#### I. NOISE

This section is based upon the Noise Assessment For: 2000 Avenue of the Stars prepared by Mestre Greve Associates, dated June 25, 2002 (**Appendix 11**). Project traffic data utilized to assess the Project's traffic noise impacts was obtained from the Project traffic study, prepared by Crain and Associates.

#### **Existing Conditions**

### Noise Criteria Background

Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; and 20 dB higher four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud).

Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the "A-weighted decibel," abbreviated dBA.

Sound levels decrease as a function of distance from the source as a result of wave divergence, atmospheric absorption and ground attenuation. As the sound wave form travels away from the source, the sound energy is dispersed over a greater area, thereby dispersing the sound power of the wave. Atmospheric absorption also influences the levels that are received by the observer. The greater the distance traveled, the greater the influence and the resultant fluctuations. The degree of absorption is a function of the frequency of the sound as well as the humidity and temperature of the air. Turbulence and gradients of wind, temperature and humidity also play a significant role in determining the degree of attenuation. Intervening topography can also have a substantial effect on the effective perceived noise levels.

Noise has been defined as unwanted sound and it is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. This criteria is based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance. Each of these potential noise impacts on people are briefly discussed in the following narratives:

- Hearing Loss is not a concern in community noise situations of this type. The potential for noise
  induced hearing loss is more commonly associated with occupational noise exposures in heavy
  industry or very noisy work environments. Noise levels in neighborhoods, even in very noisy
  airport environs, is not sufficiently loud to cause hearing loss.
- Speech Interference is one of the primary concerns in environmental noise problems. Normal conversational speech is in the range of 60 to 65 dBA and any noise in this range or louder may interfere with speech. There are specific methods of describing speech interference as a function of distance between speaker and listener and voice level.
- Sleep Interference is a major noise concern for traffic noise. Sleep disturbance studies have identified interior noise levels that have the potential to cause sleep disturbance. Note that sleep disturbance does not necessarily mean awakening from sleep, but can refer to altering the pattern and stages of sleep.

- Physiological Responses are those measurable effects of noise on people that are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent is not known to which these physiological responses cause harm or are sign of harm.
- Annoyance is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability.

#### Noise Measurement

The description, analysis and reporting of community noise levels around communities is made difficult by the complexity of human response to noise and the myriad of noise metrics that have been developed for describing noise impacts. Each of these metrics attempts to quantify noise levels with respect to community response. Most of the metrics use the A-Weighted noise level to quantify noise impacts on humans. A-Weighting is frequency weighting that accounts for human sensitivity to different frequencies.

Noise metrics can be divided into two categories: single event and cumulative. Single-event metrics describe the noise levels from an individual event such as an aircraft fly over or perhaps a heavy equipment pass-by. Cumulative metrics average the total noise over a specific time period, which is typically 1 or 24-hours for community noise levels. For this type of analysis, cumulative noise metrics will be used.

Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on man, (2) the variety of noises found in the environment, (3) the variations in noise levels that occur as a person moves through the environment, and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominate noise scales are: the Equivalent Noise Level (LEQ) and the Community Noise Equivalent Level (CNEL). These scales are described in the following paragraphs.

LEQ is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. LEQ is the "energy" average noise level during the time period of the sample. LEQ can be measured for any time period, but is typically measured for 1 hour. This 1 hour noise level can also be referred to as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL, Community Noise Equivalent Level, is the predominant rating scale now in use in California for land use compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the A-weighted decibel. Time weighted refers to the fact that noise that occurs during certain sensitive time periods is adjusted upwards for occurring at these times. Noises occurring during the evening time period (7 p.m. to 10 p.m.) are counted as if they were 5 dBA louder, while nighttime (10 p.m. to 7 a.m.) noises counted as if they were 10 dBA louder. These time periods and adjustments were selected to reflect people's increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a "CNEL of 60 dBA," "60 dBA CNEL," or simply "60 CNEL."

### Noise Exposure Standards

# City of Los Angeles Noise Element

Exhibit 1 of the City of Los Angeles Noise Element presents "Guidelines for Noise Compatible Land Use". This exhibit classifies various land uses in terms of Normally Acceptable, Conditionally

Acceptable, Normally Unacceptable and Unacceptable based on their noise exposure in the Community Noise Equivalent Level (CNEL) scale.

