

H. NOISE

An evaluation of the existing and proposed noise conditions at the Project Site and Add Area was prepared for the Master Environmental Impact Report by Terry A. Hayes Associates in September 2002. This report is attached in full in **Appendix B** (under separate cover). Findings from this evaluation were utilized in the preparation of this section.

Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment ranges from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA.

Community Noise Equivalent Level (CNEL) is an average sound level during a 24-hour day. CNEL is a noise measurement scale which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually five decibels higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level (Leq) is the average noise level on an energy basis for any specific time period. Leq can be thought of as the level of a continuous noise that has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Studies have shown that the smallest perceptible change in sound level is approximately three decibels. A change of at least five decibels would be noticeable and would likely evoke a community reaction. A ten-decibel increase is perceived subjectively as approximately a doubling in loudness and would most certainly cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or point source, will decrease by approximately six decibels over hard surfaces and nine decibels over soft surfaces for each doubling of the distance, beginning at the reference distance. For example, if a noise source produces a noise level of 89

dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on.

ENVIRONMENTAL SETTING

The Project Site and Add Area are located in an urban environment. The existing noise environment is characterized by the mix of land uses within it, which includes residences, commercial and industrial developments, and arterial roadways. Vehicular traffic is the primary source of noise in the project vicinity and is the largest consistent noise source in the project vicinity.

Land uses that are considered sensitive to noise impacts are referred to as “sensitive receptors.” Noise sensitive receptors consist of, but are not limited to, schools, residences, libraries, hospitals, and other care facilities.

Sound measurements were taken using a Quest Q-400 Noise Dosimeter during the hours between 1:00 p.m. and 2:30 p.m. on August 20, 2002 at various sensitive receptor locations within the vicinity of the Project Site. These readings were used to establish existing ambient conditions and provide a baseline from which to evaluate construction noise impacts. The locations of the noise monitoring positions are shown in **Figure 22: Noise Monitoring Positions**. These locations consist of representative noise sensitive land uses, which include nearby residences and a daycare center. The existing noise levels, as recorded, are listed in **Table 27: Existing Noise Levels**.

TABLE 27
EXISTING NOISE LEVELS (DBA, LEQ)

Sensitive Receptors	Sound Level
1-Residential Uses (on Plummer Street and Corbin Avenue)	56.1
2-Washington Mutual Child Care Center	59.6

SOURCE: Terry A. Hayes Associates LLC.

As stated earlier, vehicular traffic is the predominant noise source in the project vicinity. Using existing traffic volumes provided by the project traffic consultant and the Federal Highway Administration (FHWA) RD-77-108 noise calculation formulas, a CNEL has been calculated for the two sensitive receptors (N1 and N2) for which baseline noise levels were measured. The CNEL is used as a baseline to measure the operational noise impacts of the proposed Project, as shown in **Table 28: Existing Community Noise Equivalent Level**.⁵⁶ The estimated noise levels

⁵⁶ The assumptions used in developing vehicular noise levels are provided in Appendix B.

Figure 22: Noise Monitoring Positions

TABLE 28
EXISTING COMMUNITY NOISE EQUIVALENT LEVEL (dBA, CNEL)

Sensitive Receptor	Estimated dBA, CNEL
1-Residential Uses (on Plummer Street and Corbin Avenue)	75.4
2-Washington Mutual Child Care Center	67.0

SOURCE: Terry A. Hayes Associates LLC.

represent the most conservative scenario, which assumes that no shielding is provided between the traffic and the location of each sensitive receptor.

THRESHOLDS OF SIGNIFICANCE

According to the City of Los Angeles CEQA Thresholds Guide, a project would normally have a significant impact on noise levels from construction if:

Construction

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use;
- Construction activities lasting more than 10 days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or
- Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 pm, and 7:00 am, Monday through Friday, before 8:00 am or after 6:00 pm on Saturday, or at anytime on Sunday.

Operational

A project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dBA or greater noise increase, as shown in **Table 29: Land Use Compatibility for Community Noise Environments**.

TABLE 29
LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

Land Use Category	Community Noise Exposure (dBA, CNEL)					
	55	60	65	70	75	80
Residential - Low Density Single-Family, Duplex, Mobile Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Multi-Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Transient Lodging - Motels Hotels	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable

 **Normally Acceptable** - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

 **Conditionally Acceptable** - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditionally will normally suffice.

 **Normally Unacceptable** - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

 **Clearly Unacceptable** - New construction or development should generally not be undertaken.

SOURCE: California Office of Noise Control, Department of Health Services.

