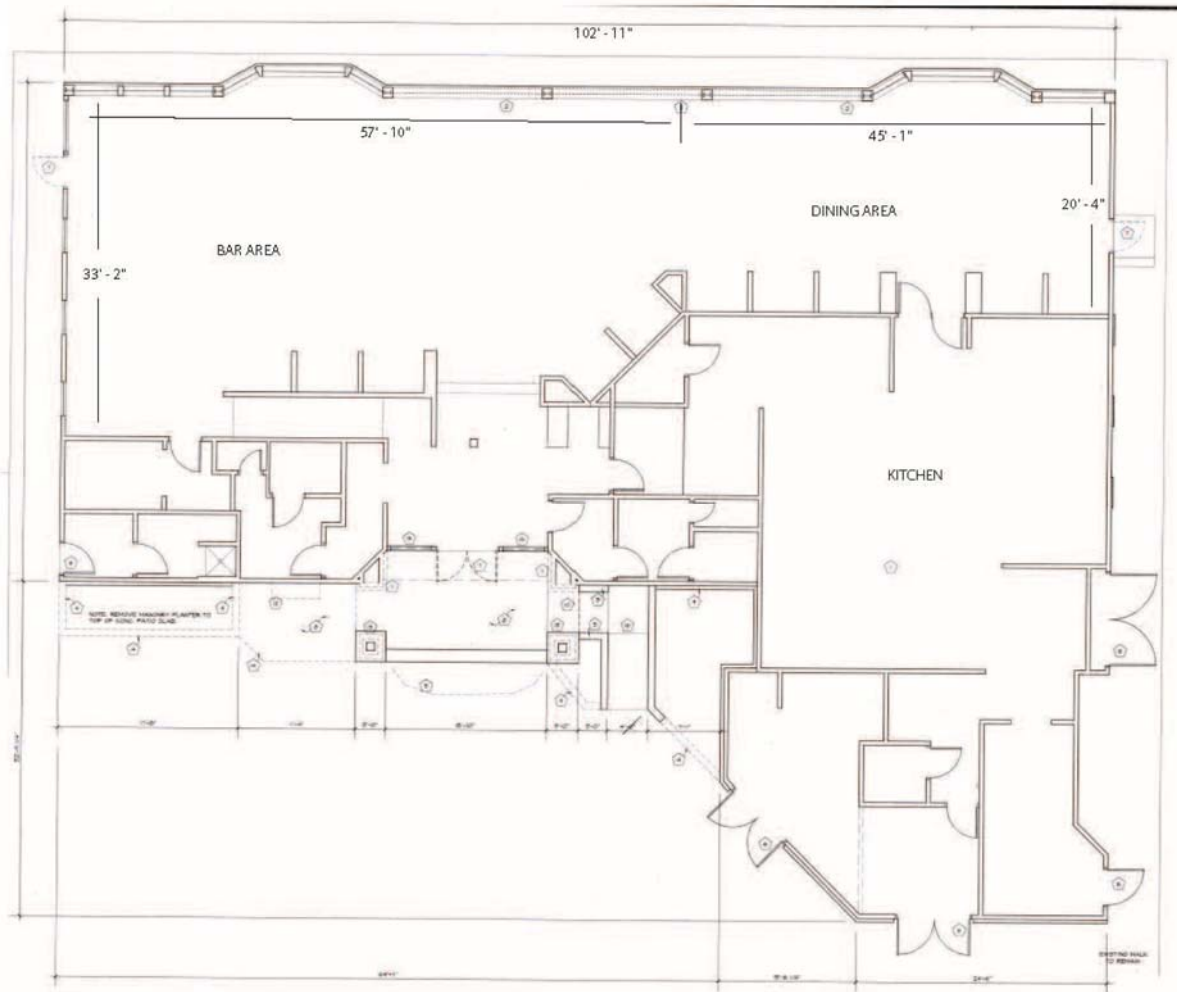


GUACAMIGO RESTAURANT NOISE IMPACT STUDY City of Newport Beach



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1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

The purpose of this noise study is to evaluate the potential noise impacts associated with the proposed GuacAmigo Restaurant (project) and recommend mitigation measures, if necessary, to help ensure the project complies with the City of Newport Beach noise standards. The project seeks a special use permit from the City of Newport Beach to allow rear windows and roll-up doors facing Newport Bay to be opened during operation. Noise sources from the restaurant include typical dining room noise from patrons, music, television and wait staff. No live or amplified music is proposed.

This report follows the City of Newport Beach Municipal Code, Chapter 10.26, Community Noise Control standards and methodologies for analyzing noise impacts. The project shall not create any noise, or allow the creation of any noise on the property which causes the noise level when measured on any other property to exceed the noise standards described in Chapter 10.26, Community Noise Control. The Newport Beach Community Noise Control Ordinance is provided in Appendix A.

The following is provided in this report:

- A description of the study area and the proposed project
- Information regarding the fundamentals of noise
- Identification of the applicable Newport Beach noise standards
- Analysis of the existing noise environment
- Analysis of the project's operational noise impact to adjacent sensitive receptors
- Summary of recommended mitigation measures and project design features to reduce noise level impacts.

1.2 Site Location

The proposed project is located at 2607 West Pacific Coast Highway, in the City of Newport Beach. The project site and building were previously occupied by the former Joe's Crab Shack restaurant. The project site is zoned for Mixed Use Water Related (MU-W1) uses.

Existing land uses surrounding the project site include; mixed-use water related uses, including restaurant, retail, office and boat sales. The nearest noise-sensitive land uses are considered the residential properties located approximately 800 feet south of the site on Lido Isle.

The project's location map is provided in Exhibit A.

1.3 Project Description

The project will consist of a full-service restaurant with bar, indoor seating and televisions. Background music will be played through indoor speakers; however, no amplifier or live music is proposed to take place on the premises and there is no outdoor seating. The project will occupy an existing building previously occupied by the Joe's Crab Shack restaurant. The project is expected to perform minor tenant improvements only and no major demolition, grading or impact/pile driving activities are expected to take place that may cause significant temporary construction noise impacts.

The project seeks a special use permit to allow rear windows and roll-up doors facing Newport Bay to be opened during operation. There are three (3) roll-up garage doors; totaling approximately 328.86 square feet, and ten (10) windows totaling approximately 323.56 square feet. The total area of open windows and doors would be approximately 652.42 square feet.

1.5 Summary of Analysis Results

The following findings and recommendations are provided based on the results of this analysis:

1. Project noise levels are expected to be within the allowable limits of the City of Newport Beach Exterior Noise Standards during daytime hours (7 a.m. to 10 p.m.) with rear windows open.
2. Project noise levels are shown to be within the allowable limits of the City of Newport Beach Exterior Noise Standards during nighttime hours (10 p.m. to 7 a.m.) with rear windows open.
3. Should noise complaints arise, the project should perform a follow-up noise analysis to determine whether a violation is occurring and how the noise impact would be mitigated, if needed.

2.0 Fundamentals of Noise and Vibration

This section of the report provides basic information about noise and vibration and presents some of the terms used in the report.

2.1 Sound, Noise, and Acoustics

The sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. The sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases, as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square inch meter (N/m²), also called micro-Pascal (μ Pa). One μ Pa is approximately one hundred billionths (0.0000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels and abbreviated as dB.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two (2) sounds or equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3dB increase.

If two (2) sounds differ by approximately 10 dB the higher sound level is the predominant sound.

2.5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighing is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in the noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway), would result in a barely perceptible change in sound level.

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant, while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels. Following are the most commonly used noise descriptors along with brief definitions.

A-Weighted Sound Level

The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level

The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL)

The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB)

A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A)

A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ)

The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

Habitable Room

Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

L(n)

The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90, and L99, etc.

Noise

Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area

Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels

See L(n).

Sound Level (Noise Level)

The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter

An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL)

The dBA level which, if it lasted for one (1) second, would produce the same A-weighted sound energy as the actual event.

