

May 1, 2026

Ms. Wendi Nelson
 Doubletree Paradise Valley Hotel
 5401 N Scottsdale Rd.
 Scottsdale, AZ 85250

Subject: DoubleTree Resort – Noise Study and Recommendations – Town of Paradise Valley, AZ

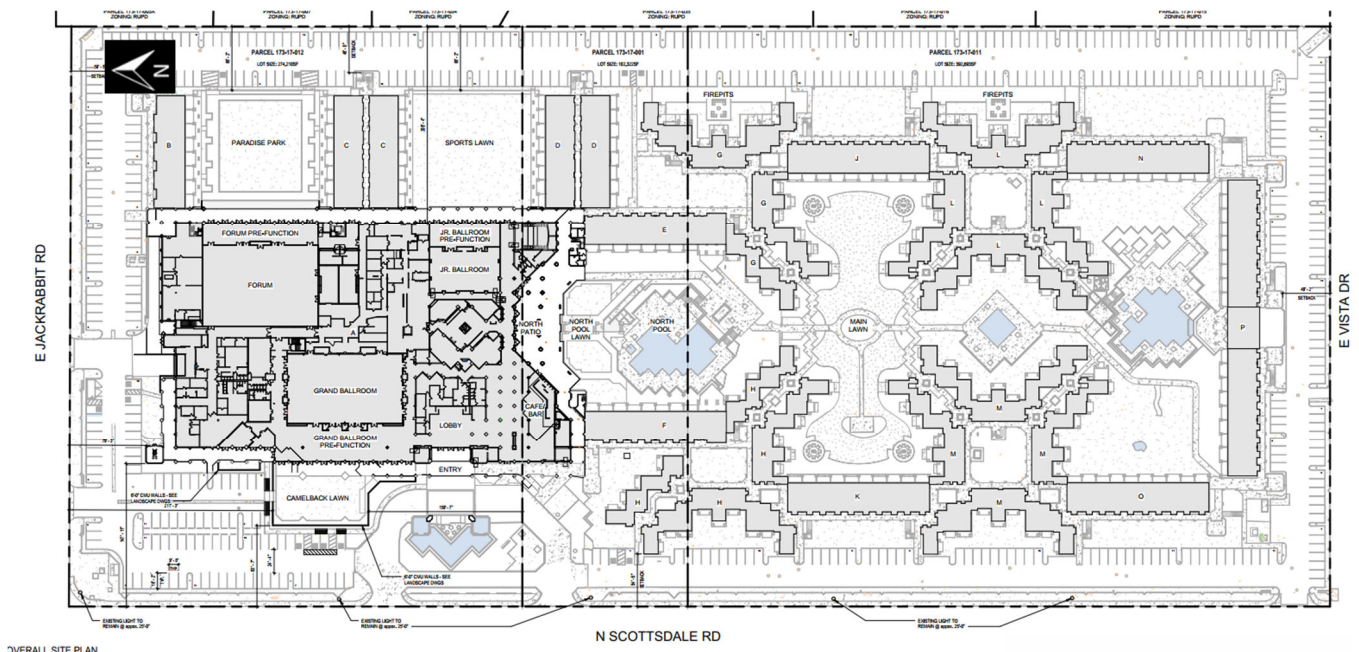
Dear Ms. Nelson:

MD Acoustics, LLC (MD) is pleased to provide this noise study and recommendations report as it relates to proposed operations and events at the DoubleTree Resort located at 5401 N Scottsdale Rd, Paradise Valley, AZ. This study has been prepared based on the comments from the Town and the owner regarding operations at the resort. The project was assessed with regard to potential operations and event noise, such as weddings, and other gatherings. For your reference, Appendix A contains a glossary of acoustical terms.

1.0 Assessment Overview

This assessment evaluates the project noise levels and compares the projected noise levels to the Town’s noise ordinance. Figure 1 below shows the site location, with a red box around the areas under evaluation. These areas include the Sports Lawn, Camelback Lawn, and Paradise Park. MD measured the baseline noise condition during a 24-hour period and modeled 3 scenarios.

Figure 1: Site Location



Recommendations are provided to ensure that the project operations meet the Town’s noise ordinance. MD traveled to the project site and performed three (3) 24-hour noise measurements to gather the existing noise condition of the project. Measurements were performed at nearby housing units to determine existing conditions at sensitive receptors near the project site. MD utilized Type 2 sound level meters that meet ANSI S1.4 engineering standards to record minute-by-minute baseline data.

