APPENDIX I

NOISE REPORT & VIBRATION MEMORANDUM

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REVISED NOISE IMPACT ANALYSIS

MELROSE TRIANGLE MIXED USE PROJECT

LSA

April 2012

REVISED NOISE IMPACT ANALYSIS

MELROSE TRIANGLE MIXED USE PROJECT

Submitted to:

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LSA Project No. CWH1002

LSA

April 2012

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1.0 INTRODUCTION

This noise impact analysis has been prepared to evaluate the potential noise impacts and mitigation measures for the Melrose Triangle mixed-use development in the City of West Hollywood (City), California. This report is intended to satisfy the City's requirement for a project-specific final noise impact analysis by examining the short-term and long-term impacts on the project site and by evaluating the effectiveness of mitigation measures incorporated as part of the project design.

2.0 PROJECT DESCRIPTION

Overview of the Project Site

The project site, at the west boundary of the City of West Hollywood, consists of 10 contiguous parcels totaling approximately 3.05 gross acres (ac). The site is bounded by Santa Monica Boulevard to the north, Almont Drive to the east, Melrose Avenue to the south, and Doheny Drive to the west, as shown on Figure 1. Doheny Drive serves as the boundary between the incorporated cities of West Hollywood and Beverly Hills. The existing addresses for the project site are 9040, 9060, 9080, and 9098 Santa Monica Boulevard; 603, 607, 617, 623, 629, and 633 Almont Drive; and 9001 and 9021 Melrose Avenue.

The project site is within a developed urban area of the City of West Hollywood and is primarily surrounded by primarily commercial uses. The project site is generally flat, although the street level elevation bordering the site drops approximately 13 feet (ft) from west to east and north to south.

The existing uses on site consist of commercial, office, and light industrial buildings; paved parking lots; and a parking structure. The existing buildings are unconsolidated individual structures that lack visual continuity, and the site contains a limited amount of ornamental vegetation.

Existing On-Site and Adjacent Land Uses

The existing uses on site consist of office, retail (e.g., art galleries, a furniture showroom), service commercial (e.g., hair salons, clothing alterations), light industrial (e.g., upholstery), and parking. The site is developed with two office buildings along Santa Monica Boulevard that are two and three stories high. There is a one-story building on the corner of Santa Monica Boulevard and Almont Drive; a two-story building sits between the largest office building and the one-story building abutting Santa Monica Boulevard; however, the building address and entry are on Almont Drive. There are three single-story buildings (an upholstery shop, a furniture showroom, and an antique shop) along Almont Drive. There are two buildings along Melrose Avenue: a single-story building housing primarily art galleries and a three-story office building.

Existing parking areas on site include various small storefront parking lots, two larger surface parking lots (in the west and central parts of the site), rooftop parking above the art gallery building, and a three-level parking structure in the eastern part of the site. Vehicular access to the site includes a driveway from Santa Monica Boulevard to the central parking lot, driveways from Almont Drive to the parking structure and the rooftop parking area, driveways from Melrose Avenue to the western and central parking lots, and access to various small parking lots along Almont Drive and at the corner of Almont Drive/Santa Monica Boulevard.

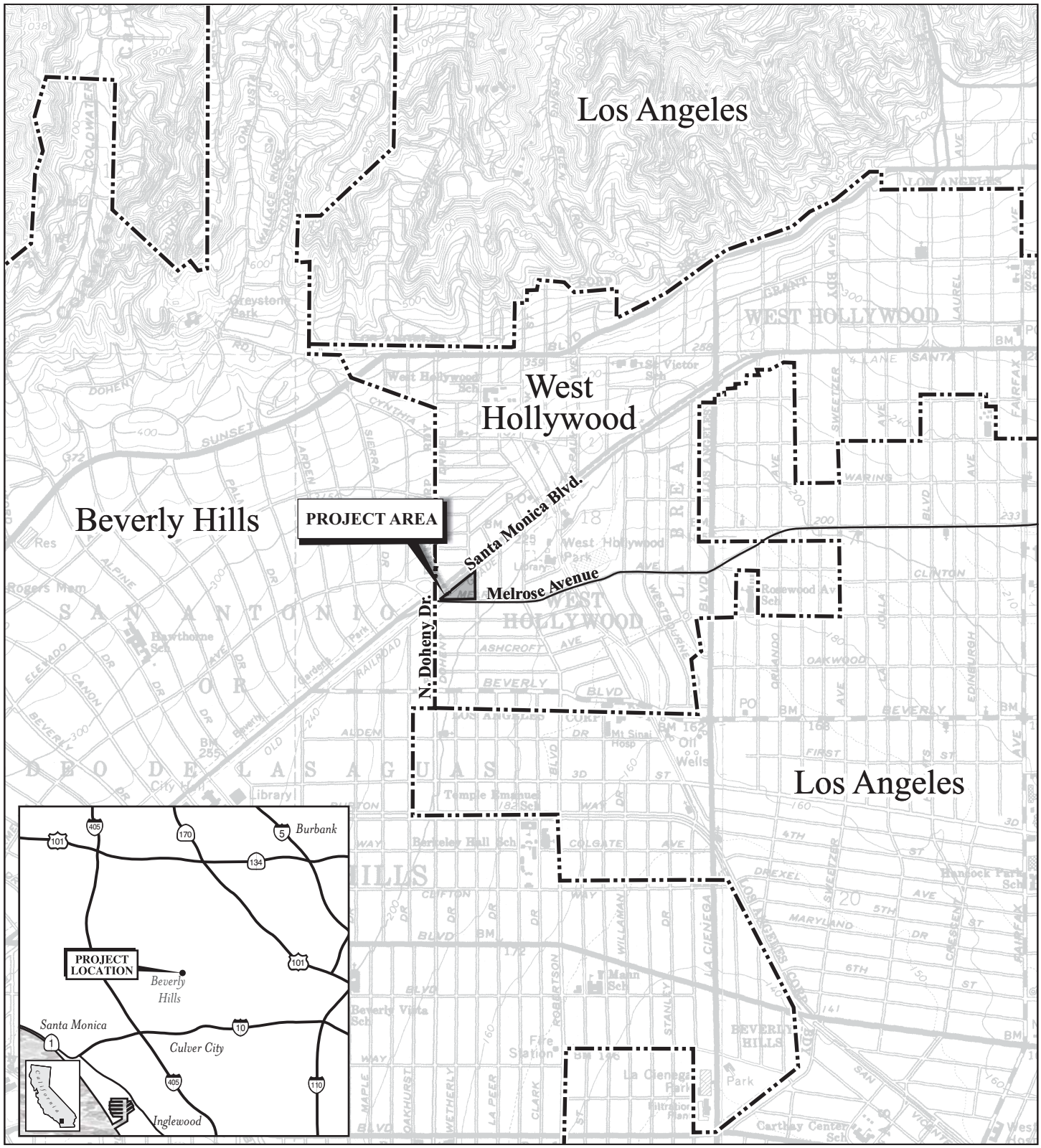

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FIGURE 1

- City Boundaries

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SOURCE: USGS 7.5' Quads - Beverly Hills & Hollywood, Ca.

Melrose Triangle

Project Location

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Existing land uses in the immediate vicinity of the project site are primarily commercial and retail. To the north, there is a variety of commercial uses (e.g., art gallery, karate school, night club, restaurant, office). To the east along Almont Drive, there are primarily furniture and design showrooms, but there is also a large dog training/kennel business. There are retail/service (e.g., fine art, pet supplies) and office uses south of the site along Melrose Avenue. There is a hotel to the southwest, across the large multiple street intersection of Santa Monica Boulevard/Melrose Avenue/Doheny Drive. To the northwest is Beverly Gardens Park, a small neighborhood open space in the City of Beverly Hills. Extending beyond these uses are multifamily and single-family residential uses to the south on Rangely Avenue, which are separated from the project site by the commercial uses on the south side of Melrose Avenue. There is multifamily housing southwest of the hotel at the intersection of Santa Monica Boulevard/Melrose Avenue/Doheny Drive. North and west of Beverly Gardens Park is a large neighborhood of single-family homes, with two multifamily residential buildings facing nearby Doheny Drive. An aerial photograph showing the location of the project site and the surrounding land uses is provided in Figure 2.

Overview of Proposed Project

The Melrose Triangle Project proposes to demolish the existing buildings and structures on site and to construct a mixed-use commercial and residential development. As shown in Figure 3, the development would consist of three primary structures, referred to as Buildings A (the Gateway Building), B1 (the Boulevard Building), and B2 (the Avenue Building). Building A is a single structure on the southwest corner of the project site. Buildings B1 and B2 are a series of buildings around a central landscaped courtyard. Portions of all three buildings surround a broad paseo that runs through the center of the project site, which would allow pedestrian access between Santa Monica Boulevard and Melrose Avenue.

The building heights of the various components that compose the proposed development range up to five stories above ground, with four subterranean levels. Because of the 13 ft elevation change across the project site, the project level that is accessible from the street along the eastern segments of Melrose Avenue and Almont Avenue is below grade on the northern and western parts of the project site.

The building elements facing Melrose Avenue and Santa Monica Boulevard west of the paseo are lower in height and have fewer stories than those along Santa Monica Boulevard east of the paseo. Figure 4 provides a conceptual oblique aerial view of the proposed project, looking northeast across the site. Figures 5a to 5c provide elevations for the proposed Melrose Triangle Project from Santa Monica Boulevard, Melrose Avenue, and Almont Drive, respectively. The maximum height of the project is approximately 70 ft (as measured from adjacent grade), and the floor area ratio (FAR) is 2.59.

The net development area (consisting of the floor area included within the FAR calculation) above ground is 302,944 square feet (sf). Table A summarizes the square footage of the proposed land uses.

