

APPENDIX D – NOISE IMPACT ANALYSIS

COACHILLIN INDUSTRIAL PARK PARCELS 30 & 31 NOISE IMPACT ANALYSIS

City of Desert Hot Springs

March 7, 2022



Traffic Engineering • Transportation Planning • Parking • Noise & Vibration
Air Quality • Global Climate Change • Health Risk Assessment

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City of Desert Hot Springs

March 7, 2022

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Project No. 19-0174

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Construction Noise Impacts	1
Noise Impacts to Off-Site Receptors Due to Project Generated Trips.....	1
Transportation Noise Impacts to the Proposed Project.....	1
Noise Impacts to Off-Site Receptors Due to On-Site Operational Noise.....	2
Groundborne Vibration Impacts	3
1. INTRODUCTION.....	1
Purpose and Objectives	1
Project Description.....	1
Phasing and Timing	1
2. NOISE AND VIBRATION FUNDAMENTALS	4
Noise Fundamentals	4
Vibration Fundamentals.....	4
3. EXISTING NOISE ENVIRONMENT.....	8
Existing Land Uses and Sensitive Receptors	8
Ambient Noise Measurements.....	8
4. REGULATORY SETTING	12
Federal Regulation.....	12
State Regulations	12
State of California General Plan Guidelines 2017	12
California Environmental Quality Act	13
California Department of Transportation (Caltrans).....	15
Local Regulations	15
City of Desert Hot Springs General Plan.....	15
City of Desert Hot Springs Municipal Code	16
5. ANALYTICAL METHODOLOGY AND MODEL PARAMETERS.....	19
Road Construction Noise Model	19
Federal Highway Administration (FHWA) Traffic Noise Prediction Model.....	19
SoundPLAN Noise Model.....	19
6. IMPACT ANALYSIS	22
Impacts Related to Construction Noise.....	22
Noise Impacts to Off-Site Receptors Due to Project Generated Trips.....	23
Transportation Noise Impacts to the Proposed Project.....	24
Noise Impacts to Off-Site Receptors Due to On-Site Operational Noise.....	26
Groundborne Vibration Impacts	26
7. COMPARISON OF PROJECT IMPACTS TO PREVIOUSLY APPROVED PROJECT IMPACTS.....	41
Construction Noise Impacts	41
Project Generated Vehicle Noise Impacts to Sensitive Receptors.....	42
Traffic Noise impacts to the Proposed Project.....	43
Operational Noise Impacts.....	45
8. BEST MANAGEMENT PRACTICES/COMPLIANCE WITH APPLICABLE LAWS	49
Best Management Practices	49
compliance with state of California Code	49
9. REFERENCES.....	50

APPENDICES

Appendix A	List of Acronyms
Appendix B	Definitions of Acoustical Terms
Appendix C	Noise Measurement Field Worksheet
Appendix D	Construction Noise Modeling Worksheets
Appendix E	Project Generated Trips FHWA Worksheets
Appendix F	SoundPLAN Worksheets
Appendix G	Vibration Worksheets

LIST OF TABLES

Table 1.	Short-Term Noise Measurement Summary (dBA).....	9
Table 2.	Long-Term Noise Measurement Summary (dBA)	10
Table 3.	Noise and Land Use Compatibility Guidelines	18
Table 4.	CA/T Equipment Noise Emissions and Acoustical Usage Factor Database.....	28
Table 5.	Construction Noise Levels (L_{eq}).....	30
Table 6.	Project Average Daily Traffic Volumes and Roadway Parameters	31
Table 7.	Change in Existing Noise Levels Along Roadways as a Result of Project Without Amphitheater Event (dBA CNEL)	32
Table 8.	Change in Existing Noise Levels Along Roadways as a Result of Project With Amphitheater Event (dBA CNEL)	33
Table 9.	Construction Equipment Vibration Source Levels	34
Table 10.	Typical Human Reaction and Effect on Buildings Due to Groundborne Vibration.....	35
Table 11.	Impact Summary – Comparison of Operational Noise Levels, Proposed Project and Previously Approved Cultivation Uses for Parcels 30 and 31	47
Table 12.	Impact Summary - Proposed Project and Previously Approved Cultivation Uses for Parcels 30 and 31	48

LIST OF FIGURES

Figure 1.	Project Location Map.....	2
Figure 2.	Site Plan	3
Figure 3.	Weighted Sound Levels and Human Response	6
Figure 4.	Typical Levels of Groundborne Vibration.....	7
Figure 5.	Noise Measurement Location Map.....	11
Figure 6.	Coachillin' Peak Hour With Amphitheater Event Operational Noise Levels (L_{eq})	36
Figure 7.	Coachillin' Peak Hour With Amphitheater Event Operational Noise Level Contours (L_{eq})	37
Figure 8.	Coachillin' Peak Hour No Amphitheater Event Operational Noise Levels (L_{eq}).....	38
Figure 9.	Coachillin' Peak Hour No Amphitheater Event Operational Noise Level Contours (L_{eq})	39
Figure 10.	Future Traffic Noise Levels on the Project Site	40

EXECUTIVE SUMMARY

The purpose of this report is to provide an assessment of the noise impacts associated with the development and operation of the proposed Coachillin' Industrial Park Parcels 30 & 31 project and to identify mitigation measures that may be necessary to reduce those impacts. The noise issues related to the proposed land use and development have been evaluated in light of applicable federal, state and local policies, including those of the City of Desert Hot Springs.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to noise analysis, a list of acronyms and a glossary of terms have been provided in Appendix A and Appendix B of this report, respectively.

CONSTRUCTION NOISE IMPACTS

Modeled unmitigated construction noise levels when combined with existing measured noise levels could reach 56.9 dBA L_{eq} at the nearest residential property line to the northeast and up to 68.7 dBA L_{eq} at the nearest commercial property line to the south of the project site.

The City's Municipal Code Section 9.04.030 permits construction related activities between the hours of 7:00 AM to 5:00 PM, except when daylight savings time is in effect, and to the hours of 6:00 AM to 6:00 PM during daylight savings time. Construction activities are not permitted on Sundays.

Impacts related to construction noise will be further minimized with adherence to applicable Municipal Ordinances and implementation of the measures presented in Section 8 of this report. Impacts would be less than significant.

NOISE IMPACTS TO OFF-SITE RECEPTORS DUE TO PROJECT GENERATED TRIPS

Existing and Existing Plus Project noise levels along Indian Canyon Drive and other roadway segments affected by project generated vehicle trips were modeled utilizing the FHWA Traffic Noise Prediction Model FHWA-RD-77-108 in order to quantify the proposed project's contribution to increases in ambient noise levels.

One of the analyzed roadway segments within the existing plus project with amphitheater event scenario has an increase above 5 dBA CNEL, 19th Avenue east of Indian Canyon Road. However, the existing uses along this roadway segment are that of general commercial and heavy industrial uses. Therefore, although the noise level increase is above 5 dB, at 66.89 dBA CNEL the modeled existing plus project with amphitheater event noise level would not exceed the City's normally acceptable land use standard of 70 dBA CNEL for heavy commercial and industrial uses. Furthermore, this noise level increase would only occur during amphitheater events, which are anticipated to take place at most four times a month. Therefore, this impact is less than significant, and no mitigation is required.

All other modeled roadway segments are anticipated to change the noise a nominal amount (between approximately 0 to 3.64 dBA CNEL for the existing plus project without amphitheater event scenario and 0.06 to 3.64 dBA CNEL for the existing plus project with amphitheater event scenario. Therefore, a change in noise level would not be audible and would be considered less than significant. No mitigation is required.

TRANSPORTATION NOISE IMPACTS TO THE PROPOSED PROJECT

Per the City of Desert Hot Springs General Plan Land Use Compatibility Guidelines for Noise, noise levels of up to 65 dBA CNEL are considered "normally acceptable" and noise levels of up to 70 dBA CNEL are considered "conditionally acceptable" for hotels, while amphitheater land uses are considered "conditionally acceptable" in environments that reach up to 60 dBA CNEL. Per Table 3, new construction should only be

approved in “conditionally acceptable” areas after a detailed noise analysis is conducted and any necessary noise reduction requirements are included in the project design.

As shown on Figures 10, future buildout traffic noise levels would range between 68 and 73 dBA CNEL at the western facades of floors 1-4 of the proposed hotel and; and will reach up to 65 dBA CNEL at the western side of the proposed amphitheater.

Construction of the proposed hotel will be required to comply with California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures), which requires wall and roof-ceiling assemblies exposed to a noise source (Indian Canyon Drive) making up the building, or addition envelope or altered envelope, shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30. This codified requirement is included in Section 8 of this report as mitigation. Impacts to the proposed hotel related to compliance with State of California Title 24 Part 2 will be less than significant.

As shown in Figure 10, west facing facades at the first story of the proposed hotel will be exposed to noise levels that fall within the Land Use and Noise Compatibility Guidelines “conditionally acceptable” category and the west facing facades of the second through fourth stories of the proposed hotel fall within the Land Use and Noise Compatibility Guidelines “generally unacceptable” category for hotel land uses. Compliance with California Building Code (2019), Title 24, Part 2, Chapter 5 (described above) will ensure that interior noise levels do not exceed 45 dBA CNEL. Furthermore, no outdoor use areas are located between the west facing facades of the proposed hotel and Indian Canyon Drive. This impact would be less than significant. No mitigation is required.

Proposed outdoor land uses, including the hotel pool area, are shielded from Indian Canyon Road. As shown on Figure 10, future traffic noise levels at outdoor use areas would be approximately 35 dBA CNEL and would not exceed the “normally acceptable” Land Use Compatibility threshold of 60 dBA CNEL. This impact would be less than significant. No mitigation is required.

As shown in Figure 10, future traffic noise levels associated with N. Indian Canyon Road may reach up to 65 dBA CNEL at the proposed amphitheater. Amphitheaters are considered to be a “conditionally acceptable” land use in noise environments that reach up to 60 dBA CNEL. The City has not identified a “normally acceptable” noise level for amphitheaters. They are either “conditionally acceptable” or “normally unacceptable”. The exposure of the proposed outdoor amphitheater to noise levels of up to 65 CNEL would fall into the “generally unacceptable” category. Per Table 3, if new construction proceeds, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design. Considering that the proposed amphitheater is planned for live outdoor music events, mitigation to mitigate noise levels well below the noise levels of the anticipated events is not necessary. Impacts to the proposed amphitheater are considered less than significant. No mitigation is required.

NOISE IMPACTS TO OFF-SITE RECEPTORS DUE TO ON-SITE OPERATIONAL NOISE

The project is surrounded by vacant and commercial land uses. The nearest sensitive receptors to the project site include the existing single-family residential dwelling units located approximately 0.39 miles (~2,060 feet) northeast of the project site. Section 17.40.180 of the City of Desert Hot Springs Municipal Ordinance establishes exterior noise level standards of 65 dBA L_{eq} or an interior noise level of 45 dBA L_{eq} , respectively, for the transmission of noise to residential land uses. The City has not established a specific noise level standard for impacts to commercial land uses.

The proposed project is to include operational noise sources such as rooftop HVAC equipment, parking lot noise, amphitheater, pool and outdoor entertainment. As shown in Figures 6 and 7 project operational noise with an on-going amphitheater event is expected to range between 53 and 65 dBA L_{eq} at adjacent commercial properties and project operational noise without an amphitheater event is expected to range between 50 and 62 dBA L_{eq} at adjacent commercial properties (see Figures 8 and 9). Project operational noise levels with or

without an amphitheater would dissipate to ambient noise levels by the time it reaches existing residential land uses located over 2,000 feet northeast of the project site. This impact would be less than significant. No mitigation is required.

The most recent CEQA Guidelines Appendix G Threshold Checklist includes the following question about substantial increases in ambient noise levels: *Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

As discussed previously, existing ambient noise levels in the project vicinity range between 40.7 and 60.3 dBA L_{eq} . Project peak hour operations without an amphitheater event would reach up to 62 dBA L_{eq} . Project peak hour operations with an amphitheater event may result in noise levels at adjacent commercial properties that reach up to 65 dBA L_{eq} . The City has not established a numerical noise threshold to evaluate property to property impacts to commercial land uses. Project operational noise would dissipate down to ambient noise levels at the nearest residential land use which is located more than 2,000 feet northeast of the project site. Assuming peak hour could occur during any hour, the proposed project would result in increases of ambient noise levels of up to 24.3 dBA L_{eq} at adjacent commercial properties during operation with an Amphitheater event. Project operation would not result in substantial increases in ambient noise levels at the nearest sensitive receptors which are located over 2,000 feet northeast of the project site. Given that the project would not result in a violation of City standards at a sensitive receptor, increases in the ambient noise levels due to project operation would be less than significant. No mitigation is required.

GROUNDBORNE VIBRATION IMPACTS

Groundborne vibration levels associated with vibratory equipment that may be utilized during project construction were assessed in order to determine if the proposed equipment may result in structural damage or annoyance. Project construction activities will not occur within close enough proximity to existing structures to result in impacts related to groundborne vibration. No mitigation is required.

BEST MANAGEMENT PRACTICES

In addition to adherence to the City of Desert Hot Springs Code, which limits the construction hours of operation, the following measures are recommended to reduce construction noise and vibrations, emanating from the proposed project:

1. During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.
2. The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
3. The project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction.
4. The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment.

1. INTRODUCTION

This section describes the purpose of this noise impact analysis, project location, proposed development, and study area. Figure 1 shows the project location map and Figure 2 illustrates the project site plan.

PURPOSE AND OBJECTIVES

The purpose of this report is to provide an assessment of the noise impacts resulting from the development of the proposed Coachillin' Industrial Park Parcels 30 & 31 project and to identify mitigation measures that may be necessary to reduce those impacts. The noise issues related to the proposed land use and development have been evaluated in light of applicable federal, state and local policies, including those of the City of Desert Hot Springs.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to noise analysis, a list of acronyms and a glossary of terms have been provided in Appendix A and Appendix B of this report, respectively.

PROJECT LOCATION

The project site is located east of Indian Canyon Drive between 18th Avenue and 19th Avenue in the City of Desert Hot Springs. The project site is currently vacant. A vicinity map showing the project location is provided on Figure 1.

PROJECT DESCRIPTION

The Coachillin' Industrial Park Specific Plan was approved in 2017. The approved Coachillin' Industrial Park Specific Plan consisted of developing the previously vacant project site with approximately 2,800,000 square feet of building envelope grow site for cannabis cultivation, processing, and distribution uses. The approved Specific Plan project will be operated by various lot owners with a total of 1,510 employees using 3 different work shifts throughout the day.

For the currently proposed Specific Plan Amendment, submitted to the City in 2021, the applicant is proposing to modify the allowed land uses for a small portion of the previously approved Coachillin' Industrial Park Specific Plan within Parcel 30, Parcel 31, and Parcel 25. Parcel 30 will include a 175-room hotel, and Parcel 31 will include a 5,000-seat amphitheater ("project"). Per the applicant, the amphitheater would hold a maximum of four events per month. An unmanned Southern California Edison (SCE) substation was analyzed for Parcel 25 in the Coachillin' Industrial Park Specific Plan; however, SCE determined that Parcel 25 is no longer needed for a substation. Parcel 25 is to be modified to a 420-space parking lot with solar covered parking.¹ Figure 2 illustrates the proposed site plan.

PHASING AND TIMING

The project is anticipated to be built in one phase. Project construction is anticipated to begin in 2022 and take approximately 12 months to complete. The proposed project is anticipated to be operational in 2023.

Figure 2 illustrates the proposed site plan.

¹ The emissions associated with Parcel 25 were already accounted for in the emissions calculations for the entire SP shown in the Coachillin' Industrial Park Air Quality and Global Climate Change Impact Analysis conducted by Kunzman Associates in 2017. Therefore, analysis of Parcel 25 is not included in this analysis.

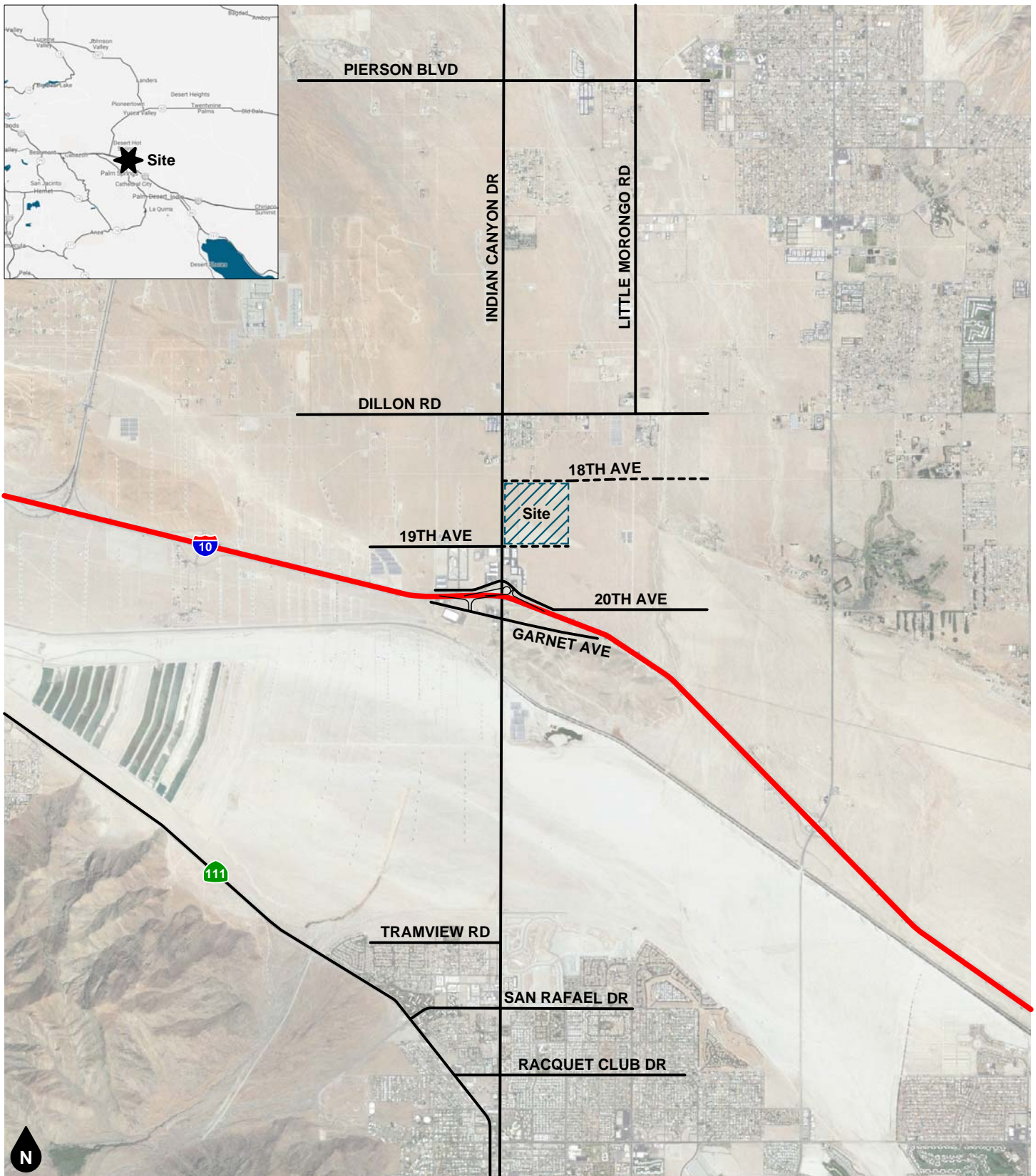


Figure 1
Project Location Map



Figure 2
Site Plan

2. NOISE AND VIBRATION FUNDAMENTALS

NOISE FUNDAMENTALS

Sound is a pressure wave created by a moving or vibrating source that travels through an elastic medium such as air. Noise is defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in extreme circumstances, hearing impairment.

Commonly used noise terms are presented in Appendix B. The unit of measurement used to describe a noise level is the decibel (dB). The human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, the “A-weighted” noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A-weighted measurements are written dB(A) or dBA.

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features. Sound from point sources, such as air conditioning condensers, radiates uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

Decibels are measured on a logarithmic scale, which quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as a doubled traffic volume, would increase the noise levels by 3 dBA; halving of the energy would result in a 3 dBA decrease. Figure 3 shows the relationship of various noise levels to commonly experienced noise events.

Average noise levels over a period of minutes or hours are usually expressed as dBA L_{eq} , or the equivalent noise level for that period of time. For example, $L_{eq(3)}$ would represent a 3-hour average. When no period is specified, a one-hour average is assumed.

Noise standards for land use compatibility are stated in terms of the Community Noise Equivalent Level (CNEL) and the Day-Night Average Noise Level (DNL). CNEL is a 24-hour weighted average measure of community noise. CNEL is obtained by adding five decibels to sound levels in the evening (7:00 PM to 10:00 PM), and by adding ten decibels to sound levels at night (10:00 PM to 7:00 AM). This weighting accounts for the increased human sensitivity to noise during the evening and nighttime hours. DNL is a very similar 24-hour average measure that weights only the nighttime hours.

It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA; that a change of 5 dBA is readily perceptible, and that an increase (decrease) of 10 dBA sounds twice (half) as loud. This definition is recommended by the California Department of Transportation’s Technical Noise Supplement to the Traffic Noise Analysis Protocol (2013).

VIBRATION FUNDAMENTALS

The way in which vibration is transmitted through the earth is called propagation. Propagation of earthborn vibrations is complicated and difficult to predict because of the endless variations in the soil through which waves travel. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground’s surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water.

Compression waves, or P-waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a “push-pull” fashion). P-waves are analogous to airborne sound waves. Shear waves, or S-waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or “side-to-side and perpendicular to the direction of propagation”.

As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

Vibration amplitudes are usually expressed as either peak particle velocity (PPV) or the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous peak of the vibration signal in inches per second. The RMS of a signal is the average of the squared amplitude of the signal in vibration decibels (VdB), ref one micro-inch per second. The Federal Railroad Administration uses the abbreviation “VdB” for vibration decibels to reduce the potential for confusion with sound decibel.

PPV is appropriate for evaluating the potential of building damage and VdB is commonly used to evaluate human response. Decibel notation acts to compress the range of numbers required in measuring vibration. Similar to the noise descriptors, L_{eq} and L_{max} can be used to describe the average vibration and the maximum vibration level observed during a single vibration measurement interval. Figure 4 illustrates common vibration sources and the human and structural responses to ground-borne vibration. As shown in the figure, the threshold of perception for human response is approximately 65 VdB; however, human response to vibration is not usually substantial unless the vibration exceeds 70 VdB. Vibration tolerance limits for sensitive instruments such as magnetic resonance imaging (MRI) or electron microscopes could be much lower than the human vibration perception threshold.

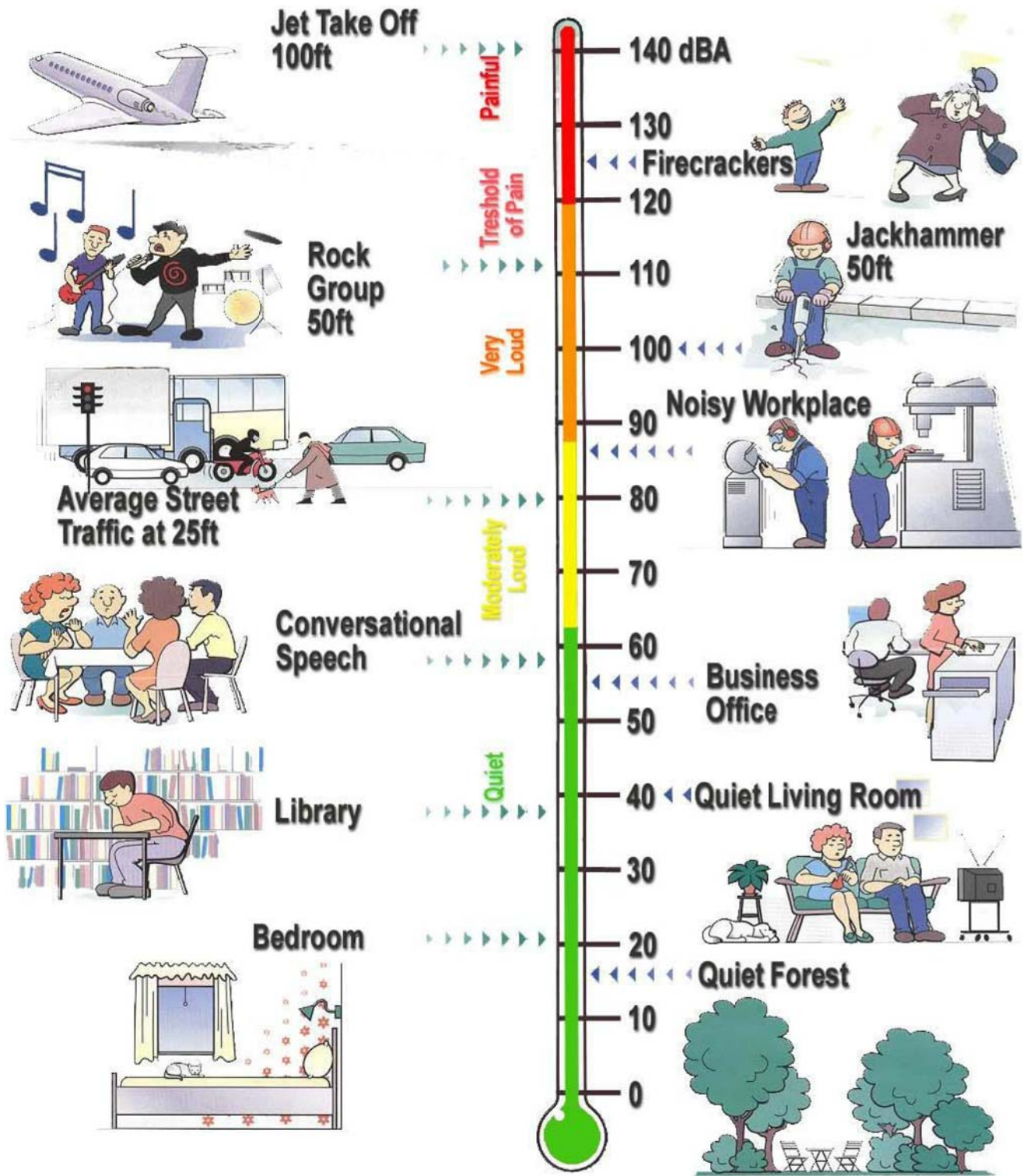
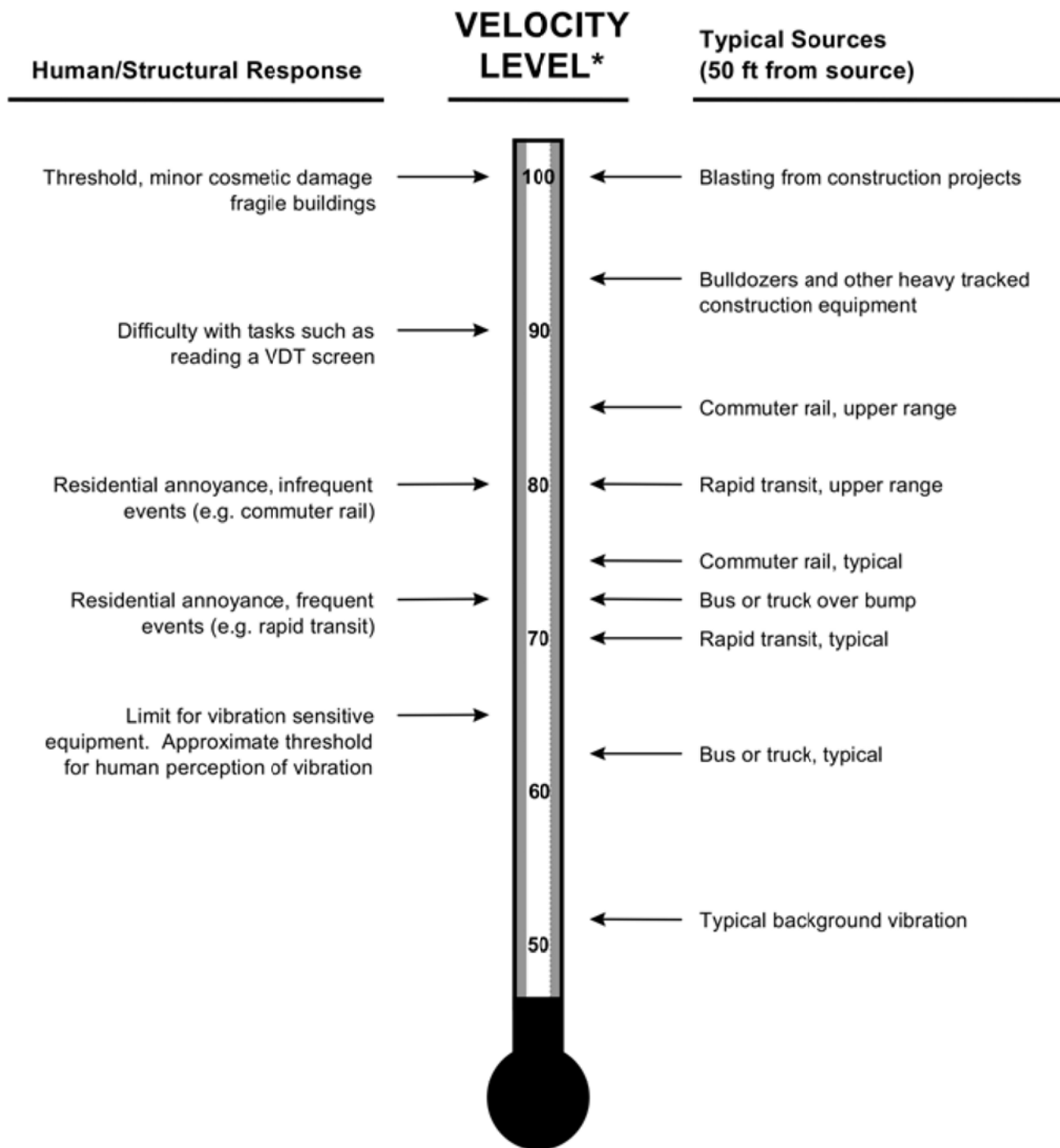


Figure 3
Weighted Sound Levels and Human Response

Source: Bruel & Kjaer 2001



* RMS Vibration Velocity Level in dB relative to 10^{-6} inches/second

Source: FRA, 2012. Federal Railroad Administration High-Speed Ground Transportation Noise and Vibration Impact Assessment. Office of Railroad Policy Development, Washington, D.C. DOT/FRA/ORD-12/15. September.

Figure 4
Typical Levels of Groundborne Vibration

3. EXISTING NOISE ENVIRONMENT

EXISTING LAND USES AND SENSITIVE RECEPTORS

The project site is vacant. It is bordered by vacant land to the north and east; Indian Canyon Drive to the west; and 19th Avenue and commercial uses to the south.

The State of California defines sensitive receptors as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. Schools, libraries, churches, hospitals, single and multiple-family residential, including transient lodging, motels and hotel uses, make up the majority of these areas. Sensitive land uses that may be affected by project noise include the single-family detached residential dwelling units located approximately 0.39 miles (~2,060 feet) northeast of the project site.

AMBIENT NOISE MEASUREMENTS

An American National Standards Institute (ANSI Section S14 1979, Type 1) Larson Davis model LxT sound level meter was used to document existing ambient noise levels. In order to document existing ambient noise levels in the project area, seven (7) 15-minute daytime noise measurements were taken between 12:01 PM and 4:59 PM on October 19, 2019. In addition, one (1) long-term 24-hour noise measurement was also taken from October 19, 2019 to October 20, 2019. Field worksheets and noise measurement output data are included in Appendix C.

As shown on Figure 5, the noise measurements were taken south of Tramview Road (STNM1); south of the project site near commercial uses and 19th Avenue (STNM2); west of Indian Canyon Drive (STNM3); east of Diablo Road (STNM4); south of 14th Avenue (STNM5); southeast of the intersection of Avenue Manzana and Camino Idilio (STNM6); east of Beacon Way (STNM7); and north of the project site along 18th Avenue (LTNM1).

Table 1 provides a summary of the short-term ambient noise data. Table 2 provides hourly interval ambient noise data from the long-term noise measurement. Short-term ambient noise levels were measured between 40.7 and 59.2 dBA L_{eq} . Long-term hourly noise measurement ambient noise levels ranged from 43.1 to 60.3 dBA L_{eq} . The dominant noise sources included vehicles traveling along Tramview Road, North Indian Canyon Drive, Diablo Road, Avenue Manzana, Camino Idilio, Palm Drive, and other surrounding roadways.

Table 1
Short-Term Noise Measurement Summary (dBA)

Daytime Measurements ^{1,2}								
Site Location	Time Started	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)
STNM1	12:01 PM	56.6	74.1	34.3	67.3	60.8	50.4	42.9
STNM2	12:46 PM	56.2	74.6	42.2	64.5	59.1	55.6	52.3
STNM3	1:27 PM	59.2	75.5	43.2	65.2	61.7	59.8	57.8
STNM4	2:23 PM	51.3	71.5	38.1	59.6	51.6	44.4	41.2
STNM5	3:20 PM	40.7	69.7	34.4	47.5	43.8	41.0	39.4
STNM6	4:01 PM	58.3	72.6	36.0	67.2	63.4	57.3	50.8
STNM7	4:44 PM	46.4	62.3	39.9	52.3	47.9	46.1	44.7

Notes:

(1) See Figure 5 for noise measurement locations. Each noise measurement was performed over a 15-minute duration.

