3.9 NOISE

This section describes the existing noise conditions of the hotel site (project site), West Hollywood Park (park site), and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

3.9.1 Environmental Setting

The project site and park site are located in an urbanized environment and are subject to typical urban noises, such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. The predominant noise sources at the project site and park site include transportation activities and stationary sources. "Transportation noise" typically refers to noise from automobile use, trucking, aircraft, and rail operations. "Stationary noise" typically refers to noise from sources such as heating, ventilation, and air conditioning (HVAC) systems, compressors, landscape maintenance equipment, on-site construction activities or machinery associated with local industrial or commercial activities. Site-specific ambient noise measurements are discussed later in this section.

Noise Characteristics

Sound may be described in terms of level or amplitude (measured in decibels (dB)), frequency or pitch (measured in hertz (Hz) or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the amplitude of sound is the decibel. Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear. Table 3.9-1 provides examples of A-weighted noise levels from common sounds.

Table 3.9-1
Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
—	110	Rock band
Jet flyover at 300 meters (1,000 feet)	100	—
Gas lawn mower at 1 meter (3 feet)	90	—
Diesel truck at 15 meters (50 feet), at 80 kph (50 mph)	80	Food blender at 1 meter (3 feet) Garbage disposal at 1 meter (3 feet)
Noisy urban area, daytime gas lawn mower at 30 meters (100 feet)	70	Vacuum cleaner at 3 meters (10 feet)
Commercial area, heavy traffic at 90 meters (300 feet)	60	Normal speech at 1 meter (3 feet)

Table 3.9-1
Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
Quiet urban daytime	50	Large business office Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural night time	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 2013.
Notes: kph = kilometers per hour; mph = miles per hour

Noise is defined as unwanted sound, and is known to have several adverse effects on people, including hearing loss, speech interference, sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and local agencies have established criteria to protect public health and safety, to prevent disruption of certain human activities, and to minimize annoyance.

Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise, on a community. These descriptors include the equivalent noise level over a given period (L_{eq}), the statistical sound level (L_n), the day–night average noise level (L_{dn}), and the community noise equivalent level (CNEL). Each of these descriptors uses units of dBA.

L_{eq} is a sound energy level averaged over a specified time period (typically no less than 15 minutes for environmental studies). L_{eq} is a single numerical value that represents the amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour L_{eq} measurement would represent the average amount of energy contained in all the noise that occurred in that 1 hour. L_{eq} is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors. L_{max} is the greatest sound level measured during a designated time interval or event. L_n is a statistical description of the sound level that is exceeded over some fraction of a given period of time. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time. L_{90} noise level represents the noise level that is exceeded 90 percent of the time and for environmental noise is representative of the background ambient noise level.

Unlike the L_{eq} and L_n metrics, L_{dn} and CNEL metrics always represent 24-hour periods, usually on an annualized basis. L_{dn} and CNEL also differ from L_{eq} and L_n because they apply a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). "Time weighted" refers to the

fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime (10:00 p.m.–7:00 a.m.) noise is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., thus eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5 to 1 dB.

Vibration Characteristics

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment.

Several different methods are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square amplitude is most frequently used to describe the effect of vibration on the human body and is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure root mean square. The decibel notation acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of vibration can damage fragile buildings or interfere with equipment that is highly sensitive to vibration (e.g., electron microscopes). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would be considered noise- and

vibration-sensitive and may warrant unique measures for protection from intruding noise. Sensitive receptors near the project site and park site include the following:

- West Hollywood Library located approximately 240 feet southeast of the park site
- Recreational users at West Hollywood Park located approximately 10 feet east of the park site and approximately 60 feet east of the project site
- Multi-family residences located approximately 245 feet to the northwest (north of Santa Monica Boulevard) of the project site
- Single and multi-family residences located approximately 625 feet to the south (south of Melrose Avenue) of the project site (Figure 3.9-1, Off-Site Sensitive Receptors)

The above sensitive receptors represent the nearest residential and recreational land uses with the potential to be impacted by the proposed project. Additional sensitive receptors are located farther from the project site in the surrounding community and would be less impacted by noise and vibration levels than the above-listed sensitive receptors. In addition to the off-site receptors listed above, the hotel rooms to be constructed as part of the proposed project are considered sensitive receptors.

Existing Noise Conditions

Currently, the project site generates noise associated with existing retail, restaurant, gym, night clubs, and parking lot operations. Additionally, the project site is primarily subject to traffic noise associated with adjacent roadways including Santa Monica Boulevard to the north, North Robertson Boulevard to the east, and North La Peer Drive to the west. The park site is also subject to traffic noise associated with adjacent roadways including Santa Monica Boulevard to the north and North Robertson Boulevard to the west. Table 3.9-2 provides the existing daily traffic volumes along the roadway segments that are primarily subject to traffic noise impacts and that have noise-sensitive land uses.

Table 3.9-2
Existing Average Daily Traffic

Key Roadway Segment	Lanes	Existing Traffic Conditions
		Daily Volume
1. Hilldale Avenue between Norma Place and Keith Avenue	2	3,239
2. Keith Avenue between Doheny Drive and Willey Lane	2	2,010
3. Keith Avenue between Rampage Street and Robertson Boulevard	2	3,768
4. Keith Avenue between Robertson Boulevard and Hilldale Avenue	2	3,860
5. Robertson Boulevard between Keith Avenue and Santa Monica Boulevard	2	5,058

Source: Appendix J.

Noise measurements were conducted on and near the project site in February 2015 to determine the existing noise levels in L_{eq} and L_{max}. Table 3.9-3 provides the location, date, and time the noise measurements were taken. The noise measurements were made using a Piccolo Integrating Sound Level Meter (Serial Number 130625008) equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute (ANSI) standard for a Type 2 (General Use) sound level meter. The sound level meter was calibrated before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Eight noise measurement locations that represented key potential sensitive receptors or sensitive land uses were selected adjacent to or near the project site and the park site; these locations are depicted as Receptors 1–8 (M1–M8) on Figure 3.9-2. Location M1 was at the project site, located approximately 60 feet west of North Robertson Boulevard. M2 was at the West Hollywood Park site (647 North San Vicente Boulevard), approximately 80 feet east of North Robertson Boulevard. M3 was also at West Hollywood Park (647 North San Vicente Boulevard), approximately 220 feet west of North San Vicente Boulevard. M4 was northeast of the project site, located at The Abbey (692 North Robertson Boulevard), approximately 40 feet east of North Robertson Boulevard. M5 was located northwest of the project site between a residential garage (715 Ramage Street) and a surface parking driveway, approximately 55 feet west of Ramage Street. M6 was west of the project site, located at a commercial business surface parking area, located at 655 North La Peer Drive, approximately 45 feet west of North La Peer Drive. M7 was south of the project site, located by a commercial business driveway gate located at 634 North La Peer Drive, approximately 20 feet east of North La Peer Drive. M8 was south of the project site, located behind the multi-family unit at 8817 Rangely Avenue, and in a parking spot of a commercial business, approximately 150 feet west of North Robertson Boulevard. The measured average noise levels and measurement locations are provided in Table 3.9-3. The primary noise source at the sites mentioned in Table 3.9-3 was from traffic along the adjacent roads. Additionally, the primary noise source at M4 also included bar/club music at The Abbey and the primary noise source at M6 also included the industrial operation across the street.

