklift	10	75
Generator	50	81
Grader	40	85
Paver	50	77
Plate Compactor	30	83
Pump	50	81
Roller	20	80
Rough Terrain Forklift	40	83
Rubber Tired Loader	40	79
Skid Steer Loader	40	79
Tractor/Loader/Backhoe	40	84
Trencher	50	77
Water Truck	10	82
Welders	40	74
^a Usage factor represents the percentage of time the equipment would be operating at full power. Source: FHWA Roadway Construction Noise Model User's Guide, 2006.		

are typically associated with multiple pieces of equipment operating on partial power simultaneously.

Table IV.H-8 on page IV.H-34 provides the estimated construction noise levels for various construction phases at the five off-site noise-sensitive receptor locations (R1–R5) under both Option 1 and Option 2. The estimated construction noise levels include the

Table IV.H-8
On-Site Construction Noise Impacts—Option 1 (Single-Building) and Option 2 (Three-Building)

Off-Site Receptor Location	Estimated Construction Noise Levels by Construction Phases ^b ($L_{eq}(8\text{-hour})$ (dBA))						Significance Criteria ($L_{eq}(8\text{-hour})$ (dBA)) ^a	Maximum Noise Exceedance Above the Criteria ($L_{eq}(8\text{-hour})$ (dBA))	Significant Impact Without Mitigation?
	Demo.	Grading	Building Foundation	Building Construction	Paving/ Landscape	Overlapping of Building Construction and Paving/Landscape			
R1	64.7	65.2	65.1	67.5	62.6	68.7	80.0	0.0	No
R2	66.2	66.7	66.5	69.0	64.1	70.2	80.0	0.0	No
R3	67.6	68.1	68.0	70.4	65.5	71.6	80.0	0.0	No
R4	64.6	65.1	65.1	67.5	62.5	68.7	80.0	0.0	No
R5	63.3	63.9	63.8	66.3	61.2	67.5	80.0	0.0	No
^a Significance criteria is an absolute noise level based on the City's Construction Noise and Vibration Updates to Thresholds and Methodology, August 2024. ^b Estimated noise levels include the 6.5-foot-high property walls along the northern and eastern property line, per Project Design Feature PDF-NOI-3. Source: AES, 2025. See Appendix H of this Draft EIR.									

existing 5 to 6.5 feet of high property walls along the northern and eastern property lines as described in Project Design Feature PDF-NOI-3. As indicated in Table IV.H-8 on page IV.H-34, the estimated noise levels during all stages of Project construction, including overlapping construction, would be below the significance threshold criteria at all off-site receptor locations. In addition, as discussed above, construction would not occur during nighttime hours and, thus, would not exceed the nighttime construction threshold criteria above. **Therefore, temporary noise impacts associated with the Project's on-site construction would be less than significant.**

(ii) Off-Site Construction Noise

In addition to on-site construction noise sources, other noise sources may include materials delivery, concrete mixing, and haul trucks (construction trucks), as well as construction worker vehicles accessing the Project Site during construction. Typically, construction trucks generate higher noise levels than construction worker vehicles. The major noise sources associated with off-site construction trucks would be from the material delivery/concrete/haul trucks. With regard to haul routes, as described above, construction haul trucks would travel between the Project Site and I-105 or I-405 via South Airport Boulevard, West Manchester Avenue, West Arbor Vitae Street, South Aviation Boulevard, and Imperial Highway. There are no sensitive uses along the roadway segments of South Aviation Boulevard and Imperial Highway. Therefore, off-site noise impacts analysis is provided for South Airport Boulevard, West Manchester Avenue, and West Arbor Vitae Street.

The peak period (i.e., hourly truck trips) of construction with the highest number of construction trucks would occur during the building foundation stage. During this construction stage, there would be a maximum of approximately 100 haul/delivery trucks coming to and leaving the Project Site (equal to 200 total trips) per day (under both Option 1 and Option 2). In addition, there would be up to approximately 57 and 35 haul/delivery trucks (equal to 70 and 114 total trips, respectively) during the grading stage per day, under Option 1 and Option 2, respectively. There would also be approximately 20 to 120 construction worker trips traveling to and from the Project Site on a daily basis during the various construction stages (under both Option 1 and Option 2). Construction workers are expected to arrive at the Project Site before construction starts and leave when construction ends. Therefore, construction workers vehicle noise would not overlap with Project construction equipment or trucks. In addition, the noise levels generated by construction worker vehicle trips would be lower than the construction truck trips.⁵¹

Table IV.H-9 (Option 1) and Table IV.H-10 (Option 2) on pages IV.H-36 and IV.H-37, respectively, provide the estimated number of construction-related truck trips, including

⁵¹ Based on TNM noise model, a truck generates approximately 14 dBA louder than an automobile.

**Table IV.H-9
Off-Site Construction Truck Noise Levels—Option 1 (Single-Building)**

Construction Stage	Estimated Number of Construction Truck Trips per Day	Estimated Number of Construction Truck Trips per Hour ^a	Estimated Truck Noise Levels Along the Project Truck Routes (L _{eq} (8-hour) (dBA))		
			S Airport Blvd.	W Arbor Vitae St.	W Manchester Ave.
Demolition	10	2	53.0	53.0	51.4
Grading/Excavation	114	19	62.8	62.8	61.2
Building Foundation	200	25	64.0	64.0	62.4
Building Construction	20	3	54.8	54.8	53.2
Paving/Landscaping	40	5	57.0	57.0	55.4
Overlapping Construction					
Building Construction + Architectural Façade	60	8	59.0	59.0	57.4
Significance Criteria (L_{eq} (dBA))^b	N/A	N/A	80.0	80.0	80.0
Maximum Exceedance Over Significance Criteria (L _{eq} (8-hour) (dBA))	N/A	N/A	0.0	0.0	0.0
Significant Impact?	N/A	N/A	No	No	No
^a For construction trucks, the number of hourly trips is based on an hourly average, assuming a uniform distribution of trips over an 8-hour work day. Haul truck hourly trips during demolition and grading/excavation are based on 6 hours of hauling per day. ^b Significance criteria is based on an absolute noise levels as set forth in the City's Construction Noise and Vibration Updates to Thresholds and Methodology (August 2024). Source: AES, 2025. See Construction Noise & Vibration Calculations provided in Appendix H of this Draft EIR.					