2.7 Sound Propagation

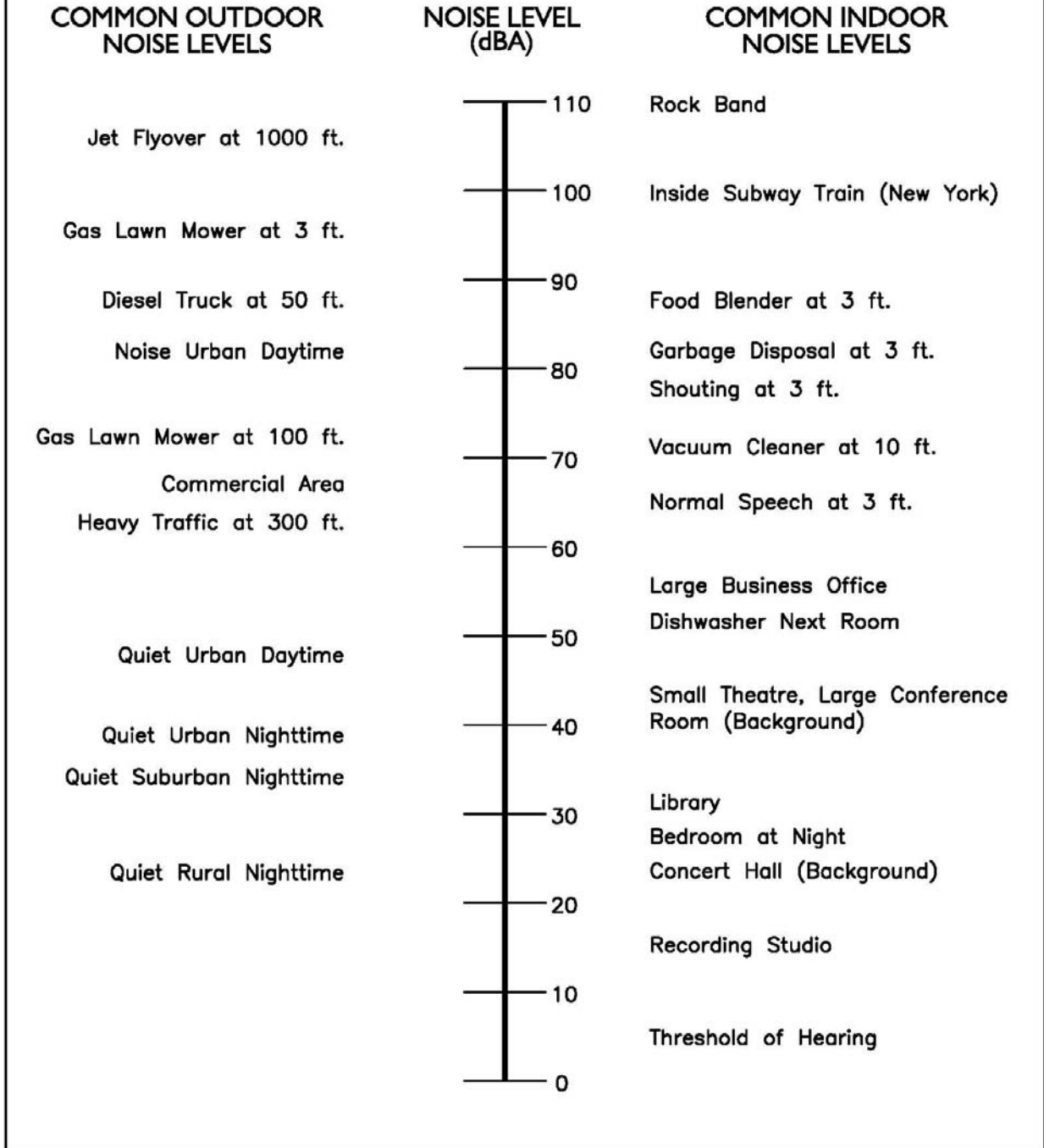
As sound propagates from a source it spreads geometrically. The sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use the hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at an additional rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 6.0 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity, and turbulence can further impact how far sound can travel.

Figure 1 shows typical sound levels from indoor and outdoor noise sources.

Figure 1
TYPICAL SOUND LEVELS FROM
INDOOR AND OUTDOOR NOISE SOURCES



3.0 Regulatory Setting

3.1 City of Newport Beach Noise Regulations

The proposed project is located in the City of Newport Beach and is required to follow the City's noise regulations. The agencies responsible for regulating noise are discussed below. The City of Newport Beach outlines their noise regulations and standards within the General Plan Public Health and Safety Element and Section 17.66 of the Municipal Code. The noise standards from the General Plan and Municipal code are provided in Appendix A.

Municipal Code Residential Noise Standards

The City of Newport Beach follows the noise control requirements set forth by the City of Newport Beach Municipal Code Chapter 10.26 -- Community Noise Control. Noise impacts from the restaurant are required to be below the City standard at the adjacent residential property line. Table 1 shows the Newport Beach Residential Exterior Noise Limits.

Table 1
City of Newport Beach Exterior Noise Standards

Noise Zone	Type of Land Use	Allowable Exterior Noise Level (Leq)	
		7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Single-, Two-, or Multiple-Family Residential	55 dBA	50dBA
II	Commercial	65 dBA	60dBA
III	Residential Portions of Mixed-Use Properties	60 dBA	50dBA
IV	Industrial or Manufacturing	70dBA	70dBA

¹ Newport Beach Municipal Code Chapter 10.26.025.

² If the ambient noise level exceeds the resulting standard, the ambient shall be the standard.

It is unlawful for any person at any location within the incorporated area of the City to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property, to exceed either of the following:

1. The noise standard for the applicable zone for any fifteen-minute period;
2. A maximum instantaneous noise level equal to the value of the noise standard plus twenty (20) DBA for any period of time (measured using A-weighted slow response).

4.0 Study Method and Procedures

The following section describes the measurement procedures, measurement locations, and noise modeling procedures and assumptions used in the noise analysis.

4.1 Measurement Procedures and Criteria

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as the first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

RK conducted the sound level measurements in accordance with Caltrans technical noise specifications. All measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

A Piccolo-II Type 2 sound level meter was used to conduct short-term (15-minute) noise measurement.

The Leq, Lmin, Lmax, L2, L8, L25, and L50 statistical data were recorded over the measurement time period intervals and the information was utilized to define the noise characteristics for the project. The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed five (5) feet above the ground for all short-term noise measurements
- Sound level meters were calibrated before and after each measurement
- Following the calibration of equipment, a windscreen was placed over the microphone
- Frequency weighting was set on "A" and slow response
- Results of the short-term noise measurements were recorded on field data sheets

- During any short-term noise measurements, any noise contaminations such as barking dogs, local traffic, lawn mowers, or aircraft fly-overs were noted
- Temperature and sky conditions were observed and documented

Appendix B includes photos, field sheets, and measured noise data.

4.2 Referenced Noise Levels

To estimate future noise levels from the proposed project, RK conducted referenced noise level measurements at a similar restaurant operating under similar conditions. RK performed field observations and noise surveys at the Avila's El Ranchito restaurant at 2800 Newport Boulevard, Newport Beach, on the evening of Friday, Sept 21, 2018. Noise measurements were performed during peak restaurant operating hours on a Friday evening.

Table 2 shows the results of the observed noise survey. The field form and photos from the noise survey are provided in Appendix B.

Table 2
Reference Stationary Noise Level Measurements

Site No.	Location	Distance from Façade (feet)	Noise Levels (dBA)					
			L _{eq}	L _{max}	L ₂	L ₈	L ₂₅	L ₅₀
REF-1	Interior Restaurant Noise	--	80.7	104.1	85.2	80.8	78.1	76.0
REF-2	Exterior Restaurant Noise	5 ft.	67.6	81.7	72.9	70.7	68.6	66.4

¹ Referenced noise levels measured by RK over a 15-minute period.