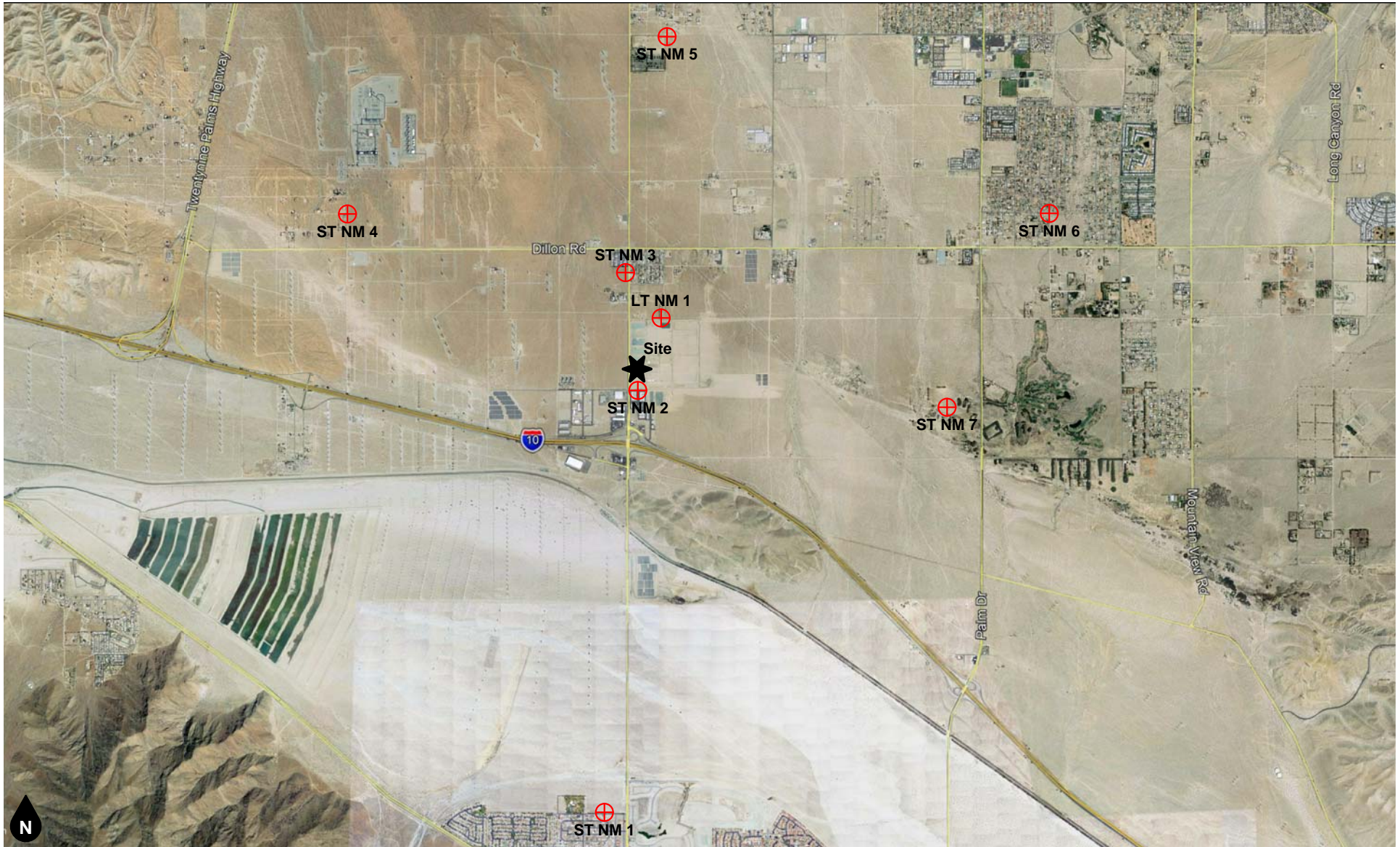
(2) Noise measurements performed on October 19, 2019.

Table 2
Long-Term Noise Measurement Summary (dBA)

24-Hour Ambient Noise ^{1,2}								
Hourly Measurements	Time Started	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)
Overall Summary	7:00 PM	52.0	72.3	36.1	60.8	56.4	51.4	46.9
1	7:00 PM	53.0	63.8	47.1	58.3	55.5	53.5	51.9
2	8:00 PM	56.6	69.7	46.6	63.2	60.2	57.1	54.5
3	9:00 PM	60.3	72.3	50.5	65.6	63.6	61.3	59.0
4	10:00 PM	56.2	72.0	46.2	62.5	59.4	56.5	54.2
5	11:00 PM	53.9	66.9	45.7	58.9	56.7	54.7	52.7
6	12:00 AM	54.5	63.2	43.9	60.5	58.4	55.8	52.8
7	1:00 AM	46.0	61.7	39.7	50.1	48.1	46.5	45.2
8	2:00 AM	45.3	60.8	39.0	48.9	47.3	45.9	44.7
9	3:00 AM	44.5	57.8	36.8	50.7	47.4	45.0	43.0
10	4:00 AM	45.9	60.1	37.1	51.6	48.8	46.6	44.3
11	5:00 AM	48.5	66.5	42.2	52.7	50.8	48.9	47.4
12	6:00 AM	50.8	67.6	40.8	56.3	53.0	50.8	48.7
13	7:00 AM	50.6	68.7	42.6	55.2	52.2	50.2	49.0
14	8:00 AM	48.3	67.4	39.0	52.8	51.2	49.4	45.7
15	9:00 AM	48.6	64.6	37.3	57.8	52.5	47.3	44.1
16	10:00 AM	50.4	68.5	39.4	57.4	54.2	50.5	47.5
17	11:00 AM	50.6	66.3	41.1	56.7	54.3	51.2	48.5
18	12:00 PM	49.3	66.7	37.4	56.6	53.5	49.6	46.4
19	1:00 PM	46.2	65.8	36.8	53.4	50.1	45.7	42.2
20	2:00 PM	49.2	67.7	36.1	57.8	51.3	46.7	43.5
21	3:00 PM	46.0	57.9	36.7	52.8	49.7	46.3	43.7
22	4:00 PM	43.1	57.0	36.6	50.2	46.1	42.9	40.9
23	5:00 PM	43.8	63.2	37.4	50.8	45.8	42.9	41.4
24	6:00 PM	44.3	68.5	37.5	48.9	44.8	43.4	41.5

Notes:

- (1) See Figure 5 for noise measurement locations. Noise measurement was performed over a 24-hour duration.
 (2) Noise measurement performed from October 19, 2019 to October 20, 2019.




Legend
 Noise Measurement Location
 NM 1

Figure 5
Noise Measurement Location Map

4. REGULATORY SETTING

FEDERAL REGULATION

Federal Noise Control Act of 1972

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. After its inception, EPA's Office of Noise Abatement and Control issued the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In response, the EPA published Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (Levels of Environmental Noise). The Levels of Environmental Noise recommended that the Ldn should not exceed 55 dBA outdoors or 45 dBA indoors to prevent significant activity interference and annoyance in noise-sensitive areas.

In addition, the Levels of Environmental Noise identified five (5) dBA as an "adequate margin of safety" for a noise level increase relative to a baseline noise exposure level of 55 dBA Ldn (i.e., there would not be a noticeable increase in adverse community reaction with an increase of five dBA or less from this baseline level). The EPA did not promote these findings as universal standards or regulatory goals with mandatory applicability to all communities, but rather as advisory exposure levels below which there would be no risk to a community from any health or welfare effect of noise.

In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to State and local governments. However, noise control guidelines and regulations contained in EPA rulings in prior years remain in place by designated Federal agencies, allowing more individualized control for specific issues by designated Federal, State, and local government agencies.

STATE REGULATIONS

State of California General Plan Guidelines 2017

Though not adopted by law, the State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (OPR), (OPR Guidelines) provide guidance for the compatibility of projects within areas of specific noise exposure. The OPR Guidelines identify the suitability of various types of construction relative to a range of outdoor noise levels and provide each local community some flexibility in setting local noise standards that allow for the variability in community preferences. Findings presented in the Levels of Environmental Noise Document (EPA 1974) influenced the recommendations of the OPR Guidelines, most importantly in the choice of noise exposure metrics (i.e., Ldn or CNEL) and in the upper limits for the Normally Acceptable outdoor exposure of noise-sensitive uses. The OPR Guidelines include a Noise and Land Use Compatibility Matrix which identifies acceptable and unacceptable community noise exposure limits for various land use categories. The City of Desert Hot Springs has incorporated these guidelines in the City's General Plan Safety and Noise Element (see Table 3).

State of California Code

Section 1206.4 of the California Building Code (2019), Title 24, Part 2, Chapter 12 (Interior Environment), establishes an interior noise criterion of 45 dBA CNEL for "dwelling units". Per California Building Code, Title 24, Part 2, Chapter 2 (Definitions), a residential dwelling unit is a unit that is intended to be used as a residence that is primarily long-term in nature. Residential dwelling units do not include transient lodging, inpatient medical care, licensed long-term care, and detention or correctional facilities. Therefore, the State of California 45 dB CNEL noise criteria do not apply to hotels.

California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures), Section 5.507, Environmental Comfort, Subsection 5.507.4 Acoustical control, requires that the use of building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E90 and ASTM E413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2. Buildings that fall under the following scenarios are exempt from this requirement.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 (Prescriptive Method) Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

Exceptions:

1. Ldn or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.

2. Ldn or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or Ldn noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB Leq-1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 or Outdoor/Indoor Transmission Class (OITC) of 35, with exterior windows of a minimum STC of 40 or OITC 30.

In summary. In order to comply with the California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures), proposed buildings that will house occupants, excepting factories, stadiums, storage, enclosed parking structures and utility buildings), shall comply with the 5.507.4.1 which requires wall and roof-ceiling assemblies exposed to the noise source (Indian Canyon Drive) making up the building, or addition envelope or altered envelope, shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30.

California Environmental Quality Act

The California Environmental Quality Act Guidelines (Appendix G) establishes thresholds for noise impact analysis. This noise study includes analysis of noise and vibration impacts necessary to assess the project in light of the following Appendix G Checklist Thresholds.

Would the project result in:

a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Substantial increases in ambient noise levels are usually associated with project construction noise (temporary) and project operational noise (permanent).

Project Construction Noise: Construction noise sources are regulated within the City of Desert Hot Springs Section 9.04.030 which prohibits construction activities between the hours of 5:00 PM of each day and 7:00 AM of the next day, except when daylight savings time is in effect. During such time as daylight savings time is in effect in the City, no such activities shall be permitted between the hours of 6:00 PM of each day and 6:00 AM of the next day. No construction activities are permitted on Sundays.

Although construction activity may be exempt from the noise standards in the City's Municipal Code, CEQA requires that potential noise impacts still be evaluated for significance.

The City of Desert Hot Springs has not adopted a numerical threshold that identifies what a substantial increase would be. For purposes of this analysis, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment (2006) criteria will be used to establish significance thresholds. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For residential uses, the daytime noise threshold is 80 dBA L_{eq} averaged over an 8-hour period ($L_{eq(8-hr)}$); and the nighttime noise threshold is 70 dBA $L_{eq(8-hr)}$. For commercial uses, the daytime and nighttime noise threshold is 85 dBA $L_{eq(8-hr)}$. In compliance with the City's Municipal Code, it is assumed that construction would not occur during the noise-sensitive nighttime hours.

Off-Site Operational Noise: The City has not established numerical thresholds to determine what a substantial increase is. For the purposes of this analysis, increases in ambient noise along affected roadways due to project generated vehicle traffic is considered substantial if they result in an increase of at least 5 dBA CNEL and: (1) the existing noise levels already exceed the applicable land use compatibility standard for the affected sensitive receptors set forth in the Noise Element of the City's General Plan; or (2) the project increases noise levels by at least 5 dBA CNEL and raises the ambient noise level from below the 65 dBA CNEL standard to above 65 dBA CNEL.

On-Site Project Generated Noise: The recently updated CEQA Guidelines Appendix G Threshold Checklist includes the following question about substantial increases in ambient noise levels: *Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?* Therefore, an increase in ambient noise levels would be considered substantial if it results in a violation of City standards set forth in the General Plan or Municipal Ordinance. Section 17.40.180 of the City of Desert Hot Springs Municipal Ordinance establishes exterior noise level standards of 65 dBA L_{eq} or an interior noise level of 45 dBA L_{eq} , respectively, for the transmission of noise to residential land uses. The FTA criteria for daytime and nighttime criterion for noise associated with construction is 85 dBA $L_{eq(8-hr)}$. In compliance with the City's Municipal Code, it is assumed that construction would not occur during the noise-sensitive nighttime hours.

b) *Generate excessive groundborne vibration or groundborne noise levels?*

A peak particle velocity (PPV) of 0.20 is the threshold at which there is a risk to "architectural" damage to normal dwellings. It is also the level at which groundborne vibration can become annoying. Impacts would be significant if construction activities result in groundborne vibration of 0.20 PPV or higher at a sensitive receptor.

California Department of Transportation (Caltrans)

The California Department of Transportation has published one of the seminal works for the analysis of ground-borne noise and vibration relating to transportation- and construction-induced vibrations and, although the project is not subject to these regulations, it serves as a useful tool to evaluate vibration impacts. These guidelines recommend that a standard of 0.2 inches per second (in/sec) PPV not be exceeded for the protection of normal residential buildings (California Department of Transportation, 2013). This is the appropriate threshold for construction related ground-borne vibration impacts.

LOCAL REGULATIONS

City of Desert Hot Springs General Plan

Noise and Land Use Compatibility Guidelines presented in the City of Desert Hot Springs General Plan (2020) (Table 3) establish outdoor noise standards for a variety of land uses within the City. The project proposes a hotel and amphitheater land uses that should be evaluated in light of these standards. Hotels are considered to be normally acceptable in environments where the noise level reaches up to 60 dBA CNEL and are considered to be a “conditionally acceptable” land uses in environments that reach up to 70 dBA CNEL. Per Table 3, new construction should only be approved in “conditionally acceptable” areas after a detailed noise analysis is conducted and any necessary noise reduction requirements are included in the project design. Amphitheater land uses are considered “conditionally acceptable” in environments that reach up to 60 dBA CNEL and considered to “generally unacceptable” in areas where noise levels reach up to 70 dBA CNEL.

The City of Desert Hot Springs General Plan (May 2020) Safety and Noise Element includes the following goals and policies that pertain to the proposed project.

- | | |
|----------------------|---|
| Goal SN-8 | A noise environment that provides peace and quiet that complements the City’s spa resort character. |
| Policy SN-8.1 | Sensitive Land Uses. Protect noise-sensitive land uses from high noise levels from both existing and future noise sources. Sensitive uses include residences, resorts and community open space, schools, libraries, churches, hospitals, and convalescent homes. |
| Policy SN-8.2 | Noise Impacts. Assess proposed development and associated traffic for the potential to generate adverse and incompatible noise impacts. Require mitigation for identified impacts. |
| Policy SN-8.3 | Noise Mitigation. Require the installation of sound walls, earthen berms, wall, window noise insulation, and other mitigation measures for new development in areas that may exceed the City’s noise limit standards. |
| Policy SN-8.4 | Circulation Pattern. Encourage a Citywide circulation pattern that places primary traffic loads on major arterials and preserves local neighborhood noise environments by controlling traffic speeds to the greatest extent practical. |
| Policy SN-8.5 | Compatible Land Uses. Designate land uses that are compatible with higher noise levels adjacent to major arterial roads and highways, the Interstate 10 corridor, or designated industrial lands. |
| Policy SN-8.6 | Truck Routes. Designate primary truck routes and clearly mark these routes through the City. Other than vehicles providing local service, construction traffic, and delivery trucks, through traffic shall be limited to those as detailed in the Circulation chapter. |
| Policy SN-8.8 | Interior Noise Standards. Enforce quantitative exterior and interior noise standards for various types of sensitive land uses. |

- Policy SN-8.9 Exterior Noise Standards. Allow for an exceedance of exterior noise standards for all land use types as long as adequate mitigation is provided for interior noise reduction.
- Policy SN-8.10 Noise-Generating Uses. Require specific design for noise-generating uses such as restaurants, bars, and industrial business located near sensitive uses such as residential.
- Policy SN-8.11 Noise Level Compliance. Require new development to monitor and document compliance with all applicable noise level limits in areas subject to potentially significant noise impacts.
- Policy SN-8.12 Delivery or Service Noise Generation. Limit delivery or service hours for businesses with potential noise-generating features such as trash bins, docks, loading areas that are located near sensitive uses such as residences, schools, and hospitals.
- Policy SN-8.13 Noise-Reducing Pavement. Encourage the use of noise-reducing paving materials such as rubberized asphalt for road surfacing projects near sensitive land uses.

City of Desert Hot Springs Municipal Code

The City of Desert Hot Springs Municipal Ordinances applicable to the evaluation of the proposed project in this analysis include the following:

Section 8.12.030

It is unlawful for any person to make, suffer, permit, allow, continue, or cause to be made, suffered, permitted, allowed, or continued, within the City limits or within 200 feet thereof, any noise disturbance. Per Section 8.12.020 a noise disturbance is any sound that:

- (1) Endangers the safety or health of any person;
- (2) Disturbs a reasonable person of normal sensitivities; or
- (3) Endangers personal or real property.

Section 8.12.090

It is unlawful for any person to cause, suffer, allow, or permit any of the following outside of the following hours: Monday through Friday, 7:00 AM through 6:00 PM; Saturday, 8:00 AM through 6:00 PM and Sunday, 9:00 AM through 5:00 PM.

- Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects in such a manner as to cause a noise disturbance across a residential real property boundary.
- Operating any mechanically powered saw, sander, drill, grinder, lawn or garden tool, or similar device so as to cause a noise disturbance across a residential real property boundary.

Section 9.04.030

Except as herein otherwise provided, no person shall be engaged or employed nor shall any person cause any other person to be engaged or employed in any work of construction, erection, alteration, or repair, addition to or improvement of any building, structure, road or improvement to realty between the hours of 5:00 PM of each day and 7:00 AM of the next day, except when daylight savings time is in effect. During such time as daylight savings time is in effect in the City, no such activities shall be permitted between the hours of 6:00 PM of each day and 6:00 AM of the next day. No such activities shall be permitted on Sundays.

Section 17.40.180

No loudspeaker, bells, gongs, buzzers, mechanical equipment or other sounds, attention attracting, or communication device associated with any use shall be discernible beyond any boundary line of the parcel, except fire protection devices, burglar alarms and church bells. The following provisions shall apply:

- A. In residential areas, no exterior noise level shall exceed 65dBA and no interior noise level shall exceed 45dBA.

Section 17.40.300

No vibration associated with any use shall be permitted which is discernible beyond the boundary line of the property.

Table 3
Noise and Land Use Compatibility Guidelines

Land Uses	CNEL, dB						
	50	55	60	65	70	75	80
Residential land uses: Single and multifamily dwellings	A	A	B	C	C	D	D
Residential land uses: Mobile homes	A	B	C	C	D	D	D
Transient lodging: Hotels and motels	A	A	B	B	C	C	D
Schools, libraries, churches, hospitals, nursing homes & convalescent hospitals	A	A	B	C	C	D	D
Recreation land uses: Golf courses, open space (with walking, bicycling or horseback riding trails, etc.)	A	A	A	A	B	C	C
Playgrounds, neighborhood parks	A	A	A	B	C	D	D
Office building, person business, and professional services	A	A	A	B	B	C	D
Commercial land uses: Retail trade, movie theaters, restaurants, bars, entertainment activities, services	A	A	A	A	B	B	C
Heavy commercial/industrial: wholesale, manufacturing, utilities, transportation, communications	A	A	A	A	B	B	B
Auditoriums, concert halls, amphitheaters, music shells, meeting halls	B	B	C	C	D	D	D

Explanatory Notes:

A. Normally Acceptable: With no special noise reduction requirements assuming standard construction.

B. Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.

C. Generally Unacceptable: New construction is discouraged. If new construction does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

D. Land Use Discouraged: New construction or development should generally not be undertaken.

E. The residential exterior noise standard of 65 dBA shall generally be applicable only to outdoor living areas, such as rear yard areas.

Source: City of Desert Hot Springs General Plan Safety and Noise Element, Table SN-2 (May 2020).

5. ANALYTICAL METHODOLOGY AND MODEL PARAMETERS

This section discusses the analysis methodologies used to assess noise impacts.

ROAD CONSTRUCTION NOISE MODEL

Construction noise associated with the proposed project was calculated at the sensitive receptor locations, utilizing methodology presented in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018) together with several key construction parameters including: distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site. Distances to receptors were based on the acoustical center of the project site. Construction noise levels were calculated for each phase based on assumptions provided in the Air Quality Study prepared for the project (Ganddini 2021). For construction noise purposes, the distance measured from the project site to sensitive receptors was assumed to be the acoustical center of the project site to the property line of residential properties with existing residential buildings. Construction noise worksheets are provided in Appendix D.

FEDERAL HIGHWAY ADMINISTRATION (FHWA) TRAFFIC NOISE PREDICTION MODEL

Existing and Existing Plus Project noise levels along Indian Canyon Drive and other affected nearby roadway segments were modeled utilizing the FHWA Traffic Noise Prediction Model FHWA-RD-77-108 in order to quantify the proposed project's contribution to increases in ambient noise levels.

The FHWA Traffic Noise Prediction Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the REMEL to account for: total average daily traffic volumes, roadway classification, width, speed and truck mix, and roadway grade and site conditions (hard or soft ground surface). Surfaces adjacent to all modeled roadways were assumed to have a "hard site" to predict worst-case, conservative noise levels. A hard site, such as pavement, is highly reflective and does not attenuate noise as quickly as grass or other soft sites. Possible reductions in noise levels due to intervening topography and buildings were not accounted for in this analysis.

Existing and Existing Plus Project vehicle mix were obtained from the project's traffic study (Ganddini Group 2021). Vehicle/truck mixes and D/E/N splits for use in acoustical studies published by the Riverside County Department of Industrial Hygiene were utilized for noise modeling. Existing Plus Project vehicle mixes were calculated by adding the proposed project trips to existing conditions. FHWA spreadsheets are included in Appendix E.

SOUNDPLAN NOISE MODEL

SoundPLAN acoustical modeling software was utilized to model peak hour operational noise with and without an amphitheater event, and worst-case buildout traffic noise impacts to the proposed project. SoundPLAN is capable of evaluating stationary noise sources (e.g., amplified music, crowd noise, parking movements, delivery trucks, pool/recreational activities, and air conditioning, etc.). The SoundPLAN software utilizes algorithms (based on the inverse square law) to calculate noise level projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations. SoundPLAN modeling sheets are provided in Appendix F.

The SoundPLAN model was utilized to model operational noise and future traffic noise as described below.

Project Operational Noise

Because noise associated with an amphitheater event will by far be the loudest noise source and would overshadow any of the other noise sources, two operational noise scenarios were modeled, one with an amphitheater event and one without. Other on-site operational noise sources include parking lot movements,

truck deliveries, and pool/recreational noise. All noise sources were assumed to be operating for the entire modeled period.

Amphitheater Noise

An area source was utilized to represent a loud crowd in the proposed amphitheater seating area. A noise reference level of 94 dBA L_{eq} per square meter, provided in the SoundPLAN noise library, was utilized to model the amphitheater crowd noise. The amplified music/speech associated with the event was modeled by using two-point noise sources on the proposed amphitheater stage. A sound power level of 112 dBA was utilized to model noise associated with each speaker, this is equivalent to a noise level of 77.3 at a distance of 50 feet, and 75 dBA L_{eq} at the top of the proposed amphitheater seating at the center location shown as Receptor 2 in Figure 6.

Parking Lot/Truck Delivery

Parking lots were modeled as area sources with a uniform sound power. The noise level is calculated based on the number of parking lots, the turnover per hour at day and nighttime, and the parking lot type. These parameters are calculated based on the trip generation provided in the traffic study prepared for the project (Ganddini 2019). Truck delivery paths were modeled with a sound pressure level of 71 dBA L_{eq} at a distance of 50 feet. An on-site speed of ten miles per hour. The truck noise reference level was found by using the regression equation $5.2 + 38.8 \log_{10}(\text{Speed, mph})$, where speed is 10 miles per hour, provided in the California Department of Transportation Use of California Noise Reference Energy Mean Emission Levels in STAMINA2.0 FHWA Highway Traffic Noise Prediction Program (Caltrans 1995).

Pool/Performance Stage

The entire pool area was modeled using a SoundPLAN library sound power level of 80 dBA. A sound power level of 105 dBA (70.3 dBA L_{eq} at 50 feet) was utilized to represent moderate noise associated with the performance area proposed near the hotel pool. The associated seating area was modeled with a SoundPLAN noise library sound power level of 94 dBA.

Air Conditioning/Heating Units (HVAC)

Because rooftop and HVAC plans are not yet available, the location of heating, ventilation and air conditioning (HVAC) units was estimated based on other similar facilities. For modeling purposes forty-eight (48) 50-ton Carrier HVAC units were modeled on the rooftop of the proposed hotel, each with a sound power level of 86.9 dBA.

Future Traffic Noise

SoundPLAN was utilized to model future traffic noise impacts to the proposed hotel associated with N. Indian Canyon Road. Roadway parameters utilized in the noise model include location, traffic volume, speed and vehicle mix (autos, medium trucks, and heavy trucks). It is important to evaluate potential impacts of the noisiest possible future conditions. These conditions occur when the maximum number of vehicles pass at the greatest speed. The Environmental Impact Report prepared for the 2020 General Plan Update utilized a Level of Service C (LOS C) Conditions, or about 72.5% of buildout capacity.

The City of Desert Hot Springs General Plan Mobility and Infrastructure Element identifies Indian Canyon Drive as a Primary I (118 foot right of way) roadway. Future buildout noise levels associated with this roadway were modeled using average daily traffic volume Level of Service "C" design capacities (also known as future build-out daily traffic volumes). Vehicle mix and speed as directed in the County of Riverside guidelines for determining and mitigating traffic noise impacts to residential structures published by the Riverside County Department of Industrial Hygiene.

Future buildout traffic noise levels from each of these roadways were modeled utilizing the SoundPLAN noise model. Modeling input/output sheets are presented in Appendix F.

6. IMPACT ANALYSIS

This impact discussion analyzes the potential for noise and/or groundborne vibration impacts to cause the exposure of a person to, or generation of, noise levels in excess of established City of Desert Hot Springs standards related to construction, operation, and transportation noise related impacts to, or from, the proposed project.

IMPACTS RELATED TO CONSTRUCTION NOISE

The existing commercial uses located approximately 45 feet south of the project's southern property line and the existing single-family residential dwelling units located approximately 0.39 miles (~2,060 feet) northeast of the project site may be affected by short-term noise impacts associated with construction noise. Construction noise will vary depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week) and the duration of the construction work.

The construction phases for the proposed project are anticipated to include grading, building construction, paving and architectural coating. A summary of noise level data for a variety of construction equipment compiled by the Federal Transit Administration (FTA) is presented in Table 4. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings.

As discussed previously, construction noise associated with the proposed project was calculated utilizing methodology presented in the FTA Transit Noise and Vibration Impact Assessment Manual (2018) together with several key construction parameters including: distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site. Distances to receptors were based on the acoustical center of the project site. Construction noise levels were calculated for each phase. Worksheets are included as Appendix D.

Construction noise levels are compared to existing noise levels in Table 5 of this report. LTNM1 was chosen to represent the residential property lines of properties to the northeast and STNM2 was chosen to represent noise levels at the commercial property line south of the project site. Modeled unmitigated construction noise levels when combined with existing measured noise levels could reach 57.9 dBA L_{eq} at the nearest residential property line to the northeast and up to 68.7 dBA L_{eq} at the nearest commercial property line to the south of the project site.

As discussed earlier, the City's Municipal Code Section 9.04.030 permits construction related activities between the hours of 7:00 AM to 5:00 PM, except when daylight savings time is in effect, and to the hours of 6:00 AM to 6:00 PM during daylight savings time. Construction activities are not permitted on Sundays.

As stated previously, per FTA daytime construction noise levels should not exceed 80 dBA L_{eq} for an 8-hour period at residential uses and 85 dBA L_{eq} for an 8-hour period at commercial uses. Therefore, project construction would not be anticipated to exceed the FTA thresholds for either residential or commercial uses. Further, with compliance with the City's Municipal Code, it is assumed that construction would not occur during the noise-sensitive nighttime hours.

Impacts related to construction noise will be further minimized with adherence to the above Municipal Ordinances and implementation of the measures presented in Section 8 of this report. Construction noise impacts would be less than significant. Measures listed in Section 8 of this report can be implemented to further reduce construction noise.

NOISE IMPACTS TO OFF-SITE RECEPTORS DUE TO PROJECT GENERATED TRIPS

Per the Traffic Impact Analysis prepared for the proposed project, during operation the proposed project is expected to generate approximately 4,919 average weekday daily trips and 3,588 average Saturday daily trips in the without amphitheater event scenario and approximately 7,419 average weekday daily trips and 6,088 average Saturday daily trips in the with amphitheater event scenario. A worst-case project generated traffic noise level was modeled utilizing the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108. Traffic noise levels were calculated at the right of way from the centerline of the analyzed roadway. The modeling is theoretical and does not take into account any existing barriers, structures, and/or topographical features that may further reduce noise levels. Therefore, the levels are shown for comparative purposes only to show the difference in with and without project conditions. Roadway input parameters including average daily traffic volumes (ADTs), speeds, and vehicle distribution data is shown in Table 6. The potential off-site noise impacts caused by an increase of traffic from operation of the proposed project on the nearby roadways were calculated for the following scenarios:

Existing Year (without Project): This scenario refers to existing year traffic noise conditions and is demonstrated in Table 6.

Existing Year (With Project Without Amphitheater Event): This scenario refers to existing year plus project traffic noise conditions without an amphitheater event occurring and is demonstrated in Table 6.

Existing Year (With Project With Amphitheater Event): This scenario refers to existing year plus project traffic noise conditions with an amphitheater event occurring and is demonstrated in Table 6.

As shown in Table 7, modeled Existing traffic noise levels range between 55.7-76.6 dBA CNEL; and the modeled Existing Plus Project Without Amphitheater Event traffic noise levels range between 57.8-77.6 dBA CNEL at the right-of-way of each modeled roadway segment. In addition, as shown in Table 8, modeled Existing Plus Project With Amphitheater Event traffic noise levels range between 57.8-78.1 dBA CNEL at the right-of-way of each modeled roadway segment.

As stated previously, for purposes of this project, increases in ambient noise due to project generated vehicle traffic, along affected roadways due to project generated vehicle traffic is considered substantial if they result in an increase of at least 5 dBA CNEL and: (1) the existing noise levels already exceed the applicable land use compatibility standard for the affected sensitive receptors set forth in the Noise Element of the City's General Plan; or (2) the project increases noise levels by at least 5 dBA CNEL and raises the ambient noise level from below the 65 dBA CNEL standard to above 65 dBA CNEL.

One of the analyzed roadway segments within the existing plus project with amphitheater event scenario has an increase above 5 dBA CNEL, 19th Avenue east of Indian Canyon Road. The modeled existing noise level along this roadway segment is 59.9 dBA CNEL and the modeled existing plus project with amphitheater event noise level is 66.8 dBA CNEL resulting in an increase of 6.9 dB. However, no sensitive receptors are located along this roadway segment and the existing uses along this segment include that of heavy commercial and industrial uses. As shown in Table 3, heavy commercial and industrial uses are considered normally acceptable in areas with exterior noise levels reaching up to 70 dBA CNEL. Therefore, although the noise level increase is above 5 dB, at 66.8 dBA CNEL the modeled existing plus project with amphitheater event noise level would not exceed the City's normally acceptable land use standard of 70 dBA CNEL for heavy commercial and industrial uses. Furthermore, this noise level increase would only occur during amphitheater events, which are anticipated to take place at most four times a month. Therefore, this impact is less than significant, and no mitigation is required.

All other modeled roadway segments are anticipated to change the noise a nominal amount (between approximately 0 to 3.64 dBA CNEL for the existing plus project without amphitheater event scenario and 0.06 to 3.64 dBA CNEL for the existing plus project with amphitheater event scenario. Therefore, a change in noise level would not be readily noticeable and would be considered less than significant. No mitigation is required.

TRANSPORTATION NOISE IMPACTS TO THE PROPOSED PROJECT

Per the City of Desert Hot Springs General Plan Land Use Compatibility Guidelines for Noise, noise levels of up to 65 dBA CNEL are considered “normally acceptable” and noise levels of up to 70 dBA CNEL are considered “conditionally acceptable” for hotels, while amphitheater land uses are considered “conditionally acceptable” in environments that reach up to 60 dBA CNEL. Per Table 3, new construction should only be approved in “conditionally acceptable” areas after a detailed noise analysis is conducted and any necessary noise reduction requirements are included in the project design.

As shown on Figures 10, future buildout traffic noise levels would range between 68 and 73 dBA CNEL at the western facades of floors 1-4 of the proposed hotel and; and will reach up to 65 dBA CNEL at the western side of the proposed amphitheater.

Proposed Hotel

Construction of the proposed hotel will be required to comply with California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures), which requires wall and roof-ceiling assemblies exposed to a noise source (Indian Canyon Drive) making up the building, or addition envelope or altered envelope, shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30. This codified requirement is included in Section 8 of this report as mitigation. Impacts to the proposed hotel related to compliance with State of California Title 24 Part 2 will be less than significant.

As discussed previously, the City of Desert Hot Springs has adopted Land Use Compatibility Criterion that applies to the proposed hotel and amphitheater land uses. As shown in Figure 10, west facing facades at the first story of the proposed hotel will be exposed to noise levels that fall within the Land Use and Noise Compatibility Guidelines “conditionally acceptable” category for hotel land uses. Per Table 3, new construction of a hotel use should only be approved in “conditionally acceptable” areas after a detailed noise analysis is conducted and any necessary noise reduction requirements are included in the project design. The west facing facades of the second through fourth stories of the proposed hotel fall within the Land Use and Noise Compatibility Guidelines “generally unacceptable” category for hotel land uses. Per Table 3, if new construction proceeds in “generally unacceptable” areas a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design. Compliance with California Building Code (2019), Title 24, Part 2, Chapter 5 (described above) will ensure that interior noise levels do not exceed 45 dBA CNEL. Furthermore, no outdoor use areas are located between the west facing facades of the proposed hotel and Indian Canyon Drive. No additional mitigation is required.

As stated above, the west facing facades at the first story of the proposed hotel will be exposed to noise levels that fall within the Land Use and Noise Compatibility Guidelines “conditionally acceptable” category and within the “normally unacceptable” category at the second through fourth stories. Proposed outdoor land uses, including the hotel pool area are shielded from Indian Canyon Road. As shown on Figure 10, future traffic noise levels at outdoor use areas would be approximately 35 dBA CNEL and would not exceed the “normally acceptable” Land Use Compatibility threshold of 60 dBA CNEL. This impact would be less than significant. No mitigation is required.

Proposed Amphitheater

As shown in Figure 10, future traffic noise levels associated with N. Indian Canyon Road may reach up to 65 dBA CNEL at the proposed amphitheater. Amphitheaters are considered to be a “conditionally acceptable” land use in noise environments that reach up to 60 dBA CNEL. The City has not identified a “normally acceptable” noise level for amphitheaters. They are either “conditionally acceptable” or “normally unacceptable”. The exposure of the proposed outdoor amphitheater to noise levels of up to 65 CNEL would fall into the “generally unacceptable” category. Per Table 3, if new construction proceeds, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

Considering that the proposed amphitheater is planned for live outdoor music events, mitigation to mitigate noise levels well below the noise levels of the anticipated events is not necessary. Impacts to the proposed amphitheater are considered less than significant. No mitigation is required.

NOISE IMPACTS TO OFF-SITE RECEPTORS DUE TO ON-SITE OPERATIONAL NOISE

Compliance with Applicable Standards

As discussed above, the project is surrounded by vacant and commercial land uses. The nearest sensitive receptors to the project site include the existing single-family residential dwelling units located approximately 0.39 miles (~2,060 feet) northeast of the project site. Section 17.40.180 of the City of Desert Hot Springs Municipal Ordinance establishes exterior noise level standards of 65 dBA L_{eq} or an interior noise level of 45 dBA L_{eq} , respectively, for the transmission of noise to residential land uses. The City has not established a specific noise level standard for impacts to commercial land uses.

