

## 4.7 NOISE

The following analysis is based on a technical report entitled, “Acoustical Site Assessment – *Batiquitos Bluffs* Residential Development – Encinitas, CA,” prepared by Investigative Science and Engineering (herein, ISE), dated August 1, 2005. For reference purposes, a copy of this report is contained in the Technical Appendices to this EIR under Section M.

### 4.7.1 EXISTING CONDITIONS

Noise is generally defined as unwanted or annoying sound that is typically associated with human activity and which interferes with or disrupts normal activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance of the noise and its appropriateness in the setting, the time of day, and the sensitivity of the individual hearing the sound. The minimum change in sound level that the human ear can detect is approximately 3 decibels (dB). A change in sound level of 10 dB is usually perceived by the average person as a doubling (or halving) of the sound’s loudness.

The method commonly used to quantify environmental sounds consists of determining all of the frequencies of a sound according to a weighting system that reflects the nonlinear response characteristics of the human ear. This is called “A” weighting, and the decibel level measured is called the A-weighted sound level (or dBA). The sound measure employed by the State of California and the City of Encinitas is known as the Community Noise Equivalence Level (CNEL) which is defined as the “A” weighted average sound level for a 24-hour day. It is calculated by adding a 5-decibel penalty to sound levels in the evening (7:00 p.m. to 10:00 p.m.), and a 10-decibel penalty to sound levels in the night (10:00 p.m. to 7:00 a.m.) to compensate for the increased sensitivity to noise during the quieter evening and nighttime hours.

To determine existing noise levels at the *Batiquitos Bluffs* property under existing conditions, a sound level meter was used (refer to Figure 4.7-1, *Ambient Noise Monitoring Location*). The meter was placed in the north-central portion of the project site. The measurement was performed on March 20, 2005, during peak afternoon traffic conditions. The results of the sound level monitoring are shown below in Table 4-5, *Measured Ambient Sound Levels*. The values for the equivalent sound level (Leq-h), the maximum and minimum measured sound levels (Lmax and Lmin), and the statistical indicators (L10, L50, and L90) are provided. The observed existing dominant noise source was from traffic along La Costa Avenue.

**Table 4-5 MEASURED AMBIENT SOUND LEVELS**

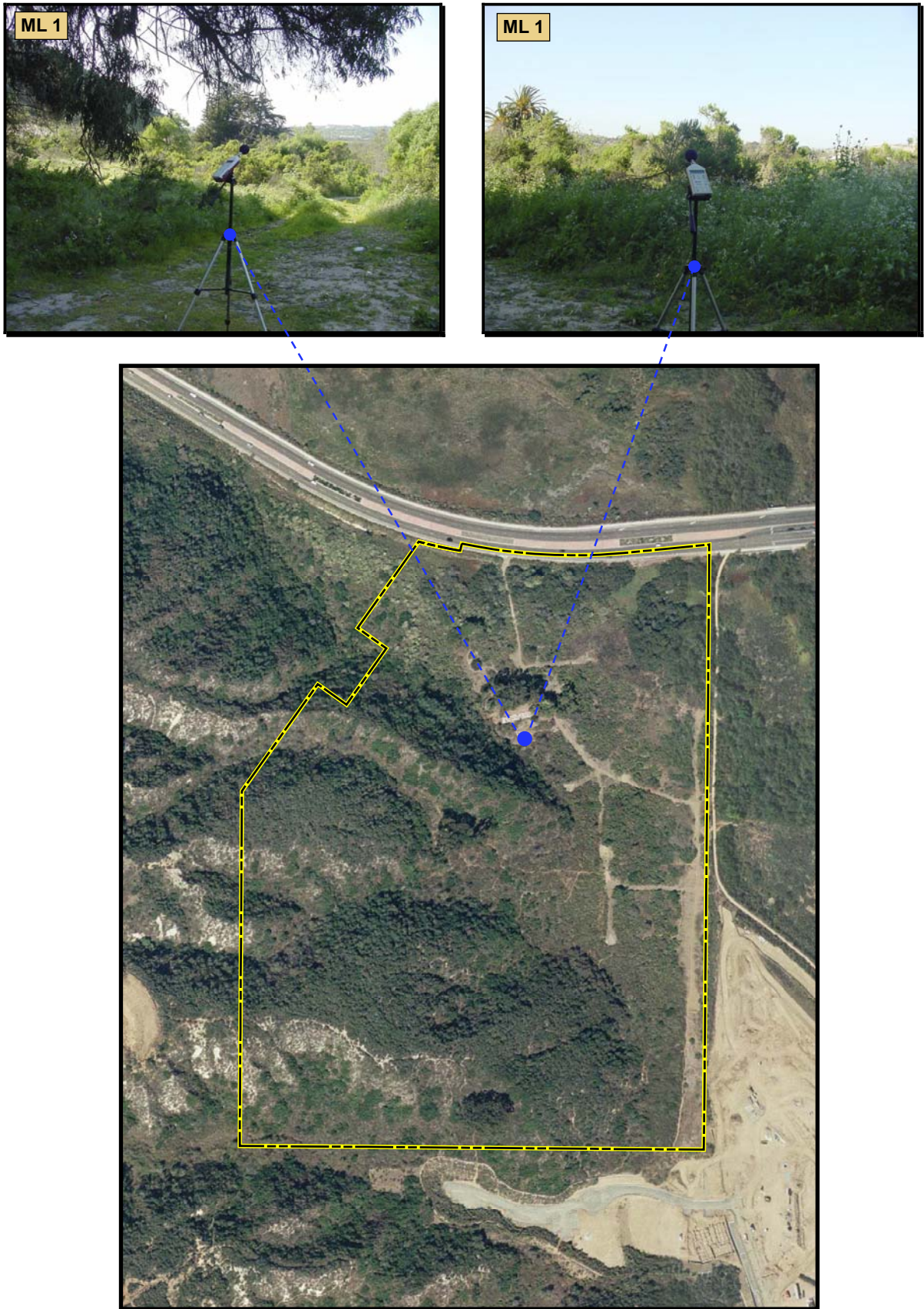
SITE	START TIME	1-HOUR NOISE LEVEL DESCRIPTORS IN DBA					
		Leq	Lmax	Lmin	L10	L50	L90
ML1	3:30 p.m.	56.3	60.7	49.4	58.2	55.8	53.9