For single family residential uses, CNEL levels from 50 to 55 dB are Acceptable, CNEL levels from 60 to 65 are Conditionally Acceptable, CNEL levels of 70 dB are Normally Unacceptable and CNEL levels exceeding 75 dB are Clearly Unacceptable.

For multi-family residential uses, CNEL levels from 50 to 65 dB are Acceptable, CNEL levels from 60 to 70 dB are Conditionally Acceptable, CNEL levels of 70 to 75 dB are Normally Unacceptable and CNEL levels exceeding 75 dB are Clearly Unacceptable.

For commercial uses, CNEL levels from 50 to 65 dB are Acceptable, CNEL levels from 65 to 75 are Conditionally Acceptable, and CNEL levels of 75 to 80 dB are Normally Unacceptable.

Land uses exposed to noise levels that are considered Normally Acceptable indicates that the land use is compatible with the noise environment and no special noise insulation is required. If a project results in a Conditionally Acceptable noise level, a noise analysis is typically required to determine noise mitigation required to reduce noise to a compatible level. Conventional construction will normally suffice with a fresh air supply system or air conditioning to allow windows to remain closed. A noise analysis is also required for new construction exposed to a Normally Unacceptable noise level. The analysis is required to determine mitigation measures to reduce noise levels to a compatible level. In general, development is discouraged for land uses in areas with this designation. Proposed development exposed to Clearly Unacceptable noise levels should generally not be undertaken.

Noise Element policies establish a 65 CNEL standard for outdoor residential areas and a 45 CNEL standard for indoor residential areas. The noise element does not set standards for uses other than residential.

#### City of Los Angeles Noise Ordinance

The Los Angeles Municipal Code (LAMC) (Chapter XI-Noise Regulation) establishes the noise standards for various noise sources generated on private property affecting neighboring properties. Parking lot noise sources are not specifically regulated by the LAMC. The section of the LAMC (Article 6-General Noise) is what is referred to as a "nuisance ordinance" in that it does not contain any specific noise limits that cannot be exceeded. In general, these types of ordinances are difficult to enforce because they do not define specific noise levels that are considered nuisances. The LAMC does set specific restrictions for specific activities. Two of these sections relate to the Project.

Section 112.02 of the LAMC regulates air conditioning, refrigeration, heating, pumping and filtering equipment. This equipment cannot cause the noise level on any adjacent occupied property to exceed the ambient noise level by more than 5 dB.

Section 114.03 of the LAMC regulates loading and unloading of vehicles at loading docks. This section restricts any person to "load or unload any vehicle, or operate any dollies, carts, forklifts, or other wheeled equipment which causes any impulsive sound, raucous or unnecessary noise within 200 feet of any residential building" between the hours of 7:00 a.m. to 10:00 p.m.

Section 41.40 of the LAMC regulates construction noise. Specifically, LAMC section 41.40(a) restricts any construction activity that generates substantial noise levels to between 7:00 a.m. and 9:00 p.m. Section 41.40(b) of the LAMC further restricts all construction within 500 feet of residences to between 8:00 a.m. and 6:00 p.m. on Saturdays or national holidays and at no time on Sundays.

#### **Existing Conditions**

The existing noise environment in the vicinity of the Project site is typical of most urban areas within Southern California, characterized by a varying background or "ambient" noise levels generated by vehicular traffic on nearby freeways and major thoroughfares, commercial activities, and a variety of other characteristic urban noise elements such as emergency vehicle sirens, noise from patrons waiting in line for a theater show, car alarms, and loud stereos.

The noise environment in the Project area is primarily determined by the local traffic on local streets, including Avenue of the Stars, Century Park East, Olympic Boulevard, Constellation Boulevard, Santa Monica Boulevard, and Century Park West. This noise environment is generated simply because there is a lot of traffic brought on by the high volume of types generated by commercial and office uses. The noise activity on these streets and surrounding area is typical for this type of environment.

An estimate of highway noise levels in terms of CNEL was computed for the roadways affected by Project traffic. The Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December, 1978) was utilized. The CALVENO noise emission curves developed by Caltrans were used with the FHWA model. These curves better model the California vehicle mix. The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." A computer code has been written which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these noise levels and summing them results in the CNEL for the traffic projections used. CNEL contours are found by iterating over many distances until the distances to the 60, 65, and 70 CNEL contours are found.