REF-1 Measurement taken inside the Avila's El Ranchito restaurant. Ambient noise includes a full restaurant and lively bar with noise from customers and wait staff, dishes and background music from speakers. Wait staff sang Happy Birthday.

REF-2 Measurement taken outside of the restaurant on the sidewalk; meter facing open windows and located approximately 5 feet from the facade. Exterior noise includes traffic noise from Newport Boulevard and 28th Street.

The total area of open windows at El Ranchito was calculated to be approximately 140 square feet or approximately 47% of the wall area at the corner of the restaurant, where meter was located.

4.3 Stationary Noise Modeling

Typical noise from restaurant activity is considered a stationary source noise. To estimate the future noise from the project at the adjacent residential properties, the stationary noise was projected using a computer program that replicates the FHWA Noise Prediction Model (FHWA-RD-77-108).

The FHWA model arrives at the predicted noise level through a series of adjustments to the reference energy noise level. For each stationary source, the referenced noise level was applied to the model. The model outputs the projected noise level based on the following key parameters:

- Measured referenced noise level – (e.g. how loud a source is at a specific distance)
- Vertical and horizontal distances (sensitive receptor distance from noise source)
- Noise barrier vertical and horizontal distances (noise barrier distance from sound source and receptor).
- Typical noise source spectra
- Topography
- Hard site conditions used for all noise projections over water.

To estimate the future noise levels during typical conditions, RK adjusted the reference noise levels from the project building façade and to the nearest sensitive receptor location property line (south and west of the project site). Adjusted noise levels are based on the distance of the receptor location relative to the noise source, local topography and the recommended parapet wall shielding wall for the equipment. The noise levels assume that the stationary sources are operating continuously when in reality all noise sources will operate intermittently throughout the daily operation.

Table 3
Adjusted Stationary Noise Levels

Location	Distance from Façade (feet)	Noise Levels (dBA)					
		L _{eq}	L _{max}	L ₂	L ₈	L ₂₅	L ₅₀
Project's Exterior Façade	5 ft.	69.0	83.1	74.3	72.1	70.0	67.8
Residential Homes on Lido Isle	800 ft.	47.0	61.1	52.3	50.1	48.0	45.8

¹ Referenced noise levels measured by RK over a 15-minute period.

The noise levels at the project's exterior building façade are adjusted to account for differences in the window-to-wall ratio of the project's facade compared to the referenced site.

The amount of open window area of the project's rear wall façade is approximately 65% (652.4 square feet of open windows / 1,003 square feet total façade area).

The amount of open window area of the referenced restaurant corner wall façade is approximately 47% (140 square feet of open windows / 297 square feet total façade area).

The difference is approximately 18% more open window area at the proposed project than at the referenced restaurant. To account for the additional open window area at the project, referenced noise levels have been adjusted using an energy calculation and increase logarithmically by 18%. The resulting adjusted stationary noise levels are shown in Table 3.

5.0 Existing Noise Environment

The existing noise environment at the surrounding residential areas has been established to determine baseline ambient conditions. Using a Piccolo-II Type 2 sound level meter, one (1) 15-minute noise measurements was recorded near the residential homes on Lido Isle during peak restaurant operating hours on Friday, September 21, 2018. The noise monitoring locations were selected based on locations that are representative of the existing noise environment and exposure to sensitive noise areas.

The following details and observations are provided for the short-term noise measurements. The results of the short-term (ST) measurements are presented in Table 4.

Table 4
Short Term (15-Minute) Noise Measurement Results

Site No.	Time Started	Leq	Lmin	Lmax	L ₂	L ₈	L ₂₅	L ₅₀
ST-1	9:39 PM	59.4	48.4	81.9	67.1	63.5	56.7	54.2

ST-1 Measurement taken adjacent to the Lido Isle Bridge facing the Lido Isle Reach. Ambient noise includes traffic noise from Via Lido, noise from boats on the water, and music across the bay.

The ambient noise measurement shows that existing noise levels are currently exceeding the Newport Beach standard at the Lido Isle Bridge for residential properties. This is partially attributed to traffic noise along Via Lido. Traffic noise would not be as prevalent at the residential backyards facing the project site and thus ambient noise levels may be quieter.

Exhibit C shows the noise measurement locations. Appendix B includes photos, field sheets, and measured noise data.

6.0 Noise Impact Analysis

This assessment analyzes the change in the ambient environment as a result of operational noise impacts generated by the project. The main sources of noise generated by the project would include on-site stationary source noise generated by operational activities. Noise level impacts are compared to the City of Newport Beach noise standards in the Municipal Code. Mitigation measures are provided, as needed, to ensure the project's noise impact is less than significant.

The project must demonstrate that noise levels generated by the project would not be in excess of standards established in the City of Newport Beach Municipal Code, Chapter 10.26 -- Community Noise Control.

6.1 Residential Noise Impacts

The potential noise impacts from the operation of the proposed restaurant to the nearest residential land uses are analyzed. The restaurant seeks a special use permit to allow south facing windows and doors to remain open during daytime and nighttime business hours. Noise impacts from the project include typical restaurant operational noise such as include typical dining room noise from patrons, music, television and wait staff. No live or amplified music is proposed.

Table 5
Noise Impact Analysis - Daytime

	Scenario	Noise Level (dBA) ¹	
		L _{eq} (15-minute Average)	L _{max} (Maximum)
Daytime (7:00 AM - 10:00 PM)	Project Noise Level at Residential Homes	47.0	61.1
	City of Newport Beach Residential Standard	50	70
	Noise Level Exceeds Standard?	NO	NO
	Existing Ambient Noise Level at Residential	59.4	81.9
	Existing Plus Project Noise Level at Residential	59.6	81.9
	Increase as a Result of Project	0.2	0.0
	Significant Increase?	NO	NO

¹ Noise levels calculated at nearest residential homes located approximately 800 feet south of the site.

Table 6
Noise Impact Analysis - Nighttime

	Scenario	Noise Level (dBA) ¹	
		L _{eq} (15-minute Average)	L _{max} (Maximum)
Nighttime (10:00 PM - 7:00 AM)	Project Noise Level at Residential Homes	47.0	61.1
	City of Newport Beach Residential Standard	55	75
	Noise Level Exceeds Standard?	NO	NO
	Existing Ambient Noise Level at Residential ²	56.4	78.9
	Existing Plus Project Noise Level at Residential	56.9	79.0
	Increase as a Result of Project	0.5	0.1
	Significant Increase?	NO	NO

¹ Noise levels calculated at nearest residential homes located approximately 800 feet south of the site.

² Nighttime ambient noise levels estimated by subtracting 3dBA from evening noise levels.

As shown in Tables 5 and 6, the noise level generated by the project would be within the allowable limits of the Newport Beach Noise Standards for both daytime and nighttime conditions.

Furthermore, the change in the ambient environment as a result of the project is considered less than significant. A significant increase in noise is considered to be 3 dBA above the existing ambient environment. The 3 dBA threshold has been adopted from the FHWA Highway Traffic Noise Analysis and Abatement Policy and Guidance document and the Caltrans Basics of Highway Noise document, which define a 3 dBA increase as the threshold at which the human ear can barely perceive a change in noise.

The operational noise from the proposed project with rear windows open is expected to be within the allowable limits of the City of Newport Beach Municipal Code, Chapter 10.26 -- Community Noise Control at the nearest residential properties located 800 feet away.

Stationary noise calculation worksheets are provided in Appendix C.

6.2 Summary of Analysis Results

RK Engineering Group, Inc. (RK) has completed a noise impact analysis for the proposed GuacAmigos restaurant special use permit application.



