



Section 5.0

ENVIRONMENTAL ANALYSIS



5.4 NOISE

5.4.1 Existing Conditions

The following discussion summarizes the Acoustical Report prepared for the project by HELIX Environmental Planning (HELIX 2012a). The complete report is contained in Appendix F of the technical appendices to this Draft EIR.

Noise and Sound Level Descriptors

All noise level or sound level values presented herein are expressed in terms of decibels (dB) with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels of one hour are expressed by the symbol “ L_{EQ} ,” unless a different time period is specified. Some noise level data may be presented as octave-band-filtered and/or A-octave-band-filtered data, which are a series of sound spectra centered about each stated frequency, in which half of the bandwidth is above and half of the bandwidth is below each stated frequency. This type of data is typically used for machinery noise analysis and barrier-effectiveness calculations.

The Community Noise Equivalent Level (CNEL) is a 24-hour sound level average, in which sound levels measured during evening and nighttime hours are weighted. Sound levels measured during the evening hours, which are between 7:00 PM and 10:00 PM, have an added 5 dB weighting. Sound levels measured during the nighttime hours, which are between 10:00 PM and 7:00 AM, have an added 10 dB weighting. The Day-Night Sound Level (L_{DN}) is a 24-hour average, in which sound levels have an added 10 dB weighting for the same nighttime hours as CNEL, but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on dBA. These data unit metrics are used to express noise levels for measurement, municipal noise ordinances and regulations, land use guidelines, and enforcement of noise ordinances.

Noise emission data are often provided using the industry standard format of Sound Power, which is the total acoustic power radiated from a given sound source as related to a reference power level. Sound Power differs from Sound Pressure, which measures the fluctuations in air pressure caused by the presence of sound waves, and is the format generally used to describe noise levels as heard by the receiver. Sound Pressure is the actual noise experienced by a human or registered by a sound level instrument. When Sound Pressure is used to describe a noise source, the distance from the noise source must be indicated to provide complete information. Sound Power is a specialized analytical method to provide information without the distance requirement, but it may be used to calculate the Sound Pressure at any desired distance.

Noise Standards

City of San Diego General Plan Noise Element

General community noise and land use compatibility guidelines are set forth in the Noise Element in the City of San Diego General Plan as shown in Table 5.4-1, *Land Use – Noise Compatibility Guidelines*. As indicated in this table, office and commercial uses are conditionally compatible with exterior noise levels up to 75 dBA CNEL and interior noise levels of 50 dBA. Multi-family residential uses are conditionally compatible with exterior noise levels up to 70 dBA and interior noise levels up to 45 dBA.

**Table 5.4-1
LAND USE – NOISE COMPATIBILITY GUIDELINES**

Land Use Category	Exterior Noise Exposure (dBA CNEL)				
	>60	60-65	65-70	70-75	75<
Open Space and Parks and Recreational					
Community & Neighborhood Parks; Passive Recreation					
Regional Parks; Outdoor Spectator Sports, Golf Courses; Athletic Fields; Outdoor, Spectator Sports, Water Recreational Facilities; Horse Stables; Park Maintenance Facilities					
Agricultural					
Crop Raising & Farming; Aquaculture, Dairies; Horticulture Nurseries & Greenhouses; Animal Raising, Maintain & Keeping; Commercial Stables					
Residential					
Single Units; Mobile Homes; Senior Housing		45			
Multiple Units; Mixed-Use Commercial/Residential; Live Work; Group Living Accommodations		45	45		
Institutional					
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12 Educational Facilities; Libraries; Museums; Places of Worship; Child Care Facilities		45			
Vocational or Professional Educational Facilities; Higher Education Institution Facilities (Community or Junior Colleges, Colleges, or Universities)		45	45		
Cemeteries					
Sales					
Building Supplies/Equipment; Food, Beverages & Groceries; Pets & Pet Supplies; Sundries, Pharmaceutical, & Convenience Sales; Wearing Apparel & Accessories			50	50	
Commercial Services					
Building Services; Business Support; Eating & Drinking; Financial Institutions; Assembly & Entertainment; Radio & Television Studios; Golf Course Support			50	50	
Visitor Accommodations		45	45	45	
Offices					
Business & Professional; Government; Medical, Dental & Health Practitioner; Regional & Corporate Headquarters			50	50	
Vehicle and Vehicular Equipment Sales and Services Use					
Commercial or Personal Vehicle Repair & Maintenance; Commercial or Personal Vehicle Sales & Rentals; Vehicle Equipment & Supplies Sales & Rentals; Vehicle Parking					
Wholesale, Distribution, Storage Use Category					
Equipment & Materials Storage Yards; Moving & Storage Facilities; Warehouse; Wholesale Distribution					
Research & Development				50	
	Compatible	Indoor Uses	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level.		
		Outdoor Uses	Activities associated with the land use may be carried out.		
	Conditionally Compatible	Indoor Uses	Building structure must attenuate exterior noise to the indoor noise level indicated by the number for occupied areas.		
		Outdoor Uses	Feasible noise mitigate techniques should be analyzed and incorporated to make the outdoor activities acceptable.		
	Incompatible	Indoor Uses	New construction should not be undertaken.		
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.		

Source: City of San Diego 2008a

City of San Diego Municipal Code

Construction Noise

Section 59.5.0404 of the Municipal Code regulates construction noise. This section states the following:

- (a) It shall be unlawful for any person, between the hours of 7:00 PM of any day and 7:00 AM of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. In granting such permit, the Administrator shall consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.
- (b) Except as provided in subsection C. hereof, it shall be unlawful for any person, including The City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7:00 AM to 7:00 PM.
- (c) The provisions of subsection (b) of this section shall not apply to construction equipment used in connection with emergency work, provided the Administrator is notified within 48 hours after commencement of work.

Operational Noise

Fixed source and/or operational noise are governed by City of San Diego Noise Ordinance Section 59.5.0401. The applicable sound level is a function of the time of day and land use zone and sound levels are measured at the property line of the noise source. The limits are given in Table 5.4-2, *City of San Diego Noise Ordinance Limits*. The Noise Ordinance provides that the property line noise limit where two zoning districts meet shall be the arithmetic mean of the respective limits for the two zoning districts; thus, the property line noise limits would be 55/50/45 dB along the project site's northern property line where multi-family is adjacent to multi-family; 60/55/52.5 dB where proposed multi-family is adjacent to commercial to the east and west and internally; 65/60/60 dB along the southern property lines where commercial is adjacent to commercial; and 57.5/52.5/50 dB where commercial is adjacent to a single-family residence to the southeast at 7 AM to 7 PM, 7 PM to 10 PM, and 10 PM to 7 AM, respectively.

**Table 5.4-2
CITY OF SAN DIEGO
NOISE ORDINANCE LIMITS**

Land Use Zone ¹	Time Of Day	1 Hour Average Sound Level (decibels)
Single Family Residential	7 AM to 7 PM	50
	7 PM to 10 PM	45
	10 PM to 7 AM	40
Multi-Family Residential (Up to a maximum density of 1/2000)	7 AM to 7 PM	55
	7 PM to 10 PM	50
	10 PM to 7 AM	45
All other Residential	7 AM to 7 PM	60
	7 PM to 10 PM	55
	10 PM to 7 AM	50
Commercial	7 AM to 7 PM	65
	7 PM to 10 PM	60
	10 PM to 7 AM	60
Industrial or Agricultural	Any time	75

Source: City of San Diego Noise Ordinance Section 59.5.0401

¹ The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts.