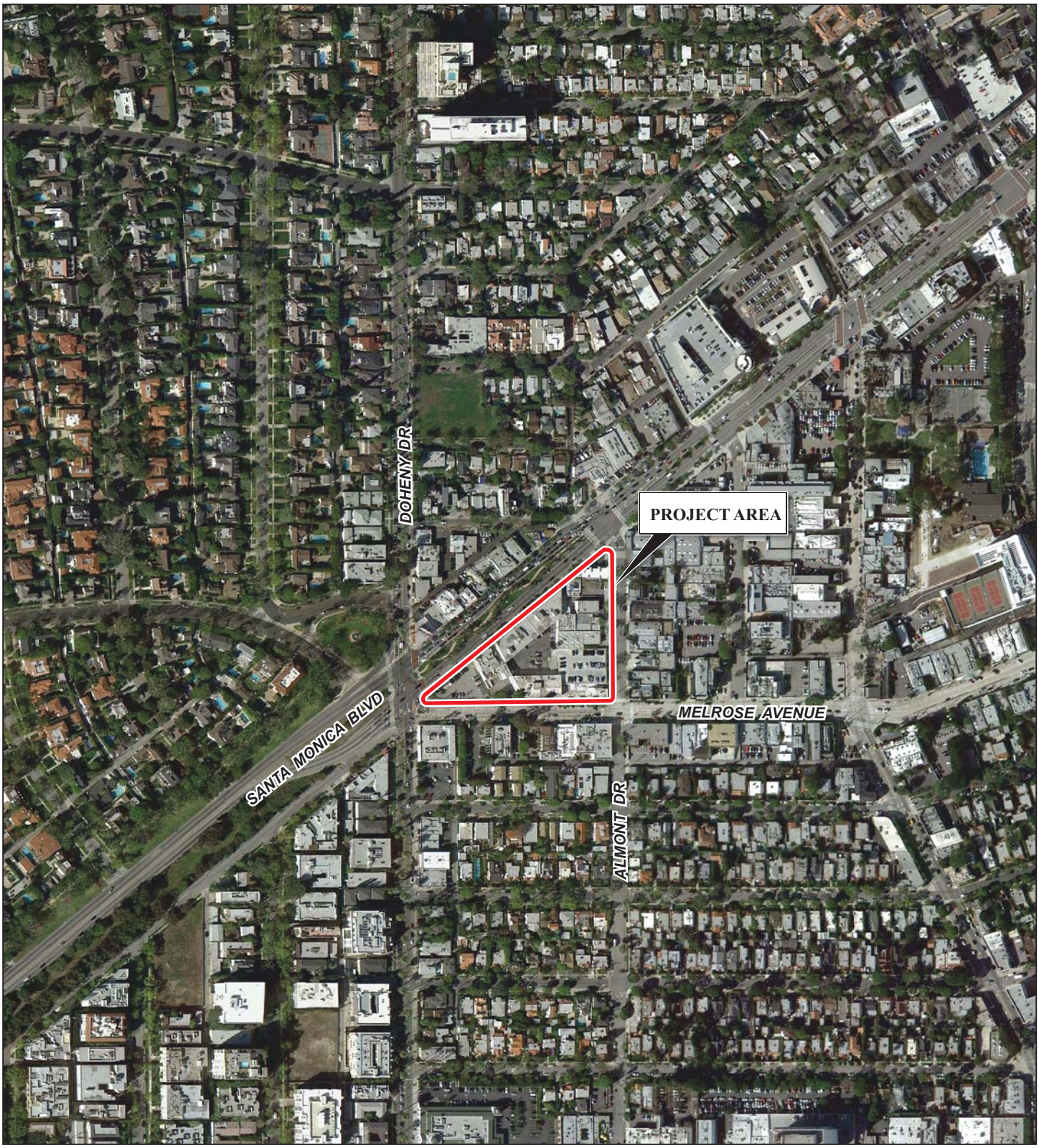

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FIGURE 2

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SOURCE: Google Earth, March 2011

Melrose Triangle

Aerial Photograph

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FIGURE 3

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SOURCE: studionelevan at Perkowitz+Ruth Architects

Melrose Triangle
Conceptual Site Plan

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FIGURE 4

Melrose Triangle

Aerial Perspective Vignette

SOURCE: studionelevan at Perkowitz+Ruth Architects

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FIGURE 5a

Melrose Triangle

Elevation - Santa Monica Boulevard

SOURCE: studionelevan at Perkowitz+Ruth Architects

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FIGURE 5b

Melrose Triangle

Elevation - Melrose Avenue

SOURCE: studionelevan at Perkowitz+Ruth Architects

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FIGURE 5c

Melrose Triangle

Elevation - Almont Avenue

SOURCE: studionelevan at Perkowitz+Ruth Architects

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Table A: Project Square Footage

Level	Proposed Uses				Total
	Retail/ Restaurant	**Office**	**Residential**	**Shared**[1]	
Melrose Level/B1	23,766	1,178	775[2]	4,271	29,990
Santa Monica/First Floor	58,255	2,761	1,450[2]	1,835	64,301
Second Floor		38,994	31,209		70,203
Third Floor		36,164	29,043		67,207
Fourth Floor		36,913	8,795		45,708
Fifth Floor		19,054	6,481		25,535
Subtotal	**82,021**	**137,064**	**77,753**	**6,106**	**302,944**

Source: Studio Oneleven. Melrose Triangle Project Summary.
[1] Shared area comprises common access space and mechanical areas.
[2] Comprises lobby, stairwells, and elevator areas for residential uses.

Proposed Retail/Restaurant Uses. Approximately 82,021 sf of the proposed Melrose Triangle Project is designated for retail and restaurant uses. Of these retail and restaurant uses, approximately 56 percent (45,112 sf) would be designated for general retail, 20 percent (16,404 sf) for art galleries, 15 percent (12,303 sf) for design showrooms, and 10 percent (8,202 sf) for a cafe/restaurant.

The retail and restaurant uses would be at street level along Santa Monica Boulevard and Melrose Avenue. Because the project site drops 13 ft in elevation from west to east and north to south, the street level along Santa Monica Boulevard is designated as the first floor and the street level along Melrose Avenue and Almont Drive is referred to as the B1 level. Other uses on the ground floor consist of lobbies serving the residential units in Buildings A, B1, and B2; and lobby and mechanical areas serving the office uses.

Proposed Office Uses. The proposed project would include a total of 137,064 square feet of office uses in Buildings A (The Gateway Building) and B1 (The Boulevard Building). A portion of the total square footage would include office-related lobby, stairwell, and elevator access areas on the lower street-level floors. Building A would have 52,550 square feet of office uses located on Floors 2 through 4, while Building B1 would have 80,122 square feet of office uses located on Floors 2 through 5.

Proposed Residential Uses. The floors above the street-level commercial uses are proposed for apartments. All of the residential units would be in Building B2 adjacent to Melrose Avenue and Almont Avenue. The majority of the residential units would also include balconies. A total of 20 percent of the residential units (approximately 15 units) would be made available to low- and moderate-income households, as required by the City of West Hollywood Municipal Code Section 19.22.030. Table B summarizes the proposed residential units in the Melrose Triangle Project.

Proposed Recreation Uses. The proposed Melrose Triangle Project includes 6,985 sf of private open space and 9,463 sf of common open space for use by residents.

Vehicular Access and Parking. Vehicular access to the Melrose Triangle Project would be provided via three driveways. One driveway would be located on Santa Monica Boulevard adjacent to the paseo, the second on Melrose Avenue east of the paseo, and the third on Almont Drive.

Table B: Summary of Residential Units

Level	Studio Lofts	One Bedroom	Two Bedrooms	Total
Second Floor	27	4	3	34
Third Floor	24	2	2	28
Fourth Floor	4	2	1	7
Fifth Floor	4	2	1	7
Total	**59**	**10**	**7**	**76**
Percent of Total	78%	13%	9%	100%

Source: Studio Oneleven. Melrose Triangle Project Summary Sheet.

Parking for the Melrose Triangle Project will provide 884 spaces on the subterranean parking levels B1, B2, B3, and B4. As calculated according to the square footage of the proposed land uses, the number of spaces provided exceeds the parking requirement of the City's Municipal Code by 37 spaces.

3.0 METHODOLOGY RELATED TO NOISE IMPACT ASSESSMENT

Evaluation of noise impacts associated with a proposed mixed-use project typically includes the following:

- Determine the noise impacts associated with short-term construction and long-term operation of the proposed project on adjacent uses.
- Determine the long-term traffic and aircraft noise impacts on on-site noise sensitive uses.
- Determine the required mitigation measures to reduce short-term and long-term noise impacts.

This noise impact analysis utilizes the City's noise standards, including the City's Noise Element and Municipal Code, as thresholds against which potential noise impacts are evaluated. In addition, the vibration impact criteria recommended by the Federal Transit Administration (FTA, May 2006) are used to evaluate the potential vibration impacts associated with the proposed project.

4.0 CHARACTERISTICS OF SOUND

Sound is increasing in the environment and can affect quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave resulting in the tone's range from high to low. Loudness is the strength of a sound and describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves, combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

5.0 MEASUREMENT OF SOUND

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units, such as inches or pounds, decibels are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels (dB) are 10 times more intense than 1 dB, 20 dB are 100 times more intense, and 30 dB are 1,000 times more intense. Thirty decibels (30 dB) represent 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source, such as highway traffic or railroad operations, the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source, noise in a relatively flat environment with absorptive vegetation, decreases 4.5 dB for each doubling of distance.

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. The City uses the CNEL noise scale for long-term noise impact assessments.

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.

Another noise scale often used together with the L_{max} in noise ordinances for enforcement purposes is noise standards in terms of percentile noise levels. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts, which refers to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dBA or greater, since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dBA. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1.0 dBA, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

6.0 PSYCHOLOGICAL AND PHYSIOLOGICAL EFFECTS OF NOISE

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160–165 dBA will result in dizziness or loss of equilibrium.

The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less-developed areas.

Table C lists "Definitions of Acoustical Terms," and Table D shows "Common Sound Levels and Their Sources."

Table C: Definitions of Acoustical Terms

Term	Definition
Decibel, dB	A unit of level that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L_{02}, L_{08}, L_{50}, L_{90}	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level at 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dB to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control 1991.

