

4.11 Noise

This section evaluates the potential noise impacts that would result from implementation of the proposed Perris Airport Logistics Center Project (Proposed Project). This section discusses the existing noise environment within and around the Project Site, as well as the regulatory framework for regulation of noise. This section analyzes the effect of the Proposed Project on the existing ambient noise environment during construction and operational activities and evaluates the Project's noise effects for consistency with relevant local agency noise policies and regulations. Information presented in this section is based on vehicle and construction noise modeling prepared by Harris & Associates dated June 16, 2024, and is included in Appendix I to this EIR.

4.11.1 Environmental Setting

The following sections describe the environmental setting for the Proposed Project as it relates to noise.

4.11.1.1 Fundamentals of Environmental Noise

Quantification of Noise

The California Department of Transportation (Caltrans) defines noise as sound that is loud, unpleasant, unexpected, or undesired. Further, for the purposes of noise analysis, noise only exists if a source, path, and receiver are present. Sound pressure waves must be produced by a source and transmitted through a medium, such as air. The sound must be perceived by, registered by, or affect a receptor, such as an ear or noise monitoring device (Caltrans 2013).

Sound pressure levels are quantified using a logarithmic ratio of actual sound pressures to a reference pressure squared, called bels. A bel is typically divided into tenths, or decibels (dB). Sound pressure alone is not a reliable indicator of loudness because frequency (or pitch) also affects how receptors respond to the sound. To account for the pitch of sounds and the corresponding sensitivity of human hearing to them, the raw sound pressure level is adjusted with a frequency-dependent A-weighting scale that is stated in units of decibels (dBA) (Caltrans 2013). Typical A-weighted noise levels are listed in Table 4.11-1, Typical A-Weighted Noise Levels.

Table 4.11-1. Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet flyover at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 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 next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013.

Note: dBA = A-weighted decibel

A receptor's response to a given noise may vary depending on the sound level, duration of exposure, character of the noise sources, the time of day during which the noise is experienced, and the activity affected by the noise. Activities most affected by noise include rest, relaxation, recreation, study, and communications, such as quiet conversation or telephone calls. In consideration of these factors, different measures of noise exposure have been developed to quantify the extent of the effects from a variety of noise levels. For example, some measures consider the 24-hour noise environment of a location by using a weighted average that penalizes noise levels during normal relaxation and sleep hours. Other measures consider an average noise level over a period of time that includes ambient noise and a steady-state noise source for a given period of time within the averaging period (Caltrans 2013). The indices for measuring community noise levels that are used in this report are defined below:

Leq, the equivalent energy level, provides an average acoustic or sound energy content of noise, measured during a prescribed period, such as 1 minute, 15 minutes, 1 hour, or 8 hours. The sound level may not be constant over the measured time period, but the average decibel sound level, given as dBA Leq, contains an equal amount of energy as the fluctuating sound level.

CNEL, the community noise equivalent level, is the average equivalent A-weighted sound level over a 24-hour period. This measurement applies weights to noise levels during evening and nighttime hours to compensate for the increased disturbance response of people at those times. CNEL is the equivalent sound level for a 24-hour period with a +5 dBA weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a +10 dBA weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m.

Ldn, the day-night noise level, is a 24-hour Leq, except that the nighttime hours (10:00 p.m. to 7:00 a.m.) are assessed a 10 dBA penalty. This penalty attempts to account for the fact that nighttime noise levels are potentially more disturbing than equal daytime noise levels.

The decibel level of a sound decreases (or attenuates) as the distance from the source of that sound increases. For a single point source, such as a piece of mechanical equipment, the sound level normally decreases by approximately 6 dBA for each doubling of distance from the source. Sound that originates from a linear (or “line”) source, such as vehicular traffic, attenuates by approximately 3 dBA per doubling of distance. Other contributing factors that affect sound reception include ground absorption, topography that provides a natural barrier, meteorological conditions, or the presence of human-made obstacles, such as buildings and sound barriers (Caltrans 2013).

Noise Effects

Reaction to a given sound varies depending on acoustic characteristics of the source and the environment of the receptor. The A-scale deemphasizes low-frequency sounds because humans are more sensitive to high-frequency sounds that are more likely to cause hearing damage. People tend to compare an intruding noise to existing background noise levels. If a new noise is considerably louder or noticeable above existing levels, it is generally considered objectionable. The activity that the receptor is engaged in also affects response. For example, the same noise source, such as constant freeway traffic, may be more objectionable to people sleeping than to workers in a factory. A 3 dBA change is the smallest increment that is perceptible by most receivers, and a 5 dBA change in community noise level is clearly noticeable. Generally, 1 to 2 dBA changes are not detectable, except under controlled laboratory conditions. A sound that is 10 dBA greater than the reference sound is typically perceived as twice as loud (Caltrans 2013).

4.11.1.2 Fundamentals of Environmental Vibration

Vibration is defined as dynamic excitation of an elastic system, such as the ground or a structure, that results in oscillatory movement of the system (Caltrans 2020). Typical human-made causes of earthborne vibration include trains and construction activities such as blasting, pile-driving, and operation of heavy earthmoving equipment. The resulting waves transmitted through solid material are referred to as structureborne or groundborne vibration. Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. The vibration levels inside a building depend on the vibration energy that reaches the foundation and the characteristics of the structure that affect propagation of the vibration through it. A heavier building will typically experience lower vibration levels. The most common impact associated with vibration is annoyance resulting from the effects of vibration, such as building movement, rattling of windows, shaking of items on shelves or walls, and rumbling sounds. In more extreme cases, building damage may occur. Because the effects of vibration elicit a greater response than the vibration itself, vibration is typically only perceptible to people inside buildings (FTA 2018).

Vibration levels are typically expressed in terms of the peak particle velocity (PPV) and root mean square (RMS) amplitude, both in inches per second (in/sec). PPV is most appropriate for evaluating building damage potential. Caltrans estimates that continuous vibration levels of less than 0.08 PPV and single-event vibration levels of less than 0.12 PPV do not result in damage to even the most fragile historic buildings (Caltrans 2020). The Federal Transit Administration (FTA) has identified a maximum PPV of 0.2 in/sec for fragile buildings and 0.12 in/sec for extremely fragile historic buildings (FTA 2018).

PPV does not account for human response to vibration. The RMS amplitude is used to represent average vibration amplitude, which accounts for the time it takes for the human body to respond to vibration signals. The RMS amplitude is also given in decibel notation, referenced as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration relative to human response. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. Like airborne noise, groundborne noise is measured in dBA. The sound level accompanying vibration is generally 25 to 40 dBA lower than the vibration velocity level in VdB. Due to its low-frequency components, groundborne noise sounds louder than broadband noise with the same noise level. Typical vibration levels from various sources are shown in Table 4.11-2, Typical Levels of Groundborne Vibration. As shown in this table, the background vibration velocity level in residential areas is usually around 50 VdB, which is below the 65 VdB threshold of human perception (FTA 2018). The same human reaction corresponds to a given vibration velocity level and its resulting noise level; therefore, for simplicity, this analysis refers only to a source's VdB to describe potential human response to groundborne vibration and noise.