City of San Diego CEQA Significance Determination Thresholds

Transportation Noise

In addition to those standards indicated above, the City's CEQA Significance Determination Thresholds include noise guidelines pertaining to traffic noise. Per the CEQA Significance Determination Thresholds, the maximum traffic noise level at exterior usable areas of multi-family residential uses is 65 dB, with a maximum allowable interior level of 45 dB. Maximum traffic noise levels at exterior usable areas of offices are 70 dB and 75 dB at commercial retail uses.

Existing Noise Environment

Noise Sources

The dominant noise source in the immediate project vicinity is vehicular traffic along El Camino Real, Del Mar Heights Road, and High Bluff Drive. The shopping areas to the east generate negligible noise levels at the project site due to the distance separating the site and existing ambient noise levels. Residential uses in the surrounding areas also are not considered substantial noise generators. While heating and ventilation systems and outdoor parking areas at the adjacent office/research and development (Neurocrine) to the south generate noise, these stationary sources are not considered substantial because of the separating distance.

The nearest airport to the proposed project site is MCAS Miramar, located approximately 10 miles southeast of the project site. The project site is not located within the MCAS Miramar ALUCP noise contour and thus air traffic is not considered an existing noise source in the project vicinity.

Sensitive Noise Receptors

The noise sensitive receptors that may potentially be affected by the proposed project include the multi-family residences to the north of the project site (across Del Mar Heights Road) and a single-family residence to the southwest (on the corner of El Camino Real and Townsgate Drive). Other sensitive noise receptors, such as nearby schools and parks and other multi-family residences in the vicinity, are located too far from the project site to be adversely affected by the project.

Existing Noise Levels

A site visit was conducted on April 3, 2009, and two noise measurements were taken at the site; one approximately in the middle of the project site adjacent to El Camino Real, and the second one approximately in the middle of the project site adjacent to Del Mar Heights Road. Noise Measurement Location 1 (M1) near El Camino Real was 67.4 dBA L_{EQ} and Noise Measurement Location 2 (M2) near Del Mar Heights Road was 66.3 dBA L_{EQ} .

Noise levels were also calculated using the Computer Aided Noise Abatement (CADNA) Version 3.6 model-based computer program. Using CADNA, the noise level at M1 was estimated to be 68.4 dBA L_{EQ} , and the noise level at M2 was estimated to be 66.0 dBA L_{EQ} . Based on the minimal difference between the measured noise level and the calculated noise level, the model was considered to accurately estimate noise at the project site and no adjustments were necessary¹.

5.4.2 Impact

Issue 1: Would the project result in or create a significant increase in the existing ambient noise levels?

Issue 2: Would the project result in the exposure of people to noise levels which exceed the City's adopted noise ordinance or are incompatible with the City's Land Use – Noise Compatibility guidelines?

Impact Thresholds

Noise Ordinance

According to the City's Significance Determination Thresholds, noise impacts may be significant if the project would exceed the following City of San Diego Noise Ordinance property line noise limits:

- Expose the multi-family residential properties to the north to exterior noise levels exceeding 55 dB from 7 AM to 7 PM, 50 dB from 7 PM to 10 PM, or 45 dB at from 10 PM to 7 AM;

¹ A difference of less than 2 dB is considered sufficiently accurate and does not require any adjustments.

- Expose the commercial property to the east and west to exterior noise levels exceeding 60 dB from 7 AM to 7 PM, 55 dB from 7 PM to 10 PM, or 52.5 dB at from 10 PM to 7 AM;
- Expose the commercial property to the south to exterior noise levels exceeding 65 dB from 7 AM to 7 PM, 60 dB from 7 PM to 10 PM, or 60 dB at from 10 PM to 7 AM;
- Expose the single-family residential property to the southeast to exterior noise levels exceeding 57.5 dB from 7 AM to 7 PM, 52.5 dB from 7 PM to 10 PM, or 50 dB at from 10 PM to 7 AM; and/or
- Expose the boundary between the on-site multi-family residential uses and the on-site commercial uses to exterior noise levels exceeding 55 dB from 7 AM to 7 PM, 50 dB from 7 PM to 10 PM, or 45 dB at from 10 PM to 7 AM

Land Use - Noise Compatibility Guidelines

The project would result in potentially significant noise - land use compatibility noise impacts if it places land uses within areas exceeding the following noise levels:

- Passive parks and required open space areas are not compatible with exterior noise levels above 65 CNEL;
- Mixed-use residential uses are not compatible with exterior noise levels above 70 CNEL and interior noise levels above 45 CNEL;
- Hotel uses are not compatible with exterior noise levels above 75 CNEL and interior noise levels above 45 CNEL; and/or
- Commercial office and retail uses are not compatible with exterior noise levels above 75 CNEL and interior noise levels above 50 CNEL.

Impact Analysis

City of San Diego Noise Ordinance - Stationary Source Noise Impacts

The proposed project would introduce several operational stationary noise sources, which would be regulated by the Municipal Code property line noise limits (Section 59.5.0401 of the Municipal Code). The specific noise-generators could include refrigeration and freezer condensers (associated with markets and restaurants), trash compactors, forklifts, delivery trucks, amplification systems (nighttime entertainment), restaurant kitchen fans, HVAC, and parking lot traffic. Site-specific information is not currently available for this equipment; however, equipment examples would include a 100-ton capacity Carrier 30GTN100 (large building cooling system), which has an average sound power rating of 100 dBA, or a backup alarm with a typical 30-second per hour operational time and an approximate sound power of 109 dBA. Pursuant to applicable City requirements, rooftop equipment would be architecturally screened with enclosures or screenwalls. Line-of-sight obstruction due to parapet walls or intervening structures would reduce noise generated by the building cooling system to 45 dBA L_{EQ} at 120 feet. The backup alarm would produce an hourly average sound level of approximately 39 dBA L_{EQ} . As such, these sources would rarely create noise impacts to receivers over 120 feet from the noise source and are highly unlikely to impact any off-site areas across roadways, including the multi-family residential uses to the north (across Del Mar Heights Road), the single-family

residence to the east (across El Camino Real), and the commercial retail uses to the east (across El Camino Real). The office/research and development use directly to the south of the project site (Neurocrine) would not be significantly impacted by on-site stationary noise considering (1) the distance from proposed structures that could potentially include stationary noise generators to the property line (i.e., over 120 feet), (2) the types of the closest proposed on-site uses (i.e., closest proposed uses are not typically substantial noise generators), and (3) the adjacent uses are commercial and have higher property line noise limits than residential uses (65/60/60 dBA). Residences are not noise generators, and the proposed parking structure and residences would be approximately 50 feet from the property line. Therefore, stationary source noise impacts to off-site sensitive receptors would be less than significant.

Because the proposed project is a mixed-used development, residential uses would be in close proximity to commercial uses and could be exposed to noise generated by on-site stationary noise sources. Particularly, the residential buildings along Main Street would include ground floor commercial retail uses with residential units above. The proposed residences also would be near other commercial uses that could include markets and/or restaurants that typically contain the stationary noise sources. Due to the close proximity of these proposed uses, there is potential for on-site stationary sources to exceed the noise limits of the Noise Ordinance. Therefore, stationary source noise impacts to on-site sensitive receptors would be potentially significant.