The proposed project is to include operational noise sources such as rooftop HVAC equipment, parking lot noise, amphitheater, pool and outdoor entertainment. As shown in Figures 6 and 7 project operational noise with an on-going amphitheater event is expected to range between 53 and 65 dBA L_{eq} at adjacent commercial properties and project operational noise without an amphitheater event is expected to range between 50 and 62 dBA L_{eq} at adjacent commercial properties (Figures 8 and 9). Project operational noise levels with or without an amphitheater would dissipate to ambient noise levels by the time it reaches existing residential land uses located over 2,000 feet northeast of the project site.

Substantial Increase

The recently updated CEQA Guidelines Appendix G Threshold Checklist includes the following question about substantial increases in ambient noise levels: *Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

As discussed previously, existing ambient noise levels in the project vicinity range between 40.7 and 60.3 dBA L_{eq} . Project peak hour operations without an amphitheater event would reach up to 62 dBA L_{eq} . Project peak hour operations with an amphitheater event may result in noise levels at adjacent commercial properties that reach up to 65 dBA L_{eq} . The City has not established a numerical noise threshold to evaluate property to property impacts to commercial land uses. Project operational noise would dissipate down to ambient noise levels at the nearest residential land use which is located more than 2,000 feet northeast of the project site. Assuming peak hour could occur during any hour, the proposed project would result in increases of ambient noise levels of up to 24.3 dBA L_{eq} at adjacent commercial properties during operation with an Amphitheater event. Project operation would not result in substantial increases in ambient noise levels at the nearest sensitive receptors which are located over 2,000 feet northeast of the project site. Given that the project would not result in a violation of City standards at a sensitive receptor, increases in the ambient noise levels due to project operation would be less than significant. No mitigation is required.

GROUNDBORNE VIBRATION IMPACTS

There are several types of construction equipment that can cause vibration levels high enough to annoy persons in the vicinity and/or result in architectural or structural damage to nearby structures and improvements. For example, as shown in Table 9, a vibratory roller could generate up to 0.21 PPV at a distance of 25 feet and operation of a large bulldozer could generate up to 0.089 PPV at a distance of 25 feet (two of the most vibratory pieces of construction equipment). Groundborne vibration at sensitive receptors associated with this equipment would drop off as the equipment moves away. For example, as the vibratory roller moves further than 100 feet from the sensitive receptors, the vibration associated with it would drop below 0.0026 PPV. It should be noted that these vibration levels are reference levels and may vary slightly depending upon soil type and specific usage of each piece of equipment.

Annoyance to Persons

The primary effect of perceptible vibration is often a concern; however, secondary effects, such as the rattling of a china cabinet, can also occur, even when vibration levels are well below perception. Any effect (primary perceptible vibration, secondary effects, or a combination of the two) can lead to annoyance. The degree to which a person is annoyed depends on the activity in which they are participating at the time of the disturbance. For example, someone sleeping, or reading will be more sensitive than someone who is running on a treadmill. Reoccurring primary and secondary vibration effects often lead people to believe that the vibration is damaging their home, although vibration levels are well below minimum thresholds for damage potential.

As shown in Table 10, vibration is readily perceptible at a peak particle velocity (PPV) of 0.08 and is annoying to people at a PPV of 0.2. Equipment to be utilized for construction is considered to be continuous/intermittent equipment. At 81 feet, which is the distance to the closest existing off-site building, the commercial uses to the south of the project site, use of a vibratory roller would be expected to generate a PPV of 0.036 PPV and a bulldozer would be expected to generate a PPV of 0.015. Use of either a vibratory roller or a bulldozer would not be considered annoying to nearby sensitive receptors.

Architectural Damage

Vibration generated by construction activity generally has the potential to damage structures. This damage could be structural damage, such as cracking of floor slabs, foundations, columns, beams, or walls, or cosmetic architectural damage, such as cracked plaster, stucco, or tile.

Table 10 identifies the threshold at which there is a risk to architectural damage to normal dwellings as 0.2 PPV. As stated above groundborne vibration levels associated with project construction are not expected to exceed 0.036 PPV at the nearest structure. Project construction is not expected to result in architectural damage. No mitigation is required. Vibration worksheets are provided in Appendix G.

Table 4 (1 of 2)
CA/T Equipment Noise Emissions and Acoustical Usage Factor Database

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Spec. Lmax @ 50ft (dBA, slow)	Actual Measured Lmax @ 50ft (dBA, slow)	No. of Actual Data Samples (Count)
All Other Equipment > 5 HP	No	50	85	-N/A-	0
Auger Drill Rig	No	20	85	84	36
Backhoe	No	40	80	78	372
Bar Bender	No	20	80	-N/A-	0
Blasting	Yes	-N/A-	94	-N/A-	0
Boring Jack Power Unit	No	50	80	83	1
Chain Saw	No	20	85	84	46
Clam Shovel (dropping)	Yes	20	93	87	4
Compactor (ground)	No	20	80	83	57
Compressor (air)	No	40	80	78	18
Concrete Batch Plant	No	15	83	-N/A-	0
Concrete Mixer Truck	No	40	85	79	40
Concrete Pump Truck	No	20	82	81	30
Concrete Saw	No	20	90	90	55
Crane	No	16	85	81	405
Dozer	No	40	85	82	55
Drill Rig Truck	No	20	84	79	22
Drum Mixer	No	50	80	80	1
Dump Truck	No	40	84	76	31
Excavator	No	40	85	81	170
Flat Bed Truck	No	40	84	74	4
Forklift ^{2,3}	No	50	n/a	61	n/a
Front End Loader	No	40	80	79	96
Generator	No	50	82	81	19
Generator (<25KVA, VMS signs)	No	50	70	73	74
Gradall	No	40	85	83	70
Grader	No	40	85	-N/A-	0
Grapple (on backhoe)	No	40	85	87	1
Horizontal Boring Hydr. Jack	No	25	80	82	6
Hydra Break Ram	Yes	10	90	-N/A-	0
Impact Pile Driver	Yes	20	95	101	11
Jackhammer	Yes	20	85	89	133
Man Lift	No	20	85	75	23
Mounted Impact hammer (hoe ram)	Yes	20	90	90	212
Pavement Scarafier	No	20	85	90	2
Paver	No	50	85	77	9
Pickup Truck	No	50	85	77	9
Paving Equipment	No	50	85	77	9
Pneumatic Tools	No	50	85	85	90

Table 4 (2 of 2)
CA/T Equipment Noise Emissions and Acoustical Usage Factor Database

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Spec. Lmax @ 50ft (dBA, slow)	Actual Measured Lmax @ 50ft (dBA, slow)	No. of Actual Data Samples (Count)
Pumps	No	50	77	81	17
Refrigerator Unit	No	100	82	73	3
Rivit Buster/chipping gun	Yes	20	85	79	19
Rock Drill	No	20	85	81	3
Roller	No	20	85	80	16
Sand Blasting (Single Nozzle)	No	20	85	96	9
Scraper	No	40	85	84	12
Shears (on backhoe)	No	40	85	96	5
Slurry Plant	No	100	78	78	1
Slurry Trenching Machine	No	50	82	80	75
Soil Mix Drill Rig	No	50	80	-N/A-	0
Tractor	No	40	84	-N/A-	0
Vacuum Excavator (Vac-truck)	No	40	85	85	149
Vacuum Street Sweeper	No	10	80	82	19
Ventilation Fan	No	100	85	79	13
Vibrating Hopper	No	50	85	87	1
Vibratory Concrete Mixer	No	20	80	80	1
Vibratory Pile Driver	No	20	95	101	44
Warning Horn	No	5	85	83	12
Welder/Torch	No	40	73	74	5

Notes:

- (1) Source: FHWA Roadway Construction Noise Model User's Guide January 2006.
- (2) Warehouse & Forklift Noise Exposure - NoiseTesting.info Carl Stautins, November 4, 2014.
<http://www.noisetesting.info/blog/carl-strautins/page-3/>
- (3) Data provided Leq as measured at the operator. Sound Level at 50 feet is calculated using Inverse Square Law.

Table 5
Construction Noise Levels (L_{eq})

Receptor Location	Phase	Existing Ambient Noise Levels ¹	Unmitigated Noise Levels	Combined Noise Levels	Increase (dB)
South	Grading	56.2	68.4	68.7	12.5
Northeast		52	55.2	56.9	4.9
South	Building Construction	56.2	66.9	67.3	11.1
Northeast		52	53.7	55.9	3.9
South	Paving	56.2	62.2	63.2	7.0
Northeast		52	49.0	53.8	1.8
South	Architectural Coating	56.2	52.9	57.9	1.7
Northeast		52	39.7	52.2	0.2

Notes:

(1) See Tables 1 and 2 for measured ambient noise. STNM2 used for commercial uses to south and LTNM1 used for residential to northeast.

(2) Construction noise worksheets are provided in Appendix D.

Table 6
Project Average Daily Traffic Volumes and Roadway Parameters

Roadway	Segment	Average Daily Traffic Volume ¹			Posted Travel Speeds (MPH)	Site Conditions
		Existing	Existing Plus Project Without Amphitheater Event	Existing Plus Project With Amphitheater Event		
Pierson Blvd	East of Indian Canyon Dr	5,300	5,500	5,600	50	Hard
Dillon Road	West of Indian Canyon Dr	2,600	2,900	2,900	55	Hard
	Indian Canyon Drive to Little Morongo Rd	10,300	10,700	10,800	55	Hard
	East of Little Morongo Rd	10300	10,700	10,800	55	Hard
18th Ave ²	East of Indian Canyon Dr	457	1,057	1,057	35	Hard
19th Avenue ²	East of Indian Canyon Dr	1,201	1,201	6,001	35	Hard
20th Ave	East of Indian Canyon Dr	6,200	8,500	10,700	55	Hard
Garnet Ave	West of Indian Canyon Dr	5,300	8,800	11,000	50	Hard
Tramview Road	West of Indian Canyon Dr	1,300	1,400	1,400	25	Hard
San Rafael Dr	East of Indian Canyon Dr	6,000	6,100	6,200	50	Hard
Racquet Club Dr	East of Indian Canyon Dr	7,100	7,200	7,300	45	Hard
Indian Canyon Dr	North of Pierson Blvd	6,900	7,000	7,000	55	Hard
	Pierson Blvd to Dillon Road	9,000	9,300	9,400	55	Hard
	Dillon Road to 18th Ave	14500	15,500	15,700	55	Hard
	18th Ave to North Project Dwy	14500	15,200	15,400	55	Hard
	North Project Drway to 19th Ave	14300	21800	21800	55	Hard
	19th Ave to 20th Ave	14300	21800	26600	55	Hard
	20th Ave to Garnet Ave	18700	23900	26400	55	Hard
	Garnet Ave to Tramview Road	16100	16700	16900	55	Hard
	Tramview Road to San Rafael Dr	16600	17100	17300	45	Hard
	San Rafael Dr to Racquet Club Dr	16600	16900	17100	45	Hard
	South of Racquet Club Dr	13000	13200	13300	45	Hard

Vehicle Distribution (Light Mix) ³			
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)
Automobiles	75.56	13.96	10.49
Medium Trucks	48.91	2.17	48.91
Heavy Trucks	47.30	5.41	47.30

Vehicle Distribution (Heavy Mix) ³			
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)
Automobiles	75.54	14.02	10.43
Medium Trucks	48.00	2.00	50.00
Heavy Trucks	48.00	2.00	50.00

Notes:

(1) Existing and project average daily traffic volumes obtained from the Coachillin' Industrial Park Traffic Impact Analysis prepared by Ganddini Group, Inc. (October 2021).

(2) As these roadway segments had very little existing traffic, the existing average daily trips for these segments were calibrated by using the measured ambient noise levels.

(3) Existing vehicle percentages are based on the Riverside County Industrial Hygiene Letter for Traffic Noise.

Table 7
Change in Existing Noise Levels Along Roadways as a Result of Project Without Amphitheater Event (dBA CNEL)

Roadway	Segment	Distance from roadway centerline to right-of-way (feet) ²	Modeled Noise Levels (dBA CNEL) ¹				
			Existing Without Project at right-of-way	Existing Plus Project Without Amphitheater Event at right-of-way	Change in Noise Level	Exceeds Standards ³	Increase of 5 dB or More
Pierson Blvd	East of Indian Canyon Dr	55	70.43	70.59	0.16	Yes	No
Dillon Road	West of Indian Canyon Dr	50	68.41	68.89	0.48	Yes	No
	Indian Canyon Drive to Little Morongo Rd	50	74.39	74.56	0.17	Yes	No
	East of Little Morongo Rd	50	71.35	71.51	0.16	Yes	No
18th Ave ²	East of Indian Canyon Dr	30	55.71	59.35	3.64	No	No
19th Avenue	East of Indian Canyon Dr	30	59.91	59.91	0.00	No	No
20th Ave	East of Indian Canyon Dr	36	70.57	71.94	1.37	Yes	No
Garnet Ave	West of Indian Canyon Dr	44	68.05	70.25	2.20	Yes	No
Tramview Road	West of Indian Canyon Dr	30	57.46	57.78	0.32	No	No
San Rafael Dr	East of Indian Canyon Dr	44	68.59	68.66	0.07	Yes	No
Racquet Club Dr	East of Indian Canyon Dr	44	71.98	72.04	0.06	Yes	No
Indian Canyon Dr	North of Pierson Blvd	40	73.62	73.68	0.06	Yes	No
	Pierson Blvd to Dillon Road	55	73.39	73.53	0.14	Yes	No
	Dillon Road to 18th Ave	55	75.46	75.75	0.29	Yes	No
	18th Ave to North Project Dwy	55	75.46	75.67	0.21	Yes	No
	North Project Drway to 19th Ave	55	75.40	77.23	1.83	Yes	No
	19th Ave to 20th Ave	55	75.40	77.23	1.83	Yes	No
	20th Ave to Garnet Ave	55	76.57	77.63	1.06	Yes	No
	Garnet Ave to Tramview Road	55	75.92	76.07	0.15	Yes	No
	Tramview Road to San Rafael Dr	55	74.69	74.82	0.13	Yes	No
	San Rafael Dr to Racquet Club Dr	55	74.69	74.77	0.08	Yes	No
	South of Racquet Club Dr	55	73.63	73.70	0.07	Yes	No

Notes:

- (1) Exterior noise levels calculated 5 feet above pad elevation, perpendicular to subject roadway.
- (2) Right of way per the City of Desert Hot Springs General Plan Mobility and Infrastructure Element (2020) or the City of Palm Springs 2007 General Plan Circulation Element.
- (3) Per the City of Desert Hot Springs normally acceptable standard for single-family detached residential dwelling units (see Table 3).

Table 8
Change in Existing Noise Levels Along Roadways as a Result of Project With Amphitheater Event (dBA CNEL)

Roadway	Segment	Distance from roadway centerline to right-of-way (feet) ²	Modeled Noise Levels (dBA CNEL) ¹				
			Existing Without Project at right-of-way	Existing Plus Project With Amphitheater Event at right-of-way	Change in Noise Level	Exceeds Standards ³	Increase of 5 dB or More
Pierson Blvd	East of Indian Canyon Dr	55	70.43	70.67	0.24	Yes	No
Dillon Road	West of Indian Canyon Dr	50	68.41	68.89	0.48	Yes	No
	Indian Canyon Drive to Little Morongo Rd	50	74.39	74.60	0.21	Yes	No
	East of Little Morongo Rd	50	71.35	71.55	0.20	Yes	No
18th Ave ²	East of Indian Canyon Dr	30	55.71	59.35	3.64	No	No
19th Avenue	East of Indian Canyon Dr	30	59.91	66.89	6.98	Yes	Yes
20th Ave	East of Indian Canyon Dr	36	70.57	72.94	2.37	Yes	No
Garnet Ave	West of Indian Canyon Dr	44	68.05	71.22	3.17	Yes	No
Tramview Road	West of Indian Canyon Dr	30	57.46	57.78	0.32	No	No
San Rafael Dr	East of Indian Canyon Dr	44	68.59	68.73	0.14	Yes	No
Racquet Club Dr	East of Indian Canyon Dr	44	71.98	72.10	0.12	Yes	No
Indian Canyon Dr	North of Pierson Blvd	40	73.62	73.68	0.06	Yes	No
	Pierson Blvd to Dillon Road	55	73.39	73.58	0.19	Yes	No
	Dillon Road to 18th Ave	55	75.46	75.81	0.35	Yes	No
	18th Ave to North Project Dwy	55	75.46	75.72	0.26	Yes	No
	North Project Drway to 19th Ave	55	75.40	77.23	1.83	Yes	No
	19th Ave to 20th Ave	55	75.40	78.10	2.70	Yes	No
	20th Ave to Garnet Ave	55	76.57	78.06	1.49	Yes	No
	Garnet Ave to Tramview Road	55	75.92	76.13	0.21	Yes	No
	Tramview Road to San Rafael Dr	55	74.69	74.87	0.18	Yes	No
	San Rafael Dr to Racquet Club Dr	55	74.69	74.82	0.13	Yes	No
	South of Racquet Club Dr	55	73.63	73.73	0.10	Yes	No

Notes:

- (1) Exterior noise levels calculated 5 feet above pad elevation, perpendicular to subject roadway.
- (2) Right of way per the City of Desert Hot Springs General Plan Mobility and Infrastructure Element (2020) or the City of Palm Springs 2007 General Plan Circulation Element.
- (3) Per the City of Desert Hot Springs normally acceptable standard for single-family detached residential dwelling units (see Table 3).

Table 9
Construction Equipment Vibration Source Levels

Equipment		PPV at 25 ft, in/sec	Approximate Lv* at 25 ft
Pile Driver (impact)	upper range	1.518	112
	typical	0.644	104
Pile Driver (sonic)	upper range	0.734	105
	typical	0.170	93
Clam Shovel Drop (slurry wall)		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Loaded Trucks		0.076	86
Jackhammer		0.035	79
Small Bulldozer		0.003	58

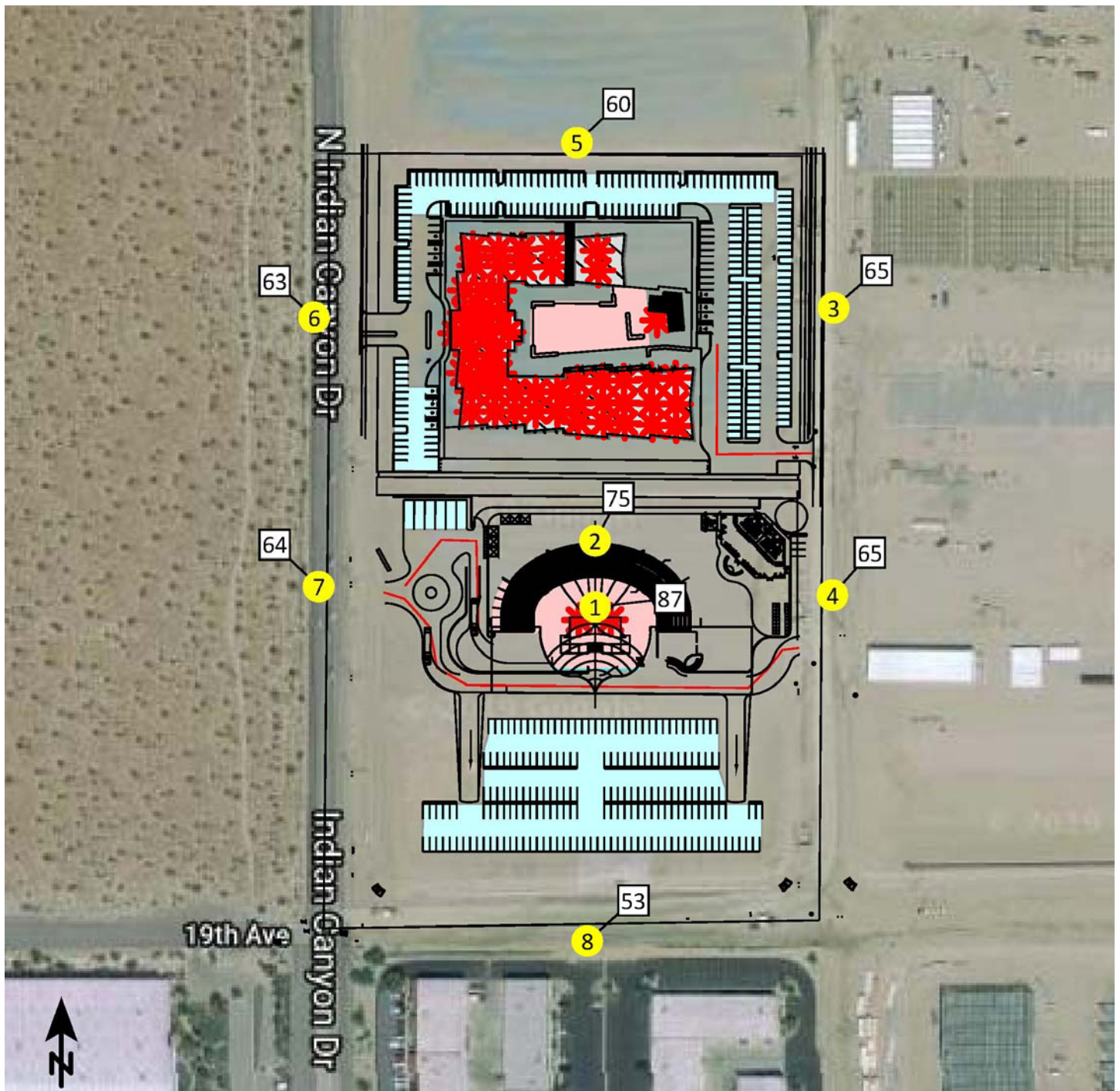
Source: Federal Transit Administration: Transit Noise and Vibration Impact Assessment Manual, 2018.

*RMS velocity in decibels, VdB re 1 micro-in/sec

Table 10
Typical Human Reaction and Effect on Buildings Due to Groundborne Vibration

Vibration Level Peak Particle Velocity (PPV)	Human Reaction	Effect on Buildings
0.006–0.019 in/sec	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08 in/sec	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10 in/sec	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings
0.20 in/sec	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6 in/sec	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: California Department of Transportation. Transportation and Construction Vibration Guidance Manual, Chapter 6 Tables 5 and 12, September 2013.



Signs and symbols

- Solar Shade
- Receiver
- ★ Point source (Speakers, HVAC)
- Slow Moving Trucks
- Area source (Event Areas, Crowds, Seating)
- Parking lot

Figure 6
Coachillin' Peak Hour With Amphitheater Event
Operational Noise Levels (Leq)



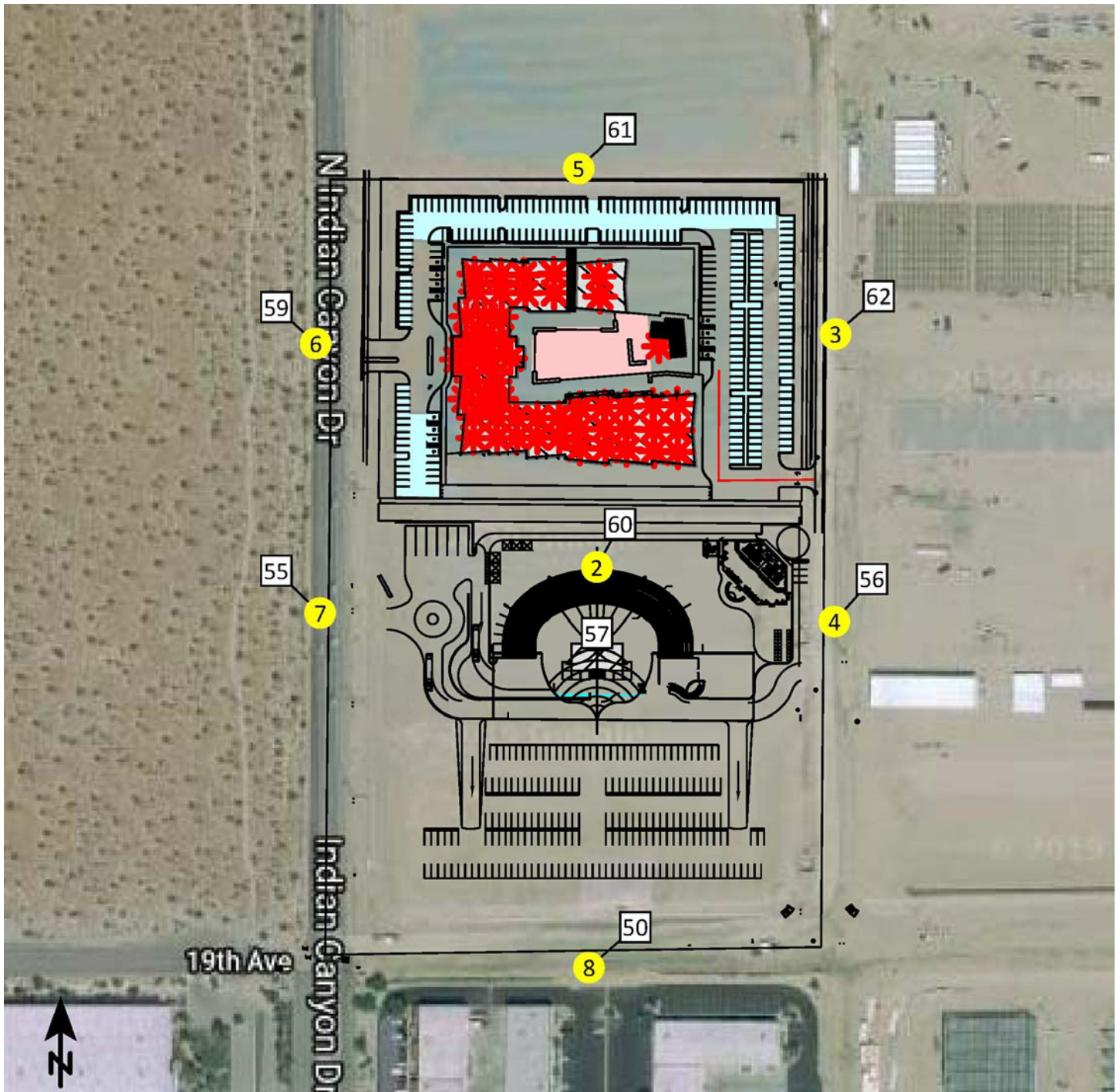
Signs and symbols

- Solar Shade
- ★ Point source (Speakers, HVAC)
- Slow Moving Trucks
- Area source (Event Areas, Crowds, Seating)
- Parking lot

Levels in dB(A)

	<= 60
	60 - 62
	62 - 64
	64 - 66
	66 - 68
	68 - 70
	> 70

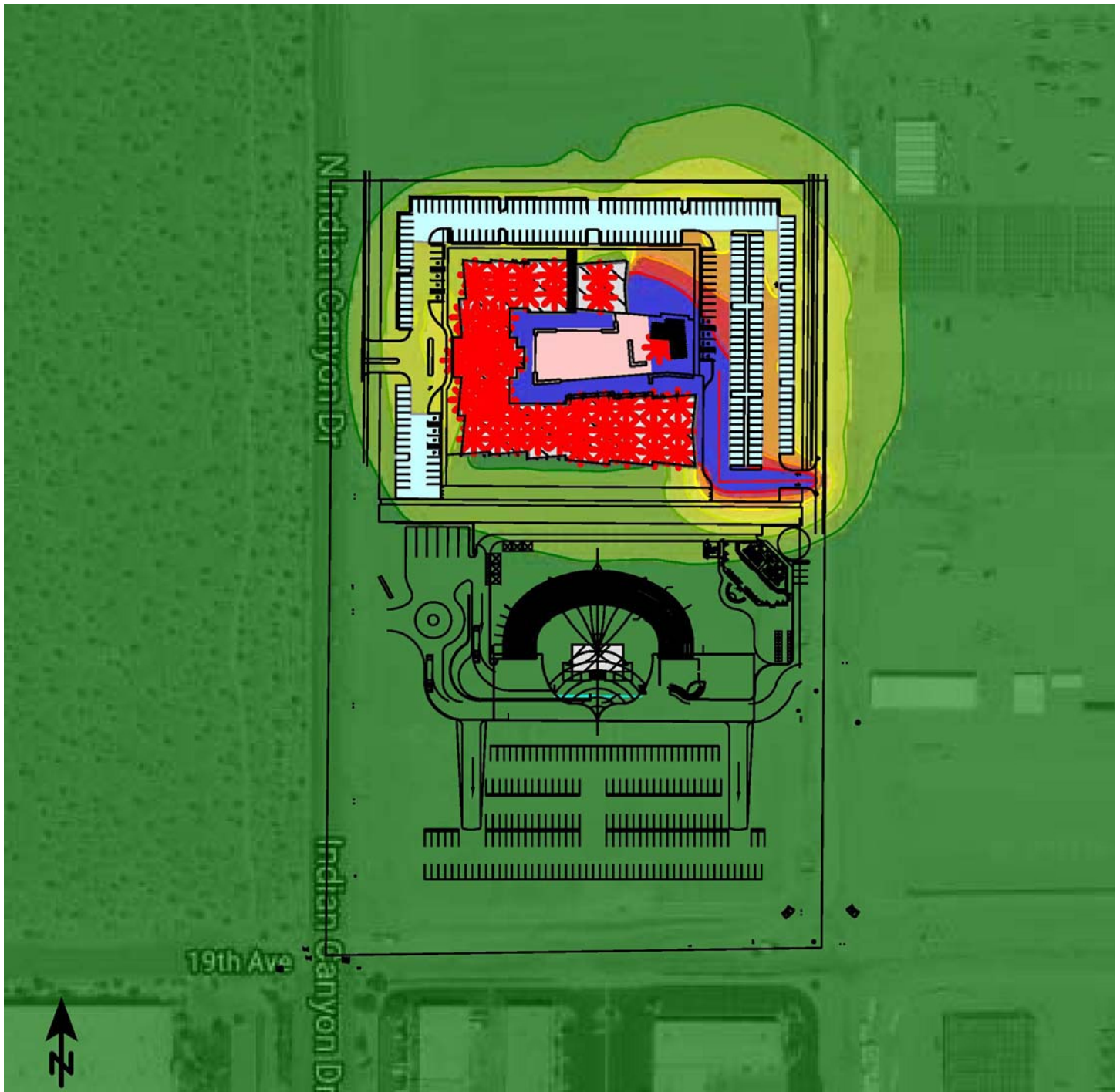
Figure 7
Coachillin' Peak Hour With Amphitheater Event
Operational Noise Level Contours (Leq)



Signs and symbols

- Solar Shield
- Receiver
- ✱ Point source (Speakers, Event Areas)
- Slow moving Trucks
- Area source (Event Areas, Crowds, Seating)
- Parking lot

Figure 8
Coachillin' Peak Hour No Amphitheater Event
Operational Noise Levels (Leq)



Signs and symbols

-  Solar Shield
-  Point source (Speakers, Event Areas)
-  Slow moving Trucks
-  Area source (Event Areas, Crowds, Seating)
-  Parking lot

Levels in dB(A)








	<= 60
	60 - 62
	62 - 64
	64 - 66
	66 - 68
	68 - 70
	> 70

Figure 9
Coachillin' Peak Hour No Amphitheater Event
Operational Noise Level Contours (Leq)

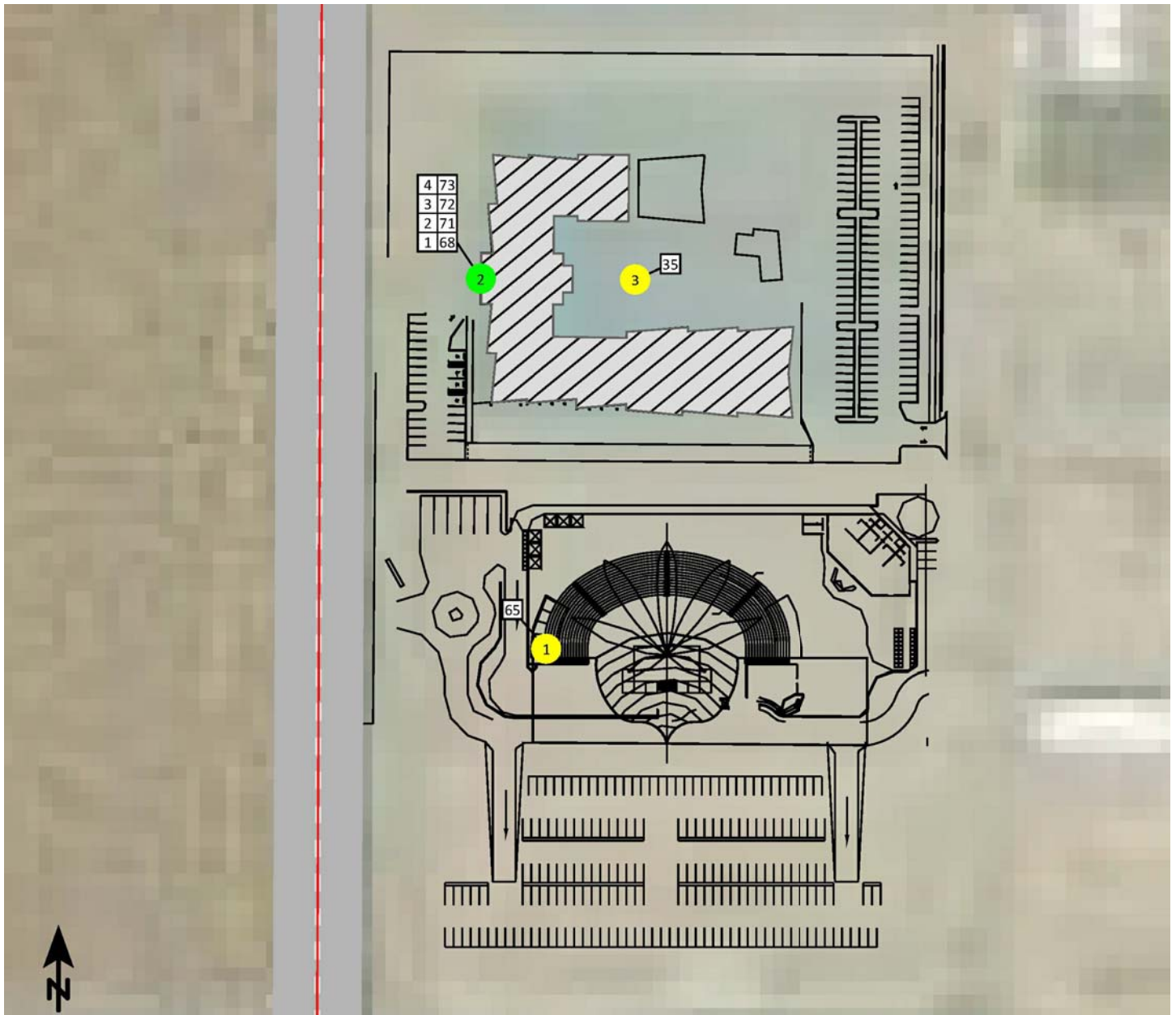


Figure 10
Future Traffic Noise Levels on the Project Site

7. COMPARISON OF PROJECT IMPACTS TO PREVIOUSLY APPROVED PROJECT IMPACTS

The area that comprises the proposed project was previously analyzed as part of the Coachillín' Industrial Park in a Noise Study for said project dated October 10, 2017. The previously proposed land use on the affected parcels (Parcels 30 and 31) was cannabis cultivation grow canopies. The previous noise impact analyses evaluated potential impacts associated with construction noise and vibration, noise associated with off-site project generated vehicle noise, noise associated with on-site activities, and future traffic noise impacts to the proposed project.