Table 4.11-2. Typical Levels of Groundborne Vibration

Vibration Level	in/sec RMS	Typical Sources (50 feet from source)	Human/Structural Response
VdB ¹			
100	0.01	Blasting from construction projects	Threshold, minor cosmetic damage to fragile buildings
90–100	0.003–0.01	Bulldozers and other heavy tracked construction equipment	Difficulty with tasks such as reading
80–90	0.001–0.003	Commuter rail and rapid transit, upper range	Residential annoyance, infrequent events (e.g., commuter rail)
70–80	0.0003–0.001	Typical commuter rail, bus or truck over bump, typical rapid transit	Residential annoyance, frequent events (e.g., rapid transit)
60–70	0.0001–0.0003	Bus or truck, typical	Limit for vibration-sensitive equipment, approximate threshold for human perception
50	0.00003	Typical background vibration	Not detectable

Source: FTA 2018.

Notes: in/sec = inches per second; RMS = root mean square; VdB = vibration decibel

¹ RMS vibration velocity level in VdB relative to 10–6 in/sec.

The general human response to different groundborne vibration velocity levels is described in Table 4.11-3, Human Response to Different Levels of Groundborne Vibration.

Table 4.11-3. Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Noise Level		Human Reaction
	Low Frequency	Mid Frequency	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many people. Mid-frequency sound may disturb sleep.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is annoying. Mid-frequency noise disturbs sleep and is considered annoying in more quiet areas.
85 VdB	45 dBA	60 dBA	Vibration acceptable only if there are an infrequent number of events per day. Low-frequency noise disturbs sleep and mid-frequency noise can be annoying to daytime noise sensitive land uses, such as schools.

Source: FTA 2018.

Note: dBA = A-weighted decibel; VdB = vibration decibel

4.11.1.3 Regulatory Setting

This section describes the federal, state, and local regulatory framework adopted to address noise.

Federal

Federal Aviation Administration Standards (Code of Federal Regulations, Title 14, Part 150)

Enforced by the Federal Aviation Administration (FAA), Code of Federal Regulations, Title 14, Part 150, prescribes the procedures, standards, and methods governing the development,

submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. The code also identifies those land uses that are normally compatible with various levels of exposure to noise by individuals. The FAA considers residential land uses to be compatible with exterior noise levels at or less than 65 dBA Ldn.

Federal Transit Administration Standards

Although the Federal Transit Administration (FTA) standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the FTA Transit Noise and Vibration Impact Assessment Manual (September 2018) are routinely used for projects proposed by local jurisdictions. The manual includes a threshold for building damage of 0.5 PPV (in/sec).

State

California Noise Control Act of 1973 (California Health and Safety Code, Sections 46000–46080)

California Health and Safety Code, Sections 46000–46080, known as the California Noise Control Act of 1973, finds that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens through the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare. Section 46050.1 mandates development guidelines for the preparation and content of General Plan Noise Elements.

Business and Professions Code

Business and Professions Code, Section 11010, and Civil Code, Sections 1102.6, 1103.4, and 1353, address buyer notification requirements for lands around airports. Any person who intends to offer subdivided lands, common interest developments, and residential properties for sale or lease within an airport influence area is required to disclose that fact to the person buying the property.

Regional

Riverside County ALUCP

The Riverside County Airport Land Use Commission (ALUC) is the lead agency responsible for airport land use compatibility planning in Riverside County. The fundamental purpose of ALUC is to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to

incompatible uses. The basic function of the airport land use compatibility plan is to promote compatibility between airports and the land uses that surround them. Compatibility plans serve as a tool for use by airport land use commissions in fulfilling their duty to review proposed development plans for airports and surrounding land uses. Additionally, compatibility plans set compatibility criteria applicable to local agencies in their preparation or amendment of land use plans and ordinances and to landowners in their design of new development.

March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan

The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (March ARB/IPA ALUCP) was prepared for and adopted by the Riverside County ALUC. The Project Site is located within the Airport Influence Area of March Air Reserve Base/Inland Port Airport (March ARB/IPA) and is subject to the 2014 March ARB/IPA ALUCP. The Project Site is located within Zone E – Other Airport Environs Airport Overlay Zone for the March ARB/IPA ALUCP per Title 19 of the Perris 1 Code (Ch. 19.51). Zone E does not have a restriction on a non-residential, average land use intensity. Prohibited uses within include hazards to flight only.

Perris Valley Airport ALUCP

The runway of Perris Valley Airport, a private airport primarily used for recreation-based flights, bisects the Project Site. Due to its proximity to the Perris Valley Airport runway, the Project Site is also within Compatibility Zones A through D of the Perris Valley ALUCP. The Proposed Project's warehouses, truck yard, employee parking, and retention basins would be situated in Zones B1 through D. Warehouses and truck yards are permitted uses in Zones B1 through D under the ALUCP. Zone B1 is the most restrictive zone with regards to allowable uses and occupancy; Zone D is less restrictive.

Local

City of Perris General Plan

The City of Perris has adopted a Noise Element (adopted 2005, amended 2016) of the Perris Comprehensive General Plan (General Plan) to control and abate environmental noise, and to protect the citizens of Perris from excessive exposure to noise. The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies noise policies and implementation measures designed to protect, create, and maintain an environment free from noise that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life.

The noise standards identified in the Noise Element are guidelines to evaluate the acceptability of the transportation-related noise level impacts. These standards are based on the Office of Planning and Research and are used to assess the long-term traffic noise impacts on land uses. According to the City of Perris General Plan Exhibit N-1 Land Use Compatibility for Community Noise Exposure,

noise-sensitive land uses such as single-family residences are normally acceptable with exterior noise levels below 60 dBA CNEL and conditionally acceptable with noise levels below 65 dBA CNEL. Industrial uses, such as the Proposed Project, are considered normally acceptable with exterior noise levels of up to 70 dBA CNEL, and conditionally acceptable with exterior noise levels between 70 to 80 dBA CNEL (City of Perris 2005).

Additionally, the Noise Element includes Policy V.A, which addresses noise levels generated by industrial uses. Implementation Measure V.A.1 requires that new large-scale industrial facilities located within 160 feet of sensitive land uses identify specific measures necessary to ensure that noise levels to be generated in conjunction with operation of a proposed facility do not exceed 60 dBA CNEL at the property line of the adjoining sensitive land use. The specific goals and policies of the General Plan related to noise that are relevant to the Project and a discussion of the Project's consistency is provided in Table 4.10-2, City of Perris General Plan Consistency Analysis, in Section 4.10, Land Use and Planning, of this EIR.

Perris Municipal Code

Chapter 7.34 of the Perris Municipal Code establishes base ambient noise levels and establishes maximum noise level limits for stationary noise sources. The Perris Municipal Code addresses noise impacts in terms of the maximum noise level (L_{max}).

Section 7.34.040 – Sound Implication

No person shall amplify sound using sound amplifying equipment contrary to any of the following:

1. The only amplified sound permitted shall be either music or the human voice, or both.
2. The volume of amplified sound shall not exceed the noise levels set forth in this subsection when measured outdoors at or beyond the property line of the property from which the sound emanates:
 - Maximum noise level 60 dBA from 10:01 p.m. to 7:00 a.m.
 - Maximum noise level 80 dBA from 7:01 a.m. to 10:00 p.m.

Section 7.34.050 – General Prohibition

- It unlawful for any person to willfully make, cause or suffer, or permit to be made or caused, any loud excessive or offensive noises or sounds which unreasonably disturb the peace and quiet of any residential neighborhood or which are physically annoying to persons of ordinary sensitivity or which are so harsh, prolonged or unnatural or unusual in their use, time or place as to occasion physical discomfort to the inhabitants of the city, or any section thereof. The standards for dBA noise level in Section 7.34.040 shall apply to this section. To the extent that the noise created causes the noise level at the property line to exceed the ambient noise level by more than 1.0 decibel, it shall be presumed that the noise being created also is in violation of this section.