ENVIRONMENTAL IMPACTS

Project Site Only

Construction Phase Impacts

Construction of the proposed Project at the Project Site would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would likely result in a temporary annoyance to nearby sensitive receptors. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities require the use of numerous noise generating equipment, such as jack hammers, pneumatic impact equipment, saws, and tractors. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 30: Maximum Noise Levels of Common Construction Equipment**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source.

TABLE 30
MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION EQUIPMENT

Noise Source	Noise Level (dBA) ¹	
	50 Feet	100 Feet
Jackhammer	82	76
Steamroller	83	77
Street Paver	80	74
Backhoe	83	77
Street Compressor	67	61
Front-end Loader	79	73
Street Cleaner	70	64
Idling Haul Truck	72	66
Cement Mixer	72	66

¹Assumes a six decibel drop-off rate for noise generated by a point source, traveling over hard surfaces. Measured noise levels of equipment were taken at 10 and 30 feet from noise source.
 SOURCE: Cowan, James P., *Handbook of Environmental Acoustics*, 1994.

Whereas **Table 30: Maximum Noise Levels of Common Construction Equipment** shows the noise level of individual pieces of equipment, the noise levels shown in **Table 31: Outdoor Construction Noise Levels** take into account the likelihood that more than one piece of construction equipment would be in operation simultaneously and lists the typical overall noise levels expected for each phase of construction. These noise levels are based on surveys

TABLE 31
OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level (dBA Leq)	
	At 50 Feet	At 50 Feet with Mufflers
Ground Clearing	84	82
Grading/Excavation	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

SOURCE: EPA , Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

conducted by the USEPA in the early 1970s. Since 1970, regulations have been enforced to improve noise generated by certain types of construction equipment to meet worker noise exposure standards. However, many older pieces of equipment are still in use. Thus, the construction phase noise levels indicated in **Table 31: Outdoor Construction Noise Levels** represent worst-case conditions. As the table shows, the highest noise levels are expected to occur during the grading/excavation and finishing phases of construction.

Scenario 1: Retail Project Site Only To ascertain worst-case noise impacts at sensitive receptor locations, construction noise has been modeled by introducing the noise level associated with the grading phase of typical development. The noise source is assumed to be active for 40 percent of the eight-hour work day (consistent with the EPA studies of construction noise), generating a noise level of 89 dBA (Leq) at a reference distance of 50 feet.

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level.⁵⁷ The estimated construction noise levels at sensitive receptors are shown in **Table 32: Construction Noise Impact, Project Site Only**.

As indicated in **Table 32: Construction Noise Impact, Project Site Only**, the new ambient noise level during the construction phase of the proposed Project at the Project Site would be approximately 1.7 dBA greater than the existing ambient noise level at N1 (residential uses) and approximately 0.7 dBA greater than existing ambient noise levels at N2 (Washington Mutual Child Care Center). The incremental increase in noise levels is less than the significance threshold of a five decibel increase over the existing ambient noise level. Therefore, the proposed Project at the Project Site.

⁵⁷ United States Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

TABLE 32
CONSTRUCTION NOISE IMPACT, PROJECT SITE ONLY

Receptor	Distance (feet) ¹	Maximum Construction Sound Level (dBA) ²	Existing Ambient (dBA, Leq) ³	New Ambient (dBA, Leq) ⁴	Increase	Significance Threshold	Impact?
N1	950	63.4	56.1	57.8	1.7 dBA	\$ 5 dBA	No
N2	840	64.5	59.6	60.3	0.7 dBA	\$ 5 dBA	No

¹Distance of noise source from receptor.
²Construction noise source's sound level at receptor location, with distance adjustment.
³Pre-construction activity ambient sound level at receptor location.
⁴New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: Terry A. Hayes Associates LLC.

would result in a less than significant impact to noise levels in the project area due to construction activities.

Scenario 2: Office Project Site Only Construction phase impacts similar to those in Scenario 1: Retail Project Site Only.⁵⁸

Scenario 3: Retail/Residential Project Site Only Construction phase impacts similar to those in Scenario 1: Retail Project Site Only.

Scenario 4: Office/Residential Project Site Only Construction phase impacts similar to those in Scenario 1: Retail Project Site Only.