Table 3.9-3
Measured Noise Levels – February 2015

Receptors	Location/Address	Date	Time	Description	L_{eq} (dBA)	L_{max} (dBA)
M1	Project site	February 25, 2015	2:29 p.m. – 2:44 p.m.	Approximately 60 feet west of North Robertson Boulevard	65.5	78.6
M2	West Hollywood Park; 647 North San Vicente Boulevard West Hollywood, California	February 25, 2015	3:32 p.m. – 3:47 p.m.	Approximately 80 feet east of North Robertson Boulevard	66.0	82.9

Table 3.9-3
Measured Noise Levels – February 2015

Receptors	Location/Address	Date	Time	Description	L_{eq} (dBA)	L_{max} (dBA)
M3	West Hollywood Park; 647 North San Vicente Boulevard West Hollywood, California	February 25, 2015	3:59 p.m. – 4:14 p.m.	Approximately 220 feet west of North San Vicente Boulevard	62.6	78.7
M4	The Abbey; 692 North Robertson Boulevard West Hollywood, California	February 25, 2015	4:41 p.m. – 4:56 p.m.	Approximately 40 feet east of North Robertson Boulevard	73.0	80.9
M5	Residential Property (Between garage and surface parking area); 715 Ramage Street West Hollywood, California	February 26, 2015	10:30 a.m. – 10:45 a.m.	Approximately 55 feet west of Ramage Street	62.0	69.4
M6	Commercial Property; 655 North La Peer Drive West Hollywood, California	February 26, 2015	10:56 a.m. – 11:11 a.m.	Approximately 45 feet west of North La Peer Drive	71.1	87.9
M7	Commercial Property; 634 North La Peer Drive West Hollywood, California	February 26, 2015	11:19 a.m. – 11:34 a.m.	Approximately 20 feet east of North La Peer Drive	64.9	76.9
M8	Residential Property (behind the multi-family unit, on a commercial surface parking lot); 8817 Rangely Avenue West Hollywood, California	February 26, 2015	12:27 p.m. – 12:42 p.m.	Approximately 150 feet west of North Robertson Boulevard	61.0	74.5

Source: Appendix H.
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval

In addition, separate noise measurements were conducted on and near the project site in May 2014 by Acoustical Engineering Services to determine the existing noise levels during the daytime and nighttime for the analysis of people gathering in the project's outdoor areas and the use of amplified sound systems in those outdoor areas. Additional noise measurements were necessary to include the closest residential units on each side of the project site, some at greater distances than other sensitive receptors closer to the project site, because the analysis of people gathering in the project's outdoor areas and the use of amplified sound systems in those areas examines the impact of those long-term operational noise sources on residential dwelling units. In addition, the separate noise measurements provide both a daytime and nighttime measurement, which is necessary for this analysis, as well as a L_{90} measurement, which is representative of the background ambient noise level and is appropriate for use under the City's thresholds of significance to analyze potential impacts from the project's outdoor areas and the use of amplified sound systems. Table 3.9-4 provides a description of the location and the date

the noise measurements were taken. The noise measurements were made using several Quest Technologies Model 2900 Integrating/Logging Sound Level Meters, which meets the minimum industry standard performance requirements for Type 2 standard instruments as defined in the American National Standard Institute S1.4.

Table 3.9-4
Measured Noise Levels – May 2014

Receptors	Description of Location	Date	Measured Ambient Noise Levels, dBA L_{eq}/L_{90}		CNEL (24-hour)
			Daytime Hours (8 a.m. to 10 p.m.)	*Nighttime Hours (10 p.m. to 8 a.m.)*	
R1	West Hollywood Park, approximately 60 feet east of the project site	May 5, 2014	58.3 / 52.6	58.8 / 55.6	63.4[a]
R2	Residence on Rangely Avenue, approximately 710 feet south of the project site	May 5, 2014	53.6 / 47.9	52.5 / 41.8	57.4[a]
R3	Residence at the corner of Willey Lane and Harland Avenue, approximately 510 feet west of the project site	May 5, 2014	54.4 / 47.8	49.6 / 46.1	55.7[a]
R4	Residence on Ramage Street, approximately 330 feet north of Santa Monica Boulevard, northwest of the project site	May 5, 2014	61.1 / 53.2	58.6 / 51.7	63.9[a]
R5	Residence on Keith Avenue, approximately 500 feet north of the project site	May 5, 2014	62.3 / 51.3	55.1 / 48.8	62.4[a]
P1	On project site (east boundary)	May 5-6, 2014	63.8 – 68.9 / 51.8 – 65.4[b]	55.8 – 66.6 / 46.6 – 55.1[b]	70.2

Source: Appendix H.
Notes:
[a] Estimated based on short-term (15-minute) noise measurement based on FTA procedures.
[b] Measurements at Location P1 are 24-hour; therefore, a range of noise levels during the daytime and nighttime hours are provided. The CNEL at Location P1 is calculated based on the 24-hour measurements.

3.9.2 Relevant Plan, Policies, and Ordinances

State

Government Code Section 65302(g)

California Government Code Section 65302(g) requires the preparation of a Noise Element in a general plan, which shall identify and appraise the noise problems in the community. The Noise Element shall recognize the guidelines adopted by the Office of Noise Control in the State

Department of Health Services and shall quantify, to the extent practicable, current and projected noise levels for the following sources:

- Highways and freeways
- Primary arterials and major local streets
- Passenger and freight on-line railroad operations and ground rapid transit systems
- Aviation and airport-related operations
- Local industrial plants
- Other ground stationary noise sources contributing to the community noise environment.

California General Plan Guidelines

The California General Plan Guidelines, published by the Governor's Office of Planning and Research (OPR), provides guidance for the acceptability of specific land use types within areas of specific noise exposure. Table 3.9-5, Land Use Compatibility for Community Noise Environments, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. OPR guidelines are advisory in nature. Local jurisdictions, including the City of West Hollywood, have the responsibility to set specific noise standards based on local conditions.

Table 3.9-5
Land Use Compatibility for Community Noise Environments

	Community Noise Exposure (CNEL)			
	Normally Acceptable[1]	*Conditionally Acceptable*[2]	*Normally Unacceptable*[3]	*Clearly Unacceptable*[4]
Residential-low density, single-family, duplex, mobile homes	50–60	55–70	70–75	75–85
Residential – multiple-family	50–65	60–70	70–75	70–85
Transit lodging – motel, hotels	50–65	60–70	70–80	80–85
Schools, libraries, churches, hospitals, nursing homes	50–70	60–70	70–80	80–85
Auditoriums, concert halls, amphitheatres	NA	50–70	NA	65–85
Sports arenas, outdoor spectators sports	NA	50–75	NA	70–85
Playgrounds, neighborhood parks	50–70	NA	67.5–77.5	72.5–85
Golf courses, riding stables, water recreation, cemeteries	50–70	NA	70–80	80–85

Table 3.9-5
Land Use Compatibility for Community Noise Environments

	Community Noise Exposure (CNEL)			
	Normally Acceptable[1]	*Conditionally Acceptable*[2]	*Normally Unacceptable*[3]	*Clearly Unacceptable*[4]
Office buildings, business commercial and professional	50–70	67.5–77.5	75–85	NA
Industrial, manufacturing, utilities, agriculture	50–75	70–80	75–85	NA

Source: OPR 2003
Notes: CNEL = community noise equivalent level; NA = not applicable
1 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.
2 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 have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
3 Normally Unacceptable: New construction or development should be discouraged. If new construction of development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise-insulation features must be included in the design.
4 Clearly Unacceptable: New construction or development should generally not be undertaken.

California Code of Regulations Title 24

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation. State regulations governing noise levels generated by individual motor vehicles and occupational noise control are not applicable to planning efforts, nor are these areas typically subject to CEQA analysis. State noise regulations and policies applicable to the proposed project include Title 24 requirements and noise exposure limits for various land use categories.

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for residential buildings (California Code of Regulations Title 24, Part 2, Chapter 12, Section 1207.11.2). Title 24 establishes standards for interior room noise attributable to outside noise sources. Title 24 also specifies that acoustical studies should be prepared whenever a residential building or structure is proposed to be located in areas with exterior noise levels 60 dB L_{dn} or greater. The acoustical analysis must show that the building has been designed to limit intruding noise to an interior level not exceeding 45 dB L_{dn} for any habitable room.

