NOISE ASSESSMENT

Shadow Run Ranch Residential Development
TM 5223, ER 00-02-035, P00-030
County of San Diego, CA

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GLOSSARY OF TERMS

Sound Pressure Level (SPL): a ratio of one sound pressure to a reference pressure (L_{ref}) of 20 µPa. Because of the dynamic range of the human ear, the ratio is calculated logarithmically by 20 log (L/L_{ref}).

A-weighted Sound Pressure Level (dBA): Some frequencies of noise are more noticeable than others. To compensate for this fact, different sound frequencies are weighted more.

Minimum Sound Level (L_{min}): Minimum SPL or the lowest SPL measured over the time interval using the A-weighted network and slow time weighting.

Maximum Sound Level (L_{max}): Maximum SPL or the highest SPL measured over the time interval the A-weighted network and slow time weighting.

Equivalent sound level (L_{eq}): the true equivalent sound level measured over the run time. Leq is the A-weighted steady sound level that contains the same total acoustical energy as the actual fluctuating sound level.

Day Night Sound Level (LDN): Representing the Day/Night sound level, this measurement is a 24 –hour average sound level where 10 dB is added to all the readings that occur between 10 pm and 7 am. This is primarily used in community noise regulations where there is a 10 dB "Penalty" for night time noise. Typically LDN's are measured using A weighting.

Community Noise Exposure Level (CNEL): The accumulated exposure to sound measured in a 24-hour sampling interval and artificially boosted during certain hours. For CNEL, samples taken between 7 pm and 10 pm are boosted by 5 dB; samples taken between 10 pm and 7 am are boosted by 10 dB.

Octave Band: An octave band is defined as a frequency band whose upper band-edge frequency is twice the lower band frequency.

Third-Octave Band: A third-octave band is defined as a frequency band whose upper band-edge frequency is 1.26 times the lower band frequency.

Response Time (F,S,I): The response time is a standardized exponential time weighting of the input signal according to fast (F), slow (S) or impulse (I) time response relationships. Time response can be described with a time constant. The time constants for fast, slow and impulse responses are 1.0 seconds, 0.125 seconds and 0.35 milliseconds, respectively.

EXECUTIVE SUMMARY

This noise study has been completed to determine the noise impacts associated with the development of the proposed residential project and consolidated alternative. The project known as "Shadow Run Ranch" consists of a tentative map (TM 5223). The Project proposes 44 residential lots and 3 open space lots on an existing 248.26 acre project site. The proposed development is located in the unincorporated County of San Diego, approximately ten miles east of Interstate 15. The Project is adjacent to State Route 76 (SR-76) just north of Adams Drive. Access to the Project site is provided by SR-76.

Based upon the findings the exterior noise levels will meet the County of San Diego 60 dBA CNEL standard at all proposed lots with no mitigation. Additionally, second floor areas of Lots 5, 6, 15, 16, 29 and 30 were found to be above the 60 dBA CNEL. Therefore an interior noise assessment will be required for those Lots if a two story home is proposed to be built to mitigate the interior noise prior to the approval of building plan permits.

The Project does not create a direct impact of more than 3 dBA CNEL on any roadway segment and no cumulative noise increase of 3 dBA CNEL or more was found. Therefore, the proposed Project's direct and cumulative contributions to off-site roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses.

If all the equipment was working in the same area, at a distance as close as 135 feet, the point source noise attenuation from the construction activities and the nearest property line is -8.6 dBA. This would result in an anticipated worst case eight-hour average combined noise level of less than 75 dBA at the property line. Given this and the spatial separation of the equipment over the site, the noise levels from the grading are anticipated to comply with the County of San Diego's 75 dBA standard per Section 36.409 of the Noise Ordinance at all Project property lines.

No blasting or rock crushing is anticipated during the grading operations. Therefore, no impulsive noise sources are expected and the Project will comply with Section 36.410 of the County Noise Ordinance.

1.0 INTRODUCTION

1.1 Project Description

This noise study was completed to determine the noise impacts associated with the development of the proposed Shadow Run Ranch (TM 5223) Residential Project. The project is located at 33° 20′ 43″ N and 117° 00′ 50″ W, west of Adams and north of State Route 76 (SR-76) in the unincorporated community of Pala/Pauma in San Diego County. The general location of the project is shown on the Vicinity Map, Figure 1-A.

The proposed project seeks the development of 47 lots consisting of 44 residential uses and 3 open space areas over a 248.26 acre project site. Out of the 248.26 acres only approximately 110 acres will be graded for residential lots and the rest will be used as open space. Grading will include a total of 63,660 cubic yards (cu yd) of earthwork and is expected to balance. Grading would start sometime in the middle of 2013 and full Buildout could be as soon as 14-months later or in August of 2014. The site plan for the proposed project used for this analysis is shown on Figure 1-B.

1.2 Environmental Settings & Existing Conditions

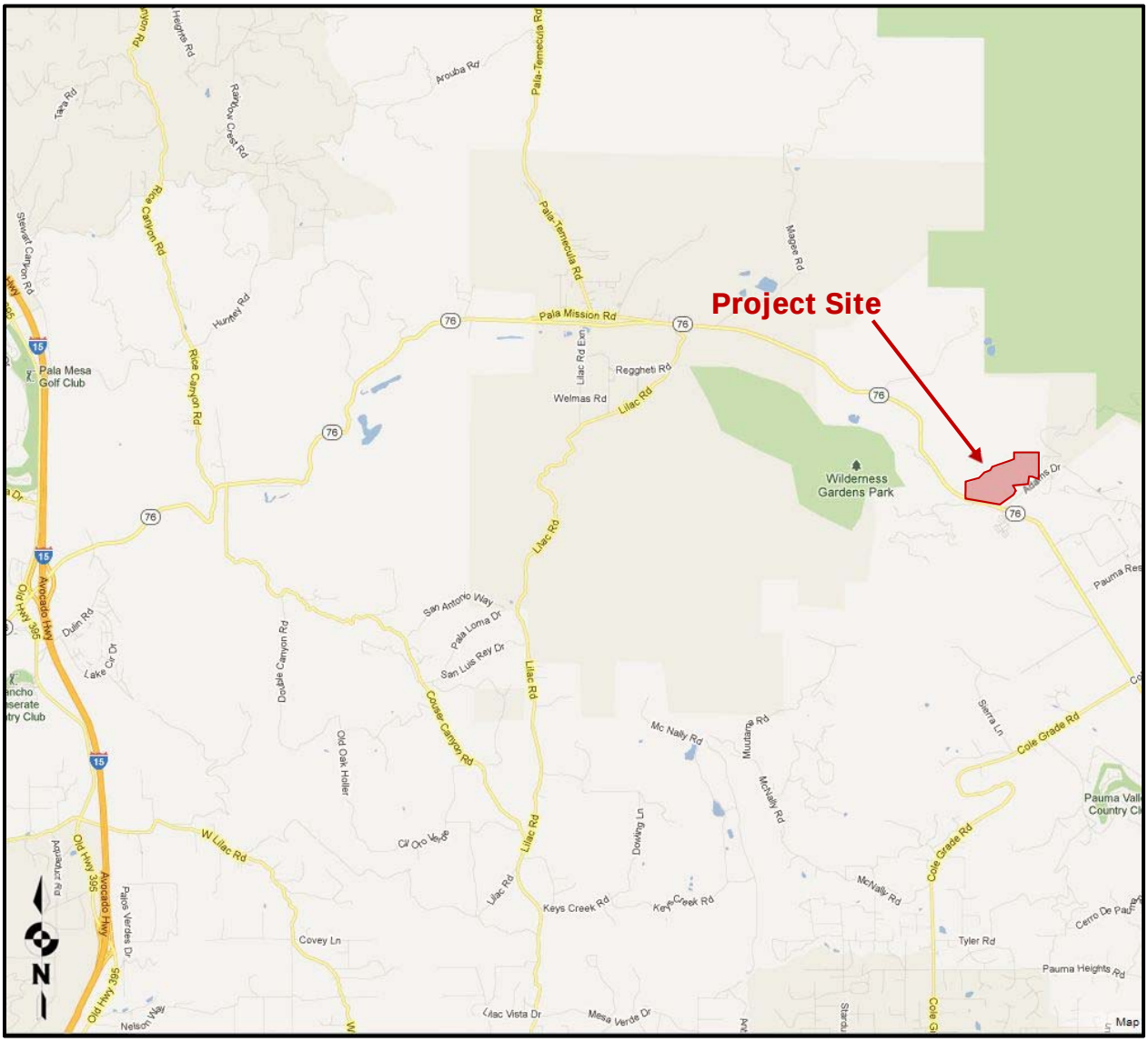
a) Settings & Locations

The proposed development is located in the unincorporated County of San Diego, approximately ten miles east of Interstate 15. The Project is adjacent to State Route 76 (SR-76) just north of Adams Drive. Access to the Project site is provided by SR-76. State Route 76 and Pala Temecula Road are arterials that connect the Project to other arterials. Interstate 15 provides regional access to the Project site. The site is surrounded by rural residential and agricultural uses.