Noise - Land Use Compatibility Impacts

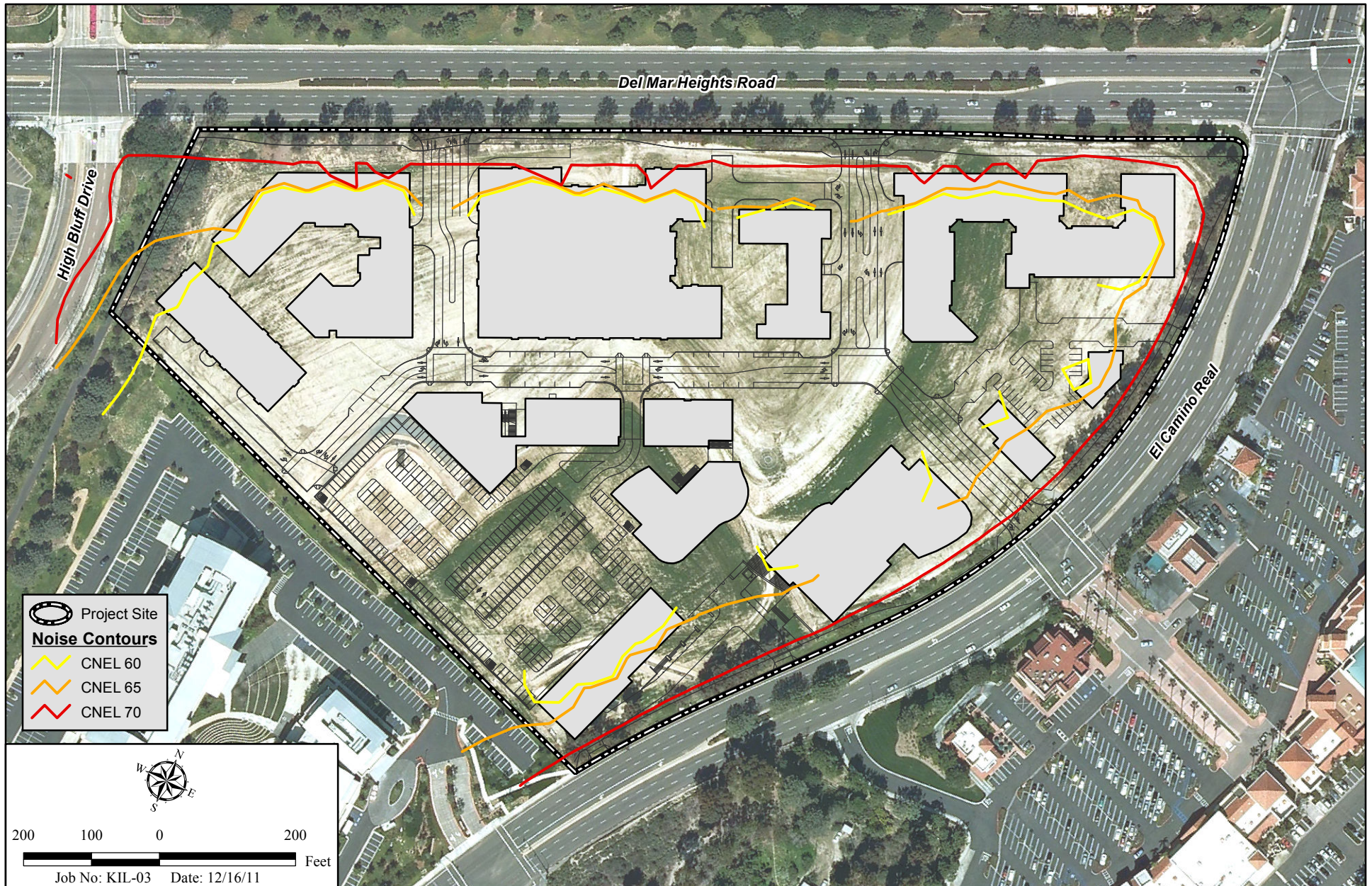
The General Plan Noise Compatibility Guidelines have been set forth to ensure that proposed developments are placed within a noise environment that is compatible with the proposed uses.

Land Use - Noise Compatibility Impacts to Proposed Uses from Off-site Noise Sources

As mentioned under existing conditions, the primary noise source in the project vicinity is vehicular traffic on adjacent roadways. Traffic volumes utilized in the noise model were taken from the project traffic report (USAI 2012). On-site noise levels generated from off-site traffic on adjacent roadways were modeled using CADNA under Existing, Existing Plus Project (project buildout), Near-term Without Project, Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and Long-term Cumulative (Year 2030) With Project conditions. The resulting calculated on-site traffic noise contours for each of these conditions are illustrated in Figures 5.4-1 through 5.4-5 (*On-site Traffic Noise Contours – Existing Plus Project [Project Buildout], On-site Traffic Noise Contours – Near-term With Project [Phase 1], On-site Traffic Noise Contours – Near-term With Project [Phases 1 and 2], On-site Traffic Noise Contours – Near-term With Project Buildout, and On-site Traffic Noise Contours – Long-term Cumulative [Year 2030] Without Project*). Long-term Cumulative (Year 2030) With Project conditions would experience more traffic on analyzed roadway segments compared to the Existing Plus Project and Near-term With Project traffic scenarios. Therefore, long-term cumulative traffic volumes (Year 2030 With Project) are used in this land use – noise compatibility impact assessment of off-site traffic noise on proposed uses to represent the most conservative and impactful analysis scenario.

To determine the compatibility of proposed on-site uses, 95 noise modeling receivers were identified within the project site and represent locations along proposed residential building facades adjacent to Del Mar Heights Road (the adjacent roadway with the highest traffic volumes). The noise receiver modeling locations were placed at a height of 25 feet above the approximate ground elevation of the buildings to account for an interior first-floor height of 15 feet, 5 feet between stories for HVAC and utilities, and another 5 feet to represent the approximate height of a person standing in a second-floor residence (refer to Figure 5-13 in the Acoustical Report; Draft EIR Appendix F). Table 5.4-3, *Modeled Future Noise Conditions At On-Site Receivers – Long-Term Cumulative (Year 2030) With Project*, identifies the modeled future noise levels at the building façades of the proposed on-site residential buildings that would be exposed to future traffic noise along Del Mar Heights Road under Long-term Cumulative (Year 2030) With Project conditions.

Table 5.4-3 MODELED FUTURE NOISE CONDITIONS AT ON-SITE RECEIVERS – LONG-TERM CUMULATIVE (YEAR 2030) WITH PROJECT							
Receiver	CNEL (dBA*)	Receiver	CNEL (dBA)	Receiver	CNEL (dBA)	Receiver	CNEL (dBA)
1	52.6	25	56.1	49	53.5	73	69.4
2	53.4	26	60.7	50	49.0	74	69.4
3	56.3	27	67.6	51	38.6	75	67.5
4	61.2	28	69.7	52	35.9	76	64.9
5	62.3	29	69.6	53	48.4	77	62.2
6	61.4	30	67.9	54	59.9	78	62.3
7	53.2	31	65.7	55	64.3	79	62.7
8	47.4	32	67.1	56	66.7	80	63.2
9	59.8	33	64.8	57	67.2	81	67.6
10	63.4	34	68.7	58	64.4	82	67.1
11	68.3	35	67.9	59	62.2	83	69.4
12	69.2	36	69.8	60	49.7	84	69.7
13	67.4	37	66.9	61	56.0	85	66.9
14	60.0	38	67.8	62	58.0	86	69.2
15	56.2	39	64.5	63	58.0	87	68.8
16	57.0	40	56.5	64	56.6	88	69.2
17	57.5	41	60.7	65	59.6	89	68.6
18	59.7	42	37.8	66	61.6	90	69.1
19	68.0	43	54.4	67	61.1	91	66.2
20	69.5	44	55.8	68	65.1	92	63.3
21	69.4	45	55.6	69	66.9	93	60.2