- The characteristics and conditions which should be considered in determining whether a violation of the provisions of this section exists should include, but not be limited to, the following:
 - The level of the noise.
 - Whether the nature of the noise is usual or unusual.
 - Whether the origin of the noise is natural or unnatural.
 - The level of the ambient noise.
 - The proximity of the noise to sleeping facilities.
 - The nature and zoning of the area from which the noise emanates and the area where it is received.
 - The time of day or night the noise occurs.
 - The duration of the noise.
 - Whether the noise is recurrent, intermittent, or constant.

Section 7.34.060 – Construction Noise

- The Perris Municipal Code, Section 7.34.060, identifies the City’s construction noise standards and permitted hours of construction activity. Pursuant to Section 7.34.060, it is unlawful for any person between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on a legal holiday, with the exception of Columbus Day and Washington’s birthday, or on Sundays to erect, construct, demolish, excavate, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. Further, Section 7.34.060 states that noise from construction activity shall not exceed 80 dBA Lmax in residential zones of the City.

Section 7.34.070 – Refuse Vehicles and parking lot sweepers

- No person shall operate or permit to be operated a refuse compacting, processing or collection vehicle or parking lot sweeper between the hours of 7:00 PM to 7:00 AM in any residential area unless a permit has been applied for and granted by the City.

Section 7.34.080 – Disturbing, excessive, offensive, declaration of certain acts constituting.

- The following activities, among others, are declared to cause loud, disturbing, excessive or offensive noises in violation of this section and are unlawful, namely:
 - Horns, Signaling Devices, etc. Unnecessary use or operation of horns, signaling devices or other similar devices on automobiles, motorcycles or any other vehicle
 - Leaf blowers
 1. A "leaf blower" means any portable, hand-held or backpack, engine-powered device with a nozzle that creates a direct able airstream which is capable of and intended for moving leaves and light materials.

2. No person shall operate a leaf blower in any residential zoned area between the hours of 7:00 p.m. and 8:00 a.m. on weekdays and 5:00 p.m. and 9:00 a.m. on weekends or on legal holidays.
3. No person may operate any leaf blower at a sound level in excess of 80 decibels measured at a distance of 50 feet or greater from the point of noise origin.
4. Leaf blowers shall be equipped with functional mufflers and an approved sound limiting device required to ensure that the leaf blower is not capable of generating a sound level exceeding any limit prescribed in this section.

Section 19.51.080 – Noise

- Chapter 19.51 of the Perris Municipal Code establishes noise levels and regulations for land uses within the March ARB/IPA Airport Overlay Zone (MAOZ).
 - Airport Related Noise. Noise compatibility standards are intended to prevent the establishment of noise-sensitive land uses in portions of the airport environ that are exposed to significant levels of aircraft noise. Where permitted within the Airport Overlay Zone (AOZ), the following noise-sensitive land uses shall comply with applicable noise exposure criteria:
 3. All new residences, schools, libraries, museums, hotels and motels, hospitals and nursing homes, places of worship, and other noise-sensitive uses must have sound attenuation features incorporated into the structures sufficient to reduce interior noise levels from exterior aviation-related sources to no more than CNEL 40 dB. This requirement is intended to reduce the disruptiveness of loud individual aircraft noise events upon uses in this zone and represents a higher standard than the CNEL 45 dB standard set by state and local regulations and the Riverside County ALUC policy.
 4. Office space must have sound attenuation features sufficient to reduce the exterior aviation-related noise level to no more than CNEL 45 dB. To ensure compliance with these criteria, an acoustical study shall be required to be completed for any development proposed to be situated where the aviation-related noise exposure is more than 20 dB above the interior standard (e.g., within the CNEL 60 dB contour where the interior standard is CNEL 40 dB).
 5. Standard building construction is presumed to provide adequate sound attenuation where the difference between the exterior noise exposure and the interior standard is 20 dB or less.

Perris Good Neighbor Guidelines

The City of Perris Good Neighbor Guidelines for Siting New and/or Modified Industrial Facilities (Perris Good Neighbor Guidelines) were adopted in September 2022. The purpose of the Perris Good Neighbor Guidelines is to protect residential areas in the City while allowing for the planned

development of new or modified industrial facilities. The Perris Good Neighbor Guidelines apply to all new warehouse, logistics, and distribution facilities with applications submitted after September 2022. The Perris Good Neighbor Guidelines contain the following policies related to noise that are applicable to the Proposed Project:

- Goal 1** Protect the neighborhood characteristics of the urban, rural, and suburban communities.
- Policy 1.3** When possible, locate driveways, loading docks, and internal circulation routes away from sensitive receptors.
- Policy 1.4** Truck loading bays and drive aisles shall be designed to minimize truck noise.
- Policy 1.6** If a public address (PA) system is being used in conjunction with a warehouse/distribution facility operation, the PA system shall be oriented away from sensitive receptors and the volume set at a level not readily audible past the property line.
- Goal 4** Provide buffers between warehouses and sensitive receptors.
- Policy 4.8** An additional wing wall shall be installed perpendicular to the loading dock areas, where feasible, to further attenuate noise related to truck activities and address aesthetics related to loading area when adjacent to sensitive receptors. Vines or other appropriate plant material should be planted in front of the screen walls to soften views from the street.
- Goal 6** Implement construction practice requirements in accordance with state requirements to limit emissions and noise impacts from building demolition, renovation, and new construction.
- Policy 6.1** In addition to regular construction inspections conducted by City Departments, the applicant shall provide monthly reports to the City demonstrating compliance with all the construction related policies.
- Policy 6.3** Construction contractor shall utilize construction equipment with properly operating and maintained mufflers, consistent with the manufacturer's standards.
- Policy 6.4** Construction contractors shall locate or park all stationary construction equipment away from sensitive receptors nearest the project site, to the extent practicable.
- Policy 6.8** Prepare a construction traffic control plan prior to grading, detailing the locations of equipment staging areas material stockpiles, proposed road closures, and hours of construction operations to minimize impacts to sensitive receptors.
- Policy 6.9** Minimize noise from construction activities.
- Goal 7** Ensure compliance with the California Environmental Quality Act (CEQA) and state environmental agencies.

Policy 7.4 A Noise Impact Analysis shall be prepared to evaluate potential impacts to the neighboring properties. It shall include construction and operation noise impacts, including stationary and offsite increases to ambient noise levels.

4.11.1.4 Existing Noise Environment

The noise environment in the Project Site is characterized by transportation noise sources, including Perris Valley Airport, railroad, and roadway noise. These sources are evaluated further below. Other existing noise sources include existing industrial buildings in the area surrounding the Project Site. Industrial noise sources include truck deliveries, operation of machinery, and heating, ventilation, and air conditioning (HVAC) systems. The nearest area zoned for sensitive land use is the residential zone located northwest of the Project Site at the intersection of Goetz Road and Ellis Avenue. The area is currently developed with the Hunt Club Apartments, which are separated from the site by an existing vacant lot.

The Project Site is located adjacent to Perris Valley Airport, and the Project Site is bisected by the airport runway. Perris Valley Airport is located in the middle of the Project Site. Per the Perris Valley Airport ALUCP, the Project Site lies within the Perris Valley Airport Influence Area Boundary, and includes land mapped in Compatibility Zones B1, B2, C, and D (as shown in Exhibit PV-6 of the ALUCP). Additionally, Map PV-3 shows that portions of the Project Site are located within the 65 dB CNEL, 60 dB CNEL, and 55 dB CNEL noise contours (ALUC 2010). The Project Site also located within Zone E of the March Air Reserve Base/Inland Port ALUCP, which does not restrict non-residential intensity (ALUC 2014). The Final Air Installations Compatible Use Zones Study for March Air Reserve Base shows that the Project Site is located beyond the 60 dBA CNEL noise contour for March ARB/IPA.

