3.12 - Noise

This section describes the existing noise conditions and potential noise impacts of the project on the site and the surrounding area. The analysis in this section is based on the Noise Impact Analysis prepared by FirstCarbon Solutions (FCS) (Appendix H).

3.12.1 - Existing Conditions

Characteristics of Noise

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit, which expresses the ratio of the sound pressure level being measured to a standard reference level. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Only audible changes in existing ambient or background noise levels are considered potentially significant.

A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies that are audible to the human ear.

Because decibels are logarithmic units, they cannot be added or subtracted by ordinary arithmetic means. For example, if one noise source produces a noise level of 70 dB, the addition of another noise source with the same noise level would not produce 140 dB; rather, they would combine to produce a noise level of 73 dB.

Noise Descriptors

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and community noise equivalent level (CNEL) or the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source, as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features. Sound from point sources, such as an air conditioning condenser, a piece of construction equipment, or an idling truck, radiates uniformly outward as it travels away from the source in a spherical pattern.

The attenuation or sound drop-off rate is dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in noise models: soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA per each doubling of the distance (dBA/DD) is typically observed over soft ground with landscaping, as compared with a 6 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources, such as traffic noise on a roadway, a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3 dBA/DD drop-off rate for hard-site conditions.

Traffic Noise

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of noise levels, a doubling of the traffic volume (assuming that the speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the Federal Highway Administration (FHWA) community noise assessment criteria, this change is "barely perceptible"; for reference a doubling of perceived noise levels would require an increase of approximately 10 dBA. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

Stationary Noise

A stationary noise producer is any entity in a fixed location that emits noise. Examples of stationary noise sources include machinery, engines, energy production, and other mechanical or powered equipment and activities such as loading and unloading or public assembly that may occur at commercial, industrial, manufacturing, or institutional facilities. Furthermore, while noise generated by the use of motor vehicles over public roads is preempted from local regulation, the County considers the use of these vehicles to be a stationary noise source when operated on private

property such as at a truck terminal or warehousing facility. The emitted noise from the producer can be mitigated to acceptable levels either at the source or on the adjacent property through the use of proper planning, setbacks, block walls, acoustic-rated windows, dense landscaping, or by changing the location of the noise producer.

The effects of stationary noise depend on factors such as characteristics of the equipment and operations, distance and pathway between the generator and receptor, and weather. Stationary noise sources may be regulated at the point of manufacture (e.g., equipment or engines), with limitations on the hours of operation, or with provision of intervening structures, barriers or topography.

Construction activities are a common source of stationary noise. Construction-period noise levels are higher than background ambient noise levels but eventually cease once construction is complete. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on each construction site, and therefore, would change the noise levels as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase. Table 3.12-1 shows typical noise levels of construction equipment as measured at a distance of 50 feet from the operating equipment.

Table 3.12-1: Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Impact Device? (Yes/No)	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Impact Pile Driver	Yes	95
Auger Drill Rig	No	85
Vibratory Pile Driver	No	95
Jackhammers	Yes	85
Pneumatic Tools	No	85
Pumps	No	77
Scrapers	No	85
Cranes	No	85
Portable Generators	No	82
Rollers	No	85
Dozers	No	85
Tractors	No	84
Front-End Loaders	No	80
Backhoe	No	80
Excavators	No	85
Graders	No	85
Air Compressors	No	80

Table 3.12-1 (cont.): Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Impact Device? (Yes/No)	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Dump Truck	No	84
Concrete Mixer Truck	No	85
Pickup Truck	No	55
Source: FHWA 2006. Highway Construction Noise Handbook, August.		

Characteristics of Vibration

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but in extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room, and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (RMS) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels—denoted as LV—and is based on the reference quantity of 1 micro inch per second. To distinguish vibration levels from noise levels, the unit is written as "VdB."

Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. When assessing annoyance from groundborne vibration, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second, with the unit written in VdB. Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. Human perception to vibration starts at levels as low as 67 VdB. Annoyance due to vibration in residential settings starts at approximately 70 VdB.

Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration. Construction activities, such as blasting, pile driving and operating heavy earthmoving equipment, are common sources of groundborne vibration. Construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). Typical vibration source levels from construction equipment are shown in Table 3.12-2.

Table 3.12-2: Vibration Levels of Construction Equipment

Construction Equipment	PPV at 25 Feet (inches/second)	RMS Velocity in Decibels (VdB) at 25 Feet
Water Trucks	0.001	57
Scraper	0.002	58
Bulldozer—small	0.003	58
Jackhammer	0.035	79
Concrete Mixer	0.046	81
Concrete Pump	0.046	81
Paver	0.046	81
Pickup Truck	0.046	81
Auger Drill Rig	0.051	82
Backhoe	0.051	82
Crane (Mobile)	0.051	82
Excavator	0.051	82
Grader	0.051	82
Loader	0.051	82
Loaded Trucks	0.076	86
Bulldozer—Large	0.089	87
Caisson drilling	0.089	87
Vibratory Roller (small)	0.101	88
Compactor	0.138	90
Clam shovel drop	0.202	94
Vibratory Roller (large)	0.210	94
Pile Driver (impact-typical)	0.644	104
Pile Driver (impact-upper range)	1.518	112

Note:
Source: Compilation of scientific and academic literature, generated by FTA and FHWA.

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. Factors that influence groundborne vibration include:

- Vibration source: Type of activity or equipment, such as impact or mobile, and depth of vibration source;
- Vibration path: Soil type, rock layers, soil layering, depth to water table, and frost depth; and
- Vibration receiver: Foundation type, building construction, and acoustical absorption.

Among these factors that influence groundborne vibration, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Vibration propagation is more efficient in stiff clay soils than in loose sandy soils, and shallow rock seems to concentrate the vibration energy close to the surface, and can result in groundborne vibration problems at large distance from the source. Factors such as layering of the soil and depth to the water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil type, but it has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests. The vibration level (PPV) at a distance from a point source can generally be calculated using the vibration reference equation:

$$PPV = PPV_{ref} * (25/D)^n \text{ (in/sec)}$$

Where:

PPV_{ref} = reference measurement at 25 feet from vibration source
D = distance from equipment to the receptor
n = vibration attenuation rate through ground

According to Chapter 12 of the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment manual (2006), an "n" value of 1.5 is recommended to calculate vibration propagation through typical soil conditions.

Existing Ambient Noise Levels

To understand the current ambient noise environment in the project vicinity, five noise measurements were taken on the project site and in the general project vicinity. These measurements provide a baseline for any potential noise impacts that may be created by development of the proposed project. Refer to Exhibit 3.12-1 for noise measurement locations.

Field monitoring was conducted on May 30, 2013 between 10:30 a.m. and 11:45 a.m. The field survey noted that noise within the project area is generally characterized by highway and roadway

traffic noise, light aircraft and birds. At the start of the noise monitoring, the sky was clear with calm wind conditions ranging between 0 and 3 miles per hour (mph). Noise measurement locations are shown in Exhibit 3.12-1. The results of the noise level measurements are provided in Table 3.12-3.

Table 3.12-3: Existing Noise Level Measurements

Site ID #	Description	L_{eq}	L_{min}	L_{max}
1	Northwest of the site, east end of Calimesa Mobile Home Ranch	51.6	48.0	55.6
2	West of the site, near single-family homes	68.2	52.9	83.7
3	North of the site, near single-family homes	46.3	41.4	51.8
4	Near northwest corner of site	50.6	46.8	55.2
5	Southeast of the site, near single-family homes	68.8	43.1	85.4

Note:
The Site ID corresponds to locations shown in Exhibit 3.12-1.
Source: FirstCarbon Solutions 2013.

Existing Traffic Noise Levels

Existing traffic noise levels along selected roadway segments in the project vicinity were modeled using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). Site-specific information is entered, such as roadway traffic volumes, roadway active width, source-to-receiver distances, travel speed, noise source and receiver heights, and the percentages of automobiles, medium trucks, and heavy trucks that the traffic is made up of throughout the day, amongst other variables. The modeled average daily traffic (ADT) volumes were obtained from the traffic study prepared for the project (Urban Crossroads 2017). The model inputs and outputs, including the 60 dBA, 65 dBA, and 70 dBA CNEL traffic noise contour distances, are provided in Appendix H of this report. A summary of the modeling results is shown in Table 3.12-4.