haul/concrete/material delivery trucks, and the estimated noise levels along the anticipated truck route(s) for Project construction. As discussed above, the construction stages for both Project options would have the potential to overlap during the building construction and the paving/landscape stages. Therefore, noise levels due to off-site construction trucks associated with overlapping construction stages were evaluated to determine potential impacts. As indicated in Table IV.H-9 and in Table IV.H-10 on page IV.H-37, the hourly noise levels generated by Project construction trucks under both Option 1 and Option 2, respectively, would be below the 80-dBA L_{eq}(8-hour) allowable daytime significance criterion along the anticipated truck routes. In addition, as discussed above, construction would not occur during nighttime hours and, thus, would not exceed the nighttime construction criteria above. **Therefore, temporary noise impacts from off-site construction trucks along the haul routes would be less than significant.**

The Project also includes construction associated with off-site improvements, including installation of electrical lines for the Los Angeles Department of Water and Power (LADWP) (approximately 1,100 feet along South Airport Boulevard and 400 feet along West

**Table IV.H-10
Off-Site Construction Truck Noise Levels—Option 2 (Three-Building)**

Construction Stage	Estimated Number of Construction Truck Trips per Day	Estimated Number of Construction Truck Trips per Hour ^a	Estimated Truck Noise Levels Along the Project Truck Routes (L _{eq} (8-hour) (dBA))		
			S Airport Blvd.	W Arbor Vitae St.	W Manchester Ave.
Demolition	10	2	53.0	53.0	51.4
Grading/Excavation	70	12	60.8	60.8	59.2
Building Foundation	200	25	64.0	64.0	62.4
Building Construction	20	3	54.8	54.8	53.2
Paving/Landscaping	40	5	57.0	57.0	55.4
Overlapping Construction					
Building Construction + Architectural Façade	60	8	59.0	59.0	57.4
Significance Criterion (L_{eq}(8-hour) (dBA))^b	N/A	N/A	80.0	80.0	80.0
Maximum Exceedance Over Significance Criterion (L _{eq} (8-hour) (dBA))	N/A	N/A	0.0	0.0	0.0
Significant Impact?	N/A	N/A	No	No	No
^a For construction trucks, the number of hourly trips is based on an hourly average, assuming a uniform distribution of trips over an 8-hour work day. Haul truck hourly trips during demolition and grading/excavation are based on 6 hours of hauling per day. ^b Significance criteria is based on an absolute noise level as set forth in the City's Construction Noise and Vibration Updates to Thresholds and Methodology (August 2024). Source: AES, 2025. See Construction Noise & Vibration Calculations provided in Appendix H of this Draft EIR.					

Arbor Vitae Street adjacent to the Project Site); closure of existing driveways along South Airport Boulevard, West and South Interceptor Streets, and West Arbor Vitae Street; remodel and addition of new driveways along South Airport Boulevard and West Arbor Vitae Street; relocation of a fire hydrant along West Arbor Vitae Street; and removal and installation of new tree wells along West Arbor Vitae Street. Table IV.H-11 on page IV.H-38 provides the estimated construction noise levels for the off-site improvements at the five off-site receptor locations, for both Option 1 and Option 2. As indicated in Table IV.H-11, the estimated off-site improvements construction noise levels would be below the significance criteria at all off-site receptor locations. **Therefore, temporary noise impacts from off-site improvements construction would be less than significant.**

(b) Operational Noise

This section provides a discussion of potential operational noise impacts at nearby noise-sensitive receptors. Specific operational noise sources addressed herein are

Table IV.H-11
Off-Site Improvements Construction Noise Impacts—Option 1 (Single Building) and Option 2
(Three Buildings)

Off-Site Receptor Location	Estimated Off-Site Construction Noise Levels (Leq(8-hour) (dBA))	Significance Criteria (Leq(8-hour) (dBA)) ^a	Maximum Noise Exceedance Above the Criteria (Leq(8-hour) (dBA))	Significant Impact Without Mitigation?
R1	69.7	80.0	0.0	No
R2	77.5	80.0	0.0	No
R3	64.1	80.0	0.0	No
R4	74.5	80.0	0.0	No
R5	70.2	80.0	0.0	No
^a Significance criteria is based on an absolute noise levels as set forth in the City's Construction Noise and Vibration Updates to Thresholds and Methodology (August 2024). Source: AES, 2025. See Appendix H of this Draft EIR.				

(a) on-site stationary noise sources, including outdoor-mounted mechanical equipment (e.g., heating, ventilation, and air conditioning [HVAC] equipment), parking areas and loading docks; and (b) off-site mobile (roadway traffic) noise sources.

(i) On-Site Stationary Noise Sources

Mechanical Equipment

As part of the Project, new building mechanical equipment (e.g., air ventilation equipment) would be located at the building roof level and/or within each of the building structures. Although operation of this equipment would generate noise, Project-related outdoor mechanical equipment would be designed so as not to increase the existing ambient noise levels by 5 dBA in accordance with the City's Noise Regulations. Specifically, the Project would comply with LAMC Section 112.02, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise levels on the premises of other occupied properties by more than 5 dBA. In addition, as provided above in Project Design Feature NOI-PDF-1, all outdoor mounted mechanical equipment will be enclosed or screened from off-site noise-sensitive receptors.

Table IV.H-12 on page IV.H-39 presents the estimated noise levels at the off-site receptor locations from operation of the Project's mechanical equipment. As indicated in Table IV.H-12, the estimated noise levels from the mechanical equipment would range from 36.7 dBA (Leq) at receptor location R3 to 42.2 dBA (Leq) at receptor location R5 under Option 1 and would range from 40.7 dBA (Leq) at receptor location R3 to 44.1 dBA (Leq) at receptor location R5 under Option 2. The estimated noise levels under both Option 1 and Option 2

Table IV.H-12
Estimated Noise Levels from Mechanical Equipment

Receptor Location	Existing Ambient Noise Levels, dBA (L _{eq})	Estimated Noise Levels from Mechanical Equipment, ^b dBA (L _{eq})	Ambient + Project Noise Levels, dBA (L _{eq})	Significance Criteria, dBA (L _{eq}) ^a	Exceedance over Significance Criteria dBA (L _{eq})	Significant Impact?
Option 1 (Single-Building Option)						
R1	62.6	37.2	62.6	67.6	0.0	No
R2	57.8	39.7	57.9	62.8	0.0	No
R3	57.6	36.7	57.6	62.6	0.0	No
R4	65.0	39.4	65.0	70.0	0.0	No
R5	69.5	42.2	69.5	74.5	0.0	No
Option 2 (Three-Building Option)						
R1	62.6	41.5	62.6	67.6	0.0	No
R2	57.8	44.0	58.0	62.8	0.0	No
R3	57.6	40.7	57.7	62.6	0.0	No
R4	65.0	43.0	65.0	70.0	0.0	No
R5	69.5	44.1	69.5	74.5	0.0	No
^a Significance criteria are equivalent to the measured daytime or nighttime ambient noise levels, whichever is lower (see Table IV.H-4 on page IV.H-22) plus 5 dBA, per the City of Los Angeles Noise Regulations. If the estimated noise levels exceed those significance criteria, a noise impact is identified. ^b Estimated noise levels include the 6.5-foot high property walls along the eastern property line (per Project Design Feature PDF-NOI-4) and a 14-foot high wall at the trailer parking area under Option 1 (per Project Design Feature PDF-NOI-2). Source: AES, 2025. See Appendix H of this Draft EIR.						