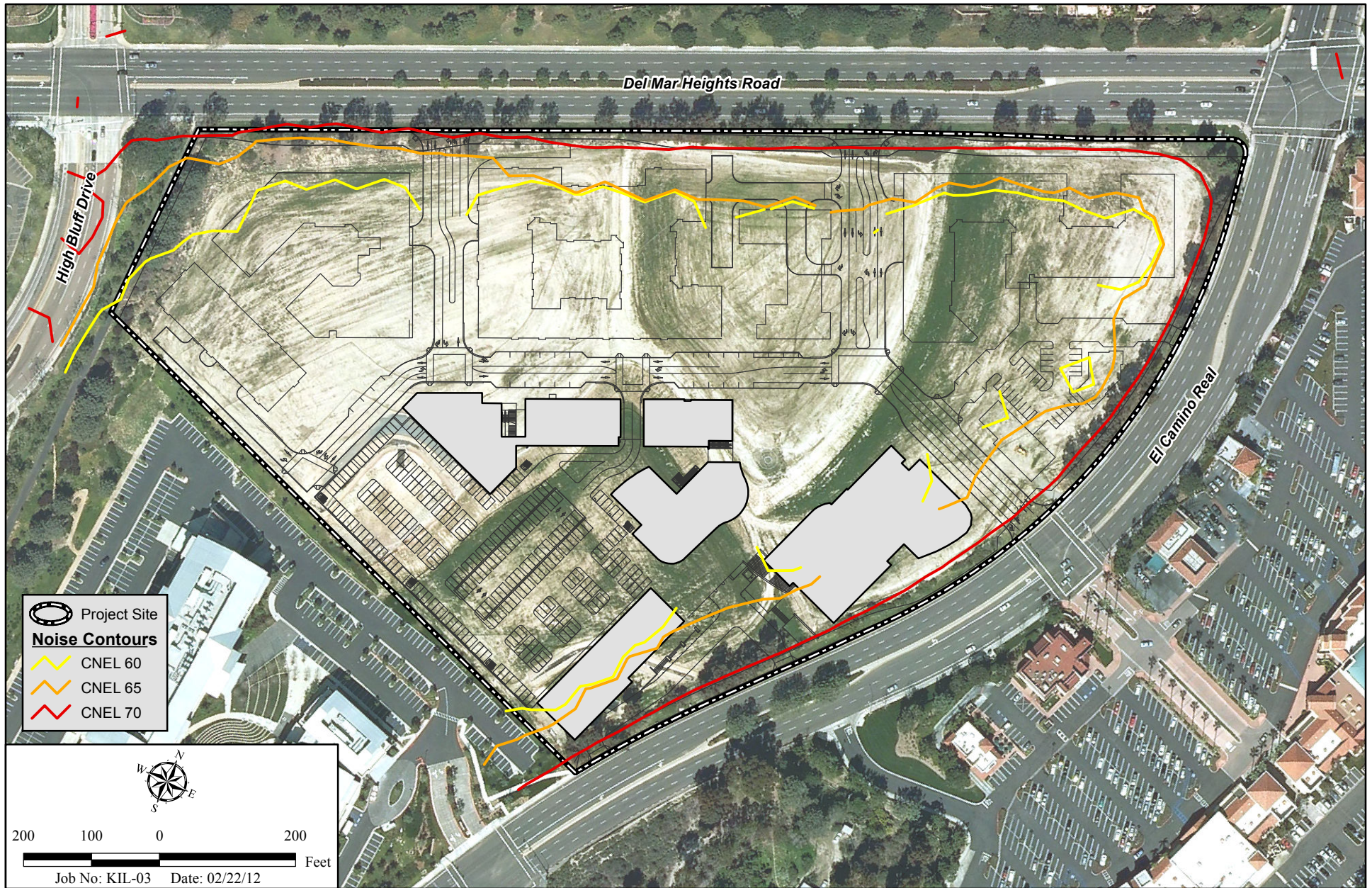


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On-site Traffic Noise Contours - Existing Plus Project (Project Buildout)

ONE PASEO

Figure 5.4-1

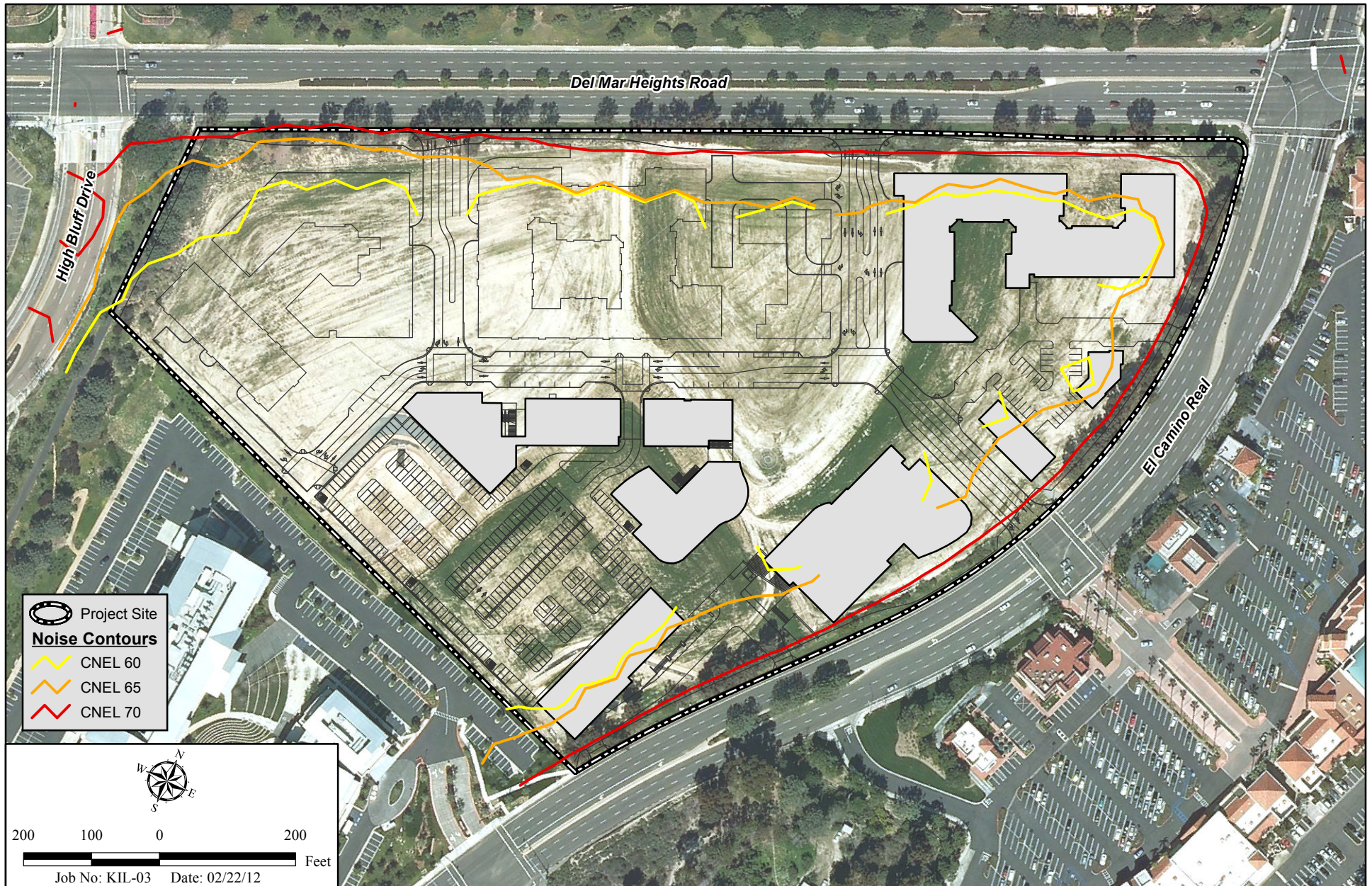


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On-site Traffic Noise Contours – Near-term With Project (Phase 1)