Table D: Common Sound Levels and Their Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	
Near Freeway Auto Traffic	70	Moderately Loud	Reference Level
Average Office	60	Quiet	½ as loud
Suburban Street	55	Quiet	
Light Traffic; Soft Radio Music in Apartment	50	Quiet	¼ as loud
Large Transformer	45	Quiet	
Average Residence without Stereo Playing	40	Faint	⅛ as loud
Soft Whisper	30	Faint	
Rustling Leaves	20	Very Faint	
Human Breathing	10	Very Faint	Threshold of Hearing
	0	Very Faint	

Source: Compiled by LSA Associates, Inc. 2002.

Vibration. Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible; but without the effects associated with the shaking of a building, there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 decibels or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving and operating heavy duty earth-moving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to areas within about 100 ft from the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 ft (FTA 2006). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that groundborne vibration from street traffic will not exceed the impact criteria; however, construction of the project could result in groundborne vibration that could be perceptible and annoying. Groundborne noise is not likely to be a problem because noise arriving via the normal airborne path usually will be greater than groundborne noise.

Groundborne vibration has the potential to disturb people as well as to damage buildings. Although it is very rare for transportation-induced groundborne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2006). Groundborne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or PPV. RMS is best for characterizing human response to building vibration and PPV is used to characterize potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as:

$L_v = 20 \log_{10} [V/V_{ref}]$

where L_v is the velocity in decibels (VdB), V is the RMS velocity amplitude, and V_{ref} is the reference velocity amplitude, or $1x10^{-6}$ inches/second used in the USA. Table E illustrates human response to various vibration levels, as described in the FTA Transit Noise and Vibration Impact Assessment (FTA 2006).

Table E: Human Response to Different Levels of Groundborne Noise and Vibration

Vibration Velocity Level	Noise Level		Human Response
	Low Frequency[1]	Mid Frequency[2]	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many humans. Low-frequency sound usually inaudible, mid-frequency sound excessive for quiet sleeping areas.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level unacceptable. Low-frequency noise acceptable for sleeping areas, mid-frequency noise annoying in most quiet occupied areas.
85 VdB	45 dBA	60 dBA	Vibration acceptable only if there are an infrequent number of events per day. Low-frequency noise unacceptable for sleeping areas, mid-frequency noise unacceptable even for infrequent events with institutional land uses such as schools and churches.

Source: Federal Transit Administration 2006.
[1] Approximate noise level when vibration spectrum peak is near 30 Hz.
[2] Approximate noise level when vibration spectrum peak is near 60 Hz.
dBA = A-weighted decibel
Hz = Hertz
VdB = vibration velocity decibel

Factors that influence groundborne vibration and noise include the following:

- Vibration Source: Vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source
- Vibration Path: soil type, rock layers, soil layering, depth to water table, and frost depth
- Vibration Receiver: foundation type, building construction, and acoustical absorption

Among the factors listed above, 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.

Experience with groundborne vibration is that 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 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.

Ground vibrations from construction activities do not often reach the levels that can damage structures, but they can achieve the audible and sensate ranges in buildings very close to the site. Problems with groundborne vibration from construction sources are usually localized to areas within approximately 100 ft from the vibration source.

7.0 SETTING

Existing Sensitive Land Uses in the Project Area

Buildings in the surrounding area along Santa Monica Boulevard include two-story buildings primarily sited immediately adjacent to the public sidewalk and occupied by commercial and restaurant uses. The development on the east side of Almont Drive and the south side of Melrose Avenue consists of one- and two-story structures with a variety of building functions, including office and retail. An exception includes two commercial uses located in converted residential structures. The closest residences to the project site are located on Rangely Avenue, approximately 200 ft south of the proposed development.

Overview of the Existing Noise Environment

The primary existing noise sources in the project area are transportation facilities. Traffic on Santa Monica Boulevard and Melrose Avenue are the dominant sources contributing to the area's ambient noise levels.

Existing Traffic Noise. Existing traffic noise levels in the study area are listed in Table F. The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate highway traffic-related noise conditions along Santa Monica Boulevard, Melrose Avenue, and other roadways in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The existing average daily traffic (ADT) volumes in the area were taken from the *Revised Traffic Impact Analysis* prepared for the project. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. As shown in Table F, traffic noise along these roadway segments ranges from low to moderately high. For Foothill Road and portions of Elevado Avenue, the 70 dBA CNEL, 65 dBA CNEL, and 60 dBA CNEL traffic noise contours would all be confined within the right-of-way. For Robertson Boulevard and Doheny Drive, only the 70 dBA CNEL traffic noise contour would be confined within the right-of-way. Along Santa Monica Boulevard, the 70 dBA CNEL contour extends as much as
79 ft from the roadway centerline.

Table F: Existing Baseline Traffic Noise Levels

Roadway Segment	Average Daily Traffic	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane
La Cienega Blvd. north of Santa Monica Blvd.	22,300	62	128	273	69.3
La Cienega Blvd. between Santa Monica Blvd. and Melrose Ave.	20,800	59	122	261	69.0
La Cienega Blvd. south of Melrose Ave.	25,800	67	141	301	69.9
San Vincente Blvd. north of Melrose Blvd.	15,500	< 50	101	215	67.7
San Vincente Blvd. south of Melrose Blvd.	15,100	< 50	99	211	67.6
Robertson Blvd. north of Santa Monica Blvd.	4,900	< 50	< 50	66	61.1
Robertson Blvd. between Santa Monica Blvd. and Melrose Ave.	8,200	< 50	< 50	93	63.3
Robertson Blvd. between Melrose Ave. and Beverly Blvd.	12,600	< 50	58	124	65.2
Robertson Blvd. south of Beverly Blvd.	11,900	< 50	56	119	64.9
Doheny Dr. north Sunset Blvd.	4,300	< 50	< 50	61	60.5
Doheny Dr. between Sunset Blvd. and Elevado Ave.	10,300	< 50	78	164	65.9
Doheny Dr. between Elevado Ave. and Santa Monica Blvd.	12,200	< 50	87	183	66.7
Doheny Dr. between Santa Monica Blvd. and Beverly Blvd.	10,500	< 50	79	166	66.0
Doheny Dr. south of Beverly Blvd.	12,400	< 50	88	185	66.7
Foothill Rd. north of Santa Monica Blvd.	800	< 50	< 50	< 50	53.2
Sunset Blvd west of Doheny Dr.	24,800	66	137	293	69.8
Sunset Blvd east of Doheny Dr.	27,100	69	145	311	70.1
Elevado Ave. west of Doheny Dr.	3,200	< 50	< 50	< 50	59.2
Elevado Ave. east of Doheny Dr.	420	< 50	< 50	< 50	50.4
Santa Monica Blvd. west of Foothill Rd.	33,300	79	166	357	71.0
Santa Monica Blvd. between Foothill Rd. and Doheny Dr.	29,000	72	152	326	70.4
Santa Monica Blvd. between Doheny Dr. and Robertson Blvd.	25,400	67	139	298	69.9
Santa Monica Blvd. between Robertson Blvd. and La Cienega Blvd.	28,600	72	151	323	70.4
Santa Monica Blvd. east of La Cienega Blvd.	21,900	61	126	270	69.2
Melrose Ave. west of Robertson Blvd.	9,200	< 50	72	152	65.4
Melrose Ave. between Robertson Blvd. and San Vicente Blvd.	13,500	< 50	92	196	67.1
Melrose Ave. between San Vicente Blvd. and La Cienega Blvd.	16,300	< 50	104	222	67.9
Melrose Ave. east of La Cienega Blvd.	20,000	58	119	254	68.8
Beverly Blvd. west of Doheny Dr.	17,400	< 50	109	232	68.2
Beverly Blvd. between Doheny Dr. and Robertson Blvd.	20,000	58	119	254	68.8
Beverly Blvd. east of Robertson Blvd.	21,400	60	125	266	69.1

Source: LSA Associates, Inc., April 2012.
[1] Traffic noise within 50 feet of roadway centerline requires site-specific analysis.
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel

Thresholds of Significance

A project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the project site are the criteria in the City's Noise Element of the General Plan and Municipal Code.

City of West Hollywood Noise Standards

Noise Element of the General Plan. The Noise Element of the General Plan contains noise standards to prevent the degradation of the noise environment from land use intensification and to minimize the adverse effects of currently existing noise sources, particularly from vehicular traffic in the City. The noise standard for exterior multifamily living areas is 65 dBA CNEL and for exterior commercial and professional areas is 70 dBA CNEL.

Municipal Code. The City's Noise Ordinance has no numerical standards, but restricts unnecessary or excessive noise within the City limits. The operation of any motor may not be audible at more than 50 ft from the source (9.08.050[c]), loading or unloading activities are generally prohibited from 10:00 p.m. to 8:00 a.m. (9.08.050[e]), and commercial activities may not be plainly audible at any residence between 10:00 p.m. to 8:00 a.m. (9.08.050[k]). Construction activities are also prohibited as follows: exterior construction activities between the hours of 7:00 p.m. and 8:00 a.m. on weekdays and all day on Saturdays, Sundays, and City holidays; interior construction activities between the hours of 7:00 p.m. and 8:00 a.m. on weekdays and Saturdays and all day on Sundays and City holidays.

FTA Transit Noise and Vibration Impact Assessment. Based on the FTA Transit Noise and Vibration Impact Assessment (FTA, May 2006) and depending on the building category of the nearest buildings adjacent to the potential construction area, the potential construction vibration damage criteria vary. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 102 velocity decibels (VdB) (an equivalent to 0.5 inches per second [in/sec] in RMS) (FTA, May 2006) is considered safe and would not result in any construction vibration damage. For a nonengineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 in/sec in RMS). Table G lists the groundborne vibration and noise impact criteria for human annoyance. Table H lists the vibration damage criteria for buildings. Under conditions where there are an infrequent number of events per day, the FTA has established thresholds of 65 VdB for Category 1 buildings, 80 VdB for Category 2 buildings, and 83 VdB for Category 3 buildings. No thresholds have been adopted or recommended for commercial and office uses.