The distances to the existing 60, 65 and 70 CNEL contours for the roadways whose noise levels will be affected by Project traffic are given in **Table V.I-1**. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The values given in **Table V.I-1** represent existing noise levels and do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. Areas with noise barriers or structures that break line of sight from a receptor to the roadway will experience lower levels. Traffic volumes, speeds and mixes used in calculating these noise levels can be found in the appendix to the noise study and were provided in a traffic study<sup>34</sup>. Noise levels along all roadways examined in the traffic study can also be found in the appendix to the noise study.

.

Traffic Impact Study for Office, Commercial and Cultural Use Project at 2000 Avenue of the Stars, Century City, Crain and Associates, June 2002

<u>Table V.I-1</u> Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	CNEL @ 100'†	Distance To CNEL Contour† (feet)			
		70 CNEL	65 CNEL	60 CNEL	
Constellation Boulevard					
Century Park West to Avenue of the Stars	59.3	RW	41	89	
Avenue of the Stars to Century Park East	61.9	29	63	135	
Olympic Boulevard					
Overland Ave. to Beverly Glen Blvd.	66.7	60	129	279	
Beverly Glen Blvd. to Century Park West	66.8	61	132	285	
Century Park West to Avenue of the Stars	66.5	58	126	271	
Avenue of the Stars to Century Park East	66.6	60	129	277	
Century Park East to Spalding Dr.	66.7	61	130	281	
Galaxy Way					
Avenue of the Stars to Century Park East	53.0	RW	RW	34	
Pico Boulevard					
Overland Ave. to Beverly Glen Blvd.	65.0	47	100	216	
Beverly Glen Blvd. to Motor Ave.	64.8	45	96	207	
Motor Ave. to Avenue of the Stars	65.8	53	113	244	
Avenue of the Stars to Century Park East	64.9	46	98	212	
Overland Avenue					
Olympic Blvd. to Pico Blvd.	58.8	RW	39	83	
Beverly Glen Boulevard					
Olympic Blvd. to Pico Blvd.	60.3	RW	49	105	
Century Park West					
Santa Monica Blvd. to Constellation Blvd.	57.8	RW	33	72	
Constellation Blvd. to Olympic Blvd.	59.6	RW	43	94	
Motor Avenue					
South of Pico Blvd	61.0	25	55	117	
Avenue of the Stars					
Constellation Blvd. to Olympic Blvd.	63.2	35	76	163	
Olympic Blvd. to Galaxy Way	62.4	31	67	145	
Galaxy Way to Pico Blvd.	62.6	32	69	148	
Century Park East					
Constellation Blvd. to Olympic Blvd.	62.4	31	67	144	
Olympic Blvd. to Pico Blvd.	60.9	RW	53	114	
Spalding Drive					
North of Olympic Blvd.	55.8	RW	RW	52	
† Measured from centerline of roadway.					
RW-Contour falls within road right-of-way.					

**Table V.I-1** shows that Olympic Boulevard and Pico Boulevard generate the highest levels of noise in the Project area with noise levels along Pico Boulevard being slightly lower than along Olympic Boulevard. Noise levels along Constellation Boulevard, Overland Avenue, Beverly Glen Boulevard, Century Park West, Motor Avenue, Avenue of the Stars Century Park East and Spalding Drive are moderate. Traffic noise levels along Galaxy Way are minor.

#### Threshold of Significance

# **Construction Phase Impact Threshold**

The proposed Project would result in a significant short-term noise impact if excavating and/or construction noise levels occur at times or on days that exceed the standards set in the City of Los Angeles (LAMC) Noise Ordinance.

## Operational Impacts Threshold

A significant operational noise impact would occur if the Project traffic caused a permanent ambient noise level increase greater than 3 dB on a roadway segment adjacent to a noise sensitive land use, and the resulting future Project noise level exceeded the criteria level for the noise sensitive land use. In this case, the criteria level is 70 CNEL for commercial and office land uses, and 65 CNEL for the adjacent residential uses.

# **Project Impacts**

Potential noise impacts are commonly divided into two groups; temporary and long term. Temporary (short-term) impacts are usually associated with noise generated by construction activities. Long-term impacts are further divided into impacts on surrounding land uses generated by the proposed Project and those impacts that occur at the proposed Project site.

### **Construction Impacts**

The analysis of the construction phase delineates the impact of the Project on adjacent uses as well as impacts on uses along the haul route. <sup>35</sup>

### Off-Site Impacts

Construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. For the proposed Project, the highest noise generating activities would include demolition of the existing buildings.