ONE PASEO

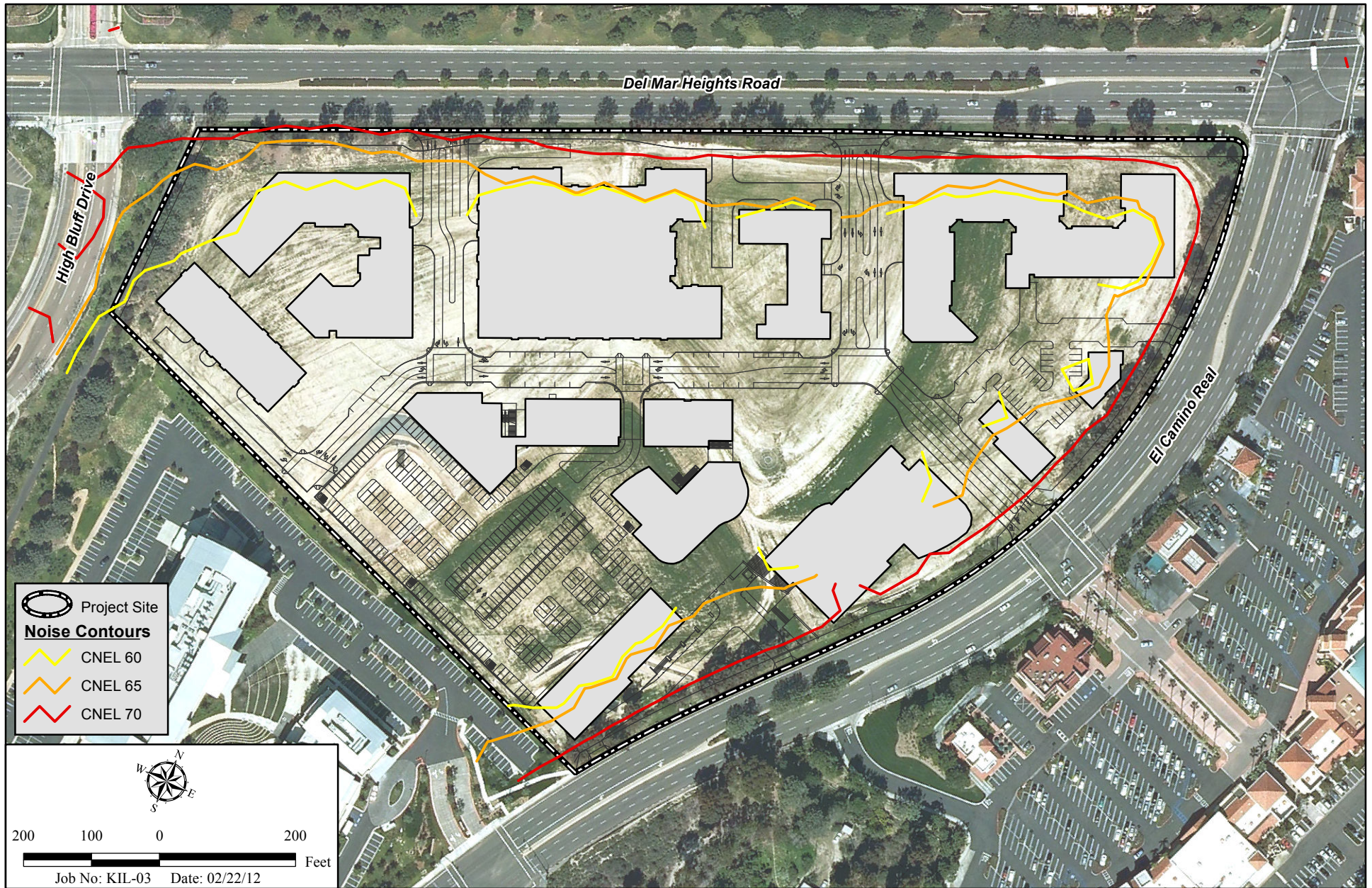
Figure 5.4-2



On-site Traffic Noise Contours – Near-term With Project (Phases 1 and 2)