The modeling results show that traffic noise levels range up to 68 dBA CNEL at the southern limits of the project site adjacent to Cherry Valley Boulevard. According to the County's land use compatibility guidelines, environments with noise levels of up to 70 dBA CNEL are considered "normally acceptable" for new office, business, and commercial land use development. For industrial, manufacturing, utilities, and agriculture land uses, environments with noise levels of up to 75 dBA CNEL are considered "normally acceptable."

The highest traffic noise levels along the modeled roadway segments occurs along the segments of Interstate 10 (I-10) that are north and south of Cherry Valley Boulevard. Average daily traffic noise levels along these segments range up to 78.5 dBA CNEL at 50 feet from the centerline of the outermost travel lane.

Table 3.12-4: Existing Traffic Noise Levels

Roadway Segment	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Cherry Valley Boulevard–Calimesa Boulevard to Driveway 1	8,500	< 50	94	202	68.4
Cherry Valley Boulevard–Driveway 1 to Street 2	7,700	< 50	88	189	68.0
Cherry Valley Boulevard–Street 2 to Driveway 3	7,700	< 50	88	189	68.0
Cherry Valley Boulevard–Driveway 3 to Union Street	7,700	< 50	88	189	68.0
Cherry Valley Boulevard–Union Street to Nancy Street	6,400	< 50	56	119	64.9
Cherry Valley Boulevard–Nancy Street to Beaumont Avenue	5,800	< 50	52	112	64.5
Union Street–South of Cherry Valley Boulevard	600	< 50	< 50	< 50	54.7
Nancy Street–South of Cherry Valley Boulevard	1,600	< 50	< 50	< 50	58.9
I-10–north of Cherry Valley Boulevard interchange	63,800	302	647	1,390	78.5
I-10–south of Cherry Valley Boulevard interchange	65,200	307	656	1,411	78.5

Note:
ADT = Average Daily Traffic
Source: FirstCarbon Solutions 2014.

Ambient Vibration Levels

Aside from seismic events, the greatest regular source of groundborne vibration at the project site and in the immediate vicinity is from heavy-duty vehicular travel on local roadways. Large trucks traveling at 55 miles per hour on a smooth roadway surface can generate groundborne vibration velocity levels of approximately 75 VdB at 25 feet, and these levels could reach up to 80 VdB where trucks and buses pass over bumps in the road. In terms of PPV levels, a heavy-duty vehicle traveling at 55 miles per hour on a smooth roadway surface can result in a vibration level of approximately 0.041 inches per second at 25 feet.

3.12.2 - Regulatory Setting

Federal Regulations

In 1972, the federal government passed the Noise Control Act of 1972 to serve the three purposes listed below:

- Promulgate noise emission standards for interstate commerce.
- Assist state and local abatement efforts.
- Promote noise education and research.

Source: ESRI Aerial Imagery.

FirstCarbon SOLUTIONS

1,000 500 0 1,000 Feet

Exhibit 3.12-1
Noise Measurement Locations

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The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees.

Among the agencies now regulating noise are: the Occupational Safety and Health Administration (OSHA), which limits noise exposure of workers to 90 dB L_{eq} or less for 8 continuous hours or 105 dB L_{eq} or less for 1 continuous hour; the Department of Transportation (DOT), which assumed a significant role in noise control through its various operating agencies; and the Federal Aviation Administration (FAA), which regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the federal Urban Mass Transit Administration, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that developments are planned and constructed in such a manner that minimize potential noise impacts.

Since the federal government has preempted the setting of standards for noise levels that may be emitted by transportation sources, the County of Riverside is restricted to regulating noise generated by the transportation system through nuisance abatement ordinances and land use planning.

The Federal Transit Administration (FTA) has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment document (FTA 2006). The FTA guidelines include thresholds for construction vibration impacts for various structural categories as shown in Table 3.12-5.

Table 3.12-5: Federal Transit Administration Construction Vibration Impact Criteria

Building Category	PPV (in/sec)	Approximate VdB
I. Reinforced-Concrete, Steel or Timber (no plaster)	0.5	102
II. Engineered Concrete and Masonry (no plaster)	0.3	98
III. Non Engineer Timber and Masonry Buildings	0.2	94
IV. Buildings Extremely Susceptible to Vibration Damage	0.12	90
Source: Federal Transit Administration 2006. Transit Noise and Vibration Impact Assessment.		

State Regulations

Established in 1973, the California Department of Health Services Office of Noise Control was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to delineate compatibility of sensitive uses with various incremental levels of noise (California Department of Health, Office of Noise Control 1976).

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL as measured from within the structure's interior. When such structures are located within a 60-dBA CNEL (or greater) exterior noise contour associated with a traffic noise along a roadway, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise/land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. The County of Riverside and City of Calimesa use a version of these guidelines to evaluate potential noise/land use impacts.

The proposed project is also subject to review under the State of California Environmental Quality Act (CEQA). Appendix G of the State CEQA Guidelines provides impact thresholds for potential noise and vibration impacts. The County of Riverside had developed its own CEQA thresholds, which are listed in the Thresholds of Significance section below.

Local Regulations

Noise Regulations

Riverside County and the City of Calimesa are the local agencies responsible for adopting and implementing policies as they relate to noise levels and the project's effect on surrounding land uses. Limits for construction noise and stationary noise sources are set forth in the Riverside County Code and the City of Calimesa Municipal Code. Further, goals, objectives, and policies intended to guide land use planning decisions as they relate to noise and vibration are provided in the noise elements of the County of Riverside General Plan and the City of Calimesa General Plan. Noise level limits and planning guidelines applicable to the proposed project are presented below.

Riverside County Development Code

The generation of noise from one property to another is regulated in Riverside County by Ordinance No. 847, which establishes noise level limits based on land use categories. Private construction projects located within one-quarter of a mile from an inhabited dwelling are exempt from these noise level limits, provided that construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September; or between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

If project construction occurs outside of these hours, construction activities will need to comply with the noise level limits that apply to the adjacent occupied properties. In this case, the project site is surrounded by properties designated for very low-density residential development to the north, east, and south, which lie within the County of Riverside. Similarly, properties to the west, which lie

within the City of Calimesa, are also designated for low density residential. For receiving residential land uses, noise level limits for activities occurring outside of the above listed hours must not exceed 55 dBA L_{max} between the hours of 6:00 p.m. and 10:00 p.m. The project is also prohibited from causing noise levels at receiving residential land uses that exceed 45 dBA L_{max} between the hours of 10:00 p.m. and 6:00 a.m. during the months of June through September, and between of 10:00 p.m. and 7:00 a.m. between the months of October through May.

Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., is also exempt from Ordinance No. 847 provided such maintenance occurs between the hours of 7 a.m. and 8 p.m. Heating and air conditioning equipment and safety, warning and alarm devices, including, but not limited to, house and car alarms, and other warning devices that are designed to protect the public health, safety, and welfare are also exempt from the ordinance.

County of Riverside General Plan Noise Element

The County of Riverside General Plan Noise Element identifies noise impact criteria depending on the noise source. Impact criteria that apply to the proposed project include criteria for transportation noise impacts to noise sensitive land uses (e.g., an airport, freeway or arterial traffic noise in residential areas); and criteria that apply to stationary noise impacts to sensitive land uses (e.g. stationary noise impacting neighboring communities). The County of Riverside has also adopted noise criteria for land use planning purposes, as shown in Table 3.12-6. These criteria set outdoor noise level standards that are acceptable, conditionally acceptable, and unacceptable for a variety of land uses. Transportation related noise as measured inside residential dwellings should not exceed 45 L_{dn} (or CNEL); and exterior noise levels due to transportation noise at a residential parcel should not exceed 65 L_{dn} (or CNEL). Noise levels for industrial land uses are considered acceptable up to 75 dBA CNEL, and are considered conditionally acceptable up to 80 dBA CNEL. The Environmental Impact Report prepared for the County of Riverside General Plan utilizes "an increase in long-term ambient noise by 5 dBA CNEL or more" to determine if the project would result in a substantial increase in long-term ambient noise levels. The County does not identify a threshold for temporary increases in noise.

The EIR prepared for the County of Riverside General Plan does indicate however, that construction noise has the potential to significantly impact off-site sensitive receptors, and that compliance with the County's noise ordinance construction hours would be required to reduce construction-related noise impacts to a less than significant level.