Worst-case examples of construction noise at 50 feet are presented in Exhibit 4 of **Appendix 11**. The peak noise level for most of the equipment that would be used during the construction is 70 to 95 dBA at a distance of 50 feet. At 200 feet, the peak construction noise levels range from 58 to 83 dBA. At 400 feet, the peak noise levels range from 52 to 77 dBA. Note that these noise levels are based upon worst-case conditions. Typically, noise levels at the site would be less.

The nearest noise sensitive use that may be affected by construction and demolition noise is the Century Plaza Hotel located across from the Project on Avenue of the Stars. The near edge of the hotel property is located approximately 160 feet from the nearest demolition activities. Noise generated by demolition activities could reach as high as 85 dBA with typical maximum noise levels of approximately 72 dBA, as recorded at the outdoor area nearest the property boundary. Average outdoor noise levels during demolition would likely be approximately 67 dBA. The mid-rise structure of the hotel containing the guestrooms is located approximately 270 feet from the nearest demolition activities. Interior noise levels in the guestrooms could reach as high as 60 dBA with typical maximum noise levels of 47 dBA. Average interior demolition noise levels would likely be approximately 42 dBA. All other non-residential noise sensitive uses including the St. Regis Hotel and the Century City Hospital are located a greater distance from the construction area than the Century Plaza Hotel and would be less affected.

2000 Avenue of the Stars ProjectDraft EIRENV-2001-4027-EIRPage 180August 2002

<sup>&</sup>lt;sup>35</sup> Currently, the Project's haul route is not approved. However, for purposes of analysis, this document will assume the route to be as shown in Figure T-10.

Other noise sensitive uses include the Park Place Condominium complex, located across Olympic Boulevard from the Project. The near edge of this area is located approximately 215 feet from the nearest demolition activities. Noise generated by demolition activities could reach as high as 84 dBA with typical maximum noise levels of approximately 71 dBA, as recorded at the outdoor area nearest the property boundary. Average outdoor noise levels during demolition would likely be approximately 66 dBA. The Park Place Condominium buildings are located approximately 290 feet from the nearest demolition activities. Interior noise levels could reach as high as 60 dBA with typical maximum noise levels of 47 dBA. Average interior demolition noise levels would likely be approximately 42 dBA. All other residential areas, such as the Century Park East Condominiums, are located greater distances away from the construction areas than the Park Place Condominiums and would be less affected.

Construction and demolition activities would generate increased noise levels at the multi-family residential and hotel uses adjacent to the Project. This is a potentially significant impact. Construction hours would be limited by the City of Los Angeles Municipal Ordinance which designates the hours of the day during which construction activities are appropriate. Section 41.40 Chapter IV (Public Welfare) of the City of Los Angeles Municipal Code prohibits noise generating construction activities that may disturb nearby hotel occupants or residents before 7:00 a.m. or after 9:00 p.m. Monday through Friday. The Planning Department further restricts construction to no later than 6:00 p.m. Monday through Friday. All construction activity within 500 feet of residences or hotels is restricted before 8:00 a.m. or after 6:00 p.m. on Saturday or any national holiday, and at anytime on Sunday. Construction and demolition activities for the Project shall only occur during the hours allowed. Therefore, construction and demolition activities would not impact people during normal sleep times. These restrictions are included as mitigation measure N-1. The Project would also be required to comply with mitigation measures N-2 to N-6 which, would reduce temporary noise impacts. However, the construction noise impact would continue to be potentially significant.

# Construction Vehicle Impacts

Off-site impacts from traffic noise are measured against two criteria. Both criteria must be met for a significant impact to be identified. First, the traffic noise increase due to the Project must be greater than 3 dB on a roadway segment adjacent to a noise sensitive land use. Second, the resulting future with Project noise level must exceed the criteria level for the noise sensitive land use. In this case, the criteria level is 65 CNEL for residential land uses.

In community noise assessments, changes in noise levels greater than 3 dB are often identified as significant, while changes less than 1 dB would not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. Note that there is no scientific evidence available to support the use of 3 dB as the significance threshold. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. In a community noise situation, however, noise exposures are over a long time period, and changes in noise levels occur over years, rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB, and 3 dB appears to be appropriate for most people.