would be well below the existing ambient noise levels. Further, the estimated ambient noise levels at all off-site receptor locations with the addition of the Project's mechanical equipment, under both Option 1 and Option 2, would be below the significance criterion of 5 dBA (L_{eq}) above ambient noise levels (based on the lowest measured ambient noise levels). **Therefore, noise impacts from mechanical equipment would be less than significant.**

Parking Areas

As discussed in Section II, Project Description, of this Draft EIR, the Project would provide 274 vehicular parking spaces and 90 trailer parking spaces within the surface parking areas under Option 1 and 369 vehicular parking spaces under Option 2. The sources of noise within the parking areas would primarily include vehicular movements and engine noise, doors opening and closing, beepers, and intermittent car alarms. Noise levels within the parking areas would fluctuate with the amount of automobile and human activity. Table IV.H-13 on page IV.H-40 presents the estimated noise levels from the parking operations at the off-site receptor locations. As presented in Table IV.H-13, the estimated

**Table IV.H-13
Estimated Noise Levels from Parking Areas**

Receptor Location	Existing Ambient Noise Levels, dBA (L _{eq})	Estimated Noise Levels from Parking Areas, ^b dBA (L _{eq})	Ambient + Project Noise Levels, dBA (L _{eq})	Significance Criteria dBA (L _{eq}) ^a	Exceedance Over Significance Criteria dBA (L _{eq})	Significant Impact?
Option 1 (Single-Building Option)						
R1	62.6	49.3	62.8	67.6	0.0	No
R2	57.8	30.5	57.8	62.8	0.0	No
R3	57.6	27.6	57.6	62.6	0.0	No
R4	65.0	48.7	65.1	70.0	0.0	No
R5	69.5	49.0	69.5	74.5	0.0	No
Option 2 (Three-Building Option)						
R1	62.6	26.6	62.6	67.6	0.0	No
R2	57.8	47.1	58.2	62.8	0.0	No
R3	57.6	31.5	57.6	62.6	0.0	No
R4	65.0	45.8	65.1	70.0	0.0	No
R5	69.5	41.4	69.5	74.5	0.0	No
^a Significance criteria are equivalent to the measured daytime or nighttime ambient noise levels, whichever is lower (see Table IV.H-4 on page IV.H-22 plus 5 dBA, per the City of Los Angeles Noise Regulations. If the estimated noise levels exceed those significance criteria, a noise impact is identified. ^b Estimated noise levels include the 6.5-foot high property walls along the eastern property line (per Project Design Feature PDF-NOI-4) and a 14-foot high wall at the trailer parking area under Option 1 (per Project Design Feature PDF-NOI-2). Source: AES, 2025. See Appendix H of this Draft EIR.						

noise levels from the parking areas would range from 27.6 dBA (L_{eq}) at receptor location R3 to 49.3 dBA (L_{eq}) at receptor location R1 under Option 1 and would range from 26.6 dBA (L_{eq}) at receptor location R1 to 47.1 dBA (L_{eq}) at receptor location R2 under Option 2. The estimated noise levels under both Option 1 and Option 2 would be well below the existing ambient noise levels. In addition, the estimated ambient noise levels with the addition of the noise levels generated by the Project parking areas would be below the significance criteria of 5 dBA (L_{eq}) above the ambient noise levels (based on the lowest measured ambient). **Therefore, noise impacts from the parking areas would be less than significant.**

Loading Docks

The Project design includes 42 dock doors and two grade doors under Option 1 and 51 dock doors under Option 2. The 42 dock doors under Option 1 would be located along the west side of the warehouse building with two grade doors located at the southeastern corner of the building. The loading dock doors under Option 2 would be located at the interior of sides of the three warehouse buildings. The dock doors would be shielded to the off-site residential receptors to the north and east of the Project Site by the intervening Project

buildings and perimeter walls along the northern and eastern property lines of the Project Site. Based on measured noise levels from typical loading dock facilities, delivery trucks could generate noise levels of approximately 71 dBA (L_{eq}) at a distance of 50 feet.⁵² In addition, the trash compactors would be located inside an enclosed space, which would be effectively shielded to the off-site sensitive receptors. Table IV.H-14 on page IV.H-42 presents the estimated noise levels at the off-site sensitive receptors resulting from the loading activities. As presented in Table IV.H-14, the estimated noise levels from the loading docks would range from 41.5 dBA (L_{eq}) at receptor location R1 to 63.8 dBA (L_{eq}) at receptor location R5 under Option 1 and would range from 44.1 dBA (L_{eq}) at receptor location R1 to 60.3 dBA (L_{eq}) at receptor location R2 under Option 2. The estimated ambient noise levels with the addition of the noise levels generated by the Project's loading activities would be below the significance criterion of 5 dBA (L_{eq}) above ambient noise levels (based on the lowest measured ambient) at all off-site receptor locations. **Therefore, noise impacts from loading dock operations would be less than significant.**

(ii) Off-Site Mobile Noise Sources

As discussed in the Project's Transportation Assessment, the Project is expected to generate net decreases of 1,500 and 1,712 daily vehicle trips under the Option 1 and Option 2, respectively. The off-site traffic noise levels are dependent on the traffic volumes on the roadways (i.e., a reduction in the daily vehicle trips would generally result in a reduction in traffic noise levels). As such, the 24-hour CNEL noise levels (the metric typically used to evaluate traffic noise) resulting from Project-related off-site traffic would be reduced relative to existing conditions.