The following findings and recommendations are provided based on the results of this analysis:

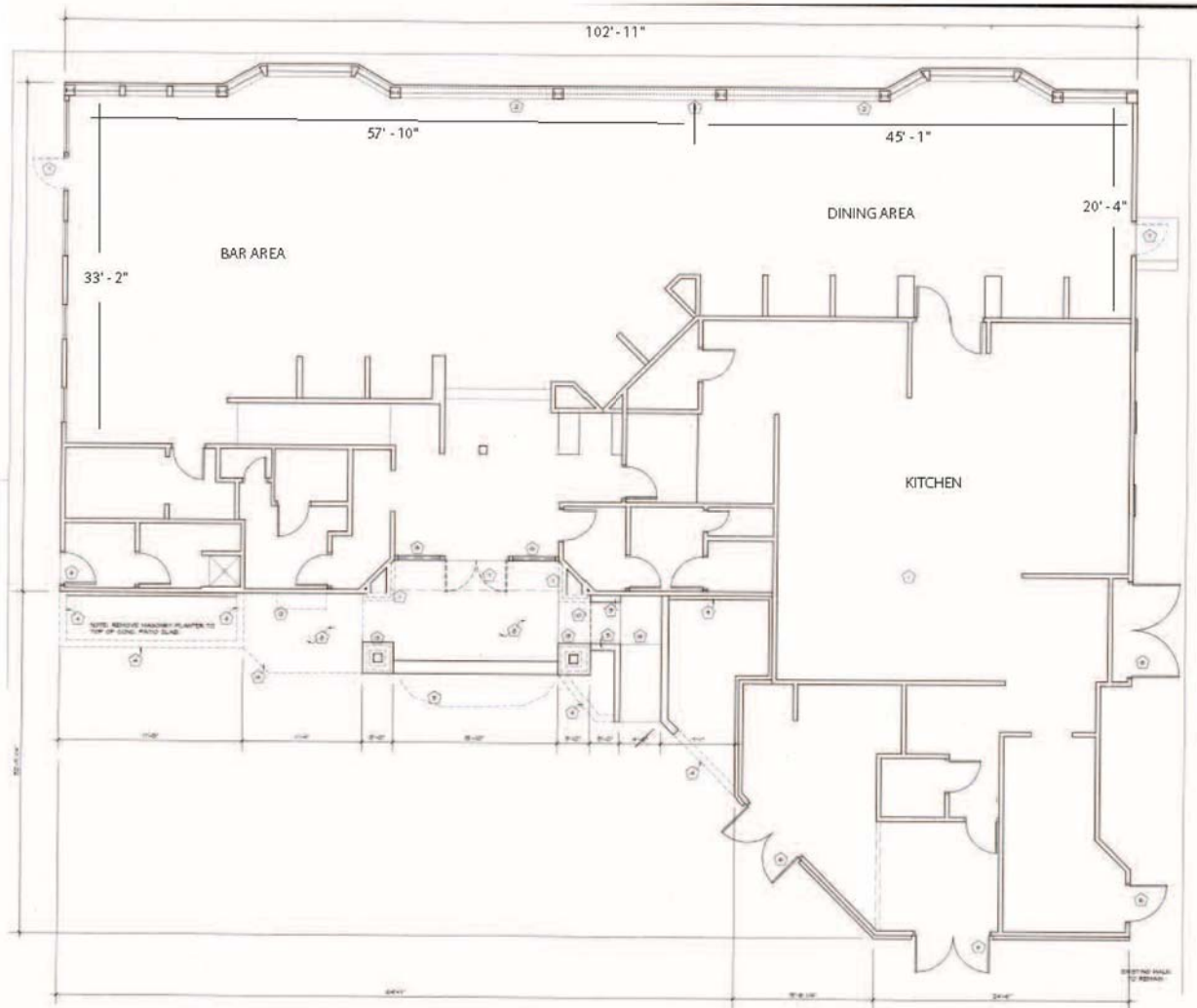
1. Project noise levels are expected to be within the allowable limits of the City of Newport Beach Exterior Noise Standards during daytime hours (7 a.m. to 10 p.m.) with rear windows open.
2. Project noise levels are shown to be within the allowable limits of the City of Newport Beach Exterior Noise Standards during nighttime hours (10 p.m. to 7 a.m.) with rear windows open.
3. Should noise complaints arise, the project should perform a follow-up noise analysis to determine whether a violation is occurring and how the noise impact would be mitigated, if needed.

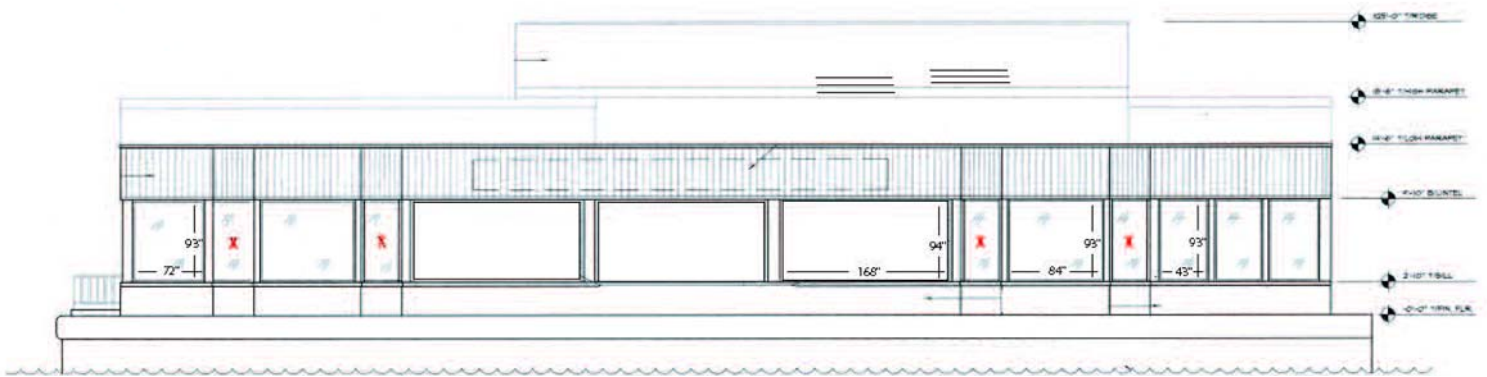
Exhibits



Legend:

-  = Property Line
-  = Distance





Rear Elevation



Appendices

Appendix A

City of Newport Beach
Municipal Code Noise Control

(119 hits)

Chapter 10.26 COMMUNITY NOISE CONTROL

Sections:

- 10.26.005 Declaration of Policy.
- 10.26.010 Definitions.
- 10.26.015 Decibel Measurement Criteria.
- 10.26.020 Designated Noise Zones.
- 10.26.025 Exterior Noise Standards.
- 10.26.030 Interior Noise Standards.
- 10.26.035 Exemptions.
- 10.26.040 Schools, Day Care Centers, Churches, Libraries, Museums, Health Care Institutions—Special Provisions.
- 10.26.045 Heating, Venting and Air Conditioning—Special Provisions.
- 10.26.050 Sound-Amplifying Equipment.
- 10.26.055 Noise Level Measurement.
- 10.26.065 Proposed Developments.
- 10.26.070 Prima Facie Violation.
- 10.26.075 Violations.
- 10.26.080 Violations—Additional Remedies—Injunctions.
- 10.26.085 City Manager Waiver.
- 10.26.090 Noise Abatement Programs.
- 10.26.095 Manner of Enforcement.
- 10.26.100 Severability.

10.26.005 Declaration of Policy.

A. In order to control unnecessary, excessive and annoying noise in the City of Newport Beach, it is declared to be the policy of the City to prohibit such noise generated from or by all sources as specified in this chapter.