Trucks used to haul debris from the Project site during demolition would increase traffic noise levels along the haul route. Trucks would approach the Project site from the Santa Monica (I-10) Freeway exiting onto Overland Boulevard, turning right onto Pico and then left onto Avenue of the Stars. Leaving the Project site, the trucks would continue north on Avenue of the Stars, turn right onto Constellation, right onto Century Park East, right onto Pico Boulevard and left onto Overland Boulevard to the Santa Monica Freeway. Up to 41 truck round trips per day would be required to haul debris away from the site. This would result in 82 additional trucks on the haul route roads.

The greatest increase in construction traffic noise would occur along the roadway segment with the lowest existing traffic volume and currently generating the lowest levels of noise. Based on information received from Crain and Associates, the roadway segment with the lowest existing traffic volume is Century Park East north of Pico Boulevard. This roadway has an existing average daily traffic volume of 14,200 trips and a posted speed of 35 miles per hour. The additional trucks on this roadway would result in a 0.3 dB increase in the traffic noise CNEL levels along the roadway segment. This increase is not significant. Increases along all other roadway segments on the haul route would be less than 0.3 dB. Therefore, construction vehicles utilized for the Project would not result in a significant noise impact.

#### **Operational Impacts**

The analysis of the operational phase delineates the impact of the Project on surrounding uses as well as impacts from surrounding uses on the proposed Project. In addition, the different sources of noise have been broken out and their individual impacts have been identified.

#### **Off-Site Impacts**

**Table V.I-2** shows traffic noise CNEL level changes on the roadways in the vicinity of the Project whose noise levels will be affected by the Project. Column 1 lists the roadway segments. Columns 2 and 3 show the increase in future noise levels over existing levels along the roadways listed. Column 2 shows the increase without the Project and Column 3 shows the increase with the Project. The last column of **Table V.I-2** shows the change in future noise levels with the Project. The proposed Project generates less traffic than the existing uses currently on the Project site. Therefore, the Project will result in a slight decrease in traffic noise levels on roadways in the vicinity of the Project. The negative numbers in the last column of **Table V.I-2** show the amount the traffic noise levels will be reduced with the Project.

The noise level impacts were calculated using traffic volume data presented in the traffic data prepared for the Project, set forth in **Appendix 11**.

**Table V.I-2** shows that the traffic noise CNEL increase over existing conditions as high as 2.1 dB are projected to occur without the Project on Century Park West between Constellation Boulevard and Olympic Boulevard. This increase is due to growth in the Project area not associated with the Project. This increase is not substantial and will not be noticed by observers in the area. With the Project, the increase along this roadway segment is 1.9 dBA. This is 0.2 dB lower than the without Project projected increases over existing conditions.

The greatest increase with the Project over existing conditions is 1.9 dB along Century Park West between Santa Monica Boulevard and Olympic Boulevard. This increase is not substantial. Future noise levels will be lower by as much as 0.4 dB or unchanged with the Project compared to the without Project conditions. Because the Project results in lower traffic noise levels in the future it would not result in a significant off-site traffic noise impact.

For reference, **Table V.I-3** presents the distances to the Future (2005) with Project contours (60, 65 and 70 CNEL) for the roadways in the vicinity of the Project site. This is the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels. Areas with noise barriers or structures that break line of sight from a receptor to the roadway will experience lower levels. The traffic data used to calculate these noise levels is presented in Appendix 11.

<u>Table V.I-2</u> Proposed Traffic Noise Level CNEL Increases (dB)