ONE PASEO

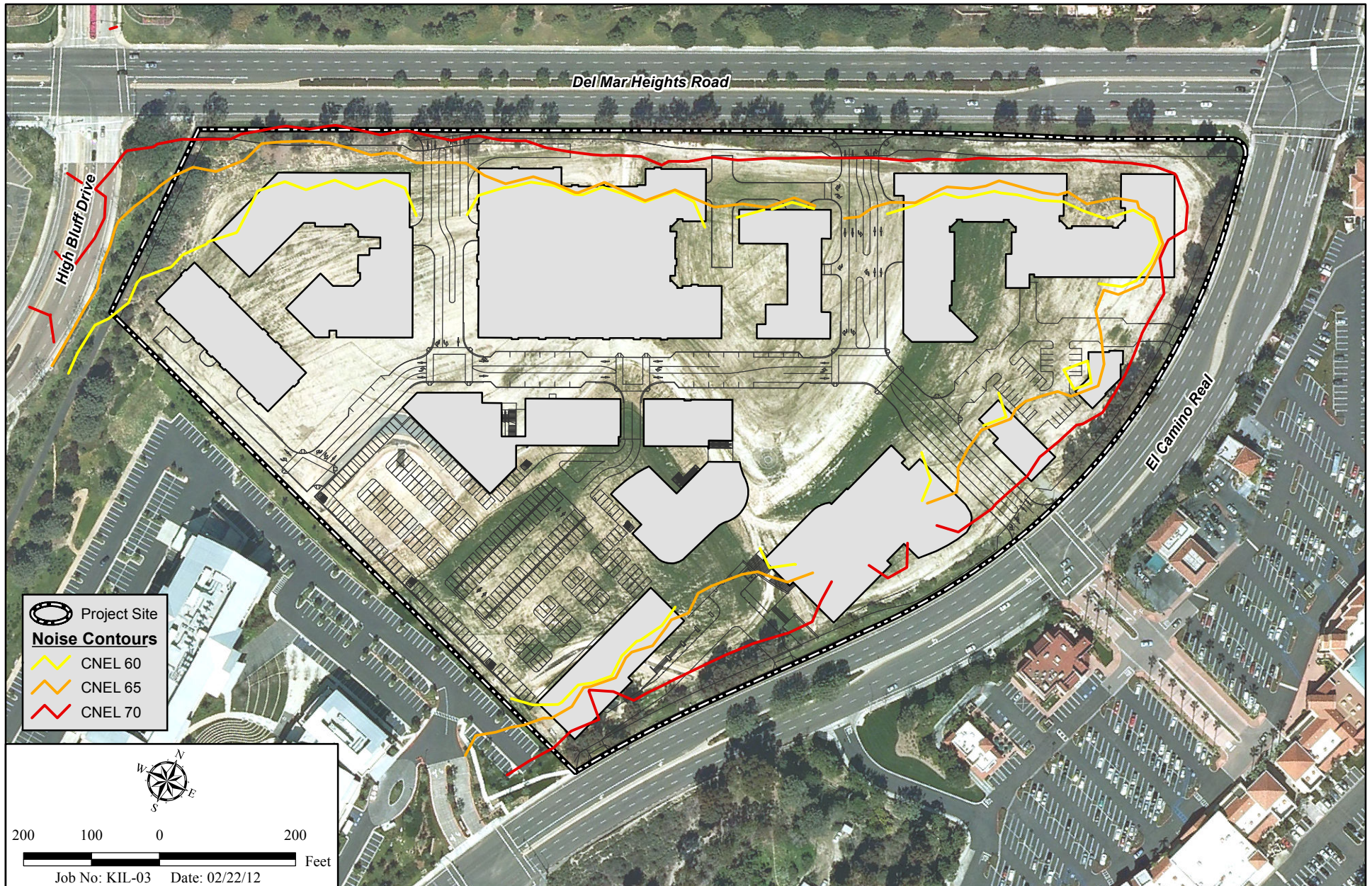
Figure 5.4-3



On-site Traffic Noise Contours – Near-term With Project Buildout

ONE PASEO

Figure 5.4-4



On-site Traffic Noise Contours – Long-term Cumulative (Year 2030) With Project

ONE PASEO

Figure 5.4-5

Table 5.4-3 (cont.) MODELED FUTURE NOISE CONDITIONS AT ON-SITE RECEIVERS – LONG-TERM CUMULATIVE (YEAR 2030) WITH PROJECT							
Receiver	CNEL (dBA*)	Receiver	CNEL (dBA)	Receiver	CNEL (dBA)	Receiver	CNEL (dBA)
22	68.1	46	56.9	70	66.8	94	59.2
23	60.6	47	55.2	71	69.6	95	58.1
24	56.4	48	54.5	72	69.4	-	-

Bold indicates an exterior noise level that would result in an interior noise level above the 45 CNEL interior residential land use - noise compatibility threshold after the 15 CNEL exterior-to-interior noise reduction.

*Peak free-flowing traffic hourly dBA L_{EQ}

Source: HELIX 2012a

There is potential for the proposed residences and offices along Del Mar Heights Road and El Camino Real to be exposed to interior noise levels above the 45 and 50 CNEL interior compatibility thresholds, respectively. Considering standard construction materials provide a 15-dBA reduction, residential uses that would be exposed to exterior noise levels above 60 CNEL and office uses that would be exposed to exterior noise levels above 65 CNEL could have interior noise levels exceeding 45 and 50 CNEL, respectively. As shown in Table 5.4-3 and Figures 5.4-1 through 5.4-5, portions of the proposed residential uses would be subject to noise levels above 60 dBA. Figures 5.4-1 through 5.4-5 also show that portions of the proposed office uses would be exposed to noise levels above 65 dBA. Thus, proposed residences and offices may not be consistent with the General Plan Noise Element Land Use – Noise Compatibility Guidelines, resulting in a potentially significant noise impact related to land use – noise compatibility.

Proposed exterior usable areas associated the residences would mostly be located within interior courtyards or in the interior portion of the project site where noise levels would be below 65 CNEL (refer to Figure 5.4-5). There would be one courtyard that opens toward Del Mar Heights Road (in Block A; refer to Figure 5.4-5), but noise levels within this area would be below 65 CNEL. The project does not include exterior usable office or retail space within areas exceeding 70 or 75 CNEL, respectively. Thus, noise impacts related to land use- noise compatibility at exterior usable areas would be less than significant.

On-site Land Use - Noise Compatibility Impacts Between Proposed Uses

As discussed above, the project would include several new noise sources. These new noise sources could pose land use – noise compatibility issues within the project site between residential/hotel uses and commercial uses. Specifically, proposed on-site markets, retail, restaurants, and nighttime entertainment venues may generate noise that could expose proposed residences or hotel uses to levels above the land use – noise compatibility guidelines, particularly where these uses occur adjacent to each other or are stacked residential/hotel over commercial. Potential impacts would likely be from HVAC systems and other types of air movement systems such as restaurant kitchen fans (grease fans). Since building plans and specific uses/tenants have not yet been developed or identified, it is not feasible to accurately analyze the potential noise

compatibility issues. There is potential however for the areas with commercial and residential uses stacked or adjacent to each other to experience potentially significant land use – noise compatibility noise impacts.

Significance of Impact

While the project stationary noise impacts to off-site properties would be in compliance with the Noise Ordinance, there is potential for on-site stationary sources to exceed the noise limits of the Noise Ordinance between proposed uses, resulting in a potentially significant noise impact. Proposed residences and offices could be exposed to interior noise levels above those allowed by the General Plan Noise Element Land Use – Noise Compatibility Guidelines, resulting in a potentially significant noise impact related to land use – noise compatibility. In addition, proposed on-site uses could generate noise exposing proposed residences or hotel uses to levels above the General Plan Noise Element Land Use – Noise Compatibility Guidelines, which represents a potentially significant noise impact.

Mitigation, Monitoring, and Reporting

Implementation of the following mitigation measures would reduce land use - noise compatibility impacts to below a level of significance:

Mitigation Measure 5.4-1: Prior to issuance of building permits, a noise analysis shall be completed to assess building-specific stationary noise sources and impacts to on-site uses. Appropriate noise planning and attenuation measures identified in the noise analysis shall be incorporated into the project design to ensure compliance with the Noise Ordinance noise limits for stationary sources (i.e., interior noise levels of 45 dBA L_{eq} or less for residential and hotel uses; 50 dBA L_{eq} or less for commercial uses). Methods for ensuring compliant interior noise levels may include, but would not be limited to, the following:

- Installation of roof-top mechanical ventilation and HVAC units on mounts that isolate the building from vibration caused by the machinery;
- In the floors separating residential uses from non-residential uses, use additional thicknesses of building materials and/or materials designed to isolate the residential spaces from vibration generated by non-residential spaces;
- Commercial air handling ducts shall not be routed in or adjacent to interior living space walls without specific plans to address isolation;
- Commercial HVAC systems shall not be mounted over interior living areas without specific plans to address isolation;
- Clusters of residential HVAC systems shall not be mounted directly over residential areas;
- Coolant or large water lines including HVAC water for commercial services shall not be routed in walls adjacent to living areas without specific plans to address isolation;
- Operable windows shall not be located where they look directly at any rooftop HVAC systems in adjacent buildings;
- Elevator shafts shall not be located directly adjacent to living quarters without specific plans to address isolation; and/or
- Commercial spaces for nighttime entertainment shall not have a common floor ceiling to a living space.

Once the project is constructed and in full operation, the developer shall conduct on-site noise measurements to verify that noise planning and attenuation measures identified in the noise analysis have mitigated project noise to levels below those proscribed by the Noise Ordinance noise limits for stationary sources.

Mitigation Measure 5.4-2: Prior to issuance of building permits, an exterior-to-interior noise analysis shall be completed to assess off-site noise sources and impacts to interior on-site residential and commercial uses. Appropriate noise planning and attenuation measures identified in the noise analysis shall be incorporated into the project design to ensure compliance with the General Plan Noise Element Land use - Noise Compatibility Guidelines (i.e., interior noise levels of 45 dBA CNEL or less for residential and hotel uses; 50 dBA CNEL or less for commercial uses). Methods for ensuring compliant interior noise levels may include, but would not be limited to, the following:

- Use of window glazing with an increased sound transmission classification;
- Use of additional thicknesses of interior drywall; and/or
- Use of additional thicknesses of exterior building materials.