Noise Compatibility

The Noise Element of the General Plan is closely related to the Land Use Element because of the effects that noise has on sensitive land uses. Noise producing land uses must be compatible with adjacent land uses in order for the Land Use Plan to be successful. Land uses that emit noise are measured in A weighted decibels (dBA) or Community Noise Equivalent Level (CNEL). If existing land uses emit noise above a certain level, they are not compatible with one another, and therefore noise attenuation devices must be used to mitigate the noise to acceptable levels indoors and outdoors. In cases of new development, the placement of noise-sensitive land uses is integral to a successful community. Areas around airports may have different or more restrictive noise standards. The

following policies protect noise-sensitive land uses from noise emitted by outside sources, and prevent new projects from generating adverse noise levels on adjacent properties.

The below County of Riverside General Plan policies pertain to noise:

- **N 1.1:** Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.

  The proposed project complies with this policy because it has been designed to site the proposed warehouse buildings on site away from noise sensitive land uses by utilizing setbacks and placing the buildings towards the middle of the site, away from the eastern, northern, and western project boundaries.

According to the State of California Office of Planning and Research General Plan Guidelines, an acoustical study may be required in cases where these noise-sensitive land uses are located in an area of 60 CNEL or greater. Any land use that is exposed to levels higher than 65 CNEL will require noise attenuation measures.

Areas around airports may have different noise standards than those cited above. Each Area Plan affected by a public-use airport includes one or more Airport Influence Areas, one for each airport. The applicable noise compatibility criteria are fully set forth in the area plan's Appendix L and summarized in the Policy Area section of the affected Area Plan.

- **N 1.4:** Determine if existing land uses will present noise compatibility issues with proposed projects by undertaking site surveys.

  The proposed project complies with this policy because a project-specific noise impact analysis has been prepared for the project.

- **N 1.5:** Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

  The proposed project complies with this policy because the project-specific noise impact analysis that has been prepared for the project includes mitigation measures to reduce potential noise impacts.

- **N 1.6:** Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or noise sensitive uses.

  The proposed project complies with this policy because the project-specific noise impact analysis that has been prepared for the project includes mitigation measures to reduce potential noise impacts.

Stationary Noise Sources

Noise levels at properties that contain a "habitable dwelling, hospital, school, library, or nursing home," must not exceed the following worst-case noise levels:

- 45 dBA L_{eq} (10 minute), between the hours of 10:00 p.m. and 7:00 a.m. (nighttime standard)
- 65 dBA L_{eq} (10 minute), between the hours of 7:00 a.m. and 10:00 p.m. (daytime standard)

Table 3.12-6: State of California Community Noise Exposure (dBA CNEL or L_{dn})

Land Use Category	55	60	65	70	75	80
Residential—Low-Density Single-Family, Duplex, and Mobile Homes						
Residential—Multi-Family						
Transient Lodging—Hotels, Motels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arenas, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						

Table 3.12-6 (cont.): State of California Community Noise Exposure (dBA CNEL or L_{dn})

Land Use Category	55	60	65	70	75	80
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Businesses, Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

Source: Governor's Office of Planning and Research. 2003. State of California General Plan Guidelines, Appendix C, Guidelines for the Preparation and Content of the Noise Element of the General Plan. October 2003.

Key:

	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. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy.
	Normally Unacceptable: New construction and development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded.
	Clearly Unacceptable: New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

City of Calimesa Ordinance

Section 8.15.040 of the City of Calimesa Municipal Ordinance sets noise level limits for the emission of noise from one property to another. These limits vary depending on the zoning of the source property as well as the zoning of the affected properties. The area within the City of Calimesa that lies to the north and northwest of the project site is zoned/designated as Rural Residential (RR). The adjacent properties west of the site and land northwest of the site are located within the jurisdiction of the City of Calimesa and are zoned Commercial Regional (CR) and Residential Low Medium (RLM) respectively. The noise level limits for each zoning district are presented in Table 3.12-7.

Table 3.12-7: City of Calimesa One-Hour Average Sound Level Limit

Zone	Applicable Limit One-Hour Average Sound Level (In dBA)	
R-1, R-T, R-2, R-R and S-P regulations with a density of five dwelling units or less per acre	7:00 a.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	40
R-3, S-P, and PRD regulations with a density of six or more dwelling units per acre	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
C-P-S, C-P, C-O *Commercial Regional (CR) would fall into this zone*	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	55
M *Light Industrial would fall into this zone*	7:00 a.m. to 10:00 p.m.	70
	10:00 p.m. to 7:00 a.m.	50
Source: Zones identified in italic: City of Calimesa 2010. Updated City of Calimesa Land Use and Zoning Map. August. City of Calimesa Municipal Ordinance Section 8.15.040.		

Calimesa Ordinance 8.15.040(c) clarifies that when the source property and the receiver property are located in two different zoning districts, the noise level limit is equal to the arithmetic mean of the two standards. Therefore, the applicable noise level limit for project noise projected to land uses within the RLM zone in the City is 45 dBA L_{eq} between the hours of 10:00 p.m. and 7:00 a.m. and 60 dBA L_{eq} between the hours of 7:00 a.m. and 10:00 p.m. The applicable noise level limit for project noise projected to adjacent land within the CR zone in the City is 52.5 dBA L_{eq} between the hours of 7:00 p.m. and 7:00 a.m. and 65 dBA L_{eq} between the hours of 7:00 a.m. and 7:00 p.m.

In order to reduce construction noise impacts, the City of Calimesa has adopted an ordinance that sets forth restrictions that apply to construction activities. With the exception of emergency work, Section 8.15.080 of the Ordinance prohibits any person, including the City, to operate any single or a combination of powered construction equipment at any construction site before 7:00 a.m. or after 7:00 p.m. It is also unlawful for any person, including the City, to operate any single or a combination of powered construction equipment at any construction site before 10:00 a.m. or after 5:00 p.m. on Saturdays and Sundays, January 1st, the last Monday in May, known as "Memorial Day," July 4th, the first Monday in September, Thanksgiving Day, and December 25th. When January 1st, July 4th, or December 25th fall on a Sunday, operation any single or a combination of powered construction equipment at any construction site before 10:00 a.m. or after 5:00 p.m. on the following Monday is also prohibited.

Further, no such equipment, or a combination of equipment regardless, of age or date of acquisition, shall be operated so as to cause noise at a level in excess of 75 dBA for more than eight hours during any 24-hour period when measured at or within the property lines of any property which is developed and used either in part or in whole for residential purposes. These sound levels shall be corrected for time duration as shown in Table 3.12-8.

Table 3.12-8: City of Calimesa Construction Noise Level Limits

Total Duration in 24 Hours	Decibel Level Allowance	Total Decibel Level
Up to 15 minutes	+15	90
Up to 30 minutes	+12	87
Up to 1 hour	+9	84
Up to 2 hours	+6	81
Up to 4 hours	+3	78
Up to 8 hours	0	75

City of Calimesa General Plan Noise Element

The City of Calimesa General Plan Noise Element refers to noise/land use compatibility guidelines presented in the State Office of Noise Control "Guidelines for the Preparation and Content of Noise Elements of the General Plans." In reference to potential transportation noise impacts to the proposed project, these guidelines state that noise levels for industrial land uses are normally acceptable up to 75 dBA CNEL/L_{dn} and conditionally acceptable up to 80 dBA CNEL/L_{dn}.

Single-family and mobile homes are considered to be normally acceptable in environments with noise levels of up to 60 dBA CNEL/L_{dn} and conditionally acceptable in environments with noise levels of up to 70 dBA CNEL/L_{dn}. Projects proposed in environments with noise levels that are considered "conditionally acceptable" must have a detailed analysis of the noise reduction requirements and include the necessary insulation features in the project design. Conventional construction, but with closed window and fresh air supply systems or air conditioning, normally suffice.

The City of Calimesa has not established a threshold for what is considered to be a "substantial increase." Therefore, the County of Riverside's threshold will be used for the purposes of this analysis.

Vibration Regulations

The County of Riverside, the City of Calimesa, and the State of California have not adopted criteria or regulations for groundborne vibration or groundborne noise, although the 2015 County of Riverside General Plan does discuss the human reaction to various levels of vibration, and provides policies related to not siting sensitive land uses adjacent to sources of excessive vibration (i.e., trains).