The proposed project's impacts have been compared below to the previously approved project's impacts; however, it should be noted that the previously approved project analyzed the entire approximately 2,800,000 square foot building envelope. The proposed project being analyzed and discussed within this report is the modification of only Parcels 30 and 31 to include a 175-room hotel and a 5,000-seat amphitheater rather than the previously approved cultivation use on these parcels.

CONSTRUCTION NOISE IMPACTS

Previously Approved Project Impacts

Worst-case construction noise levels associated with the previously approved project were modeled utilizing the Road Construction Noise Model (RCNM) provided by the FHWA. All equipment was modeled operating simultaneously at staggered distance between 145 and 395 feet from the nearest sensitive receptor (a single-family detached residential dwelling unit located approximately 145 feet to the north of the entire Coachillín' project site). Worst-case construction noise levels may reach up to 74 dBA L_{eq} and 74.4 dBA L_{max} at the nearest sensitive receptor. With compliance with the City's Municipal Ordinance 9.04.030, which limits construction to daytime hours, and implementation of the mitigation measure listed below, the previously approved project was found to have less than significant impacts.

In addition to adherence to the City of Desert Hot Springs Municipal Code limiting construction hours of operation, the following measures were recommended to minimize noise and vibration related impacts during demolition and construction activities.

1. During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.
2. The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
3. The project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction.
4. The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment.

Proposed Project Impacts

Construction noise associated with the proposed project was calculated utilizing methodology presented in the FTA Transit Noise and Vibration Impact Assessment Manual (2018) together with several key construction

parameters including: distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site. Distances to receptors were based on the acoustical center of the project site. Construction noise levels were calculated for each phase.

Modeled unmitigated construction noise levels when combined with existing measured noise levels could reach up to 57.9 dBA L_{eq} at the nearest residential property line to the northeast and up to 68.7 dBA L_{eq} at the nearest commercial property line to the south of the project site (Parcels 30 and 31 only).

The proposed project is required to comply with the City's Municipal Code Section 9.04.030 which permits construction related activities between the hours of 7:00 AM to 5:00 PM, except when daylight savings time is in effect, and to the hours of 6:00 AM to 6:00 PM during daylight savings time. Construction activities are not permitted on Sundays. Furthermore, per FTA daytime construction noise levels should not exceed 80 dBA L_{eq} for an 8-hour period at residential uses and 85 dBA L_{eq} for an 8-hour period at commercial uses. Impacts related to construction noise would be less than significant and will be further minimized with adherence to the above Municipal Ordinances and implementation of the measures presented below.

In addition to adherence to the City of Desert Hot Springs Code, which limits the construction hours of operation, the following best management practices are recommended to reduce construction noise and vibrations, emanating from the proposed project:

1. During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.
2. The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
3. The project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction.
4. The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment.

Comparison of Construction Impacts

Regarding construction noise, the proposed project would not change the previously approved significance level as the construction activities associated with the proposed project as well as the previously approved project both resulted in less than significant impacts. Both are to adhere to the City of Desert Hot Springs Municipal Code and include the same recommended measures to further reduce construction noise. See Table 11 for a further comparison of impact designations.

PROJECT GENERATED VEHICLE NOISE IMPACTS TO SENSITIVE RECEPTORS

Previously Approved Project Impacts

The previously approved project was to generate a total of 3,456 average daily vehicle trips (ADT). Existing and Existing Plus Project noise levels were modeled for each affected roadway segment using the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108.

The analysis found that the previously approved project would result in an increase of approximately 0.02 to 3.03 dBA CNEL for the Existing Plus Project scenario and approximately 0.02 to 0.65 dBA CNEL for the

Cumulative scenario. Therefore, the roadway segment of 18th Avenue east of North Indian Canyon Drive under the Existing Plus Project Scenario had over a 3 dB noise level increase; however, the modeled noise level for this segment did not exceed the acceptable noise/land use compatibility criteria for residential land uses. Therefore, impacts were considered less than significant and no mitigation was required.

Proposed Project Impacts

The proposed project is expected to generate approximately 4,919 average weekday daily trips and 3,588 average Saturday daily trips in the without amphitheater event scenario and approximately 7,419 average weekday daily trips and 6,088 average Saturday daily trips in the with amphitheater event scenario.² A worst-case project generated traffic noise level was modeled utilizing the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108. Traffic noise levels were calculated at the right of way from the centerline of the analyzed roadway.

For purposes of this project, increases in ambient noise due to project generated vehicle traffic, along affected roadways due to project generated vehicle traffic is considered substantial if they result in an increase of at least 5 dBA CNEL and: (1) the existing noise levels already exceed the applicable land use compatibility standard for the affected sensitive receptors set forth in the Noise Element of the City's General Plan; or (2) the project increases noise levels by at least 5 dBA CNEL and raises the ambient noise level from below the 65 dBA CNEL standard to above 65 dBA CNEL.

Modeled roadway segments are anticipated to change the noise between approximately 0 to 3.64 dBA CNEL for the existing plus project without amphitheater event scenario and 0.06 to 6.9 dBA CNEL for the existing plus project with amphitheater event scenario. Therefore, one of the analyzed roadway segments within the existing plus project with amphitheater event scenario has an increase above 5 dBA CNEL, 19th Avenue east of Indian Canyon Road. However, no sensitive receptors are located along this roadway segment and the modeled existing plus project with amphitheater event scenario noise level is considered normally acceptable for the existing uses. Furthermore, this noise level increase would only occur during amphitheater events, which are anticipated to take place at most only four times a month. Therefore, this impact is less than significant, and no mitigation is required.

Comparison of Project Generated Vehicle Noise Impacts

As stated above, the previously approved noise level increases ranged between 0.02 dB to 3.03 dB; therefore, as the proposed project noise level increase ranged between 0 to 6.9 dB the noise level increases on affected roadways did increase as a result of the proposed project. However, due to the existing uses along the most affected roadway segments being that of commercial and industrial uses, the significance levels did not change. Both the previously approved project and the proposed project resulted in less than significant noise level increases with no mitigation. See Table 11 for a further comparison of impact designations.

TRAFFIC NOISE IMPACTS TO THE PROPOSED PROJECT

Previously Approved Project Impacts

The City of Desert Hot Springs land use compatibility guidelines (based on the City's 2000 General Noise Element, which was the current General Plan at the time of the 2017 analysis), showed that the proposed cannabis related industrial uses would be "normally acceptable" in areas with noise levels of up to 75 dBA CNEL.

² It should be noted that the average daily vehicle trips for the proposed project includes both the vehicle trips associated with the revised uses for Parcels 30 and 31 (hotel and amphitheater) as well as the vehicle trips associated with the cultivation uses on the remaining parcels. Therefore, both the previously approved analysis and the proposed project analysis for project generated vehicle noise impacts to sensitive receptors take into account the entire Coachillin Specific Plan Area.

Acoustically significant roadways located adjacent to the project site included that of North Indian Canyon Drive. Buildout vehicle noise associated with North Indian Canyon Drive was modeled using the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108. Buildout worst-case traffic noise levels were expected to reach up to 75 dBA CNEL at the closest proposed building to North Indian Canyon Drive, approximately 105 feet east of the roadway. Agricultural land uses did not have assigned land use/noise compatibility thresholds and heavy commercial/industrial land uses were conditionally allowed in areas where the exterior noise level reached up to 75 dBA CNEL as long as new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Therefore, the proposed project was found to be consistent with City noise/land use compatibility criteria and no mitigation was required.

Proposed Project Impacts

Per the City of Desert Hot Springs General Plan Land Use Compatibility Guidelines for Noise, noise levels of up to 65 dBA CNEL are considered “normally acceptable” and noise levels of up to 70 dBA CNEL are considered “conditionally acceptable” for hotels, while amphitheater land uses are considered “conditionally acceptable” in environments that reach up to 60 dBA CNEL.

Future buildout traffic noise levels would range between 68 and 73 dBA CNEL at the western facades of floors 1-4 of the proposed hotel and; and will reach up to 65 dBA CNEL at the western side of the proposed amphitheater.

Construction of the proposed hotel will be required to comply with California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures). To ensure compliance with California Building Code (2019) the mitigation measures below have been provided. Compliance with California Building Code (2019), Title 24, Part 2, Chapter 5 will ensure that interior noise levels do not exceed 45 dBA CNEL. Furthermore, future traffic noise levels at the outdoor use areas of the proposed hotel would be approximately 35 dBA CNEL and would not exceed the “normally acceptable” Land Use Compatibility threshold of 60 dBA CNEL. Impacts to the proposed hotel would be less than significant with mitigation.

The exposure of the proposed outdoor amphitheater to noise levels of up to 65 CNEL would fall into the “generally unacceptable” category. Considering that the proposed amphitheater is planned for live outdoor music events, mitigation to mitigate noise levels well below the noise levels of the anticipated events is deemed unnecessary. Impacts to the proposed amphitheater are considered less than significant. No mitigation is required.

Operational Noise Reduction Measures:

1. Prior to construction, the project proponent shall provide evidence that all proposed buildings that may be occupied, excepting factories, stadiums, storage, enclosed parking structures and utility buildings, shall be constructed utilizing wall and roof-ceiling assemblies exposed to Indian Canyon Drive, shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 for all buildings that will house occupants that may be affected by the traffic noise, as required by California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures).

Comparison of Future Traffic Noise Impacts

Regarding future traffic noise impacts to the proposed project, the proposed project includes mitigation in order to ensure required compliance with comply with California Building Code (2019) and that the proposed hotel noise levels do not exceed standards. However, with incorporation of mitigation, like the previously

approved project, the proposed project would ultimately also result in less than significant impacts. See Table 11 for a further comparison of impact designations.

OPERATIONAL NOISE IMPACTS

Previously Approved Project Impacts

The operational activities associated with the previously approved project included parking lot noise, air conditioning units, delivery trucks, and loading and unloading activities. As stated in the 2017 Coachillin' Industrial Park Noise Impact Analysis, at the time of the analysis the exact location of the parking lots and roof-top mounted heating, ventilation, and air conditioning (HVAC) units and the number of truck deliveries per day were not yet known; therefore, only a discussion of potential operational impacts was provided. The proposed project was anticipated to operate between 7:00 AM to 7:00 PM with all deliveries occurring within these hours. The project was to include screen walls around truck loading areas and parapet walls around roof-top mechanical equipment which were anticipated to reduce noise levels. Furthermore, as shown in Table 8 of the 2017 Coachillin' Industrial Park Noise Impact Analysis, parking lot noise levels were assumed to range between 36 to 72 dBA at 50 feet.

The project was required to comply with all City Ordinances including Section 8.12.30 which prohibits noise disturbances within the City and Sections 8.12.090 and 8.12.100 which state that it is unlawful to conduct loading/unloading, handling of boxes, garbage cans, or operate lawn or garden tools or other similar activities that produces a noise disturbance across a residential real property line outside of the hours of Monday through Friday, 7:00 AM to 6:00 PM; Saturday, 8:00 AM to 6:00 PM; and Sunday, 9:00 AM to 5:00 PM.

With compliance with applicable City ordinances the operational activities of the previously approved uses were found to have less than significant impacts and no mitigation was required.

Proposed Project Impacts

As discussed in the Section 6 above, Section 17.40.180 of the City of Desert Hot Springs Municipal Ordinance establishes exterior noise level standards of 65 dBA L_{eq} or an interior noise level of 45 dBA L_{eq} , respectively, for the transmission of noise to residential land uses. The City has not established a specific noise level standard for impacts to commercial land uses.

The proposed project is to include operational noise sources such as rooftop HVAC equipment, parking lot noise, amphitheater, pool and outdoor entertainment. As shown in Figures 6 and 7 project operational noise with an on-going amphitheater event is expected to range between 53 and 65 dBA L_{eq} at adjacent commercial properties and project operational noise without an amphitheater event is expected to range between 50 and 62 dBA L_{eq} at adjacent commercial properties (Figures 8 and 9). Project operational noise levels with or without an amphitheater would dissipate to ambient noise levels by the time it reaches existing residential land uses located over 2,000 feet northeast of the project site (Parcels 30 and 31). Project operation would not result in substantial increases in ambient noise levels at the nearest sensitive receptors which are located over 2,000 feet northeast of the boundaries of the proposed project (Parcels 30 and 31). Given that the project would not result in a violation of City standards at a sensitive receptor, increases in the ambient noise levels due to project operation would be less than significant. No mitigation is required.

Comparison of Operational Noise Impacts

As shown in Figures 6 and 7 project operational noise with an on-going amphitheater event is expected to range between 53 and 65 dBA L_{eq} and project operational noise without an amphitheater event is expected to range between 50 and 62 dBA L_{eq} at adjacent commercial properties (Figures 8 and 9). Project operational noise levels with or without an amphitheater would dissipate to ambient noise levels by the time it reaches existing residential land uses located over 2,000 feet northeast of the project site (Parcels 30 and 31). As shown in Table 8 of the 2017 Coachillin' Industrial Park Noise Impact Analysis, parking lot noise levels were

assumed to range between 36 to 72 dBA at 50 feet (at adjacent commercial properties) and would not be audible at the nearest residential land uses.

The proposed project would not change the previously approved significance level as the operational activities associated with the proposed project as well as the previously approved project both resulted in less than significant impacts with no mitigation. See Table 12 for a further comparison of impact designations.

Table 11
Impact Summary - Comparison of Operational Noise Levels,
Proposed Project and Previously-Approved Cultivation Uses for Parcels 30 and 31

Project	Noise Level at Adjacent Commercial Properties	Noise Level at Nearest Residential Properties
Previously Approved	36-72	not discernable over ambient
Proposed Project Without Ampitheater	50-62	not discernable over ambient
Proposed Project With Ampitheater	53-65	not discernable over ambient

Table 12
Impact Summary - Proposed Project and Previously-Approved Cultivation Uses for Parcels 30 and 31

Descriptor	Potential Significant Impact?	
	Previously-Approved Cultivation Use	Proposed Project
Construction Impacts	No (with incorporation of mitigation ¹)	No
Noise Impacts to Off-Site Receptors Due to Project Generated Trips	No	No
Transportation Noise Impacts to the Proposed Project	No	No (with incorporation of mitigation ¹)
Noise Impacts to Off-Site Receptors Due to On-Site Operational Noise	No	No
Construction Vibration Impacts	No	No

Notes:

(1) Please see Section 8 of this report for details on project mitigation measures.

8. BEST MANAGEMENT PRACTICES/COMPLIANCE WITH APPLICABLE LAWS

BEST MANAGEMENT PRACTICES

In addition to adherence to the City of Desert Hot Springs Code, which limits the construction hours of operation, the following measures are recommended to reduce construction noise and vibrations, emanating from the proposed project:

1. During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.
2. The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
3. The project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction.
4. The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment.

COMPLIANCE WITH STATE OF CALIFORNIA CODE

1. Prior to construction, the project proponent shall provide evidence that all proposed buildings that may be occupied, excepting factories, stadiums, storage, enclosed parking structures and utility buildings, shall be constructed utilizing wall and roof-ceiling assemblies exposed to Indian Canyon Drive, shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 for all buildings that will house occupants that may be affected by the traffic noise, as required by California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures).

9. REFERENCES

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APPENDICES

Appendix A List of Acronyms
Appendix B Definitions of Acoustical Terms
Appendix C Noise Measurement Field Worksheet
Appendix D Construction Noise Modeling Worksheets
Appendix E Project Generated Trips FHWA Worksheets
Appendix F SoundPLAN Worksheets
Appendix G Vibration Worksheets

APPENDIX A

LIST OF ACRONYMS

Term	Definition
ADT	Average Daily Traffic
ANSI	American National Standard Institute
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
D/E/N	Day / Evening / Night
dB	Decibel
dB(A) or dB(A)	Decibel "A-Weighted"
dB(A)/DD	Decibel per Double Distance
dB(A) Leq	Average Noise Level over a Period of Time
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
L ₀₂ , L ₀₈ , L ₅₀ , L ₉₀	A-weighted Noise Levels at 2 percent, 8 percent, 50 percent, and 90 percent, respectively, of the time period
DNL	Day-Night Average Noise Level
Leq(x)	Equivalent Noise Level for "x" period of time
Leq	Equivalent Noise Level
L _{max}	Maximum Level of Noise (measured using a sound level meter)
L _{min}	Minimum Level of Noise (measured using a sound level meter)
LOS C	Level of Service C
OPR	California Governor's Office of Planning and Research
PPV	Peak Particle Velocities
RCNM	Road Construction Noise Model
REMEL	Reference Energy Mean Emission Level
RMS	Root Mean Square

APPENDIX B

DEFINITIONS OF ACOUSTICAL TERMS

Term	Definition
Ambient Noise Level	The all-encompassing noise environment associated with a given environment, at a specified time, usually a composite of sound from many sources, at many directions, near and far, in which usually no particular sound is dominant.
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear.
CNEL	Community Noise Equivalent Level. CNEL is a weighted 24-hour noise level that is obtained by adding five decibels to sound levels in the evening (7:00 PM to 10:00 PM), and by adding ten decibels to sound levels at night (10:00 PM to 7:00 AM). This weighting accounts for the increased human sensitivity to noise during the evening and nighttime hours.
Decibel, dB	A logarithmic unit of noise level measurement that relates the energy of a noise source to that of a constant reference level; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
DNL, Ldn	Day Night Level. The DNL, or Ldn is a weighted 24-hour noise level that is obtained by adding ten decibels to sound levels at night (10:00 PM to 7:00 AM). This weighting accounts for the increased human sensitivity to noise during the nighttime hours.
Equivalent Continuous Noise Level, L_{eq}	A level of steady state sound that in a stated time period, and a stated location, has the same A-weighted sound energy as the time-varying sound.
Fast/Slow Meter Response	The fast and slow meter responses are different settings on a sound level meter. The fast response setting takes a measurement every 100 milliseconds, while a slow setting takes one every second.
Frequency, Hertz	In a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., the number of cycles per second).
L_{02} , L_{08} , L_{50} , L_{90}	The A-weighted noise levels that are equaled or exceeded by a fluctuating sound level, 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period, respectively.
L_{max} , L_{min}	L_{max} is the RMS (root mean squared) maximum level of a noise source or environment measured on a sound level meter, during a designated time interval, using fast meter response. L_{min} is the minimum level.
Offensive/ Offending/ Intrusive Noise	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of sound depends on its amplitude, duration, frequency, and time of occurrence, and tonal information content as well as the prevailing ambient noise level.
Root Mean Square (RMS)	A measure of the magnitude of a varying noise source quantity. The name derives from the calculation of the square root of the mean of the squares of the values. It can be calculated from either a series of lone values or a continuous varying function.

APPENDIX C

NOISE MEASUREMENT FIELD WORKSHEET

**Noise Measurement
Field Data**

Project Name: Coachillin Project, City of Desert Hot Springs **Date:** October 19, 2019

Project #: JN 19-0174

Noise Measurement #: STNM1 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: 345 West Tramview Road, Palm Springs, California

Site Description (Type of Existing Land Use and any other notable features): Project site: Vacant land & low density residential

Noise Measurement Site: Tramview Rd & vacant land to north, residential and church uses to south.

Weather: Clear skies, sunny, dusty haze near horizon. **Settings:** SLOW FAST

Temperature: 84 deg F **Wind:** 3-5mph **Humidity:** 18% **Terrain:** Flat

Start Time: 12:01 PM **End Time:** 12:06 PM **Run Time:** _____

Leq: 56.6 dB **Primary Noise Source:** Vehicle noise associated with Tramview Road, 17 vehicles passed microphone

Lmax 74.1 dB during measurement.

L2 67.3 dB **Secondary Noise Sources:** Residential ambiance, pedestrians

L8 60.8 dB jet aircraft > 10k ft alt (Palm Springs Airport)

L25 50.4 dB

L50 42.9 dB

NOISE METER: SoundTrack LXT Class 1 **CALIBRATOR:** Larson Davis CAL250

MAKE: Larson Davis **MAKE:** Larson Davis

MODEL: LXT1 **MODEL:** Cal 250

SERIAL NUMBER: 3099 **SERIAL NUMBER:** 2733

FACTORY CALIBRATION DATE: 6/23/2017 **FACTORY CALIBRATION DATE:** 8/9/2017

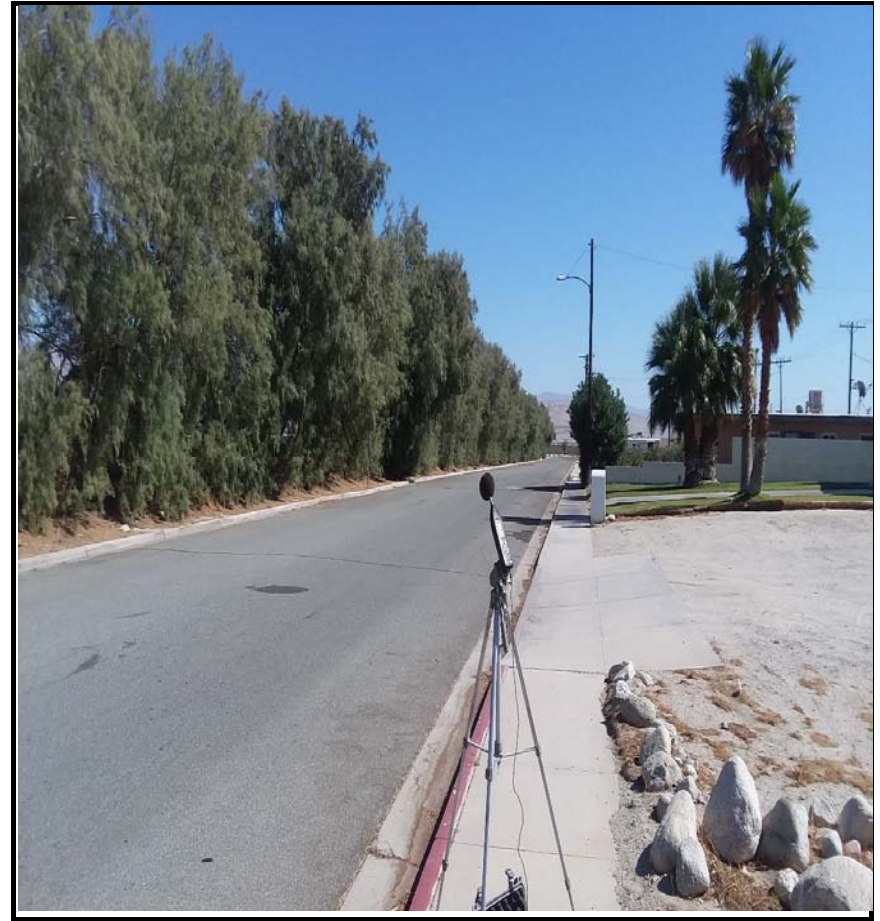
FIELD CALIBRATION DATE: 10/19/2019

Noise Measurement
Field Data

PHOTOS:



STNM1 looking SE towards public church 303 Tramview Road, Palm Springs, California.



STNM1 looking east along Tramview Road, looking passed church 303 Tramview Road.

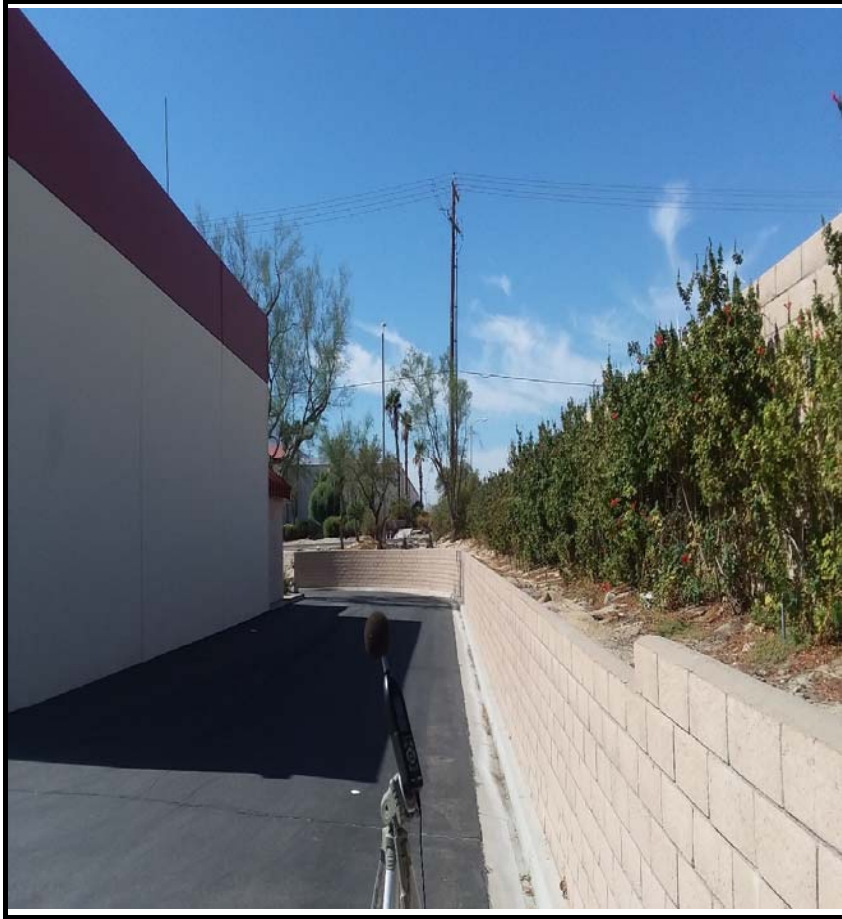
Summary			
File Name on Meter	LxT_Data.277		
File Name on PC	SLM_0003099_LxT_Data_277.00.ldbin		
Serial Number	0003099		
Model	SoundTrack LxT®		
Firmware Version	2.301		
User	Ian Edward Gallagher		
Location	STNM1 JN 19-0174 33°51'59.96"N 116°32'56.12"W		
Job Description	15 minute noise measurement (1x15 minutes)		
Measurement			
Start	2019-10-19 12:01:05		
Stop	2019-10-19 12:16:05		
Duration	00:15:00.0		
Run Time	00:15:00.0		
Pause	00:00:00.0		
Pre Calibration	2019-10-19 11:58:24		
Post Calibration	None		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	Z Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Low		
OBA Bandwidth	1/1 and 1/3		
OBA Freq. Weighting	Z Weighting		
OBA Max Spectrum	Bin Max		
Overload	122.6 dB		
Results			
LAeq	56.6		
LAE	86.1		
EA	45.605 µPa²h		
EA8	1.459 mPa²h		
EA40	7.297 mPa²h		
LZpeak (max)	2019-10-19 12:11:46	96.4 dB	
LASmax	2019-10-19 12:09:48	74.1 dB	
LASmin	2019-10-19 12:08:34	34.3 dB	
SEA	-99.9 dB		
			Statistics
LCeq	62.9 dB	LAI2.00	67.3 dB
LAeq	56.6 dB	LAI8.00	60.8 dB
LCeq - LAeq	6.3 dB	LAI25.00	50.4 dB
LAIeq	60.0 dB	LAI50.00	42.9 dB
LAeq	56.6 dB	LAI66.60	40.6 dB
LAIeq - LAeq	3.4 dB	LAI90.00	37.4 dB
# Overloads	0		

gandini
Apx-10

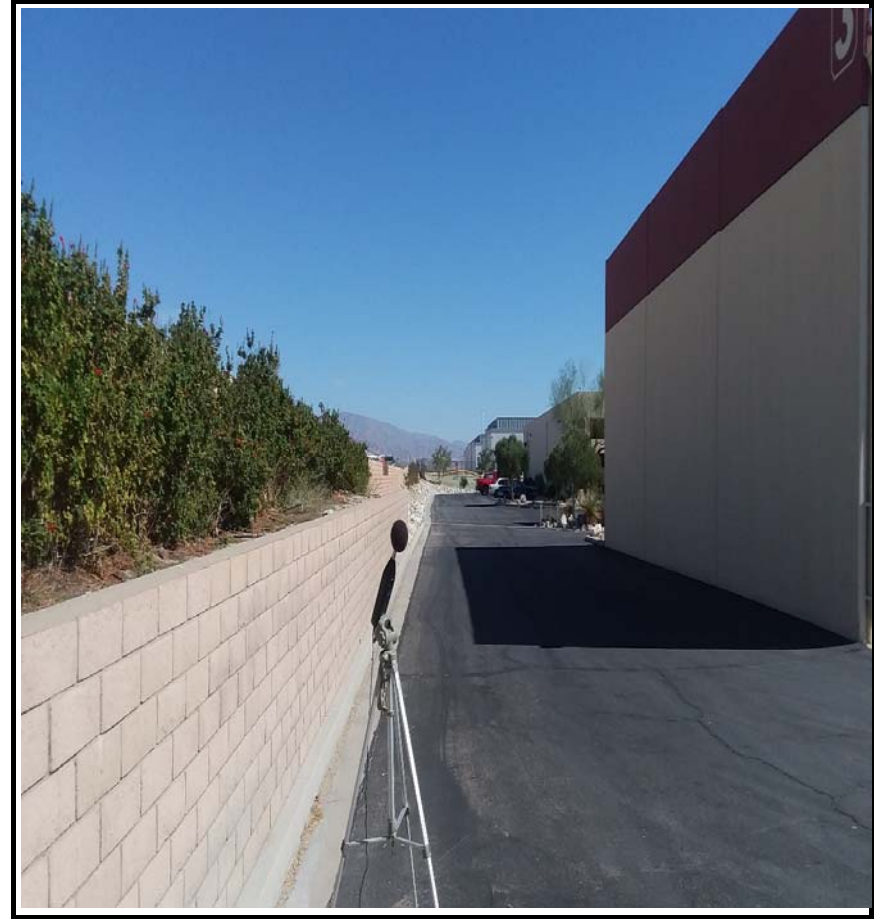
FIELD CALIBRATION DATE: 10/10/2019

Noise Measurement
Field Data

PHOTOS:



STNM2 looking west passed warehouses and businesses towards N Indian Canyon Dr.



STNM2 looking east passed warehouses and businesses. Concrete block Wall about 5' high.

Summary				
File Name on Meter	LxT_Data.278			
File Name on PC	SLM_0003099_LxT_Data_278.00.ldbin			
Serial Number	0003099			
Model	SoundTrack LxT®			
Firmware Version	2.301			
User	Ian Edward Gallagher			
Location	STNM2 JN 19-0174 33°54'36.50"N 116°32'38.92"W			
Job Description	15 minute noise measurement (1 x 15 minutes)			
Measurement				
Start	2019-10-19	12:46:35		
Stop	2019-10-19	13:01:35		
Duration	00:15:00.0			
Run Time	00:15:00.0			
Pause	00:00:00.0			
Pre Calibration	2019-10-19	12:46:17		
Post Calibration	None			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Slow			
Preamp	PRMLxT1L			
Microphone Correction	Off			
Integration Method	Linear			
OBA Range	Low			
OBA Bandwidth	1/1 and 1/3			
OBA Freq. Weighting	Z Weighting			
OBA Max Spectrum	Bin Max			
Overload	122.8 dB			
Results				
LAeq	56.2			
LAE	85.7			
EA	41.598 µPa²h			
EA8	1.331 mPa²h			
EA40	6.656 mPa²h			
LZpeak (max)	2019-10-19	12:49:17	99.4 dB	
LASmax	2019-10-19	12:49:18	74.6 dB	
LASmin	2019-10-19	12:50:45	42.2 dB	
SEA	-99.9 dB			
			Statistics	
LCeq	68.9 dB		LAI2.00	64.5 dB
LAeq	56.2 dB		LAI8.00	59.1 dB
LCeq - LAeq	12.7 dB		LAI25.00	55.6 dB
LAIeq	58.2 dB		LAI50.00	52.3 dB
LAeq	56.2 dB		LAI66.60	50.2 dB
LAIeq - LAeq	2.1 dB		LAI90.00	45.5 dB
# Overloads	0			

**Noise Measurement
Field Data**

Project Name: Coachillin Project, City of Desert Hot Springs **Date:** October 19, 2019

Project #: JN 19-0174

Noise Measurement #: STNM3 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: Indian Canyon Drive & Teagarden Drive

Site Description (Type of Existing Land Use and any other notable features): Project site: Vacant land & low density residential.

Noise Measurement Site: N Indian Canyon Dr east, residential further east, vacant land to west, north, & south, residential further north.

Weather: Clear skies, sunny, dusty haze near horizon. **Settings:** SLOW FAST

Temperature: 88 deg F **Wind:** 3-5mph **Humidity:** 11% **Terrain:** Flat

Start Time: 1:27 PM **End Time:** 1:42 PM **Run Time:** _____

Leq: 59.2 dB **Primary Noise Source:** Vehicle noise associated with North Indian Canyon Drive, 226 vehicles passed by

Lmax 75.5 dB along Indian Canyon Drive during measurement.