b) Existing Noise Conditions

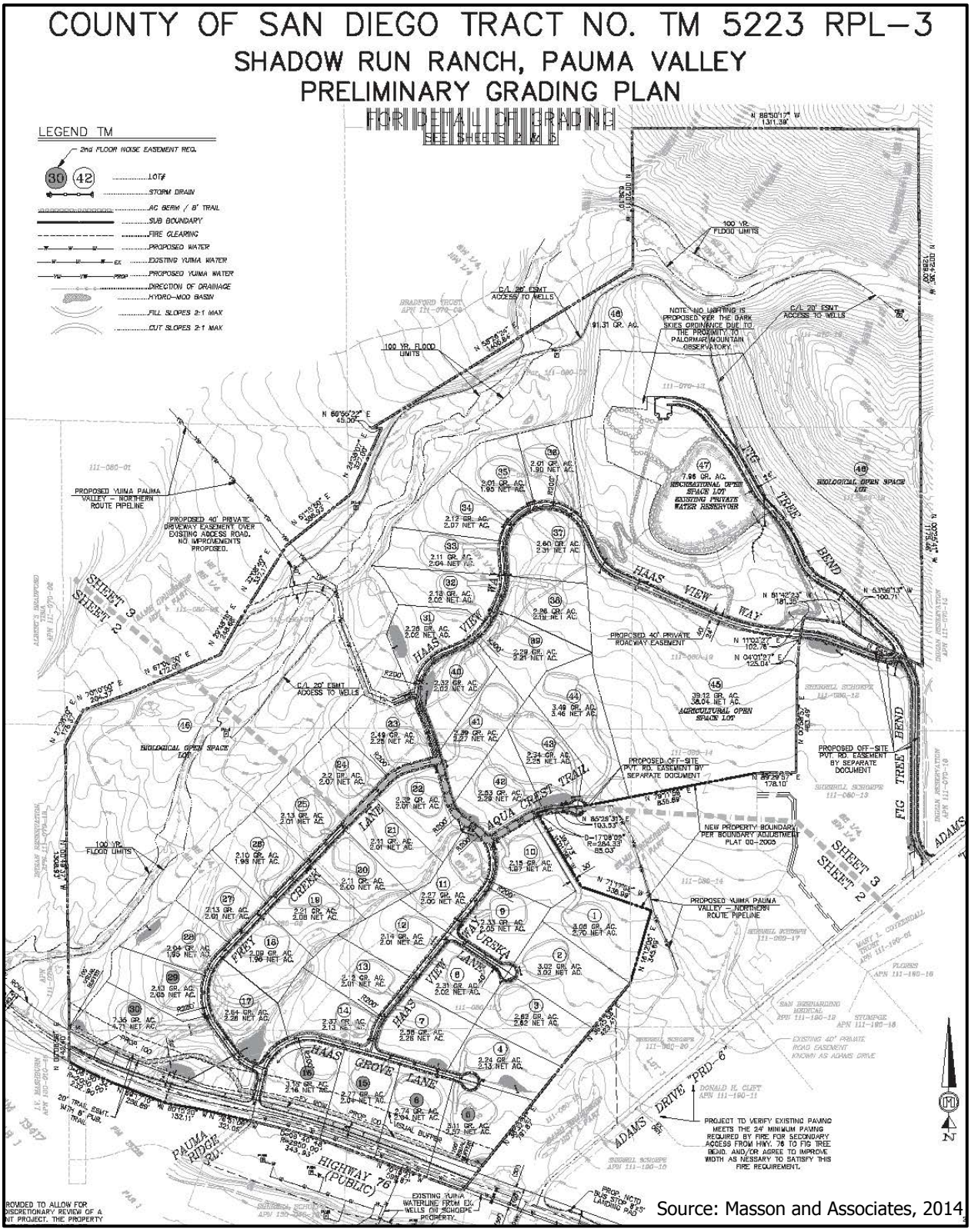
The project is located near State Route 76 described as a Community Collector (2.1D) roadway in the vicinity of the site in the County of San Diego's Circulation Element. Existing noise occurs mainly from traffic traveling along SR-76 and agricultural activities.

Figure 1-A: Project Vicinity Map



Source: Google Maps, 5/12

FIGURE 1–B: Proposed Site Plan



Source: Masson and Associates, 2014

1.3 Methodology and Equipment

a) Noise Measuring Methodology and Procedures

To determine the existing noise environment and to assess potential noise impacts, measurements were taken at two locations on the project having a view of SR-76. The noise measurements were recorded on September 29, 2011 by Ldn Consulting between approximately 4:30 p.m. and 5:30 p.m.

Noise measurements were taken using a Larson-Davis Model LxT Type 1 precision sound level meter and a Larson-Davis Spark 706 Type 2 meter. Both meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were mounted on a tripod, five feet above the ground and equipped with a windscreen during all measurements. The LxT sound level meter was calibrated before and after the monitoring using a Larson-Davis calibrator, Model CAL 200 and the Spark 706 was calibrated with a Larson-Davis Model CAL 150.

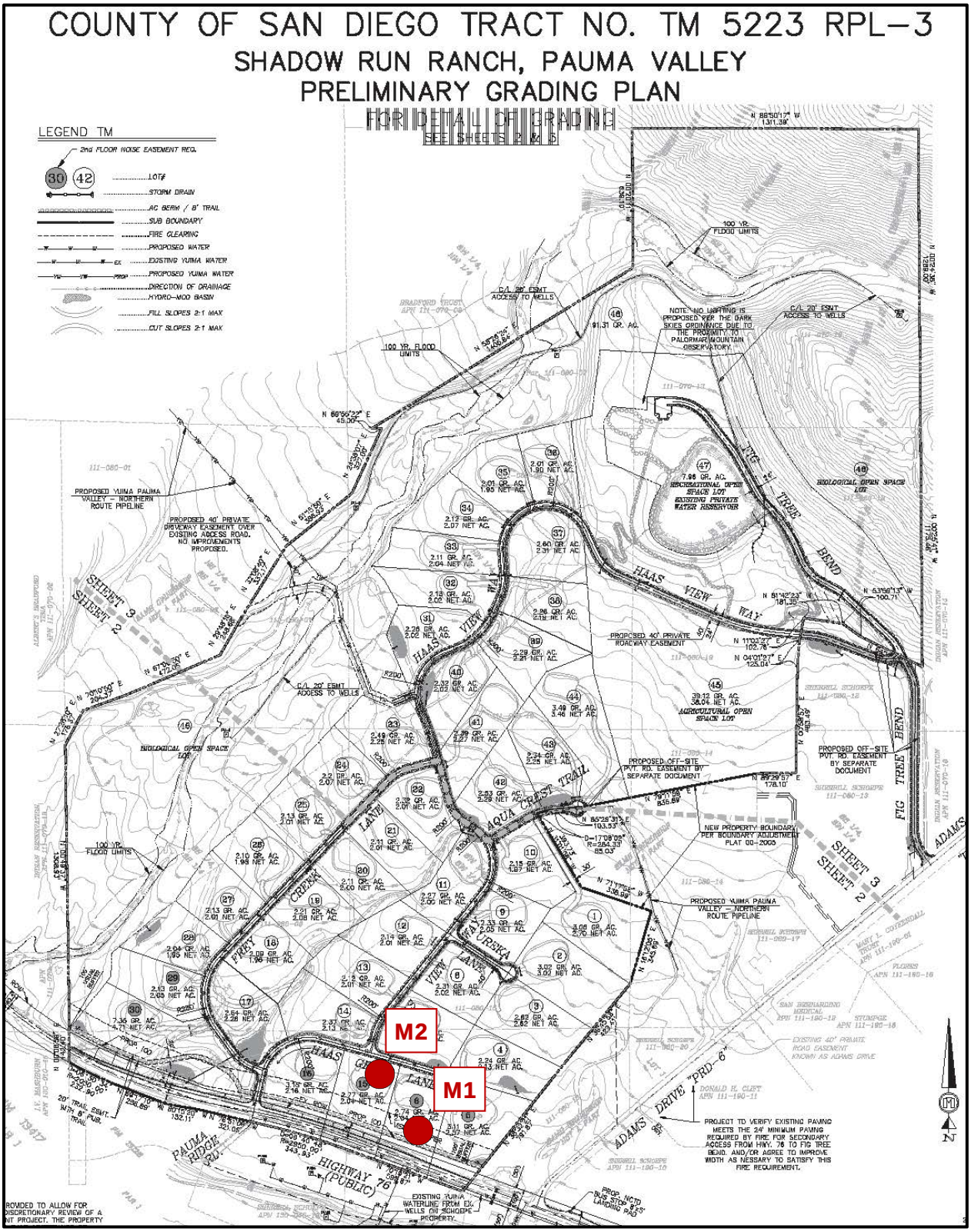
The noise measurement locations were determined based on site access and noise impact potential to the proposed residences. Monitoring location 1 (M1) was located roughly 200-feet from SR-76 within proposed Lot 6 and monitoring location 2 (M2) was roughly 400-feet from SR-76 at proposed Lot 15. The noise monitoring locations are provided graphically in Figure 1-C on the following page.