Table G: Groundborne Vibration and Noise Impact Criteria

Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 micro in/sec)		Groundborne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent[1] Events	Infrequent[2] Events	Frequent[1] Events	Infrequent[2] Events
Category 1: Buildings where low ambient vibration is essential for interior operations.	65 VdB[3]	65 VdB[3]	–[4]	–[4]
Category 2: Residences and buildings where people normally sleep.	72 VdB	80 VdB	35 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	83 VdB	40 dBA	48 dBA

Source: Federal Transit Administration, 2006.

[1] Frequent events are defined as more than 70 events per day.

[2] Infrequent events are defined as fewer than 70 events per day.

[3] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

[4] Vibration-sensitive equipment is not sensitive to groundborne noise.

dB = Decibel
dBA = A-weighted decibel
HVAC = heating, ventilation, and air-conditioning
in/sec = inch per second
VdB = vibration velocity decibel

Table H: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)	Approximate Lv[1]
Reinforced-concrete, steel or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Nonengineered timber and masonry buildings	0.2	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: Transit Noise and Vibration Impact Assessment, May 2006.

[1] RMS velocity in decibels (VdB) re 1 micro-inch/second.

in/sec = inches per second
Lv = vibration velocity level
PPV = peak particle velocity
RMS = root-mean-square

8.0 PROJECT IMPACTS

Construction Noise

Noise levels from grading and other construction activities for the proposed project may range up to 84 dBA at the closest residences south of the project site for very limited times when construction occurs near the project's boundary. Construction-related noise impacts from the proposed project would be potentially adverse; however, compliance with the City's construction hours requirement would reduce the impact to a less than significant level.

Short-term noise impacts would be associated with demolition, excavation, grading, and erecting of buildings on site during construction of the proposed project. Construction-related short-term noise levels would be higher than existing ambient noise levels in the project area today but would no longer occur once construction of the project is completed.

Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. A relatively high single-event noise exposure potential will exist at a maximum level of 87 dBA L_{max} with trucks passing at 50 ft. However, the projected construction traffic will be small when compared to the existing traffic volumes on Santa Monica Boulevard, Melrose Avenue, and other affected streets, and its associated long-term noise level change will not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would not be substantial.

The second type of short-term noise impact is related to noise generated during excavation, grading, and construction on the project site. 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 the site. Therefore, the noise levels vary 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 I lists maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 ft between the equipment and a noise receptor. Typical maximum noise levels range up to 93 dBA at 50 ft during the noisiest construction phases. The site preparation phase, which includes demolition, excavation, and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes machinery such as pile drivers, jackhammers, backhoes, and concrete-breaking machines. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three or four minutes at lower power settings.

Table I: Typical Maximum Construction Equipment Noise Levels (L_{max})

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers, 12,000–18,000 ft-lb/blow	81–96	93
Rock Drills	83–99	96
Jack hammers	75–85	82
Pneumatic Tools	78–88	85
Pumps	74–84	80
Dozers	77–90	85
Scrapers	83–91	87
Haul Trucks	83–94	88
Cranes	79–86	82
Portable Generators	71–87	80
Rollers	75–82	80
Tractors	77–82	80
Front-End Loaders	77–90	86
Hydraulic Backhoes	81–90	86
Hydraulic Excavators	81–90	86
Graders	79–89	86
Air Compressors	76–89	86
Trucks	81–87	86

Source: Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman 1987.

Demolition, grading, and construction of the proposed project is expected to require the use of jackhammers, backhoes, concrete-breaking machines, earthmovers, bulldozers, water trucks, and pickup trucks. This equipment would be used on the project site. Based on Table I, the maximum noise level generated by each pile driver on the proposed project site is assumed to be 93 dBA L_{max} at 50 ft from the earthmover. Each backhoe would also generate 86 dBA L_{max} at 50 ft. The maximum noise level generated by water and pickup trucks is approximately 86 dBA L_{max} at 50 ft from these vehicles. Each doubling of a sound source with equal strength increases the noise level by 3 dBA.

The closest existing residences in the vicinity of the project site are located 200 ft south of the project construction areas along Rangely Avenue. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during the site preparation phase of construction would be 96 dBA L_{max} at a distance of 50 ft from the active construction area. The closest residences may be subject to short-term noise reaching 84 dBA L_{max}, generated by construction activities. The City's Municipal Code allows any construction-related noise level as long as the construction activities are limited to the hours specified therein. This, in combination with other equipment-related mitigation described subsequently in this report, reduces the construction noise impacts to a less than significant level.

Construction Vibration. Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible; but without the effects associated with the shaking of a building, there is less adverse reaction.

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receptor buildings. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibration from construction activities rarely reaches the levels that damage structures. The FTA has published standard vibration velocities for construction equipment operations. At a distance of 50 ft or more, vibration level associated with a large bulldozer or a loaded truck would be reduced to 0.0415 in/sec or lower.

Groundborne vibration decreases rapidly with distance. Based on FTA data, vibration velocities from heavy-duty construction equipment operations that would be used during project construction range from 0.003 to 0.644 in/sec PPV at 25 ft from the source of activity. At 75 ft from the source of activity, vibration velocities range from 0.001 to 0.124 in/sec PPV. Groundborne vibration would be generated primarily during site clearing and grading activities onsite and by off-site haul truck travel. The PPV from bulldozer and heavy truck operations range from 0.089 PPV to 0.076 PPV, respectively, at a distance of 25 ft. As each of these values is below the 2.0 in/sec PPV significant threshold, and no vibration-sensitive receptors are located within 25 ft of the project site where heavy duty construction equipment would be used, vibration impacts associated with construction of the proposed project would be less than significant, and no mitigation measures are required.

Similarly, in terms of the human annoyance scale of velocity decibels (VdB), bulldozers and other heavy-tracked construction equipment generate approximately 92 VdB of groundborne vibration when measured at 50 ft, based on Transit Noise and Vibration Impact Assessment (FTA, May 2006). This level of groundborne vibration exceeds the threshold of human perception, which is around 65 VdB. Based on the California Department of Transportation's *Transportation-Related Earthborne Vibration, Technical Advisory* (Rudy Hendricks, July 24, 1992), the vibration level at 100 ft is approximately 6 VdB lower than the vibration level at 50 ft. Vibration at 200 ft from the source is more than 6 VdB lower than the vibration level at 100 ft, or more than 12 VdB lower than the vibration level at 50 ft. Every doubling of distance from 50 ft results in the reduction of the vibration level by 6 VdB; therefore, receptors at 100 and 200 ft from the construction activity may be exposed to groundborne vibration up to 86 and 80 VdB, respectively. The existing structures in the project vicinity are located at least 100 ft from the project site and would be exposed to groundborne vibration below 86 VdB. The closest residence located at a distance of 200 ft, would be exposed to groundborne vibration below 80 VdB. Therefore, construction on the project site would result in the exposure of persons to excessive groundborne vibration or groundborne noise levels; however, this range of vibration levels would be below the 102 VdB threshold considered by the FTA to be safe for buildings constructed with current building standards. Additionally, groundborne vibration during construction activity is temporary; therefore, impacts from project-related groundborne vibration

during construction of the proposed project would be less than significant, and no mitigation is required.

Long-Term Traffic Noise Impacts

Project-related long-term vehicular trip increases on neighborhood streets are anticipated to be low. However, proposed on-site residential uses would be potentially exposed to traffic noise levels exceeding the exterior noise standard of 65 dBA CNEL. Mitigation measures would be required.

Tables J, K, and L show noise levels along Santa Monica Boulevard, Melrose Avenue, and other roadways in the project vicinity. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn.

Table J shows the traffic noise levels for the current year (2012) with the project. Traffic noise levels would continue to range from low to moderately high. The increase in project-related traffic noise levels would be very small at 0.5 dBA for Melrose Avenue, 0.2 dBA for Doheny Drive, and 0.1 dBA for La Cienega Boulevard, St. Vincente Boulevard, Robertson Boulevard, and Santa Monica Boulevard. This noise level increase is small and not perceptible by the human ear. Therefore, project-related traffic noise on off-site land uses would be small and less than significant. Along Santa Monica Boulevard or Melrose Avenue, existing baseline traffic noise makes any project contribution not perceptible. There are residential uses along nearby non-arterial streets, but there is little site-related traffic expected to use such streets unless such traffic represents a “cut-through” opportunity to avoid congestion on the more major thoroughfares.

Tables K and L show the traffic noise levels for the year 2016 with and without project. Traffic noise levels would continue to be low to moderately high. The project-related traffic noise level increase would be 0.4 dBA for Melrose Avenue and 0.1 dBA for St. Vincente Boulevard, Robertson Boulevard, Doheny Drive, Sunset Boulevard, and Santa Monica Boulevard. This noise level increase is small and not perceptible by the human ear. Therefore, project-related traffic noise on off-site land uses would be small and less than significant.