L2 65.2 dB **Secondary Noise Sources:** jet aircraft > 10k ft alt (Palm Springs Airport)

L8 61.7 dB _____

L25 59.8 dB _____

L50 57.8 dB _____

NOISE METER: SoundTrack LXT Class 1 **CALIBRATOR:** Larson Davis CAL250

MAKE: Larson Davis **MAKE:** Larson Davis

MODEL: LXT1 **MODEL:** Cal 250

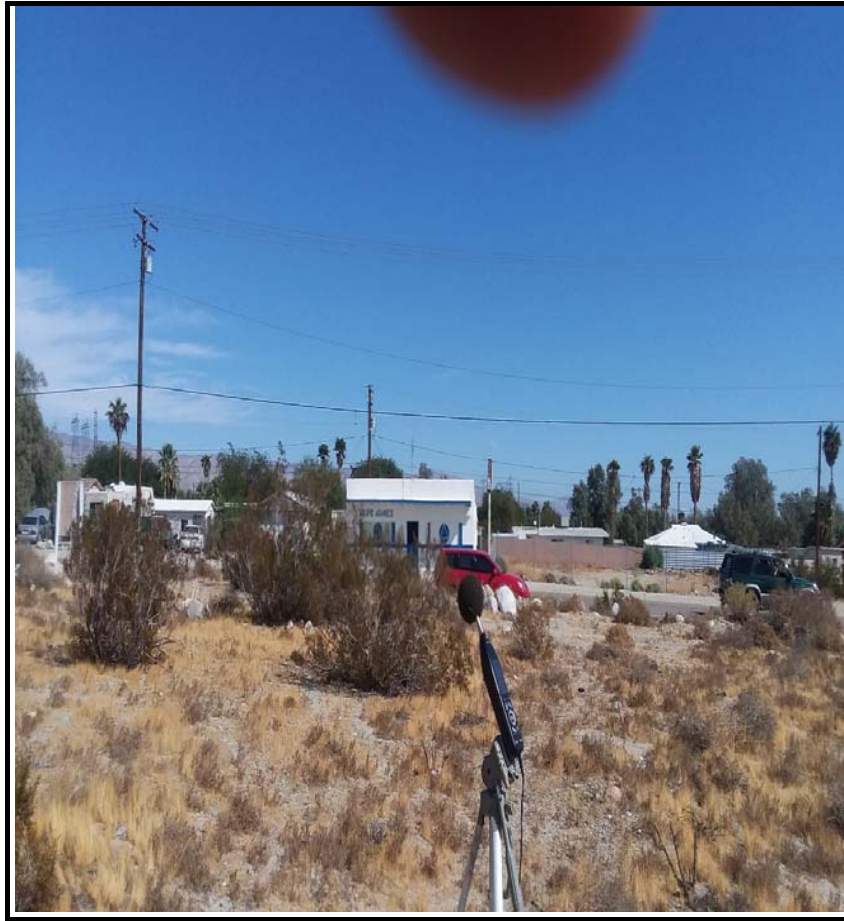
SERIAL NUMBER: 3099 **SERIAL NUMBER:** 2733

FACTORY CALIBRATION DATE: 6/23/2017 **FACTORY CALIBRATION DATE:** 8/9/2017

FIELD CALIBRATION DATE: 10/19/2019

Noise Measurement
Field Data

PHOTOS:



STNM3 looking east across N Indian Canyon Way towards residences



STNM3 looking north, parallel to N Indian Canyon Way.

Summary				
File Name on Meter	LxT_Data.279			
File Name on PC	SLM_0003099_LxT_Data_279.00.ldbin			
Serial Number	0003099			
Model	SoundTrack LxT®			
Firmware Version	2.301			
User	Ian Edward Gallagher			
Location	STNM3 JN 19-0174 33°55'19.07"N 116°32'44.46"W			
Job Description	15 minute noise measurement (1 x 15 minutes)			
Measurement				
Start	2019-10-19 13:27:27			
Stop	2019-10-19 13:42:27			
Duration	00:15:00.0			
Run Time	00:15:00.0			
Pause	00:00:00.0			
Pre Calibration	2019-10-19 13:26:56			
Post Calibration	None			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Slow			
Preamp	PRMLxT1L			
Microphone Correction	Off			
Integration Method	Linear			
OBA Range	Low			
OBA Bandwidth	1/1 and 1/3			
OBA Freq. Weighting	Z Weighting			
OBA Max Spectrum	Bin Max			
Overload	122.8 dB			
Results				
LAeq	59.2			
LAE	88.8			
EA	83.874 µPa²h			
EA8	2.684 mPa²h			
EA40	13.420 mPa²h			
LZpeak (max)	2019-10-19 13:37:43	101.9 dB		
LASmax	2019-10-19 13:32:07	75.5 dB		
LASmin	2019-10-19 13:34:29	43.2 dB		
SEA	-99.9 dB			
			Statistics	
LCeq	69.4 dB	LAI2.00	65.2 dB	
LAeq	59.2 dB	LAI8.00	61.7 dB	
LCeq - LAeq	10.2 dB	LAI25.00	59.8 dB	
LAlaq	60.4 dB	LAI50.00	57.8 dB	
LAeq	59.2 dB	LAI66.60	55.9 dB	
LAlaq - LAeq	1.2 dB	LAI90.00	50.7 dB	
# Overloads	0			

**Noise Measurement
Field Data**

Project Name: Coachillin Project, City of Desert Hot Springs **Date:** October 19, 2019

Project #: JN 19-0174

Noise Measurement #: STNM4 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: 16365 Diablo Road, Desert Hot Springs, California

Site Description (Type of Existing Land Use and any other notable features): Project site: Vacant land & low density residential

Noise Measurement Site: Vacant land to north, east, & south, Diablo Rd to west, residential to northwest & southwest.

Weather: 40% high cloud. **Settings:** SLOW FAST

Temperature: 85 deg F **Wind:** 3-5 mph **Humidity:** 10% **Terrain:** Flat

Start Time: 2:23 PM **End Time:** 2:38 PM **Run Time:** _____

Leq: 51.3 dB **Primary Noise Source:** 4 utility trucks passed microphone during measurement along Diablo Road.

Lmax 71.5 dB _____

L2 59.6 dB **Secondary Noise Sources:** Traffic ambiance from distant surrounding roads, bird song, humming birds.

L8 51.6 dB Distant overhead aircraft.

L25 44.4 dB _____

L50 41.2 dB _____

NOISE METER: SoundTrack LXT Class 1 **CALIBRATOR:** Larson Davis CAL250

MAKE: Larson Davis **MAKE:** Larson Davis

MODEL: LXT1 **MODEL:** Cal 250

SERIAL NUMBER: 3099 **SERIAL NUMBER:** 2733

FACTORY CALIBRATION DATE: 6/23/2017 **FACTORY CALIBRATION DATE:** 8/9/2017

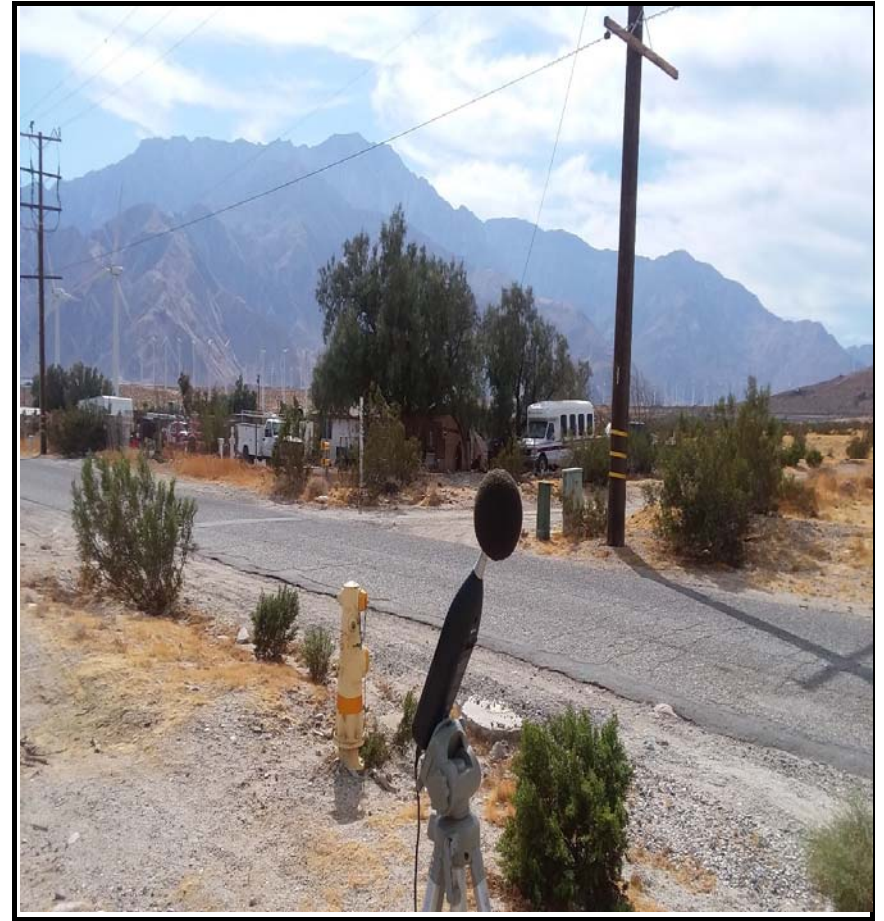
FIELD CALIBRATION DATE: 10/19/2019

Noise Measurement
Field Data

PHOTOS:



STNM4 looking NW across Diablo Road towards residence 16365 Diablo Road.



STNM4 looking SW towards Diablo Road & Sagebrush Road intersection.

Summary			
File Name on Meter	LxT_Data.280		
File Name on PC	SLM_0003099_LxT_Data_280.00.ldbin		
Serial Number	0003099		
Model	SoundTrack LxT®		
Firmware Version	2.301		
User	Ian Edward Gallagher		
Location	STNM4 JN 19-0174 33°55'43.55"N 116°34'48.82"W		
Job Description	15 minute noiuse measuremnt (1 x 15 minutes)		
Measurement			
Start	2019-10-19 14:23:12		
Stop	2019-10-19 14:38:12		
Duration	00:15:00.0		
Run Time	00:15:00.0		
Pause	00:00:00.0		
Pre Calibration	2019-10-19 14:22:58		
Post Calibration	None		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	Z Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Low		
OBA Bandwidth	1/1 and 1/3		
OBA Freq. Weighting	Z Weighting		
OBA Max Spectrum	Bin Max		
Overload	122.8 dB		
Results			
LAeq	51.3		
LAE	80.9		
EA	13.544 µPa²h		
EA8	433.409 µPa²h		
EA40	2.167 mPa²h		
LZpeak (max)	2019-10-19 14:28:11	98.7 dB	
LASmax	2019-10-19 14:36:50	71.5 dB	
LASmin	2019-10-19 14:33:46	38.1 dB	
SEA	-99.9 dB		
Statistics			
LCeq	64.1 dB	LAI2.00	59.6 dB
LAeq	51.3 dB	LAI8.00	51.6 dB
LCeq - LAeq	12.8 dB	LAI25.00	44.4 dB
LAlaq	54.4 dB	LAI50.00	41.2 dB
LAeq	51.3 dB	LAI66.60	40.5 dB
LAlaq - LAeq	3.1 dB	LAI90.00	39.4 dB
# Overloads	0		

**Noise Measurement
Field Data**

Project Name: Coachillin Project, City of Desert Hot Springs **Date:** October 19, 2019

Project #: JN 19-0174

Noise Measurement #: STNM5 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: Ave de La Familias & 14th Avenue

Site Description (Type of Existing Land Use and any other notable features): Project site: Vacant land & low density residential.
Noise Measurement Site: 14th Ave to north, vacant land & residential further north, residential northeast, vacant land to east, west, and south, & residential further northwest and southwest.

Weather: 30% high cloud. **Settings:** SLOW FAST

Temperature: 85 deg F **Wind:** 3-5 mph **Humidity:** 11% **Terrain:** Flat

Start Time: 3:20 PM **End Time:** 3:35 PM **Run Time:** _____

Leq: 40.7 dB **Primary Noise Source:** Traffic ambiance from distant paved surrounding roads.

Lmax 69.7 dB _____

L2 47.5 dB **Secondary Noise Sources:** Bird song, humming birds.

L8 43.8 dB Distant overhead aircraft.

L25 41.0 dB _____

L50 39.4 dB _____

NOISE METER: SoundTrack LXT Class 1 **CALIBRATOR:** Larson Davis CAL250

MAKE: Larson Davis **MAKE:** Larson Davis

MODEL: LXT1 **MODEL:** Cal 250

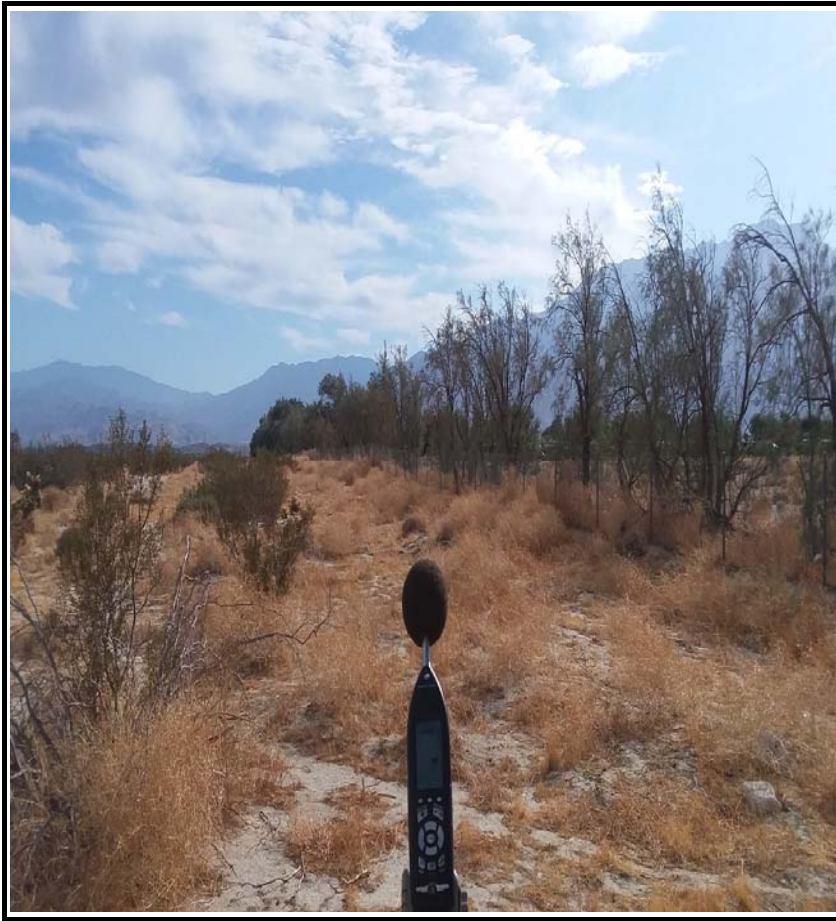
SERIAL NUMBER: 3099 **SERIAL NUMBER:** 2733

FACTORY CALIBRATION DATE: 6/23/2017 **FACTORY CALIBRATION DATE:** 8/9/2017

FIELD CALIBRATION DATE: 10/19/2019

Noise Measurement
Field Data

PHOTOS:



STNM5 looking south along a row of trees.



STNM5 looking west parallel to 14th Avenue.

Summary				
File Name on Meter	LxT_Data.281			
File Name on PC	SLM_0003099_LxT_Data_281.00.ldbin			
Serial Number	0003099			
Model	SoundTrack LxT®			
Firmware Version	2.301			
User	Ian Edward Gallagher			
Location	STNM5 JN 19-0174 33°56'48.18"N 116°32'25.55"W			
Job Description	15 minute noise measurement (1 x 15 minutes)			
Measurement				
Start	2019-10-19 15:20:27			
Stop	2019-10-19 15:35:27			
Duration	00:15:00.0			
Run Time	00:15:00.0			
Pause	00:00:00.0			
Pre Calibration	2019-10-19 15:20:17			
Post Calibration	None			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Slow			
Preamp	PRMLxT1L			
Microphone Correction	Off			
Integration Method	Linear			
OBA Range	Low			
OBA Bandwidth	1/1 and 1/3			
OBA Freq. Weighting	Z Weighting			
OBA Max Spectrum	Bin Max			
Overload	122.8 dB			
Results				
LAeq	40.7			
LAE	70.2			
EA	1.171 µPa²h			
EA8	37.457 µPa²h			
EA40	187.285 µPa²h			
LZpeak (max)	2019-10-19 15:25:27	99.3	dB	
LASmax	2019-10-19 15:20:27	69.7	dB	
LASmin	2019-10-19 15:32:24	34.4	dB	
SEA	-99.9 dB			
		Statistics		
LCeq	60.5 dB	LAI2.00	47.5 dB	
LAeq	40.7 dB	LAI8.00	43.8 dB	
LCeq - LAeq	19.8 dB	LAI25.00	41.0 dB	
LAlaq	52.9 dB	LAI50.00	39.4 dB	
LAeq	40.7 dB	LAI66.60	38.3 dB	
LAlaq - LAeq	12.2 dB	LAI90.00	36.7 dB	
# Overloads	0			

**Noise Measurement
Field Data**

Project Name: Coachillin Project, City of Desert Hot Springs **Date:** October 19, 2019

Project #: JN 19-0174

Noise Measurement #: STNM6 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: Avenue Manzana & Cam Idilio

Site Description (Type of Existing Land Use and any other notable features): Project site: Vacant land & low density residential.

Noise Measurement Site: Cam Idilio to north, residential further north, vacant land south & east, Avenue Manzana to west, & residential further west.

Weather: 30% high cloud. **Settings:** SLOW FAST

Temperature: 85 deg F **Wind:** 3-5 mph **Humidity:** 11% **Terrain:** Flat

Start Time: 4:01 PM **End Time:** 4:16 PM **Run Time:** _____

Leq: 58.3 dB **Primary Noise Source:** Traffic noise from vehicles passing along both Avenue Manzana and Cam Idilio.

Lmax 72.6 dB 36 vehicles passed microphone along both roads during measurement.

L2 67.2 dB **Secondary Noise Sources:** Bird song.

L8 63.4 dB Distant overhead aircraft.

L25 57.3 dB

L50 50.8 dB

NOISE METER: SoundTrack LXT Class 1 **CALIBRATOR:** Larson Davis CAL250

MAKE: Larson Davis **MAKE:** Larson Davis

MODEL: LXT1 **MODEL:** Cal 250

SERIAL NUMBER: 3099 **SERIAL NUMBER:** 2733

FACTORY CALIBRATION DATE: 6/23/2017 **FACTORY CALIBRATION DATE:** 8/9/2017

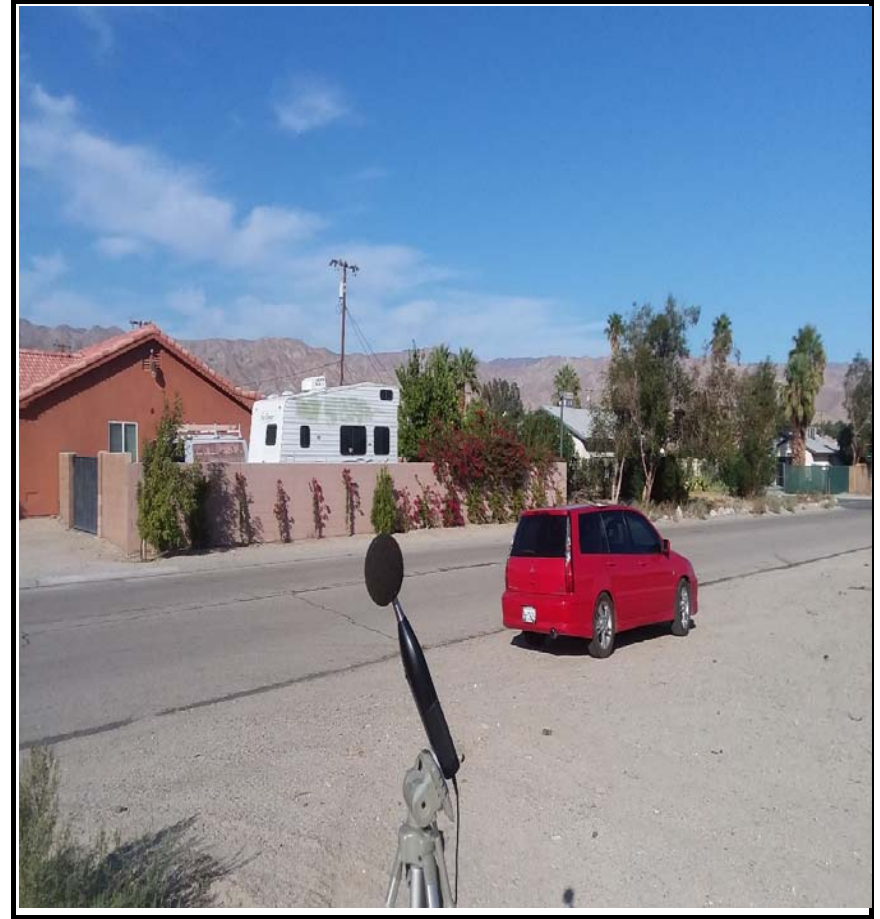
FIELD CALIBRATION DATE: 10/19/2019

Noise Measurement
Field Data

PHOTOS:



STNM6 looking NW across intersection Avenue Manzana & Cam Idilio.



STNM6 looking east down Cam Idilio past residences on northern side of street.

Summary				
File Name on Meter	LxT_Data.282			
File Name on PC	SLM_0003099_LxT_Data_282.00.ldbin			
Serial Number	0003099			
Model	SoundTrack LxT®			
Firmware Version	2.301			
User	Ian Edward Gallagher			
Location	STNM6 JN 19-0174 33°55'42.16"N 116°29'35.08"W			
Job Description	15 minute noise measurement (1 x 15 minutes)			
Measurement				
Start	2019-10-19 16:01:53			
Stop	2019-10-19 16:16:53			
Duration	00:15:00.0			
Run Time	00:15:00.0			
Pause	00:00:00.0			
Pre Calibration	2019-10-19 16:01:37			
Post Calibration	None			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Slow			
Preamp	PRMLxT1L			
Microphone Correction	Off			
Integration Method	Linear			
OBA Range	Low			
OBA Bandwidth	1/1 and 1/3			
OBA Freq. Weighting	Z Weighting			
OBA Max Spectrum	Bin Max			
Overload	122.7 dB			
Results				
LAeq	58.3			
LAE	87.8			
EA	67.379 µPa²h			
EA8	2.156 mPa²h			
EA40	10.781 mPa²h			
LZpeak (max)	2019-10-19 16:02:07	93.0 dB		
LASmax	2019-10-19 16:02:30	72.6 dB		
LASmin	2019-10-19 16:12:30	36.0 dB		
SEA	-99.9 dB			
			Statistics	
LCeq	66.6 dB	LAI2.00	67.2 dB	
LAeq	58.3 dB	LAI8.00	63.4 dB	
LCeq - LAeq	8.3 dB	LAI25.00	57.3 dB	
LAlaq	59.9 dB	LAI50.00	50.8 dB	
LAeq	58.3 dB	LAI66.60	46.8 dB	
LAlaq - LAeq	1.6 dB	LAI90.00	41.0 dB	
# Overloads	0			

**Noise Measurement
Field Data**

Project Name: Coachillin Project, City of Desert Hot Springs **Date:** October 19, 2019

Project #: JN 19-0174

Noise Measurement #: STNM7 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: 88 yds N of intersection Beacon Way & unnamed dirt road 33°54'30.69"N 116°30'21.46"W

Site Description (Type of Existing Land Use and any other notable features): Project site: Vacant land & low density residential.

Noise Measurement Site: Vacant land surrounding (north, east, south, & west), dirt road to east, Beacon Way to south, residential further south & southeast, & east.

Weather: 10% high cloud. **Settings:** SLOW FAST

Temperature: 85 deg F **Wind:** 3-5 mph **Humidity:** 11% **Terrain:** Flat

Start Time: 4:44 PM **End Time:** 4:59 PM **Run Time:** _____

Leq: 46.4 dB **Primary Noise Source:** Distant traffic ambiance from Palm Drive ~430 yards east of NM7 location.

Lmax 62.3 dB _____

L2 52.3 dB **Secondary Noise Sources:** Bird song, farm yard noises, donkies, cows, cockerel crowing.

L8 47.9 dB Distant overhead aircraft, sounds like distant generator in operation.

L25 46.1 dB _____

L50 44.7 dB _____

NOISE METER: SoundTrack LXT Class 1 **CALIBRATOR:** Larson Davis CAL250

MAKE: Larson Davis **MAKE:** Larson Davis

MODEL: LXT1 **MODEL:** Cal 250

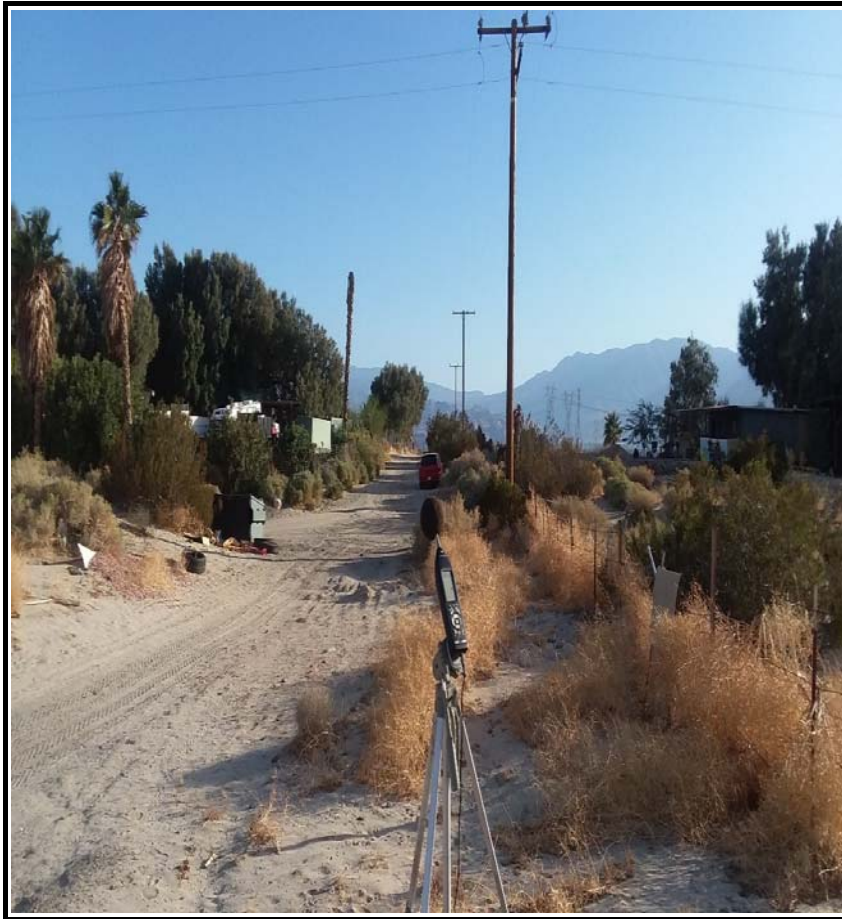
SERIAL NUMBER: 3099 **SERIAL NUMBER:** 2733

FACTORY CALIBRATION DATE: 6/23/2017 **FACTORY CALIBRATION DATE:** 8/9/2017

FIELD CALIBRATION DATE: 10/19/2019

Noise Measurement
Field Data

PHOTOS:



STNM7 looking south down unnamed dirt road towards Beacon Way intersection.



STNM7 looking north up unnamed dirt road towards empty land, vegetation & sand.

Summary				
File Name on Meter	LxT_Data.283			
File Name on PC	SLM_0003099_LxT_Data_283.00.ldbin			
Serial Number	0003099			
Model	SoundTrack LxT®			
Firmware Version	2.301			
User	Ian Edward Gallagher			
Location	STNM7 JN 19-174 33°54'30.69"N 116°30'21.46"W			
Job Description	15 minute noise measurement (1 x 15 minutes)			
Measurement				
Start	2019-10-19 16:44:36			
Stop	2019-10-19 16:59:36			
Duration	00:15:00.0			
Run Time	00:15:00.0			
Pause	00:00:00.0			
Pre Calibration	2019-10-19 16:44:15			
Post Calibration	None			
Overall Settings				
RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Slow			
Preamp	PRMLxT1L			
Microphone Correction	Off			
Integration Method	Linear			
OBA Range	Low			
OBA Bandwidth	1/1 and 1/3			
OBA Freq. Weighting	Z Weighting			
OBA Max Spectrum	Bin Max			
Overload	122.8 dB			
Results				
LAeq	46.4			
LAE	76.0			
EA	4.401 µPa²h			
EA8	140.843 µPa²h			
EA40	704.214 µPa²h			
LZpeak (max)	2019-10-19 16:49:06	99.6	dB	
LASmax	2019-10-19 16:51:46	62.3	dB	
LASmin	2019-10-19 16:55:34	39.9	dB	
SEA	-99.9 dB			
			Statistics	
LCeq	60.7	dB	LAI2.00	52.3 dB
LAeq	46.4	dB	LAI8.00	47.9 dB
LCeq - LAeq	14.3	dB	LAI25.00	46.1 dB
LAlaq	50.0	dB	LAI50.00	44.7 dB
LAeq	46.4	dB	LAI66.60	43.8 dB
LAlaq - LAeq	3.6	dB	LAI90.00	42.1 dB
# Overloads	0			

**Noise Measurement
Field Data**

Project Name: Coachillin Project, City of Desert Hot Springs **Date:** Oct 19 - 20, 2019

Project #: JN 19-0174

Noise Measurement #: LTNM1 Run Time: 24 hours (24 x 1 hours) **Technician:** Ian Gallagher

Nearest Address or Cross Street: ~380 yards East of Indian Canyon Dr & 18th Ave Intersection 33°55'3.76"N 116°32'29.46"W

Site Description (Type of Existing Land Use and any other notable features): Project site: Vacant land, low density residential

Noise Measurement Site: 18th Avenue and vacant land to south, vacant land and residnetial to north, & vacant land to east and west.

Weather: Clear skies **Settings:** SLOW FAST

Temperature: 88 to 64 deg F **Wind:** 3-15mph **Humidity:** 10% to 40% **Terrain:** Flat

Start Time: 7:00PM 19th **End Time:** 7:00PM 20th **Run Time:** _____

Leq: 52 dB **Primary Noise Source:** Traffic ambiance from vehicles traveling along Indian Canyon Drive.

Lmax 72.3 dB West of microphone, security staff driving by along 18th Avenue passed microphone.

L2 60.8 dB **Secondary Noise Sources:** Wildlife, birds, furry creatures, crickets at night,

L8 56.4 dB propellor & jet aircraft (Palm Springs Airport) , & helicopters.

L25 51.4 dB

L50 46.9 dB

NOISE METER: SoundTrack LXT Class 1 **CALIBRATOR:** Larson Davis CAL250

MAKE: Larson Davis **MAKE:** Larson Davis

MODEL: LXT1 **MODEL:** Cal 250

SERIAL NUMBER: 3099 **SERIAL NUMBER:** 2733

FACTORY CALIBRATION DATE: 6/23/2017 **FACTORY CALIBRATION DATE:** 8/9/2017

FIELD CALIBRATION DATE: 10/19/2019

Noise Measurement
Field Data

PHOTOS:



LTNM1 looking at microphone located in tree.



LTNM1 looking east down 18th Avenue passed microphone located in tree.

Summary			
File Name on Meter	LxT_Data.284		
File Name on PC	SLM_0003099_LxT_Data_284.00.ldbin		
Serial Number	0003099		
Model	SoundTrack LxT®		
Firmware Version	2.301		
User	Ian Edward Gallagher		
Location	LTNM1 JN 19-0174 33°55'3.76"N 116°32'29.46"W		
Job Description	24 hour noise measurement (24 x 1 hours)		
Measurement			
Start	2019-10-19 19:00:00		
Stop	2019-10-20 19:00:00		
Duration	24:00:00.0		
Run Time	24:00:00.0		
Pause	00:00:00.0		
Pre Calibration	2019-10-19 18:10:43		
Post Calibration	None		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Normal		
OBA Bandwidth	1/1 and 1/3		
OBA Freq. Weighting	A Weighting		
OBA Max Spectrum	Bin Max		
Overload	122.7 dB		
Results			
LAeq	52.0		
LAE	101.4		
EA	1.520 mPa²h		
EA8	506.784 µPa²h		
EA40	2.534 mPa²h		
LApeak (max)	2019-10-20 10:56:33	94.0 dB	
LASmax	2019-10-19 21:21:51	72.3 dB	
LASmin	2019-10-20 14:02:38	36.1 dB	
SEA	-99.9 dB		
		Statistics	
LCeq	68.9 dB	LAI2.00	60.8 dB
LAeq	52.0 dB	LAI8.00	56.4 dB
LCeq - LAeq	16.9 dB	LAI25.00	51.4 dB
LAIeq	53.2 dB	LAI50.00	46.9 dB
LAeq	52.0 dB	LAI90.00	40.7 dB
LAIeq - LAeq	1.2 dB	LAI99.00	38.2 dB
# Overloads	0		

Record #	Date	Time	Run Duration	Run Time	Pause	LAEq	LASmin	LASmin Time	LASmax	LASmax Time	LAS2.00	LAS8.00	LAS25.00	LAS50.00	LAS90.00	LAS99.00
1	2019-10-19	19:00:00	01:00:00.0	01:00:00.0	00:00:00.0	53.0	47.1	19:52:54	63.8	19:36:54	58.3	55.5	53.5	51.9	49.7	48.1
2	2019-10-19	20:00:00	01:00:00.0	01:00:00.0	00:00:00.0	56.6	46.6	20:13:45	69.7	20:58:56	63.2	60.2	57.1	54.5	50.8	48.8
3	2019-10-19	21:00:00	01:00:00.0	01:00:00.0	00:00:00.0	60.3	50.5	21:47:15	72.3	21:21:51	65.6	63.6	61.3	59.0	54.8	52.6
4	2019-10-19	22:00:00	01:00:00.0	01:00:00.0	00:00:00.0	56.2	46.2	22:57:33	72.0	22:46:55	62.5	59.4	56.5	54.2	50.0	47.4
5	2019-10-19	23:00:00	01:00:00.0	01:00:00.0	00:00:00.0	53.9	45.7	23:04:26	66.9	23:10:13	58.9	56.7	54.7	52.7	49.7	47.6
6	2019-10-20	00:00:00	01:00:00.0	01:00:00.0	00:00:00.0	54.5	43.9	00:59:53	63.2	00:05:41	60.5	58.4	55.8	52.8	48.2	45.7
7	2019-10-20	01:00:00	01:00:00.0	01:00:00.0	00:00:00.0	46.0	39.7	01:44:50	61.7	01:59:55	50.1	48.1	46.5	45.2	42.6	40.8
8	2019-10-20	02:00:00	01:00:00.0	01:00:00.0	00:00:00.0	45.3	39.0	02:09:26	60.8	02:00:12	48.9	47.3	45.9	44.7	42.0	40.3
9	2019-10-20	03:00:00	01:00:00.0	01:00:00.0	00:00:00.0	44.5	36.8	03:46:15	57.8	03:00:13	50.7	47.4	45.0	43.0	39.4	38.1
10	2019-10-20	04:00:00	01:00:00.0	01:00:00.0	00:00:00.0	45.9	37.1	04:08:27	60.1	04:53:41	51.6	48.8	46.6	44.3	39.9	38.0
11	2019-10-20	05:00:00	01:00:00.0	01:00:00.0	00:00:00.0	48.5	42.2	05:08:51	66.5	05:41:02	52.7	50.8	48.9	47.4	44.8	43.4
12	2019-10-20	06:00:00	01:00:00.0	01:00:00.0	00:00:00.0	50.8	40.8	06:23:19	67.6	06:19:57	56.3	53.0	50.8	48.7	45.0	42.7
13	2019-10-20	07:00:00	01:00:00.0	01:00:00.0	00:00:00.0	50.6	42.6	07:00:43	68.7	07:15:01	55.2	52.2	50.2	49.0	46.4	44.1
14	2019-10-20	08:00:00	01:00:00.0	01:00:00.0	00:00:00.0	48.3	39.0	08:40:00	67.4	08:51:48	52.8	51.2	49.4	45.7	41.9	39.6
15	2019-10-20	09:00:00	01:00:00.0	01:00:00.0	00:00:00.0	48.6	37.3	09:27:16	64.6	09:56:26	57.8	52.5	47.3	44.1	39.8	38.0
16	2019-10-20	10:00:00	01:00:00.0	01:00:00.0	00:00:00.0	50.4	39.4	10:24:18	68.5	10:56:33	57.4	54.2	50.5	47.5	42.9	40.8
17	2019-10-20	11:00:00	01:00:00.0	01:00:00.0	00:00:00.0	50.6	41.1	11:38:26	66.3	11:45:23	56.7	54.3	51.2	48.5	44.4	42.4
18	2019-10-20	12:00:00	01:00:00.0	01:00:00.0	00:00:00.0	49.3	37.4	12:23:36	66.7	12:57:45	56.6	53.5	49.6	46.4	42.1	39.8
19	2019-10-20	13:00:00	01:00:00.0	01:00:00.0	00:00:00.0	46.2	36.8	13:58:28	65.8	13:38:56	53.4	50.1	45.7	42.2	38.9	37.6
20	2019-10-20	14:00:00	01:00:00.0	01:00:00.0	00:00:00.0	49.2	36.1	14:02:38	67.7	14:19:38	57.8	51.3	46.7	43.5	39.0	37.0
21	2019-10-20	15:00:00	01:00:00.0	01:00:00.0	00:00:00.0	46.0	36.7	15:28:29	57.9	15:43:51	52.8	49.7	46.3	43.7	39.9	37.9
22	2019-10-20	16:00:00	01:00:00.0	01:00:00.0	00:00:00.0	43.1	36.6	16:51:23	57.0	16:21:36	50.2	46.1	42.9	40.9	38.6	37.3
23	2019-10-20	17:00:00	01:00:00.0	01:00:00.0	00:00:00.0	43.8	37.4	17:00:41	63.2	17:28:49	50.8	45.8	42.9	41.4	39.5	38.4
24	2019-10-20	18:00:00	01:00:00.0	01:00:00.0	00:00:00.0	44.3	37.5	18:23:04	68.5	18:50:18	48.9	44.8	43.4	41.5	39.3	38.3

APPENDIX D

CONSTRUCTION NOISE MODELING WORKSHEETS

Receptor - Commercial to South

A	B	C	D	E	F	G	H	I	J
Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA ^{1,2}	Distance to Receptor ³	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA
Grading									
Grader	1	85	569	40	0.40	-21.1	-4.0	63.9	59.9
Rubber Tired Dozers	1	82	569	40	0.40	-21.1	-4.0	60.9	56.9
Scrapers	2	85	569	40	0.80	-21.1	-1.0	63.9	62.9
Excavators	2	85	569	40	0.80	-21.1	-1.0	63.9	62.9
Tractors/Loaders/Backhoes	2	84	569	40	0.80	-21.1	-1.0	62.9	61.9
								Log Sum	68.4
Building Construction									
Cranes	1	81	569	40	0.40	-21.1	-4.0	59.9	55.9
Forklifts	4	64	569	40	1.60	-21.1	2.0	42.9	44.9
Generator Set	1	81	569	50	0.50	-21.1	-3.0	59.9	56.9
Tractors/Loaders/Backhoes	5	84	569	40	2.00	-21.1	3.0	62.9	65.9
Welders	1	74	569	40	0.40	-21.1	-4.0	52.9	48.9
								Log Sum	66.9
Paving									
Pavers	2	77	569	50	1.00	-21.1	0.0	55.9	55.9
Paving Equipment	2	85	569	20	0.40	-21.1	-4.0	63.9	59.9
Rollers	2	80	569	20	0.40	-21.1	-4.0	58.9	54.9
								Log Sum	62.2
Architectural Coating									
Air Compressors	1	78	569	40	0.40	-21.1	-4.0	56.9	52.9
								Log Sum	52.9

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018).