Monitoring Location:

ML 1: Meter located at the center of the project site facing La Costa Avenue.

GPS 33° 05.043 x -117° 16.294.

Measurements performed by ISE on March 30, 2005. Estimated Position Error (EPE) = 15 feet.



Source: Investigative Science and Engineering, Inc.

FIGURE 4.7-1

### Ambient Noise Monitoring Location



**4.7.2 BASIS FOR DETERMINING SIGNIFICANCE**

Pursuant to the Noise Section of the City’s “Significance Determination Thresholds,” a proposed project would have a significant impact on noise if any one or more of the following would occur as a result of the proposed project:

1. *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.*
2. *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.*
3. *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies (refer to Table 4-6).*
4. *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.*

**Table 4-6 CITY OF ENCINITAS NOISE LAND USE COMPATIBILITY CHART**

LAND USE CATEGORY	NORMALLY ACCEPTABLE	CONDITIONALLY ACCEPTABLE	NORMALLY UNACCEPTABLE	CLEARLY UNACCEPTABLE
All Residential	50-60 dB	60-70 dB	70-75 dB	75+ dB
Playgrounds/Parks	50-70 dB	--	70-75 dB	75+ dB
Agriculture	50-70 dB	70-75 dB	75-85 dB	--

**4.7.3 IMPACT ANALYSIS**

***Issue 1: Would the proposed project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

**A. DISCUSSION OF PROJECT IMPACTS (ISSUE 1)**

Implementation of the proposed project would result in the introduction of 19 residential homes into a previously undeveloped site. The presence of residential homes does not produce perceptible levels of operational noise. The most noticeable noise source is from the generation of vehicle trips and associated vehicle noise. The addition of project traffic to surrounding roadways is determined to not result in a substantial increase in highway noise levels due to the small number to average daily trips generated by the project. Therefore, any potential increases in ambient noise levels caused by project operation are found to be less than significant.

**B. SIGNIFICANCE OF IMPACTS (ISSUE 1)**

The Lead Agency finds that implementation of the proposed project is not anticipated to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, and a significant impact would not occur.

**C. MITIGATION MEASURES, MONITORING, AND REPORTING PROGRAM (ISSUE 1)**

Significant impacts would not occur; therefore, mitigation is not required.

***Issue 2:*** *Would the proposed project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

**A. DISCUSSION OF PROJECT IMPACTS (ISSUE 2)**

Short-term grading and construction activities would occur on the site which would have the potential to produce noise levels in excess of City standards. However, project construction activities would be regulated by EMC Chapter 9.32, *Noise Abatement and Control* (Noise Ordinance), and EMC Chapter 23.24, *Grading, Erosion, and Sediment Control* (Grading Ordinance). Section 9.13.410 of the Noise Ordinance provides specific control requirements for noise during construction activities, including restrictions on the time of day when construction activities may occur and a requirement that construction activities not exceed 75 dBA CNEL at the property line of any adjacent residential properties.

**B. SIGNIFICANCE OF IMPACTS (ISSUE 2)**

With the required application of the standards contained in EMC Chapters 9.32 and 23.24, and due to the temporary nature of proposed construction activities, the Lead Agency finds that construction noise impacts would less than significant.