The results of the noise level measurements are presented in Table 1-1. The noise measurements were monitored for a time period of roughly 45 minutes. The ambient Leq noise levels measured on the project site during the afternoon were found to be between 47 and 51 dBA Leq. The existing noise levels in the project area consisted primarily of traffic along SR-76 and to a lesser extent from maintenance of the nearby golf course.

Table 1-1: Existing Noise Levels

Location	Time	Noise Levels (dBA)					
		Leq	Lmin	Lmax	L10	L50	L90
M1	4:30–5:30 p.m.	50.7	46.0	61.4	52.2	49.6	47.9
M2		47.1	39.8	63.2	48.5	44.5	42.0
Source: Ldn Consulting, September 29, 2011							

Figure 1-C: Noise Measurement Locations



b) Noise Modeling Software

The expected roadway noise levels from were projected using Caltrans Sound32 Traffic Noise Prediction Model. Sound32 is a peak hour based traffic noise prediction model. The results of this analysis are based on the California Vehicle Noise Emission Levels (CALVENO). The Sound 32 model was calibrated in accordance with the FHWA Highway Traffic Noise Prediction Manual (Report RD-77-108) and in accordance with Caltrans Technical Noise Supplement (TeNS) section N-5400. The critical model input parameters, which determine the projected vehicular traffic noise levels, include vehicle travel speeds, the percentages of automobiles, medium trucks and heavy trucks in the roadway volume, the site conditions ("hard" or "soft") and the peak hour traffic volume.

The peak hour traffic volumes range between 6-12% of the average daily traffic (ADT) and 10% is generally acceptable for noise modeling purposes. The required coordinate information necessary for the Sound32 traffic noise prediction model input was taken from the site plans provided by Masson and Associates received on May 15, 2012. To predict the future noise levels the preliminary site plans were used to identify the pad elevations, the roadway elevations, and the relationship between the noise source(s) and the NSLU areas. Traffic was consolidated into a single lane located along the centerline of each roadway. Longer roadway segments were subdivided into a series of adjoining segments for analysis. For this analysis, the roadway segments were extended a minimum of 300 feet beyond the observer locations. No grade correction or calibration factor (according to Caltrans Policy TAN-02-01 dated January 17, 2002) was included as part of the Sound32 traffic noise prediction model analysis.

To evaluate the potential noise impacts on the proposed development, outdoor observers were located in NSLU areas and placed five feet above the pad elevation and near the center of the rear yard a minimum of ten feet from the top/bottom of slope. All second floor observers were located fifteen feet above the proposed pad elevation at the anticipated building facades. A calibration factor was used for all receptors based upon the 100-feet of Citrus Grove to remain between the proposed residents and SR-76. Typically, five decibels of attenuation is allowed for trees and vegetation when 100-feet or more buffers the sensitive receptors (Source: Caltrans Technical Noise Supplement Section N-2144). A conservative factor of only 3 dBA was taken into account for the trees and vegetation.

c) Noise Calculations and Factors

Noise is defined as unwanted or annoying sound which interferes with or disrupts normal activities. Exposure to high noise levels has been demonstrated to cause hearing loss. The individual human response to environmental noise is based on the sensitivity of that individual, the type of noise that occurs and when the noise occurs.

Sound is measured on a logarithmic scale consisting of sound pressure levels known as a decibel (dB). The sounds heard by humans typically do not consist of a single frequency but of a broadband of frequencies having different sound pressure levels. The method for evaluating all the frequencies of the sound is to apply an A-weighting to reflect how the human ear responds to the different sound levels at different frequencies. The A-weighted sound level adequately describes the instantaneous noise whereas the equivalent sound level depicted as Leq represents a steady sound level containing the same total acoustical energy as the actual fluctuating sound level over a given time interval.

The Community Noise Equivalent Level (CNEL) is the 24 hour A-weighted average for sound, with corrections for evening and nighttime hours. The corrections require an addition of 5 decibels to sound levels in the evening hours between 7 p.m. and 10 p.m. and an addition of 10 decibels to sound levels at nighttime hours between 10 p.m. and 7 a.m. These additions are made to account for the increased sensitivity during the evening and nighttime hours when sound appears louder.

A vehicle's noise level is from a combination of the noise produced by the engine, exhaust and tires. The cumulative traffic noise levels along a roadway segment are based on three primary factors: the amount of traffic, the travel speed of the traffic, and the vehicle mix ratio or number of medium and heavy trucks. The intensity of traffic noise is increased by higher traffic volumes, greater speeds and increased number of trucks.

Because mobile/traffic noise levels are calculated on a logarithmic scale, a doubling of the traffic noise or acoustical energy results in a noise level increase of 3 dBA. Therefore the doubling of the traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of 3 dBA. Mobile noise levels radiate in an almost oblique fashion from the source and drop off at a rate of 3 dBA for each doubling of distance under hard site conditions and at a rate of 4.5 dBA for soft site conditions. Hard site conditions consist of concrete, asphalt and hard pack dirt while soft site conditions exist in areas having slight grade changes, landscaped areas and vegetation. On the other hand, fixed/point sources radiate outward uniformly as sound travels away from the source. Their sound levels attenuate or drop off at a rate of 6 dBA for each doubling of distance.

The most effective noise reduction methods consist of controlling the noise at the source, blocking the noise transmission with barriers or relocating the receiver. Any or all of these methods may be required to reduce noise levels to an acceptable level.

2.0 NOISE SENSITIVE LAND USES (NSLU)

2.1 Guidelines for the Determination of Significance

Project implementation will result in the exposure of any on-site or off-site, existing or reasonably foreseeable future NSLU to exterior or interior noise (including noise generated from the project, together with noise from the roads [existing and planned], railroads, airports, heliports and all other noise sources) in excess of any of the following:

a) Exterior Locations:

i. 60 dBA (CNEL); or

ii. An increase of 10 dBA (CNEL) over pre-existing noise.

In the case of single-family residential detached NSLUs, exterior noise shall be measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum area:

(1) Net lot area up to 4,000 square feet:	400 square feet
(2) Net lot area 4,000 square feet to 10 acres:	10% of net lot area
(3) Net lot area over 10 acres:	1 acre

For all other projects, exterior noise shall be measured at all exterior areas provided for group or private usable open space.

b) Interior Locations:

45 dBA (CNEL) except for the following cases:

i. Rooms which are usually occupied only a part of the day (schools, libraries, or similar facilities); the interior one-hour average sound level due to noise outside should not exceed 50 decibels (A).

ii. Corridors, hallways, stairwells, closets, bathrooms, or any room with a volume less than 490 cubic feet.

2.2 Potential Noise Impacts

It is expected that the primary source of potential noise impacts to the project site will occur from traffic noise along SR-76. To determine the future noise environment and impact potentials the Sound32 model first needs to be calibrated using the ambient noise measurements results. The existing conditions were modeled to compare against the noise

measurements described in Section 1.3.a) of this report. Section N-5440 of the Caltrans Technical Noise Supplement provides detailed procedures for calibrating the Sound32 traffic noise prediction model. The comparison is made to ensure that predicted traffic noise levels accurately reflect the actual measured noise levels. Section N-5460 suggests that model calibration should not be performed when calculated and measured noise levels are within 1 dBA. Differences of 3 to 4 dBA are routinely calibrated to adjust for site conditions the Sound32 model did not account for including topographic features, soft site conditions and existing structures or barriers.

During the aforementioned ambient noise measurements, traffic counts were taken to determine the existing vehicle mix for the model calibration. During the aforementioned noise monitoring, traffic counts were taken to determine the existing vehicle mix for model calibration. Based on the results, the existing traffic noise model utilizes a vehicle mix of 97% Autos, 2% Medium Trucks and 1% Heavy Trucks for SR-76. Table 2-1 presents the roadway parameters used in the analysis including the calculated hourly traffic volumes, vehicle speeds and the traffic flow distribution (vehicle mix) for the existing conditions. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks and heavy trucks for input into the Sound32 Model.