Local

City of West Hollywood Noise Control Ordinance

The City's Noise Control Ordinance (Chapter 9.08 of the City's Municipal Code) serves to protect people from non-transportation noise sources such as construction activities, commercial operations, machinery, and nightlife. The City's Noise Control Ordinance outlines factors to be

considered when determining whether a noise, sound or vibration is a prohibited noise source within the City (Chapter 9.08.040); provides examples of prohibited noises (Chapter 9.08.050); and discusses noise exemptions (Chapter 9.08.060).

The City's Noise Control Ordinance includes general noise regulations (Chapter 9.08.050f) that regulate noise from construction activities. Construction noise deemed to be disturbing is prohibited between the hours of 7 p.m. to 8 a.m. Monday through Friday, or at any time on Saturdays (except between the hours of 8 a.m. and 7 p.m., interior construction is permissible); or at any time on Sundays or holidays. Section 9.08.060 allows the City Manager to exempt projects from these limits if necessary to protect or promote public safety or welfare.

In addition, as part of the City's Noise Control Ordinance's examples of prohibited noises (Chapter 9.08.050), the City's Noise Control Ordinance regulates noise between the hours of 10:00 p.m. and 8:00 a.m. The City's Noise Control Ordinance prohibits between the hours of 10:00 p.m. and 8:00 a.m. using, operating or permitting to be played, used or operated any radio, musical instrument, phonograph, television set, instrument or any similar device at a volume sufficiently loud as to be plainly audible at a distance of fifty feet or more (Chapter 9.08.050a). The City's Noise Control Ordinance also prohibits between the hours of 10:00 p.m. and 8:00 a.m. continuous, repeated or sustained noise from the premises of any commercial establishment which is adjacent to residential dwelling units, that is plainly audible from the residential dwelling units (Chapter 9.08.050k).

City of West Hollywood General Plan 2035 Safety and Noise Element

The Safety and Noise Element of the West Hollywood General Plan 2035 (City of West Hollywood 2011) identifies noise standards that have been adopted by the City for the purpose of establishing standards for noise exposure. Figure 10-4 and Figure 10-5 in the West Hollywood General Plan 2035 depicts the 2010 traffic noise contours and future traffic noise contours for the City, respectively. Transportation noise impacted areas are those areas that fall within the 60 dBA CNEL or greater noise contours.

Table 10-1 of the West Hollywood General Plan 2035 (City of West Hollywood 2011) summarizes compatibility guidelines for non-transportation source noise[1] effecting noise-sensitive land uses. A proposed project should not cause noise-sensitive land uses to be exposed to noise levels that exceed 55 dBA L_{eq} during daytime hours (8 a.m. to 10 p.m.) and 50 dBA L_{eq} for nighttime hours (10 p.m. to 8 a.m.).

[1] Not including noise from construction activities, which is addressed in the City's Noise Control Ordinance.

Table 3.9-6 shows the land use compatibility guidelines based on the City's noise level guidance for residential properties. A project is considered to be compatible with the noise environment if the noise level generated by the project falls within Zone A or Zone B. If the noise level of a proposed project falls into Zone A, typically no mitigation is needed and if it falls into Zone B, minor mitigation may be required to meet City and State Title 24 noise standards. If the noise level of a proposed project falls within Zone C, mitigation is likely needed to meet City noise standards. Mitigation may include, but is not limited to, construction of noise barriers, and/or the inclusion of substantial building sound insulation. If noise levels of a proposed project falls within Zone D, the project is incompatible with the noise environment. The City's conditionally acceptable noise level for hotels and business commercial is 60-70 dBA CNEL; therefore, this threshold is utilized for this analysis.

Table 3.9-6
Noise/Land Use Compatibility Matrix

Land Use	Community Noise Exposure (Ldn or CNEL)						
	50	*55*	*60*	*65*	*70*	*75*	*80*
Residential							
Transient Lodging – Motel, Hotel							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Parks							
Golf Course, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial, and Professional							

Table 3.9-6
Noise/Land Use Compatibility Matrix

Land Use	Community Noise Exposure (Ldn or CNEL)						
	50	*55*	*60*	*65*	*70*	*75*	*80*
Industrial, Manufacturing, Utilities, Agriculture							

Source: City of West Hollywood 2011.

ZONE A - Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved meet conventional Title 24 construction standards. No special noise insulation requirements.

ZONE B - Conditionally Acceptable: New construction or development shall be undertaken only after a detailed noise analysis is made and noise reduction measures are identified and included in the project design.

ZONE C- Normally Unacceptable: New construction or development is discouraged. If new construction is proposed, a detailed analysis is required, noise reduction measures must be identified, and noise insulation features included in the design.

ZONE D- Clearly Unacceptable: New construction or development should not be undertaken.

The West Hollywood General Plan 2035 (City of West Hollywood 2011) includes goals and policies that will be applied to the project related to noise. The Safety and Noise Element identifies significant noise issues in the City that include the following:

- Residential neighborhoods are located adjacent to heavily traveled arterials, some of which are exposed to high ambient noise levels;
- Traffic congestion occurs during the evening hours in and around areas containing concentrations of entertainment uses. The associated parking and noise spillover causes disturbances to residential areas;
- Noise generated by customers and operations of night clubs, restaurants, bars, and other similar uses during evening hours often impacts adjacent residences;
- The nighttime use of surface parking lots and unenclosed garages often causes noise impacts on adjacent residences;
- Increases in traffic volumes increase noise levels throughout the City;
- Commercial and residential uses are located in proximity to one another, creating potential noise conflicts between these uses; and
- Mixed-use buildings, which integrate residences above ground floor commercial uses, present potential noise conflicts from traffic noise generated from the commercial frontage street and noise generated from ground floor commercial activity.

Lastly, a temporary increase in ambient noise levels is assumed to be a significant noise concern if a project causes ambient noise levels to increase by 10 dBA L_{eq} or greater.

Vibration Standards

The California Environmental Quality Act (CEQA) states that the potential for any excessive groundborne noise and vibration levels must be analyzed; however, it does not define the term "excessive" vibration. Numerous public and private organizations and governing bodies have provided guidelines to assist in the analysis of groundborne noise and vibration. To date, the City has not adopted a threshold for ground-borne vibration impacts. However, the Department of Transportation (Caltrans) has adopted the vibration standards to evaluate potential impacts related to construction activities. Information from Caltrans indicates that continuous vibrations with a peak particle velocity of approximately 0.1 inches/second begin to cause annoyance. For purposes of this analysis, the Caltrans threshold of 0.1 inches/second is used to evaluate the vibrational construction-related and operational impacts of the proposed project.

3.9.3 Thresholds of Significance

As part of the Initial Study (see Appendix A), it was determined that the proposed project would have no impact relative to the exposure of people residing or working in the project area to excessive aviation-related noise (i.e., Thresholds E and F). Accordingly, these issues and thresholds are not further analyzed in the EIR.

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. Based on these thresholds, implementation of the proposed project would have a significant adverse impact related to noise if it would result in:

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 groundborne vibration or groundborne 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

Quantitative thresholds of significance have been established for the purposes of this analysis based on the local polices and regulations described in Section 3.9.2 and are listed below.

- During construction activities, a project-related temporary increase in ambient noise levels of 10 dBA L_{eq} or greater is considered a significant noise impact.
- For operational stationary sources, the exterior noise standard during daytime hours (8 a.m. to 10 p.m.) is 55 dBA L_{eq} and for nighttime hours (10 p.m. to 8 a.m.) is 50 dBA L_{eq}. Exceedance of these standards at sensitive receptors is considered a significant noise impact.

- The City's conditionally acceptable noise level for hotels and businesses is 60 to 70 dBA CNEL. Operational noise generated by the proposed project in excess of these levels would be considered significant noise impacts.
- Title 24 of the California Building Code requires that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} in any residential unit or hotel guest room. Exceedance of this standard within the proposed hotel rooms is considered a significant noise impact.
- Off-site noise impacts due to project-generated traffic would be considered significant if the project-generated traffic causes an increase of 5 dB from existing noise levels.