(2) Source: https://www.google.com/url?q=http://www.noisetesting.info/blog/warehouse-forklift-workplace-noise-levels/&sa=D&source=hangouts&ust=1545259247311000&usg=AFQjCNHFckKoEKUjv5VZM0tw_KO977Em1A

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - Residential to Northeast

A	B	C	D	E	F	G	H	I	J
Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA ^{1,2}	Distance to Receptor ³	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA
Grading									
Grader	1	85	2605	40	0.40	-34.3	-4.0	50.7	46.7
Rubber Tired Dozers	1	82	2605	40	0.40	-34.3	-4.0	47.7	43.7
Scrapers	2	85	2605	40	0.80	-34.3	-1.0	50.7	49.7
Excavators	2	85	2605	40	0.80	-34.3	-1.0	50.7	49.7
Tractors/Loaders/Backhoes	2	84	2605	40	0.80	-34.3	-1.0	49.7	48.7
								Log Sum	55.2
Building Construction									
Cranes	1	81	2605	40	0.40	-34.3	-4.0	46.7	42.7
Forklifts	4	64	2605	40	1.60	-34.3	2.0	29.7	31.7
Generator Set	1	81	2605	50	0.50	-34.3	-3.0	46.7	43.7
Tractors/Loaders/Backhoes	5	84	2605	40	2.00	-34.3	3.0	49.7	52.7
Welders	1	74	2605	40	0.40	-34.3	-4.0	39.7	35.7
								Log Sum	53.7
Paving									
Pavers	2	77	2605	50	1.00	-34.3	0.0	42.7	42.7
Paving Equipment	2	85	2605	20	0.40	-34.3	-4.0	50.7	46.7
Rollers	2	80	2605	20	0.40	-34.3	-4.0	45.7	41.7
								Log Sum	49.0
Architectural Coating									
Air Compressors	1	78	2605	40	0.40	-34.3	-4.0	43.7	39.7
								Log Sum	39.7

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018).

(2) Source: https://www.google.com/url?q=http://www.noisetesting.info/blog/warehouse-forklift-workplace-noise-levels/&sa=D&source=hangouts&ust=1545259247311000&usg=AFQjCNHFckKoEKUjv5VZM0tw_KO977Em1A

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

APPENDIX E

PROJECT GENERATED TRIPS FHWA WORKSHEETS

Existing Traffic Noise

1
Pierson Boulevard
East of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 5300
Speed 50
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	306.94	6.36	10.60	227.87	1.06	1.77	56.51	8.83	14.72
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	17.58	0.74	2.96	16.28	-7.04	-4.82	10.23	2.17	4.38
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.21	54.05	60.49	61.92	46.27	52.71	55.86	55.48	61.92
	DAY LEQ	65.40		EVENING LEQ	62.51		NIGHT LEQ	63.61	

F CNEL 70.43
DAY LEQ 65.40

Day hour 89.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

1 :ld
Pierson Boulevard :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 5500
Speed 50
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	318.53	6.60	11.00	236.47	1.10	1.83	58.64	9.17	15.28
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	17.74	0.90	3.12	16.44	-6.88	-4.66	10.39	2.33	4.55
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.37	54.21	60.65	62.08	46.43	52.87	56.02	55.64	62.08
	DAY LEQ	65.56		EVENING LEQ	62.68		NIGHT LEQ	63.77	

CNEL 70.59
DAY LEQ 65.56

Day hour 89.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

2 :ld
Dillon Road :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 2600
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	150.58	3.12	5.20	111.79	0.52	0.87	27.72	4.33	7.22
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	14.07	-2.77	-0.55	12.77	-10.55	-8.33	6.72	-1.34	0.88
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	61.72	52.02	58.20	60.43	44.23	50.41	54.37	53.44	59.62
	DAY LEQ	63.63		EVENING LEQ	60.94		NIGHT LEQ	61.50	

CNEL 68.41
DAY LEQ 63.63

Day hour 90.00
Absorptive? no
Use hour? no
GRADE dB 1.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

2 :ld
Dillon Road :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 2900
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	167.95	3.48	5.80	124.68	0.58	0.97	30.92	4.83	8.06
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	14.54	-2.29	-0.08	13.25	-10.08	-7.86	7.19	-0.87	1.35
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.20	52.49	58.67	60.90	44.71	50.89	54.85	53.92	60.10
	DAY LEQ	64.10		EVENING LEQ	61.41		NIGHT LEQ	61.97	

CNEL 68.89
DAY LEQ 64.10

Day hour 90.00
Absorptive? no
Use hour? no
GRADE dB 1.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

3 :ld
Dillon Road :Road
Indian Canyon Drive to Little Morongo Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 10300
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	596.51	12.36	20.60	442.85	2.06	3.43	109.82	17.17	28.61
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.05	3.21	5.43	18.75	-4.57	-2.35	12.70	4.64	6.86
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.70	57.99	64.17	66.41	50.21	56.39	60.35	59.42	65.60
	DAY LEQ	69.61		EVENING LEQ	66.92		NIGHT LEQ	67.48	

CNEL 74.39
DAY LEQ 69.61

Day hour 91.00
Absorptive? no
Use hour? no
GRADE dB 2.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

3 :ld
Dillon Road :Road
Indian Canyon Drive to Little Morongo Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 10700
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	619.68	12.84	21.40	460.04	2.14	3.57	114.08	17.83	29.72
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.21	3.38	5.59	18.92	-4.41	-2.19	12.86	4.80	7.02
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.87	58.16	64.34	66.57	50.38	56.56	60.52	59.59	65.77
	DAY LEQ	69.77		EVENING LEQ	67.08		NIGHT LEQ	67.64	

CNEL 74.56
DAY LEQ 69.77

Day hour 91.00
Absorptive? no
Use hour? no
GRADE dB 2.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

4 :ld
Dillon Road :Road
East of Little Morongo Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 10300
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	631.69	7.72	3.00	466.83	1.37	1.37	116.93	10.30	4.01
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.30	1.17	-2.93	18.98	-6.34	-6.33	12.97	2.42	-1.68
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.95	55.95	55.81	66.64	48.44	52.42	60.63	57.20	57.06
	DAY LEQ	68.46		EVENING LEQ	66.86		NIGHT LEQ	63.40	

CNEL 71.35
DAY LEQ 68.46

Day hour 92.00
Absorptive? no
Use hour? no
GRADE dB 3.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise Without Event

4 :ld
Dillon Road :Road
East of Little Morongo Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 10700
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	656.23	8.02	3.12	484.96	1.42	1.43	121.47	10.70	4.16
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.46	1.33	-2.77	19.15	-6.17	-6.16	13.14	2.58	-1.52
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.12	56.12	55.98	66.80	48.61	52.58	60.79	57.37	57.23
	DAY LEQ	68.63		EVENING LEQ	67.03		NIGHT LEQ	63.57	

CNEL 71.51
DAY LEQ 68.63

Day hour 92.00
Absorptive? no
Use hour? no
GRADE dB 3.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

5
18th Avenue
East of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 457
Speed 35
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	28.03	0.34	0.13	20.71	0.06	0.06	5.19	0.46	0.18
Speed in MPH	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	65.11	74.83	80.05	65.11	74.83	80.05	65.11	74.83	80.05
ADJUSTMENTS									
Flow	8.73	-10.40	-14.50	7.42	-17.91	-17.89	1.40	-9.15	-13.25
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	50.99	41.58	42.70	49.67	34.07	39.30	43.66	42.83	43.95
	DAY LEQ	52.00		EVENING LEQ	50.16		NIGHT LEQ	48.28	

CNEL 55.71
DAY LEQ 52.00

Day hour 93.00
Absorptive? no
Use hour? no
GRADE dB 4.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise Without Event

5 :ld
18th Avenue :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1057
Speed 35
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	64.83	0.79	0.31	47.91	0.14	0.14	12.00	1.06	0.41
Speed in MPH	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	65.11	74.83	80.05	65.11	74.83	80.05	65.11	74.83	80.05
ADJUSTMENTS									
Flow	12.37	-6.76	-10.86	11.06	-14.26	-14.25	5.05	-5.51	-9.61
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	54.63	45.22	46.34	53.32	37.71	42.94	47.30	46.47	47.59
	DAY LEQ	55.64		EVENING LEQ	53.81		NIGHT LEQ	51.92	

CNEL 59.35
DAY LEQ 55.64

Day hour 93.00
Absorptive? no
Use hour? no
GRADE dB 4.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

6
19th Avenue
East of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1201
Speed 35
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	73.66	0.90	0.35	54.43	0.16	0.16	13.63	1.20	0.47
Speed in MPH	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	65.11	74.83	80.05	65.11	74.83	80.05	65.11	74.83	80.05
ADJUSTMENTS									
Flow	12.93	-6.20	-10.30	11.61	-13.71	-13.70	5.60	-4.95	-9.05
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	55.18	45.78	46.89	53.87	38.27	43.50	47.86	47.03	48.14
	DAY LEQ	56.20		EVENING LEQ	54.36		NIGHT LEQ	52.47	

CNEL 59.91
DAY LEQ 56.20

Day hour 94.00
Absorptive? no
Use hour? no
GRADE dB 5.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise Without Event

6 :Id
19th Avenue :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1201
Speed 35
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	73.66	0.90	0.35	54.43	0.16	0.16	13.63	1.20	0.47
Speed in MPH	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	65.11	74.83	80.05	65.11	74.83	80.05	65.11	74.83	80.05
ADJUSTMENTS									
Flow	12.93	-6.20	-10.30	11.61	-13.71	-13.70	5.60	-4.95	-9.05
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	55.18	45.78	46.89	53.87	38.27	43.50	47.86	47.03	48.14
	DAY LEQ	56.20		EVENING LEQ	54.36		NIGHT LEQ	52.47	

CNEL 59.91
DAY LEQ 56.20

Day hour 94.00
Absorptive? no
Use hour? no
GRADE dB 5.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

7
20th Avenue
East of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 6200
Speed 55
Distance 36
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	380.24	4.65	1.81	281.01	0.83	0.83	70.39	6.20	2.41
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	18.09	-1.04	-5.14	16.78	-8.54	-8.53	10.77	0.21	-3.89
Distance	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.17	55.17	55.04	65.86	47.67	51.64	59.85	56.42	56.28
	DAY LEQ	67.68		EVENING LEQ	66.08		NIGHT LEQ	62.62	

CNEL 70.57
DAY LEQ 67.68

Day hour 95.00
Absorptive? no
Use hour? no
GRADE dB 6.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise Without Event

7 :Id
20th Avenue :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 8500
Speed 55
Distance 36
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	521.30	6.37	2.48	385.25	1.13	1.13	96.50	8.50	3.31
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	19.46	0.34	-3.77	18.15	-7.17	-7.16	12.14	1.58	-2.52
Distance	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.54	56.54	56.41	67.23	49.04	53.01	61.22	57.79	57.65
	DAY LEQ	69.05		EVENING LEQ	67.45		NIGHT LEQ	63.99	

CNEL 71.94
DAY LEQ 69.05

Day hour 95.00
Absorptive? no
Use hour? no
GRADE dB 6.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

8
Garnet Avenue
West of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 5300
Speed 50
Distance 44
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	325.05	3.97	1.55	240.21	0.71	0.71	60.17	5.30	2.06
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	17.82	-1.30	-5.40	16.51	-8.81	-8.80	10.50	-0.05	-4.15
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.43	52.98	53.10	63.12	45.47	49.71	57.10	54.23	54.35
	DAY LEQ	65.02		EVENING LEQ	63.38		NIGHT LEQ	60.21	

CNEL 68.05
DAY LEQ 65.02

Day hour 96.00
Absorptive? no
Use hour? no
GRADE dB 7.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise Without Event

8 :ld
Garnet Avenue :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 8800
Speed 50
Distance 44
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	539.70	6.60	2.57	398.85	1.17	1.17	99.90	8.80	3.42
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	20.03	0.90	-3.20	18.71	-6.61	-6.60	12.70	2.15	-1.95
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.63	55.18	55.30	65.32	47.67	51.91	59.31	56.43	56.55
	DAY LEQ	67.22		EVENING LEQ	65.58		NIGHT LEQ	62.41	

CNEL 70.25
DAY LEQ 67.22

Day hour 96.00
Absorptive? no
Use hour? no
GRADE dB 7.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

9 :ld
Tramview Avenue :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1300
Speed 25
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	79.73	0.97	0.38	58.92	0.17	0.17	14.76	1.30	0.51
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	14.73	-4.40	-8.50	13.42	-11.90	-11.89	7.41	-3.15	-7.25
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	51.32	43.84	45.89	50.01	36.33	42.50	43.99	45.09	47.14
	DAY LEQ	52.98		EVENING LEQ	50.87		NIGHT LEQ	50.38	

CNEL 57.46
DAY LEQ 52.98

Day hour 97.00
Absorptive? no
Use hour? no
GRADE dB 8.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise Without Event

9 :ld
Tramview Avenue :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1400
Speed 25
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	85.86	1.05	0.41	63.45	0.19	0.19	15.89	1.40	0.54
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.05	-4.07	-8.17	13.74	-11.58	-11.57	7.73	-2.82	-6.93
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	51.64	44.16	46.21	50.33	36.65	42.82	44.32	45.41	47.46
	DAY LEQ	53.30		EVENING LEQ	51.19		NIGHT LEQ	50.70	

F CNEL 57.78 Day hour 97.00
DAY LEQ 53.30 Absorptive? no
Use hour? no
GRADE dB 8.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

10 :ld
San Rafael Drive :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 6000
Speed 50
Distance 44
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	367.98	4.50	1.75	271.94	0.80	0.80	68.12	6.00	2.33
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	18.36	-0.76	-4.86	17.05	-8.27	-8.26	11.04	0.49	-3.62
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.97	53.52	53.64	63.65	46.01	50.24	57.64	54.76	54.89
	DAY LEQ	65.56		EVENING LEQ	63.92		NIGHT LEQ	60.75	

CNEL 68.59
DAY LEQ 65.56

Day hour 98.00
Absorptive? no
Use hour? no
GRADE dB 9.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise Without Event

10 :ld
San Rafael Drive :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 6100
Speed 50
Distance 44
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	374.11	4.57	1.78	276.47	0.81	0.81	69.25	6.10	2.37
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	18.43	-0.69	-4.79	17.12	-8.20	-8.19	11.11	0.56	-3.54
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	65.04	53.59	53.71	63.73	46.08	50.32	57.71	54.84	54.96
	DAY LEQ	65.63		EVENING LEQ	63.99		NIGHT LEQ	60.82	

CNEL 68.66
DAY LEQ 65.63

Day hour 98.00
Absorptive? no
Use hour? no
GRADE dB 9.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

11 :ld
 Racquet Club Drive :Road
 East of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 7100
 Speed 45
 Distance 44
 Left Angle -90
 Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	411.19	8.52	14.20	305.26	1.42	2.37	75.70	11.83	19.72
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	19.30	2.47	4.68	18.01	-5.32	-3.10	11.95	3.89	6.11
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.13	55.57	62.31	62.84	47.79	54.53	56.78	57.00	63.74
	DAY LEQ	66.68		EVENING LEQ	63.55		NIGHT LEQ	65.24	

CNEL 71.98
 DAY LEQ 66.68

Day hour 99.00
 Absorptive? no
 Use hour? no
 GRADE dB 10.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

11 :ld
 Racquet Club Drive :Road
 East of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 7200
 Speed 45
 Distance 44
 Left Angle -90
 Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	416.98	8.64	14.40	309.56	1.44	2.40	76.76	12.00	20.00
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	19.36	2.53	4.75	18.07	-5.25	-3.04	12.01	3.95	6.17
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.19	55.63	62.37	62.90	47.85	54.59	56.84	57.06	63.80
	DAY LEQ	66.74		EVENING LEQ	63.61		NIGHT LEQ	65.30	

CNEL 72.04
 DAY LEQ 66.74

Day hour 99.00
 Absorptive? no
 Use hour? no
 GRADE dB 10.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

12 :ld
Indian Canyon Drive :Road
North of Pierson Boulevard :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 6900
Speed 55
Distance 40
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	399.61	8.28	13.80	296.66	1.38	2.30	73.57	11.50	19.17
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	18.31	1.47	3.69	17.01	-6.31	-4.09	10.96	2.90	5.12
Distance	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.93	57.22	63.40	65.64	49.44	55.62	59.58	58.65	64.83
	DAY LEQ	68.84		EVENING LEQ	66.14		NIGHT LEQ	66.70	

CNEL 73.62
DAY LEQ 68.84

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

12 :ld
Indian Canyon Drive :Road
North of Pierson Boulevard :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 7000
Speed 55
Distance 40
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	405.40	8.40	14.00	300.96	1.40	2.33	74.63	11.67	19.44
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	18.37	1.53	3.75	17.08	-6.25	-4.03	11.02	2.96	5.18
Distance	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.99	57.29	63.47	65.70	49.50	55.68	59.64	58.71	64.89
	DAY LEQ	68.90		EVENING LEQ	66.21		NIGHT LEQ	66.77	

CNEL 73.68
DAY LEQ 68.90

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

13 :ld
Indian Canyon Drive :Road
Pierson Boulevard to Dillon Road :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 9000
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	521.23	10.80	18.00	386.95	1.80	3.00	95.96	15.00	25.00
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	19.46	2.62	4.84	18.17	-5.16	-2.94	12.11	4.05	6.27
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.70	56.99	63.17	65.41	49.21	55.39	59.35	58.42	64.60
	DAY LEQ	68.61		EVENING LEQ	65.92		NIGHT LEQ	66.48	

CNEL 73.39
DAY LEQ 68.61

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

13 :ld
Indian Canyon Drive :Road
Pierson Boulevard to Dillon Road :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 9300
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	538.60	11.16	18.60	399.85	1.86	3.10	99.15	15.50	25.83
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	19.60	2.77	4.99	18.31	-5.01	-2.80	12.25	4.19	6.41
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.85	57.14	63.32	65.55	49.35	55.54	59.50	58.56	64.74
	DAY LEQ	68.75		EVENING LEQ	66.06		NIGHT LEQ	66.62	

CNEL 73.53
DAY LEQ 68.75

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

14 :ld
Indian Canyon Drive :Road
Dillon Road to 18th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 14500
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	839.75	17.40	29.00	623.42	2.90	4.83	154.60	24.17	40.28
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.53	4.70	6.91	20.24	-3.09	-0.87	14.18	6.12	8.34
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.77	59.07	65.25	67.48	51.28	57.46	61.42	60.49	66.67
	DAY LEQ	70.68		EVENING LEQ	67.99		NIGHT LEQ	68.55	

CNEL 75.46
DAY LEQ 70.68

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

14 :ld
Indian Canyon Drive :Road
Dillon Road to 18th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 15500
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	897.67	18.60	31.00	666.42	3.10	5.17	165.26	25.83	43.06
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.82	4.99	7.20	20.53	-2.80	-0.58	14.47	6.41	8.63
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.06	59.35	65.54	67.77	51.57	57.75	61.71	60.78	66.96
	DAY LEQ	70.97		EVENING LEQ	68.28		NIGHT LEQ	68.84	

CNEL 75.75
DAY LEQ 70.97

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

15
Indian Canyon Drive
18th Avenue to North Project
Driveway

:Id
:Road
:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 14500
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	839.75	17.40	29.00	623.42	2.90	4.83	154.60	24.17	40.28
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.53	4.70	6.91	20.24	-3.09	-0.87	14.18	6.12	8.34
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.77	59.07	65.25	67.48	51.28	57.46	61.42	60.49	66.67
	DAY LEQ	70.68		EVENING LEQ	67.99		NIGHT LEQ	68.55	

CNEL 75.46
DAY LEQ 70.68

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

15 :ld
Indian Canyon Drive :Road
18th Avenue to North Project :Segment
Driveway

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 15200
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	880.29	18.24	30.40	653.52	3.04	5.07	162.06	25.33	42.22
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.74	4.90	7.12	20.44	-2.88	-0.66	14.39	6.33	8.55
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.98	59.27	65.45	67.69	51.49	57.67	61.63	60.70	66.88
	DAY LEQ	70.88		EVENING LEQ	68.19		NIGHT LEQ	68.75	

CNEL 75.67
DAY LEQ 70.88

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

16
Indian Canyon Drive
North Project Driveway to 19th Avenue

:Id
:Road
:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 14300
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	828.17	17.16	28.60	614.82	2.86	4.77	152.46	23.83	39.72
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.47	4.64	6.85	20.18	-3.15	-0.93	14.12	6.06	8.28
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.71	59.01	65.19	67.42	51.22	57.40	61.36	60.43	66.61
	DAY LEQ	70.62		EVENING LEQ	67.93		NIGHT LEQ	68.49	

CNEL 75.40
DAY LEQ 70.62

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

16 :ld
Indian Canyon Drive :Road
North Project Driveway to 19th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 21800
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1262.53	26.16	43.60	937.28	4.36	7.27	232.43	36.33	60.56
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	23.30	6.47	8.69	22.01	-1.31	0.90	15.95	7.89	10.11
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.55	60.84	67.02	69.25	53.05	59.23	63.20	62.26	68.44
	DAY LEQ	72.45		EVENING LEQ	69.76		NIGHT LEQ	70.32	

CNEL 77.23
DAY LEQ 72.45

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

17 :ld
Indian Canyon Drive :Road
19th Avenue to 20th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 14300
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	828.17	17.16	28.60	614.82	2.86	4.77	152.46	23.83	39.72
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.47	4.64	6.85	20.18	-3.15	-0.93	14.12	6.06	8.28
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.71	59.01	65.19	67.42	51.22	57.40	61.36	60.43	66.61
	DAY LEQ	70.62		EVENING LEQ	67.93		NIGHT LEQ	68.49	

CNEL 75.40
DAY LEQ 70.62

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

17 :ld
Indian Canyon Drive :Road
19th Avenue to 20th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 21800
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1262.53	26.16	43.60	937.28	4.36	7.27	232.43	36.33	60.56
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	23.30	6.47	8.69	22.01	-1.31	0.90	15.95	7.89	10.11
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.55	60.84	67.02	69.25	53.05	59.23	63.20	62.26	68.44
	DAY LEQ	72.45		EVENING LEQ	69.76		NIGHT LEQ	70.32	

CNEL 77.23
DAY LEQ 72.45

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

18 :ld
Indian Canyon Drive :Road
20th Avenue to Garnet Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 18700
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1082.99	22.44	37.40	804.00	3.74	6.23	199.38	31.17	51.94
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	22.64	5.80	8.02	21.34	-1.98	0.24	15.29	7.23	9.45
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.88	60.17	66.35	68.59	52.39	58.57	62.53	61.60	67.78
	DAY LEQ	71.78		EVENING LEQ	69.09		NIGHT LEQ	69.65	

CNEL 76.57
DAY LEQ 71.78

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

18 :ld
Indian Canyon Drive :Road
20th Avenue to Garnet Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 23900
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1384.14	28.68	47.80	1027.57	4.78	7.97	254.82	39.83	66.39
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	23.70	6.87	9.08	22.41	-0.92	1.30	16.35	8.29	10.51
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.94	61.24	67.42	69.65	53.45	59.63	63.59	62.66	68.84
	DAY LEQ	72.85		EVENING LEQ	70.16		NIGHT LEQ	70.72	

CNEL 77.63
DAY LEQ 72.85

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

19 :ld
Indian Canyon Drive :Road
Garnet Avenue to Tramview Road :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16100
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	932.42	19.32	32.20	692.21	3.22	5.37	171.65	26.83	44.72
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.99	5.15	7.37	20.69	-2.63	-0.41	14.64	6.58	8.80
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.23	59.52	65.70	67.94	51.74	57.92	61.88	60.95	67.13
	DAY LEQ	71.13		EVENING LEQ	68.44		NIGHT LEQ	69.00	

CNEL 75.92
DAY LEQ 71.13

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

19 :ld
Indian Canyon Drive :Road
Garnet Avenue to Tramview Road :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16700
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	967.16	20.04	33.40	718.01	3.34	5.57	178.05	27.83	46.39
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	22.15	5.31	7.53	20.85	-2.47	-0.25	14.80	6.74	8.95
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.39	59.68	65.86	68.09	51.90	58.08	62.04	61.11	67.29
	DAY LEQ	71.29		EVENING LEQ	68.60		NIGHT LEQ	69.16	

CNEL 76.07
DAY LEQ 71.29

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

20 :ld
Indian Canyon Drive :Road
Tramview Road to San Rafael Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16600
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	961.37	19.92	33.20	713.71	3.32	5.53	176.99	27.67	46.11
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	22.99	6.15	8.37	21.70	-1.63	0.59	15.64	7.58	9.80
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.85	58.29	65.03	65.56	50.51	57.25	59.50	59.72	66.46
	DAY LEQ	69.40		EVENING LEQ	66.27		NIGHT LEQ	67.96	

CNEL 74.69
DAY LEQ 69.40

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

20 :ld
Indian Canyon Drive :Road
Tramview Road to San Rafael Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 17100
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	990.33	20.52	34.20	735.21	3.42	5.70	182.32	28.50	47.50
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	23.12	6.28	8.50	21.83	-1.50	0.72	15.77	7.71	9.93
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.98	58.42	65.16	65.69	50.64	57.38	59.63	59.85	66.59
	DAY LEQ	69.53		EVENING LEQ	66.40		NIGHT LEQ	68.09	

CNEL 74.82
DAY LEQ 69.53

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

21 :ld
Indian Canyon Drive :Road
San Rafael Drive to Racquet Club Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16600
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	961.37	19.92	33.20	713.71	3.32	5.53	176.99	27.67	46.11
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	22.99	6.15	8.37	21.70	-1.63	0.59	15.64	7.58	9.80
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.85	58.29	65.03	65.56	50.51	57.25	59.50	59.72	66.46
	DAY LEQ	69.40		EVENING LEQ	66.27		NIGHT LEQ	67.96	

CNEL 74.69
DAY LEQ 69.40

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

21 :ld
Indian Canyon Drive :Road
San Rafael Drive to Racquet Club Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16900
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	978.75	20.28	33.80	726.61	3.38	5.63	180.18	28.17	46.94
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	23.07	6.23	8.45	21.78	-1.55	0.67	15.72	7.66	9.88
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.93	58.37	65.11	65.64	50.59	57.33	59.58	59.80	66.54
	DAY LEQ	69.47		EVENING LEQ	66.35		NIGHT LEQ	68.04	

CNEL 74.77
DAY LEQ 69.47

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

22 :ld
Indian Canyon Drive :Road
South of Racquet Club Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 13000
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	752.88	15.60	26.00	558.93	2.60	4.33	138.60	21.67	36.11
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.93	5.09	7.31	20.64	-2.69	-0.47	14.58	6.52	8.74
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	65.79	57.23	63.97	64.50	49.45	56.19	58.44	58.66	65.40
	DAY LEQ	68.34		EVENING LEQ	65.21		NIGHT LEQ	66.90	

CNEL 73.63
DAY LEQ 68.34

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise Without Event

22 :ld
Indian Canyon Drive :Road
South of Racquet Club Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 13200
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	764.46	15.84	26.40	567.53	2.64	4.40	140.74	22.00	36.67
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	22.00	5.16	7.38	20.70	-2.62	-0.40	14.65	6.59	8.80
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	65.86	57.30	64.04	64.56	49.52	56.25	58.51	58.72	65.46
	DAY LEQ	68.40		EVENING LEQ	65.28		NIGHT LEQ	66.97	

CNEL 73.70
DAY LEQ 68.40

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

1
Pierson Boulevard
East of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 5300
Speed 50
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	306.94	6.36	10.60	227.87	1.06	1.77	56.51	8.83	14.72
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	17.58	0.74	2.96	16.28	-7.04	-4.82	10.23	2.17	4.38
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.21	54.05	60.49	61.92	46.27	52.71	55.86	55.48	61.92
	DAY LEQ	65.40		EVENING LEQ	62.51		NIGHT LEQ	63.61	

F CNEL 70.43
DAY LEQ 65.40

Day hour 89.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

1 :ld
Pierson Boulevard :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 5600
Speed 50
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	324.32	6.72	11.20	240.77	1.12	1.87	59.71	9.33	15.56
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	17.81	0.98	3.20	16.52	-6.80	-4.58	10.46	2.40	4.62
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.45	54.29	60.73	62.16	46.51	52.95	56.10	55.71	62.16
	DAY LEQ	65.64		EVENING LEQ	62.75		NIGHT LEQ	63.85	

CNEL 70.67
DAY LEQ 65.64

Day hour 89.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

2 :ld
Dillon Road :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 2600
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	150.58	3.12	5.20	111.79	0.52	0.87	27.72	4.33	7.22
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	14.07	-2.77	-0.55	12.77	-10.55	-8.33	6.72	-1.34	0.88
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	61.72	52.02	58.20	60.43	44.23	50.41	54.37	53.44	59.62
	DAY LEQ	63.63		EVENING LEQ	60.94		NIGHT LEQ	61.50	

CNEL 68.41
DAY LEQ 63.63

Day hour 90.00
Absorptive? no
Use hour? no
GRADE dB 1.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

2 :ld
Dillon Road :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 2900
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	167.95	3.48	5.80	124.68	0.58	0.97	30.92	4.83	8.06
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	14.54	-2.29	-0.08	13.25	-10.08	-7.86	7.19	-0.87	1.35
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.20	52.49	58.67	60.90	44.71	50.89	54.85	53.92	60.10
	DAY LEQ	64.10		EVENING LEQ	61.41		NIGHT LEQ	61.97	

CNEL 68.89
DAY LEQ 64.10

Day hour 90.00
Absorptive? no
Use hour? no
GRADE dB 1.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

3 :ld
Dillon Road :Road
Indian Canyon Drive to Little Morongo Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 10300
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	596.51	12.36	20.60	442.85	2.06	3.43	109.82	17.17	28.61
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.05	3.21	5.43	18.75	-4.57	-2.35	12.70	4.64	6.86
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.70	57.99	64.17	66.41	50.21	56.39	60.35	59.42	65.60
	DAY LEQ	69.61		EVENING LEQ	66.92		NIGHT LEQ	67.48	

CNEL 74.39
DAY LEQ 69.61

Day hour 91.00
Absorptive? no
Use hour? no
GRADE dB 2.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

3 :ld
Dillon Road :Road
Indian Canyon Drive to Little Morongo Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 10800
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	625.47	12.96	21.60	464.34	2.16	3.60	115.15	18.00	30.00
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.25	3.42	5.64	18.96	-4.36	-2.15	12.90	4.84	7.06
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.91	58.20	64.38	66.61	50.42	56.60	60.56	59.63	65.81
	DAY LEQ	69.81		EVENING LEQ	67.12		NIGHT LEQ	67.68	

CNEL 74.60
DAY LEQ 69.81

Day hour 91.00
Absorptive? no
Use hour? no
GRADE dB 2.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