The existing San Jacinto Branch Line railroad tracks run along Case Road. The tracks are owned by the Riverside County Transportation Commission. The line is used for freight and commuter service, typically with two freight trains a day at various times day and night, and daytime only commuter service. Railroad noise modeling for the City's General Plan Noise Element calculated that the 60 dBA CNEL noise level contour for rail operation is approximately 502 feet from the centerline of the tracks. Since the General Plan modeling was completed, commuter rail service has started on this line, and the contour distance likely extends beyond 502 feet. Additionally, this distance is extended to approximately 2,518 feet at grade crossings where a warning horn is sounded (City of Perris 2016). The Project Site is located within 500 feet of the rail line, and a crossing is located at the intersection of Ellis Avenue and Case Road.

Interstate 215 is a major source of roadway noise in the Project area. According to the General Plan Noise Element (City of Perris 2016), long-term noise levels from Interstate 215 on the segment from Case Road to Ethanac Road are anticipated to exceed 70 dBA CNEL up to 383 feet from the freeway centerline, 65 dBA CNEL up to 825 from the freeway centerline, and 60 dBA CNEL up to 1,778

feet from the freeway centerline based on hard site conditions. The Project Site is located approximately 4,200 feet from the Interstate 215 freeway and would be located outside of the modeled noise contours. Other major roadways in the Project area include Goetz Road and Case Road.

Table 4.11-4, Existing Roadway Noise Levels, shows the existing noise levels generated by the roadways surrounding the Project Site. Existing noise levels were calculated using the methods described in the Section 4.11.4.1, Threshold N-1: Exceedance of Noise Standards, for Proposed Project impacts. Traffic volumes and roadway configurations were obtained from the traffic analysis prepared for the Proposed Project (Appendix J), and speed limits obtained from the Noise Element (City of Perris 2016). Existing heavy truck volumes are assumed to be 11 percent of total daily traffic based on traffic counts conducted for the traffic analysis (Appendix J).

As shown in Table 4.11-4, existing noise levels from Goetz Road and Case Road currently exceed the normally acceptable noise compatibility standard of 60 dBA CNEL for multi-family residences and other noise sensitive land uses. Existing noise levels from Ellis Avenue do not exceed the normally acceptable noise compatibility standard at the nearest sensitive receptors. Goetz Road and Case Road also exceed the normally acceptable noise compatibility standard of 70 dBA CNEL for industrial uses but are within the 70-80 dBA CNEL conditionally acceptable standard for industrial uses. However, Case Road does not exceed noise compatibility standards at the nearest identified sensitive receptors. Conditionally acceptable noise environments may be acceptable for development that includes adequate noise insulation features. Conventional construction with fresh air supply systems that allow for closed window conditions typically suffice (City of Perris 2016).

Table 4.11-4. Existing Roadway Noise Levels

Roadway	Segment	Existing ADT	Noise Level at 50 Feet from Roadway Centerline (dBA CNEL)	Noise Level at Nearest Sensitive Receptor (feet from centerline, dBA CNEL)
Ellis Avenue	Goetz Road to Future Driveway 4	200	54.0	164; 48.8
	Driveway 4 to Case Road	200	54.0	640; 42.9
Goetz Road	Ellis Avenue to Driveway 1	9,300	74.0	164; 48.8
	Driveway 1 to Cai Court	10,300	74.4	430; 64.7
	Cai Court to Malbert Street	10,300	74.4	710; 62.5
Case Road	Driveway #5 to Murrieta Road	10,700	73.4	3,490; 55

Source: Urban Crossroads 2024 (traffic data); See Appendix I for noise model assumptions and output.

Notes: ADT = average daily traffic; CNEL = community noise equivalent level; dBA = A-weighted decibel

4.11.2 Thresholds of Significance

According to Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines), the Project would have a significant impact on noise if it would:

- **Threshold N-1:** 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 N-2:** Generation of excessive groundborne vibration or groundborne noise levels.
- **Threshold N-3:** 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.

4.11.3 Regulatory Implementation

- RI NOI-1** The Project will comply with the California Building Code, Title 24, Building Standards Administrative Code, Part 11, CALGreen, Section 5.507.
- RI NOI-2** The Project will be operated in accordance with Section 7.34.040, Sound Amplification, of the City of Perris Municipal Code, which prohibits amplified sound other than music, the human voice, or both; and prohibits amplified sound from exceeding the noise levels of 60 dBA between 10:01 pm to 7:00 am (nighttime) and 80 dBA between 7:01 am to 10:00 pm (daytime) when measured outdoor at or beyond the property line of the property from which the sound emanates.
- RI NOI-3** The Project will be constructed in accordance with Section 7.34.060, Sound Amplification, of the Perris Municipal Code, which makes it unlawful to erect, construct, demolish, excavate, alter, or repair any building or structure in such a manner as to create disturbing excessive or offensive noise between the hours of 7:00 pm of any day and 7:00 am of the following day, or on a legal holiday, with the exception of Columbus Day and Washington's birthday, or on Sundays.
- RI NOI-4** The Project will be operated in accordance with Section 7.34.070, Refuse Vehicles and Parking Lot Sweepers, which prohibits operation of a refuse compacting, processing or collection vehicle or parking lot sweeper between the hours of 7:00 pm to 7:00 am in any residential area unless a permit has been applied for and granted by the City of Perris.
- RI NOI-5** The Project will include the following Best Management Practices (BMPs) on project plans and in contract specifications to minimize construction noise:

- All equipment, whether fixed or mobile, will be equipped with properly operating and maintained mufflers, consistent with manufacturer standards.
- All stationary construction equipment will be placed so that emitted noise is directed away from the noise sensitive receptors nearest the project site.
- As applicable, all equipment shall be shut off and not left to idle when not in use.
- To the degree possible, equipment staging will be located in areas that create the greatest distance between construction-related noise and vibration sources and existing sensitive receptors.
- Jackhammers, pneumatic equipment, and all other portable stationary noise sources will be directed away and shielded from existing residences in the vicinity of the project site. Either one-inch plywood or sound blankets can be utilized for this purpose. They should reach up from the ground and block the line of sight between equipment and existing residences. The shielding should be without holes and cracks.

RI NOI-6 The Proposed Project shall comply with the applicable requirements of the Perris Good Neighbor Guidelines.

4.11.4 Environmental Impacts

The following sections address various potential impacts relating to noise that could result from implementation of the Project.

4.11.4.1 Threshold N-1: Increases in Noise Levels

Impact Analysis

The potential for the Project to result in a significant increase in noise level from off-site traffic, onsite operation, and construction are addressed below.

Construction Noise

In accordance with the Perris Municipal Code, the Project would result in a significant impact during construction if construction activities would create noise levels in residential zones that exceed the construction noise level limit of 80 dBA Lmax (Perris Municipal Code 7.34.060).