The City does not have quantitative noise limits as applied to people gathering or outdoor amplified sound systems. However, as noted above the City's Noise Control Ordinance's incudes additional regulations on noise between the hours of 10:00 p.m. and 8:00 a.m. Therefore, to ensure compliance with the City's Noise Control Ordinance's restrictions on noise that is "plainly audible" between the hours of 10:00 p.m. and 8:00 a.m. (Chapter 9.08.050a), it has been determined that the significance threshold for the people gathering in the proposed project's outdoor areas or from the project's outdoor amplified sound system between 10:00 p.m. and 8:00 a.m. would be 5 dBA below the lowest measured background sound level (L_{90}) at the property line of the affected noise sensitive receptor during the nighttime hours. The L_{90} noise level is generally considered to represent the true background or ambient level, as it excludes intermittent peak noise sources such as a truck passing by or dog barking. Further, the significance threshold of 5 dBA below the lowest background sound levels measured in L_{90} is a more conservative threshold than the operational stationary sources threshold listed above.

Therefore, for purposes of analyzing people gathering in the project's outdoor areas (pool, outdoor dining, etc. on Levels 1, 3, 4, and 9) and the use of amplified sound systems in those outdoor areas, the proposed project would result in a significant noise impact from people gathering or from outdoor amplified sound system if:

- The noise level generated at the outdoor uses, including people gathering and amplified sound systems increase the existing ambient noise level (L_{eq}) at noise sensitive uses by 5 dBA (where the existing ambient noise level is less than 60 dBA L_{eq}) or 3 dBA (where the existing ambient noise level is 60 dBA L_{eq} or greater), during the daytime hours between 8:00 a.m. and 10:00 p.m.; or
- The noise level generated from the outdoor uses, including people gathering and amplified sound systems, at the property line of a noise sensitive use exceeds the lowest background noise level (L_{90}) minus 5 dBA, during the nighttime hours between 10:00 p.m. and 8:00 a.m.

Construction or operation of the project would be considered significant if the project resulted in continuous vibration levels of 0.1 inches/second or greater peak particle velocity at sensitive receptors, including active recreation uses.

3.9.4 Methodology

Ambient noise measurements were conducted to quantify the existing daytime noise environment at eight sites in L_{eq} and L_{max}. Noise levels resulting from the proposed construction activities have been obtained from reports prepared by the Federal Transit Administration (FTA 2006) and field data from files. The noise impact assessment utilized criteria established in the West Hollywood General Plan 2035 (City of West Hollywood 2011).

The noise level associated with selected roadways was determined based on ambient noise measurements and using the Federal Highway Administration TNM 2.5 Traffic Noise Model (FHWA 2004). Information used in the model included the Existing (Year 2015), Existing-plus-Project, Future-without-Project, and Future-with-Project traffic volumes and speeds. Traffic volumes for each of the previously mentioned scenarios were obtained from the traffic study (Appendix J) conducted for the proposed project area and used to model noise levels under those scenarios. Noise levels were modeled at representative noise-sensitive receivers. The receivers were modeled to be 1.5 meters (5 feet) above the local ground elevation.

In addition, ambient noise measurements were conducted to quantify the existing daytime and nighttime noise environment in L_{eq} and L_{90} at six sites for the analysis of people gathering in the project's outdoor areas and the use of amplified sound systems in those outdoor areas. Additional sites were selected for this analysis to include the closest residential units on each side of the project site, some at greater distances than other sensitive receptors closer to the project site, because the analysis of people gathering in the project's outdoor areas and the use of amplified sound systems in those areas examines the impact of those long-term operational noise sources on residential dwelling units.

3.9.5 Impact Analysis

Threshold A: Would the project result in 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?

On-site noise-generating activities associated with the proposed project would include short-term construction as well as long-term operational noise associated with the hotel operations, retail uses, dining, nightclub, proposed subterranean garage, occasional helicopter flights (for emergencies only), conversations from people gathering in the project's outdoor areas (pool, outdoor dining, etc.), the use of amplified sound systems in the project's outdoor areas, and

other on-site noise sources (e.g., HVAC equipment). The proposed project would also generate off-site traffic noise along various roads in the area. In addition, the existing and proposed uses on site will be subject to traffic noise from Santa Monica Boulevard, Robertson Boulevard, and La Peer Drive. The short-term construction-related noise impacts of the proposed project are analyzed below, followed by a discussion of the long-term operational noise impacts of the proposed project.

Construction Noise (Short-Term Impacts)

Proposed project construction would begin in spring 2017 and end in fall 2019. As described in Table 2-4 in Chapter 2.0, development activities for the subterranean garage under West Hollywood Park would involve the following sequence: (1) grading/site preparation, (2) garage construction, and (3) backfill/site grading/park construction. Construction activities for the project site would involve the following sequence: (1) demolition, (2) grading/site preparation, (3) building construction, (4) architectural coating, and (5) surface paved areas. Although specific project construction details and equipment fleet specifications are not available at this time, the following are typical types of construction equipment that would be expected:

- Concrete/industrial saws
- Excavators
- Dozers
- Tractors/loaders/backhoes
- Forklifts
- Welders
- Cement and mortar mixers
- Paving equipment
- Trenching equipment
- Off-highway water trucks
- Materials delivery trucks
- Pneumatic tools
- Graders
- Cranes
- Generator sets
- Air compressors
- Pavers
- Scrapers
- Rollers
- Concrete trucks
- Asphalt truck

The types of construction equipment that would be used to construct the proposed project include standard equipment that would be employed for any routine construction project of this scale; construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, blasting equipment) would not be necessary for construction of the multi-use hotel building, subterranean parking, and related project components.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time each piece is in operation, condition of each piece of equipment, and number of pieces that would operate on the site. The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in Table 3.9-7. The noise values represent maximum noise generation, or full-power operation of the equipment. As an example, a loader and two dozers, all operating at full power and relatively close together, would generate a maximum sound level of approximately 90 dBA at 50 feet from their operations. As one increases the distance between equipment, or separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together. In addition, typical operating cycles may involve 2 minutes of full-power operation, followed by 3 or 4 minutes at lower levels. The average noise level during construction activities is generally lower (typical levels of approximately 88 dBA L_{eq} at a distance of 50 feet), since maximum noise generation may only occur up to 50% of the time.

Table 3.9-7
Typical Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Air compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Impact wrench	85
Jackhammer	88
Loader	85
Paver	89
Pneumatic tool	85
Pump	76
Roller	74
Saw	76
Truck	88

Source: FTA 2006.

The nearest noise-sensitive receptor to the construction sites would be West Hollywood Park, located within and around the park site. While the portion of the park site that would be under

construction for the subterranean parking garage would be closed to recreational users for the duration of construction, recreational users would still be present within other areas of the park. For the purposes of this analysis, it is conservatively assumed that recreational sensitive receptors would be present as near as approximately 10 feet from the park site. The West Hollywood Library is located approximately 240 feet southeast from the nearest point of planned construction. The nearest residence (represented by receiver M5) is located approximately 245 feet northwest from the nearest point of planned construction (see Figure 3.9-1, Off-Site Sensitive Receptors).

Noise levels from construction operations typically decrease at a rate of approximately 6 dB per doubling of distance from the source. At a distance of 10 feet (the minimum assumed distance from construction activities to sensitive receptors within West Hollywood Park), construction noise levels would be about 14 dB higher than those shown in Table 3.9-7, ranging from approximately 88 to 103 dBA. The residences to the northwest of the project site and visitors/staff at the West Hollywood Public Library would not experience noise levels in excess of the 10 dBA incremental increase threshold due to existing noise barriers (e.g., existing structures) being located between the planned construction area and the respective noise sensitive land uses) that would typically reduce noise levels by approximately 5 dBA or more (Caltrans 1998). The estimated construction noise levels at nearby noise-sensitive land uses and the resulting noise level increase relative to measured ambient noise levels are summarized in Table 3.9-8.