Operational Phase Impacts

Vehicular Noise

Scenario 1: Retail Project Site Only The predominant noise source for Scenario 1: Retail Project Site Only, as with most urbanized areas, is vehicular traffic. Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 33: 2005 Estimated Community Noise Equivalent Level, Project Site Only**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Scenario 1: Retail Project Site Only. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to **Table 29: Land Use Compatibility for Community Noise Environments**, noise

⁵⁸Equipment necessary for construction would be the same for each development scenario. Further, sensitive receptors are the same for each development scenario and would remain in in the same location. Therefore, the noise level at the sensitive receptor locations would not be altered based on the development scenario and construction noise impacts would be the same for each development scenario.

TABLE 33
2005 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL, PROJECT SITE ONLY

Sensitive Receptor	Estimated dBA, CNEL					
	Existing	No Project	Scenario A	Scenario B	Scenario C	Scenario D
N1	75.4	76.0	76.2	76.2	76.2	76.2
N2	67.0	68.7	68.7	68.7	68.7	68.7

Assumptions: Vehicular traffic is the predominate noise source. The 24-hour distribution is 75, 13, and 12 percent for 7:00 a.m. to 7:00 p.m., 7:00 to 10:00 p.m., and 10:00 p.m. to 7:00 a.m., respectively. The vehicle distribution is approximately 87 percent, 7 percent, and 6 percent for auto, medium truck, and heavy truck, respectively.
SOURCE: Terry A. Hayes Associates LLC.

levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 33: 2005 Estimated Community Noise Equivalent Level, Project Site Only**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. This incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Therefore, the proposed Project at the Project Site would result in a less than significant impact to noise levels at N2 due to operational activities.

Under “existing,” “no project,” and Scenario 1: Retail Project Site Only conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three or more decibels. As shown in **Table 33: 2005 Estimated Community Noise Equivalent Level, Project Site Only**, Scenario 1: Retail Project Site Only would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Therefore, the proposed Project at the Project Site would result in a less than significant impact to noise levels at N1 due to operational activities.

Scenario 2: Office Project Site Only Vehicular operational phase impacts similar to those in Vehicular Noise, Scenario 1: Retail Project Site Only.⁵⁹

⁵⁹Due to the developed nature of the project area, there are few sensitive receptors in the area. The sensitive receptors identified by the noise study are located just west of Corbin Avenue within an industrial and commercial office park and just north of Plummer Street, a Secondary Highway. Both of these locations are heavily traveled currently and are located at least one-quarter mile from the project area. Further, based on the trip distribution determined by the traffic study conducted for this project, trip distribution at these locations will not be substantially altered and will not result in different noise levels.

Scenario 3: Retail/Residential Project Site Only Vehicular operational phase impacts similar to those in Vehicular Noise, Scenario 1: Retail Project Site Only.

Scenario 4: Office/Residential Project Site Only Vehicular operational phase impacts similar to those in Vehicular Noise, Scenario 1: Retail Project Site Only.

MITIGATION MEASURES

Environmental impacts to noise may result due to project implementation. However, the potential impacts will be mitigated to a level less than significance by the following measures:

38. The project shall comply with the City of Los Angeles Municipal Code Chapter XI - Noise regulations. (O, C, R)
39. Locate any haul routes as far from the noise sensitive land uses as possible to the extent feasible. (O, C, R)
40. The staging of construction equipment shall be conducted as far from noise sensitive land uses as possible to the extent feasible. (O, C, R)

LEVEL OF IMPACT AFTER MITIGATION

Less than significant.

CUMULATIVE IMPACTS - PROJECT SITE ONLY

Related Projects

When calculating future traffic impacts, related projects in the area were taken into consideration. Thus, future traffic volumes with and without the proposed Project already account for the cumulative impacts from related projects. Since noise impacts are generated directly from the traffic analysis results, future with Project and future without Project noise impacts described in this report already reflect cumulative impacts. See ***Proposed Project, Add Area, and Related Projects*** below.

Proposed Project, Add Area, and Related Projects

When calculating future traffic impacts, the traffic consultant took eight additional projects into consideration. Thus, future traffic volumes with and without the proposed Project already account for the cumulative impacts from these other projects. Since noise impacts are generated directly from the traffic analysis results, future with Project and future without Project noise impacts described in this report already reflect cumulative impacts.

Scenario 1: Retail Project Site Only Scenario 1: Retail Project Site Only would incrementally increase noise levels by less-than-one decibel at N1 when compared to “existing” and “no project” conditions. The incremental increase does not exceed the noise threshold of a three or more decibel increase to or within the “normally unacceptable” or “clearly unacceptable” category. An incremental increase of 1.7 decibels at N2 is anticipated when compared to “existing” conditions. When compared to “no project” conditions, incremental increases of less-than-one decibel is expected at N2. The incremental increase does not exceed the noise threshold of a five or more decibels over ambient noise levels. Therefore, Scenario 1: Retail Project Site Only is not anticipated to exceed the operational phase significance criteria. Thus, the proposed Project at the Project Site will not result in a significant cumulative impact to noise levels in the area.