Once the project is constructed and in full operation, interior noise measurements shall be conducted to verify that exterior-to-interior noise planning has mitigated project noise levels to ensure compliance with the General Plan Noise Element Land use – Noise Compatibility Guidelines.

Mitigation Measure 5.4-3: Prior to issuance of building permits, an interior noise analysis shall be completed to assess on-site noise sources and impacts to interior on-site residential uses. Appropriate noise planning and attenuation measures identified in the noise analysis shall be incorporated into the project design to ensure compliance with the General Plan Noise Element Land use - Noise Compatibility Guidelines. Potential noise planning and attenuation measures may include, but are not limited to, the following:

- Commercial air handling ducts shall not be routed in or adjacent to interior living space walls without specific plans to address isolation;
- Commercial HVAC systems shall not be mounted over interior living areas without specific plans to address isolation;
- Clusters of residential HVAC systems shall not be mounted directly over residential areas;
- Coolant or large water lines including HVAC water for commercial services shall not be routed in walls adjacent to living areas without specific plans to address isolation;
- Operable windows shall not be located where they look directly at any rooftop HVAC systems in adjacent buildings;
- Elevator shafts shall not be located directly adjacent to living quarters without specific plans to address isolation;
- Commercial spaces for nighttime entertainment shall not have a common floor ceiling to a living space;

- Limitations upon the use of exterior amplified music systems associated with entertainment such as prohibiting exterior amplified music systems in areas directly adjacent to or below on-site residences²; and
- Commercial lease agreements shall include strict enforceable measures to control interior and exterior noise to limit impacts to residential areas.

Once the project is constructed and in full operation, interior noise measurements shall be conducted to verify that interior noise planning has mitigated project noise levels to ensure compliance with the General Plan Noise Element Land use – Noise Compatibility Guidelines.

5.4.3 **Impact**

Issue 3: Would the project cause exposure of people to current or future transportation noise levels which exceed standards established in the Transportation Element of the General Plan?

Impact Thresholds

The City's Significance Determination Thresholds contain specific traffic noise significance thresholds that are based on the City of San Diego Progress Guide and General Plan, which has been superseded by the currently adopted 2008 General Plan. Specifically, the Land Use Compatibility Chart (Table K-4) has been updated in the Noise Element of the 2008 General Plan, and the Transportation Element of the 2008 General Plan does not include the traffic noise thresholds contained in Table K-2 of the City's Significance Determination Thresholds. Traffic noise significance thresholds used in this EIR are based on a combination of Table K-2 (from the City's Significance Determination Thresholds) and the Land Use – Noise Compatibility Guidelines in the Noise Element of the 2008 General Plan. Where differences occur between Table K-2 and the Land Use – Noise Compatibility Guidelines, the more restrictive guideline is applied.

Traffic noise impacts may be significant if the project would:

- Expose single-family or multi-family housing to exterior traffic noise levels that exceed 65 dBA CNEL at exterior useable areas and interior traffic noise levels that exceed 45 dBA CNEL;
- Expose office uses to exterior traffic noise levels that exceed 70 dBA CNEL at exterior useable areas and interior traffic noise levels that exceed 50 dBA CNEL;
- Expose commercial retail uses to exterior traffic noise levels that exceed 75 dBA CNEL at exterior useable areas; and/or
- Increase noise levels by at least 3 dBA where noise levels currently exceed the traffic noise thresholds.

² This excludes temporary outside amplification systems use for a short-term special event conducted with a separate City special event permit.

Impact Analysis

To determine project traffic noise impacts, traffic noise was evaluated under Existing, Existing Plus Project (project buildout), Near-term Without Project, Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and Long-term Cumulative (Year 2030) With Project conditions. Traffic information used in this analysis was taken from the project traffic report (USAI 2012).

Traffic Noise Impacts to Proposed On-site Uses

As discussed in Section 5.4.2, there is potential for the proposed on-site residences and offices along Del Mar Heights Road and El Camino Real to be exposed to interior noise levels above the 45 and 50 CNEL due to future traffic noise. On-site residential uses that would be exposed to exterior traffic noise levels above 60 CNEL and on-site office uses that would be exposed to exterior traffic noise levels above 65 CNEL could have interior noise levels exceeding 45 and 50 CNEL, respectively. Figures 5.4-1 through 5.4-5 show on-site traffic noise contours developed using CADNA modeling to show estimated on-site noise levels under Existing Plus Project (project buildout), Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and Long-term Cumulative (Year 2030) With Project conditions. As shown in these figures, portions of residential and office buildings would be exposed to exterior traffic noise levels that could result in interior noise levels in excess of significance thresholds. The project therefore would result in a potentially significant traffic noise impact to on-site uses.

Traffic Noise Impacts to Off-site Uses

Off-site traffic noise contours were developed for the Existing Plus Project (project buildout), Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and Long-term Cumulative (Year 2030) With Project conditions using CADNA modeling software to show estimated traffic noise levels at off-site locations in the project vicinity (Figures 5.4- 6 through 5.4-10, *Off-Site Traffic Noise Contours – Existing Plus Project [Project Buildout]*, *Off-Site Traffic Noise Contours – Near-term With Project [Phase 1]*, *Off-Site Traffic Noise Contours – Near-term With Project [Phases 1 and 2]*, *Off-Site Traffic Noise Contours – Near-term With Project Buildout*, and *Long-term Cumulative [Year 2030] With Project*). As shown in these figures, traffic noise levels would not exceed the traffic noise significance thresholds under any analyzed scenario at exterior useable areas of off-site noise-sensitive uses in the project vicinity, including the multi-family residential uses to the north and southeast, the single-family residence to the east, and the park to the southeast. Similarly, project traffic noise would not expose office uses to the west and immediate south or commercial retail uses to the east to noise levels above 70 or 75 dBA. Furthermore, based on the forecasted traffic volumes, traffic noise levels would not increase by three dBA at receivers along Del Mar Heights Road or El Camino Real. In order for a three-dBA traffic noise increase to occur, a project would have to double the traffic volume on a roadway maintaining full speed. Project construction and operation would not double traffic volumes on any roadway in the project vicinity. Consequently, traffic noise impacts to off-site uses resulting from the project would be less than significant.

Traffic Noise Impacts from Off-site Traffic Mitigation

Section 5.2, *Transportation/Circulation/Parking*, identifies off-site traffic improvements as mitigation to reduce potentially significant traffic impacts resulting from project implementation. The off-site traffic improvements that are proposed to be implemented by the project (as opposed to payment of a fair-share contribution) would occur within the existing developed right-of-way and some would involve minor road widening (maximum of approximately five feet per side) that could place vehicles closer to residences near the improved intersection with an associated slight increase in traffic noise. However, none would result in increased traffic noise levels that would exceed traffic noise significance thresholds at noise-sensitive uses or exterior useable areas. In order for a three-dBA traffic noise increase to occur, a project would have to double the traffic volume on a roadway maintaining full speed. It is unlikely that the noise due to the minor roadway alignments can exceed or even approach a change of 1 dBA CNEL at any potential receptor locations. Associated traffic noise impacts would be less than significant.