Table 3.9-8
Short-Term (Construction) Noise Levels

Representative Noise-Sensitive Land Uses	Approximate Distance from Nearest Construction	Measured Ambient Noise Levels (dBA L_{eq})[1]	Estimated Construction Noise Level (dBA L_{eq})	Resulting Noise Level Increase During Construction (dBA L_{eq})
West Hollywood Park	10 feet	63-66	102	≤39
West Hollywood Public Library[2]	240 feet	63-66	74	≤6[a]
Nearest Residence (northwest of project site)	245 feet	62	74	≤7[a]

Source: City of West Hollywood 2011; see Figure 3.9-1, Off-Site Sensitive Receptors; see Table 3.9-3.
Note: Per Chapter 9.08.050(f) of the City's Municipal Code, construction noise deemed to be disturbing is prohibited between the hours of 7 p.m. to 8 a.m. Monday through Friday, or at any time on Saturdays (except, between the hours of 8 a.m. and 7 p.m., interior construction is permissible); or at any time on Sundays or holidays.

1 Refer to Table 3.9-3 for measured ambient noise levels are representative noise-sensitive land uses.

2 Since ambient noise levels were not taken from West Hollywood Library, measured ambient noise levels from West Hollywood Park at M3 in Table 3.9-3 were used as it represents similar traffic noise levels along North San Vicente Boulevard.

a The resulting noise level increase reflects a conservative 5 dBA reduction to account for existing noise shielding (e.g., existing structures) located between the planned construction area and the respective noise sensitive land uses.

As shown in Table 3.9-8, some recreational users may experience noise levels in excess of the 10 dBA incremental increase threshold. As such, temporary noise impacts from construction activities could be potentially significant to sensitive receptors within West Hollywood Park. In contrast, the residences to the northwest of the project site and visitors/staff at the West Hollywood Public Library would not experience noise levels in excess of the 10 dBA incremental increase threshold. This is due in part to noise shielding from the existing structures located between the construction areas and the respective noise-sensitive land uses. Further, since other sensitive residential receptors identified in Table 3.9-1 are located further from the project site than the nearest residence (located 245 feet from the project site), these residences also would not experience noise levels in excess of the 10 dBA incremental increase threshold. While impacts to recreational users at the park exceed the significance threshold for temporary noise generation described in Section 3.9.3, these impacts are anticipated to be brief and sporadic, depending on the type, intensity, and location of construction activities. Furthermore, it is anticipated that recreational users at West Hollywood Park would avoid the park areas within 10 feet of the proposed construction activities, as this area would be surrounded with construction fencing and would temporarily become a less desirable portion of the park. Nonetheless, this impact remains potentially significant, since recreational users would still have the potential to be near the construction activities at the park site. As such, mitigation measures (MM-NOI-1 and MM-NOI-2) would be implemented to reduce temporary construction-related noise impacts. It is anticipated that with implementation of MM-NOI-1 and MM-NOI-2, the proposed project would be in compliance with applicable noise standards. Therefore, temporary construction-related noise impacts would be **less than significant with mitigation incorporated**.

Operational Noise (Long-Term Impacts)

Long-term operational noise associated with multi-use hotel operations includes noise from hotel operations, retail uses, dining, nightclub, proposed subterranean garage, conversations from people gathering in the project's outdoor areas (pool, outdoor dining, etc.), the use of outdoor amplified sound systems in the project's outdoor areas, occasional helicopter flights (for emergencies only), and other on-site noise sources (e.g., HVAC equipment). Long-term operational noise also includes project-generated traffic and overall traffic noise at the site.

Hotel Operations, Retail Uses, Dining, and Nightclub

Exterior

The proposed hotel, retail, dining, and nightclub uses would generate noise typical of these types of uses, such as conversations, music, restaurant noise, and noise from loading and unloading activities. The proposed project includes seven off-loading spaces in a subterranean garage; as

such, most of the loading-related noises would be contained in the subterranean garage. All outdoor loading dock and trash/recycling areas would be fully or partially enclosed such that the line-of-sight between these noise sources (loading dock service area) and any adjacent noise sensitive land use would be obstructed.

In addition, the proposed project would include people gathering in the project's outdoor areas (pool, outdoor dining, etc. on Levels 1, 3, 4, and 9) and the use of amplified sound systems in those outdoor areas. The proposed project Levels 1, 3, and 4 include the outdoor dining, terrace, and pool area and the amplified sound system in those areas would be employed primarily to broadcast background music. On Level 9 the outdoor areas would be used in connection with banquets and parties at the hotel. A Noise Impact Study was prepared by Acoustical Engineering Services, Inc. dated June 2016 (Appendix H) to evaluate the potential noise impacts related to the use of amplified sound systems in addition to conversational noises from people gathering in the project's outdoor use areas on existing off-site sensitive land uses. Noise levels were calculated by Acoustical Engineering Services based on the conservative assumption of concurrent use of all the outdoor areas with the maximum number of people as well as simultaneous use of amplified sound. This represents a conservative worst case scenario, because the project would not be expected to operate all of the outdoor spaces at capacity, concurrently.

As described in Chapter 2.0, the outdoor spaces at Levels 3, 4, and 9 would be shielded to the off-site receptors by 6-foot (at Level 4) and 8-foot high (at Levels 3 and 9) solid parapet walls (translucent glass). Additionally, the outdoor speaker system on Level 9 would be oriented where the speakers would aim toward the audience/guest area and away from the off-site noise sensitive receptors. Implementation of the parapet walls was assumed for this noise analysis.

Noise levels associated with people gathering at outdoor areas were assumed to be 62 to 65 dBA at a distance of 3.3 feet (1 meter), for women and men speaking in raised voice effort, respectively. To represent a typical scenario, the noise analysis assumed that up to 50% of the people (half of which would be female and the other half male) would be talking at the same time. Table 5 in the Noise Impact Study (Appendix H) shows the estimated total number of people in each outdoor area as well as the noise levels in dBA (L_{eq}) of the amplified sound system.

Table 3.9-9 presents the estimated noise levels at the off-site noise sensitive receptors from people gathering and amplified sound system at the project's outdoor use areas during the daytime. As indicated in Table 3.9-9, the estimated noise levels at all off-site noise-sensitive receptors would be below the daytime significance threshold.

Table 3.9-9
Outdoor Uses Noise Levels – Daytime Hours (8 a.m. to 10 p.m.)

Location	Estimated Noise Levels from Outdoor Areas, dBA (Leq)			Existing Daytime Ambient, dBA (Leq)	Significance Threshold dBA (Leq)	Significant Impact?
	People	*Amplified Sound*	*People + Amplified Sound*			
R1	48.3	62.0	62.2	58.3	63.3	No
R2	30.2	47.7	47.8	53.6	58.6	No
R3	36.3	55.9	55.9	54.4	59.4	No
R4	37.7	56.5	56.6	61.1	64.1	No
R5	37.3	54.3	54.4	62.3	65.3	No

Source: Appendix H.
Notes:
[a] Significance threshold is equal to ambient plus 5 dBA where the existing ambient is less than 60 dBA and plus 3 dBA where the existing ambient is equal to or greater than 60 dBA.

Table 3.9-10 presents the estimated noise levels at the off-site noise sensitive receptors from people gathering and amplified sound system at the project's outdoor use areas during the nighttime. As indicated in Table 3.9-10, the estimated noise levels at all off-site noise-sensitive receptors would be below the nighttime significance threshold.

Table 3.9-10
Outdoor Uses Noise Levels – Nighttime Hours (10 p.m. to 8 a.m.)

Location	Estimated Noise Levels from Outdoor Areas, dBA (Leq)			Nighttime Ambient Noise Levels, dBA (L90)	Significance Threshold dBA (L90)	Significant Impact?
	People	*Amplified Sound*	*People + Amplified Sound*			
R1	48.3	46.2	50.4	55.6	50.6	No
R2	30.2	29.1	32.7	41.8	36.8	No
R3	36.3	36.1	39.2	46.1	41.1	No
R4	37.7	36.9	40.3	51.7	46.7	No
R5	37.3	34.7	39.2	48.8	43.8	No

Source: Appendix H.
Notes:
[a] Nighttime hours significance threshold is equal to nighttime ambient L90 minus 5 dBA.