3.12.3 - Thresholds of Significance

The County of Riverside utilizes Appendix G of the State CEQA Guidelines as its thresholds of significance for CEQA analysis. Further, the County provides a number of additional environmental considerations as part of the County's Environmental Assessment Checklist.

a) For a project within the vicinity of a railroad, would the project expose people residing or working in the project area to excessive noise levels?

b) For a project within the vicinity of a highway, would the project expose people residing or working in the project area to excessive noise levels?

c) Would the project expose people residing or working in the project area to excessive noise levels from other noise sources?

According to the State CEQA Guidelines Appendix G thresholds, to determine whether impacts to noise are significant environmental effects, the following questions are analyzed and evaluated.

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

e) For a project located within 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?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

3.12.4 - Project Impact Analysis and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Noise Levels in Excess of Standards

Impact NOI-1:	**The project could expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

Impact Analysis

Potential construction and operational noise impacts are discussed in terms of County of Riverside and City of Calimesa standards, below. Long-term (operational) noise impacts from the proposed project's mobile noise sources (such as vehicles/trucks) and stationary noise sources (which would emanate from the project site) are also discussed in this section. A significant impact would occur if the project would be exposed to noise levels above the City's "normally compatible" standard of 60 dBA CNEL for new residential land use development, or if the project would result in exceedance of the following noise level limits at properties in the City zoned CR: 52.5 dBA L_{eq} between the hours of 7:00 p.m. and 7:00 a.m. and 65 dBA L_{eq} between the hours of 7:00 a.m. and 7:00 p.m.

Construction Noise Impacts

As discussed under Impact NOI-4, if construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September, or between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May, it is exempt from the County of Riverside Noise Ordinance. Section 8.15.080 of the City of Calimesa Municipal Ordinance prohibits construction noise before 7:00 a.m. or after 7:00 p.m. Mondays through Fridays and before 10:00 a.m. or after 5:00 p.m. on Saturdays and Sundays, on holidays, and on the Monday following each holiday that falls on a Sunday. The City of Calimesa has also established noise level limits for construction activities (see 3.12-7). In this case, the applicable threshold is 75 dBA L_{eq} (8-hour).

As shown in Table 3.12-9, the reasonable worst-case construction noise level expected at the City of Calimesa home located adjacent to the western project boundary is 54 dBA L_{eq}. The reasonable worst-case analysis considers the loudest pieces of construction equipment all operating simultaneously at full power at the closest potential locations to off-site receptors. This worst-case noise level is below the City's noise level limit for construction activities and can be expected to lower as construction moves away from the property line. In addition, such worst-case construction noise levels would not occur for eight continuous hours, because equipment would not remain operating all day at the nearest construction limits.

Thus, the project is not anticipated to exceed applicable construction noise standards. However, substantial temporary increases related to construction noise impacts are discussed in Impact NOI-4, and include Mitigation Measures NOI-4a through NOI-4e to be incorporated to reduce temporary noise increases from construction activities to less than significant.

Traffic Noise Impacts

As previously discussed, according to the County's land use compatibility guidelines, environments with noise levels of up to 70 dBA CNEL are considered "normally acceptable" for new office, business, and commercial land use development. For industrial, manufacturing, utilities, and agriculture land uses, environments with noise levels of up to 75 dBA CNEL are considered "conditionally acceptable."

The highest traffic noise levels on segments of Cherry Valley Boulevard adjacent to the project site would occur under horizon (year 2040) traffic conditions with implementation of the project. Based on the traffic noise modeling results shown in Noise Impact Analysis, the project site would be exposed to traffic noise levels ranging up to approximately 73.1 dBA CNEL at 50 feet from the centerline of the nearest travel lane of Cherry Valley Boulevard, under Horizon (year 2040) plus Project traffic conditions. At the nearest façade of the proposed warehouse buildings, located approximately 465 feet from the centerline of Cherry Valley Boulevard, these traffic noise levels would attenuate to below 56 dBA CNEL.

Therefore, the proposed project use is compatible with the noise land use compatibility standard of 75 dBA CNEL for new warehouse land use development, and traffic noise levels would result in a less than significant impact on the proposed land use. As discussed under Impact NOI-3, project-generated traffic noise would result in a less than significant impact on off-site sensitive receptors along areawide roadways.

Highway Traffic Noise Impacts to the Project

For a project within the vicinity of a highway, a significant impact would occur if the project would expose persons on the project site to excessive noise levels from highway traffic noise. According to the County's land use compatibility guidelines, environments with noise levels of up to 70 dBA CNEL are considered "normally acceptable" for new office, business, and commercial land use development. For industrial, manufacturing, utilities, and agriculture land uses, environments with noise levels of up to 75 dBA CNEL are considered "conditionally acceptable."

The proposed project is located approximately 0.3 mile east of the Interstate 10 (I-10) Freeway. At this distance, noise levels from traffic on I-10 would attenuate to below 58 dBA CNEL under future year 2040 conditions with the project. Therefore, the project would not be exposed to excessive noise levels from highway noise sources, and, therefore, related impacts would be less than significant. Noise levels generated by project-related traffic and stationary noise sources are also addressed in Impact NOI-3 and are found to be less than significant.

Noise Attributable to Construction of Interim Traffic Improvements

The interim traffic improvements recommended for the San Gorgonio Crossings Project are contained in the Supplemental Traffic Analysis prepared by Urban Crossroads on March 9, 2017. The interim traffic improvements involve the addition of off-site traffic signals, lane restriping, lane additions, and road realignment.

Implementation of the interim traffic improvements could result in temporary noise impacts from construction activities associated with the lane additions and shoulder improvements. These potential impacts would be similar to construction noise impact discussed above and under Impact NOI-4. The reasonable worst-case combined construction noise level expected for these types of proposed interim traffic improvements would be 85 dBA L_{max} as measured at 50 feet from an active construction site. Based on typical operational usage factors, these reasonable worst-case noise levels could result in reasonable worst-case hourly average of 82.9 dBA L_{eq} as measured at 50 feet from the operating equipment. The nearest receptor to these roadway improvements is the residential land use located northeast of the Cherry Valley Boulevard and Calimesa Boulevard intersection. This receptor is located approximately 300 feet from the nearest construction footprint where heavy equipment would be operating in order to construct these roadway improvements. At this distance, reasonable worst-case construction noise levels would attenuate up to approximately 74.4 dBA L_{max} and 67.3 dBA L_{eq}. These reasonable worst-case noise levels are well below the City of Calimesa's noise level limit for construction activities. In addition, such construction noise levels are unlikely to continue for eight continuous hours, because equipment would not remain operating all day at the nearest construction limits. Therefore, with implementation of MM NOI-4a through 4e, construction noise impacts from the proposed interim traffic improvements would be ensured to be less than significant.

Parking Lot Noise/Truck Loading and Unloading

Potential long-term on-site stationary noise impacts would be associated with operations at the proposed warehouse land uses. The proposed project would generate noise from truck delivery, loading/unloading activities at the loading areas, and other noise-producing activities at the parking

lot such as customers conversing, doors slamming, engine startup, and slow-moving vehicles. These activities are potential point sources of noise that could affect noise-sensitive receptors near the loading areas and parking lots, including single-family residences located to the west, north, east, and southeast; refer to Exhibit 3.12-2, which shows noise-sensitive receptors in the project vicinity. Of these noise sources, noise from truck delivery loading/unloading would result in the highest noise levels at off-site sensitive receptors.

Representative parking activities, such as vehicles cruising at slow speeds, door slamming, cars starting, would generate approximately 60 dBA to 70 dBA L_{max} at 50 feet. Conversation between two persons at a distance of 4 to 5 feet apart would generate a noise level of 60 dBA L_{eq} at 5 feet, or approximately 40 dBA L_{eq} as measured at 50 feet.

Truck delivery, loading/unloading activities at the loading areas of the proposed warehouse facility would be expected to produce the highest stationary source noise levels. Typical noise levels from larger delivery truck loading and unloading activities can range from 75 dBA to 85 dBA L_{max} as measured at 50 feet. The typical truck unloading process takes an average of 15 to 20 minutes.