	Future (2005) Increase Over Existing CNEL		
Roadway Segment	Without Project	With Project	Change In Future Noise Level With Project
Constellation Boulevard			
Century Park West to Avenue of the Stars	2.0	1.8	-0.2
Avenue of the Stars to Century Park East	-0.1	-0.4	-0.4
Olympic Boulevard			
Overland Ave. to Beverly Glen Blvd.	0.7	0.6	-0.1
Beverly Glen Blvd. to Century Park West	0.8	0.7	-0.1
Century Park West to Avenue of the Stars	0.5	0.5	0.0
Avenue of the Stars to Century Park East	0.4	0.4	-0.1
Century Park East to Spalding Dr.	0.3	0.2	0.0
Galaxy Way			
Avenue of the Stars to Century Park East	-0.1	-0.1	0.0
Pico Boulevard			
Overland Ave. to Beverly Glen Blvd.	0.3	0.2	-0.1
Patricia Ave. to Beverly Glen Blvd.	0.2	0.1	-0.1
Beverly Glen Blvd. to Motor Ave.	0.5	0.4	-0.1
Motor Ave. to Avenue of the Stars	0.2	0.1	-0.1
Avenue of the Stars to Century Park East	0.5	0.4	0.0
Overland Avenue			
Olympic Blvd. to Pico Blvd.	0.9	0.9	0.0
Beverly Glen Boulevard			
Olympic Blvd. to Pico Blvd.	0.2	0.1	0.0
Century Park West			
Santa Monica Blvd. to Constellation Blvd.	2.0	1.9	-0.1
Constellation Blvd. to Olympic Blvd.	2.1	1.9	-0.1
Motor Avenue			
South of Pico Blvd	0.7	0.6	-0.1
Avenue of the Stars			
Constellation Blvd. to Olympic Blvd.	1.1	1.0	-0.1
Olympic Blvd. to Galaxy Way	1.4	1.4	-0.1
Galaxy Way to Pico Blvd.	1.1	1.0	-0.1
Century Park East			
Constellation Blvd. to Olympic Blvd.	0.7	0.6	-0.1
Olympic Blvd. to Pico Blvd.	1.0	0.8	-0.2
Spalding Drive			
North of Olympic Blvd.	0.7	0.7	0.0

Note: The difference between the increase in noise levels with and without the Project may not subtract exactly to the change in future noise levels with the Project due to rounding

<u>Table V.I-3</u> Future 2005 With Project Traffic Noise Levels

Roadway Segment	CNEL @ 100'†	Distance To CNEL Contour† (feet)			
		70 CNEL	65 CNEL	60 CNEL	
Constellation Boulevard					
Century Park West to Avenue of the Stars	61.1	25	55	118	
Avenue of the Stars to Century Park East	61.5	27	59	126	
Olympic Boulevard					
Overland Ave. to Beverly Glen Blvd.	67.3	66	142	306	
Beverly Glen Blvd. to Century Park West	67.6	69	148	320	
Century Park West to Avenue of the Stars	67.0	63	136	293	
Avenue of the Stars to Century Park East	67.0	63	136	294	
Century Park East to Spalding Dr.	67.0	63	135	291	
Galaxy Way					
Avenue of the Stars to Century Park East	52.9	RW	RW	34	
Pico Boulevard					
Overland Ave. to Beverly Glen Blvd.	65.2	48	104	224	
Patricia Ave. to Beverly Glen Blvd.	65.4	50	107	230	
Beverly Glen Blvd. to Motor Ave.	65.1	47	102	220	
Motor Ave. to Avenue of the Stars	66.0	54	116	250	
Avenue of the Stars to Century Park East	65.3	49	105	226	
Overland Avenue					
Olympic Blvd. to Pico Blvd.	59.7	RW	44	95	
Beverly Glen Boulevard					
Olympic Blvd. to Pico Blvd.	60.5	RW	50	107	
Century Park West					
Santa Monica Blvd. to Constellation Blvd.	59.7	RW	45	96	
Constellation Blvd. to Olympic Blvd.	61.5	27	58	126	
Motor Avenue					
South of Pico Blvd	61.6	28	60	129	
Avenue of the Stars					
Constellation Blvd. to Olympic Blvd.	64.2	41	88	190	
Olympic Blvd. to Galaxy Way	63.8	39	83	179	
Galaxy Way to Pico Blvd.	63.5	37	80	172	
Century Park East					
Constellation Blvd. to Olympic Blvd.	63.0	34	73	157	
Olympic Blvd. to Pico Blvd.	61.6	28	60	129	
Spalding Drive					
	56.5	RW	27	58	

RW-Contour falls within road right-of-way

**Table V.I-3** shows that Olympic Boulevard and Pico Boulevard will continue to generate the highest levels of noise in the Project area with noise levels along Pico Boulevard continuing to be slightly lower than along Olympic Boulevard. Noise levels along Constellation Boulevard, Overland Avenue, Beverly Glen Boulevard, Century Park West, Motor Avenue, Avenue of the Stars, Century Park East and Spalding Drive will continue to be moderate. Traffic noise levels along Galaxy Way will remain minor.