2.0 Local Acoustical Requirements

MD compared the results of the noise assessment to Section 10-7-3 of the Town of Paradise Valley, Town Code. The Town Code states: “Table 1 sets forth the noise level limits for stationary sources, and it is unlawful to project a sound or noise, except those caused by motor vehicles, from one property into another in excess of the stated limits”.

Table 1: Limiting Noise Levels for Stationary Sources

<u>TIME</u>	<u>MAXIMUM ALLOWABLE NOISE LEVEL dB (A)</u>
7:00 a.m. to 10:00 p.m.	56
10:00 p.m. to 7:00 a.m. and on all Sundays and specified legal holidays	45

Therefore, project operations must comply with the Town’s noise limit of 56 dBA during daytime (7AM to 10PM) hours and 45 dBA during nighttime (10PM to 7AM) hours.

3.0 Study Method and Procedure

Existing Noise Condition/Baseline Measurements

Three (3) 24-hour noise measurements were conducted at the project site from 1:00 PM July 10, 2025 to 1:00 PM July 11, 2025. The project site is surrounded by residential property to the north and east, and on-site resort uses to the south and west. Noise data indicate that the ambient noise level ranges from 42.6 dBA hourly Leq to 65.5 dBA hourly Leq at the uses surrounding the site. Noise measurement locations, additional field notes, and photographs are provided in Appendix B.

Stationary Noise Level Prediction Modeling

SoundPLAN Acoustic Modeling Software (SP) was utilized to model the operational noise levels from the project site. SP acoustical modeling software is capable of evaluating stationary noise sources (e.g., loudspeakers for live events, DJs, parking lots, crowds, loading/unloading, patios, etc.) and much more. SP’s software utilizes algorithms (based on 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. In addition, SP can model the noise sources as point sources, line sources, and area sources.

The future worst-case noise level projections were modeled using measured and reference sound level data for the stationary on-site sources (social gatherings and DJ speaker equipment). The model incorporates the topography at the project site, building heights, and shows how sound propagates to the surrounding area. The Sports Lawn and Camelback Lawn were modeled in SP as area sources from the SP reference library. Each lawn is assumed to have 75 people gathered with 50% speaking at normal volume. DJ speaker equipment was modeled as a distributed audio speaker system. This system assumes 4 distributed audio

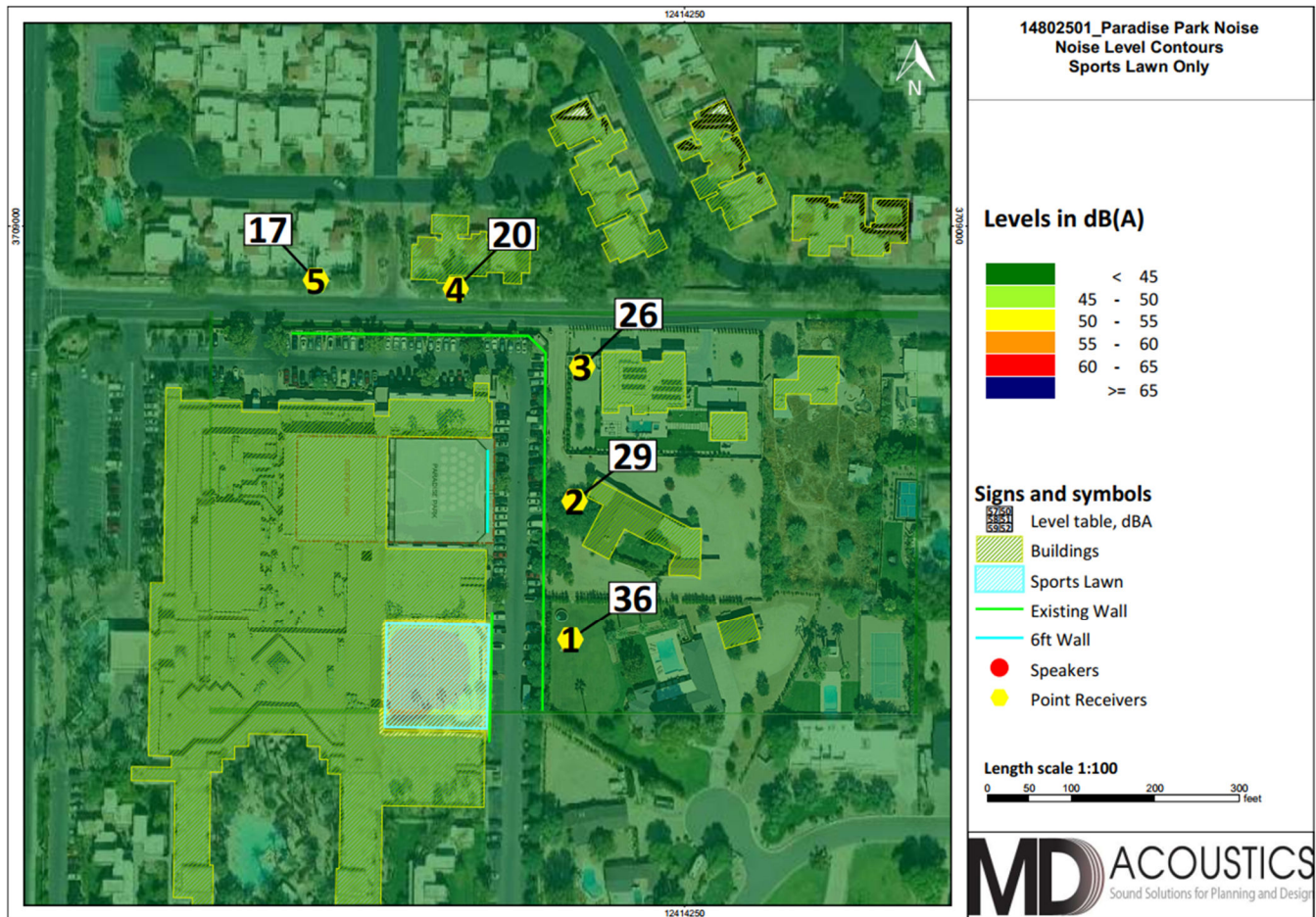
speakers will have a maximum sound level of 62 dBA at 40 feet. This noise level is based on sound measurements performed at Mountain Shadows Resort on 11/19/2021 by MD.