Although the outdoor uses including people gathering in the project's outdoor areas and the use of amplified sound system would be below the applicable significance threshold at all the off-site noise sensitive receptors during daytime and nighttime hours, MM-NOI-3 is provided to verify that noise levels generated by the amplified sound systems remain below the applicable significance threshold.

In addition to the project's outdoor use areas, the proposed hotel, retail, restaurant, and nightclub uses would be designed with materials appropriate for those types of uses to ensure that noise is

limited within the interior of the structure or otherwise complies with the City's Noise Control Ordinance (the City's conditionally acceptable noise level for hotels and businesses is 60-70 dBA CNEL). As such, operational noise generated by the proposed hotel, retail, restaurant, and nightclub activities would not exceed applicable standards. Therefore, based on the analysis above, the project's exterior operational noise impacts would be **less than significant with mitigation incorporated.**

Hotel Room Interiors

Title 24 of the California Building Code requires that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} in the habitable rooms of residential units or hotel guest rooms. Title 24 also requires that an acoustical analysis be carried out that shows that the maximum interior limit is achieved where exterior noise levels are above 60 dB $L_{dn.}$ Noise levels at the project site may exceed 60 dB L_{dn} due to nearby traffic noise and hotel, nightclub, and retail activities. As such, operational noise within hotel rooms would potentially exceed applicable standards, resulting in a potentially significant impact. A mitigation measure (MM-NOI-4) would be applied to the proposed project to reduce temporary operation-related noise impacts to below a level of significance. With implementation of MM-NOI-4, the proposed project would be in compliance with applicable noise standards. As such, operational impacts to interior noise levels of the proposed hotel rooms would be **less than significant with mitigation incorporated**.

Proposed Subterranean Garage Noise

Traffic associated with the proposed subterranean parking garage would not be of sufficient volume to exceed community noise standards based on a time-averaged scale such as CNEL or L_{eq} (Mestre Greve Associates 2011). The instantaneous maximum sound levels generated by a car door slamming, an engine starting up, or cars going in and out of the subterranean garage (including any tire squeal) is not expected to cause annoyance to people at the closest sensitive receptor (West Hollywood Park) because the garage would be underground and therefore shielded from noise-sensitive uses. Thus, the majority of the noise would be contained within the garage and would not represent a significant impact at nearby noise-sensitive land uses. Operational noise impacts related to the proposed subterranean garage would therefore be **less than significant.**

Helicopter Noise

The project includes an approximately 2,000 square-foot touchdown and liftoff area on an elevated metal landing pad with associated gurney ramp, safety net, wind cone, lighting, and painted markings. The helipad would be designed only to accommodate public service helicopters (i.e., police, fire and medical) and would only be used during emergency situations (i.e., medical emergencies or safety-related evacuations). The helipad would not be used for

private helicopters transporting individuals to the hotel or for use by private helicopters during special events. Per Chapter 9.08.060(a) of the City's Municipal Code, the emission of sound in the performance of emergency work is exempt from noise standards and regulations; therefore, emergency helicopters would be exempted from the City's Noise Control Ordinance. Operational noise impacts related to helicopter noise would therefore be **less than significant.**

Mechanical Noise Generators

The proposed project would require building mechanical equipment (e.g., air handlers, exhaust fans, and pool equipment). On-site stationary mechanical equipment, including HVAC equipment, would be located on Level 3 (pool mechanical area) Level 4 (outdoor mechanical area) and Level 9 (outdoor mechanical area), and rooftop area (kitchen mechanical area) of the proposed multi-use hotel building. No on-site stationary mechanical equipment is proposed on the reassembled Factory building that would front Robertson Boulevard. The HVAC units, outdoor mechanical equipment, and kitchen mechanical equipment units would be enclosed; thus, noise-sensitive receivers (including hotel guests) would not have a direct view of the units. The specific details (sizes, manufacturers, and models) of the mechanical equipment have not yet been determined. The noise levels generated by this equipment would vary, but would typically range from approximately 50 dBA to 65 dBA at a distance of 50 feet (City of Santa Ana 2010). Table 3.9-11 presents the estimated noise levels projected out to the nearest noise-sensitive land use from on-site stationary equipment.

Table 3.9-11
Noise from On-Site Stationary Equipment

Representative Noise-Sensitive Land Uses	Approximate Distance from Stationary Equipment Noise Source	Estimated Noise Level (dBA L_{eq})[1]	City of West Hollywood Non-Transportation Source Noise Standard for Noise-Sensitive Land Uses Daytime/Nighttime Standard (dBA L_{eq})
West Hollywood Park	150 feet	35-50	55/50
West Hollywood Library	540 feet	24-39	55/50
Residential Development	460 feet	26-41	55/50

[1] Assumes a conservative noise reduction level from enclosure or parapet wall of 5 decibels.

As shown in Table 3.9-11, noise levels from stationary equipment would not exceed the City's noise standards, so long as the noise levels from the equipment selected for the project do not exceed the assumed noise range (i.e., 50–65 dBA at a reference distance of 50 feet) by more than 5 dB. The intervening enclosure or parapet wall around the stationary equipment would provide additional, substantial noise reduction generally ranging from approximately 5 to 10 decibels. All building outdoor mounted mechanical and electrical equipment for the project would be designed to meet the noise requirements of the City's Municipal Code Chapter 9.08 (Noise). Nonetheless, a mitigation measure (MM-NOI-5) would be applied to the proposed project to ensure that

equipment is within the assumed noise range. Operational noise impacts related to mechanical noise generators would therefore be **less than significant with mitigation incorporated.**

Off-Site Traffic Noise Levels

The project would generate traffic along adjacent roads including Santa Monica Boulevard, Robertson Boulevard, and La Peer Drive, as well as along nearby roadways including Melrose Avenue and San Vicente Boulevard. The City does not have a specific noise criterion for evaluating off-site noise impacts to residences or noise-sensitive areas from project-related traffic. For the purposes of this noise study, such impacts are considered significant when they cause an increase of 5 dB from existing noise levels. An increase or decrease in noise level of at least 5 dB is required before a noticeable change in community response would be expected (Caltrans 2013). Therefore, a clearly perceptible increase (+5 dB) in noise exposure of sensitive receptors could be considered significant.

Based on the anticipated trip generation rates and trip distribution patterns, the existing-plus-project traffic noise would generate a noise level increase of 1 dB CNEL or less (rounded to whole numbers) along the studied roads in the vicinity of the site. The noise level increases associated with the additional traffic volume are depicted in Table 3.9-12. Increases would be below the significance threshold of 5 dB. The additional traffic volume along the adjacent roads would not substantially increase the existing noise level in the project vicinity, and operational traffic-related noise impacts would be **less than significant**.

Table 3.9-12
Traffic Noise (Existing-Plus-Project Noise Levels)

Modeled Receptor	Roadway Segment	Existing Noise Level (dBA CNEL)	Existing + Project Noise Level (dBA CNEL)	Noise Level Increase (dB)
M1: Project Site	North Robertson Boulevard: south of Santa Monica Boulevard	67	68	1
M2: West Hollywood Park	North Robertson Boulevard: south of Santa Monica Boulevard	68	68	0
M3: West Hollywood Park	North San Vicente Boulevard: south of Santa Monica Boulevard	65	65	0
M4: The Abbey	North Robertson Boulevard: south of Santa Monica Boulevard	74	74	0
M5: Residential Property	Ramage Street: north of Santa Monica Boulevard	64	64	0
M6: Commercial Property	North La Peer Drive: south of Santa Monica Boulevard	65	65	0

Table 3.9-12
Traffic Noise (Existing-Plus-Project Noise Levels)

Modeled Receptor	Roadway Segment	Existing Noise Level (dBA CNEL)	Existing + Project Noise Level (dBA CNEL)	Noise Level Increase (dB)
M7: Commercial Property	North La Peer Drive: north of Melrose Avenue	64	64	0
M8: Residential Property	Rangely Avenue: west of North Robertson Boulevard	62	62	0

Source: KOA Corporation 2015 (Appendix J).