Table J: Existing (2012) With Project Traffic Noise Levels

Roadway Segment	Average Daily Traffic	Center-line to 70 CNEL (Feet)	Center-line to 65 CNEL (Feet)	Center-line to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Outermost Lane	Change from No Project Level (dBA)
La Cienega Blvd. north of Santa Monica Blvd.	22,600	62	129	276	69.4	0.1
La Cienega Blvd. between Santa Monica Blvd. and Melrose Ave.	20,900	59	123	262	69.0	0.0
La Cienega Blvd. south of Melrose Ave.	26,000	68	141	303	70.0	0.1
San Vincente Blvd. north of Melrose Blvd.	15,500	< 50	101	215	67.7	0.0
San Vincente Blvd. south of Melrose Blvd.	15,500	< 50	101	215	67.7	0.1
Robertson Blvd. north of Santa Monica Blvd.	4,900	< 50	< 50	66	61.1	0.0
Robertson Blvd. between Santa Monica Blvd. and Melrose Ave.	8,200	< 50	< 50	93	63.3	0.0
Robertson Blvd. between Melrose Ave. and Beverly Blvd.	12,900	< 50	59	126	65.3	0.1
Robertson Blvd. south of Beverly Blvd.	12,100	< 50	56	120	65.0	0.1
Doheny Dr. north Sunset Blvd.	4,300	< 50	< 50	61	60.5	0.0
Doheny Dr. between Sunset Blvd. and Elevado Ave.	10,600	< 50	79	167	66.1	0.2
Doheny Dr. between Elevado Ave. and Santa Monica Blvd.	12,600	< 50	88	187	66.8	0.1
Doheny Dr. between Santa Monica Blvd. and Beverly Blvd.	10,700	< 50	80	168	66.1	0.1
Doheny Dr. south of Beverly Blvd.	12,700	< 50	89	188	66.8	0.1
Foothill Rd. north of Santa Monica Blvd.	800	< 50	< 50	< 50	53.2	0.0
Sunset Blvd west of Doheny Dr.	25,000	66	138	295	69.8	0.0
Sunset Blvd east of Doheny Dr.	27,100	69	145	311	70.1	0.0
Elevado Ave. west of Doheny Dr.	3,200	< 50	< 50	< 50	59.2	0.0
Elevado Ave. east of Doheny Dr.	420	< 50	< 50	< 50	50.4	0.0
Santa Monica Blvd. west of Foothill Rd.	33,800	80	168	361	71.1	0.1
Santa Monica Blvd. between Foothill Rd. and Doheny Dr.	29,500	73	154	329	70.5	0.1
Santa Monica Blvd. between Doheny Dr. and Robertson Blvd.	26,200	68	142	304	70.0	0.1
Santa Monica Blvd. between Robertson Blvd. and La Cienega Blvd.	29,200	73	153	327	70.5	0.1
Santa Monica Blvd. east of La Cienega Blvd.	22,200	61	128	273	69.3	0.1
Melrose Ave. west of Robertson Blvd.	10,300	< 50	78	164	65.9	0.5
Melrose Ave. between Robertson Blvd. and San Vicente Blvd.	14,300	< 50	96	204	67.4	0.3
Melrose Ave. between San Vicente Blvd. and La Cienega Blvd.	16,800	< 50	106	227	68.1	0.2
Melrose Ave. east of La Cienega Blvd.	20,200	58	120	256	68.9	0.1
Beverly Blvd. west of Doheny Dr.	17,400	< 50	109	232	68.2	0.0
Beverly Blvd. between Doheny Dr. and Robertson Blvd.	20,000	58	119	254	68.8	0.0
Beverly Blvd. east of Robertson Blvd.	21,500	60	125	267	69.1	0.0

Source: LSA Associates, Inc., April 2012.
ADT = average daily trips
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel

Table K: Year 2016 Baseline 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 Outermost Lane
La Cienega Blvd. north of Santa Monica Blvd.	26,700	69	144	308	70.1
La Cienega Blvd. between Santa Monica Blvd. and Melrose Ave.	26,000	68	141	303	70.0
La Cienega Blvd. south of Melrose Ave.	31,000	75	159	340	70.7
San Vicente Blvd. north of Melrose Blvd.	20,200	58	120	256	68.9
San Vicente Blvd. south of Melrose Blvd.	20,500	58	121	259	68.9
Robertson Blvd. north of Santa Monica Blvd.	5,000	< 50	< 50	67	61.2
Robertson Blvd. between Santa Monica Blvd. and Melrose Ave.	9,400	< 50	< 50	102	63.9
Robertson Blvd. between Melrose Ave. and Beverly Blvd.	14,400	< 50	63	135	65.8
Robertson Blvd. south of Beverly Blvd.	13,000	< 50	59	126	65.3
Doheny Dr. north Sunset Blvd.	4,300	< 50	< 50	61	60.5
Doheny Dr. between Sunset Blvd. and Elevado Ave.	12,700	< 50	89	188	66.8
Doheny Dr. between Elevado Ave. and Santa Monica Blvd.	15,200	< 50	100	212	67.6
Doheny Dr. between Santa Monica Blvd. and Beverly Blvd.	14,200	< 50	95	203	67.3
Doheny Dr. south of Beverly Blvd.	16,800	< 50	106	227	68.1
Foothill Rd. north of Santa Monica Blvd.	1,500	< 50	< 50	< 50	56.0
Sunset Blvd west of Doheny Dr.	28,500	72	150	322	70.4
Sunset Blvd east of Doheny Dr.	32,000	77	162	348	70.9
Elevado Ave. west of Doheny Dr.	3,200	< 50	< 50	< 50	59.2
Elevado Ave. east of Doheny Dr.	420	< 50	< 50	< 50	50.4
Santa Monica Blvd. west of Foothill Rd.	45,200	96	204	437	72.4
Santa Monica Blvd. between Foothill Rd. and Doheny Dr.	40,000	89	188	403	71.8
Santa Monica Blvd. between Doheny Dr. and Robertson Blvd.	36,800	84	178	381	71.5
Santa Monica Blvd. between Robertson Blvd. and La Cienega Blvd.	39,000	87	185	397	71.7
Santa Monica Blvd. east of La Cienega Blvd.	31,500	76	160	344	70.8
Melrose Ave. west of Robertson Blvd.	9,900	< 50	76	160	65.8
Melrose Ave. between Robertson Blvd. and San Vicente Blvd.	14,700	< 50	98	208	67.5
Melrose Ave. between San Vicente Blvd. and La Cienega Blvd.	20,600	59	122	259	68.9
Melrose Ave. east of La Cienega Blvd.	22,600	62	129	276	69.4
Beverly Blvd. west of Doheny Dr.	19,500	57	117	250	68.7
Beverly Blvd. between Doheny Dr. and Robertson Blvd.	22,400	62	128	274	69.3
Beverly Blvd. east of Robertson Blvd.	23,300	63	132	282	69.5

Source: LSA Associates, Inc., April 2012.
ADT = average daily trips
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel

Table L: Year 2016 with Project 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 Outermost Lane	Change from No Project Level (dBA)
La Cienega Blvd. north of Santa Monica Blvd.	27,000	69	145	311	70.1	0.0
La Cienega Blvd. between Santa Monica Blvd. and Melrose Ave.	26,000	68	141	303	70.0	0.0
La Cienega Blvd. south of Melrose Ave.	31,300	76	160	343	70.8	0.1
San Vicente Blvd. north of Melrose Blvd.	20,200	58	120	256	68.9	0.0
San Vicente Blvd. south of Melrose Blvd.	20,900	59	123	262	69.0	0.1
Robertson Blvd. north of Santa Monica Blvd.	5,000	< 50	< 50	67	61.2	0.0
Robertson Blvd. between Santa Monica Blvd. and Melrose Ave.	9,400	< 50	< 50	102	63.9	0.0
Robertson Blvd. between Melrose Ave. and Beverly Blvd.	14,600	< 50	64	136	65.8	0.0
Robertson Blvd. south of Beverly Blvd.	13,200	< 50	59	128	65.4	0.1
Doheny Dr. north Sunset Blvd.	4,300	< 50	< 50	61	60.5	0.0
Doheny Dr. between Sunset Blvd. and Elevado Ave.	12,900	< 50	90	190	66.9	0.1
Doheny Dr. between Elevado Ave. and Santa Monica Blvd.	15,500	< 50	101	215	67.7	0.1
Doheny Dr. between Santa Monica Blvd. and Beverly Blvd.	14,400	< 50	96	205	67.4	0.1
Doheny Dr. south of Beverly Blvd.	17,100	< 50	108	229	68.1	0.0
Foothill Rd. north of Santa Monica Blvd.	1,500	< 50	< 50	< 50	56.0	0.0
Sunset Blvd west of Doheny Dr.	28,600	72	151	323	70.4	0.0
Sunset Blvd east of Doheny Dr.	32,000	77	162	348	70.9	0.0
Elevado Ave. west of Doheny Dr.	3,200	< 50	< 50	< 50	59.2	0.0
Elevado Ave. east of Doheny Dr.	420	< 50	< 50	< 50	50.4	0.0
Santa Monica Blvd. west of Foothill Rd.	45,700	97	205	441	72.4	0.0
Santa Monica Blvd. between Foothill Rd. and Doheny Dr.	40,500	89	189	407	71.9	0.1
Santa Monica Blvd. between Doheny Dr. and Robertson Blvd.	37,600	85	180	387	71.6	0.1
Santa Monica Blvd. between Robertson Blvd. and La Cienega Blvd.	39,600	88	187	401	71.8	0.1
Santa Monica Blvd. east of La Cienega Blvd.	31,700	77	161	345	70.8	0.0
Melrose Ave. west of Robertson Blvd.	11,000	< 50	81	171	66.2	0.4
Melrose Ave. between Robertson Blvd. and San Vicente Blvd.	15,500	< 50	101	215	67.7	0.2
Melrose Ave. between San Vicente Blvd. and La Cienega Blvd.	21,100	59	123	264	69.1	0.2
Melrose Ave. east of La Cienega Blvd.	22,800	62	130	278	69.4	0.0
Beverly Blvd. west of Doheny Dr.	19,500	57	117	250	68.7	0.0
Beverly Blvd. between Doheny Dr. and Robertson Blvd.	22,400	62	128	274	69.3	0.0
Beverly Blvd. east of Robertson Blvd.	23,300	63	132	282	69.5	0.0

Source: LSA Associates, Inc., April 2012.
ADT = average daily trips
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel

Along Santa Monica Boulevard. The proposed project would not build any sensitive residential units along Santa Monica Boulevard. Proposed commercial units along Santa Monica Boulevard are approximately 80 ft from the roadway centerline, which places them within the 70 dBA CNEL noise contour (which is out to 85 ft between Doheny Drive and Robertson Boulevard). At 80 ft, these commercial units would be exposed to a traffic noise level of 70 dBA CNEL. However, this noise level does not exceed the City's 70 dBA CNEL exterior noise threshold for commercial properties. Therefore, no mitigation measures are required.