4.0 Findings and Recommendations

4.1 Sports Lawn Only

Figure 2 illustrates the Sports Lawn Only condition. This situation models the site condition where only the Sports Lawn is in operation. The model assumes that 75 people are socializing on the lawn with 50% of people talking at the same time at normal volume. The reference sound level for this condition was taken from the SP reference library.

Figure 2: Sports Lawn Only

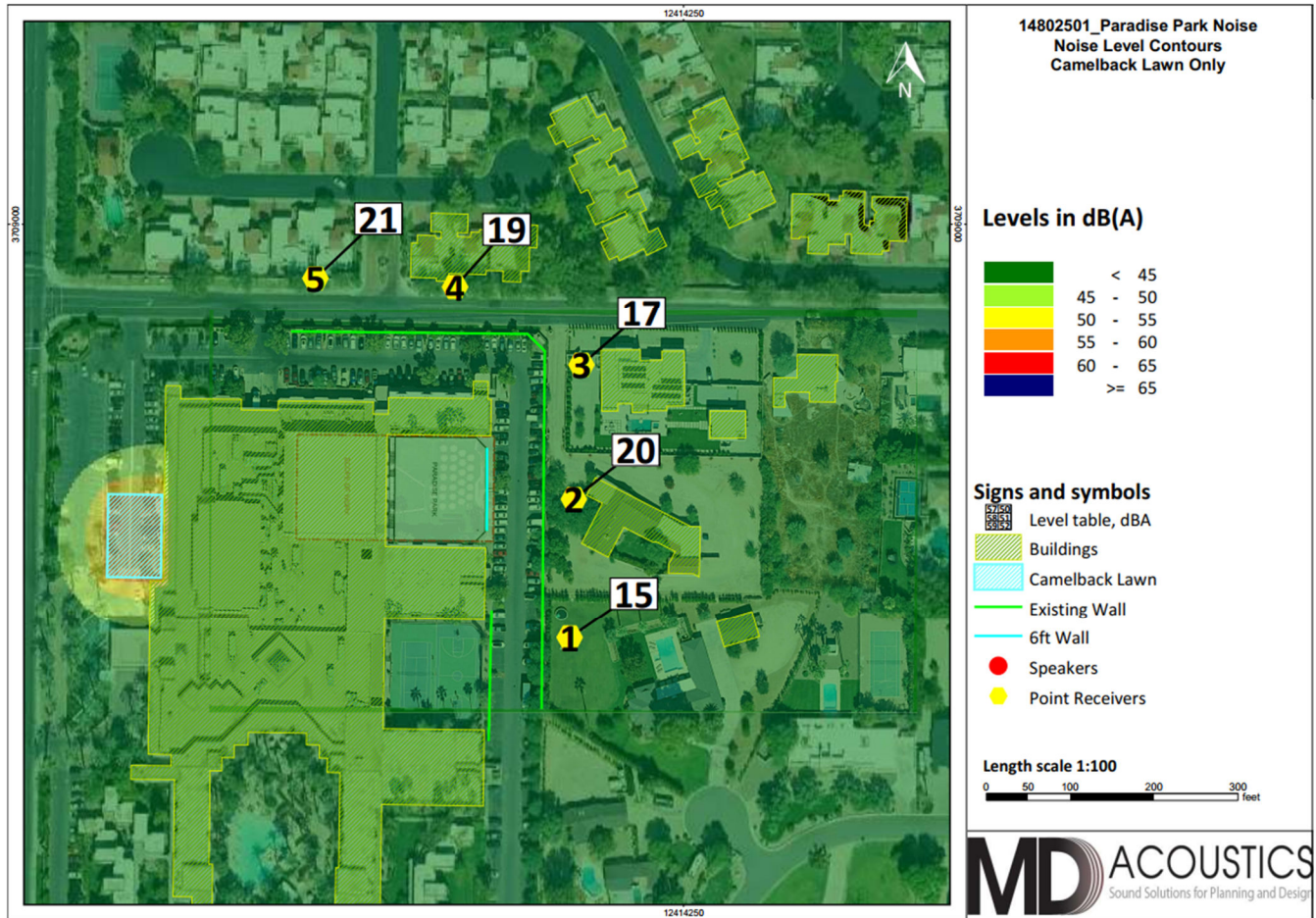


4.2 Camelback Lawn Only

Figure 3 illustrates the Camelback Lawn Only condition. This situation models the site condition where only the Camelback Lawn is in operation. The model assumes that 75 people are socializing on the lawn with 50% of people talking at the same time at normal volume. The reference sound level for this condition was taken from the SP reference library.