However, the Project would result in a net increase of vehicle trips during the AM and PM peak hours, with the largest increase occurring during the PM peak hours. Specifically, maximum increases of 153 and 124 peak PM hour trips would occur under Option 1 and Option 2, respectively. As such, to provide a conservative analysis, hourly traffic noise levels during these peak hours were evaluated. Table IV.H-15 on page IV.H-43 provides a summary of the roadway noise impact analysis for both Option 1 and Option 2 using the maximum peak hour trip increases. The calculated noise levels are conservative as the noise levels experienced along the roadways do not account for the presence of any existing physical sound barriers or intervening structures. As shown in Table IV.H-15, the Project would result in a maximum noise increase of 1.1 dBA and 0.6 dBA along the roadway segment of West Arbor Vitae Street (between South Airport Boulevard and South Aviation Boulevard) during peak hours under Project Option 1 and Option 2, respectively. At other analyzed roadway segments, the increase in traffic related noise levels would be 0.2 dBA or lower. The increase in traffic noise levels along analyzed roadway segments would be negligible and below the more stringent 3-dBA significance criterion.

⁵² RK Engineering Group, Inc., *Wal-Mart/Sam's Club Reference Noise Level Study, 2003*.

Table IV.H-14
Estimated Noise Levels from Loading Docks

Receptor Location	Existing Ambient Noise Levels, dBA (L _{eq})	Estimated Noise Levels from Loading Dock Operation, ^b dBA (L _{eq})	Ambient + Project Noise Levels, dBA (L _{eq})	Significance Criteria ^a dBA (L _{eq}) ^a	Exceedance Over Significance Criteria dBA (L _{eq})	Significant Impact?
Option 1 (Single-Building Option)						
R1	62.6	41.5	62.6	67.6	0.0	No
R2	57.8	45.9	58.1	62.8	0.0	No
R3	57.6	57.6	60.6	62.6	0.0	No
R4	65.0	50.3	65.1	70.0	0.0	No
R5	69.5	63.8	70.5	74.5	0.0	No
Option 2 (Three-Building Option)						
R1	62.6	44.1	62.7	67.6	0.0	No
R2	57.8	60.3	62.2	62.8	0.0	No
R3	57.6	46.2	57.9	62.6	0.0	No
R4	65.0	59.0	66.0	70.0	0.0	No
R5	69.5	57.4	69.8	74.5	0.0	No
^a Significance criteria are equivalent to the measured daytime ambient noise levels, whichever is lower (see Table IV.H-4 on page IV.H-22) plus 5 dBA, per the City of Los Angeles Noise Regulations. If the estimated noise levels exceed those significance criteria, a noise impact is identified. ^b Estimated noise levels include the 6.5-foot high property walls along the eastern property line (per Project Design Feature PDF-NOI-4) and a 14-foot high wall at the trailer parking area under Option 1 (per Project Design Feature PDF-NOI-2). Source: AES, 2024. See Appendix H of this Draft EIR.						

In addition, the Project would result in net increases of 585 and 527 in daily truck trips under Option 1 and Option 2, respectively. The increases in truck trips were analyzed to determine if any traffic-related noise impacts would result from the operation of the Project. Table IV.H-16 on page IV.H-44 presents the estimated noise levels from the off-site truck trips at the Project off-site receptor locations. As presented in Table IV.H-16, the estimated noise levels from the off-site trucks would range from 33.0 dBA (L_{eq}) at receptor location R2 to 61.8 dBA (L_{eq}) at receptor location R4 under Option 1 and would range from 36.0 dBA (L_{eq}) at receptor location R1 to 59.6 dBA (L_{eq}) at receptor location R4 under Option 2. The estimated noise levels under both Option 1 and Option 2 would be well below the existing ambient noise levels. In addition, the estimated ambient noise levels with the addition of the noise levels generated by the Project off-site truck trips would be below the significance criteria of 5 dBA (L_{eq}) above the ambient noise levels (based on the lowest measured ambient). **Therefore, noise impacts from the off-site truck trips would be less than significant.**

Table IV.H-15
Maximum Roadway Traffic Noise Impacts During Peak Hour

Roadway Segment	Calculated Peak Hour Traffic Noise Levels, dBA (hourly L_{eq})		Increase in Noise Levels, dBA (hourly L_{eq})	Significant Impact?
	Existing	Existing + Project		
Option 1 (Single-Building Option)				
Airport Boulevard				
– Between Manchester Ave. and Interceptor St.	71.6	71.6	0.0	No
– Between Interceptor St. and Arbor Vitae St.	71.5	71.6	0.1	No
Interceptor Street				
– West of Airport Blvd.	58.8	58.8	0.0	No
– East of Airport Blvd.	65.8	66.9	1.1	No
Arbor Vitae Street				
– Between Airport Blvd. and Aviation Blvd.	71.7	71.9	0.2	No
Option 2 (Three-Building Option)				
Airport Boulevard				
– Between Manchester Ave. and Interceptor St.	71.6	71.6	0.0	No
– Between Interceptor St. and Arbor Vitae St.	71.5	71.4	0.0	No
Interceptor Street				
– West of Airport Blvd.	58.8	58.8	0.0	No
– East of Airport Blvd.	65.8	66.4	0.6	No
Arbor Vitae Street				
– Between Airport Blvd. and Aviation Blvd.	71.7	71.8	0.1	No
<i>Source: AES, 2025. See Appendix H of this Draft EIR.</i>				

(iii) Composite Noise Level Impacts from Project Operations

In addition to considering the potential noise impacts to the Project's neighboring noise-sensitive receptors from each specific on-site and off-site noise source (e.g., mechanical equipment, loading docks, parking areas, and off-site traffic), an evaluation of potential composite noise level increases (i.e., noise levels from all on-site noise sources combined) at the analyzed sensitive receptor locations was also performed. This evaluation of composite noise levels from all on-site Project-related noise sources, evaluated using the CNEL noise metric, was conducted to determine the contributions at the noise-sensitive receptor locations in the vicinity of the Project Site.