There are no on-site activities proposed that would be expected to generate significant levels of noise. The nearest noise sensitive uses are located across major roadways. The Century Plaza Hotel is located across Avenue of the Stars and the Park Place Condominiums and Century Park East Condominiums are located across Olympic Boulevard. Noise levels generated by typical activities on a project of this type are not expected to be significantly greater than the noise generated by the roadways. In any case, noise generated by any activity on the Project site would need to comply with the City's Noise Ordinance (Municipal Code Chapter XI). By complying with the Noise Ordinance, the Project would not result in a significant noise impact due to on-site activities.

The Project does provide a code required helipad on the roof of the proposed building for emergency use. No commercial use would be permitted. Noise impacts from emergency helicopters would be adverse but not significant due to restriction of helipad operations to emergency situations.

# **On-Site Impacts**

This section examines traffic noise impacts on the proposed uses. The Los Angeles County Municipal Code Interior Noise standard requires that future noise levels be predicted for a year at least ten years from issuance of building permit. Noise generated by traffic on Constellation Boulevard, Avenue of the Stars and Olympic Boulevard would impact the proposed Project. Future year 2015 traffic volumes and speeds were obtained from Crain & Associates and used to predict the noise levels at the proposed buildings. This data is presented in the appendix of the noise study.

An estimate of highway noise levels in terms of CNEL was computed using the Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December, 1978). The CALVENO noise emission curves developed by Caltrans were used with the FHWA model. These curves which represent how much noise composite vehicles generate at different speeds, better model the California vehicle mix than those in the FHWA model. The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." A computer code has been written which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these noise levels and summing them results in the CNEL for the traffic projections used.

The proposed building is located approximately 70 feet from the centerline of Constellation Boulevard, 110 feet from the centerline of Avenue of the Stars and 170 feet from the centerline of Olympic Boulevard. Exterior traffic noise levels at the building face would be approximately 64.0 CNEL along Constellation Boulevard, 64.0 CNEL along Avenue of the Stars, and 64.0 CNEL along Olympic Boulevard.

Commercial buildings achieve at least 20 dBA of outdoor to indoor noise reduction with windows closed. The windows closed assumption requires that adequate ventilation be provided. Note that the windows do not need to be sealed shut but closeable at the occupants discretion. Air conditioning typically used for commercial buildings provides adequate ventilation.

Interior traffic noise levels for the Project would be less than 45 CNEL and therefore, fall below the interior noise criteria applicable to the proposed Project. The Project would not be significantly affected by traffic noise.

### **Mitigation Measures**

Implementation of the following mitigation measures would reduce potential impacts but the project could still result in a potentially significant impact.

- N-1 All exterior construction and demolition activities located within 500 feet of a residence or hotel shall occur between 7:00 am and 6:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturday, pursuant to the City of Los Angeles Municipal Code Section 41.40.
- N-2 Construction equipment shall use noise control devices, such as equipment mufflers, enclosures, and barriers. Natural and artificial barriers such as ground elevation changes and existing buildings can shield construction noise. Construction operations shall be staged as far from sensitive uses as feasible.
- N-3 Maintain all sound reducing devices and restrictions throughout the construction period.
- N-4 Locate any delivery, truck loading or trash pickup areas as far from noise sensitive land uses as possible to the extent feasible.
- N-5 The project shall comply with the City of Los Angeles Municipal Code Chapter XI, which prohibits the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible.
- N-6 The project sponsor must comply with the Noise Insulation Standards of Title 24 of the California Code Regulations, which insure an acceptable interior noise environment.

#### **Significant Project Impacts After Mitigation**

With implementation of the proposed mitigation measures, the Project could still result in a potentially significant construction impact, however the Project would not result in a significant operational impact.

# **Cumulative Impacts**

### **Cumulative Construction Impacts**

The Environmental Setting Section (Section IV) provides a list of projects that are planned or are under construction in the Project area. Most of the development planned for the area is within the intensely developed portions of West Los Angeles, Century City, and Beverly Hills. In close proximity to the site are the Constellation Place, Fox Studio expansion, the Santa Monica Boulevard Transit Parkway and the Westfield Shoppingtown Century City projects. Other related projects to be constructed in the area of the proposed Project would be subject to a CEQA analysis, and likely include mitigation measures to reduce construction noise impacts. However, the increase in construction noise for the proposed Project and the potential for increased construction noise from related projects, could result in a potentially significant cumulative construction noise impact.

#### **Cumulative Operational Impacts**

The proposed Project would result in a reduction in the amount of noise associated with the operation of the Project. Therefore, the Project would not contribute to cumulative operational noise impacts in the area.