Table 2-1: Existing Traffic Parameters

Roadway[1]	Observed Traffic Volume	Observed Speeds (MPH)	Vehicle Mix %		
			Auto	Medium Trucks	Heavy Trucks
SR-76	8,320	50-55	97	2	1

[1] All roadway parameters were observed during the ambient noise measurement period.

The ambient measurement location was modeled in Sound32 to compare with the noise monitoring locations presented previously in Table 1-1. The modeled existing noise level comparison is provided in Table 2-2. The model is over predicting the noise levels up to 3.4 dBA using hard-site conditions and is within 1 dBA using soft-site conditions. These variations in the model prediction are due to the variations in the topography, travel speeds and natural shielding from the terrain. The roadway was modeled using soft site conditions for the future noise environment and no calibration factor was applied to predict the first/ground floor areas. Second floor areas were modeled using hard site conditions based upon Caltrans Protocol. The existing model input parameters for calibration and output file are provided as ***Attachment A*** to this report.

Table 2-2: Noise Model Calibration

Receptor	Location	Site Conditions	Calibration Results (dBA)		
			Measured Noise Levels	Modeled Noise Levels	Difference
M1	~35-Feet from SR-76	Hard	68.9	70.5	+2.6
		Soft		69.7	+0.8[1]
M2	~125-Feet from SR-76	Hard	61.2	64.6	+3.4
		Soft		61.1	-0.1[1]

[1] Model is within 1 dBA with soft site conditions.

a) Potential Build Out Noise Conditions

The future Buildout traffic along SR-76 is estimated to be 13,000 ADT accord to the SANDAG Series 12 Traffic Prediction Model and only 12,800 ADT according to the County's General Plan Update for 2030. The Buildout scenario includes the worst-case future year traffic volume forecasts provided by SANDAG of 13,000 ADT. To assess the peak hour traffic noise conditions, 10% of the ADT was utilized and the observed vehicle mix was also utilized. SR-76 is considered a Community Collector roadway based on the County of San Diego Department of Public Works Public Road Standards. To determine the worst case future noise levels a speed limit of 55 MPH along SR-76 was utilized. The future traffic noise model utilizes a conservative vehicle mix of 87% Autos, 5.9% Medium Trucks and 7.1% Heavy Trucks for SR-76 based upon data provided by the County of San Diego. The future roadway parameters and inputs utilized in this analysis are provided in Table 2-3.

Table 2-3: Buildout Traffic Parameters

Roadway	Average Daily Traffic (ADT)	Peak Hour Volume[1]	Modeled Speeds (MPH)	Vehicle Mix %[2]		
				Auto	Medium Trucks	Heavy Trucks
SR-76	13,000	1,300	55	87.0	5.9	7.1

[1] 10% of the ADT.
[2] Conservative vehicle mix.

b) Potential Noise Impact Identification

Noise contours are lines that when drawn from a noise source indicate a continuous or equivalent level of noise exposure. Noise contour lines are generally used as a planning tool to assess potential impacts and the need for additional analysis. The noise contour lines that may affect the project site were developed for the unshielded future Buildout conditions. No barriers or structures were included as part of the noise contour analysis. The Sound32 traffic noise prediction model was used to calculate the noise contours perpendicular. Only the natural topography and proposed pad edges, which are elevated above the travel lanes, were incorporated in the contour model to determine the future noise levels at the proposed project site. Second floor areas were also modeled using hard site conditions based upon Caltrans Protocol. The model input parameters and results for the first and second noise contours are provided in ***Attachment B***. Figure 2-A provides the location of the future first and second floor 75 and 60 dBA CNEL noise contours.

The noise contours provided in Figure 2-A show that the 75 dBA CNEL contours are all located within the right-of-way (ROW). The worst-case first floor 60 dBA CNEL contour due to the changes in elevations and top-of-slopes extends approximately 295-feet from SR-76. The second floor unshielded 60 dBA CNEL contour extends roughly 575-feet from SR-76. The contours suggest that noise sensitive land use (NSLU) areas may exceed the County of San Diego 60 dBA CNEL exterior noise standard. Based on these findings, additional detailed exterior noise analysis is provided below to determine the noise impacts and needed mitigation measures. Based on this finding, additional detailed exterior noise analysis was performed which incorporated the proposed topography and attenuation form the Citrus Grove to remain to determined necessary mitigation.

c) Detailed Analysis and Mitigation Measures

The Buildout analysis was modeled assuming future year traffic parameters as shown previously in Table 2-3. Modeled observer locations of the potentially affected NSLU's are presented in Figure 2-B below. Based upon the Buildout model results the exterior noise levels will meet the County of San Diego 60 dBA CNEL standard at all proposed lots with no mitigation. The results of the specific noise modeling for the site are provided in Table 2-4 below. The S32 models input and output files for the future conditions are provided in ***Attachment C***.