Table IV.H-17 on page IV.H-45 presents the estimated composite noise levels in terms of CNEL at the five off-site sensitive receptor locations from the Project-related noise sources under Option 1 and Option 2. As indicated in Table IV.H-17, the Project would result in an increase in composite noise levels ranging from 0.2 dBA at the uses represented by

Table IV.H-16
Estimated Noise Levels from Off-Site Trucks

Receptor Location	Existing Ambient Noise Levels, dBA (L _{eq})	Estimated Noise Levels from Off-Site Trucks, ^b dBA (L _{eq})	Ambient + Project Noise Levels, dBA (L _{eq})	Significance Criteria ^a dBA (L _{eq}) ^a	Exceedance Over Significance Criteria dBA (L _{eq})	Significant Impact?
Option 1 (Single-Building Option)						
R1	62.6	47.6	62.7	67.6	0.0	No
R2	57.8	33.0	57.8	62.8	0.0	No
R3	57.6	43.0	57.7	62.6	0.0	No
R4	65.0	61.8	66.7	70.0	0.0	No
R5	69.5	61.5	70.1	74.5	0.0	No
Option 2 (Three-Building Option)						
R1	62.6	36.0	62.6	67.6	0.0	No
R2	57.8	37.7	57.8	62.8	0.0	No
R3	57.6	43.4	57.8	62.6	0.0	No
R4	65.0	59.6	66.1	70.0	0.0	No
R5	69.5	57.4	69.8	74.5	0.0	No
^a Significance criteria are equivalent to the measured daytime ambient noise levels, whichever is lower (see Table IV.H-4 on page IV.H-22) plus 5 dBA, per the City of Los Angeles Noise Regulations. If the estimated noise levels exceed those significance criteria, a noise impact is identified. ^b Estimated noise levels include the 6.5-foot high property walls along the eastern property line (per Project Design Feature PDF-NOI-4) and a 14-foot high wall at the trailer parking area under Option 1 (per Project Design Feature PDF-NOI-2). Source: AES, 2024. See Appendix H of this Draft EIR.						

receptor locations R1 and R2 to 2.1 dBA at the uses represented by receptor location R5 under Option 1. Under Option 2, the Project would result in an increase in composite noise levels ranging from 0.1 dBA at the uses represented by receptor location R1 to 2.9 dBA at the uses represented by receptor location R2. The composite noise level from Project operation at off-site receptor locations R1, R4, and R5 (under Option 1) and at receptor locations R1, R2, R4, and R5 (under Option 2) would be below the 3-dBA significance criterion as the ambient plus Project composite noise level falls within the normally unacceptable (70 to 75 CNEL) range for residential land use categories. In addition, the composite noise levels from Project operation at off-site receptor locations R2 and R3 (under Option 1) and R3 (under Option 2) would be below the 5-dBA significance criterion as the ambient plus Project composite noise levels fall within the normally and conditionally acceptable (less than 70 CNEL) range for the residential land use categories. **As such, composite noise level impacts due to Project operations would be less than significant.**

**Table IV.H-17
Composite Noise Impacts**

Receptor Location	Existing Ambient Noise Levels (CNEL (dBA))	Calculated Project-Related Noise Sources ^b (CNEL (dBA))				Project Composite Noise Levels (CNEL (dBA))	Ambient Plus Project Composite Noise Levels (CNEL (dBA))	Increase in Noise Levels due to Project (CNEL (dBA))	Significance Criteria (CNEL (dBA))	Significant Impact?
		Mechanical	Loading	Parking	Off-Site Trucks					
Option 1 (Single-Building Option)										
R1	71.3	43.9	48.2	56.0	54.3	58.8	71.5	0.2	74.3	No
R2	67.5	46.4	52.6	37.2	39.7	53.8	67.7	0.2	72.5	No
R3	69.1	43.4	64.3	34.3	49.7	64.5	70.4	1.3	74.1	No
R4	71.9	46.1	57.0	55.4	68.5	69.0	73.7	1.8	74.9	No
R5	74.6	48.9	70.5	55.7	68.2	72.6	76.7	2.1	77.6	No
Option 2 (Three-Building Option)										
R1	71.3	48.2	50.8	33.3	42.7	53.1	71.4	0.1	74.3	No
R2	67.5	50.7	67.0	53.8	44.4	67.3	70.4	2.9	70.5	No
R3	69.1	47.4	52.9	38.2	50.1	55.5	69.3	0.2	74.1	No
R4	71.9	49.7	65.7	52.5	66.3	69.1	73.7	1.8	74.9	No
R5	74.6	50.8	64.1	48.1	64.1	67.2	75.3	0.7	77.6	No
^a Significance criteria are equivalent to the existing ambient noise levels plus 3 dBA if the estimated noise levels (ambient plus Project) fall within the “normally unacceptable” or “clearly unacceptable” land use categories or ambient noise levels plus 5 dBA if the estimated noise levels fall within the “normally acceptable” or “conditionally acceptable” land use categories, per the City of Los Angeles Noise Element and the L.A. CEQA Thresholds Guide. If the estimated noise levels exceed those significance criteria, a potentially significant noise impact is identified. ^b Estimated noise levels include the 6.5-foot high property walls along the eastern property line (per Project Design Feature PDF-NOI-4) and a 14-foot high wall at the trailer parking area under Option 1 (per Project Design Feature PDF-NOI-2). Source: AES, 2025. See Operations Noise Calculations provided in Appendix H of this Draft EIR.										

Based on the above, Project construction or operation would not result in the 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 City's general plan or noise ordinance, or applicable standards of other agencies. Therefore, the Project's construction or operational noise impacts from on- and off-site sources would be less than significant.

(2) Mitigation Measures

(a) Construction Noise

As analyzed above, on-site and off-site construction of the Project would not result in significant noise impacts at off-site sensitive receptor locations. Therefore, no mitigation measures are required.

(b) Operational Noise

Noise impacts associated with on-site noise sources and off-site traffic were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

(a) Construction Noise

On-site and off-site construction noise were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(b) Operational Noise

Noise impacts associated with on-site noise sources and off-site traffic were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impacts would remain less than significant.

Threshold (b): Would the Project result in the generation of excessive groundborne vibration or groundborne noise levels?

(1) Impact Analysis

(a) Construction

Construction activities can generate varying degrees of ground vibration, depending on the construction procedures and the type of construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in

amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies, depending on soil type, ground strata, and construction characteristics of the receptor buildings. The effects of vibration can range from no perceptible vibration at the lowest levels to low rumbling sounds and perceptible vibration at moderate levels. However, ground-borne vibrations from construction activities rarely reach levels that damage structures.

As described above, Project construction activities would occur during the daytime hours from 7:00 A.M. to 9:00 P.M., Monday through Friday, and between 8:00 A.M. and 6:00 P.M. on Saturday. Therefore, vibration impacts associated with human annoyance from both on-site and off-site construction would be less than significant.