**C. MITIGATION MEASURES, MONITORING, AND REPORTING PROGRAM (ISSUE 2)**

Significant impacts would not occur; therefore, mitigation is not required.

***Issue 3:*** *Would the proposed project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards for other agencies?*

**A. DISCUSSION OF PROJECT IMPACTS (ISSUE 3)**

As depicted in Table 4-6, *City of Encinitas Noise Land Use Compatibility Chart*, a significant impact would occur if the proposed residential structures were exposed to noise levels in excess of 60 dBA CNEL. As part of the project’s acoustical site assessment, traffic-related acoustical modeling was performed to predict future on-site noise levels. The results of this analysis are depicted in Table 4-7, *On-Site Transportation Noise Levels*, while Figure 4.7-2, *Modeled Receptor Locations*, depicts the locations of the modeled receptors described in Table 4-7.

**Table 4-7 ON-SITE TRANSPORTATION NOISE LEVELS**

RECEPTOR NO. <sup>1</sup>	RECEPTOR IDENTIFICATION	UNMITIGATED GROUND FLOOR	UNMITIGATED SECOND FLOOR LEVELS
1	Lot 9	59.3	62.7
2	Lot 1	60.3	63.7
3	Lot 2	60.4	63.8
4	Lot 3	57.6	61.5
5	Lot 4	56.6	60.5
6	Lot 5	56.4	60.1

Notes:

1. Refer to Figure 4.7-2, *Modeled Receptor Locations*, for a graphical depiction of each of the receptor locations.
2. All levels given in dBA CNEL.