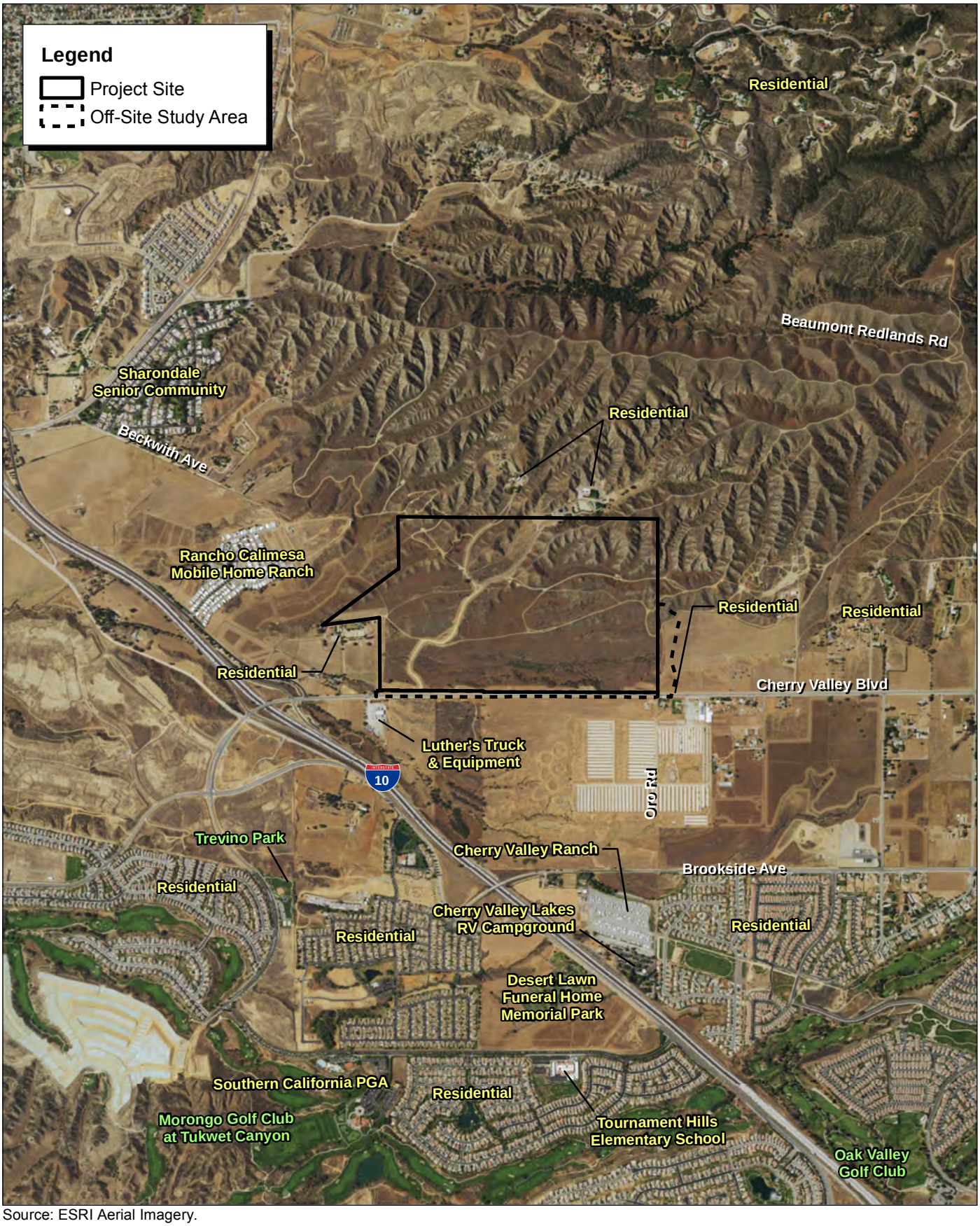
Loading and unloading areas associated with the project face the northern, western, and southern project property lines. The closest residential land use to the west of the project site is located approximately 870 feet from the closest project truck bays and loading areas. At this distance, activity at the project's western truck bays of multiple trucks loading/unloading simultaneously could result in a reasonable worst-case noise level of up to 60 dBA L_{max} and a reasonable worst-case combined hourly average noise level of 54 dBA L_{eq}.

The closest residence to the project's south facing loading area is located over 1,000 feet to the southeast across Cherry Valley Boulevard. At this distance, activity at the project's southern truck bays of multiple trucks loading/unloading simultaneously could result in a reasonable worst-case noise level of up to 59 dBA L_{max} and a reasonable worst-case combined hourly average noise level of 51 dBA L_{eq}.

Project operational noise associated with loading, loading and other parking lot noises would not be audible at the Rancho Calimesa Mobile Home Ranch or at the homes located north and east of the project site due to distance from the site and intervening topography. Noise associated with loading/unloading activities would potentially affect the residences located west and southeast of the project site. Project operational noise that can be expected at these residences are summarized in Table 3.12-9.

Table 3.12-9: Comparison of Existing Ambient and Maximum Operational Noise Levels

Sensitive Receptor	Ambient Noise Level (dBA L_{eq})	Operational Noise Level at Residential Façade	
		dBA L_{max}	dBA L_{eq}
Residential Property west of project site	52 (NM4)	60	54
Residential Property southeast of project site	69 (NM5)	59	51



Source: ESRI Aerial Imagery.

FirstCarbon SOLUTIONS

2,000 1,000 0 2,000 Feet

Exhibit 3.12-2
Sensitive Receptor Locations

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The existing residence adjacent to and to the west of the project site is located within the City of Calimesa and zoned Commercial Regional (CR). As discussed previously, the applicable noise level limits for project operational noise projected to property in the City zoned CR is 52.5 dBA L_{eq} between the hours of 7:00 p.m. and 7:00 a.m. and 65 dBA L_{eq} between the hours of 7:00 a.m. and 7:00 p.m. As shown in Table 3.12-9, projected operational noise levels could range up to 54 dBA L_{eq} when multiple truck loading/unloading operations occur simultaneously at the nearest loading areas of the project site.

The applicable noise level limit for project noise projected to adjacent land within the CR zone in the City is 52.5 dBA L_{eq} between the hours of 7:00 p.m. and 7:00 a.m. and 65 dBA L_{eq} between the hours of 7:00 a.m. and 7:00 p.m. These loading/unloading operations could, therefore, exceed the City's nighttime operational noise level standard unless mitigation is incorporated. Inclusion of loading bay doors equipped with sealed gaskets would be expected to reduce loading/unloading maximum operational noise levels by at least 10 dBA. This would effectively reduce loading/unloading operational noise levels to below a combined hourly average noise level of 44 dBA L_{eq}, well below the City of Calimesa's nighttime operational noise standard of 52.5 dBA L_{eq}. With implementation of this measure, loading/unloading operational noise impacts would be reduced to less than significant.

The County of Riverside prohibits noise levels from exceeding 45 dBA L_{eq}, between the hours of 10:00 p.m. and 7:00 a.m. (nighttime standard) and from exceeding 65 dBA L_{eq} between the hours of 7:00 a.m. and 10:00 p.m. (daytime standard) at residential properties. These standards apply to operational noise projected to the homes located southeast of the site. As noted previously, the closest residence to the south of the project site could experience a reasonable worst-case combined average noise level of 51 dBA L_{eq} from loading/unloading of multiple trucks simultaneously. These loading/unloading operations could, therefore, result in an exceedance of the County's nighttime operational noise level standard unless mitigation is incorporated. Inclusion of loading bay doors equipped with sealed gaskets would be expected to reduce loading/unloading maximum operational noise levels by at least 10 dBA. This would effectively reduce loading/unloading operational noise levels to below a combined reasonable worst-case average noise level of 41 dBA L_{eq}, meeting the County of Riverside's nighttime operational noise standard of 45 dBA L_{eq}. With implementation of this measure, loading/unloading operational noise impacts would be reduced to less than significant.

Heating, Ventilating, and Air Conditioning Equipment Noise

The proposed project would have rooftop heating, ventilating, and air conditioning (HVAC) equipment. Although no final design is available at this time for the type and location of the rooftop mechanical units, based on noise measurements conducted at a similar use, rooftop HVAC units generate noise levels of approximately 62 dBA at 50 feet, and the roof edge (parapet) creates a noise barrier that reduces noise levels from rooftop HVAC units by an additional 3 to 5 dBA or more from ground floor receptors. The closest sensitive receptor to the west of the project site is the residence located approximately 880 feet from the nearest proposed building façade, and an estimated 900 feet from the nearest possible location for proposed rooftop HVAC units. At this distance, operational noise levels of the proposed HVAC units would attenuate to below 37 dBA L_{eq}. This is below the existing measured

ambient noise level in the vicinity of this receptor, and well below both the daytime and nighttime operational noise standards of the City of Calimesa and County of Riverside.