(i) Building Damage Impacts from On-Site Construction

With regard to potential building damage, the Project would generate ground-borne construction vibration during building demolition and site excavation/grading activities when heavy construction equipment, such as large bulldozers, drill rigs, and loaded trucks, would be used. Caltrans has published standard vibration velocities for various construction equipment operations. Table IV.H-18 on page IV.H-48 provides the estimated ground vibration velocity levels (in terms of inch per second PPV) at the nearest off-site structures to the Project Site. The assessment of construction vibration provided above for potential building damage due to on-site construction compares the estimated vibration levels generated during construction of the Project to the 0.3 PPV significance criterion for older residential buildings (applicable to the residential buildings to the north, east and west, and the commercial buildings to the south). As indicated in Table IV.H-18, the estimated vibration levels at the off-site buildings would be below the 0.3 PPV building damage significance criteria. **Therefore, vibration impacts (pursuant to the significance criteria for building damage) from on-site construction activities would be less than significant.**

(ii) Building Damage from Off-Site Construction

As indicated above, the Project also includes construction associated with off-site improvements, including installation of electrical lines for LADWP (approximately 1,100 feet along South Airport Boulevard and 400 feet along West Arbor Vitae Street adjacent to the Project Site); closure of existing driveways along South Airport Boulevard, Interceptor Street and West Arbor Vitae Street; remodel and addition of new driveways along South Airport Boulevard, and West Arbor Vitae Street; relocation of a fire hydrant along West Arbor Vitae Street; and removal and installation of new tree wells along West Arbor Vitae Street. Off-site improvements would utilize smaller construction equipment (e.g., trencher and small loader), which would not generate excessive vibration levels. In addition, construction equipment for the off-site improvements would be a minimum of 20 feet from any off-site buildings, with a vibration level of approximately 0.004 PPV. Therefore, temporary vibration impacts from the

Table IV.H-18
Construction Vibration Impacts—Building Damage (Option 1 and Option 2)

Nearest On- and Off-Site Building Structure ^a	Estimated Vibration Velocity Levels at the Outside of and Adjacent to the Nearest Off-Site Structures from the Project Construction Equipment (inch/second (PPV)) ^b					Significance Criteria (PPV)	Significant Impact?
	Vibratory Roller	Large Bulldozer/Caisson Drilling	Loaded Trucks	Jack-hammer	Small Bulldozer		
Caltrans Reference Vibration Levels at 25 feet	0.210	0.089	0.076	0.035	0.003	—	—
Multi-story Residential Buildings to the North	0.080	0.034	0.029	0.013	0.001	0.3 ^c	No
Single-story and 2-story Commercial Buildings to the South	0.051	0.022	0.019	0.009	0.001	0.3 ^c	No
Single- and Multi-story Residential Buildings to the East	0.145	0.244	0.208	0.096	0.008	0.3 ^c	No
Multi-story Residential Buildings to the West	0.037	0.016	0.014	0.006	0.001	0.3 ^c	No
^a Represents nearby off-site building structures located nearest to the Project Site to the north, south, east, and west. ^b Vibration level calculated based on Caltrans reference vibration level at 25-foot distance. ^c Caltrans criterion for older residential structures (applicable for the existing residential and commercial buildings to the north, south, east, and west of the Project Site). Source: Caltrans, 2020; AES, 2025. See Appendix H of this Draft EIR.							

construction of the required off-site improvements with respect to building damage would be less than significant.

As described above, construction delivery/haul trucks would travel between the Project Site and I-105 and I-405 via South Airport Boulevard, West Manchester Avenue, West Arbor Vitae Street, South Aviation Boulevard, and Imperial Highway. Heavy-duty construction trucks would generate ground-borne vibration as they travel along the Project's anticipated haul route(s). Thus, an analysis of potential vibration impacts using the building damage and human annoyance criteria for ground-borne vibration along the anticipated local haul routes was conducted.

Regarding building damage, based on FTA data, the vibration level generated by a typical heavy-duty truck would be approximately 63 VdB (0.00566 PPV) at a distance of 50 feet from the truck.⁵³ According to the FTA “[i]t is unusual for vibration from sources such

⁵³ FTA, “Transit Noise and Vibration Impact Assessment,” Figure 5-4, September 2018.

as buses and trucks to be perceptible, even in locations close to major roads.” Nonetheless, there are existing buildings along the Project’s anticipated haul route that are situated approximately 20 feet from the right-of-way and would be exposed to ground-borne vibration levels of approximately 0.022 PPV, as provided in the noise calculation worksheets included in Appendix H of this Draft EIR. This estimated vibration generated by construction trucks traveling along the anticipated haul route(s) would be well below the building damage criteria of 0.25 PPV for historic buildings. **Therefore, vibration impacts with respect to building damage from off-site construction activities (i.e., construction trucks traveling on public roadways) would be less than significant.**

(iii) Summary of Construction Vibration Impacts

As discussed above, the estimated vibration levels from on-site construction equipment would be below the building damage significance criteria of 0.3 PPV for the off-site residential and commercial buildings to the north, south, east, and west of the Project Site. Vibration impacts associated with temporary and intermittent vibration forces from off-site construction activities (i.e., construction trucks traveling along the anticipated truck routes) would be well below the building damage criterion of 0.25 PPV for historic buildings. **Therefore, vibration impacts from on-site and off-site construction activities with respect to building damage would be less than significant.**

(b) Operation

As described above, sources of vibration related to operation of the Project would include vehicle circulation, delivery trucks, and building mechanical equipment. As discussed above, it is unusual for vibration from sources, such as rubber-tired buses and trucks, to be perceptible even in locations close to major roads. As such, vehicular-induced vibration, including vehicle circulation within the surface parking areas, would not generate perceptible vibration levels at off-site sensitive uses. Building mechanical equipment installed as part of the Project would include typical commercial-grade stationary mechanical equipment, such as air-condenser units (mounted at the roof level), that would include vibration-attenuation mounts to reduce vibration transmission to ensure that vibration would not be perceptible at the off-site sensitive receptors. Therefore, operation of the Project would not increase the existing vibration levels in the immediate vicinity of the Project Site, and, as such, vibration impacts associated with operation of the Project would be less than significant. **As such, operation of the Project would not result in the generation of excessive ground-borne vibration levels that would be perceptible in the vicinity of the Project Site. Therefore, vibration impacts associated with operation of the Project would be less than significant.**

(2) Mitigation Measures

(a) *Construction Vibration*

As discussed above, the estimated vibration levels from on-site and off-site construction equipment would be below the building damage significance criteria. Therefore, no mitigation measures are required.

(b) *Operation Vibration Impacts*

As discussed above, the operation of the Project would not result in a significant vibration impact during operation. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

(a) *Construction Vibration*

Vibration impacts associated with Project construction were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(b) *Operation Vibration*

Vibration impacts associated with Project operation were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (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, would the project expose people residing or working in the project area to excessive noise levels?