Perris Municipal Code, Section 7.34.060, allows daytime construction activities between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday, except legal holidays. Construction equipment is expected to operate on the Project site eight hours per day during the authorized days and time periods; however, the typical working hours for most construction contractors are 7:00 a.m. to 4:00 p.m., and construction equipment is not in continual use; each piece of equipment is used only periodically during a typical construction workday. Should construction activities need to occur outside of the hours permitted by the Municipal Code, the Project Applicant would be

required to obtain authorization from the City. Should on-site concrete pouring activities need to occur at night to facilitate proper concrete curing, pours would typically occur between the approximate hours of 2:00 a.m. and 8:00 a.m. and would be conducted in accordance with conditions of City approval.

Construction of the Proposed Project would generate noise that could expose nearby receptors to elevated noise levels. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction phase, distance between the noise source and receiver, and intervening structures. Sound levels from typical construction equipment range from 60 to 90 dBA L_{eq} at 50 feet from the source (FHWA 2008). Noise from construction equipment generally exhibits point source acoustical characteristics. Strictly speaking, a point source sound decays at a rate of 6 dBA per doubling of distance from the source. The rule applies to the propagation of sound waves with no ground interaction.

Consistent with air quality modeling for the Project, construction of the development is assumed to take approximately two years and would require site preparation, grading, paving, building construction, and architectural coating phases. Standard equipment, such as dozers, loaders, graders, backhoes, scrapers, and miscellaneous trucks, would be used for construction of the Proposed Project. Noise levels from construction on the Project Site were determined based on typical equipment noise levels established by the Roadway Construction Noise Model (FHWA 2008) (see Appendix I). The construction fleet is assumed based on the CalEEMod output for Project air quality modeling (Appendix B). The five noisiest pieces of construction equipment (grader, dozer, scraper, and two excavators) that could be required for any phase of the Project were assumed to operate in the same location and would have the potential to generate noise levels up to 85.7 dBA at 50 feet from the construction site. This fleet is anticipated to be required during the grading phase of construction. These estimates are conservative because construction equipment for a single construction activity would be over several acres and would not be operating simultaneously.

Noise levels from construction would be attenuated to below 80 dBA approximately 100 feet from active construction areas. The nearest residential zone is approximately 160 feet from the northwestern Project boundary. Therefore, noise levels from construction equipment would not exceed the daytime construction noise level threshold of 80 dBA L_{max} at sensitive receptors, and the potential impact would be less than significant.

Project-generated construction traffic would incrementally increase noise on surrounding roadways from worker vehicle trips and haul trips. Based on the CalEEMod output for the Project, construction would generate a maximum of 364 worker vehicle trips and 630 haul trips in a given day (Appendix B). Maximum worker trips would occur during building construction, and maximum haul trip would occur during grading. Construction trips would be below the total 2,730

average daily trips, including 736 truck trips, generated by the Project during operation (see Appendix B). As discussed above, Project operation would not significantly increase off-site ambient vehicle noise. As such, temporary construction traffic would not result in a significant temporary increase in off-site vehicle noise. The potential impact would be less than significant.

Operational Noise

Project-related operational noise would result in a significant impact if new noise sources would exceed City of Perris Lmax exterior noise level standards in the Perris Municipal Code and the CNEL noise level criteria identified in City of Perris General Plan Noise Element. In accordance with the Municipal Code, operation of the Proposed Project would result in a significant impact if operation would exceed the 80 dBA Lmax daytime or 60 dBA Lmax nighttime noise level standards at sensitive receiver locations (Perris Municipal Code, Section 7.34.040).

City of Perris General Plan Noise Element, Implementation Measure V.A.1 establishes a 60 dBA CNEL exterior noise level standard at residential receiver locations within 160 feet of a new industrial use. The nearest existing sensitive receptors are located approximately 370 feet northwest of the Project Site boundary. The Project Site is separated from this area zoned for residential use (Downtown Specific Plan – Neighborhood zone) by the approximately 160-foot right-of-way of the Goetz Road/Ellis Avenue intersection. As such, this implementation measure does not apply to the Proposed Project.

Currently, there are no identified end users for the Proposed Project. Since the end users are unknown, hours of operation and employee count could vary, but is assumed for planning purposes to operate 24 hours per day, 7 days per week. Office workers would likely have typical shifts of Monday through Friday, 8:00 AM to 5:00 PM, while warehouse staff could work in day, evening, and night shifts. Because future operation specifications are currently unknown, Project operation is evaluated based on noise analysis of similar industrial projects, including the First March Logistics Project proposed in the City of Perris (Urban Crossroads 2023), and the Weld Boulevard Industrial Distribution and Manufacturing Warehouse Project proposed in the City of El Cajon (Harris & Associates 2022). Consistent with similar warehouse and light industrial uses, Project business operations would primarily be conducted within the enclosed buildings. Operational noise would generally be limited to exterior activities, including traffic movement, parking, loading and unloading of trucks at designated loading bays, roof-top HVAC units, trash enclosure activity, and operation of landscape equipment. These activities are evaluated individually below, followed by a discussion of cumulative noise exposure.

Table 4.11-5, Operation Reference Noise Levels, summarizes the reference noise levels for operational activities based on similar projects.

Table 4.11-5. Operation Reference Noise Levels

Noise Source	Reference Noise Level (dBA at 50 feet)	
	Hourly Leq	Lmax
Loading Dock Activity	73 (Building 1) 66.5 (Building 2)	74.8
Roof-top HVAC	73	73
Parking Lot Vehicle Movements	56.1	69
Truck Movements	58.0	73.1

Source: Urban Crossroads 2023, Harris & Associates 2022.

Note: Worst-case reference noise level from similar projects assumed. A 24-hour sound power levels of 111.5 was assumed for each of three loading dock areas for the First March Logistics Project, up to 41 dock doors each. Sound power level for one area was converted to a sound pressure level of 66.5 dBA at 50 feet based on the equation $SPL = SWL - [10 \cdot \log(Q/4\pi \cdot r^2)]$. The Project would include a total of 159 dock doors. Based on the reference dock area size of 41 doors, four sections of dock doors at 66.5 dBA each at 50 feet are assumed for Building 1, and one section is assumed for Building 2. This Leq is conservative compared to the 68 dBA Leq calculated for the Weld Boulevard Industrial Distribution and Manufacturing Warehouse Project that would serve approximately 370 average daily truck trips, similar to the Project's 324 average daily truck trips.

Loading Dock Activity

Loading Dock activity would be limited to Site 1. Building 1 would include 146 dock doors and 3 grade doors. Building 2 would include 10 ground level doors to serve standard delivery trucks. However, not all dock doors at Site 1 would be in use at the same time. There are typically many more dock door positions on warehouse buildings than are needed for receiving and shipping volumes. The dock doors that are in use at any given time are usually selected based on interior building operation efficiencies. As a result, many dock door positions are frequently inactive throughout the day. It is assumed that trucks would comply with CARB idling time restrictions that limit heavy duty truck idling to five minutes (California Code of Regulations, Title 13, Section 2485).

The reference noise levels in Table 4.11-5 for loading dock activity includes trucks maneuvering, truck loading, truck unloading, backup alarms or beepers, truck docking, and support equipment operations, such as forklifts. Maximum noise levels would occur as a result of intermittent, isolated events at different loading docks and would generally not combine to result in a higher maximum noise level at an individual receptor. As such, loading dock activity would not exceed the Perris Municipal Code daytime maximum noise level of 80 dBA. Maximum noise levels would have the potential to exceed the nighttime 60 dBA maximum noise level up to approximately 275 feet from the source. The nearest sensitive receptors are located approximately 370 feet northwest of the Project Site. Therefore, loading dock activity would not exceed Perris Municipal Code standards for maximum noise levels during daytime or nighttime hours.