Along Melrose Avenue. Proposed residential units along Melrose Avenue are within 40 ft of the roadway centerline, placing them within the 65 dBA CNEL noise contour (which is out to 81 ft west of Robertson Boulevard). At 40 ft, these residential units would be exposed to a traffic noise level of 70 dBA CNEL. If outdoor active use areas such as balconies or decks are proposed for these dwelling units, mitigation measures, such as a combination concrete/Plexiglas wall with a minimum effective height of 5 ft, would be required for the perimeter of the balconies or decks. In addition, mechanical ventilation, such as an air-conditioning system, would also be required for bedrooms fronting Melrose Avenue. With windows and doors closed, interior noise levels in these units would potentially reach 47 dBA CNEL (70 dBA - 24 dBA = 46 dBA), which exceeds the 45 dBA CNEL interior noise standard for residential uses. Therefore, building facade upgrades such as double-paned windows with a STC-30 or higher and a mechanical ventilation system, such as an air-conditioning system, would be required for bedrooms in the dwelling units fronting Melrose Avenue.

Along Almont Drive. Traffic levels on this connector street do not generate sufficient noise levels to produce a significant noise impact within the proposed residential units.

Operational Vibration

The proposed project would not include stationary equipment that would result in high vibration levels. The main vibration sources would be passenger vehicle circulation within the proposed parking facility, on-site delivery truck activity, and on-site loading dock area activity. Operations of the proposed project would not involve any vibration sources that would cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels, and no mitigation is required.

Long-Term Operational Noise Impacts

Potential long-term noise impacts associated with operations at the proposed mixed-use facility would include noise from truck delivery, loading/unloading activities, and other activities at the parking areas. These activities are potential point sources of noise that could affect noise-sensitive receptors adjacent to the loading areas, such as residential uses on the upper floors of the project site. Mitigation measures may be required to comply with the City's noise standards.

Truck Delivery and Loading/Unloading. Delivery trucks for the proposed on-site uses would result in a maximum noise similar to noise readings from loading and unloading activities for other similar projects, which generates a noise level of 75 dBA L_{max} at 50 ft and is used in this analysis.

The proposed commercial uses have loading/unloading areas on level B-1 within the structure. As noise spreads from a source it loses energy, so the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dBA reduction in the noise level for each doubling of distance from a single-point source of noise, such as an idling truck, to the noise-sensitive receptor of concern. The location of the proposed loading areas would provide 10–15 dBA in noise reduction for residences on floors above. The distance will also attenuate the noise another 6–8 dBA. Total noise attenuation would be 16–23 dBA. Therefore, the on-site loading/unloading noise would be reduced to below 59 dBA L_{max} at the nearest sensitive receptor located within the proposed project. Existing residential uses in the neighborhood are farther away and, therefore, would not be significantly affected.

This range of maximum noise levels is lower than the typical exterior noise standards of 75 dBA L_{max} during the day (7:00 a.m.–10:00 p.m.) and the 65 dBA L_{max} standard during the night (10:00 p.m.–7:00 a.m.). Although the typical truck unloading process (including detaching an incoming full trailer, repositioning an empty trailer, and attaching the outgoing empty trailer) takes an average of 15–20 minutes, the maximum noise level occurs in the much shorter period of time of a few minutes. Therefore, noise associated with loading and unloading activities at the loading areas would not result in maximum noise levels exceeding the typical standards at the nearest residences.

Parking Lot Activity. Representative parking activities, such as customers conversing and doors slamming, would generate approximately 60 dBA L_{max} at 50 ft. This level of noise is much lower than that of the truck delivery and loading/unloading activities. With the noise attenuation effect from the distance divergence and the intervening walls and floors, noise in the parking lot would be attenuated to below 52 dBA L_{max} and is not anticipated to be a significant noise issue with respect to residences within the project site. Residents in proximity to the project site would experience noise levels lower than those on the project site due to greater distance divergence.

Airport Noise Impact

The project site is located approximately 10 miles southwest of the Burbank International Airport and approximately 12 miles north of the Los Angeles International Airport. Based on the aircraft noise contours produced by the airports, the project site does not lie within the 60 dBA CNEL contour of either airport. Therefore, the potential for a significant impact from airport-related activities is small, and a single-event noise impact analysis is not warranted for this site.

9.0 STANDARD CONDITIONS FOR OPERATIONAL NOISE IMPACTS

SC-1: The following standard conditions are required by the City of West Hollywood for on-site operations:

- Loading or unloading activities are limited to 8:00 a.m. to 10:00 p.m.
- Commercial activities may not be plainly audible at any residence between 10:00 p.m. to 8:00 a.m.
- Ambient noise levels may not be increased by commercial activities more than 5 dB, with a 70 dBA maximum.

10.0 MITIGATION MEASURES

Construction Impacts

Exterior construction will be limited to the hours of 8:00 a.m. to 7:00 p.m. Monday through Friday in accordance with the City's standards. Interior construction activities will be limited to the hours of 8:00 a.m. to 7:00 p.m. Monday through Saturday in accordance with the City's standards.

The following measures can be implemented to reduce potential construction noise impacts on nearby sensitive receptors:

1. During all site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
2. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
3. 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.

Traffic Noise Impacts

The following mitigation measures shall be implemented for the proposed project:

- Building facade upgrades such as double-paned windows with a minimum STC-30 for bedrooms in the frontline dwelling units along Melrose Avenue would be required.
- Air-conditioning systems, a form of mechanical ventilation, would be required for dwelling units along Melrose Avenue.
- Patios and balconies located within the 65 dBA CNEL noise contours of Melrose Avenue require sound barriers, such as a combination concrete/Plexiglas or glass wall. Units with patios and balconies along Melrose Avenue would require 5 ft high barriers to meet the exterior noise standard.

Operational Noise Impacts

The following mitigation measures shall be implemented for the proposed project:

- Loading or unloading activities are limited to 8:00 a.m. to 10:00 p.m.

- Commercial activities may not be plainly audible at any residence between 10:00 p.m. to 8:00 a.m.
- Ambient noise levels may not be increased by commercial activities more than 5 dB with a 70 dBA maximum.

Aircraft Noise Impacts

No mitigation is required.

11.0 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the identified mitigation measures, potential short-term and long-term noise impacts would be reduced to below the level of significance.

12.0 REFERENCES

Bolt, Beranek & Newman. 1987. Noise Control for Buildings and Manufacturing Plants

City of West Hollywood. 2007. Municipal Code.

City of West Hollywood. 2011. Noise Element of the General Plan.

Cyril M. Harris, Editor-In-Chief, 1991, Handbook of Acoustical Measurements and Noise Control.

Federal Highway Administration. 1977. Highway Traffic Noise Prediction Model, FHWA RD-77-108.

LSA Associates, Inc. *Traffic Impact Analysis*.

U.S. EPA. 1978. Protective Noise Levels: Condensed Version of EPA Levels Document.

APPENDIX A

FHWA TRAFFIC NOISE MODEL PRINTOUTS

MELROSE TRIANGLE MIXED-USE PROJECT

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

EXISTING BASELINE CONDITIONS

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22300 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.5	128.0	273.5	588.1

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. between Santa Monica Blvd. and Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20800 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
59.0	122.3	261.1	561.4

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. south of Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
67.3	140.8	301.3	648.0

TABLE Existing-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: San Vincente Blvd. north of Melrose Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15500 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	101.0	214.9	461.7

TABLE Existing-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: San Vincente Blvd. south of Melrose Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	99.4	211.2	453.7

TABLE Existing-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	66.1	142.0

TABLE Existing-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. between Santa Monica Blvd. and Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	0.0	93.0	200.0

TABLE Existing-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. between Melrose Ave. and Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12600 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	57.7	123.7	266.3

TABLE Existing-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. south of Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	55.6	119.1	256.3

TABLE Existing-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. north Sunset Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	60.7	130.2

TABLE Existing-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Sunset Blvd. and Elevado Ave.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	77.8	164.1	351.8

TABLE Existing-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Elevado Ave. and Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	86.6	183.5	393.7

TABLE Existing-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Santa Monica Blvd. and Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	78.8	166.2	356.3

TABLE Existing-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. south of Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	87.6	185.4	398.0

TABLE Existing-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Foothill Rd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Sunset Blvd west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24800 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
65.6	137.2	293.5	631.2

TABLE Existing-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Sunset Blvd east of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.4	145.4	311.3	669.6

TABLE Existing-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Elvado Ave. west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	107.0

TABLE Existing-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Elvado Ave. east of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 420 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 50.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing-20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. west of Foothill Rd.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
78.9	166.5	357.0	768.1

TABLE Existing-21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Foothill Rd. and Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	72.3	152.0	325.6	700.5

TABLE Existing-22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Doheny Dr. and Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	66.6	139.3	298.2	641.3

TABLE Existing-23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Robertson Blvd. and La Cienega Blvd.

NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28600 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
71.7	150.6	322.6	694.1

TABLE Existing-24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. east of La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
60.8	126.5	270.2	581.0

TABLE Existing-25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. west of Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9200 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	72.5	152.3	326.3

TABLE Existing-26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. between Robertson Blvd. and San Vicente Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	92.4	196.1	421.1

TABLE Existing-27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. between San Vicente Blvd. and La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	104.4	222.2	477.4

TABLE Existing-28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. east of La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20000 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
57.6	119.2	254.4	546.9

TABLE Existing-29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	108.9	232.0	498.6

TABLE Existing-30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. between Doheny Dr. and Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20000 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
57.6	119.2	254.4	546.9

TABLE Existing-31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. east of Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21400 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
60.0	124.6	266.1	572.1

MELROSE TRIANGLE MIXED-USE PROJECT

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

EXISTING WITH PROJECT CONDITIONS

TABLE Existing with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	62.0	129.1	275.9	593.3

TABLE Existing with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. between Santa Monica Blvd. and Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20900 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.01

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
59.1	122.7	262.0	563.2

TABLE Existing with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. south of Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	67.6	141.5	302.8	651.4

TABLE Existing with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: San Vincente Blvd. north of Melrose Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	101.0	214.9	461.7

TABLE Existing with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: San Vincente Blvd. south of Melrose Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15500 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	101.0	214.9	461.7

TABLE Existing with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	0.0	66.1	142.0

TABLE Existing with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. between Santa Monica Blvd. and Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	0.0	93.0	200.0

TABLE Existing with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. between Melrose Ave. and Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	58.6	125.7	270.5

TABLE Existing with Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. south of Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	56.2	120.4	259.2

TABLE Existing with Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. north Sunset Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	0.0	60.7	130.2

TABLE Existing with Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Sunset Blvd. and Elevado Ave.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	79.2	167.2	358.5

TABLE Existing with Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Elevado Ave. and Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	88.5	187.4	402.2

TABLE Existing with Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Santa Monica Blvd. and Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	79.7	168.2	360.8

TABLE Existing with Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. south of Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	88.9	188.4	404.3

TABLE Existing with Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Foothill Rd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing with Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Sunset Blvd west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25000 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
66.0	137.9	295.0	634.6

TABLE Existing with Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Sunset Blvd east of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	69.4	145.4	311.3	669.6

TABLE Existing with Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Elvado Ave. west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3200 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	107.0

TABLE Existing with Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Elvado Ave. east of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 420 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 50.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing with Project-20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. west of Foothill Rd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
79.7	168.1	360.5	775.8

TABLE Existing with Project-21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Foothill Rd. and Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.51

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	73.1	153.7	329.3	708.5

TABLE Existing with Project-22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Doheny Dr. and Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
67.9	142.2	304.4	654.7

TABLE Existing with Project-23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Robertson Blvd. and La Cienega Blvd.

NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29200 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.46

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
72.7	152.7	327.1	703.7

TABLE Existing with Project-24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. east of La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	61.3	127.6	272.7	586.3

TABLE Existing with Project-25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. west of Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10300 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	77.8	164.1	351.8

TABLE Existing with Project-26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. between Robertson Blvd. and San Vicente Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14300 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	95.9	203.8	437.6

TABLE Existing with Project-27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. between San Vicente Blvd. and La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	106.4	226.7	487.1

TABLE Existing with Project-28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. east of La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	57.9	120.0	256.1	550.6

TABLE Existing with Project-29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	108.9	232.0	498.6

TABLE Existing with Project-30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. between Doheny Dr. and Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	57.6	119.2	254.4	546.9

TABLE Existing with Project-31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. east of Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - Existing with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	60.2	124.9	266.9	573.9

MELROSE TRIANGLE MIXED-USE PROJECT

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

OPENING YEAR (2016) WITHOUT PROJECT SCENARIO

TABLE 2016 Cumulative without Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.07

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	68.7	144.0	308.2	663.0

TABLE 2016 Cumulative without Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. between Santa Monica Blvd. and Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	67.6	141.5	302.8	651.4

TABLE 2016 Cumulative without Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. south of Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	75.4	158.8	340.4	732.3

TABLE 2016 Cumulative without Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: San Vincente Blvd. north of Melrose Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	57.9	120.0	256.1	550.6

TABLE 2016 Cumulative without Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: San Vincente Blvd. south of Melrose Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	58.4	121.1	258.6	556.0

TABLE 2016 Cumulative without Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5000 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	67.0	143.9

TABLE 2016 Cumulative without Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. between Santa Monica Blvd. and Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9400 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	101.8	219.1

TABLE 2016 Cumulative without Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. between Melrose Ave. and Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	63.0	135.2	291.0

TABLE 2016 Cumulative without Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. south of Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13000 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	58.9	126.3	271.9

TABLE 2016 Cumulative without Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. north Sunset Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	60.7	130.2

TABLE 2016 Cumulative without Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Sunset Blvd. and Elevado Ave.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	88.9	188.4	404.3

TABLE 2016 Cumulative without Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Elevado Ave. and Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	99.8	212.2	455.7

TABLE 2016 Cumulative without Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Santa Monica Blvd. and Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	95.5	202.8	435.5

TABLE 2016 Cumulative without Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. south of Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	106.4	226.7	487.1

TABLE 2016 Cumulative without Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Foothill Rd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1500 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 55.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	64.7

TABLE 2016 Cumulative without Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Sunset Blvd west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	71.6	150.3	321.9	692.4

TABLE 2016 Cumulative without Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Sunset Blvd east of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	77.0	162.2	347.6	748.0

TABLE 2016 Cumulative without Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Elvado Ave. west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	107.0

TABLE 2016 Cumulative without Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Elvado Ave. east of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 420 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 50.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	0.0	0.0	0.0

TABLE 2016 Cumulative without Project-20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. west of Foothill Rd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 45200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
95.9	203.7	437.4	941.6

TABLE 2016 Cumulative without Project-21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Foothill Rd. and Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 40000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	88.7	187.9	403.2	867.9

TABLE 2016 Cumulative without Project-22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Doheny Dr. and Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36800 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
84.1	177.8	381.5	821.0

TABLE 2016 Cumulative without Project-23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Robertson Blvd. and La Cienega Blvd.

NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 39000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	87.2	184.8	396.5	853.4

TABLE 2016 Cumulative without Project-24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. east of La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	76.2	160.5	344.0	740.2

TABLE 2016 Cumulative without Project-25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. west of Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.77

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	75.9	159.9	342.6

TABLE 2016 Cumulative without Project-26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. between Robertson Blvd. and San Vicente Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	97.6	207.5	445.7

TABLE 2016 Cumulative without Project-27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. between San Vicente Blvd. and La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	58.6	121.5	259.5	557.8

TABLE 2016 Cumulative without Project-28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. east of La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	62.0	129.1	275.9	593.3

TABLE 2016 Cumulative without Project-29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	56.7	117.2	250.2	537.8

TABLE 2016 Cumulative without Project-30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. between Doheny Dr. and Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22400 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.7	128.3	274.3	589.8

TABLE 2016 Cumulative without Project-31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. east of Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative without Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	63.2	131.7	281.6	605.5

MELROSE TRIANGLE MIXED-USE PROJECT

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

OPENING YEAR (2016) WITH PROJECT SCENARIO

TABLE 2016 Cumulative with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	69.2	145.0	310.5	668.0

TABLE 2016 Cumulative with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. between Santa Monica Blvd. and Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26000 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
67.6	141.5	302.8	651.4

TABLE 2016 Cumulative with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: La Cienega Blvd. south of Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.77

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	75.9	159.8	342.6	737.1

TABLE 2016 Cumulative with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: San Vincente Blvd. north of Melrose Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	57.9	120.0	256.1	550.6

TABLE 2016 Cumulative with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: San Vincente Blvd. south of Melrose Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.01

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	59.1	122.7	262.0	563.2

TABLE 2016 Cumulative with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5000 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	67.0	143.9

TABLE 2016 Cumulative with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. between Santa Monica Blvd. and Melrose Ave.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	101.8	219.1

TABLE 2016 Cumulative with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. between Melrose Ave. and Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14600 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	63.6	136.5	293.7

TABLE 2016 Cumulative with Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Robertson Blvd. south of Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	59.5	127.6	274.6

TABLE 2016 Cumulative with Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. north Sunset Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	0.0	60.7	130.2

TABLE 2016 Cumulative with Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Sunset Blvd. and Elevado Ave.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	89.8	190.3	408.6

TABLE 2016 Cumulative with Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Elevado Ave. and Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	101.0	214.9	461.7

TABLE 2016 Cumulative with Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. between Santa Monica Blvd. and Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	96.4	204.7	439.6

TABLE 2016 Cumulative with Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Doheny Dr. south of Beverly Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	107.7	229.4	492.9

TABLE 2016 Cumulative with Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Foothill Rd. north of Santa Monica Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1500 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 55.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	64.7

TABLE 2016 Cumulative with Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Sunset Blvd west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	71.7	150.6	322.6	694.1

TABLE 2016 Cumulative with Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Sunset Blvd east of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
77.0	162.2	347.6	748.0

TABLE 2016 Cumulative with Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Elvado Ave. west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	107.0

TABLE 2016 Cumulative with Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Elvado Ave. east of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 420 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 50.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE 2016 Cumulative with Project-20
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. west of Foothill Rd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 45700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	96.6	205.2	440.6	948.5

TABLE 2016 Cumulative with Project-21
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Foothill Rd. and Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 40500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	89.4	189.4	406.6	875.1

TABLE 2016 Cumulative with Project-22
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Doheny Dr. and Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	85.2	180.4	387.0	832.9

TABLE 2016 Cumulative with Project-23
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. between Robertson Blvd. and La Cienega Blvd.

NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 39600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	88.1	186.6	400.6	862.1

TABLE 2016 Cumulative with Project-24
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Santa Monica Blvd. east of La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	76.5	161.2	345.5	743.3

TABLE 2016 Cumulative with Project-25
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. west of Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	81.1	171.3	367.5

TABLE 2016 Cumulative with Project-26
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. between Robertson Blvd. and San Vicente Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	101.0	214.9	461.7

TABLE 2016 Cumulative with Project-27
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. between San Vicente Blvd. and La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	59.5	123.4	263.6	566.8

TABLE 2016 Cumulative with Project-28
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Melrose Ave. east of La Cienega Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
62.3	129.8	277.5	596.8

TABLE 2016 Cumulative with Project-29
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. west of Doheny Dr.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	56.7	117.2	250.2	537.8

TABLE 2016 Cumulative with Project-30
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. between Doheny Dr. and Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	61.7	128.3	274.3	589.8

TABLE 2016 Cumulative with Project-31
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 03/26/2012
ROADWAY SEGMENT: Beverly Blvd. east of Robertson Blvd.
NOTES: Melrose Triangle Mixed-Use - 2016 Cumulative with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	63.2	131.7	281.6	605.5

LSA

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RIVERSIDE
ROCKLIN
SAN LUIS OBISPO
S. SAN FRANCISCO

MEMORANDUM

DATE: December 11, 2012

TO: Ashley Davis

FROM: Tony Chung

SUBJECT: Melrose Triangle Project Vibration Impact Analysis

The following vibration impact analysis was conducted to evaluate whether any potential vibration impact would occur to the commercial structures adjacent to the Melrose Triangle Project in the City of West Hollywood, California (City).

The nearest residential buildings are those that are south of Melrose Avenue, behind a row of commercial structures, and are approximately 130 feet (ft) from the nearest project boundary. The nearest commercial structures are those east of Almont Avenue, approximately 60 ft from the edge of the proposed Boulevard and Avenue Buildings along Almont Avenue. It is assumed that pile driving would occur at the edge of these on-site buildings and therefore, the shortest distance to these adjacent residential and commercial buildings would be 130 ft and 60 ft, respectively, from any potential on-site pile driving locations.