<Figure 3, next page>

Figure 3: Camelback Lawn Only

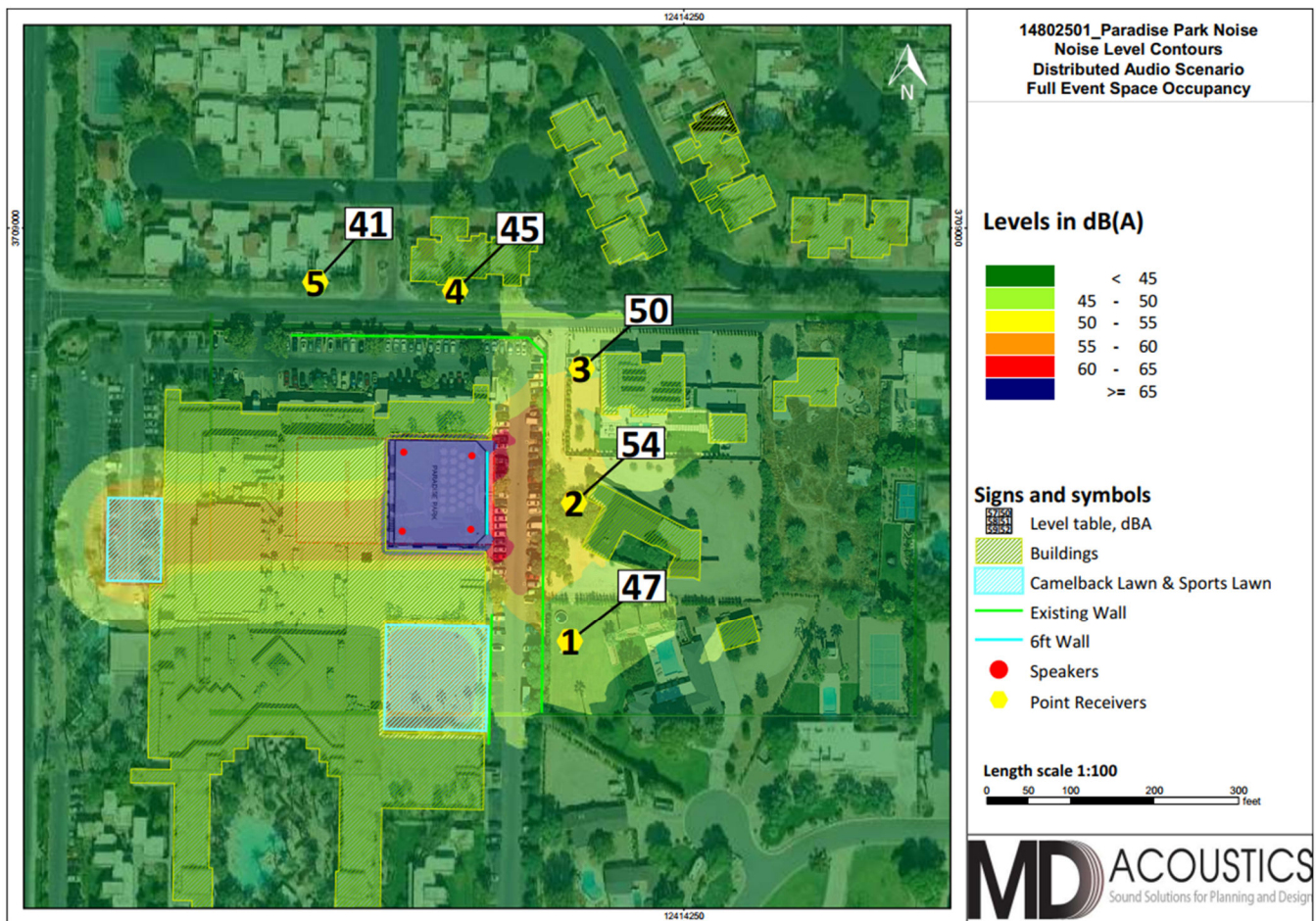


Figures 2 and 3 show the separate noise impacts from the Sports Lawn and Camelback Lawn respectively. As shown in Figure 2, the noise level from the Sports Lawn operation is expected to reach up to 36 dBA at the nearby residences. As shown in Figure 3, the noise level from the Camelback Lawn operation is expected to reach up to 21 dBA at the nearby residences. These levels will be inaudible when masked by the ambient noise condition as measured on-site by MD. Thus, the operation of these two lawns will have a less than significant noise impact on the surrounding community.

4.3 Full Event Space Occupancy

Figure 4 illustrates the condition where the Sports Lawn, Camelback Lawn, and Paradise Park are all simultaneously in operation. This condition represents a worst-case scenario. In this scenario, Paradise Park is modeled to be operating with a distributed audio system. This system assumes 4 speakers spread out throughout the event area and assumes that each speaker is equipped with a noise limiter set such that the noise level is compliant with the noise ordinance.

Figure 4: Full Event Space



As shown in Figure 4, the operation of all project event spaces (including the Sports Lawn, Camelback Lawn, and Paradise Park) is expected to reach up to 54 dBA at the nearby residences. Thus, when the distributed audio system is used for Paradise Park, the combined noise impact of all outdoor project operations falls below the 56 dBA daytime residential noise limit for the Town of Paradise Valley. Thus, the noise impact due to project operations is less than significant.

5.0 Conclusions

MD is pleased to provide this noise study and recommendations for the DoubleTree Resort. Measured reference crowd and speaker noise levels were used to evaluate potential noise control solutions using SoundPLAN Acoustic Modeling Software.

MD evaluated the proposed Sports Lawn, Camelback Lawn, and Paradise Park operations from an acoustical standpoint. MD determined that the use of the Sports Lawn and Camelback Lawn will not be audible above the existing noise condition as measured by MD. In addition, the combined noise impact from the proposed Sports Lawn, Camelback Lawn, and Paradise Park will comply with the daytime residential noise standards at the surrounding residences to the north and west.