B. It is determined that certain noise levels are detrimental to the public health, welfare and safety and contrary to public interest, therefore, the City Council of the City of Newport Beach does ordain and declare that creating, maintaining, causing or allowing to be created, caused or maintained, any noise in a manner prohibited by, or not in conformity with, the provisions of this chapter, is a public nuisance and may be punished as a public nuisance. The ordinance codified in this chapter is effective thirty (30) days from adoption, however, all fixed noise sources existing at the date of adoption shall have ninety (90) days from the date of adoption to achieve compliance with this chapter. (Ord. 95-38 § 11 (part), 1995)

10.26.010 Definitions.

The following words, phrases and terms as used in this chapter shall have the meanings as indicated here:

“Agricultural property” means a parcel of real property which is undeveloped for any use other than agricultural purposes.

“Ambient noise level” means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding the alleged offensive noise, at the location and approximate time at which a comparison with the alleged offensive noise is to be made.

“A-weighted sound level” means the total sound level meter with a reference pressure of twenty (20) micropascals using the A-weighted network (scale) at slow response. The unit of measurement shall be defined as DBA.

“Code Enforcement Officer” means the Code Enforcement Officer of the City or his duly authorized deputy.

“Commercial property” means a parcel of real property which is used as either in part or in whole for commercial purposes.

“Cumulative period” means an additive period of time composed of individual time segments which may be continuous or interrupted.

“Decibel (Db)” means a unit which denotes the ratio between two quantities which are proportional to power: the number of decibels corresponding to the ratio of two amounts of power is ten times the logarithm to the base ten of this ratio.

“Dwelling unit” means any area within a structure on any parcel which:

1. Contains separate or independent living facilities for one or more persons, with an area or equipment for sleeping, sanitation and food preparation, and which has independent exterior access to ground level; or
2. Is being utilized for residential purposes by one or more persons separately or independently from occupants of other areas within the structure.

“Emergency machinery, vehicle, work or alarm” means any machinery, vehicle, work or alarm used, employed, performed or operated in an effort to protect, provide or restore safety conditions in the community or for the citizenry, or work by private or public utilities when restoring utility service.

“Equivalent, noise, level, leq.” means the sound level corresponding to a steady state noise level over a given measurement period with the same amount of acoustic energy as the actual time varying noise level. Also known as the energy average noise level during the measurement period. The measurement period shall be fifteen (15) minutes under the terms of this chapter.

“Fixed noise source” means a stationary device which creates sounds while fixed or motionless including but not limited to residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners and refrigeration equipment.

“Grading” means any excavating or filling of earth material or any combination thereof conducted at a site to prepare said site for construction or other improvements thereon.

“Health care institution” means any hospital, convalescent home or other similar facility excluding residential.

“Hertz (HZ)” means the unit which describes the frequency of a function periodic in time which is the reciprocal of the period.

“Impulsive noise” means a noise of short duration usually less than one second and of high intensity, with an abrupt onset and rapid decay.

“Industrial property” means a parcel of real property which is used either in part or in whole for manufacturing purposes.

“Intruding noise level” means the total sound level, in decibels, created, caused, maintained or originating from an alleged offensive source at a specified location while the alleged offensive source is in operation.

“Licensed” means the issuance of a formal license or permit by the appropriate jurisdictional authority, or where no permits or licenses are issued, the sanctioning of the activity by the jurisdiction as noted in public record.

“Major roadway” means any street, avenue, boulevard or highway used for motor vehicle traffic which is owned or controlled by a public government entity.

“Mobile noise source” means any noise source other than a fixed noise source.

“Person” means any individual, firm, partnership, association, corporation, company or organization of any kind, including public agencies.

“Residential property” means a parcel of real property which is used either in part or in whole for residential purposes, other than transient uses such as hotels and motels, and residential care facilities. Residential property includes the residential portion of mixed use properties.

“Simple tone noise” means a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished. If measured, simple tone noise shall exist if the one-third octave band sound pressure levels in the band with the tone exceeds the arithmetic average of the sound pressure levels of the two continuous one-third octave bands as follows: five Db for frequencies of five hundred (500) Hertz (Hz) and above or, by fifteen (15) Db for frequencies less than or equal to one hundred twenty-three (123) Hz.

“Sound level meter” means an instrument meeting American National Standard Institute’s Standard S1.4-1971 or most recent revision thereof for Type 2 sound level meters or an instrument and the associated recording and analyzing equipment which will provide equivalent data.

“Sound pressure level” of a sound, in decibels, means twenty (20) times the logarithm to the base ten of the ratio of the pressure of the sound to a reference pressure which shall be explicitly stated.

“Vibration” means any movement of the earth, ground or other similar surface created by a temporal and spatial oscillation device or equipment located upon, affixed in conjunction with that surface. (Ord. 95-38 § 11 (part), 1995)

10.26.015 Decibel Measurement Criteria.

Any decibel measurement made pursuant to the provisions of this chapter shall be based on a reference sound pressure of twenty (20) micropascals as measured with a sound level meter using the A-weighted network (scale) at slow response. (Ord. 95-38 § 11 (part), 1995)

10.26.020 Designated Noise Zones.

The properties hereinafter described assigned to the following noise zones:

Noise Zone I	—	All single-, two- and multiple-family residential properties;
Noise Zone II	—	All commercial properties;
Noise Zone III	—	The residential portion of mixed-use properties;
Noise Zone IV	—	All manufacturing or industrial properties.

The actual use of the property shall be the determining factor in establishing whether a property is in Noise Zone I, II, III or IV provided that the actual use is a legal use in the City of Newport Beach. (Ord. 95-38 § 11 (part), 1995)

10.26.025 Exterior Noise Standards.

A. The following noise standards, unless otherwise specifically indicated, shall apply to all property with a designated noise zone:

NOISE ZONE	TYPE OF LAND USE	ALLOWABLE EXTERIOR NOISE LEVEL (Equivalent Noise Level, Leq)	
		7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
		I	Single-, two-or multiple-family residential
II	Commercial	65 DBA	60 DBA
III	Residential portions of mixed-use properties	60 DBA	50 DBA
IV	Industrial or manufacturing	70 DBA	70 DBA

If the ambient noise level exceeds the resulting standard, the ambient shall be the standard.

B. It is unlawful for any person at any location within the incorporated area of the City to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property, to exceed either of the following:

1. The noise standard for the applicable zone for any fifteen-minute period;
2. A maximum instantaneous noise level equal to the value of the noise standard plus twenty (20) DBA for any period of time (measured using A-weighted slow response).

C. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

D. The Noise Zone III standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property, if the intruding noise originates from that commercial property.

E. If the measurement location is on boundary between two different noise zones, the lower noise level standard applicable to the noise zone shall apply. (Ord. 95-53 § 1, 1995; Ord. 95-38 § 11 (part), 1995)

10.26.030 Interior Noise Standards.

A. The following noise standard, unless otherwise specifically indicated, shall apply to all residential property within all noise zones:

NOISE ZONE	TYPE OF LAND USE	ALLOWABLE INTERIOR NOISE LEVEL (Equivalent Noise Level, Leq)	
		7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Residential	45 DBA	40 DBA

III	Residential portions of mixed-use properties	45 DBA	40 DBA
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If the ambient noise level exceeds the resulting standard, the ambient shall be the standard.

B. It shall be unlawful for any person at any location within the incorporated area of the City to create any noise or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such a person which causes the noise level when measured on any other property, to exceed either of the following:

1. The noise standard for the applicable zone for any fifteen-minute period;
2. A maximum instantaneous noise level equal to the value of the noise standard plus twenty (20) DBA for any period of time (measured using A-weighted slow response).

C. In the event the ambient noise level exceeds the noise standard, the noise standard applicable to said category shall be increased to reflect the maximum ambient noise level.

D. The Noise Zone III standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property, if the intruding noise originates from that commercial property.