(1) Impact Analysis

The nearest airport is the Los Angeles International Airport located approximately 3,300 feet southwest of the Project Site. The Project Site is located within the 70- to 75-CNEL noise contours, which is considered normally/conditionally acceptable for industrial use.⁵⁴ In addition, the Project would comply with CALGreen Code sound insulation requirements for buildings exposed to noise levels exceeding 65 dBA (L_{eq}). **As such, the Project would not expose people working in the project area to excessive noise levels. Therefore, noise impacts associated with aircraft noise exposure would be less than significant.**

⁵⁴ Los Angeles World Airports (LAWA), Los Angeles International Airport 3Q24 Noise Contours.

(2) Mitigation Measures

As discussed above, noise impacts associated with aircraft noise exposure would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Noise impacts associated with aircraft noise exposure were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

e. Cumulative Impacts

(1) Impact Analysis

The Project, together with the related projects and future growth, could contribute to cumulative noise impacts. The potential for cumulative noise impacts to occur is specific to the distance between each related project and their stationary noise sources, as well as the cumulative traffic that these projects would add to the surrounding roadway network.

(a) Construction Noise

(i) On-Site Construction Noise

As indicated in Section III, Environmental Setting, of this Draft EIR, four related projects have been identified in the vicinity of the Project Site. Noise from construction of development projects is typically localized and has the potential to affect noise-sensitive uses within 300 feet from the construction site.⁵⁵ Thus, noise from construction activities from two projects within 300 feet of each other can contribute to a cumulative noise impact for receptors located midway between the two construction sites. Of the four related projects located in the vicinity of the Project Site, three related projects are located more than 2,400 feet from the Project Site and with intervening building structures, which would not contribute to the cumulative on-site construction noise impacts. The nearest related project is Related Project No. 1, a 16-multi-family residential development project, located at 8833 Ramsgate Avenue, approximately 310 feet northeast of the Project Site. This related project is currently under construction and the construction activities that generate the noisiest activities (e.g., grading and excavation) are complete. Thus, construction activities associated with Related Project No. 1 would not result in cumulative impacts when considered with those of the Project.

⁵⁵ Typical construction noise level at 300 feet distance would be approximately 70 dBA, which would be 10 dBA below the 80-dBA significance criteria and would not result in a significant noise increase.

As described in Project Design Feature HAZ-PDF-1, removal of subsurface features (e.g., existing USTs, current and former hydraulic lifts, and oil/water clarifiers) is identified as an interim remediation project and all ground disturbance activities will be completed prior to, and independent of the Project. Therefore, no overlapping construction between these activities and the Project would occur. **As such, cumulative noise impacts associated with on-site construction would be less than significant.**

(ii) Off-Site Construction Noise

In addition to the cumulative impacts of on-site construction activities, off-site construction haul trucks would have the potential to result in cumulative impacts if the trucks for the related projects and the Project were to utilize the same haul route. As analyzed above in Subsection 3.d.(1) (see Table IV.H-9 on page IV.H-36), the estimated off-site construction noise levels would be up to 16.0 dBA below the significance criteria along the anticipated truck routes with sensitive receptors, including South Airport Boulevard, West Arbor Vitae Street, and West Manchester Avenue. It is estimated that the cumulative truck trips would need to exceed 985 haul truck trips per hour along South Airport Boulevard, West Arbor Vitae Street, and West Manchester Avenue, for the off-site construction truck noise levels to reach or exceed the significance criteria of 80 dBA $L_{eq}(8\text{-hour})$. As indicated above, the Project would generate up to 25 haul truck trips per hour during the site grading/excavation phase. There are three related projects in the vicinity of the Project Site, which could utilize the same truck routes, including Related Project No. 1, Related Project No. 3, and Related Project No. 4. Related Project No. 1 is the smallest project of the three related projects and the grading and excavation and associated haul truck activities have been completed. Related Project No. 3 would generate up to 44 truck trips per hour; however, this related project would not utilize the same haul routes as the Project.⁵⁶ There are no available information related to the truck trips associated with the Related Project No. 4. However, it is estimated that construction-related truck trips for Related Project No. 4 would be similar to Related Project No. 3 based on the proposed development (i.e., 413 residential units for Related Project No. 4 and 489 residential units for Related Project No. 3). Therefore, based on the above, the potential cumulative increase in total truck trips is not anticipated to reach 985 truck trips per hour along the anticipated truck routes. **As such, cumulative off-site construction noise impacts would be less than significant.**

(iii) Summary of Cumulative Construction Noise Impacts

As discussed above, on-site and off-site construction activities from the Project and related projects would not have the potential to result in generation of substantial temporary noise levels in excess of standards established by the City. **Therefore, cumulative noise impacts from on-site and off-site construction activities would be less than significant.**

⁵⁶ City of Los Angeles, 6136 W. Manchester Project, Recirculated Sustainable Communities Environmental Assessment, October 2024.

(b) Operational Noise

The Project Site and surrounding area have been developed with uses that have previously generated and would continue to generate noise from a number of community noise sources, including mechanical equipment (e.g., HVAC systems), outdoor activity areas, and vehicle travel. Similar to the Project (under both Option 1 and Option 2), each of the related projects that have been identified in the vicinity of the Project Site would also generate stationary-source and mobile-source noise due to ongoing day-to-day operations. All related projects are of a residential, retail, commercial, or institutional nature, and these uses are not typically associated with excessive exterior noise levels. However, each related project would produce traffic volumes that are capable of generating roadway noise impacts. The potential cumulative noise impacts associated with on-site and off-site noise sources are addressed below.

(i) On-Site Stationary Noise Sources

Due to provisions set forth in the LAMC that limit stationary source noise from sources, such as rooftop mechanical equipment, noise levels would be less than significant at the property line for each related project. In addition, as discussed above, noise impacts associated with operation within the Project Site would be less than significant. **Therefore, based on the distance of the related projects from the Project Site and the operational noise levels associated with the Project, cumulative stationary source noise impacts associated with operation of the Project and related projects would be less than significant.**

(ii) Off-Site Mobile Noise Sources

The Project and related projects in the area would produce traffic volumes (off-site mobile sources) that would generate roadway noise. As discussed in the Transportation Assessment, the Project is expected to generate a net decrease of 1,500 and 1,712 daily vehicle trips under Option 1 and Option 2, respectively. As such, traffic noise on a 24-hour CNEL basis, which is typically used to evaluate traffic noise, would be reduced when compared with existing conditions. As discussed above, peak hour trips associated with the Project would increase relative to existing conditions. Thus, to provide a conservative analysis, hourly noise levels associated with the Project and cumulative trips during these peak hours were also evaluated. The calculated traffic noise levels under existing and future cumulative plus project conditions are presented in Table IV.H-19 on page IV.H-54 for both Project Option 1 and Option 2. As shown in Table IV.H-19, the cumulative peak hour traffic volumes would result in maximum noise increase of 1.2 dBA and 0.7 dBA along the roadway segment of West Arbor Vitae Street (between South Airport Boulevard and South Aviation Boulevard) under Project Option 1 and Option 2, respectively. At other analyzed roadway segments, the cumulative increase in traffic related noise levels would be 0.3 dBA or lower. The increase in cumulative traffic noise levels along analyzed roadway segments would be