Scenario 2: Office Project Site Only Cumulative impacts similar to *Proposed Project, Add Area, and Related Projects*, Scenario 1: Retail Project Site Only.

Scenario 3: Retail/Residential Project Site Only Cumulative impacts similar to *Proposed Project, Add Area, and Related Projects*, Scenario 1: Retail Project Site Only.

Scenario 4: Office/Residential Project Site Only Cumulative impacts similar to *Proposed Project, Add Area, and Related Projects*, Scenario 1: Retail Project Site Only.

FULL PROJECT BUILD OUT (PROJECT SITE AND ADD AREA)

Construction Phase Impacts

Construction of any of the Full Build Out scenarios would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would likely result in a temporary annoyance to nearby sensitive receptors. Noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Scenario 1: Retail Full Build Out To ascertain worst-case noise impacts at sensitive receptor locations, construction noise has been modeled by introducing the noise levels associated with the grading phase of a typical development. The noise source is assumed to be active for forty percent of the eight-hour work day (consistent with the EPA studies of construction noise), generating a noise level of 89 dBA (Leq) at a reference distance of 50 feet.

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically

adding the adjusted construction noise source level to the ambient noise level.⁶⁰ Estimated construction noise levels at sensitive receptors are shown in **Table 34: Construction Noise Impact Full Build Out.**

TABLE 34
CONSTRUCTION NOISE IMPACT, FULL BUILD OUT

Receptor	Distance (feet) ¹	Maximum Construction Sound Level (dBA) ²	Existing Ambient (dBA, Leq) ³	New Ambient (dBA, Leq) ⁴	Increase	Significance Threshold	Impact?
N1	800	64.9	56.1	58.6	2.5 dBA	\$ 5 dBA	No
N2	840	64.5	59.6	60.3	0.7 dBA	\$ 5 dBA	No

¹Distance of noise source from receptor.
²Construction noise source's sound level at receptor location, with distance adjustment.
³Pre-construction activity ambient sound level at receptor location.
⁴New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: Terry A. Hayes Associates LLC.

As indicated in **Table 34: Construction Noise Impact, Full Build Out**, the new ambient noise level during the construction phase of the proposed Project at the Project Site and development scenarios analyzed for the Add Area would be approximately 2.5 dBA greater than the existing ambient noise level at N1 (residential uses) and approximately 0.7 dBA greater than existing ambient noise levels at N2 (Washington Mutual Child Care Center). The incremental increase in noise levels is less than the significance threshold of a five decibel increase over the existing ambient noise level. Therefore, the proposed Project at the Project Site and development scenarios analyzed for the Add Area will result in a less than significant impact to noise levels at sensitive receptors (N1 and N2) in the area.

Scenario 2: Office Full Build Out Construction phase impacts similar to Scenario 1: Retail Full Build Out.

Scenario 3: Retail/Residential Full Build Out Construction phase impacts similar to Scenario 1: Retail Full Build Out.

Scenario 4: Office/Residential Full Build Out Construction phase impacts similar to Scenario 1: Retail Full Build Out.

⁶⁰ United States Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Operational Phase Impacts

Vehicular Noise

Scenario 1: Retail Full Build Out The predominant noise source for Scenario 1: Retail Full Build Out, as with most urbanized areas, is vehicular traffic. Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 35: 2005 Estimated Community Noise Equivalent Level, Full Build Out**, vehicular noise at

TABLE 35
2005 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL, FULL BUILD OUT

Sensitive Receptor	Estimated dBA, CNEL					
	Existing	No Project	Scenario A	Scenario B	Scenario C	Scenario D
N1	75.4	76.0	76.2	76.3	76.2	76.2
N2	67.0	68.7	68.7	68.7	68.7	68.7

Assumptions: Vehicular traffic is the predominate noise source. The 24-hour distribution is 75, 20, and 5 percent for 7:00 a.m. to 7:00 p.m., 7:00 to 10:00 p.m., and 10:00 p.m. to 7:00 a.m., respectively. The vehicle distribution is approximately 91 percent, 6 percent, and 3 percent for auto, medium truck, and heavy truck, respectively.
SOURCE: Terry A. Hayes Associates LLC.

sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Scenario 1: Retail Full Build Out. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to **Table 29: Land use Compatibility for Community Noise Environments**, noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 35: 2005 Estimate Community Noise Equivalent Level, Full Build Out**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions.