E. If the measurement location is on a boundary between two different noise zones, the lower noise level standard applicable to the noise zone shall apply. (Ord. 95-53 § 2, 1995; Ord. 95-38 § 11 (part), 1995)

10.26.035 Exemptions.

The following activities shall be exempted from the provisions of this chapter:

A. Any activity conducted on public property, or on private property with the consent of the owner, by any public entity, or its officers, employees, representatives, agents, subcontractors, permittees, licensees, or lessees, which are consistent with, and in furtherance of, the governmental functions or services the public entity has authorized, or responsible, to perform, activities which are exempt from the provisions of this chapter include, without limitation, sporting and recreational activities which are sponsored or co-sponsored by the City of Newport Beach or the Newport Mesa Unified School District;

B. Occasional outdoor gatherings, public dances, show, sporting and entertainment events, provided said events are conducted pursuant to a permit or license issued by the appropriate jurisdiction relative to the staging of said events;

C. Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle, work or warning alarm or bell, provided the sounding of any bell or alarm on any building or motor vehicle shall terminate its operation within forty-five (45) minutes in any hour of its being activated;

D. Noise sources associated with construction, repair, remodeling, demolition or grading of any real property. Such activities shall instead be subject to the provisions of Chapter 10.28 of this title;

E. Noise sources associated with construction, repair, remodeling, demolition or grading of public rights-of-way or during authorized seismic surveys;

F. All mechanical devices, apparatus or equipment associated with agriculture operations provided that:

1. Operations do not take place between eight p.m. and seven a.m. on weekdays, including Saturday, or at any time Sunday or a federal holiday, or

2. Such operations and equipment are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions, or
 3. Such operations and equipment are associated with agricultural pest control through pesticide application, provided the application is made in accordance with permits issued by or regulations enforced by the California Department of Agriculture;
- G. Noise sources associated with the maintenance of real property. Such activities shall instead be subject to the provisions of Chapter 10.28 of this title;
- H. Any activity to the extent regulation thereof has been preempted by state or federal law. NOTE: Preemption may include motor vehicle, aircraft in flight, and railroad noise regulations;
- I. Any noise sources associated with people and/or music associated with a party at a residential property. Such noise is difficult to measure under the terms of this chapter and instead shall be subject to the provisions of Chapters 10.28 and 10.58 of this title;
- J. Any noise sources associated with barking dogs or other intermittent noises made by animals on any property within the City of Newport Beach. Such noise is difficult to measure under the terms of this chapter and instead shall be subject to the provisions of Chapter 7.20 of this Code;
- K. Any noise sources associated with the operation of a permanently installed heating, venting and air conditioning (HVAC) equipment on a residential property permitted under the provisions of Section 10.26.045(B) and (C);
- L. Any noise sources specifically identified and mitigated under the provisions of a use permit, modification permit, development agreement or planned community district development plan adopted prior to the date of adoption of this chapter. (Ord. 95-53 § 3, 1995; Ord. 95-38 § 11 (part), 1995)

10.26.040 Schools, Day Care Centers, Churches, Libraries, Museums, Health Care Institutions—Special Provisions.

It is unlawful for any person to create any noise which causes the noise level at any school, day care center, hospital or similar health care institution, church, library or museum while the same is in use, to exceed the noise standards specified in Section 10.26.025 prescribed for the assigned Noise Zone I (residential uses). (Ord. 95-38 § 11 (part), 1995)

10.26.045 Heating, Venting and Air Conditioning—Special Provisions.

- A. **New HVAC Equipment.** New permits for heating, venting and air conditioning (HVAC) equipment in or adjacent to residential areas shall be issued only where installations can be shown by computation, based on the sound rating of the proposed equipment, not to exceed an A-weighted sound pressure level of fifty (50) DBA or not to exceed an A-weighted sound pressure level of fifty-five (55) dBA and be installed with a timing device that will deactivate the equipment during the hours of ten p.m. to seven a.m. The method of computation used shall be that specified in "Standard Application of Sound Rated Outdoor Unitary Equipment," Standard 275, Air conditioning and Refrigeration Institute, 1984 or latest revision thereof.
- B. **Existing HVAC Equipment.**
1. HVAC equipment legally installed prior to April 22, 1981, shall be permitted to operate with an exterior noise limit of sixty-five (65) dBA until January 1, 1998.
 2. HVAC equipment legally installed prior to April 22, 1981, shall be exempted from the interior noise level standard as specified in Section 10.26.030 of this chapter until January 1, 1998.

3. HVAC equipment legally installed after April 22, 1981, and prior to the date of adoption of this chapter shall not exceed a maximum exterior noise limit of fifty-five (55) dBA during the ninety-day compliance period set forth in Section 10.26.005.

C. In the event that HVAC equipment cannot meet the requirements set forth in this chapter, then the exterior noise limit for such equipment may be raised to sixty-five (65) dBA and exempted from the interior noise level standard as specified in Section 10.26.030 of this chapter, provided that the applicant obtains the written consent of all the owners of the affected properties. (Ord. 95-38 § 11 (part), 1995)

10.26.050 Sound-Amplifying Equipment.

Loudspeakers, sound amplifiers, public address systems or similar devices used to amplify sounds shall be subject to the provisions of Chapter 10.32 of this title. Such sound-amplifying equipment shall not be construed to include electronic devices, including but not limited to, radios, tape players, tape recorders, compact disc players, electric keyboards, music synthesizers, record players or televisions, which are designed and operated for personal use, or used entirely within a building and are not designed or used to convey the human voice, music or any other sound to an audience outside such building, or which are used in vehicles and heard only by occupants of the vehicle in which installed, which shall be subject to the provisions of Chapter 10.28 of this title. (Ord. 95-38 § 11 (part), 1995)

10.26.055 Noise Level Measurement.

A. The location selected for measuring exterior noise levels in a residential area shall be at any part of a private yard, patio, deck or balcony normally used for human activity and identified by the owner of the affected property as suspected of exceeding the noise level standard. This location may be the closest point in the private yard or patio, or on the deck or balcony, to the noise source, but should not be located in nonhuman activity areas such as trash container storage areas, planter beds, above or contacting a property line fence, or other areas not normally used as part of the yard, patio, deck or balcony. The location selected for measuring exterior noise levels in a nonresidential area shall be at the closest point to the noise source. The measurement microphone height shall be five feet above finish elevation or, in the case of a deck or balcony, the measurement microphone height shall be five feet above the finished floor level.

B. The location selected for measuring interior noise levels shall be made within the affected residential unit. The measurements shall be made at a point at least four feet from the wall, ceiling or floor, or within the frame of a window opening, nearest the noise source. The measurements shall be made with windows in an open position. (Ord. 95-38 § 11 (part), 1995)

10.26.065 Proposed Developments.

Each department whose duty it is to review and approve new projects or changes to existing projects that result or may result in the creation of noise shall consult with the Code Enforcement Officer prior to any such approval. If at any time the Code Enforcement Officer has reason to believe that a standard, regulation, action, proposed standard, regulation or action of any department respecting noise does not conform to the provisions as specified in this chapter, the Code Enforcement Officer may request such department to consult with him on the advisability of revising such standard or regulation to obtain uniformity. (Ord. 95-38 § 11 (part), 1995)

10.26.070 Prima Facie Violation.

Any noise exceeding the noise level standard as specified in Section 10.26.025 and 10.26.030 of this chapter, shall be deemed to be prima facie evidence of a violation of the provisions of this chapter. (Ord. 95-38 § 11 (part), 1995)

10.26.075 Violations.

Any persons violating any of the provisions of this chapter shall be deemed guilty of an infraction. (Ord. 95-38 § 11 (part), 1995)

10.26.080 Violations—Additional Remedies—Injunctions.

A. As an additional remedy, the operation or maintenance of any device, instrument, vehicle or machinery in violation of any provisions of this chapter which operation or maintenance causes or creates sound levels exceeding the allowable standards as specified in this chapter shall be deemed and is declared to be a public nuisance and may be subject to abatement summarily by a restraining order or injunction issued by a court of competent jurisdiction.