Figure 2-A: Future Noise Contour Locations

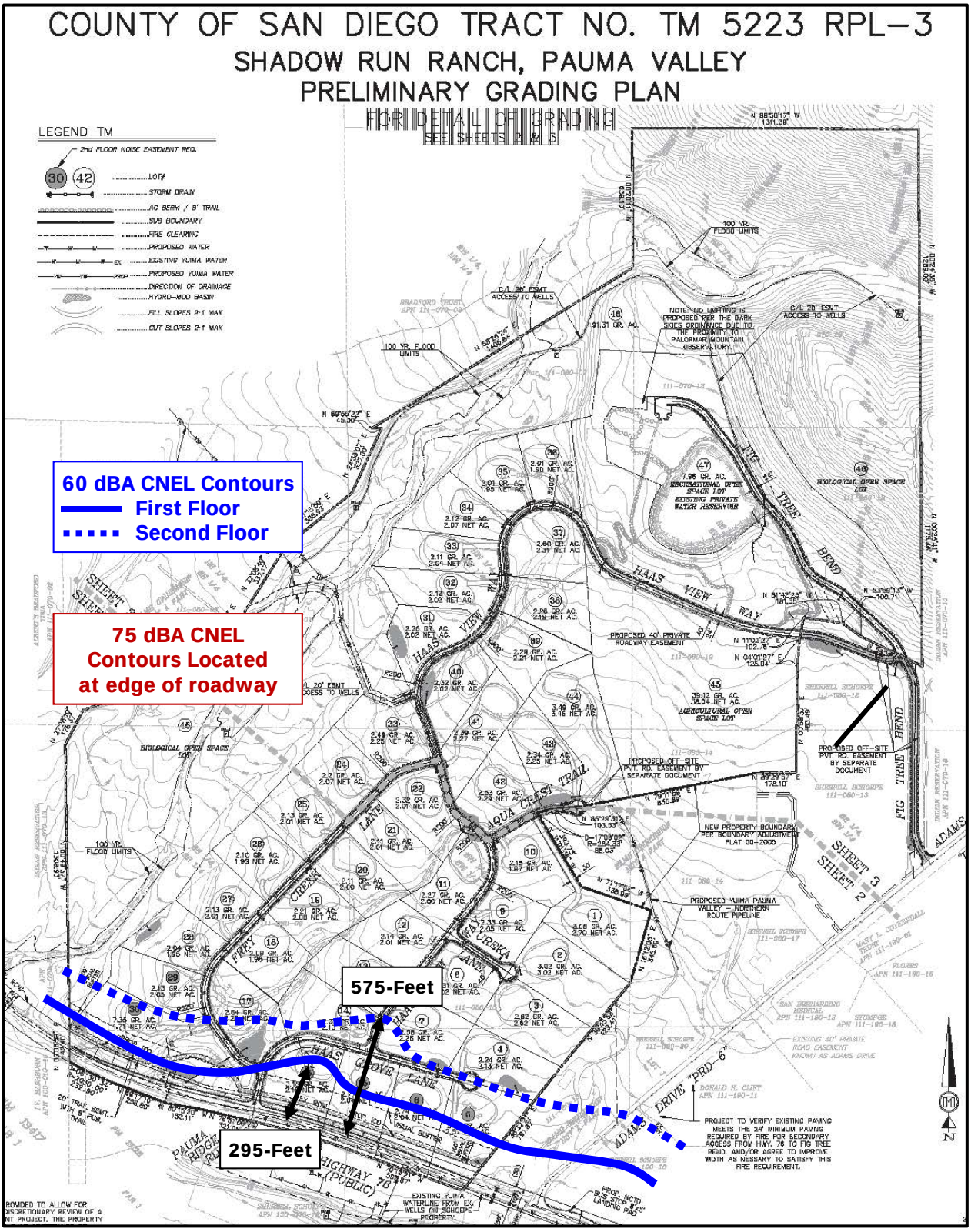


Figure 2-B: Modeled NSLU Receptor Locations

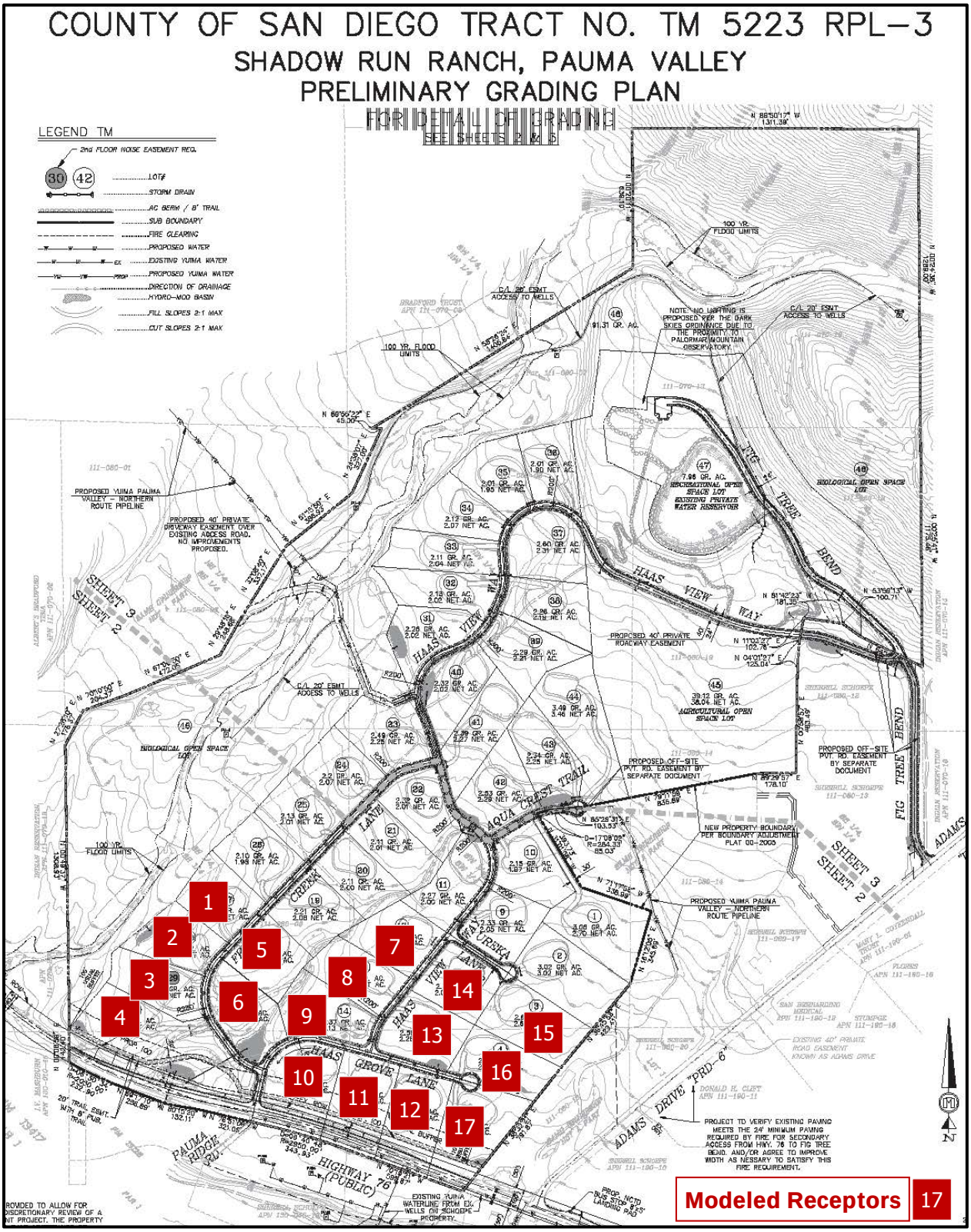


Table 2-4: Future Exterior Noise Levels

Modeled Receptor Number	Receptor Location (Lot #)	Receptor Elevation (Feet)[1]	Unmitigated Outdoor Noise Level (dBA CNEL)[2]	Second Floor Façade Noise Levels (dBA CNEL)[3]
1	27	815	52.1	56.0
2	28	813	55.3	59.2
3	29	802	57.0	**61.9**
4	30	785	59.2	**63.3**
5	18	823	53.4	57.0
6	17	839	51.3	55.5
7	12	849	51.7	55.9
8	13	827	53.6	57.2
9	14	811	56.3	59.3
10	16	788	60.1	**62.7**
11	15	789	60.0	**62.6**
12	6	787	60.2	**62.5**
13	7	819	55.2	58.7
14	8	839	52.6	56.7
15	3	831	52.9	57.1
16	4	813	55.0	58.9
17	5	793	59.8	**62.4**

1 Receptor Elevation is 5-feet above the Pad Elevation for ground level and 15-feet above the Pad for the second floor.
2 Exterior Mitigation or Interior Noise Study required per County Guidelines if **BOLD**
3 Interior Noise Study required per County Guidelines if **BOLD**

Also included in Table 2-4 above are the resultant second floor building façade noise levels. Exterior noise levels at the building facades were found to be above the General Plan Noise Element Standard, of 60 dBA CNEL at single family dwellings. The affected Lots of the project that will require an interior noise assessment are located along SR-76 and consist of Lots 5, 6, 15, 16, 29 and 30.

Therefore, an interior noise assessment is required for these Lots if a two story home is proposed to be built to mitigate the exterior noise levels to an interior level of 45 dBA CNEL. This report should be conducted prior to the issuance of building permits and would finalize the noise requirements based upon precise grading plans and actual building design specifications.

This is to ensure that interior noise levels for the proposed residential structures comply with the interior noise level requirement of 45 dBA pursuant to the County Noise Element. It should be noted; interior noise levels of 45 dBA CNEL can be obtained with conventional building construction methods by providing a window condition requiring a means of mechanical ventilation (e.g. air conditioning) and providing upgraded windows at all affected lots.

It should be note: as a design feature the Project has established a home owners association (HOA) easement along SR-76 to maintain the citrus grove to provide both visual and noise shielding of the roadway. The easement is a minimum 100 feet wide. According to Caltrans Technical Noise Supplement (TeNS) section N-5515, shielding is one of the most effective ways of reducing traffic noise. Shielding occurs when the observer's view of the roadway is obstructed or partially obstructed by natural or manmade features interfering with the propagation of the sound waves. The attenuation credit given by the FHWA model to plantings, woods and vegetation is 5 dBA for the first 30 meters (100 feet), with an additional 5 dBA for the second 30 meters with a maximum of 10 dBA. The vegetation must be dense enough to completely block the view of the traffic from the receiver.

Noise measurements were taken at two sites, one without a mature grove and one with a comparable grove. The two sites were similar in topography and had similar average noise levels from the same roadway. The location of the comparison measurements occurred along Mission Road in Fallbrook. To determine a comparison noise environment, 24 hour noise measurements were taken at two distinct locations at both locations at the same time. The comparison noise level measurements were conducted May 16th to May 17th, 2011. A noise meter was placed approximately 25 feet from Mission Road at each property and a second meter was located 135 feet from the road at both properties to determine the noise level difference with and without a mature grove.

The results of the comparison noise level measurements ranged between 3-5 dBA. A difference of 3 dBA occurred during the late evening hours when traffic volumes were at their lowest and ambient conditions were relatively the same at both meter positions. The 5 dBA difference occurred during the peak a.m. and p.m. hours when traffic was the heaviest. The average noise reduction was found to be 3.9 dBA.

2.3 Off-site Noise Impacts

To determine if direct or cumulative off-site noise level increases associated with the development of the proposed project would create noise impacts. The traffic volumes for the existing conditions were compared with the traffic volume increase of existing plus the proposed project. The project's traffic assessment states that the proposed 44 lot project site only generates 528 daily trips with a worst case peak hour volume of 53 trips (Source: Shadow

Run Ranch Traffic Impact Analysis – KOA, May 2012). The existing average daily traffic (ADT) volumes are 8,320 along the nearest segment of SR-76. Typically it requires a project to double (or add 100%) to the traffic volumes to have a direct impact of 3 dBA CNEL or be a major contributor to the cumulative traffic volumes. The project will add less than a 10% increase to the exiting roadway volumes and no direct impacts are anticipated. Cumulatively the traffic volumes along the roadway segments are expected to potentially double but the project related increase would be minimal (less than 5%) of the overall increase and therefore no impacts are anticipated.