Introduction to Vibration

Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Building damage is not a factor for normal projects, with the occasional exception of blasting and pile driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 decibels or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy duty earth-moving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to areas within approximately 100 ft from the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 ft (Federal Transit Administration [FTA] 2006). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that groundborne vibration from street traffic will not exceed the impact criteria; however,

construction of the project could result in groundborne vibration that could be perceptible and annoying. Groundborne noise is not likely to be a problem because noise arriving via the normal airborne path usually will be greater than groundborne noise.

Groundborne vibration has the potential to disturb people as well as to damage buildings. It is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2006). Groundborne vibration is usually measured in terms of vibration velocity, either the root-mean-square (rms) velocity or peak particle velocity (PPV). The rms is best for characterizing human response to building vibration, and PPV is used to characterize potential for damage.

Factors that influence groundborne vibration and noise include the following:

- **Vibration Source:** Vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source
- **Vibration Path:** Soil type, rock layers, soil layering, depth to water table, and frost depth
- **Vibration Receiver:** Foundation type, building construction, and acoustical absorption

Among the factors listed above, 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.

Construction Vibration

Construction-related vibration generated by construction equipment can result in varying degrees of ground vibration depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings situated on soil near the active construction area respond to these vibrations that range from no perception to low rumbling sounds with perceptible vibrations and slight damage at the highest vibration levels. Typically, construction-related vibrations do not reach vibration levels that would result in damage to nearby structures. However, old and fragile structures would require special consideration to avoid damage.

Table A shows the vibration damage potential threshold criteria. Table A indicates that the vibration damage threshold is 2.0 PPV (inches per second [in/sec]) for modern commercial buildings from transient sources and 0.5 PPV (in/sec) from continuous or frequent intermittent sources. Table B shows the vibration annoyance potential criteria. Tables A and B were used to evaluate short-term, construction-related groundborne vibration.

The proposed project may require the use of pile drivers for the on-site buildings. As shown in Table C, a typical impact pile driver would generate approximately 0.644 PPV (in/sec) when measured at 25 ft, while a sonic pile driver would generate 0.170 PPV (in/sec). Table C also shows that typical heavy tracked construction equipment would generate approximately 0.003 to 0.089 PPV (in/sec) when measured at 25 ft.

Table A: Guideline Vibration Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources[1]	Continuous/Frequent Intermittent Sources[2]
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans Transportation- and Construction-Induced Vibration Guidance Manual, June 2004.
1 Transient sources create a single, isolated vibration event, such as blasting or drop balls.
2 Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
in/sec = inches per second
PPV = peak particle velocity

Table B: Guideline Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (in/sec)	
	Transient Sources[1]	Continuous/Frequent Intermittent Sources[2]
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: Caltrans Transportation- and Construction-Induced Vibration Guidance Manual, June 2004.
1 Transient sources create a single, isolated vibration event, such as blasting or drop balls.
2 Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
in/sec = inches per second
PPV = peak particle velocity

Table C: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV at 25 ft (in/sec)
Pile Driver (impact), typical	0.644
Pile Driver (sonic), typical	0.170
Vibratory roller	0.210
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
Crack-and-seat operations	2.4

Sources: Federal Transit Administration 2006 (except Hanson 2001 for vibratory rollers) and Caltrans 2000 for crack-and-seat-operations.
ft = feet; in/sec = inches per second
PPV = peak particle velocity

Experience with groundborne vibration is that 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 distances from the road. Factors such as layering of the soil and depth to 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.

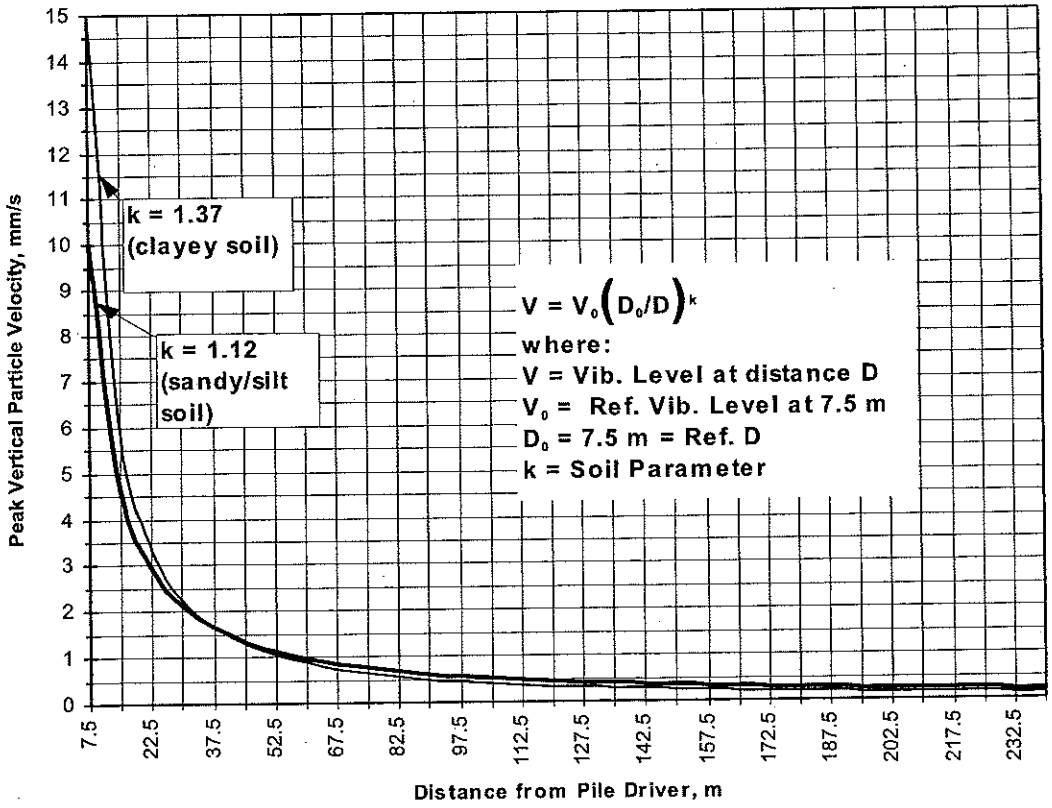
As a worst-case scenario, potential vibration impacts are evaluated for pile drivers to be used during construction of the on-site buildings. Figure 3 in Transportation Related Earthborne Vibrations (Technical Advisory, Vibration, January 23, 2004, Rudy Hendriks, Caltrans Retired Annuitant) shows the expected vibration levels generated by a 68,000 J (50,000 foot-pound [ft-lb]) impact pile driver at various distances from the pile-driving location. A copy of the figure is shown on the next page. Since the upper layers of the soil in the project area are mostly sandy/silty soil, the drop-off curve for the sandy/silty soil is used to estimate the vibration levels.

Nearest Commercial Buildings. At a distance of 60 ft, the resulting PPV would drop to 0.118 in/sec (or 3 mm/sec). This range of the vibration levels would be much lower than the 0.5 in/sec PPV threshold shown in Table A for modern commercial buildings from continuous or frequent intermittent sources, or much smaller than the 2.0 in/sec PPV threshold from transient sources for modern commercial buildings. Table B shows that this range of vibration levels would be more than strongly perceptible but not severe by human response.

In addition, the project can propose to use cast-in-drilled-hole (CIDH) as an alternative to pile drivers. Vibration generated from drilling using the CIDH method would be much lower than impact pile drivers and would be negligible at a distance of 60 ft. Therefore, no substantial groundborne vibration levels or impacts from pile driving or CIDH would occur.

Nearest Residential Buildings. At a distance of 130 ft, the resulting PPV would drop to 0.059 in/sec (or 1.5 mm/sec). This range of the vibration levels would be much lower than the 0.3 in/sec PPV threshold shown in Table A for older residential buildings from continuous or frequent intermittent sources, or much smaller than the 0.5 in/sec PPV threshold from transient sources for older residential buildings. It would also be much lower than the 0.5 in/sec PPV threshold shown in Table A for new residential buildings from continuous or frequent intermittent sources, or much smaller than the 1.0 in/sec PPV threshold from transient sources for new residential buildings. Table B shows that this range of vibration levels would be more than barely perceptible but not distinctly perceptible by human response.

Figure 3. Expected Vibration Levels Generated by a 68,000 J (50,000 ft lbf) Impact Pile Driver



Long-Term Operational Impact

Vehicular Traffic. Because the rubber tires and suspension systems of trucks and other on-road vehicles provide vibration isolation, it is unusual for on-road vehicles to cause groundborne noise or vibration problems. When on-road vehicles cause effects such as rattling of windows, the source is almost always airborne noise. Groundborne vibrations are mostly associated with passenger vehicles and trucks traveling on poor roadway conditions such as potholes, bumps, expansion joints, or other discontinuities in the road surface. Smoothing the bump or filling the pothole will usually solve the problem. Passenger vehicles and delivery trucks would cause effects such as rattling of windows, and the source is almost always airborne noise. As the project will be surrounded by roads with well-maintained asphalt pavement, there will be no potholes, bumps, expansion joints, or other discontinuities in the road surface that would generate groundborne vibration or noise impacts from vehicular traffic traveling on the roads surrounding the project site.

Conclusion

Based on the above analysis, vibration from construction activities associated with the proposed Melrose Triangle project, including those from pile driving or CIDH piles, would not result in substantial vibration levels at the nearest commercial structures adjacent to the project site. These vibration levels would not reach the 0.5 in/sec PPV threshold shown in Table A for modern commercial buildings from continuous or frequent intermittent sources or the 2.0 in/sec PPV threshold from transient sources for modern commercial buildings recommended by Caltrans. Also, Table A shows that vibration levels would be more than strongly perceptible but not severe by the human response. In addition, groundborne vibration from on-road vehicles that will be used by the completed project would not result in any measureable changes in vibration level compared to the existing conditions. No substantial vibration impacts would occur as a result of the proposed project.

REFERENCES

Caltrans, January 23, 2004. California Department of Transportation. *Transportation Related Earthborne Vibrations, Technical Advisory, Vibration TAV-04-01-R0201s.*

Caltrans, June 2004, California Department of Transportation, *Transportation- and Construction-Induced Vibration Guidance Manual.*

Federal Transit Administration, May 2006, *Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06.*