B. Any violation of this chapter is declared to be a public nuisance and may be abated in accordance with law. The expense of this chapter is declared to be public nuisance and may be by resolution of the City Council declared to be a lien against the property on which such nuisance is maintained, and such lien shall be made a personal obligation of the property owner. (Ord. 95-38 § 11 (part), 1995)

10.26.085 City Manager Waiver.

The City Manager is authorized to grant a temporary waiver to the provisions of this chapter for a period of time not to exceed thirty (30) days if such temporary waiver would be in the public interest and there is no feasible and prudent alternative to the activity, or the method of conducting the activity, for which the temporary waiver is sought. (Ord. 95-38 § 11 (part), 1995)

10.26.090 Noise Abatement Programs.

A. In circumstances which adopted community-wide noise standards and policies prove impractical in controlling noise generated from a specific source, the City Council may establish a noise abatement program which recognizes the characteristics of the noise source and affected property and which incorporates specialized mitigation measures.

B. Noise abatement programs shall set forth in detail the approved terms, conditions and requirements for achieving maximum compliance with noise standards and policies. Said terms, conditions and requirements may include, but shall not be limited to, limitations, restrictions, or prohibitions on operating hours, location of operations, and the types of equipment. (Ord. 95-38 § 11 (part), 1995)

10.26.095 Manner of Enforcement.

A. The City Code Enforcement Officer is directed to enforce the provisions of this chapter and may issue citations for any violation of the provisions of this chapter or violations of this chapter may be prosecuted or enforced in the same manner as other infractions pursuant to this Code; provided, however, that in the event of an initial violation of the provisions of this chapter, a written notice may be given to the alleged violator which specifies the time by which the condition shall be corrected.

B. No person shall interfere with, oppose or resist any authorized person charged with the enforcement of this chapter while such person is engaged in the performance of his/her duty.

C. In the event the alleged violator cannot be located in order to serve any notice, the notice shall be deemed to be given upon mailing such notice by registered or certified mail to the alleged violator at his last known address or at the place where the violation occurred in which event the specified time period for abating the violation or applying for a variance shall commence at the date of the day following the mailing of such notice. (Ord. 95-38 § 11 (part), 1995)

10.26.100 Severability.

If any provision, clause, sentence, or paragraph of this chapter, or the application thereof to any person or circumstance shall be held invalid, such invalidity shall not affect the other provisions of this chapter which can be given effect without the invalid provisions or application and, to this end, the provisions of this chapter are hereby declared to be severable. (Ord. 95-38 § 11 (part), 1995)

The Newport Beach Municipal Code is current through Ordinance 2018-13, passed August 14, 2018.

Disclaimer: The City Clerk's Office has the official version of the Newport Beach Municipal Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

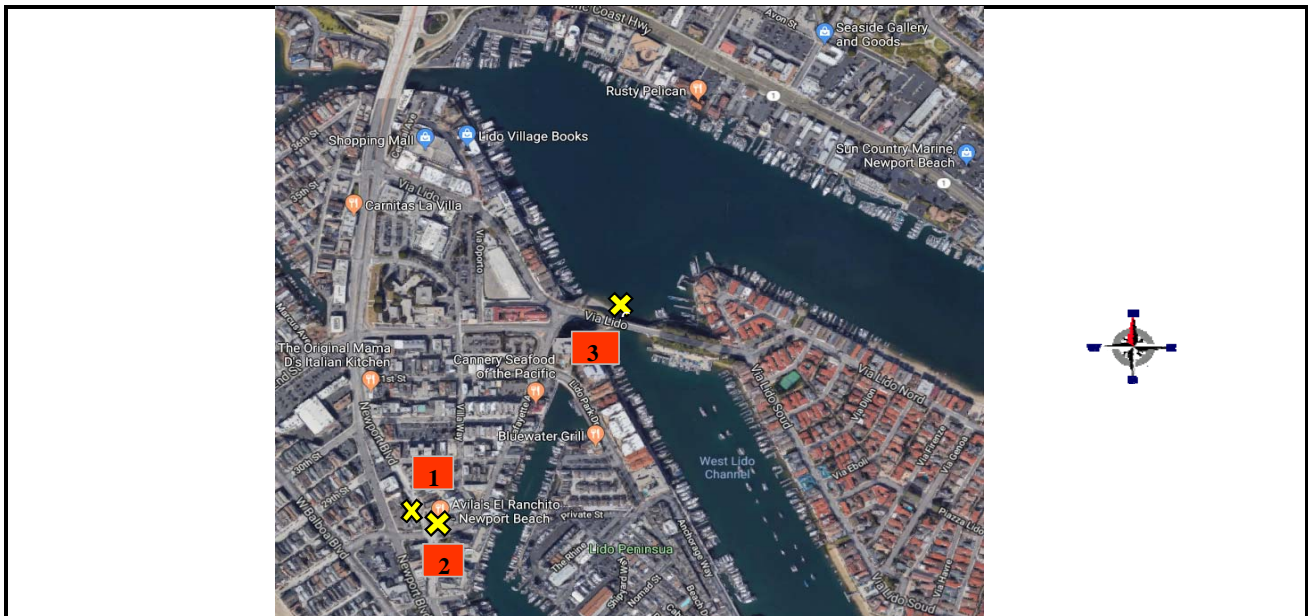
Appendix B

Field Data and Photos

Field Sheet			
Project: GuacAmigos Restaurant		Engineer: B. Estrada	
		Date: 6/21/2018	
Measurement Address: Northeast Corner of Archibald Ave at 7th Street, Rancho Cucamonga		City: Newport Beach	
		JN: 2770-18-01	
		Site No.: 1	
Sound Level Meter: Piccolo-II Serial # A0520		Calibration Record: Input, dB/ Reading, dB/ Offset, dB/ Time Before 92.0 92.0 -- 8:30 PM After _____	
Calibrator: Piccolo-II Serial # A0520		Notes: Temp: 65 Windspeed: 5 Direction: WSW Skies: Cloudy Camera: Photo Nos.	
Meter Settings: <input checked="" type="checkbox"/> A-WTD <input type="checkbox"/> LINEAR <input checked="" type="checkbox"/> SLOW <input type="checkbox"/> 1/1 OCT <input checked="" type="checkbox"/> INTERVALS <u>15</u> - MINUTE <input type="checkbox"/> C-WTD <input type="checkbox"/> IMPULSE <input type="checkbox"/> FAST <input type="checkbox"/> 1/3 OCT <input checked="" type="checkbox"/> L _N PERCENTILE VALUES			