The noise level increases associated with additional traffic volumes during future-with-project traffic conditions and future-without-project traffic conditions are depicted in Table 3.9-13. The noise level increases associated with both of these conditions would generate a noise level increase of 1 dB CNEL or less (rounded to whole numbers) along the studied roads in the vicinity of the site. As such, increases would be below the significance threshold of 5 dB. With or without the project, traffic noise would not be substantially increased in the project vicinity, and operational traffic-related noise impacts would be **less than significant.**

Table 3.9-13
Traffic Noise (Future-without-Project and Future-with-Project)

Modeled Receptor	Roadway Segment	2019 Without Project Noise Level (dBA CNEL)	2019 + Project Noise Level (dBA CNEL)	Noise Level Increase (dB CNEL)*
M1: Project Site	North Robertson Boulevard: south of Santa Monica Boulevard	68	68	0
M2: West Hollywood Park	North Robertson Boulevard: south of Santa Monica Boulevard	68	68	0
M3: West Hollywood Park	North San Vicente Boulevard: south of Santa Monica Boulevard	66	66	0
M4: The Abbey	North Robertson Boulevard: south of Santa Monica Boulevard	74	74	0
M5: Residential Property	Ramage Street: north of Santa Monica Boulevard	65	65	0
M6: Commercial Property	North La Peer Drive: south of Santa Monica Boulevard	65	65	0
M7: Commercial Property	North La Peer Drive: north of Melrose Avenue	64	65	1
M8: Residential Property	Rangely Avenue: west of North Robertson Boulevard	63	63	0

Note:
* Noise level increase at all modeled receptors except at the commercial property at M7 were less than 1 dB CNEL

Threshold B: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Construction activity may generate vibration that could either damage nearby buildings or annoy people in the project vicinity. Construction activities can generate varying degrees of ground-borne vibration, depending on the construction procedures and the type of construction equipment operated. Construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effects on buildings (i.e., building damage) are dependent on the location of the buildings to the source and the characteristic of the building structure.

During construction, the heavier pieces of construction equipment used at the project site would include dozers, graders, cranes, loaded trucks, water trucks, and pavers. Groundborne vibration studies from Caltrans indicate that continuous vibrations with a PPV of approximately 0.1 inches/second begin to cause annoyance (Caltrans 2004). Ground-borne vibration is typically attenuated over short distances (typically on the order of 25 feet). The closest residences are located approximately 245 feet or more from the project site construction area; West Hollywood Park is located within and adjacent to the park site; and the West Hollywood Library is located approximately 240 feet from the park site construction area. At the 245-foot distance between the anticipated construction equipment and the nearest residence, the PPV is estimated to be 0.003 inches/second or lower, which would be well below 0.1 inches/second threshold identified by Caltrans. Similarly, vibration impacts at the West Hollywood Library (located 240 feet from the nearest construction activities) would fall well below the Caltrans threshold. Therefore, construction activities are not anticipated to result in continuous vibration levels that typically annoy people, and the vibration impacts to nearby residential receptors and library users would be **less than significant.**

Assuming a 10-foot distance between the park site construction area and the nearest recreational users at West Hollywood Park, the PPV is estimated to be up to 0.352 inches/second, which would exceed the 0.1 inches/second threshold of annoyance at the park. Although recreational users at West Hollywood Park are generally at the park for short durations and would be expected to avoid the park areas within 10 feet of the proposed construction activities, some recreational users may experience vibration levels in excess of the 0.1-inches/second threshold. These temporary vibration impacts to park users would be brief and sporadic and would attenuate rapidly over short distances. For example, recreational users located 25 feet from the construction equipment would experience vibration levels of 0.089 inches/second, which falls below the 0.1 inches/second threshold of annoyance. Furthermore, the active park uses such as swimming pools and basketball courts where recreational users would generally congregate are farther than 25 feet from the anticipated construction equipment, under both existing conditions at the park and after implementation of the Phase II Master Plan, resulting in less than significant vibration effects at active recreational facilities. Additionally, construction equipment would not be in operation during the entire work day, nor would equipment operate along the eastern

construction boundary for sustained periods of time and thus vibration levels would not be continuous in nature. For these reasons, temporary groundborne vibration or groundborne noise levels from construction equipment would be **less than significant.**

Threshold C: Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

As discussed under Threshold A, long-term operational noise would result from the multi-use hotel operations such as noise from hotel operations, retail uses, dining, subterranean parking garage noise, night club noise, helicopters, conversations from people gathering at the project's outdoor use areas, the use of amplified sound systems in the project's outdoor use areas, and other permanent on-site noise sources (such as HVAC equipment). The project would also generate off-site traffic noise along adjacent roadways including Santa Monica Boulevard, Robertson Boulevard, and La Peer Drive as well as overall traffic noise at the site. As discussed under Threshold A, mitigation measures are provided to ensure that operation of the proposed project would not exceed applicable noise standards or otherwise result in a substantial permanent increase in ambient noise levels. Upon implementation of MM-NOI-3 through MM-NOI-5, operational noise impacts would be **less than significant with mitigation incorporated**.

Threshold D: Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

As discussed under Threshold A, the proposed project would result in temporary noise increases during the construction period. The temporary increases in ambient noise levels would vary depending on the location of the construction activities and the type of equipment being used. The estimated construction noise levels at nearby noise-sensitive land uses are summarized in Table 3.9-8. As discussed, temporary noise impacts from construction activities would be potentially significant within West Hollywood Park; however, with implementation of MM-NOI-1 and MM-NOI-2, temporary noise impacts from construction activities would be **less than significant with mitigation incorporated**.

3.9.6 Mitigation Measures

The following mitigation measures would reduce construction and operations-related noise levels to a level below significance.

Construction

MM-NOI-1 Construction activities shall take place during the permitted time and day per Chapter 9.08.050 of the City of West Hollywood's (City's) Municipal Code. The applicant shall ensure that construction activities are limited to the hours of 8 a.m.

to 7 p.m. Monday through Friday (interior work only is permissible from 8 a.m. to 7 p.m. on Saturdays). This condition shall be listed on the project's final design to the satisfaction of the City Engineering Department.

MM-NOI-2 The City of West Hollywood shall require the applicant to adhere to the following measures as a condition of approving the grading permit:

- The project contractor shall, to the extent feasible, schedule construction activities to avoid the simultaneous operation of construction equipment so as to minimize noise levels resulting from operating several pieces of high noise level emitting equipment.
- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers. Enforcement shall be accomplished by random field inspections by applicant personnel during construction activities, to the satisfaction of the City Engineering Department.
- Construction noise reduction methods such as shutting off idling equipment, construction of a temporary noise barrier, maximizing the distance between construction equipment staging areas and West Hollywood Park, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from sensitive receptors, including recreational users of West Hollywood Park.
- During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise sensitive receptors, including recreational users in West Hollywood Park.
- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners to contact the job superintendent if necessary. In the event the City receives a complaint, appropriate corrective actions shall be implemented and a report of the action provided to the reporting party.
- If equipment is being used that can cause hearing damage at adjacent noise receptor locations (distance attenuation shall be taken into account), portable noise barriers shall be installed that are demonstrated to be adequate to reduce noise levels at receptor locations below hearing damage thresholds. This may include erection of temporary berms or plywood barriers to create a break in the line-of-sight, or erection of a heavy fabric tent around the noise source.