Average noise levels of 73 dBA (Building 1) and 66.5 (Building 2) for loading dock activities may occur continuously throughout daytime and nighttime hours, resulting in a 24-hour average of 79.7 dBA CNEL and 73.2 dBA CNEL at 50 feet, respectively. The nearest loading dock to a Project property line is located approximately 140 feet from Building 2 and approximately 442 from Building 1 loading docks. At this distance, combined noise levels from operation of both buildings

would be reduced to approximately 66 dBA CNEL. The area adjacent to this property line is zoned for industrial use. The Project would not exceed the 70 dBA CNEL standard for surrounding industrial zones. The nearest residential zone is located approximately 850 feet from Building 1 loading docks and more than 2,400 feet from Building 2 loading docks. At this distance, combined noise levels would be approximately 55 dBA and would not exceed the 60 dBA noise standard for residential zones. This noise level estimate is conservative and does not take into account that Building 1 loading docks are located on the east side of the building and Building 2 docks on the south side of the building, so that docks are oriented away from the residential zone and proposed buildings would provide noise attenuation.

Roof-top HVAC

The specifications of the proposed HVAC system are unknown at this time are assumed to be similar to reference warehouse and distribution projects. As shown in Table 4.11-5, noise from new mechanical HVAC equipment is assumed to generate continuous noise levels up to 73 dBA CNEL at a distance of 50 feet without installation of shielding. Assuming location of a unit on the edges of Building 1 and Building 2 closest to a property line, HVAC noise from Building 1 would be approximately 70 dBA CNEL at the western property line, and HVAC noise from Building 2 would be approximately 64 dBA CNEL at the southern property line. As such, HVAC noise would not exceed the 70 dBA noise compatibility standard at adjacent residential zones. Building 1 is located approximately 600 feet from the residential zone to the northeast. At this distance, HVAC unit noise would be reduced to approximately 51 dBA CNEL and would not exceed the residential noise compatibility standard. The estimates are conservative and do not assume any noise attenuation features.

Parking Lot and Truck Vehicle Movements

Site 1 and Site 2 would generate intermittent noise from parking lots and truck movements. Noise sources from typical parking lots include car alarms, door slams, radios, and tire squeals. As outlined in Table 4.11-5, typical parking lot noise can generate maximum noise levels of up to 69 dBA and average hourly levels at a similar parking facility were measured to be 56.1. Parking lots would be more active during daytime hours; however, conservatively assuming constant parking lot use, typical parking lots would generate a noise level of 62.8 dBA CNEL. As such, noise from the parking areas serving passenger vehicles would not exceed the daytime noise ordinance standard of 80 dBA, or the noise compatibility standard of 70 dBA for industrial zones. The nearest residential zone is located approximately 230 feet northwest of the Site 1 parking lot. At this distance, maximum and 24-hour noise levels would be reduced to approximately 56 dBA Lmax and 50 dBA CNEL. Typical parking lot noise would not exceed the nighttime noise ordinance standard of 60 dBA or the residential noise compatibility standard of 60 dBA CNEL at the nearest residential zone.

Site 1 and Site 2 also include parking areas dedicated to trailer stalls and tractor stalls. As shown in Table 4.11-5, noise from truck movement and intermittent truck parking lot noise is anticipated to generate higher noise levels compared to the parking areas serving passenger vehicles. A maximum noise level of 73.1 dBA and hourly average noise level of 58 dBA, or 64.7 dBA CNEL. Noise from truck parking stalls would not exceed the daytime noise ordinance standard of 80 dBA, or the noise compatibility standard of 70 dBA for adjacent industrial zones. The nearest residential zone is located approximately 830 feet northwest of the Site 1 truck parking stalls and movement area. At this distance, maximum and 24-hour noise levels would be reduced to below 50 dBA Lmax or CNEL and would not be audible above ambient conditions. Additionally, the parking area would be separated from the residential zone by Building 1, which would provide additional attenuation. As such, parking lot and truck movement noise would be less than significant.

Other Operational Noise Sources

Other operational noise sources associated with the Project would include landscape and maintenance activities and regular trash pickup. These activities currently occur in the area surrounding the Project site at the airport and surrounding residential and industrial uses. These sources would continue to be subject to applicable Perris Municipal Code requirements. For example, use of leaf blowers is limited by Section 7.34.080 of the Perris Municipal Code to daytime hours, and noise cannot exceed 80 dBA at 50 feet from the equipment. Trash collection would be conducted consistent with City's regulations for waste collection service. The Project would comply with Section 7.34.070 of the Perris Municipal Code and refuse collection would be limited to daytime only. Landscape and trash collection noise sources would be intermittent, short term, and similar to existing conditions surrounding the Project Site. Therefore, landscape maintenance and trash collection would result in a less than significant impact.

Off-site Traffic Noise

The Project would result in a significant impact related to off-site traffic noise if it would result in an increase in noise level most people consider discernable in an exterior environment. Noise level increases may be more discernable where the exiting environment is relatively quiet, and some land uses, such as residences, are more sensitive to changes in ambient noise level. As such, the thresholds outlined in Table 4.11-6, Roadway Noise Level Thresholds of Significance, are applied to determine whether a significant increase in traffic noise level would occur, depending on noise levels without the Project and the receiving land use.

Table 4.11-6. Roadway Noise Level Thresholds of Significance

Receiving Land Use	Resulting Noise Level	Significant Increase
Noise Sensitive (Residences)	< 60 dBA CNEL	≥5
	> 60 dBA CNEL	≥3
Non-Noise Sensitive (Industrial)	> 70 dBA CNEL	≥5

Source: City of Perris 2023.

Notes: CNEL = community noise equivalent level; dBA = A-weighted decibel

The potential for implementation of the land use plan to permanently increase ambient noise levels as a result of increased traffic noise is assessed using standard noise modeling equations adapted from the FHWA noise prediction model. The modeling calculations consider the posted vehicle speed from the General Plan Noise Element and average daily traffic volume from the Project traffic analysis (Appendix J). Modeling includes the six roadway segments in the Project study area that would carry the highest number of average daily Project trips. Estimated vehicle mix accounts for the location of the Project on City truck routes. An average of 11 percent of daily traffic attributable to heavy duty truck trips is assumed for all segments under conditions without the Project based on traffic counts conducted for the traffic analysis (Appendix J). Medium duty truck trips are assumed to be 2.77 percent of non-Project daily trips based on the assumptions of the First March Logistics Noise Impact Analysis, which proposed a similar land use in the City (Urban Crossroads 2023). Project truck trips are assumed be heavy duty trucks and are added to non-Project heavy duty truck trips to determine the vehicle mix with Project implementation. The noise model assumes that roadways would experience a decrease of approximately 3 dBA for every doubling of distance from the roadway. The potential for the Proposed Project to permanently increase traffic noise is addressed under the following scenarios, consistent with the traffic analysis (Appendix J): Existing Plus Project, and Future Year 2025. The Future Year 2025 scenario includes assumed regional growth and cumulative projects. Detailed modeling assumptions are provided in Appendix I.

Existing noise levels, with and without the Proposed Project, are provided in Table 4.11-7. As shown in Table 4.11-7, without implementation of the Project, noise levels on Goetz Road and Case Road would exceed 70 dBA CNEL. The Project would not cause a 3 dBA CNEL or more increase in noise level on these roadways. The Project would result in a noticeable increase in noise level compared to existing noise levels generated by the nominal existing traffic on the modeled segments of Ellis Avenue. However, noise levels would continue to be normally compatible (below 70 dBA CNEL) with non-noise sensitive industrial development. Additionally, noise levels would be normally acceptable (below 60 dBA CNEL) with sensitive residential development beyond 109 feet from the roadway centerline. The nearest residential development is located more than 300 feet northwest of the intersection of Ellis Avenue and Goetz Road. Therefore, the Project would not result in a significant increase in noise level compared to existing conditions.