**Table IV.H-19
Cumulative Peak Hour Roadway Traffic Noise Impacts**

Roadway Segment	Calculated Peak Hour Traffic Noise Levels, dBA (L _{eq})		Increase in Noise Levels, dBA (L _{eq})	Significant Impact?
	Existing	Future Cumulative + Project		
Option 1 (Single-Building Option)				
Airport Boulevard				
– Between Manchester Ave. and Interceptor St.	71.6	71.8	0.2	No
– Between Interceptor St. and Arbor Vitae St.	71.5	71.7	0.2	No
Interceptor Street				
– West of Airport Blvd.	58.8	58.8	0.0	No
– East of Airport Blvd.	65.8	67.0	1.2	No
Arbor Vitae Street				
– Between Airport Blvd. and Aviation Blvd.	71.7	72.0	0.3	No
Option 2 (Three-Building Option)				
Airport Boulevard				
– Between Manchester Ave. and Interceptor St.	71.6	71.7	0.1	No
– Between Interceptor St. and Arbor Vitae St.	71.5	71.6	0.1	No
Interceptor Street				
– West of Airport Blvd.	58.8	58.8	0.0	No
– East of Airport Blvd.	65.8	66.5	0.7	No
Arbor Vitae Street				
– Between Airport Blvd. and Aviation Blvd.	71.7	71.9	0.2	No
Source: AES, 2025. See Appendix H of this Draft EIR.				

negligible and below the more stringent 3-dBA significance criterion. **Therefore, cumulative noise impacts due to off-site mobile noise sources associated with the Project, future growth, and related projects would be less than significant.**

(iii) Summary of Cumulative Operational Noise Impacts

As discussed above, the Project and related projects would not result in the exposure of persons to or generation of noise levels in excess of the significance criteria established by the City or in a substantial permanent increase in ambient noise levels in the vicinity of the Project Site above levels existing without the Project and the related projects. **Therefore, cumulative operational noise impacts from on-site and off-site sources would be less than significant.**

(c) *Construction Vibration*

(i) *On-Site Construction Vibration*

Groundborne vibration decreases rapidly with distance from the vibration source. Potential vibration impacts due to construction activities are generally limited to buildings/structures that are located in proximity to the construction site (i.e., within 25 feet as related to building damage).⁵⁷ The nearest related project is Related Project No. 1, which is already underway and thus would not generate cumulative vibration impacts. **Therefore, cumulative vibration impact with respect to building damage associated with on-site construction would be less than significant.**

(ii) *Off-Site Construction Vibration*

As previously discussed, based on FTA data, the vibration level generated by a typical heavy truck would be approximately 63 VdB (0.00566 PPV) at a distance of 50 feet from the truck.⁵⁸ In addition, according to the FTA “[i]t is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads.” As discussed above, there are existing buildings that are approximately 20 feet from the right-of-way of the anticipated truck route(s) for the Project (i.e., South Airport Boulevard, West Arbor Vitae Street, West Manchester Avenue, South Aviation Boulevard, and Imperial Highway). These buildings are anticipated to be exposed to ground-borne vibration levels of approximately 0.022 PPV. Trucks from the related projects are expected to generate similar ground-borne vibration levels. Therefore, the vibration levels generated from off-site construction trucks associated with the Project and other related projects along the anticipated truck route(s) would be below the building damage significance criteria of 0.25 PPV (for historic buildings). **Therefore, potential cumulative vibration impacts with respect to building damage from off-site construction would be less than significant.**

(iii) *Summary of Cumulative Construction Vibration Impacts*

As discussed above, due to the rapid attenuation characteristics of ground-borne vibration and given the relatively long distance of the nearest related project to the Project Site, there is no potential for a cumulative construction vibration impact with respect to building damage associated with ground-borne vibration from on-site sources. In addition, off-site construction sources would generate vibration levels below the building damage significance criterion of 0.25 PPV (for historic buildings). **Therefore, on-site and off-site construction activities associated with the Project and related projects would not generate temporary excessive ground-borne vibration levels with respect to building**

⁵⁷ Distances calculated based on estimated vibration levels for typical construction equipment at a distance which would be below the 0.25 PPV significance criterion applicable to historic buildings.

⁵⁸ FTA, “Transit Noise and Vibration Impact Assessment,” Figure 5-4, September 2018.

damage, and cumulative construction vibration impacts would be less than significant.

(d) Operational Vibration

Vibration levels from project operation are generally limited to building mechanical equipment and vehicle circulation and would be limited to the immediate vicinity of the project sites. The related projects (residential and mixed-use developments) would generate similar vibration levels as the Project. Since ground-borne vibration decreases rapidly with distance, operation of the related projects would not contribute to cumulative vibration impacts due to the distance between the Project and the related projects. As analyzed above, the Project operation would not result in the generation of excessive ground-borne vibration levels that would be perceptible in the vicinity of the Project Site. **Therefore, based on the distance of the related projects from the Project Site and the operational vibration levels associated with the Project, cumulative vibration impacts associated with operation of the Project and related projects would be less than significant.**

(2) Mitigation Measures

(a) Construction Noise

As analyzed above, cumulative noise impacts associated with on-site and off-site construction from the Project and other related projects would be less than significant. Therefore, no mitigation measures are required.

(b) Operational Noise

As discussed above, operation of the Project and related projects would not result in a significant cumulative noise impact during operation. Therefore, no mitigation measures are required.

(c) Construction Vibration

As discussed above, cumulative vibration impacts with respect to building damage associated with on-site and off-site construction activities would be less than significant. Therefore, no additional mitigation measures are required.

(d) Operational Vibration

Cumulative vibration impacts associated with the operation of the Project and related projects would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

(a) Construction Noise

Cumulative construction noise impacts associated with on-site and off-site noise sources were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(b) Operational Noise

Cumulative impacts related to operational noise were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(c) Construction Vibration

Cumulative vibration impacts with respect to building damage associated with on-site and off-site construction activities were determined to be less than significant. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(d) Operational Vibration

Cumulative impacts related to operational vibration were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.