4 :ld
Dillon Road :Road
East of Little Morongo Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 10300
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	631.69	7.72	3.00	466.83	1.37	1.37	116.93	10.30	4.01
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.30	1.17	-2.93	18.98	-6.34	-6.33	12.97	2.42	-1.68
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.95	55.95	55.81	66.64	48.44	52.42	60.63	57.20	57.06
	DAY LEQ	68.46		EVENING LEQ	66.86		NIGHT LEQ	63.40	

CNEL 71.35
DAY LEQ 68.46

Day hour 92.00
Absorptive? no
Use hour? no
GRADE dB 3.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise With Event

4 :ld
Dillon Road :Road
East of Little Morongo Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 10800
Speed 55
Distance 50
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	662.36	8.10	3.15	489.49	1.44	1.44	122.61	10.80	4.20
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.50	1.38	-2.73	19.19	-6.13	-6.12	13.18	2.62	-1.48
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.16	56.16	56.02	66.84	48.65	52.62	60.83	57.41	57.27
	DAY LEQ	68.67		EVENING LEQ	67.07		NIGHT LEQ	63.61	

CNEL 71.55
DAY LEQ 68.67

Day hour 92.00
Absorptive? no
Use hour? no
GRADE dB 3.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

5
18th Avenue
East of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 457
Speed 35
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	28.03	0.34	0.13	20.71	0.06	0.06	5.19	0.46	0.18
Speed in MPH	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	65.11	74.83	80.05	65.11	74.83	80.05	65.11	74.83	80.05
ADJUSTMENTS									
Flow	8.73	-10.40	-14.50	7.42	-17.91	-17.89	1.40	-9.15	-13.25
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	50.99	41.58	42.70	49.67	34.07	39.30	43.66	42.83	43.95
	DAY LEQ	52.00		EVENING LEQ	50.16		NIGHT LEQ	48.28	

CNEL 55.71
DAY LEQ 52.00

Day hour 93.00
Absorptive? no
Use hour? no
GRADE dB 4.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise With Event

5 :ld
18th Avenue :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1057
Speed 35
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	64.83	0.79	0.31	47.91	0.14	0.14	12.00	1.06	0.41
Speed in MPH	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	65.11	74.83	80.05	65.11	74.83	80.05	65.11	74.83	80.05
ADJUSTMENTS									
Flow	12.37	-6.76	-10.86	11.06	-14.26	-14.25	5.05	-5.51	-9.61
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	54.63	45.22	46.34	53.32	37.71	42.94	47.30	46.47	47.59
	DAY LEQ	55.64		EVENING LEQ	53.81		NIGHT LEQ	51.92	

CNEL 59.35
DAY LEQ 55.64

Day hour 93.00
Absorptive? no
Use hour? no
GRADE dB 4.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

6
19th Avenue
East of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1201
Speed 35
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	73.66	0.90	0.35	54.43	0.16	0.16	13.63	1.20	0.47
Speed in MPH	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	65.11	74.83	80.05	65.11	74.83	80.05	65.11	74.83	80.05
ADJUSTMENTS									
Flow	12.93	-6.20	-10.30	11.61	-13.71	-13.70	5.60	-4.95	-9.05
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	55.18	45.78	46.89	53.87	38.27	43.50	47.86	47.03	48.14
	DAY LEQ	56.20		EVENING LEQ	54.36		NIGHT LEQ	52.47	

CNEL 59.91
DAY LEQ 56.20

Day hour 94.00
Absorptive? no
Use hour? no
GRADE dB 5.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise With Event

6 :Id
19th Avenue :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 6001
Speed 35
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	368.04	4.50	1.75	271.99	0.80	0.80	68.13	6.00	2.33
Speed in MPH	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	65.11	74.83	80.05	65.11	74.83	80.05	65.11	74.83	80.05
ADJUSTMENTS									
Flow	19.91	0.79	-3.32	18.60	-6.72	-6.71	12.59	2.04	-2.07
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.17	52.76	53.88	60.86	45.25	50.48	54.84	54.01	55.13
	DAY LEQ	63.18		EVENING LEQ	61.35		NIGHT LEQ	59.46	

CNEL 66.89
DAY LEQ 63.18

Day hour 94.00
Absorptive? no
Use hour? no
GRADE dB 5.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

7
20th Avenue
East of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 6200
Speed 55
Distance 36
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	380.24	4.65	1.81	281.01	0.83	0.83	70.39	6.20	2.41
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	18.09	-1.04	-5.14	16.78	-8.54	-8.53	10.77	0.21	-3.89
Distance	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.17	55.17	55.04	65.86	47.67	51.64	59.85	56.42	56.28
	DAY LEQ	67.68		EVENING LEQ	66.08		NIGHT LEQ	62.62	

CNEL 70.57
DAY LEQ 67.68

Day hour 95.00
Absorptive? no
Use hour? no
GRADE dB 6.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise With Event

7 :ld
20th Avenue :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 10700
Speed 55
Distance 36
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	656.23	8.02	3.12	484.96	1.42	1.43	121.47	10.70	4.16
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	20.46	1.33	-2.77	19.15	-6.17	-6.16	13.14	2.58	-1.52
Distance	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.54	57.54	57.41	68.23	50.04	54.01	62.22	58.79	58.65
	DAY LEQ	70.05		EVENING LEQ	68.45		NIGHT LEQ	64.99	

CNEL 72.94
DAY LEQ 70.05

Day hour 95.00
Absorptive? no
Use hour? no
GRADE dB 6.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

8
Garnet Avenue
West of Indian Canyon Drive

:Id
:Road
:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 5300
Speed 50
Distance 44
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	325.05	3.97	1.55	240.21	0.71	0.71	60.17	5.30	2.06
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	17.82	-1.30	-5.40	16.51	-8.81	-8.80	10.50	-0.05	-4.15
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.43	52.98	53.10	63.12	45.47	49.71	57.10	54.23	54.35
	DAY LEQ	65.02		EVENING LEQ	63.38		NIGHT LEQ	60.21	

CNEL 68.05
DAY LEQ 65.02

Day hour 96.00
Absorptive? no
Use hour? no
GRADE dB 7.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise With Event

8 :ld
Garnet Avenue :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 11000
Speed 50
Distance 44
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	674.62	8.25	3.21	498.56	1.46	1.47	124.88	11.00	4.28
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	21.00	1.87	-2.23	19.68	-5.64	-5.63	13.67	3.12	-0.98
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.60	56.15	56.27	66.29	48.64	52.88	60.27	57.40	57.52
	DAY LEQ	68.19		EVENING LEQ	66.55		NIGHT LEQ	63.38	

CNEL 71.22
DAY LEQ 68.19

Day hour 96.00
Absorptive? no
Use hour? no
GRADE dB 7.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

9 :ld
Tramview Avenue :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1300
Speed 25
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	79.73	0.97	0.38	58.92	0.17	0.17	14.76	1.30	0.51
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	14.73	-4.40	-8.50	13.42	-11.90	-11.89	7.41	-3.15	-7.25
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	51.32	43.84	45.89	50.01	36.33	42.50	43.99	45.09	47.14
	DAY LEQ	52.98		EVENING LEQ	50.87		NIGHT LEQ	50.38	

CNEL 57.46
DAY LEQ 52.98

Day hour 97.00
Absorptive? no
Use hour? no
GRADE dB 8.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise With Event

9 :ld
Tramview Avenue :Road
West of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 1400
Speed 25
Distance 30
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	85.86	1.05	0.41	63.45	0.19	0.19	15.89	1.40	0.54
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.05	-4.07	-8.17	13.74	-11.58	-11.57	7.73	-2.82	-6.93
Distance	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	51.64	44.16	46.21	50.33	36.65	42.82	44.32	45.41	47.46
	DAY LEQ	53.30		EVENING LEQ	51.19		NIGHT LEQ	50.70	

F CNEL 57.78 Day hour 97.00
DAY LEQ 53.30 Absorptive? no
Use hour? no
GRADE dB 8.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

10 :ld
San Rafael Drive :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 6000
Speed 50
Distance 44
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	367.98	4.50	1.75	271.94	0.80	0.80	68.12	6.00	2.33
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	18.36	-0.76	-4.86	17.05	-8.27	-8.26	11.04	0.49	-3.62
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.97	53.52	53.64	63.65	46.01	50.24	57.64	54.76	54.89
	DAY LEQ	65.56		EVENING LEQ	63.92		NIGHT LEQ	60.75	

CNEL 68.59
DAY LEQ 65.56

Day hour 98.00
Absorptive? no
Use hour? no
GRADE dB 9.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise With Event

10 :ld
San Rafael Drive :Road
East of Indian Canyon Drive :Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT 6200
Speed 50
Distance 44
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	380.24	4.65	1.81	281.01	0.83	0.83	70.39	6.20	2.41
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	18.51	-0.62	-4.72	17.19	-8.13	-8.12	11.18	0.63	-3.47
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	65.11	53.66	53.78	63.80	46.15	50.39	57.78	54.91	55.03
	DAY LEQ	65.70		EVENING LEQ	64.06		NIGHT LEQ	60.89	

CNEL 68.73
DAY LEQ 65.70

Day hour 98.00
Absorptive? no
Use hour? no
GRADE dB 9.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

11 :ld
 Racquet Club Drive :Road
 East of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 7100
 Speed 45
 Distance 44
 Left Angle -90
 Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	411.19	8.52	14.20	305.26	1.42	2.37	75.70	11.83	19.72
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	19.30	2.47	4.68	18.01	-5.32	-3.10	11.95	3.89	6.11
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.13	55.57	62.31	62.84	47.79	54.53	56.78	57.00	63.74
	DAY LEQ	66.68		EVENING LEQ	63.55		NIGHT LEQ	65.24	

CNEL 71.98
 DAY LEQ 66.68

Day hour 99.00
 Absorptive? no
 Use hour? no
 GRADE dB 10.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

11 :ld
 Racquet Club Drive :Road
 East of Indian Canyon Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 7300
 Speed 45
 Distance 44
 Left Angle -90
 Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	422.77	8.76	14.60	313.86	1.46	2.43	77.83	12.17	20.28
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	19.42	2.59	4.81	18.13	-5.19	-2.98	12.07	4.01	6.23
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.25	55.69	62.43	62.96	47.91	54.65	56.90	57.12	63.86
	DAY LEQ	66.80		EVENING LEQ	63.67		NIGHT LEQ	65.36	

CNEL 72.10
 DAY LEQ 66.80

Day hour 99.00
 Absorptive? no
 Use hour? no
 GRADE dB 10.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

12 :ld
Indian Canyon Drive :Road
North of Pierson Boulevard :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 6900
Speed 55
Distance 40
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	399.61	8.28	13.80	296.66	1.38	2.30	73.57	11.50	19.17
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	18.31	1.47	3.69	17.01	-6.31	-4.09	10.96	2.90	5.12
Distance	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.93	57.22	63.40	65.64	49.44	55.62	59.58	58.65	64.83
	DAY LEQ	68.84		EVENING LEQ	66.14		NIGHT LEQ	66.70	

CNEL 73.62
DAY LEQ 68.84

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

12 :ld
Indian Canyon Drive :Road
North of Pierson Boulevard :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 7000
Speed 55
Distance 40
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	405.40	8.40	14.00	300.96	1.40	2.33	74.63	11.67	19.44
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	18.37	1.53	3.75	17.08	-6.25	-4.03	11.02	2.96	5.18
Distance	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.99	57.29	63.47	65.70	49.50	55.68	59.64	58.71	64.89
	DAY LEQ	68.90		EVENING LEQ	66.21		NIGHT LEQ	66.77	

CNEL 73.68
DAY LEQ 68.90

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

13 :ld
Indian Canyon Drive :Road
Pierson Boulevard to Dillon Road :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 9000
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	521.23	10.80	18.00	386.95	1.80	3.00	95.96	15.00	25.00
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	19.46	2.62	4.84	18.17	-5.16	-2.94	12.11	4.05	6.27
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.70	56.99	63.17	65.41	49.21	55.39	59.35	58.42	64.60
	DAY LEQ	68.61		EVENING LEQ	65.92		NIGHT LEQ	66.48	

CNEL 73.39
DAY LEQ 68.61

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

13 :ld
Indian Canyon Drive :Road
Pierson Boulevard to Dillon Road :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 9400
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	544.39	11.28	18.80	404.15	1.88	3.13	100.22	15.67	26.11
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	19.65	2.81	5.03	18.36	-4.97	-2.75	12.30	4.24	6.46
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.89	57.18	63.36	65.60	49.40	55.58	59.54	58.61	64.79
	DAY LEQ	68.80		EVENING LEQ	66.10		NIGHT LEQ	66.66	

CNEL 73.58
DAY LEQ 68.80

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

14 :ld
Indian Canyon Drive :Road
Dillon Road to 18th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 14500
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	839.75	17.40	29.00	623.42	2.90	4.83	154.60	24.17	40.28
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.53	4.70	6.91	20.24	-3.09	-0.87	14.18	6.12	8.34
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.77	59.07	65.25	67.48	51.28	57.46	61.42	60.49	66.67
	DAY LEQ	70.68		EVENING LEQ	67.99		NIGHT LEQ	68.55	

CNEL 75.46
DAY LEQ 70.68

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

14 :ld
Indian Canyon Drive :Road
Dillon Road to 18th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 15700
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	909.25	18.84	31.40	675.02	3.14	5.23	167.39	26.17	43.61
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.88	5.04	7.26	20.58	-2.74	-0.52	14.53	6.47	8.69
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.12	59.41	65.59	67.83	51.63	57.81	61.77	60.84	67.02
	DAY LEQ	71.02		EVENING LEQ	68.33		NIGHT LEQ	68.89	

CNEL 75.81
DAY LEQ 71.02

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

15
Indian Canyon Drive
18th Avenue to North Project
Driveway

:Id
:Road
:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 14500
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	839.75	17.40	29.00	623.42	2.90	4.83	154.60	24.17	40.28
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.53	4.70	6.91	20.24	-3.09	-0.87	14.18	6.12	8.34
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.77	59.07	65.25	67.48	51.28	57.46	61.42	60.49	66.67
	DAY LEQ	70.68		EVENING LEQ	67.99		NIGHT LEQ	68.55	

CNEL 75.46
DAY LEQ 70.68

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

15 :ld
Indian Canyon Drive :Road
18th Avenue to North Project :Segment
Driveway

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 15400
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	891.88	18.48	30.80	662.12	3.08	5.13	164.19	25.67	42.78
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.79	4.96	7.18	20.50	-2.82	-0.61	14.44	6.38	8.60
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.04	59.33	65.51	67.74	51.55	57.73	61.69	60.75	66.93
	DAY LEQ	70.94		EVENING LEQ	68.25		NIGHT LEQ	68.81	

CNEL 75.72
DAY LEQ 70.94

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

16
Indian Canyon Drive
North Project Driveway to 19th Avenue

:Id
:Road
:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 14300
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	828.17	17.16	28.60	614.82	2.86	4.77	152.46	23.83	39.72
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.47	4.64	6.85	20.18	-3.15	-0.93	14.12	6.06	8.28
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.71	59.01	65.19	67.42	51.22	57.40	61.36	60.43	66.61
	DAY LEQ	70.62		EVENING LEQ	67.93		NIGHT LEQ	68.49	

CNEL 75.40
DAY LEQ 70.62

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

16 :ld
Indian Canyon Drive :Road
North Project Driveway to 19th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 21800
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1262.53	26.16	43.60	937.28	4.36	7.27	232.43	36.33	60.56
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	23.30	6.47	8.69	22.01	-1.31	0.90	15.95	7.89	10.11
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.55	60.84	67.02	69.25	53.05	59.23	63.20	62.26	68.44
	DAY LEQ	72.45		EVENING LEQ	69.76		NIGHT LEQ	70.32	

CNEL 77.23
DAY LEQ 72.45

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

17 :ld
Indian Canyon Drive :Road
19th Avenue to 20th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 14300
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	828.17	17.16	28.60	614.82	2.86	4.77	152.46	23.83	39.72
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.47	4.64	6.85	20.18	-3.15	-0.93	14.12	6.06	8.28
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.71	59.01	65.19	67.42	51.22	57.40	61.36	60.43	66.61
	DAY LEQ	70.62		EVENING LEQ	67.93		NIGHT LEQ	68.49	

CNEL 75.40
DAY LEQ 70.62

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

17 :ld
Indian Canyon Drive :Road
19th Avenue to 20th Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 26600
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1540.51	31.92	53.20	1143.66	5.32	8.87	283.60	44.33	73.89
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	24.17	7.33	9.55	22.87	-0.45	1.77	16.82	8.76	10.98
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	71.41	61.70	67.88	70.12	53.92	60.10	64.06	63.13	69.31
	DAY LEQ	73.31		EVENING LEQ	70.62		NIGHT LEQ	71.18	

CNEL 78.10
DAY LEQ 73.31

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

18 :ld
Indian Canyon Drive :Road
20th Avenue to Garnet Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 18700
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1082.99	22.44	37.40	804.00	3.74	6.23	199.38	31.17	51.94
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	22.64	5.80	8.02	21.34	-1.98	0.24	15.29	7.23	9.45
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.88	60.17	66.35	68.59	52.39	58.57	62.53	61.60	67.78
	DAY LEQ	71.78		EVENING LEQ	69.09		NIGHT LEQ	69.65	

CNEL 76.57
DAY LEQ 71.78

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

18 :ld
Indian Canyon Drive :Road
20th Avenue to Garnet Avenue :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 26400
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1528.93	31.68	52.80	1135.06	5.28	8.80	281.47	44.00	73.33
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	24.13	7.30	9.52	22.84	-0.48	1.74	16.78	8.73	10.94
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	71.38	61.67	67.85	70.08	53.89	60.07	64.03	63.09	69.27
	DAY LEQ	73.28		EVENING LEQ	70.59		NIGHT LEQ	71.15	

CNEL 78.06
DAY LEQ 73.28

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

19 :ld
Indian Canyon Drive :Road
Garnet Avenue to Tramview Road :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16100
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	932.42	19.32	32.20	692.21	3.22	5.37	171.65	26.83	44.72
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	21.99	5.15	7.37	20.69	-2.63	-0.41	14.64	6.58	8.80
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.23	59.52	65.70	67.94	51.74	57.92	61.88	60.95	67.13
	DAY LEQ	71.13		EVENING LEQ	68.44		NIGHT LEQ	69.00	

CNEL 75.92
DAY LEQ 71.13

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

19 :ld
Indian Canyon Drive :Road
Garnet Avenue to Tramview Road :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16900
Speed 55
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	978.75	20.28	33.80	726.61	3.38	5.63	180.18	28.17	46.94
Speed in MPH	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	72.73	79.85	83.81	72.73	79.85	83.81	72.73	79.85	83.81
ADJUSTMENTS									
Flow	22.20	5.36	7.58	20.90	-2.42	-0.20	14.85	6.79	9.01
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.44	59.73	65.91	68.15	51.95	58.13	62.09	61.16	67.34
	DAY LEQ	71.34		EVENING LEQ	68.65		NIGHT LEQ	69.21	

CNEL 76.13
DAY LEQ 71.34

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

20 :ld
Indian Canyon Drive :Road
Tramview Road to San Rafael Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16600
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	961.37	19.92	33.20	713.71	3.32	5.53	176.99	27.67	46.11
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	22.99	6.15	8.37	21.70	-1.63	0.59	15.64	7.58	9.80
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.85	58.29	65.03	65.56	50.51	57.25	59.50	59.72	66.46
	DAY LEQ	69.40		EVENING LEQ	66.27		NIGHT LEQ	67.96	

CNEL 74.69
DAY LEQ 69.40

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

20 :ld
Indian Canyon Drive :Road
Tramview Road to San Rafael Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 17300
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1001.91	20.76	34.60	743.81	3.46	5.77	184.45	28.83	48.06
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	23.17	6.33	8.55	21.88	-1.45	0.77	15.82	7.76	9.98
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	67.03	58.47	65.21	65.74	50.69	57.43	59.68	59.90	66.64
	DAY LEQ	69.58		EVENING LEQ	66.45		NIGHT LEQ	68.14	

CNEL 74.87
DAY LEQ 69.58

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

21
Indian Canyon Drive
San Rafael Drive to Racquet Club Drive

:Id
:Road
:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 16600
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	961.37	19.92	33.20	713.71	3.32	5.53	176.99	27.67	46.11
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	22.99	6.15	8.37	21.70	-1.63	0.59	15.64	7.58	9.80
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.85	58.29	65.03	65.56	50.51	57.25	59.50	59.72	66.46
	DAY LEQ	69.40		EVENING LEQ	66.27		NIGHT LEQ	67.96	

CNEL 74.69
DAY LEQ 69.40

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise With Event

21 :ld
Indian Canyon Drive :Road
San Rafael Drive to Racquet Club Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 17100
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	990.33	20.52	34.20	735.21	3.42	5.70	182.32	28.50	47.50
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	23.12	6.28	8.50	21.83	-1.50	0.72	15.77	7.71	9.93
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.98	58.42	65.16	65.69	50.64	57.38	59.63	59.85	66.59
	DAY LEQ	69.53		EVENING LEQ	66.40		NIGHT LEQ	68.09	

CNEL 74.82
DAY LEQ 69.53

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

22 :ld
Indian Canyon Drive :Road
South of Racquet Club Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 13000
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	752.88	15.60	26.00	558.93	2.60	4.33	138.60	21.67	36.11
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.93	5.09	7.31	20.64	-2.69	-0.47	14.58	6.52	8.74
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	65.79	57.23	63.97	64.50	49.45	56.19	58.44	58.66	65.40
	DAY LEQ	68.34		EVENING LEQ	65.21		NIGHT LEQ	66.90	

CNEL 73.63
DAY LEQ 68.34

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise

22 :ld
Indian Canyon Drive :Road
South of Racquet Club Drive :Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT 13300
Speed 45
Distance 55
Left Angle -90
Right Angle 90

Noise Parameters	Daytime			Evening			Night		
	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	770.26	15.96	26.60	571.83	2.66	4.43	141.80	22.17	36.94
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	22.03	5.19	7.41	20.73	-2.59	-0.37	14.68	6.62	8.84
Distance	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48	-0.48
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	65.89	57.33	64.07	64.60	49.55	56.29	58.54	58.76	65.50
	DAY LEQ	68.43		EVENING LEQ	65.31		NIGHT LEQ	67.00	

CNEL 73.73
DAY LEQ 68.43

Day hour 0.00
Absorptive? no
Use hour? no
GRADE dB 0.00

Notes:

- (1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108
- (2) Vehicle percentages based on County of Riverside heavy truck mix.