Table 4.11-7. Existing Plus Project Traffic Noise Levels (dBA CNEL)

Roadway	Segment	Compatible Noise Level for Adjacent Land Use	Existing Noise Level	Existing Plus Project	Applicable Threshold	Increase in Noise Level	Significant Impact?
Ellis Avenue	Goetz Road to Future Driveway 4	70	54.0	65.1	-- ¹	11.1	No
	Driveway 4 to Case Road	70	54.0	65.5	-- ¹	11.5	No
Goetz Road	Ellis Avenue to Driveway 1	70	74.0	76.1	≥3	2.1	No
	Driveway 1 to Cai Court	70	74.4	76.2	≥3	1.8	No
	Cai Court to Malbert Street	70	74.4	76.0	≥3	1.6	No
Case Road	Driveway #5 to Murrieta Road	70	73.4	74.6	≥3	1.2	No

Notes: dBA = A-weighted decibel

¹Resulting noise level does not exceed the applicable noise compatibility threshold.

Noise levels are calculated at 50 feet from roadway centerline. Traffic levels for each roadway are included in Appendix I.

See Appendix I for data sheets.

The Future Year 2025 scenario includes regional growth and cumulative projects, as detailed in the traffic analysis (Appendix J). Future Year 2025 traffic noise levels, with and without the Proposed Project, are provided in Table 4.11-8. As shown in Table 4.11-8, the Project would not result in a 3 dBA CNEL or more increase in noise level on any segment compared to conditions without the Project. The Project would not result in a significant impact under future conditions.

Table 4.11-8. Future (2025) Plus Project Traffic Noise Levels (dBA CNEL)

Roadway	Segment	Compatible Noise Level for Adjacent Land Use	2025 Noise Level	2025 Plus Project	Applicable Threshold	Increase in Noise Level	Significant Impact?
Ellis Avenue	Goetz Road to Future Driveway 4	70	69.4	70.9	≥3	1.5	No
	Driveway 4 to Case Road	70	69.4	70.9	≥3	1.5	No
Goetz Road	Ellis Avenue to Driveway 1	70	76.9	77.9	≥3	1.0	No
	Driveway 1 to Cai Court	70	77.1	78.8	≥3	1.7	No
	Cai Court to Malbert Street	70	77.1	77.9	≥3	0.8	No
Case Road	Driveway #5 to Murrieta Road	70	76.0	76.5	≥3	0.5	No

Notes: dBA = A-weighted decibel

Noise levels are calculated at 50 feet from roadway centerline. Traffic levels for each roadway are included in Appendix I.

See Appendix I for data sheets.

Summary

As described above, the individual Project components, including loading docks, parking areas, and HVAC systems would not exceed City Noise Ordinance or General Plan standards at nearby industrial and residential zones. However, because these components would simultaneously operate, a combined 24-hour noise level is calculated for loading dock, passenger and truck parking lots, and HVAC operation at the nearest residential zone to the northwest and industrial zone to the south. Maximum noise levels would occur from intermittent events and contribute to overall average noise levels but would generally not occur simultaneously to result in combined maximum noise levels. Combined noise level at the nearest residential zone would be approximately 59 dBA CNEL, and 71 dBA CNEL at the nearest industrial zone. As such, combined operational noise would not exceed the 60 dBA CNEL noise compatibility standard for residential zones. However, the Project would have the potential to exceed the 70 dBA CNEL noise compatibility standard at the adjacent industrial-zoned property to the south. This impact is potentially significant. Mitigation measure MM NOI-1 would reduce noise from HVAC systems so that combined operational noise levels would be reduced to 70 dBA CNEL or below at the southern property line, 140 feet south of Building 2.

Significance of Impact

The Project would result in a less than significant impact related to permanent increases in ambient vehicle noise level, and temporary increases related to Project construction.

However, on-site operation of loading docks, parking and truck movement areas, and HVAC systems would have the potential to exceed the 70 dBA CNEL noise compatibility standard at adjacent industrial-zoned properties. Mitigation measure MM NOI-1 would reduce noise from HVAC systems so that combined operational noise levels would be reduced to 70 dBA CNEL or below at the southern property line, 140 feet south of Building 2.

4.11.4.2 Threshold N-2: Excessive Groundborne Vibration or Noise

Impact Analysis

In the absence of an adopted threshold, the City applies the FTA threshold for building damage of 0.5 PPV (in/sec) to determine whether groundborne vibration would be a significant impact. Operation of the proposed buildings and truck movement and parking areas would not generate substantial vibration. According to Caltrans, heavy trucks rarely generate vibration amplitudes high enough to cause structural or cosmetic damage (Caltrans 2020). As such, the following analysis addresses the potential for heavy construction equipment to generate vibration levels in excess of 0.5 PPV.

Typical vibration levels for construction equipment required for the Proposed Project are provided in Table 4.11-9. As shown in Table 4.11-9, vibration levels from construction equipment would be reduced to 0.5 PPV or below less than 25 feet from the construction area. Pile driving and other

high impact construction activities are not anticipated for Project construction. Therefore, impacts related to vibration during construction would be less than significant.

Table 4.11-9. Vibration Source Levels for Construction Equipment

Construction Equipment	Approximate VdB at 25 Feet
Large bulldozer	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
Vibratory roller	0.21

Source: FTA 2018.

Notes: VdB = vibration decibel

¹ Based on formula provided by the FTA (2018).

Significance of Impact

Less Than Significant Impact.

4.11.4.3 Threshold N-3: Aircraft Noise

Impact Analysis

Perris Valley Airport is located in the middle of the Project Site. Per the Perris Valley ALUCP, the Project Site lies within the Perris Valley Airport Influence Area Boundary, and includes land mapped in Compatibility Zones B1, B2, C, and D (as shown in Exhibit PV-6 of the Perris Valley ALUCP). Additionally, Map PV-3 shows that portions of the Project Site are located within the 65 dB CNEL, 60 dB CNEL, and 55 dB CNEL noise contours (ALUC 2010). The Proposed Project's Compatibility with the City's General Plan land use designations is further discussed in Section 4.10. No other private or public airports are within a 2-mile radius of the Project Site. The Project site is approximately 6 miles south of March ARB/IPA. The Final Air Installations Compatible Use Zones Study for March Air Reserve Base shows that the Project Site is located beyond the 60 dBA CNEL noise contour for March ARB/IPA.

The Proposed Project consists of industrial warehouse/distribution uses. Noise levels up to 70 dBA CNEL are normally compatible with industrial uses per the City's General Plan. Furthermore, per the ALUCP, industrial land uses (General Industrial and Light Industrial) are considered allowed uses within Compatibility Zones B1, B2, C, and D (ALUC 2010). However, the Proposed Project includes approximately 35,000 square feet of associated office use. Section 19.51.080 of the Perris Municipal Code includes a requirement of 45 dBA CNEL for office space. Section 19.51.080 of the Perris Municipal Code further states that standard building construction is presumed to provide adequate sound attenuation where the difference between the exterior noise exposure and the interior noise standard is 20 dB or less. As previously mentioned, the Project Site is located within Perris Valley Airport's 65 dB CNEL, 60 dB CNEL, and 55 dB CNEL noise contours. Therefore,

with standard building construction, the associated office use would not be anticipated to have airport-related interior noise levels exceeding 45 dBA CNEL.