Therefore, noise from operation of proposed rooftop HVAC units would not result in violations of County of Riverside Code or City of Calimesa Municipal Ordinance, and would result in a less than significant impact.

Off-site Stationary Noise Source Impacts to the Project

Because of the location of the project in a predominantly rural area, there are no land uses in the vicinity of the project site (such as refineries, landfills) or other similar land uses that could generate excessive noise levels that would result in impacts to the proposed land use development. According to the County's land use compatibility guidelines, environments with noise levels of up to 70 dBA are considered "normally acceptable" for new office, business, and commercial land use development. For industrial, manufacturing, and agricultural land uses, environments with noise levels of up to 75 dBA CNEL are considered "conditionally acceptable." Based on the documented ambient noise levels, there are no existing stationary noise sources that would expose persons working on the project site to noise levels in excess of these normally acceptable land use compatibility standards for the proposed land use.

Railroad Noise Impacts

The proposed project is not located in the vicinity of a railroad, as the nearest railroad to the project site is located approximately 2.5 miles to the southwest of the project site, across hilly terrain. Thus, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with railroad noise.

Level of Significance Before Mitigation

Potentially significant impact due to loading/unloading operational noise levels exceeding local nighttime operational noise level standards. The following mitigation measure is recommended to reduce loading/unloading operational noise impacts.

Mitigation Measures

MM NOI-1 All project loading bays shall be equipped with sealed gasket bay doors. The project applicant shall ensure that these sealed gasket bay doors are used for all nighttime loading/unloading operations. Inclusion of loading bay doors equipped with sealed gaskets would be expected to reduce loading/unloading maximum operational noise levels by at least 10 dBA. This would effectively reduce loading/unloading operational noise levels to below a combined hourly average noise level of 44 dBA L_{eq}, as measured at the nearest receptor within the City of Calimesa, thus meeting the City's nighttime operational noise standard of 52.5 dBA L_{eq}. In addition, this measure would effectively reduce loading/unloading operational noise levels to below a combined hourly average noise level of 41 dBA L_{eq}, as measured at the nearest receptor within the County of Riverside, thus meeting the County of Riverside's nighttime operational noise standard of 45 dBA L_{eq}.

Level of Significance After Mitigation

Less than significant impact.

Groundborne Vibration

Impact NOI-2:	**The project would not result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.**

Impact Analysis

This section analyzes both groundborne vibration and operational vibration. The County of Riverside, the City of Calimesa, and the State of California have not adopted criteria or regulations for groundborne vibration or groundborne noise. Therefore, for purposes of this analysis, the annoyance and damage criteria of the FTA are utilized.

Construction Vibration Impacts

The Federal Transit Administration (FTA) has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment document (FTA 2006). The FTA guidelines include thresholds for construction vibration impacts for various structural categories as shown in Table 3.12-5, above.

Table 3.12-2 shows the PPV of some common construction equipment and haul trucks (loaded trucks). The most vibration-causing piece of equipment that will likely be used on-site is the large vibratory roller. Because of the proximity of the homes located adjacent to the site to the west and southeast of the project site, construction activities may result in groundborne vibration that is annoying, but is not expected to result in building damage, pursuant to FTA damage criteria. The nearest residences are located approximately 110 feet from the construction area footprint. At this distance, operation of even the heaviest equipment that would be operating on the project site would result in maximum groundborne vibration levels of up to 0.023 PPV. This is well below the FTA's damage threshold criteria of 0.12 PPV for even the most fragile structures.

Human perception to vibration starts at levels as low as 67 VdB. Annoyance due to vibration in residential settings starts at approximately 70 VdB. Residences are included under Land Use Category 2 (as defined by FTA) and infrequent vibration events are considered acceptable up to 80 VdB at the receiving use. Large vibratory rollers used during construction would be expected to generate 94 VdB within 25 feet of the equipment. The nearest residences are located approximately 110 feet from the construction area footprint where the heaviest construction equipment would potentially operate. At this distance, vibration levels could range up to approximately 74 VdB. These levels are below the FTA's 80 VdB threshold that is considered to be acceptable for infrequent events. Furthermore, any annoyance would only occur during site grading and preparation activities, and would therefore be intermittent and temporary in nature. The restriction on permissible hours of construction would further ensure that perceptible vibration does not occur within the most sensitive nighttime hours. Therefore, construction activities would not result in exposure of persons to or generation of excessive groundborne vibration levels.

Operational Vibration Impacts

Based on the data shown in Table 3.12-2, loaded trucks are not anticipated to exceed 0.076 in/sec peak particle velocity (PPV) or 86 VdB at 25 feet. These vibration levels are below the normal perception level and well below the possible FTA damage criteria thresholds. In addition, all off-site structures are located more than 25 feet from proposed project travel ways. Therefore, project operational vibration levels would not exceed groundborne noise or groundborne vibration thresholds presented above. Impacts associated with operational vibration would be considered less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

Permanent Increase in Ambient Noise Levels

Impact NOI-3:	**The project would not cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.**

Impact Analysis

A significant impact would occur if the project would result in a substantial increase in traffic noise levels compared to noise levels existing without the project. The Environmental Impact Report prepared for the County of Riverside General Plan utilizes "an increase in long-term ambient noise by 5 dBA or more" to determine if the project would result in a substantial increase in long-term ambient noise levels.

Traffic Noise Impacts

Regional access to the project site will be provided by the I-10 Freeway via Cherry Valley Boulevard. Local access to the project site will be provided along Cherry Valley Boulevard via two driveways and one proposed public street. The public street will allow full access, and the driveways will allow right-in/right-out access only. There are single-family residential properties along Cherry Valley Boulevard, Nancy Street, and Union Street that may be affected by project-generated traffic noise.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. Traffic data used in the model was obtained from the traffic impact analysis prepared by Urban Crossroads (2017). The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The modeled average daily traffic (ADT) volumes along I-10 were obtained by multiplying the PM peak hour traffic volumes by a factor of 10. As a worst-case analysis, future roadway widening that would occur with implementation of the project was assumed for both without project and with project future conditions. The traffic noise modeling input and output files are included in Appendix H of

this Recirculated Draft EIR. Table 3.12-9, Table 3.12-10, Table 3.12-11, and Table 3.12-12 summarize the traffic noise modeling results for existing, cumulative (year 2018), and horizon (year 2040) traffic conditions, without and with the project.

Table 3.12-10: Existing without- and with-Project Modeled Roadway Noise Levels

Roadway Segment	Existing No Project ADT	Existing No Project (dBA) CNEL	Existing + Project ADT	Existing + Project (dBA) CNEL	Increase over Existing No Project (dBA)
Cherry Valley Boulevard–Calimesa Boulevard to Driveway 1	8,500	68.4	13,000	69.2	0.8
Cherry Valley Boulevard–Driveway 1 to Street 2	7,700	68.0	12,600	69.0	1.0
Cherry Valley Boulevard–Street 2 to Driveway 3	7,700	68.0	8,900	67.5	-0.5
Cherry Valley Boulevard–Driveway 3 to Union Street	7,700	68.0	8,900	67.5	-0.5
Cherry Valley Boulevard–Union Street to Nancy Street	6,400	64.9	6,700	65.1	0.2
Cherry Valley Boulevard–Nancy Street to Beaumont Avenue	5,800	64.5	6,100	64.7	0.2
Union Street–South of Cherry Valley Boulevard	600	54.7	700	55.3	0.6
Nancy Street–South of Cherry Valley Boulevard	1,600	58.9	1,700	59.2	0.3
I-10–north of Cherry Valley Boulevard interchange	63,800	78.5	64,800	78.5	0.0
I-10–south of Cherry Valley Boulevard interchange	65,200	78.5	66,100	78.6	0.1

Note:
CNEL (dBA) as measured at 50 feet from the centerline of the outermost travel lane.
Source: FCS 2014.