APPENDIX F

SOUNDPLAN WORKSHEETS

Receiver list

No.	Receiver name	Building side	Floor	Limit			Level w/o NP			Level w NP			Difference			Conflict
				Day	Night	Ldn	Day	Night	Ldn	Day	Night	Ldn	Day	Night	Ldn	
1	1	-	1.FI	-	-	-	86.8	0.0	84.7	0.0	0.0	0.0	-86.8	0.0	-84.7	-
2	2	-	1.FI	-	-	-	75.1	0.0	73.1	0.0	0.0	0.0	-75.1	0.0	-73.1	-
3	3	-	1.FI	-	-	-	64.5	0.0	62.5	0.0	0.0	0.0	-64.5	0.0	-62.5	-
4	4	-	1.FI	-	-	-	64.7	0.0	62.6	0.0	0.0	0.0	-64.7	0.0	-62.6	-
5	5	-	1.FI	-	-	-	59.6	0.0	57.5	0.0	0.0	0.0	-59.6	0.0	-57.5	-
6	6	-	1.FI	-	-	-	62.6	0.0	60.6	0.0	0.0	0.0	-62.6	0.0	-60.6	-
7	7	-	1.FI	-	-	-	63.7	0.0	61.7	0.0	0.0	0.0	-63.7	0.0	-61.7	-
8	8	-	1.FI	-	-	-	53.1	0.0	51.0	0.0	0.0	0.0	-53.1	0.0	-51.0	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
1 1.FI	86.8	0.0	84.7	0.0	0.0	0.0
1	17.2	-	15.2	-	-	-
2	24.8	-	22.8	-	-	-
3	23.8	-	21.7	-	-	-
4	24.9	-	22.8	-	-	-
5	32.3	-	30.2	-	-	-
6	30.9	-	28.9	-	-	-
Ampitheater Seating	64.4	-	62.3	-	-	-
Ampitheater Speaker	83.9	-	81.9	-	-	-
Ampitheater Speaker	83.6	-	81.5	-	-	-
Amplified Music/Speech	18.1	-	16.1	-	-	-
HVAC	35.3	-	33.3	-	-	-
HVAC	35.9	-	33.8	-	-	-
HVAC	36.9	-	34.8	-	-	-
HVAC	39.5	-	37.5	-	-	-
HVAC	39.4	-	37.3	-	-	-
HVAC	35.3	-	33.3	-	-	-
HVAC	35.3	-	33.2	-	-	-
HVAC	36.2	-	34.2	-	-	-
HVAC	35.8	-	33.8	-	-	-
HVAC	35.7	-	33.7	-	-	-
HVAC	33.9	-	31.9	-	-	-
HVAC	36.9	-	34.8	-	-	-
HVAC	37.1	-	35.0	-	-	-
HVAC	37.8	-	35.7	-	-	-
HVAC	37.6	-	35.6	-	-	-
HVAC	37.6	-	35.6	-	-	-
HVAC	37.6	-	35.6	-	-	-
HVAC	40.4	-	38.4	-	-	-
HVAC	38.5	-	36.5	-	-	-
HVAC	40.1	-	38.0	-	-	-
HVAC	38.6	-	36.6	-	-	-
HVAC	39.3	-	37.3	-	-	-
HVAC	40.5	-	38.4	-	-	-
HVAC	40.8	-	38.7	-	-	-
HVAC	40.7	-	38.6	-	-	-
HVAC	40.4	-	38.3	-	-	-
HVAC	42.5	-	40.5	-	-	-
HVAC	42.6	-	40.6	-	-	-
HVAC	41.5	-	39.4	-	-	-
HVAC	41.0	-	39.0	-	-	-
HVAC	39.8	-	37.8	-	-	-
HVAC	39.9	-	37.9	-	-	-
HVAC	41.2	-	39.1	-	-	-
HVAC	40.5	-	38.5	-	-	-
HVAC	40.2	-	38.1	-	-	-
HVAC	41.4	-	39.3	-	-	-
HVAC	36.4	-	34.3	-	-	-
HVAC	36.3	-	34.2	-	-	-
HVAC	41.8	-	39.7	-	-	-
HVAC	35.7	-	33.7	-	-	-
HVAC	35.6	-	33.5	-	-	-
HVAC	41.3	-	39.2	-	-	-
HVAC	35.1	-	33.1	-	-	-
HVAC	42.0	-	40.0	-	-	-
HVAC	41.0	-	39.0	-	-	-
HVAC	42.7	-	40.7	-	-	-
HVAC	42.1	-	40.1	-	-	-
HVAC	42.1	-	40.1	-	-	-
HVAC	41.9	-	39.9	-	-	-
HVAC	41.5	-	39.4	-	-	-
Performance Area Seating	20.2	-	18.2	-	-	-
Pool Area	43.0	-	40.9	-	-	-
Slow Moving Truck	52.2	-	50.2	-	-	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
Slow Moving Truck	31.3	-	29.3	-	-	-
Slow Moving Truck	47.7	-	45.7	-	-	-
2	1.FI	75.1	0.0	73.1	0.0	0.0
1		17.2	-	15.2	-	-
2		25.1	-	23.1	-	-
3		24.4	-	22.4	-	-
4		28.1	-	26.1	-	-
5		35.0	-	33.0	-	-
6		33.3	-	31.3	-	-
Ampitheater Seating		59.3	-	57.2	-	-
Ampitheater Speaker		71.9	-	69.9	-	-
Ampitheater Speaker		71.8	-	69.8	-	-
Amplified Music/Speech		18.9	-	16.8	-	-
HVAC		35.6	-	33.5	-	-
HVAC		36.2	-	34.1	-	-
HVAC		37.3	-	35.3	-	-
HVAC		40.7	-	38.7	-	-
HVAC		40.7	-	38.6	-	-
HVAC		35.5	-	33.5	-	-
HVAC		35.5	-	33.5	-	-
HVAC		36.5	-	34.5	-	-
HVAC		36.2	-	34.1	-	-
HVAC		36.0	-	33.9	-	-
HVAC		33.9	-	31.8	-	-
HVAC		37.5	-	35.4	-	-
HVAC		37.7	-	35.7	-	-
HVAC		38.7	-	36.6	-	-
HVAC		38.2	-	36.2	-	-
HVAC		38.4	-	36.4	-	-
HVAC		38.3	-	36.2	-	-
HVAC		42.1	-	40.0	-	-
HVAC		39.5	-	37.4	-	-
HVAC		41.5	-	39.5	-	-
HVAC		39.5	-	37.5	-	-
HVAC		40.4	-	38.3	-	-
HVAC		42.2	-	40.2	-	-
HVAC		42.7	-	40.6	-	-
HVAC		42.6	-	40.6	-	-
HVAC		42.1	-	40.0	-	-
HVAC		46.1	-	44.1	-	-
HVAC		47.1	-	45.1	-	-
HVAC		43.9	-	41.8	-	-
HVAC		43.0	-	40.9	-	-
HVAC		41.1	-	39.1	-	-
HVAC		41.5	-	39.4	-	-
HVAC		43.3	-	41.3	-	-
HVAC		42.3	-	40.3	-	-
HVAC		41.9	-	39.9	-	-
HVAC		43.8	-	41.8	-	-
HVAC		36.9	-	34.9	-	-
HVAC		36.7	-	34.7	-	-
HVAC		46.5	-	44.5	-	-
HVAC		36.1	-	34.1	-	-
HVAC		35.9	-	33.8	-	-
HVAC		46.1	-	44.1	-	-
HVAC		35.3	-	33.3	-	-
HVAC		47.0	-	44.9	-	-
HVAC		42.5	-	40.5	-	-
HVAC		47.9	-	45.9	-	-
HVAC		46.6	-	44.6	-	-
HVAC		44.6	-	42.6	-	-
HVAC		44.7	-	42.7	-	-
HVAC		43.8	-	41.8	-	-
Performance Area Seating		20.9	-	18.9	-	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
Pool Area	43.8	-	41.8	-	-	-
Slow Moving Truck	52.4	-	50.3	-	-	-
Slow Moving Truck	30.1	-	28.0	-	-	-
Slow Moving Truck	48.5	-	46.5	-	-	-
3	1.FI	64.5	0.0	62.5	0.0	0.0
1		33.6	-	31.5	-	-
2		38.7	-	36.7	-	-
3		40.9	-	38.8	-	-
4		10.0	-	8.0	-	-
5		15.1	-	13.1	-	-
6		27.0	-	24.9	-	-
Ampitheater Seating		38.2	-	36.2	-	-
Ampitheater Speaker		58.6	-	56.6	-	-
Ampitheater Speaker		58.3	-	56.3	-	-
Amplified Music/Speech		41.1	-	39.0	-	-
HVAC		38.2	-	36.2	-	-
HVAC		38.1	-	36.0	-	-
HVAC		36.2	-	34.2	-	-
HVAC		38.5	-	36.5	-	-
HVAC		36.7	-	34.6	-	-
HVAC		37.3	-	35.2	-	-
HVAC		36.6	-	34.6	-	-
HVAC		35.9	-	33.9	-	-
HVAC		38.2	-	36.1	-	-
HVAC		39.6	-	37.6	-	-
HVAC		39.9	-	37.9	-	-
HVAC		36.4	-	34.4	-	-
HVAC		37.3	-	35.3	-	-
HVAC		38.4	-	36.4	-	-
HVAC		37.5	-	35.5	-	-
HVAC		36.6	-	34.6	-	-
HVAC		35.8	-	33.7	-	-
HVAC		39.1	-	37.1	-	-
HVAC		36.1	-	34.1	-	-
HVAC		38.6	-	36.6	-	-
HVAC		36.7	-	34.7	-	-
HVAC		35.8	-	33.7	-	-
HVAC		41.8	-	39.7	-	-
HVAC		39.4	-	37.3	-	-
HVAC		39.2	-	37.1	-	-
HVAC		40.0	-	37.9	-	-
HVAC		38.9	-	36.8	-	-
HVAC		37.9	-	35.9	-	-
HVAC		39.8	-	37.8	-	-
HVAC		42.2	-	40.1	-	-
HVAC		42.7	-	40.7	-	-
HVAC		41.7	-	39.6	-	-
HVAC		41.7	-	39.6	-	-
HVAC		39.3	-	37.3	-	-
HVAC		45.0	-	43.0	-	-
HVAC		40.4	-	38.4	-	-
HVAC		38.3	-	36.3	-	-
HVAC		36.5	-	34.5	-	-
HVAC		37.3	-	35.2	-	-
HVAC		37.3	-	35.3	-	-
HVAC		36.8	-	34.7	-	-
HVAC		37.0	-	34.9	-	-
HVAC		35.9	-	33.9	-	-
HVAC		41.5	-	39.5	-	-
HVAC		36.5	-	34.4	-	-
HVAC		39.7	-	37.7	-	-
HVAC		40.8	-	38.8	-	-
HVAC		37.5	-	35.4	-	-
HVAC		37.9	-	35.8	-	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
HVAC	38.9	-	36.9	-	-	-
Performance Area Seating	40.7	-	38.7	-	-	-
Pool Area	58.8	-	56.8	-	-	-
Slow Moving Truck	33.9	-	31.9	-	-	-
Slow Moving Truck	20.4	-	18.4	-	-	-
Slow Moving Truck	52.8	-	50.8	-	-	-
4	1.FI	64.7	0.0	62.6	0.0	0.0
1	23.2	-	21.1	-	-	-
2	27.8	-	25.7	-	-	-
3	25.7	-	23.7	-	-	-
4	16.9	-	14.8	-	-	-
5	23.6	-	21.6	-	-	-
6	34.1	-	32.0	-	-	-
Ampitheater Seating	42.7	-	40.7	-	-	-
Ampitheater Speaker	61.7	-	59.6	-	-	-
Ampitheater Speaker	60.3	-	58.2	-	-	-
Amplified Music/Speech	27.0	-	25.0	-	-	-
HVAC	31.7	-	29.6	-	-	-
HVAC	33.6	-	31.5	-	-	-
HVAC	33.4	-	31.3	-	-	-
HVAC	35.6	-	33.5	-	-	-
HVAC	35.3	-	33.2	-	-	-
HVAC	33.0	-	30.9	-	-	-
HVAC	32.7	-	30.6	-	-	-
HVAC	33.0	-	31.0	-	-	-
HVAC	34.1	-	32.1	-	-	-
HVAC	35.6	-	33.6	-	-	-
HVAC	33.3	-	31.2	-	-	-
HVAC	33.6	-	31.5	-	-	-
HVAC	33.9	-	31.9	-	-	-
HVAC	34.5	-	32.4	-	-	-
HVAC	33.9	-	31.8	-	-	-
HVAC	34.2	-	32.1	-	-	-
HVAC	33.7	-	31.6	-	-	-
HVAC	36.3	-	34.3	-	-	-
HVAC	34.4	-	32.3	-	-	-
HVAC	35.9	-	33.9	-	-	-
HVAC	34.9	-	32.9	-	-	-
HVAC	34.8	-	32.7	-	-	-
HVAC	36.8	-	34.8	-	-	-
HVAC	36.8	-	34.7	-	-	-
HVAC	36.5	-	34.5	-	-	-
HVAC	37.2	-	35.2	-	-	-
HVAC	38.2	-	36.1	-	-	-
HVAC	37.5	-	35.5	-	-	-
HVAC	38.5	-	36.5	-	-	-
HVAC	42.2	-	40.1	-	-	-
HVAC	38.8	-	36.7	-	-	-
HVAC	38.3	-	36.3	-	-	-
HVAC	39.4	-	37.4	-	-	-
HVAC	36.5	-	34.4	-	-	-
HVAC	37.6	-	35.6	-	-	-
HVAC	38.8	-	36.8	-	-	-
HVAC	33.6	-	31.5	-	-	-
HVAC	33.3	-	31.3	-	-	-
HVAC	36.0	-	34.0	-	-	-
HVAC	33.0	-	30.9	-	-	-
HVAC	32.7	-	30.6	-	-	-
HVAC	38.5	-	36.4	-	-	-
HVAC	32.4	-	30.3	-	-	-
HVAC	40.1	-	38.1	-	-	-
HVAC	35.4	-	33.3	-	-	-
HVAC	38.7	-	36.7	-	-	-
HVAC	39.5	-	37.4	-	-	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
HVAC	38.7	-	36.6	-	-	-
HVAC	37.9	-	35.9	-	-	-
HVAC	37.7	-	35.7	-	-	-
Performance Area Seating	33.5	-	31.4	-	-	-
Pool Area	42.9	-	40.8	-	-	-
Slow Moving Truck	42.7	-	40.7	-	-	-
Slow Moving Truck	31.5	-	29.5	-	-	-
Slow Moving Truck	50.1	-	48.1	-	-	-
5	1.FI	59.6	0.0	57.5	0.0	0.0
1		45.8	-	43.8	-	-
2		27.6	-	25.5	-	-
3		25.0	-	23.0	-	-
4		10.3	-	8.2	-	-
5		11.1	-	9.1	-	-
6		15.5	-	13.4	-	-
Ampitheater Seating		23.1	-	21.1	-	-
Ampitheater Speaker		38.2	-	36.1	-	-
Ampitheater Speaker		38.2	-	36.2	-	-
Amplified Music/Speech		30.2	-	28.2	-	-
HVAC		46.7	-	44.7	-	-
HVAC		44.7	-	42.7	-	-
HVAC		40.3	-	38.3	-	-
HVAC		38.4	-	36.3	-	-
HVAC		38.1	-	36.1	-	-
HVAC		45.8	-	43.8	-	-
HVAC		45.0	-	43.0	-	-
HVAC		41.6	-	39.5	-	-
HVAC		45.9	-	43.9	-	-
HVAC		46.6	-	44.5	-	-
HVAC		43.9	-	41.9	-	-
HVAC		40.7	-	38.7	-	-
HVAC		40.9	-	38.9	-	-
HVAC		40.2	-	38.2	-	-
HVAC		39.6	-	37.5	-	-
HVAC		39.8	-	37.8	-	-
HVAC		39.3	-	37.3	-	-
HVAC		37.9	-	35.8	-	-
HVAC		38.6	-	36.6	-	-
HVAC		37.3	-	35.3	-	-
HVAC		38.8	-	36.8	-	-
HVAC		37.8	-	35.8	-	-
HVAC		41.3	-	39.2	-	-
HVAC		41.7	-	39.6	-	-
HVAC		39.5	-	37.5	-	-
HVAC		39.0	-	36.9	-	-
HVAC		34.7	-	32.6	-	-
HVAC		34.8	-	32.8	-	-
HVAC		38.4	-	36.3	-	-
HVAC		38.0	-	36.0	-	-
HVAC		39.8	-	37.7	-	-
HVAC		38.1	-	36.1	-	-
HVAC		37.2	-	35.1	-	-
HVAC		38.4	-	36.4	-	-
HVAC		38.3	-	36.3	-	-
HVAC		37.7	-	35.6	-	-
HVAC		42.2	-	40.2	-	-
HVAC		42.0	-	39.9	-	-
HVAC		36.8	-	34.7	-	-
HVAC		44.3	-	42.2	-	-
HVAC		43.7	-	41.6	-	-
HVAC		36.6	-	34.6	-	-
HVAC		44.2	-	42.1	-	-
HVAC		34.4	-	32.3	-	-
HVAC		36.5	-	34.4	-	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
HVAC	34.6	-	32.5	-	-	-
HVAC	34.3	-	32.3	-	-	-
HVAC	36.8	-	34.7	-	-	-
HVAC	37.8	-	35.7	-	-	-
HVAC	40.1	-	38.1	-	-	-
Performance Area Seating	37.6	-	35.6	-	-	-
Pool Area	52.6	-	50.6	-	-	-
Slow Moving Truck	25.8	-	23.8	-	-	-
Slow Moving Truck	6.0	-	3.9	-	-	-
Slow Moving Truck	42.7	-	40.7	-	-	-
6	1.FI	62.6	0.0	60.6	0.0	0.0
1		35.5	-	33.4	-	-
2		13.2	-	11.2	-	-
3		12.1	-	10.0	-	-
4		31.3	-	29.2	-	-
5		30.5	-	28.5	-	-
6		27.4	-	25.4	-	-
Ampitheater Seating		37.8	-	35.8	-	-
Ampitheater Speaker		57.9	-	55.9	-	-
Ampitheater Speaker		56.4	-	54.4	-	-
Amplified Music/Speech		18.1	-	16.1	-	-
HVAC		40.8	-	38.8	-	-
HVAC		40.7	-	38.7	-	-
HVAC		44.1	-	42.1	-	-
HVAC		41.7	-	39.6	-	-
HVAC		44.3	-	42.2	-	-
HVAC		40.9	-	38.8	-	-
HVAC		42.1	-	40.0	-	-
HVAC		45.8	-	43.8	-	-
HVAC		40.9	-	38.8	-	-
HVAC		37.6	-	35.5	-	-
HVAC		35.7	-	33.7	-	-
HVAC		43.1	-	41.0	-	-
HVAC		41.8	-	39.7	-	-
HVAC		41.1	-	39.0	-	-
HVAC		44.4	-	42.3	-	-
HVAC		42.4	-	40.4	-	-
HVAC		47.8	-	45.8	-	-
HVAC		42.1	-	40.0	-	-
HVAC		43.4	-	41.3	-	-
HVAC		42.9	-	40.9	-	-
HVAC		41.9	-	39.8	-	-
HVAC		46.4	-	44.3	-	-
HVAC		37.7	-	35.6	-	-
HVAC		38.5	-	36.4	-	-
HVAC		39.4	-	37.4	-	-
HVAC		36.8	-	34.8	-	-
HVAC		36.7	-	34.6	-	-
HVAC		37.5	-	35.5	-	-
HVAC		36.8	-	34.8	-	-
HVAC		34.6	-	32.6	-	-
HVAC		34.7	-	32.7	-	-
HVAC		35.3	-	33.3	-	-
HVAC		35.4	-	33.3	-	-
HVAC		40.5	-	38.5	-	-
HVAC		36.1	-	34.1	-	-
HVAC		36.2	-	34.1	-	-
HVAC		41.8	-	39.8	-	-
HVAC		43.2	-	41.2	-	-
HVAC		40.3	-	38.3	-	-
HVAC		42.0	-	39.9	-	-
HVAC		44.3	-	42.3	-	-
HVAC		41.9	-	39.8	-	-
HVAC		44.0	-	41.9	-	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
HVAC	34.6	-	32.6	-	-	-
HVAC	43.6	-	41.6	-	-	-
HVAC	36.0	-	34.0	-	-	-
HVAC	35.2	-	33.2	-	-	-
HVAC	39.2	-	37.2	-	-	-
HVAC	38.3	-	36.2	-	-	-
HVAC	37.6	-	35.6	-	-	-
Performance Area Seating	20.0	-	18.0	-	-	-
Pool Area	40.6	-	38.6	-	-	-
Slow Moving Truck	44.9	-	42.9	-	-	-
Slow Moving Truck	21.6	-	19.5	-	-	-
Slow Moving Truck	25.4	-	23.3	-	-	-
7	1.FI	63.7	0.0	61.7	0.0	0.0
1		24.2	-	22.2	-	-
2		14.4	-	12.4	-	-
3		12.9	-	10.9	-	-
4		27.6	-	25.5	-	-
5		36.3	-	34.3	-	-
6		31.8	-	29.7	-	-
Ampitheater Seating		41.2	-	39.1	-	-
Ampitheater Speaker		59.1	-	57.0	-	-
Ampitheater Speaker		60.0	-	58.0	-	-
Amplified Music/Speech		15.2	-	13.1	-	-
HVAC		36.7	-	34.7	-	-
HVAC		35.5	-	33.4	-	-
HVAC		37.5	-	35.4	-	-
HVAC		38.7	-	36.6	-	-
HVAC		41.4	-	39.3	-	-
HVAC		35.2	-	33.2	-	-
HVAC		36.0	-	33.9	-	-
HVAC		36.9	-	34.9	-	-
HVAC		34.8	-	32.7	-	-
HVAC		33.9	-	31.8	-	-
HVAC		31.7	-	29.7	-	-
HVAC		38.0	-	35.9	-	-
HVAC		37.1	-	35.0	-	-
HVAC		37.2	-	35.1	-	-
HVAC		37.9	-	35.9	-	-
HVAC		37.9	-	35.9	-	-
HVAC		40.2	-	38.1	-	-
HVAC		39.8	-	37.8	-	-
HVAC		38.7	-	36.6	-	-
HVAC		40.1	-	38.1	-	-
HVAC		38.4	-	36.3	-	-
HVAC		40.8	-	38.8	-	-
HVAC		37.0	-	35.0	-	-
HVAC		37.7	-	35.7	-	-
HVAC		38.2	-	36.2	-	-
HVAC		36.4	-	34.3	-	-
HVAC		37.0	-	34.9	-	-
HVAC		38.0	-	36.0	-	-
HVAC		37.5	-	35.5	-	-
HVAC		36.0	-	33.9	-	-
HVAC		35.2	-	33.2	-	-
HVAC		35.6	-	33.6	-	-
HVAC		36.5	-	34.5	-	-
HVAC		39.0	-	37.0	-	-
HVAC		36.0	-	33.9	-	-
HVAC		36.9	-	34.9	-	-
HVAC		36.7	-	34.7	-	-
HVAC		37.5	-	35.4	-	-
HVAC		39.0	-	36.9	-	-
HVAC		36.2	-	34.2	-	-
HVAC		36.2	-	34.2	-	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
HVAC	39.6	-	37.5	-	-	-
HVAC	35.8	-	33.8	-	-	-
HVAC	35.5	-	33.5	-	-	-
HVAC	40.6	-	38.6	-	-	-
HVAC	36.5	-	34.4	-	-	-
HVAC	35.9	-	33.8	-	-	-
HVAC	41.3	-	39.2	-	-	-
HVAC	39.2	-	37.1	-	-	-
HVAC	38.2	-	36.2	-	-	-
Performance Area Seating	17.2	-	15.1	-	-	-
Pool Area	41.0	-	39.0	-	-	-
Slow Moving Truck	52.6	-	50.6	-	-	-
Slow Moving Truck	31.3	-	29.3	-	-	-
Slow Moving Truck	38.7	-	36.7	-	-	-
8	1.FI	53.1	0.0	51.0	0.0	0.0
1		14.9	-	12.9	-	-
2		18.1	-	16.1	-	-
3		16.0	-	14.0	-	-
4		15.7	-	13.7	-	-
5		21.4	-	19.4	-	-
6		39.5	-	37.5	-	-
Ampitheater Seating		34.7	-	32.7	-	-
Ampitheater Speaker		46.1	-	44.1	-	-
Ampitheater Speaker		45.2	-	43.2	-	-
Amplified Music/Speech		10.6	-	8.6	-	-
HVAC		29.0	-	26.9	-	-
HVAC		29.1	-	27.0	-	-
HVAC		31.6	-	29.6	-	-
HVAC		32.2	-	30.1	-	-
HVAC		32.3	-	30.3	-	-
HVAC		28.8	-	26.8	-	-
HVAC		28.7	-	26.6	-	-
HVAC		31.0	-	28.9	-	-
HVAC		29.2	-	27.2	-	-
HVAC		29.7	-	27.6	-	-
HVAC		28.5	-	26.5	-	-
HVAC		31.2	-	29.2	-	-
HVAC		31.2	-	29.1	-	-
HVAC		31.4	-	29.4	-	-
HVAC		31.7	-	29.6	-	-
HVAC		31.5	-	29.5	-	-
HVAC		32.5	-	30.5	-	-
HVAC		32.2	-	30.2	-	-
HVAC		32.3	-	30.3	-	-
HVAC		32.2	-	30.1	-	-
HVAC		31.9	-	29.8	-	-
HVAC		33.1	-	31.1	-	-
HVAC		32.3	-	30.3	-	-
HVAC		32.4	-	30.4	-	-
HVAC		32.7	-	30.7	-	-
HVAC		32.4	-	30.3	-	-
HVAC		33.8	-	31.8	-	-
HVAC		34.0	-	31.9	-	-
HVAC		33.7	-	31.6	-	-
HVAC		35.0	-	33.0	-	-
HVAC		32.3	-	30.3	-	-
HVAC		31.9	-	29.9	-	-
HVAC		34.2	-	32.1	-	-
HVAC		32.3	-	30.3	-	-
HVAC		32.2	-	30.2	-	-
HVAC		33.7	-	31.6	-	-
HVAC		30.8	-	28.7	-	-
HVAC		30.8	-	28.8	-	-
HVAC		33.7	-	31.6	-	-

Contribution levels of the receivers

Source name	Level w/o NP			Level w NP		
	Day	Night dB(A)	Ldn	Day	Night dB(A)	Ldn
HVAC	30.4	-	28.4	-	-	-
HVAC	30.5	-	28.5	-	-	-
HVAC	33.5	-	31.5	-	-	-
HVAC	30.3	-	28.2	-	-	-
HVAC	35.5	-	33.5	-	-	-
HVAC	33.5	-	31.5	-	-	-
HVAC	34.0	-	32.0	-	-	-
HVAC	34.6	-	32.6	-	-	-
HVAC	35.0	-	32.9	-	-	-
HVAC	34.2	-	32.1	-	-	-
HVAC	33.8	-	31.7	-	-	-
Performance Area Seating	13.0	-	11.0	-	-	-
Pool Area	36.6	-	34.6	-	-	-
Slow Moving Truck	41.9	-	39.9	-	-	-
Slow Moving Truck	26.4	-	24.4	-	-	-
Slow Moving Truck	39.4	-	37.3	-	-	-

Noise emissions of parking lot traffic

Name	Parking lot type	Size	Movements per hour			Road surface	Separated method	Lw,ref dB(A)
			Day	Night	Lmax			
1	Hotel	97 Parking bays	0.300	0.000	0.000	Asphaltic driving lanes	no	87.7
2	Hotel	44 Parking bays	0.300	0.000	0.000	Asphaltic driving lanes	no	83.3
3	Hotel	33 beds	0.300	0.000	0.000	Asphaltic driving lanes	no	80.4
4	Hotel	23 beds	0.300	0.000	0.000	Asphaltic driving lanes	no	77.6
5	Central bus stops (Gas)	8 Parking bays	1.000	0.000	0.000	Asphaltic driving lanes	no	79.0
6	Visitors and staff	156 Parking bays	0.300	0.000	0.000	Asphaltic driving lanes	no	90.3

Receiver list

No.	Receiver name	Building side	Floor	Limit Day dB(A)	Level w/o NP Day dB(A)	Level w NP Day dB(A)	Difference Day dB	Conflict Day dB
1	1	-	1.FI	-	86.8	0.0	-86.8	-
2	2	-	1.FI	-	75.1	0.0	-75.1	-
3	3	-	1.FI	-	64.5	0.0	-64.5	-
4	4	-	1.FI	-	64.7	0.0	-64.7	-
5	5	-	1.FI	-	59.6	0.0	-59.6	-
6	6	-	1.FI	-	62.6	0.0	-62.6	-
7	7	-	1.FI	-	63.7	0.0	-63.7	-
8	8	-	1.FI	-	53.1	0.0	-53.1	-

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Contribution levels of the receivers

Source name					Level w/o NP Day dB(A)	Level w NP Day dB(A)
1	1.FI	86.8	0.0	0.0	-86.8	
1					17.2	-
2					24.8	-
3					22.5	-
4					23.0	-
5					32.3	-
6					30.9	-
	Ampitheater Seating				64.4	-
	Ampitheater Speaker				83.9	-
	Ampitheater Speaker				83.6	-
	Amplified Music/Speech				18.1	-
	HVAC				35.3	-
	HVAC				35.9	-
	HVAC				36.9	-
	HVAC				39.5	-
	HVAC				39.4	-
	HVAC				35.3	-
	HVAC				35.3	-
	HVAC				36.2	-
	HVAC				35.8	-
	HVAC				35.7	-
	HVAC				33.9	-
	HVAC				36.9	-
	HVAC				37.1	-
	HVAC				37.8	-
	HVAC				37.6	-
	HVAC				37.6	-
	HVAC				37.6	-
	HVAC				40.4	-
	HVAC				38.5	-
	HVAC				40.1	-
	HVAC				38.6	-
	HVAC				39.3	-
	HVAC				40.5	-
	HVAC				40.8	-
	HVAC				40.7	-
	HVAC				40.4	-
	HVAC				42.5	-
	HVAC				42.6	-
	HVAC				41.5	-
	HVAC				41.0	-
	HVAC				39.8	-
	HVAC				39.9	-
	HVAC				41.2	-
	HVAC				40.5	-
	HVAC				40.2	-
	HVAC				41.4	-
	HVAC				36.4	-
	HVAC				36.3	-
	HVAC				41.8	-
	HVAC				35.7	-
	HVAC				35.6	-
	HVAC				41.3	-
	HVAC				35.1	-
	HVAC				42.0	-
	HVAC				41.0	-
	HVAC				42.7	-
	HVAC				42.1	-
	HVAC				42.1	-
	HVAC				41.9	-
	HVAC				41.5	-
	Performance Area Seating				20.2	-
	Pool Area				43.0	-
	Slow Moving Truck				52.2	-

Contribution levels of the receivers

Source name					Level w/o NP Day dB(A)	Level w NP Day dB(A)
Slow Moving Truck					31.3	-
Slow Moving Truck					47.7	-
2	1.FI	75.1	0.0	0.0	-75.1	
1					17.2	-
2					25.1	-
3					23.1	-
4					26.2	-
5					35.0	-
6					33.3	-
Ampitheater Seating					59.3	-
Ampitheater Speaker					71.9	-
Ampitheater Speaker					71.8	-
Amplified Music/Speech					18.9	-
HVAC					35.6	-
HVAC					36.2	-
HVAC					37.3	-
HVAC					40.7	-
HVAC					40.7	-
HVAC					35.5	-
HVAC					35.5	-
HVAC					36.5	-
HVAC					36.2	-
HVAC					36.0	-
HVAC					33.9	-
HVAC					37.5	-
HVAC					37.7	-
HVAC					38.7	-
HVAC					38.2	-
HVAC					38.4	-
HVAC					38.3	-
HVAC					42.1	-
HVAC					39.5	-
HVAC					41.5	-
HVAC					39.5	-
HVAC					40.4	-
HVAC					42.2	-
HVAC					42.7	-
HVAC					42.6	-
HVAC					42.1	-
HVAC					46.1	-
HVAC					47.1	-
HVAC					43.9	-
HVAC					43.0	-
HVAC					41.1	-
HVAC					41.5	-
HVAC					43.3	-
HVAC					42.3	-
HVAC					41.9	-
HVAC					43.8	-
HVAC					36.9	-
HVAC					36.7	-
HVAC					46.5	-
HVAC					36.1	-
HVAC					35.9	-
HVAC					46.1	-
HVAC					35.3	-
HVAC					47.0	-
HVAC					42.5	-
HVAC					47.9	-
HVAC					46.6	-
HVAC					44.6	-
HVAC					44.7	-
HVAC					43.8	-
Performance Area Seating					20.9	-

Contribution levels of the receivers

Source name						Level w/o NP Day dB(A)	Level w NP Day dB(A)
Pool Area						43.8	-
Slow Moving Truck						52.4	-
Slow Moving Truck						30.1	-
Slow Moving Truck						48.5	-
3	1.FI	64.5	0.0	0.0	-64.5		
1						33.6	-
2						38.7	-
3						39.6	-
4						8.1	-
5						15.1	-
6						27.0	-
Ampitheater Seating						38.2	-
Ampitheater Speaker						58.6	-
Ampitheater Speaker						58.3	-
Amplified Music/Speech						41.1	-
HVAC						38.2	-
HVAC						38.1	-
HVAC						36.2	-
HVAC						38.5	-
HVAC						36.7	-
HVAC						37.3	-
HVAC						36.6	-
HVAC						35.9	-
HVAC						38.2	-
HVAC						39.6	-
HVAC						39.9	-
HVAC						36.4	-
HVAC						37.3	-
HVAC						38.4	-
HVAC						37.5	-
HVAC						36.6	-
HVAC						35.8	-
HVAC						39.1	-
HVAC						36.1	-
HVAC						38.6	-
HVAC						36.7	-
HVAC						35.8	-
HVAC						41.8	-
HVAC						39.4	-
HVAC						39.2	-
HVAC						40.0	-
HVAC						38.9	-
HVAC						37.9	-
HVAC						39.8	-
HVAC						42.2	-
HVAC						42.7	-
HVAC						41.7	-
HVAC						41.7	-
HVAC						39.3	-
HVAC						45.0	-
HVAC						40.4	-
HVAC						38.3	-
HVAC						36.5	-
HVAC						37.3	-
HVAC						37.3	-
HVAC						36.8	-
HVAC						37.0	-
HVAC						35.9	-
HVAC						41.5	-
HVAC						36.5	-
HVAC						39.7	-
HVAC						40.8	-
HVAC						37.5	-
HVAC						37.9	-

Contribution levels of the receivers

Source name						Level w/o NP Day dB(A)	Level w NP Day dB(A)
HVAC						38.9	-
Performance Area Seating						40.7	-
Pool Area						58.8	-
Slow Moving Truck						33.9	-
Slow Moving Truck						20.4	-
Slow Moving Truck						52.8	-
4	1.FI	64.7	0.0	0.0	-64.7		
1						23.2	-
2						27.8	-
3						24.5	-
4						15.0	-
5						23.6	-
6						34.1	-
Ampitheater Seating						42.7	-
Ampitheater Speaker						61.7	-
Ampitheater Speaker						60.3	-
Amplified Music/Speech						27.0	-
HVAC						31.7	-
HVAC						33.6	-
HVAC						33.4	-
HVAC						35.6	-
HVAC						35.3	-
HVAC						33.0	-
HVAC						32.7	-
HVAC						33.0	-
HVAC						34.1	-
HVAC						35.6	-
HVAC						33.3	-
HVAC						33.6	-
HVAC						33.9	-
HVAC						34.5	-
HVAC						33.9	-
HVAC						34.2	-
HVAC						33.7	-
HVAC						36.3	-
HVAC						34.4	-
HVAC						35.9	-
HVAC						34.9	-
HVAC						34.8	-
HVAC						36.8	-
HVAC						36.8	-
HVAC						36.5	-
HVAC						37.2	-
HVAC						38.2	-
HVAC						37.5	-
HVAC						38.5	-
HVAC						42.2	-
HVAC						38.8	-
HVAC						38.3	-
HVAC						39.4	-
HVAC						36.5	-
HVAC						37.6	-
HVAC						38.8	-
HVAC						33.6	-
HVAC						33.3	-
HVAC						36.0	-
HVAC						33.0	-
HVAC						32.7	-
HVAC						38.5	-
HVAC						32.4	-
HVAC						40.1	-
HVAC						35.4	-
HVAC						38.7	-
HVAC						39.5	-

Contribution levels of the receivers

Source name					Level w/o NP Day dB(A)	Level w NP Day dB(A)
HVAC					38.7	-
HVAC					37.9	-
HVAC					37.7	-
Performance Area Seating					33.5	-
Pool Area					42.9	-
Slow Moving Truck					42.7	-
Slow Moving Truck					31.5	-
Slow Moving Truck					50.1	-
5	1.FI	59.6	0.0	0.0	-59.6	
1					45.8	-
2					27.6	-
3					23.8	-
4					8.4	-
5					11.1	-
6					15.5	-
Ampitheater Seating					23.1	-
Ampitheater Speaker					38.2	-
Ampitheater Speaker					38.2	-
Amplified Music/Speech					30.2	-
HVAC					46.7	-
HVAC					44.7	-
HVAC					40.3	-
HVAC					38.4	-
HVAC					38.1	-
HVAC					45.8	-
HVAC					45.0	-
HVAC					41.6	-
HVAC					45.9	-
HVAC					46.6	-
HVAC					43.9	-
HVAC					40.7	-
HVAC					40.9	-
HVAC					40.2	-
HVAC					39.6	-
HVAC					39.8	-
HVAC					39.3	-
HVAC					37.9	-
HVAC					38.6	-
HVAC					37.3	-
HVAC					38.8	-
HVAC					37.8	-
HVAC					41.3	-
HVAC					41.7	-
HVAC					39.5	-
HVAC					39.0	-
HVAC					34.7	-
HVAC					34.8	-
HVAC					38.4	-
HVAC					38.0	-
HVAC					39.8	-
HVAC					38.1	-
HVAC					37.2	-
HVAC					38.4	-
HVAC					38.3	-
HVAC					37.7	-
HVAC					42.2	-
HVAC					42.0	-
HVAC					36.8	-
HVAC					44.3	-
HVAC					43.7	-
HVAC					36.6	-
HVAC					44.2	-
HVAC					34.4	-
HVAC					36.5	-

Contribution levels of the receivers

Source name						Level w/o NP Day dB(A)	Level w NP Day dB(A)
HVAC						34.6	-
HVAC						34.3	-
HVAC						36.8	-
HVAC						37.8	-
HVAC						40.1	-
Performance Area Seating						37.6	-
Pool Area						52.6	-
Slow Moving Truck						25.8	-
Slow Moving Truck						6.0	-
Slow Moving Truck						42.7	-
6	1.FI	62.6	0.0	0.0	-62.6		
1						35.5	-
2						13.2	-
3						10.8	-
4						29.4	-
5						30.5	-
6						27.4	-
Ampitheater Seating						37.8	-
Ampitheater Speaker						57.9	-
Ampitheater Speaker						56.4	-
Amplified Music/Speech						18.1	-
HVAC						40.8	-
HVAC						40.7	-
HVAC						44.1	-
HVAC						41.7	-
HVAC						44.3	-
HVAC						40.9	-
HVAC						42.1	-
HVAC						45.8	-
HVAC						40.9	-
HVAC						37.6	-
HVAC						35.7	-
HVAC						43.1	-
HVAC						41.8	-
HVAC						41.1	-
HVAC						44.4	-
HVAC						42.4	-
HVAC						47.8	-
HVAC						42.1	-
HVAC						43.4	-
HVAC						42.9	-
HVAC						41.9	-
HVAC						46.4	-
HVAC						37.7	-
HVAC						38.5	-
HVAC						39.4	-
HVAC						36.8	-
HVAC						36.7	-
HVAC						37.5	-
HVAC						36.8	-
HVAC						34.6	-
HVAC						34.7	-
HVAC						35.3	-
HVAC						35.4	-
HVAC						40.5	-
HVAC						36.1	-
HVAC						36.2	-
HVAC						41.8	-
HVAC						43.2	-
HVAC						40.3	-
HVAC						42.0	-
HVAC						44.3	-
HVAC						41.9	-
HVAC						44.0	-

Contribution levels of the receivers

Source name					Level w/o NP Day dB(A)	Level w NP Day dB(A)
HVAC					34.6	-
HVAC					43.6	-
HVAC					36.0	-
HVAC					35.2	-
HVAC					39.2	-
HVAC					38.3	-
HVAC					37.6	-
Performance Area Seating					20.0	-
Pool Area					40.6	-
Slow Moving Truck					44.9	-
Slow Moving Truck					21.6	-
Slow Moving Truck					25.4	-
7	1.FI	63.7	0.0	0.0	-63.7	
1					24.2	-
2					14.4	-
3					11.6	-
4					25.7	-
5					36.3	-
6					31.8	-
Ampitheater Seating					41.2	-
Ampitheater Speaker					59.1	-
Ampitheater Speaker					60.0	-
Amplified Music/Speech					15.2	-
HVAC					36.7	-
HVAC					35.5	-
HVAC					37.5	-
HVAC					38.7	-
HVAC					41.4	-
HVAC					35.2	-
HVAC					36.0	-
HVAC					36.9	-
HVAC					34.8	-
HVAC					33.9	-
HVAC					31.7	-
HVAC					38.0	-
HVAC					37.1	-
HVAC					37.2	-
HVAC					37.9	-
HVAC					37.9	-
HVAC					40.2	-
HVAC					39.8	-
HVAC					38.7	-
HVAC					40.1	-
HVAC					38.4	-
HVAC					40.8	-
HVAC					37.0	-
HVAC					37.7	-
HVAC					38.2	-
HVAC					36.4	-
HVAC					37.0	-
HVAC					38.0	-
HVAC					37.5	-
HVAC					36.0	-
HVAC					35.2	-
HVAC					35.6	-
HVAC					36.5	-
HVAC					39.0	-
HVAC					36.0	-
HVAC					36.9	-
HVAC					36.7	-
HVAC					37.5	-
HVAC					39.0	-
HVAC					36.2	-
HVAC					36.2	-

Contribution levels of the receivers

Source name						Level w/o NP Day dB(A)	Level w NP Day dB(A)
HVAC						39.6	-
HVAC						35.8	-
HVAC						35.5	-
HVAC						40.6	-
HVAC						36.5	-
HVAC						35.9	-
HVAC						41.3	-
HVAC						39.2	-
HVAC						38.2	-
Performance Area Seating						17.2	-
Pool Area						41.0	-
Slow Moving Truck						52.6	-
Slow Moving Truck						31.3	-
Slow Moving Truck						38.7	-
8	1.FI	53.1	0.0	0.0		-53.1	
1						14.9	-
2						18.1	-
3						14.8	-
4						13.8	-
5						21.4	-
6						39.5	-
Ampitheater Seating						34.7	-
Ampitheater Speaker						46.1	-
Ampitheater Speaker						45.2	-
Amplified Music/Speech						10.6	-
HVAC						29.0	-
HVAC						29.1	-
HVAC						31.6	-
HVAC						32.2	-
HVAC						32.3	-
HVAC						28.8	-
HVAC						28.7	-
HVAC						31.0	-
HVAC						29.2	-
HVAC						29.7	-
HVAC						28.5	-
HVAC						31.2	-
HVAC						31.2	-
HVAC						31.4	-
HVAC						31.7	-
HVAC						31.5	-
HVAC						32.5	-
HVAC						32.2	-
HVAC						32.3	-
HVAC						32.2	-
HVAC						31.9	-
HVAC						33.1	-
HVAC						32.3	-
HVAC						32.4	-
HVAC						32.7	-
HVAC						32.4	-
HVAC						33.8	-
HVAC						34.0	-
HVAC						33.7	-
HVAC						35.0	-
HVAC						32.3	-
HVAC						31.9	-
HVAC						34.2	-
HVAC						32.3	-
HVAC						32.2	-
HVAC						33.7	-
HVAC						30.8	-
HVAC						30.8	-
HVAC						33.7	-

Contribution levels of the receivers

Source name	Level w/o NP Day dB(A)	Level w NP Day dB(A)
HVAC	30.4	-
HVAC	30.5	-
HVAC	33.5	-
HVAC	30.3	-
HVAC	35.5	-
HVAC	33.5	-
HVAC	34.0	-
HVAC	34.6	-
HVAC	35.0	-
HVAC	34.2	-
HVAC	33.8	-
Performance Area Seating	13.0	-
Pool Area	36.6	-
Slow Moving Truck	41.9	-
Slow Moving Truck	26.4	-
Slow Moving Truck	39.4	-

Receiver list

No.	Receiver name	Building side	Floor	Limit Lden dB(A)	Level Lden dB(A)	Conflict Lden dB
1	1	-	1.FI	-	67.0	-
2	2	-	1.FI	-	62.3	-
3	3	-	1.FI	-	44.7	-

Contribution levels of the receivers

Source name	Traffic lane	Level Lden dB(A)
1 1.FI 67.0		
1	-	67.0
2 1.FI 62.3		
1	-	62.3
3 1.FI 44.7		
1	-	44.7

Noise emissions of road traffic

Station km	ADT Veh/24h	Traffic values						Contr device	Cons Speed km/h	Affe veh. %	Road surface	Gradient Min / Max %
		Vehicles type	Vehicle name	day Veh/h	evening Veh/h	night Veh/h	Speed km/h					
1 Traffic direction: In entry direction												
0+000	28699	Total	-	1754	1249	434	-	none	-	-	Average (of DGAC	2.1
		Automobiles	-	1662	1234	306	64					
		Medium trucks	-	34	6	48	64					
		Heavy trucks	-	57	10	80	64					
		Buses	-	-	-	-	-					
		Motorcycles	-	-	-	-	-					
		Auxiliary vehicle	-	-	-	-	-					

APPENDIX G

VIBRATION WORKSHEETS

GROUNDBORNE VIBRATION ANALYSIS			
Project:	19-0174 Coachillin Industrial Park Parcels 30 & 31		Date: 10/1/19
Source:	Vibratory Roller		
Scenario:	Unmitigated		
Location:	Project Site		
Address:			
PPV = PPVref(25/D)^n (in/sec)			
INPUT			
Equipment = Type	1	Vibratory Roller	INPUT SECTION IN GREEN
PPVref =	0.21	Reference PPV (in/sec) at 25 ft.	
D =	81.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	
Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.			
RESULTS			
PPV =	0.036	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS			
Project:	19-0174 Coachillin Industrial Park Parcels 30 & 31		Date: 10/1/19
Source:	Large Bulldozer		
Scenario:	Unmitigated		
Location:	Project Site		
Address:			
PPV = PPVref(25/D)^n (in/sec)			
INPUT			
Equipment = Type	2	Large Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.089	Reference PPV (in/sec) at 25 ft.	
D =	81.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	
Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.			
RESULTS			
PPV =	0.015	IN/SEC	OUTPUT IN BLUE



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