Significance of Impact

Project traffic noise would potentially expose proposed on-site residences and offices to interior noise levels above the traffic noise significance thresholds, resulting in a potentially significant traffic noise impact. Traffic noise impacts to off-site uses resulting from the proposed project would be less than significant.

Mitigation, Monitoring, and Reporting

Implementation of ***Mitigation Measure 5.4-2*** identified in Section 5.4.4 would reduce potentially significant traffic noise impacts to below a level of significance.

5.4.4 Impact

Issue 4 Would the project result in substantial temporary or periodic increases in ambient noise levels in the project vicinity above existing without project conditions?

Impact Thresholds

According to the City's Significance Determination Thresholds, noise impacts may be significant if the project would:

- Result in temporary construction noise which exceeds noise levels identified in Municipal Code 59.0404, including temporary construction noise levels that exceed an average sound level greater than 75 dBA L_{EQ} at a sensitive receptor during the 12-hour period from 7:00 AM to 7:00 PM



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Off-site Traffic Noise Contours – Existing Plus Project (Project Buildout)

ONE PASEO

Figure 5.4-6



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Off-site Traffic Noise Contours – Near-term With Project (Phase 1)

ONE PASEO

Figure 5.4-7



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Off-site Traffic Noise Contours – Near-term With Project (Phases 1 and 2)

ONE PASEO

Figure 5.4-8



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Off-site Traffic Noise Contours – Near-term With Project Buildout

ONE PASEO

Figure 5.4-9



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Long-term Cumulative (Year 2030) With Project

ONE PASEO

Figure 5.4-10

Impact Analysis

Construction activities can be roughly divided into seven phases, with these phases potentially exhibiting some overlap depending on specific locations and timing; rough grading, utilities excavation, foundation preparation, building construction, finish grading, paving, and landscaping. Site construction would entail the use of heavy equipment throughout the site for the full term of construction. While specific construction plans are not available, it is assumed that both an excavator (generating average noise levels of 80.7 dBA at 50 feet) and a loader (generating average noise levels of 79.1 dBA at 50 feet) would be used during the initial excavation. Other typical equipment for the proposed type of construction is assumed to include: small dozer, backhoe loader(s), compactor(s), water truck, boom concrete pumper, trencher(s), forklifts, light mobile cranes or sky lifts, grader, paver, compactor, skid steer(s), mini excavator, trencher, and a variety of specific tools including welders, metal shears, and light hand tools. As indicated in the Geotechnical Reports (Appendices O and P), soils underlying the site include clay and silty soils and blasting or breaking would not be necessary to excavate for the underground parking structures. The equipment necessary for the construction phase of the proposed project would be typical of construction equipment used for general office/commercial with residential construction.

Construction hours would be limited to the hours and days indicated in the City of San Diego Municipal Code. Construction noise levels would be loudest during rough site grading where the equipment may have maximum peak noise levels of 85 to 90 dBA at 50 feet. The closest off-site residences across Del Mar Heights Road and El Camino Real are located approximately 200 feet to the north and 130 feet to the east, respectively. Construction noise levels at these adjacent noise-sensitive uses would not exceed a 12-hour average of 75 dBA based on the following reasons: (1) the residences are located over 100 feet away across major roadways; (2) construction noise would occur intermittently and not continuously for the 12-hour period between 7:00 AM and 7:00 PM; (3) noise-generating construction vehicles are mobile and would operate throughout the site during the initial grading phase, resulting in greater distances between the vehicles and residences during construction hours; and (4) intervening topography would further attenuate construction noise at the residences. Therefore, construction noise impacts to off-site sensitive receptors would be less than significant.

During construction of Phase 3, construction noise impacts to on-site residences (built in earlier phases) may exceed the 12-hour average of 75 dBA considering less than 100 feet of separation between on-site residences and the impact footprint for Phase 3. If an excavator and a loader (typical construction equipment used for excavation) would be operating in the northeastern corner of Block C for the excavation of the subterranean parking structure, construction noise levels at on-site residences at the northwest end of Block B could exceed a 12-hour average of 75 dBA, although the approximate level calculated with the FHWA Roadway Construction Noise Model would be 74.7 dBA. Given the small differential of 0.3 dBA between the approximate calculated construction noise level and the Municipal Code limit along with variables of construction operations (i.e., number of equipment and exact distances between the noise source and receivers), noise levels may exceed the 12-hour average of 75-dBA threshold at

the closest on-site residences. As a result, construction noise impacts during construction of Phase 3 would be potentially significant to on-site sensitive receptors.

Construction Noise Impacts from Off-site Improvements and Traffic Mitigation

The project proposes off-site improvements (as identified in Section 3.2.6 in this EIR), as well as off-site traffic improvements as mitigation to reduce potentially significant traffic impacts resulting from project implementation (refer to Section 5.2, *Transportation/Circulation/Parking*). Most off-site improvements and all traffic mitigation would occur within the existing developed right-of-way and include utilities connections, minor lane widening (up to five feet on each side), reconfigurations of turn lanes, installation of traffic signals, and median modifications. Typical equipment used during this work within the road right-of-way may include a concrete saw, excavator, loader, small dozer, and compaction equipment. The loudest of these is an excavator which has an average noise level of 80.7 dBA L_{EQ} at 50 feet. The closest residential location is at least 75 feet away and has a high berm between the residence and construction locations along roadways. Construction noise levels at this closest residence would not exceed a 12-hour average of 75 dBA due to a combination of the berm and the distance between the construction noise source and residence. Associated construction noise impacts would be less than significant.

Proposed off-site improvements outside of the road right-of-way include: (1) re-grade and landscape/hardscape the parcel adjacent to the southeast corner of the High Bluff Drive/Del Mar Heights Road intersection; (2) a ramp/stairway connecting the project site and the adjacent commercial office use to the south; and (3) possible temporary grading along the southern property line for the proposed above-grade parking structure. Construction of these off-site improvements would not occur adjacent to any residential or other noise-sensitive receptor. The closest residential properties are located to the north across Del Mar Heights Road at least 200 feet away and therefore, would not be exposed to construction noise levels above a 12-hour average of 75 dBA. Associated construction noise impacts would be less than significant.

Significance of Impact

Construction noise levels generated by the project would not exceed limits allowed by the Noise Ordinance at off-site sensitive receptors. Construction during Phase 3 however, may generate noise levels above the 12-hour average of 75 dBA at the adjacent on-site residences that would be constructed in earlier phases. Project noise impacts to on-site sensitive receptors would be considered potentially significant during construction of Phase 3.

Mitigation, Monitoring, and Reporting

Implementation of the following mitigation measure would reduce construction noise impacts to below a level of significance:

Mitigation Measure 5.4-4: During construction of Phase 3, noise attenuation shall be provided sufficient to comply with the Noise Ordinance (i.e., a 12-hour average of greater than 75 dBA L_{eq}). Potential attenuation measures include, but are not limited to, use of sound walls,

sound blankets, noise attenuation devices/modifications to construction equipment, and use of quieter equipment. As one option, a temporary 12-foot-high noise barrier could be constructed 50 feet in both (north-south) directions along Third Avenue from the point(s) where the proposed subterranean parking garage is within 100 feet of occupied residences.

The minimum noise reduction from a barrier that obstructs the line-of-sight between the noise source and the noise receiver is five dBA. Therefore, with a 12-foot-high temporary noise barrier, noise levels at the on-site residences in Block B would be reduced to below 75 dBA (12-hour) if they would otherwise be slightly above 75 dBA, as discussed above under Impact Analysis.

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