2.4 Conclusions

Based upon the findings the exterior noise levels will meet the County of San Diego 60 dBA CNEL standard at all proposed lots with no mitigation. Additionally, second floor areas of Lots 5, 6, 15, 16, 29 and 30 were found to be above the 60 dBA CNEL. Therefore an interior noise assessment will be required for those Lots if a two story home is proposed to be built to mitigate the interior noise prior to the approval of building plan permits.

The Project does not create a direct impact of more than 3 dBA CNEL on any roadway segment and no cumulative noise increase of 3 dBA CNEL or more was found. Therefore, the proposed Project's direct and cumulative contributions to off-site roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses.

3.0 CONSTRUCTION ACTIVITIES

3.1 Guidelines for the Determination of Significance

Construction Noise: Noise generated by construction activities related to the project will exceed the standards listed in San Diego County Code Sections as follows.

SEC. 36.408: HOURS OF OPERATION OF CONSTRUCTION EQUIPMENT

Except for emergency work, it shall be unlawful for any person to operate or cause to be operated, construction equipment:

a. Between 7 p.m. and 7 a.m.

b. On a Sunday or a holiday. For purposes of this section, a holiday means January 1st, the last Monday in May, July 4th, the first Monday in September, December 25th and any day appointed by the President as a special national holiday or the Governor of the State as a special State holiday. A person may, however, operate construction equipment on a Sunday or holiday between the hours of 10 a.m. and 5 p.m. at the person's residence or for the purpose of constructing a residence for himself or herself, provided that the operation of construction equipment is not carried out for financial consideration or other consideration of any kind and does not violate the limitations in sections 36.409 and 36.410.

SEC. 36.409: SOUND LEVEL LIMITATIONS ON CONSTRUCTION EQUIPMENT

Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 decibels for an eight-hour period, between 7 a.m. and 7 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

SEC. 36.410: SOUND LEVEL LIMITATIONS ON IMPULSIVE NOISE

In addition to the general limitations on sound levels in section 36.404 and the limitations on construction equipment in section 36.409, the following additional sound level limitations shall apply:

(a) Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 36.410A (provided below), when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 36.410A are as described in the County Zoning Ordinance.

TABLE 36.410A: MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY IN DECIBELS (dBA)

OCCUPIED PROPERTY USE	DECIBELS (dBA)
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

(b) Except for emergency work, no person working on a public road project shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 36.410B, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 36.410B are as described in the County Zoning Ordinance.

TABLE 36.410B: MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY IN DECIBELS (dBA) FOR PUBLIC ROAD PROJECTS

OCCUPIED PROPERTY USE	dB(A)
Residential, village zoning or civic use	85
Agricultural, commercial or industrial use	90

(c) The minimum measurement period for any measurements conducted under this section shall be one hour. During the measurement period a measurement shall be conducted every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise exceeds the maximum sound level for any portion of any minute, it will be deemed that the maximum sound level was exceeded during that minute.

3.2 Potential Property Line Noise Impacts

Construction noise represents a short-term impact on the ambient noise levels. Noise generated by construction equipment includes haul trucks, water trucks, graders, dozers, loaders and scrapers can reach relatively high levels. Grading activities typically represent one of the highest potential sources for noise impacts. The most effective method of controlling construction noise is through local control of construction hours and by limiting the hours of construction to normal weekday working hours.

The U.S. Environmental Protection Agency (U.S. EPA) and the Federal Highway Administration (FHWA) have compiled data regarding the noise generating characteristics of specific types of construction equipment. Noise levels generated by heavy construction equipment can range from 60 dBA to in excess of 100 dBA when measured at 50 feet. However, these noise levels diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 75 dBA measured at 50 feet from the noise source to the receptor would be reduced to 69 dBA at 100 feet from the source to the receptor, and reduced to 63 dBA at 200 feet from the source.

Using a point-source noise prediction model, calculations of the expected construction noise impacts were completed. The essential model input data for these performance equations include the source levels of each type of equipment, relative source to receiver horizontal and vertical separations, the amount of time the equipment is operating in a given day (also referred to as the duty-cycle) and any transmission loss from topography or barriers.

The single family units may be developed on a lot-by-lot basis, which may result in some lots undergoing building construction simultaneously but all grading activities and internal roadways, will be graded prior to the occupancy of any proposed Lots. According to the project applicant, a total of three loader/tractors, a water truck, a dozer, three scrapers and an excavator will be required during grading activities to complete the proposed grading operations. The anticipated equipment will be spread out over the site. For example: a single water truck and a single dozer may be utilized near the project boundary while the other equipment is working on the opposite side of the site. The list of equipment and the associated noise levels utilized in this analysis are shown in Table 3-1. The worst case anticipated construction noise levels during construction are characterized below.

Existing residential and agricultural uses surround the site. As can be seen in Table 3-1, if all the equipment was operating in the same location, which is not physically possible, at a distance as close as 135 feet from the nearest property line the point source noise attenuation from these construction activities is -8.6 dBA. This would result in an anticipated worst case eight-hour average combined noise level of less than 75 dBA at the property line. Given this and the spatial separation of the equipment, the noise levels will comply with the County of San Diego's 75 dBA standard at all Project property lines.

No blasting or rock crushing is anticipated during the grading operations. Therefore, no impulsive noise sources are expected and the Project is anticipated to comply with Section 36.410 of the County Noise Ordinance and no further analysis is required.

Table 3-1: Grading Operation Noise Levels

Construction Equipment	Quantity	Source Level @ 50 Feet (dBA)[1]	Duty Cycle (Hours/Day)	Cumulative Noise Level @ 50 Feet (dBA)
Scrapers	3	75	8	79.8
Tractors/Loaders/Backhoes	3	72	8	76.8
Excavators	1	70	8	70.0
Graders	1	74	8	74.0
Rubber Tired Dozers	1	73	8	73.0
Water Trucks	1	70	8	70.0
			Cumulative Levels @ 50 Feet (dBA)	83.5
			Distance To Property Line	135
			Noise Reduction Due To Distance	-8.6
			NEAREST PROPERTY LINE NOISE LEVEL	**74.8**

[1] Source: EPA 1971, FHWA and Empirical Data

3.3 Conclusions

If all the equipment was working in the same area, at a distance as close as 135 feet, the point source noise attenuation from the construction activities and the nearest property line is -8.6 dBA. This would result in an anticipated worst case eight-hour average combined noise level of less than 75 dBA at the property line. Given this and the spatial separation of the equipment over the site, the noise levels from the grading are anticipated to comply with the County of San Diego's 75 dBA standard per Section 36.409 of the Noise Ordinance at all Project property lines.

No blasting or rock crushing is anticipated during the grading operations. Therefore, no impulsive noise sources are expected and the Project will comply with Section 36.410 of the County Noise Ordinance.

4.0 SUMMARY OF PROJECT IMPACTS, MITIGATION & CONCLUSIONS

- On-Site Noise Analysis

  Based upon the findings the exterior noise levels will meet the County of San Diego 60 dBA CNEL standard at all proposed lots with no mitigation. Additionally, second floor areas of Lots 5, 6, 15, 16, 29 and 30 were found to be above the 60 dBA CNEL. Therefore an interior noise assessment will be required for those Lots if a two story home is proposed to be built to mitigate the interior noise prior to the approval of building plan permits.

- Off-Site Noise Analysis

  The Project does not create a direct impact of more than 3 dBA CNEL on any roadway segment and no cumulative noise increase of 3 dBA CNEL or more was found. Therefore, the proposed Project's direct and cumulative contributions to off-site roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses.

- Construction Noise Analysis

  If all the equipment was working in the same area, at a distance as close as 135 feet, the point source noise attenuation from the construction activities and the nearest property line is -8.6 dBA. This would result in an anticipated worst case eight-hour average combined noise level of less than 75 dBA at the property line. Given this and the spatial separation of the equipment over the site, the noise levels from the grading are anticipated to comply with the County of San Diego's 75 dBA standard per Section 36.409 of the Noise Ordinance at all Project property lines.

  No blasting or rock crushing is anticipated during the grading operations. Therefore, no impulsive noise sources are expected and the Project will comply with Section 36.410 of the County Noise Ordinance.

5.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the future acoustical environment and impacts within and surrounding the Shadow Run Ranch (TM 5223) residential development. The report was prepared by Jeremy Louden; a County approved CEQA Consultant for Acoustics.