Table 3.12-11: Cumulative (Year 2018) Modeled Roadway Noise Levels

Roadway Segment	Cumulative (2018) No Project ADT	Cumulative (2018) No Project (dBA) CNEL	Cumulative (2018) + Project ADT	Cumulative (2018) + Project (dBA) CNEL	Increase over Cumulative (2018) No Project (dBA)
Cherry Valley Boulevard–Calimesa Boulevard to Driveway 1	18,200	70.6	22,700	71.6	1.0
Cherry Valley Boulevard–Driveway 1 to Street 2	17,800	70.5	21,900	71.4	0.9

Table 3.12-11 (cont.): Cumulative (Year 2018) Modeled Roadway Noise Levels

Roadway Segment	Cumulative (2018) No Project ADT	Cumulative (2018) No Project (dBA) CNEL	Cumulative (2018) + Project ADT	Cumulative (2018) + Project (dBA) CNEL	Increase over Cumulative (2018) No Project (dBA)
Cherry Valley Boulevard–Street 2 to Driveway 3	13,600	69.3	14,000	69.5	0.2
Cherry Valley Boulevard–Driveway 3 to Union Street	13,600	69.3	14,000	69.5	0.2
Cherry Valley Boulevard–Union Street to Nancy Street	8,500	66.2	8,800	66.3	0.1
Cherry Valley Boulevard–Nancy Street to Beaumont Avenue	7,200	65.5	7,500	65.6	0.1
Union Street–South of Cherry Valley Boulevard	900	56.4	1,000	56.9	0.5
Nancy Street–South of Cherry Valley Boulevard	2,200	60.3	2,200	60.3	0.0
I-10–north of Cherry Valley Boulevard interchange	77,900	79.3	78,900	79.4	0.1
I-10–south of Cherry Valley Boulevard interchange	75,800	79.2	76,700	79.3	0.1

Note:
CNEL (dBA) as measured at 50 feet from the centerline of the outermost travel lane.
Source: FCS 2014.

Table 3.12-12: Horizon (Year 2040) Modeled Roadway Noise Levels

Roadway Segment	Horizon (2040) No Project ADT	Horizon (2040) No Project (dBA) CNEL	Horizon (2040) + Project ADT	Horizon (2040) + Project (dBA) CNEL	Increase over Horizon (2040) No Project (dBA)
Cherry Valley Boulevard–Calimesa Boulevard to Driveway 1	24,300	71.9	28,900	72.6	0.7
Cherry Valley Boulevard–Driveway 1 to Street 2	22,300	71.5	32,200	73.1	1.6
Cherry Valley Boulevard–Street 2 to Driveway 3	22,300	71.5	28,800	72.6	1.1
Cherry Valley Boulevard–Driveway 3 to Union Street	22,300	71.5	28,800	72.6	1.1
Cherry Valley Boulevard–Union Street to Nancy Street	19,400	68.7	19,700	68.8	0.1
Cherry Valley Boulevard–Nancy Street to Beaumont Avenue	19,100	68.6	19,400	68.7	0.1

Table 3.12-12 (cont.): Horizon (Year 2040) Modeled Roadway Noise Levels

Roadway Segment	Horizon (2040) No Project ADT	Horizon (2040) No Project (dBA) CNEL	Horizon (2040) + Project ADT	Horizon (2040) + Project (dBA) CNEL	Increase over Horizon (2040) No Project (dBA)
Union Street–South of Cherry Valley Boulevard	3,400	62.2	3,500	62.3	0.1
Nancy Street–South of Cherry Valley Boulevard	3,200	61.9	3,200	61.9	0.0
I-10–north of Cherry Valley Boulevard interchange	195,800	83.3	196,800	83.3	0.0
I-10–south of Cherry Valley Boulevard interchange	177,700	82.9	178,500	82.9	0.0

Note:
CNEL (dBA) as measured at 50 feet from the centerline of the outermost travel lane.
Source: FirstCarbon Solutions 2014.

Modeling results also show that project generated vehicle noise on area-wide roadways would result in a maximum increase of up to 1.6 dBA in traffic noise levels with implementation of the project, compared to traffic noise levels existing without the project. This increase would occur under Horizon (year 2040) plus Project traffic conditions. The County of Riverside considers a permanent increase of 5 dBA or greater to be a substantial increase. Therefore, an increase of 1.6 dBA is not considered substantial, and project-generated traffic noise would result in a less than significant impact on off-site sensitive receptors along area-wide roadways.

It should be noted that two roadway segments under Existing plus Project conditions (as shown in Table 3.12-9) would experience an apparent decrease in traffic noise levels as measured at 50 feet from the centerline of the outermost travel lane. However, this apparent reduction only occurs because the existing plus project conditions assumes implementation of planned roadway improvements that would widen the portion of Cherry Valley Boulevard that is adjacent to the project site to a four-lane roadway. This improvement essentially moves traffic further away from the outermost travel lane, thus "reducing" the traffic noise levels measured at that distance. However, this reduction would not be distinguishable compared with existing conditions, and should therefore be assumed to be equivalent to no increase.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

Temporary Increase in Ambient Noise Levels

Impact NOI-4:	**The project could result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.**

Impact Analysis

The Noise Impact Analysis prepared for the proposed project analyzes potential noise impacts from project construction. Project construction activities have the potential to cause short-term noise impacts to the rural single-family homes in the project area. Construction noise may also be audible at the Rancho Calimesa Mobile Home Ranch, located west of the project site near the I-10 freeway.

Construction noise will vary depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week), and the duration of the construction work. Typical noise sources and noise levels associated with construction activities are shown in Table 3.12-1, above.

Both mobile and stationary construction equipment will be used on the site. Mobile equipment (e.g., loaders, graders, dozers) moves around a construction site performing tasks in a recurring manner. Stationary equipment (e.g., air compressor, generator, concrete saw) operates in a given location for an extended period of time to perform continuous or periodic operations.

The initial phase of project construction would involve mass grading, which would be followed by fine grading, trenching, and paving activities. Construction of the proposed buildings would include building construction, architectural coatings application, and paving associated with buildings. The mass grading phase is widely recognized to be the loudest part of construction. Construction equipment that will be used during the mass grading phase will include scrapers, loaders backhoes, excavators, dozers, and trucks. Operational characteristics of this equipment when associated with mass grading are typified by short periods of full power operation followed by extended periods of operation at lower power, idling, or powered-off conditions. A typical cycle for these machines includes between 1 and 2 minutes of full power operation followed by 3 to 4 minutes of lower power. Blasting and the use of pile drivers are not anticipated.

Reasonable worst-case construction noise levels were calculated using the Federal Highway Administration's (FHWA) Road Construction Noise Model (RCNM). RCNM uses standard noise emission levels for many different types of equipment and includes utilization percentage, impact, and shielding parameters. The modeled scenario assumed the simultaneous use of some of the loudest types of heavy construction equipment, including two graders, one dozer, and one scraper at reasonably expected distance from each other. A 40 percent usage factor was assumed for each piece of equipment (meaning that the piece of equipment would be operated 40 percent of the time during permissible construction hours). Modeling output and modeling parameters and output are provided in Appendix B, Air Quality and Greenhouse Gases (Construction Noise Modeling Sheets).

As shown in Table 3.12-13, project construction activities would result in temporary increases in ambient noise levels at nearby sensitive receptors. These are reasonable worst-case noise levels that can be expected to lower at sensitive receptors as construction moves away from the property line. It should be noted that a ridgeline breaks the line of sight between the project site and the Calimesa Mobile Home Ranch. Combined with the distance between the noise sources on the project site and the sensitive receptor, the break in the line of sight afforded by the ridgeline would result in a 10-dBA deduction from construction noise calculations. Similarly, existing hills and ridgelines block the line of site from the homes north of the project site to the project, thus a deduction of 10 dBA was taken into account. Potentially affected Sensitive Receptor locations are shown in Exhibit 3.12-2.