Operation

MM-NOI-3 Prior to certificate of occupancy, the amplified sound system shall be calibrated for the outdoor uses so as to not exceed the noise levels listed below. The amplified sound system sound output shall be measured at the distances provided below on a plane parallel from the face of the speaker and verified and documented by a qualified acoustical engineer:

a. Level 1:

   i. 75 A-weighted decibels (dBA) equivalent noise level (L_{eq}) at 15 feet, during daytime hours from 8 a.m. to 10 p.m.

   ii. 60 dBA (L_{eq}) at 15 feet, during nighttime hours from 10 p.m. to 8 a.m.

b. Level 3:

   i. 75 dBA (L_{eq}) at 25 feet, during daytime hours from 8 a.m. to 10 p.m.

   ii. 55 dBA (L_{eq}) at 25 feet, during nighttime hours from 10 p.m. to 8 a.m.

c. Level 4:

   i. 75 dBA (L_{eq}) at 35 feet, during daytime hours from 8 a.m. to 10 p.m.

   ii. 65 dBA (L_{eq}) at 35 feet, during nighttime hours from 10 p.m. to 8 a.m.

d. Level 9:

   i. 85 dBA (L_{eq}) at 35 feet, during daytime hours from 8 a.m. to 10 p.m.

   ii. 65 dBA (L_{eq}) at 35 feet, during nighttime hours from 10 p.m. to 8 a.m.

MM-NOI-4 Prior to certificate of occupancy, noise measurements shall be conducted to be reviewed and approved by City staff, to demonstrate that the habitable areas (hotel rooms) have been designed to reduce interior noise to 45 dBA or lower (community noise equivalent level (CNEL) or day–night average noise level (L_{dn})).

MM-NOI-5 Prior to approval of the plans and specifications for the project, City staff shall review and approve the proposed heating, ventilation, and air conditioning (HVAC), outdoor mechanical equipment, and kitchen mechanical equipment unit specifications to ensure that the on-site stationary equipment does not exceed 55 dBA at 50 feet, or otherwise exceed any established noise thresholds for stationary sources.

3.9.7 Significance after Mitigation

Upon implementation of MM-NOI-1, MM-NOI-2, MM-NOI-3, MM-NOI-4, and MM-NOI-5, the noise impacts of the proposed project would be less than significant.

3.9.8 References

Caltrans (California Department of Transportation). 1998. Technical Noise Supplement. October 1998.

Caltrans. 2004. *Transportation- and Construction-Induced Vibration Guidance Manual*. June 2004. Accessed June 6, 2016. http://www.dot.ca.gov/hq/env/noise/pub/vibrationmanFINAL.pdf.

Caltrans (California Department of Transportation). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013.

City of Santa Ana. 2010. City of Santa Ana Transit Zoning Code (SD 84A and SD 84B) Final Environmental Impact Report (SCH No. 2006071100).

City of West Hollywood. 2011. "Safety and Noise" in *West Hollywood General Plan 2035*. Adopted September 6, 2011. Accessed July 6, 2015. http://www.weho.org/city-hall/download-documents/-folder-155.

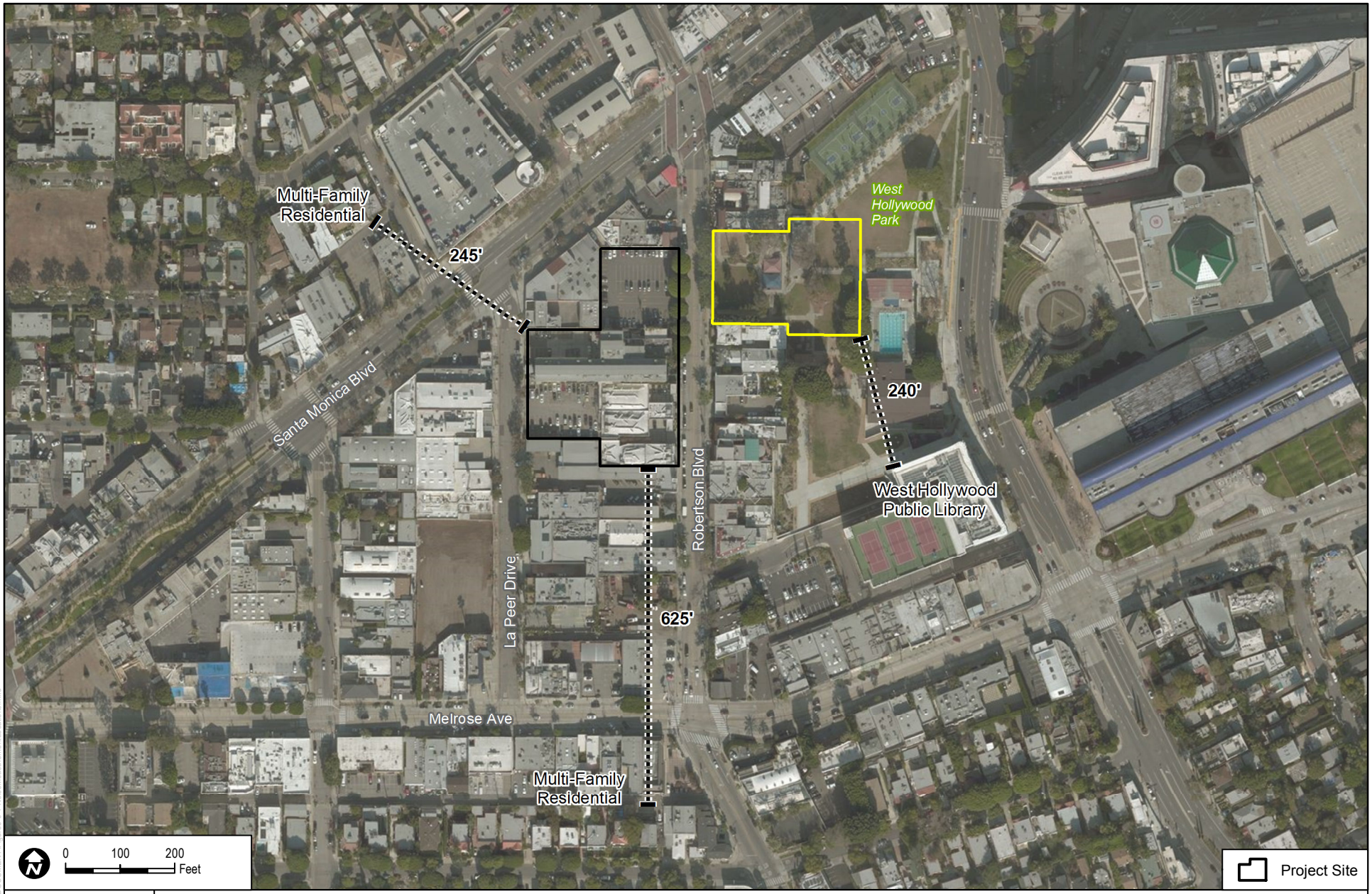
Eaton, S. 2000. "Worker's Compensation Board of BC Engineering Section Report." February 2000. Accessed July 6, 2015. http://www.nonoise.org/resource/construc/bc.htm.

FHWA (Federal Highway Administration). 2004. FHWA Traffic Noise Model Version 2.5.

FTA (Federal Transit Administration). 2006. *Transit Noise and Vibration Impact Assessment*. May 2006.

Governor's Office of Planning and Research (OPR). 2003. *State of California General Plan Guidelines.* October 2003. Accessed July 6, 2015. http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf.

Mestre Greve Associates. 2011. *Noise Assessment for Historic Town Center City of San Juan Capistrano.* January 2011.



DUDEK

8595

SOURCE: Bing Maps 2014

FIGURE 3.9-1

Off-Site Sensitive Receptors

Robertson Lane Hotel Project

INTENTIONALLY LEFT BLANK

DUDEK

8595

SOURCE: Bing Maps 2014

FIGURE 3.9-2

Noise Measurement Locations

Robertson Lane Hotel Project

INTENTIONALLY LEFT BLANK