The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Therefore, the proposed Project at the Project Site and development scenarios analyzed for the Add Area would result in a less than significant impact to noise levels at N2.

Under “existing,” “no project,” and Scenario 1: Retail Full Build Out conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable”

category would have a significant impact if ambient noise levels incrementally increase by three or more decibels. As shown in **Table 35: 2005 Estimate Community Noise Equivalent Level, Full Build Out**, Scenario 1: Retail Full Build Out would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Therefore, the proposed Project at the Project Site and development scenarios analyzed for the Add Area will result in a less than significant impact to noise levels at N1.

Scenario 2: Office Full Build Out The predominant noise source for Scenario 2: Office Full Build Out, as with most urbanized areas, is vehicular traffic. Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 35: 2005 Estimate Community Noise Equivalent Level, Full Build Out**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.3 dBA (CNEL) under Scenario 2: Office Full Build Out. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to **Table 29: Land use Compatibility for Community Noise Environments**, noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 35: 2005 Estimate Community Noise Equivalent Level, Full Build Out**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Therefore, the proposed Project at the Project Site and development scenarios analyzed for the Add Area will result in a less than significant impact to noise levels at N2.

Under “existing,” “no project,” and Scenario 2: Office Full Build Out conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 35: 2005 Estimate Community Noise Equivalent Level, Full Build Out**, Scenario 2: Office Full Build Out would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Therefore, the proposed Project at the Project Site and development scenarios analyzed for the Add Area will result in a less than significant impact to noise levels at N1.

Scenario 3: Retail/Residential Full Build Out Operational phase impacts are similar to Scenario 1: Retail Full Build Out.

Scenario 4: Office/Residential Full Build Out Operational phase impacts are similar to Scenario 1: Retail Full Build Out.

MITIGATION MEASURES

Environmental impacts to the sensitive receptors may result due to noise generated from the Project Site and Add Area. However, any potential impacts will be mitigated to a less than significant level by the following measures:

38. The project shall comply with the City of Los Angeles Municipal Code Chapter XI - Noise regulations. (O, C, R)
39. Locate any haul routes as far from the noise sensitive land uses as possible to the extent feasible. (O, C, R)
40. The staging of construction equipment shall be conducted as far from noise sensitive land uses as possible to the extent feasible. (O, C, R)

LEVEL OF IMPACT AFTER MITIGATION

Less than significant.

CUMULATIVE IMPACTS - FULL BUILD OUT

Related Projects

When calculating future traffic impacts, related projects in the area were taken into consideration. Thus, future traffic volumes with and without the proposed Project already account for the cumulative impacts from related projects. Since noise impacts are generated directly from the traffic analysis results, future with Project and future without Project noise impacts described in this report already reflect cumulative impacts. See Cumulative Impacts Section below.

Proposed Project, Add Area, and Related Projects

When calculating future traffic impacts, the traffic consultant took eight related projects into consideration. Thus, future traffic volumes with and without the proposed Project already account for cumulative impacts from other projects. Since noise impacts are generated directly from the traffic analysis results, future with Project and future without Project noise impacts described in this report already reflect cumulative impacts.

Scenario 1: Retail Full Build Out Scenario 1: Retail Full Build Out would incrementally increase noise levels by less-than-one decibel at N1 when compared to “existing” and “no project” conditions. This incremental increase does not exceed the noise threshold of a three or more decibel increase to or within the “normally unacceptable” or “clearly unacceptable” category. An incremental increase of 1.7 decibels at N2 is anticipated when compared to “existing” conditions. When compared to “no project” conditions, an incremental increase of less-than-one decibel is expected at N2. This incremental increase does not exceed the noise threshold of a five or more decibels over ambient noise levels. Scenario 1: Retail Full Build Out is not anticipated to exceed the operational phase significance criteria. Therefore, the proposed Project at the Project Site and development scenarios analyzed for the Add Area in addition to related projects will not result in a significant cumulative impact to noise levels in the area.

Scenario 2: Office Full Build Out Operational phase, cumulative impacts similar to Scenario 1: Retail Full Build Out.

Scenario 3: Retail/Residential Full Build Out Operational phase, cumulative impacts similar to Scenario 1: Retail Full Build Out.

Scenario 4: Office/Residential Full Build Out Operational phase, cumulative impacts similar to Scenario 1: Retail Full Build Out.