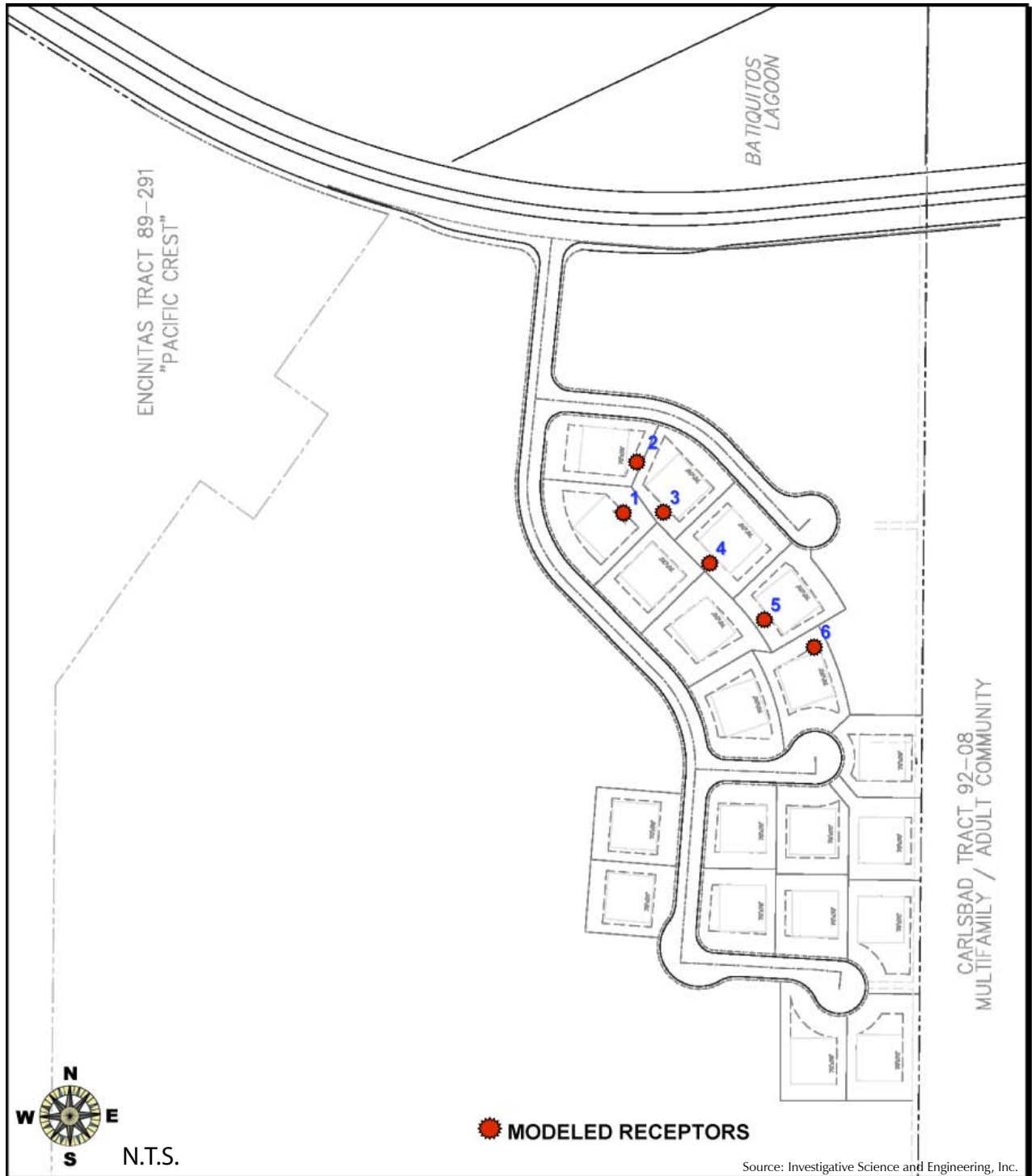


FIGURE 4.7-2  
Modeled Receptor Locations

As depicted in Table 4-7, future exterior traffic noise levels would not exceed the City's 60-dBA CNEL noise threshold for outdoor sensitive areas (i.e., recreation and rear yard areas), and a significant impact would not occur.

However, the General Plan Noise Element notes that:

*“The indoor noise level as required by the State of California Noise Insulation Standards must not exceed an Ldn of 45 dB in multi-family dwellings. This indoor criterion should also be the maximum acceptable indoor noise level in single-family homes.”*

General Plan Noise Element Policy 1.7 also requires that Title 24 of the California Administrative Code (CCR Title 24), associated with noise insulation standards, be applied to single-family dwellings. ~~Due to the project's proximity to La Costa Avenue, there is the potential for interior noise levels to exceed 45 dBA CNEL. Accordingly, implementation of the project could expose residences to interior noise levels that exceed General Plan Noise Element and CCR Title 24 standards due to future traffic activity along adjacent roadways. CCR Title 24 requires that where the exterior of a residential structure is exposed to noise levels exceeding 60 dBA CNEL, that an interior analysis be performed at the time of application for building permits demonstrating that measures have been incorporated into the design of the project to ensure that interior noise levels would not exceed 45 dBA. As depicted in Table 4-7, second floor building facades within the proposed development would exceed the CCR Title 24 noise abatement threshold due to future traffic activity along adjacent roadways (Significant Impact 4.7-A).~~

#### **B. SIGNIFICANCE OF IMPACTS (ISSUE 3)**

~~**Significant Impact 4.7-A:** Implementation of the project could expose residences to interior noise levels in excess of the General Plan Noise Element and CCR Title 24 standards. Second floor building facades would be exposed to noise levels in excess of the CCR Title 24 noise abatement thresholds (60 dBA CNEL), and the Lead Agency finds that this is regarded as a significant impact for which mitigation would be required.~~

#### **C. MITIGATION MEASURES, MONITORING, AND REPORTING PROGRAM (ISSUE 3)**

4.7-A.1 Prior to the issuance of building permits, an interior noise analysis shall be prepared to identify specific noise attenuation measures (e.g., specialized door and window treatments) that shall be depicted on the building plans. The interior noise analysis shall demonstrate that incorporation of the proposed noise attenuation measures will attenuate interior noise levels to a level below 45 dBA CNEL.

#### **D. SIGNIFICANCE AFTER MITIGATION (ISSUE 3)**

**Significant Impact 4.7-A:** Implementation of Mitigation Measure 4.7-A.1 would ensure that interior noise levels would not exceed 45 dBA CNEL, thereby reducing this impact to a level below significance.

***Issue 4:*** *Would the proposed project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

#### **A. DISCUSSION OF PROJECT IMPACTS (ISSUE 4)**

Rock crushing or blasting operations are not proposed as a part of project construction, and the proposed single-family residential and open space land uses would not create substantial

groundborne vibrations or noise. Project construction activities would be regulated by EMC Chapter 9.32, *Noise Abatement and Control* (Noise Ordinance), and EMC Chapter 23.24, *Grading, Erosion, and Sediment Control* (Grading Ordinance). Section 9.13.410 of the Noise Ordinance provides specific control requirements for noise during construction activities, including restrictions on the time of day when construction activities may occur and a requirement that construction activities not exceed 75 dBA CNEL at the property line of any adjacent residential properties.

**B. SIGNIFICANCE OF IMPACTS (ISSUE 4)**

The Lead Agency finds that with the required application of the standards contained in EMC Chapters 9.32 and 23.24, and because the project does not propose any rock crushing or blasting operations, implementation of the proposed project would not result in the exposure of persons to substantial groundborne vibration or groundborne noise levels.

**C. MITIGATION MEASURES, MONITORING, AND REPORTING PROGRAM (ISSUE 4)**

Significant impacts would not occur; therefore, mitigation is not required