Table 3.12-13: Comparison of Existing Ambient and Construction Noise Levels

Sensitive Receptor[1]	Location Distance/Direction from Site	Ambient Noise Level dBA L_{max}/L_{eq}[2]	Construction Noise Level dBA L_{max}/L_{eq}[3]	Temporary Increase Due to Construction Noise dBA L_{max}/L_{eq}
East end of Mobile Home Ranch	City of Calimesa—1,500 feet northwest of nearest construction footprint	56/52(NM1)	46[2]/47[4]	0/0
Single-family home	City of Calimesa—850 feet west of nearest construction footprint	84/68(NM2)	60/62	0/0
Single-family home	County of Riverside—1,200 feet north of nearest construction footprint	52/46(NM3)	47[2]/49	0/3
Single-family home	800 feet north of a proposed detention basin	52/46(NM3)	45[2]/47	0/1
Single-family home	City of Calimesa—670 feet west of nearest construction footprint	55/51(NM4)	63/64	8/13
Single-family homes	County of Riverside—110 feet to the southeast of nearest project driveway construction area	85/69(NM5)	78/78	0/9

Notes:
NM = Noise Measurement Location
[1] Affected Sensitive Receptor locations are shown in Exhibit 3.12-2.
[2] The L_{eq} represents the measured average noise level.
[3] The L_{eq} represents the calculated daytime worst-case hourly average noise level.
[4] An extra 10 dB was deducted because of intervening topography.
Source: FirstCarbon Solutions 2015.

If construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September, or between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May, it is exempt from the County of Riverside Noise Ordinance. Section 8.15.080

of the City of Calimesa Municipal Ordinance prohibits construction noise before 7:00 a.m. or after 7:00 p.m. Mondays through Fridays, and before 10:00 a.m. or after 5:00 p.m. on Saturdays and Sundays, on holidays, and on the Monday following each holiday which falls on a Sunday. The City of Calimesa has also established noise level limits for construction activities (Table 3.12-8). In this case, the applicable threshold is 75 dBA L_{eq} (8-hour).

As shown in Table 3.12-13 above, the reasonable worst-case construction noise level expected at the City of Calimesa home located adjacent to the western project boundary is 64 dBA L_{eq} for the loudest hourly average noise level. Such construction noise levels would not occur for eight continuous hours, because equipment would not remain operating all day at full power at the nearest construction limits. In addition, construction activities would not occur continuously along the nearest project property line but would move around the project site. The modeled operational usage factor for the type of equipment that would operate nearest the single-family home southeast of the project site is 40 percent. Therefore, based on this operational usage factor averaged with the measured background ambient noise levels of 51 dBA L_{eq} at this location, the resulting 8-hour average construction activity noise level is expected to be approximately 57 dBA L_{eq}. This reasonable worst-case 8-hour average noise level is well below the City's noise level threshold of 75 dBA L_{eq} (8-hour) for construction activities.

As previously noted, the County of Riverside does not have an absolute noise level threshold for construction activities, but rather exempts construction noise from the noise ordinance standards provided such activities occur within the stated permissible hours of construction. However, in order to provide an equivalent (conservative) evaluation of construction noise impacts on all sensitive receptors in the project vicinity, this analysis also applies the City of Calimesa threshold of 75 dBA L_{eq} (8-hour) standard to the modeled receptor locations within the County of Riverside. As shown in Table 3.12-12, the reasonable worst-case modeled construction noise levels could range up to 78 dBA L_{eq} (loudest hourly average) at the nearest single-family residence located southeast of the project site within the County of Riverside. However, similar to the discussion above, such construction noise levels would not occur for 8 continuous hours, because equipment would not remain operating all day at full power at the nearest construction limits. In addition, construction activities would not occur continuously along the nearest project property line but would move around the project site. The modeled operational usage factor for the type of equipment that would operate nearest the single-family home southeast of the project site is 40 percent. Therefore, based on this operational usage factor averaged with the measured background ambient noise levels of 69 dBA L_{eq} at this location, the resulting 8-hour average construction activity noise level is expected to be approximately 73 dBA L_{eq}. This reasonable worst-case 8-hour average noise level is below the City's noise level threshold of 75 dBA L_{eq} (8-hour) for construction activities.

As shown in Table 3.12-12, construction activities would result in a potential maximum increase of up to approximately 13 dBA in the hourly average ambient noise levels at the home within the City of Calimesa immediately west of the site, when multiple pieces of heavy construction equipment operate simultaneously near the westernmost portion of the project site. Similarly, the closest home located southeast of the project site could experience a maximum increase of up to approximately 9 dBA in the hourly average noise levels when multiple pieces of heavy construction equipment

operate simultaneously at the nearest project construction limits. As shown in the discussion above, this would be the reasonable worst-case hourly average noise levels.

However, by restricting construction activities to the County's permissible hours of construction and by implementing best practices, these construction noise levels, when averaged over a 24-hour period with existing background noise levels, would be expected to be reduced so as not to result in a substantial increase (increase of 5 dBA CNEL or greater[1]) in the ambient noise levels at any sensitive receptor in the project vicinity. Therefore, to reduce this potential impact, the following mitigation measures would be implemented.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-4a During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. This would result in an estimated 5 dBA reduction (perceived as half as loud) in equipment operational noise levels compared to operations without such devices.

MM NOI-4b Whenever feasible, the construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site. This would result in an estimated 5 dBA reduction (perceived as half as loud) in operational noise levels compared to operations with noise emitted toward a receptor.

MM NOI-4c The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest the project site during all project construction.

MM NOI-4d All on-site producing construction activities (including haul truck deliveries) shall be restricted to the hours from 7:00 a.m. to 7:00 p.m., Mondays through Fridays, and 10:00 a.m. to 5:00 p.m. on Saturdays and Sundays, on holidays, and on the Monday following each holiday that falls on a Sunday. To the extent feasible, haul routes should not pass sensitive land uses or residential dwellings.

MM NOI-4e For the duration of construction activities, the construction manager shall serve as the disturbance coordinator, should noise levels become disruptive to local residents. The disturbance coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and institute reasonable measures warranted to correct the problem. The construction manager shall conspicuously post a telephone number for the disturbance coordinator at all entrances to the construction site.

[1] The Environmental Impact Report prepared for the County of Riverside General Plan utilizes "an increase in long-term ambient noise by 5 dBA CNEL or more" to determine if the project would result in a substantial increase in long-term ambient noise levels.

Level of Significance After Mitigation

Less than significant impact. While the County of Riverside does not define what is considered a substantial temporary increase in ambient noise levels, the County does recognize that compliance with the County's noise ordinance is required to reduce construction-related noise impacts to a less than significant level (County of Riverside 2003). As stated above, the State CEQA Guidelines clarify that ". . . a change in the environment is not a significant effect if the change complies with the standard . . ." Thus, implementation of Mitigation Measures NOI-4a through NOI-4e would ensure compliance with County standards, including construction hours restrictions, which have been established by the County in an effort to reduce the potential impact from construction noise on nearby sensitive receptors to acceptable levels of significance. Further, the implementation of Mitigation Measures NOI-4a through NOI-4e would also ensure that a variety of feasible measures are incorporated during project construction to further reduce construction noise to acceptable levels, and would reduce construction noise levels to not result in a substantial increase in ambient noise levels at off-site sensitive land uses.

Airport Noise Impacts

Impact NOI-5:	**For a project located within 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, the project would not expose people residing or working in the project area to excessive noise levels.**

Impact Analysis

The nearest airport from the project is the Banning Municipal Airport, located approximately 9.6 miles southeast of the project site. Additionally, the Redlands Municipal Airport is located approximately 9.7 miles northwest of the project site (Google Earth). As adopted by the Riverside County Airport Land Use Commission (ALUC), the Riverside County Airport Land Use Compatibility Plan Policy Document establishes policies applicable to land use compatibility planning in the vicinity of airports throughout Riverside County. As shown in this document, the project site is not within a compatibility zone for the Banning Municipal Airport (ALUC 2004). Furthermore, according the Riverside County TLMA Geographic Information System, the proposed project is not located in an airport influence area or an airport compatibility zone. Therefore, the proposed project does not include any inhabitable structures that would expose people residing or working in the project area to excessive noise levels.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No impact.

Private Airstrip Noise Impacts

Impact NOI-6:	**For a project within the vicinity of a private airstrip, the project would not expose people residing or working in the project area to excessive noise levels.**

Impact Analysis

There are no private airstrips or helipads in the vicinity of the project site (AirNav.com, Google Earth). The nearest heliport to the project site is Riverside County Regional Medical Center Heliport, located approximately 10.5 miles southwest of the project site. Therefore, the project will not expose people residing or working in the project area to excessive noise levels.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No impact.

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