Following construction and compliance with City building requirements, the Proposed Project would not expose people residing or working in the Project area to excessive noise levels associated with airports. Therefore, the Proposed Project would not expose people working in the Project area to excessive noise levels. Potential impacts would be less than significant.

Significance of Impact

Less Than Significant Impact.

4.11.5 Cumulative Impacts

The following sections address various potential cumulative impacts relating to noise that could result from implementation of the Project.

4.11.5.1 Cumulative Threshold N-1: Exceedance of Noise Standards

Construction Impacts

Construction noise impacts are localized in nature because they are limited to the construction site where construction equipment is operating. Two cumulative projects are located adjacent to the Project Site: the South Perris Industrial Project and Airport Industrial Project. However, the cumulative projects and the Proposed Project would be subject to the Perris Municipal Code, Section 7.34.060, which prohibits construction activities from creating noise levels in residential zones that exceed 80 dBA Lmax. Compliance with the Municipal Code would reduce impacts to a less than significant level. The Proposed Project would comply with the City's construction limits. A cumulatively considerable impact would not occur.

Operational Impacts

Approved or planned projects in the City of Perris are considered in the cumulative analysis for the Proposed Project. These approved or planned projects include other industrial warehouse projects, single- and multi-family residences, and retail centers. Residential land uses would generate nuisance noise that would generally not be considered a significant impact. However, commercial and industrial development would potentially include HVAC systems and truck loading and unloading activities that would have the potential to result in significant impacts to surrounding sensitive receptors. However, similar to the Project, new non-residential development would be required to demonstrate consistency with the Perris Municipal Code and General Plan Noise Element and mitigate potential operational noise impacts. Mitigation measure MM NOI-1 would reduce the potentially significant impacts of the Proposed Project so that noise levels at the Project property line would be consistent with General Plan noise compatibility standards. Therefore, a cumulatively considerable impact would not occur.

Off-site Traffic Noise

A cumulative ambient noise impact related to off-site traffic noise would occur if development associated with cumulative regional land use projects would result in an increase in ambient noise that would exceed the City's noise standards. Buildout of the Proposed Project, along with future regional growth and cumulative projects, would result in increases in traffic that would cumulatively increase traffic noise. The potential noise impacts that would result from cumulative projects and regional growth are included in the Future Year 2025 scenario. Table 4.11-10, Cumulative Traffic Noise Impacts (dBA L_{dn} or dBA CNEL), compares Future Year 2025 traffic noise levels with existing conditions. As shown in Table 4.11-10, cumulative growth, including the Proposed Project, would result in a more than 3 dBA CNEL increase on all modeled roadway segments. A cumulatively considerable impact would occur on Ellis Avenue, Goetz Road, and Case Road. The Project's contribution to the cumulative noise impact is based on the increase in traffic noise attributable to the Proposed Project under the Future Year 2025 scenario. Implementation of the Proposed Project would not result in a 3 dBA CNEL or more increase on any impacted roadway. Therefore, implementation of the Proposed Project would not result in cumulatively considerable contribution to a significant cumulative roadway noise impact.

Table 4.11-10. Cumulative Traffic Noise Impacts (dBA L_{dn} or dBA CNEL)

Roadway	Segment	Applicable Threshold	Existing	Year 2025 with Project	Increase in Noise Level	Significant Cumulative Impact?	Increase Attributable to Proposed Project ¹	Cumulatively Considerable Contribution?
Ellis Avenue	Goetz Road to Future Driveway 4	70	54.0	70.9	16.9	Yes	1.5	No
	Driveway 4 to Case Road	70	54.0	70.9	16.9	Yes	1.5	No
Goetz Road	Ellis Avenue to Driveway 1	70	74.0	77.9	3.9	Yes	1.0	No
	Driveway 1 to Cai Court	70	74.4	78.8	4.4	Yes	1.7	No
	Cai Court to Malbert Street	70	74.4	77.9	3.5	Yes	0.8	No
Case Road	Driveway #5 to Murrieta Road	70	73.4	76.5	3.1	Yes	0.5	No

¹ Refer to Table 4.11-7 for increase in future noise level attributable to the Project compared to conditions without the Project. Refer to Appendix I for data sheets.

4.11.5.2 Cumulative Threshold N-2: Excessive Groundborne Vibration or Noise

Similar to noise effects, vibration is a localized phenomenon and is progressively reduced as the distance from the source increases. Therefore, projects that would be considered for the vibration

cumulative analysis would be projects close to the Project Site. Two cumulative projects are located adjacent to the Project Site: the South Perris Industrial Project and Airport Industrial Project. However, these projects would be expected to require similar construction equipment as the Project. Similar to the Project, construction would be expected to generate vibration levels that could exceed standards for building damage beyond the Project Site. Therefore, vibration generated by construction on the Project Site and other sites would not combine to generate cumulative vibration impacts. Once constructed, the proposed land use would not generate a significant source of vibration during normal operation. Therefore, a significant cumulative vibration impact would not occur.

4.11.5.3 Cumulative Threshold N-3: Aircraft Noise

No additional aviation uses are planned to be introduced in the immediate vicinity of the Project Site. In addition, the Proposed Project does not propose any new air traffic. No noise sensitive land uses would be exposed to excessive noise levels from aviation as a result of the Proposed Project. Potential impacts related to nuisance noise from overflights are site specific and are not cumulative in nature. Therefore, a cumulative impact related to aviation would not occur.

4.11.6 Level of Significance Before Mitigation

4.11.6.1 Threshold N-1: Exceedance of Noise Standards

Less than Significant: The Proposed Project would result in less than significant impacts related to permanent increases in ambient noise level, construction noise and vibration, and aircraft noise exposure. Operational impacts are potentially significant without mitigation.

4.11.6.2 Threshold N-2: Excessive Groundborne Vibration or Noise

Less than Significant: As shown in Table 4.11-9, vibration levels from construction equipment would be reduced to 0.5 PPV or below less than 25 feet from the construction area. Pile driving and other high impact construction activities are not anticipated for Project construction. Therefore, potential impacts related to vibration during construction would be less than significant.

4.11.6.3 Threshold N-3: Aircraft Noise

Less than Significant: Following construction and compliance with City building requirements, the Proposed Project would not expose people residing or working in the Project area to excessive noise levels associated with airports. Therefore, potential impacts would be less than significant.

4.11.7 Mitigation Measures

4.11.7.1 Threshold N-1: Exceedance of Noise Standards

MM NOI-1: HVAC Equipment Shielding. Prior to issuance of a certificate of occupancy for Building 1 or Building 2, the Applicant shall demonstrate that noise from all HVAC equipment has been reduced by installation of acoustical shielding around all new rooftop HVAC equipment. Shielding shall be sufficient to reduce noise from HVAC equipment to no more than 68 dBA CNEL at 50 feet. The acoustical shielding shall include a parapet wall of sufficient height to fully shield the equipment or acoustical shielding which complements the proposed building elevations and also fully shields the equipment.

4.11.8 Level of Significance After Mitigation

4.11.8.1 Threshold N-1: Exceedance of Noise Standards

The Proposed Project would result in less than significant impacts related to permanent increases in ambient noise level, construction noise and vibration, and aircraft noise exposure. Mitigation measure MM NOI-1 would reduce operational impacts to a less than significant level. Therefore, no significant and unavoidable impacts would remain.