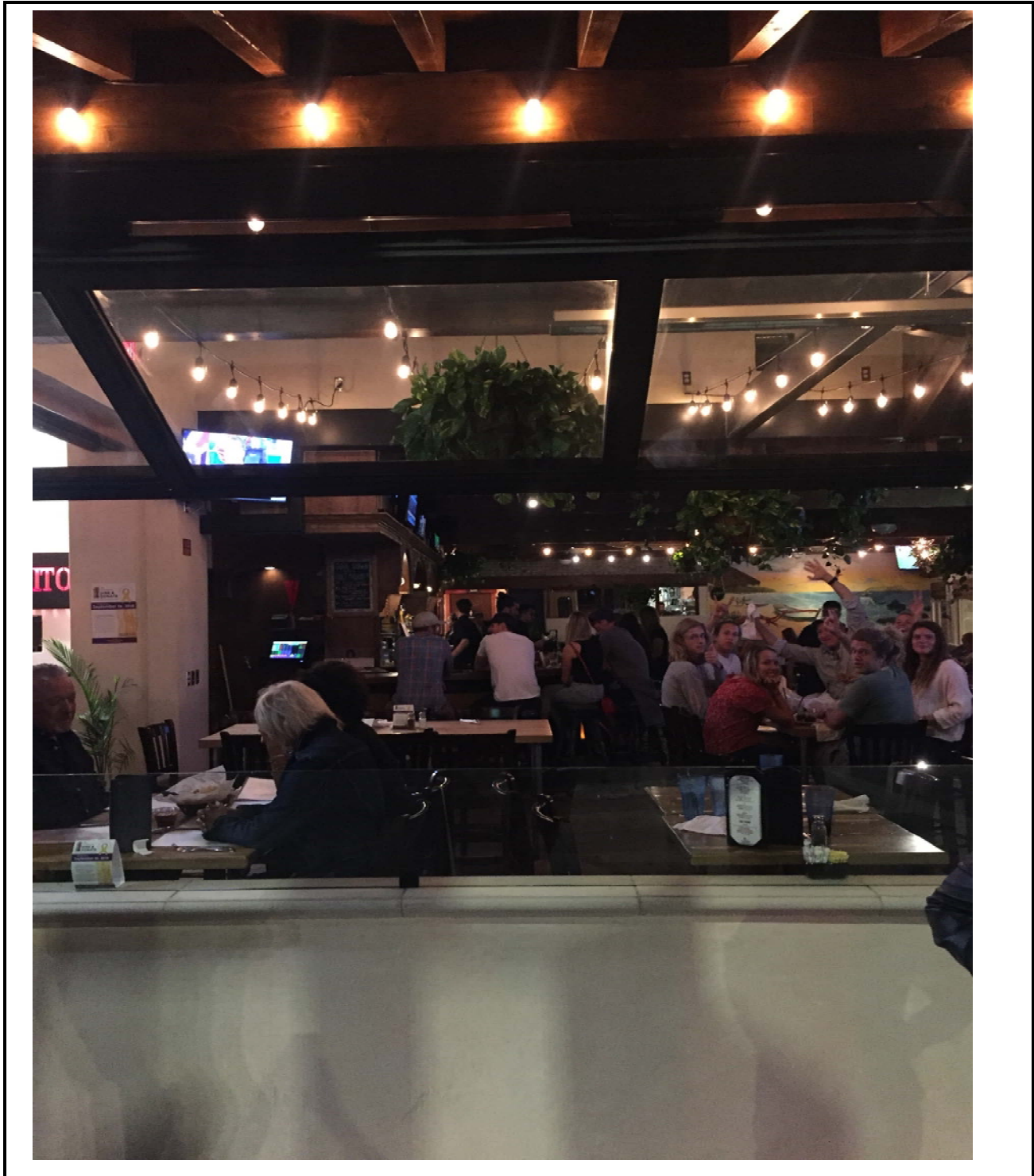
Notes:	Measurement Type:
	Long-term _____
	Short-term <u> X </u>

		Start Time	Stop Time	Leq	Lmin	Lmax	L2	L8	L25	L50	
Locations	1	8:35 PM	8:50 PM	80.7	65.4	104.1	85.2	80.8	78.1	76	
	Meter located inside restaurant. Noise includes noise from conversation and Happy Birthday Song.										
	2	8:55 PM	9:10 PM	67.6	57.4	81.7	72.9	70.7	68.6	66.4	
	Meter was placed outside the restaurant on the sidewalk facing open window at approximately 5 ft from the restaurant. Windows closed at 9:10 PM.										
	3	9:24 PM	9:39 PM	59.4	48.4	81.9	67.1	63.5	56.7	54.2	
Meter was located adjacent to Lido Island Bridge along the bay.											
4											
5											



Field Sheet - ST1 Location Photos

Project:	GuacAmigos	Engineer:	B. Estrada	Date:	9/21/2018
Measurement Address:	2800 Newport Boulevard	City:	Newport Beach	JN:	2770-2018-01
				Site No.:	1



Field Sheet - ST2 Location Photos

Project: GuacAmigos	Engineer: B. Estrada	Date: 9/21/2018
Measurement Address: 2800 Newport Boulevard	City: Newport Beach	JN: 2770-2018-01
		Site No.: 2



*Note picture taken after measurement completed and windows closed.

Appendix C

Noise Calculation Worksheets

NOISE BARRIER CALCULATIONS - BASED UPON FHWA - RD-77-108

PROJECT:	GuacAmigo Restaurant		JOB #:	2770-2018-01			
SOURCE:	Restaurant Noise		DATE:	28-Sep-18			
LOCATION:	Residential P/L South Of Project Site - DAYTIME		BY:	D. Shivaiah			
NOISE INPUT DATA							
OBS DIST=	800.0						
DT WALL=	800.0						
DT W/OB=	0.0			BARRIER+			
HTH WALL=	0.0	*****		TOPO SHIELDING =		0.00	
BARRIER =	0.0	(0=WALL,1=BERM)		NOISE HTH EL=		5.0	
OBS HTH=	5.0						
NOISE HTH=	5.0						
OBS EL =	0.0						
NOISE EL =	0.0						
DROP-OFF=	10.0						
				DROP OFF COEFFICIENTS			
				(10 = 3.0 dBA PER DOUBLING OF DISTANCE)			
				(15 = 4.5 dBA PER DOUBLING OF DISTANCE)			
				(20 = 6.0 dBA PER DOUBLING OF DISTANCE)			
NOISE OUTPUT DATA (dBA)							
	DIST (FT)	Leq	Lmax	L2	L8	L25	L50
REF LEVEL	5	69.0	83.1	74.3	72.1	70.0	67.8
PROJ LEVEL	800	47.0	61.1	52.3	50.1	48.0	45.8
SHIELDING	800	0.0	0.0	0.0	0.0	0.0	0.0
ADJ PROJ LEVEL	800	47.0	61.1	52.3	50.1	48.0	45.8
NOISE LEVEL REDUCTION DUE TO DISTANCE =					-22.04119983		
TOTAL NOISE LEVEL (dBA)							
		Leq	Lmax	L2	L8	L25	L50
AMBIENT LEVEL		59.4	81.9	67.1	63.5	56.7	54.2
ADJ PROJ LEVELS		47.0	61.1	52.3	50.1	48.0	45.8
TOTAL NOISE LEVEL W/ PROJECT		59.6	81.9	67.2	63.7	57.2	54.8

NOISE BARRIER CALCULATIONS - BASED UPON FHWA - RD-77-108

PROJECT:	GuacAmigo Restaurant		JOB #:	2770-2018-01			
SOURCE:	Restaurant Noise		DATE:	28-Sep-18			
LOCATION:	Residential P/L South Of Project Site - NIGHTTIME		BY:	D. Shivaiah			
NOISE INPUT DATA							
OBS DIST=	800.0						
DT WALL=	800.0						
DT W/OB=	0.0			BARRIER+			
HTH WALL=	0.0	*****		TOPO SHIELDING =		0.00	
BARRIER =	0.0	(0=WALL,1=BERM)		NOISE HTH EL=		5.0	
OBS HTH=	5.0						
NOISE HTH=	5.0						
OBS EL =	0.0						
NOISE EL =	0.0						
DROP-OFF=	10.0						
				DROP OFF COEFFICENTS			
				(10 = 3.0 dBA PER DOUBLING OF DISTANCE)			
				(15 = 4.5 dBA PER DOUBLING OF DISTANCE)			
				(20 = 6.0 dBA PER DOUBLING OF DISTANCE)			
NOISE OUTPUT DATA (dBA)							
	DIST (FT)	Leq	Lmax	L2	L8	L25	L50
REF LEVEL	5	69.0	83.1	74.3	72.1	70.0	67.8
PROJ LEVEL	800	47.0	61.1	52.3	50.1	48.0	45.8
SHIELDING	800	0.0	0.0	0.0	0.0	0.0	0.0
ADJ PROJ LEVEL	800	47.0	61.1	52.3	50.1	48.0	45.8
NOISE LEVEL REDUCTION DUE TO DISTANCE =					-22.04119983		
TOTAL NOISE LEVEL (dBA)							
		Leq	Lmax	L2	L8	L25	L50
AMBIENT LEVEL		56.4	78.9	64.1	60.5	53.7	51.2
ADJ PROJ LEVELS		47.0	61.1	52.3	50.1	48.0	45.8
TOTAL NOISE LEVEL W/ PROJECT		56.9	79.0	64.4	60.9	54.7	52.3