Jeremy Louden, Principal
Ldn Consulting
760-473-1253
jlouden@ldnconsulting.net

Date June 20, 2014

ATTACHMENT A

MODEL CALIBRATION INPUT
AND OUTPUT FILES

SHADOW RUN RANCH EXISTING CONDITIONS
T-HWY 76, 1
808 , 55 , 16 , 55 , 8 , 55
L-HWY 76, 1
N,1070,1489,702,
N,1212,1322,706,
N,1442,1119,720,
N,1731,932,730,
N,1927,842,736,
N,2265,734,746,
N,2667,635,754,
N,3196,445,760,
N,3851,210,762,
N,4882,-140,766,
R, 1 , 65 ,10
3373,428,767.,M1 hard
R, 2 , 65 ,10
3373,428,767.,M1 soft
R, 3 , 67 ,500
3352,560,775.,M2 hard
R, 4 , 67 ,500
3352,560,775.,M2 soft
D, 4.5
ALL,2,4
C,C

SOUND32 - RELEASE 07/30/91

TITLE:
SHADOW RUN RANCH EXISTING CONDITIONS

BASED ON FHWA-RD-108 AND
CALIFORNIA REFERENCE ENERGY MEAN EMISSION LEVELS

RECEIVER	LEQ
M1 hard	70.5
M1 soft	69.7
M2 hard	64.6
M2 soft	61.1

ATTACHMENT B

FUTURE NOISE CONTOUR MODEL
INPUT AND OUTPUT FILES

SHADOW RUN RANCH CONTOURS - FIRST LEVEL
T-HWY 76, 1
 1479 , 55 , 100 , 55 , 121 , 55
L-HWY 76, 1
N,1070,1489,702,
N,1212,1322,706,
N,1442,1119,720,
N,1731,932,730,
N,1927,842,736,
N,2265,734,746,
N,2667,635,754,
N,3196,455,760,
N,3851,210,762,
N,4882,-140,766,
B-ROADWAY EDGE, 1 , 2 , 0 ,0
1135,1488,704,704,
1235,1340,700,700,
1345,1273,720,720,
1508,1139,730,730,
1563,1101,750,750,
1672,1032,750,750,
1881,929,768,768,
2004,880,750,750,
2248,790,750,750,
2323,767,750,750,
B-ROADWAY EDGE 2, 2 , 2 , 0 ,0
2323,767,750,750,
2652,684,762,762,
2714,668,764,764,
3087,532,768,768,
3539,377,764,764,
4282,117,764,764,
R, 1 , 65 ,10
1783,1029,760.,
R, 2 , 65 ,10
1971,969,774.,
R, 3 , 65 ,10
2158,906,738.,
R, 4 , 65 ,10
2349,836,750.,
R, 5 , 65 ,10
2538,771,763.,
R, 6 , 65 ,10
2727,705,765.,
R, 7 , 65 ,10
2915,640,768.,
R, 8 , 65 ,10
3100,560,770.,
R, 9 , 65 ,10
3290,507,764.,
R, 10 , 65 ,10
3480,441,768.,
R, 11 , 65 ,10
3670,380,760.,
R, 12 , 65 ,10
3737,566,770.,
R, 13 , 65 ,10
3549,627,782.,
R, 14 , 65 ,10
3357,696,782.,
R, 15 , 65 ,10
3172,762,782.,
R, 16 , 65 ,10
2983,827,781.,
R, 17 , 65 ,10
2792,892,785.,
R, 18 , 67 ,10
2603,956,774.,
R, 19 , 67 ,10
2414,1026,778.,
R, 20 , 67 ,10
2224,1090,784.,
R, 21 , 67 ,10
2036,1157,792.,
R, 22 , 67 ,10
1846,1222,766.,

R, 23 , 67 ,10
1910,1412,770.,
R, 24 , 67 ,10
2106,1344,804.,
R, 25 , 67 ,10
2294,1285,808.,
R, 26 , 67 ,10
2479,1214,803.,
R, 27 , 67 ,10
2668,1150,785.,
R, 28 , 67 ,10
2856,1082,799.,
R, 29 , 67 ,10
3047,1017,798.,
R, 30 , 67 ,10
3235,952,798.,
R, 31 , 67 ,10
3424,887,800.,
R, 32 , 67 ,10
3614,817,796.,
R, 33 , 67 ,10
3802,755,793.,
D, 4.5
ALL,ALL
K,-3
ALL,ALL
C,C

SOUND32 - RELEASE 07/30/91

TITLE:
SHADOW RUN RANCH CONTOURS - FIRST LEVEL

REC	REC ID	DNL	PEOPLE	LEQ(CAL)
1	R-1	65.	10.	58.2
2	R-2	65.	10.	61.6
3	R-3	65.	10.	58.4
4	R-4	65.	10.	63.7
5	R-5	65.	10.	65.4
6	R-6	65.	10.	63.8
7	R-7	65.	10.	63.9
8	R-8	65.	10.	65.2
9	R-9	65.	10.	63.7
10	R-10	65.	10.	65.1
11	R-11	65.	10.	63.7
12	R-12	65.	10.	58.9
13	R-13	65.	10.	59.1
14	R-14	65.	10.	58.6
15	R-15	65.	10.	58.1
16	R-16	65.	10.	58.0
17	R-17	65.	10.	58.5
18	R-18	67.	10.	58.3
19	R-19	67.	10.	58.2
20	R-20	67.	10.	57.4
21	R-21	67.	10.	56.2
22	R-22	67.	10.	54.9
23	R-23	67.	10.	52.9
24	R-24	67.	10.	53.5
25	R-25	67.	10.	54.1
26	R-26	67.	10.	54.7
27	R-27	67.	10.	54.6
28	R-28	67.	10.	55.0
29	R-29	67.	10.	55.0
30	R-30	67.	10.	55.0
31	R-31	67.	10.	55.3
32	R-32	67.	10.	55.5
33	R-33	67.	10.	55.6

SHADOW RUN RANCH CONTOURS - SECOND LEVEL
T-HWY 76, 1
 1479 , 55 , 100 , 55 , 121 , 55
L-HWY 76, 1
N,1070,1489,702,
N,1212,1322,706,
N,1442,1119,720,
N,1731,932,730,
N,1927,842,736,
N,2265,734,746,
N,2667,635,754,
N,3196,455,760,
N,3851,210,762,
N,4882,-140,766,
B-ROADWAY EDGE, 1 , 2 , 0 ,0
1135,1488,704,704,
1235,1340,700,700,
1345,1273,720,720,
1508,1139,730,730,
1563,1101,750,750,
1672,1032,750,750,
1881,929,768,768,
2004,880,750,750,
2248,790,750,750,
2323,767,750,750,
B-ROADWAY EDGE 2, 2 , 2 , 0 ,0
2323,767,750,750,
2652,684,762,762,
2714,668,764,764,
3087,532,768,768,
3539,377,764,764,
4282,117,764,764,
R, 1 , 65 ,10
1783,1029,770.,
R, 2 , 65 ,10
1971,969,784.,
R, 3 , 65 ,10
2158,906,748.,
R, 4 , 65 ,10
2349,836,760.,
R, 5 , 65 ,10
2538,771,773.,
R, 6 , 65 ,10
2727,705,775.,
R, 7 , 65 ,10
2915,640,778.,
R, 8 , 65 ,10
3100,560,780.,
R, 9 , 65 ,10
3290,507,774.,
R, 10 , 65 ,10
3480,441,778.,
R, 11 , 65 ,10
3670,380,770.,
R, 12 , 65 ,10
3737,566,780.,
R, 13 , 65 ,10
3549,627,792.,
R, 14 , 65 ,10
3357,696,792.,
R, 15 , 65 ,10
3172,762,792.,
R, 16 , 65 ,10
2983,827,791.,
R, 17 , 65 ,10
2792,892,795.,
R, 18 , 67 ,10
2603,956,784.,
R, 19 , 67 ,10
2414,1026,788.,
R, 20 , 67 ,10
2224,1090,794.,
R, 21 , 67 ,10
2036,1157,802.,
R, 22 , 67 ,10
1846,1222,776.,

R, 23 , 67 ,10
1910,1412,780.,
R, 24 , 67 ,10
2106,1344,804.,
R, 25 , 67 ,10
2294,1285,818.,
R, 26 , 67 ,10
2479,1214,813.,
R, 27 , 67 ,10
2668,1150,785.,
R, 28 , 67 ,10
2856,1082,809.,
R, 29 , 67 ,10
3047,1017,808.,
R, 30 , 67 ,10
3235,952,808.,
R, 31 , 67 ,10
3424,887,810.,
R, 32 , 67 ,10
3614,817,806.,
R, 33 , 67 ,10
3802,755,803.,
K,-3
ALL,ALL
C,C

SOUND32 - RELEASE 07/30/91

TITLE:
SHADOW RUN RANCH CONTOURS - SECOND LEVEL

REC	REC ID	DNL	PEOPLE	LEQ(CAL)
1	R-1	65.	10.	62.7
2	R-2	65.	10.	65.3
3	R-3	65.	10.	61.3
4	R-4	65.	10.	65.6
5	R-5	65.	10.	68.4
6	R-6	65.	10.	67.0
7	R-7	65.	10.	66.9
8	R-8	65.	10.	68.2
9	R-9	65.	10.	65.5
10	R-10	65.	10.	69.7
11	R-11	65.	10.	66.1
12	R-12	65.	10.	61.5
13	R-13	65.	10.	61.4
14	R-14	65.	10.	60.8
15	R-15	65.	10.	60.3
16	R-16	65.	10.	59.9
17	R-17	65.	10.	61.2
18	R-18	67.	10.	60.6
19	R-19	67.	10.	61.0
20	R-20	67.	10.	59.7
21	R-21	67.	10.	59.6
22	R-22	67.	10.	57.7
23	R-23	67.	10.	56.5
24	R-24	67.	10.	56.7
25	R-25	67.	10.	57.3
26	R-26	67.	10.	57.8
27	R-27	67.	10.	56.7
28	R-28	67.	10.	57.8
29	R-29	67.	10.	57.7
30	R-30	67.	10.	57.8
31	R-31	67.	10.	58.3
32	R-32	67.	10.	58.6
33	R-33	67.	10.	59.2

ATTACHMENT C

DETAILED FUTURE NOISE MODEL INPUT AND OUTPUT FILES

SHADOW RUN RANCH FIRST FLOOR
T-HWY 76, 1
1131 , 55 , 77 , 55 , 92 , 55
L-HWY 76, 1
N,1070,1489,702,
N,1212,1322,706,
N,1442,1119,720,
N,1731,932,730,
N,1927,842,736,
N,2265,734,746,
N,2667,635,754,
N,3196,445,760,
N,3851,210,762,
N,4882,-140,766,
B-ROADWAY EDGE, 1 , 2 , 0 ,0
1135,1488,704,704,
1235,1340,700,700,
1345,1273,720,720,
1508,1139,730,730,
1563,1101,750,750,
1672,1032,750,750,
1881,929,768,768,
2004,880,750,750,
2248,790,750,750,
2323,767,750,750,
B-ROADWAY EDGE 2, 2 , 2 , 0 ,0
2323,767,750,750,
2652,684,762,762,
2714,668,764,764,
3087,532,768,768,
3539,377,764,764,
4282,117,764,764,
B-LOT 29, 3 , 2 , 0 ,0
2028,1217,797,797,
2035,1108,797,797,
2114,1111,797,797,
B-LOT 30, 4 , 2 , 0 ,0
1882,1129,780,780,
1860,1102,780,780,
1944,1013,780,780,
1982,1040,780,780,
B-LOT 16, 5 , 2 , 0 ,0
2626,962,783,783,
2621,915,783,783,
2756,883,783,783,
2771,931,783,783,
B-LOT 15, 6 , 2 , 0 ,0
2864,880,784,784,
2858,829,784,784,
2990,797,784,784,
3008,848,784,784,
B-LOT 6, 7 , 2 , 0 ,0
3061,783,782,782,
3072,726,782,782,
3199,722,782,782,
3209,773,782,782,
B-LOT 5, 8 , 2 , 0 ,0
3368,754,788,788,
3352,701,788,788,
3474,645,788,788,
3503,694,788,788,
R, 1 , 65 ,10
2403,1616,815,27
R, 2 , 65 ,10
2189,1333,813,28
R, 3 , 65 ,10
2075,1169,802,29
R, 4 , 65 ,10
1917,1069,785.,30
R, 5 , 65 ,10
2609,1456,823.,18
R, 6 , 65 ,10
2411,1243,849.,17
R, 7 , 65 ,10
3200,1509,849.,12
R, 8 , 65 ,10

2974,1334,827.,13
R, 9 , 65 ,10
2969,1088,811.,14
R, 10 , 65 ,10
2691,943,788.,16
R, 11 , 65 ,10
2937,860,789.,15
R, 12 , 65 ,10
3134,776,787.,6
R, 13 , 65 ,10
3262,1096,819.,7
R, 14 , 65 ,10
3472,1304,839.,8
R, 15 , 65 ,10
3696,1207,831.,3
R, 16 , 65 ,10
3589,1019,813.,4
R, 17 , 65 ,10
3434,720,793.,5
D, 4.5
ALL,ALL
C,C

SOUND32 - RELEASE 07/30/91

TITLE:
SHADOW RUN RANCH FIRST FLOOR

REC	REC ID	DNL	PEOPLE	LEQ(CAL)
1	27	65.	10.	52.1
2	28	65.	10.	55.3
3	29	65.	10.	57.0
4	30	65.	10.	59.2
5	18	65.	10.	53.4
6	17	65.	10.	51.3
7	12	65.	10.	51.7
8	13	65.	10.	53.6
9	14	65.	10.	56.3
10	16	65.	10.	60.1
11	15	65.	10.	60.0
12	6	65.	10.	60.2
13	7	65.	10.	55.2
14	8	65.	10.	52.6
15	3	65.	10.	52.9
16	4	65.	10.	55.0
17	5	65.	10.	59.8

SHADOW RUN RANCH SECOND FLOOR
T-HWY 76, 1
1131 , 55 , 77 , 55 , 92 , 55
L-HWY 76, 1
N,1070,1489,702,
N,1212,1322,706,
N,1442,1119,720,
N,1731,932,730,
N,1927,842,736,
N,2265,734,746,
N,2667,635,754,
N,3196,445,760,
N,3851,210,762,
N,4882,-140,766,
B-ROADWAY EDGE, 1 , 2 , 0 ,0
1135,1488,704,704,
1235,1340,700,700,
1345,1273,720,720,
1508,1139,730,730,
1563,1101,750,750,
1672,1032,750,750,
1881,929,768,768,
2004,880,750,750,
2248,790,750,750,
2323,767,750,750,
B-ROADWAY EDGE 2, 2 , 2 , 0 ,0
2323,767,750,750,
2652,684,762,762,
2714,668,764,764,
3087,532,768,768,
3539,377,764,764,
4282,117,764,764,
B-LOT 29, 3 , 2 , 0 ,0
2028,1217,797,797,
2035,1108,797,797,
2114,1111,797,797,
B-LOT 30, 4 , 2 , 0 ,0
1882,1129,780,780,
1860,1102,780,780,
1944,1013,780,780,
1982,1040,780,780,
B-LOT 16, 5 , 2 , 0 ,0
2626,962,783,783,
2621,915,783,783,
2756,883,783,783,
2771,931,783,783,
B-LOT 15, 6 , 2 , 0 ,0
2864,880,784,784,
2858,829,784,784,
2990,797,784,784,
3008,848,784,784,
B-LOT 6, 7 , 2 , 0 ,0
3061,783,782,782,
3072,726,782,782,
3199,722,782,782,
3209,773,782,782,
B-LOT 5, 8 , 2 , 0 ,0
3368,754,788,788,
3352,701,788,788,
3474,645,788,788,
3503,694,788,788,
R, 1 , 65 ,10
2403,1616,826.,27
R, 2 , 65 ,10
2189,1333,824.,28
R, 3 , 65 ,10
2075,1169,812.,29
R, 4 , 65 ,10
1917,1069,795.,30
R, 5 , 65 ,10
2609,1456,834.,18
R, 6 , 65 ,10
2411,1243,849.,17
R, 7 , 65 ,10
3200,1509,860.,12
R, 8 , 65 ,10

2974,1334,839.,13
R, 9 , 65 ,10
2969,1088,820.,14
R, 10 , 65 ,10
2691,943,802.,16
R, 11 , 65 ,10
2937,860,798.,15
R, 12 , 65 ,10
3134,776,797.,6
R, 13 , 65 ,10
3262,1096,835.,7
R, 14 , 65 ,10
3472,1304,847.,8
R, 15 , 65 ,10
3696,1207,841.,3
R, 16 , 65 ,10
3589,1019,835.,4
R, 17 , 65 ,10
3434,720,805.,5
C,C

SOUND32 - RELEASE 07/30/91

TITLE:
SHADOW RUN RANCH SECOND FLOOR

REC	REC ID	DNL	PEOPLE	LEQ(CAL)
1	27	65.	10.	56.0
2	28	65.	10.	59.2
3	29	65.	10.	61.9
4	30	65.	10.	63.3
5	18	65.	10.	57.0
6	17	65.	10.	55.5
7	12	65.	10.	55.9
8	13	65.	10.	57.2
9	14	65.	10.	59.3
10	16	65.	10.	62.7
11	15	65.	10.	62.6
12	6	65.	10.	62.5
13	7	65.	10.	58.7
14	8	65.	10.	56.7
15	3	65.	10.	57.1
16	4	65.	10.	58.9
17	5	65.	10.	62.4