If you have any questions regarding this analysis, please call our office at (602) 774-1950.

Sincerely,
MD Acoustics, LLC



Samuel Hord, INCE Bd. Cert.
Acoustical Consultant



Naomi Jensen, INCE-USA
Acoustical Consultant

Appendix A
Glossary of Acoustical Terms

Glossary of Terms

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

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

C-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the C-weighted filter network. The C-weighting filter greatly de-emphasizes very high frequency components of the sound and slightly de-emphasizes the very low frequency components. A numerical method of rating human judgment of loudness.

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

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

dB(A): A-weighted sound level (see definition above).

dB(C): C-weighted sound level (see definition above).

dB(Z): Z-weighted sound level (see definition of dB above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

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

Human Sensitivity to Sound: In general, the healthy human ear can hear between 20 Hz to 20,000 Hz. Frequencies below 125 Hz are typically associated with low frequencies or bass. Frequencies between 125 Hz and 5,000 Hz are typically associated with mid-range tones. Finally, frequencies between 5,000 and 20,000Hz are typically associated with higher range tones.

The human ear is sensitive to changes in noise levels, depending on the frequency. Generally speaking, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz (A-weighted scale) and perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. At lower and higher frequencies, the ear can become less sensitive depending on a number of factors. Table 1 provides a brief summary of how humans perceive changes in noise levels.

Table 1: Change in Noise Level Characteristics¹

Changes in Intensity Level, dBA	Changes in Apparent Loudness
1	Not perceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud

https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm

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

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

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

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

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

Appendix B
Long Term Noise Measurements

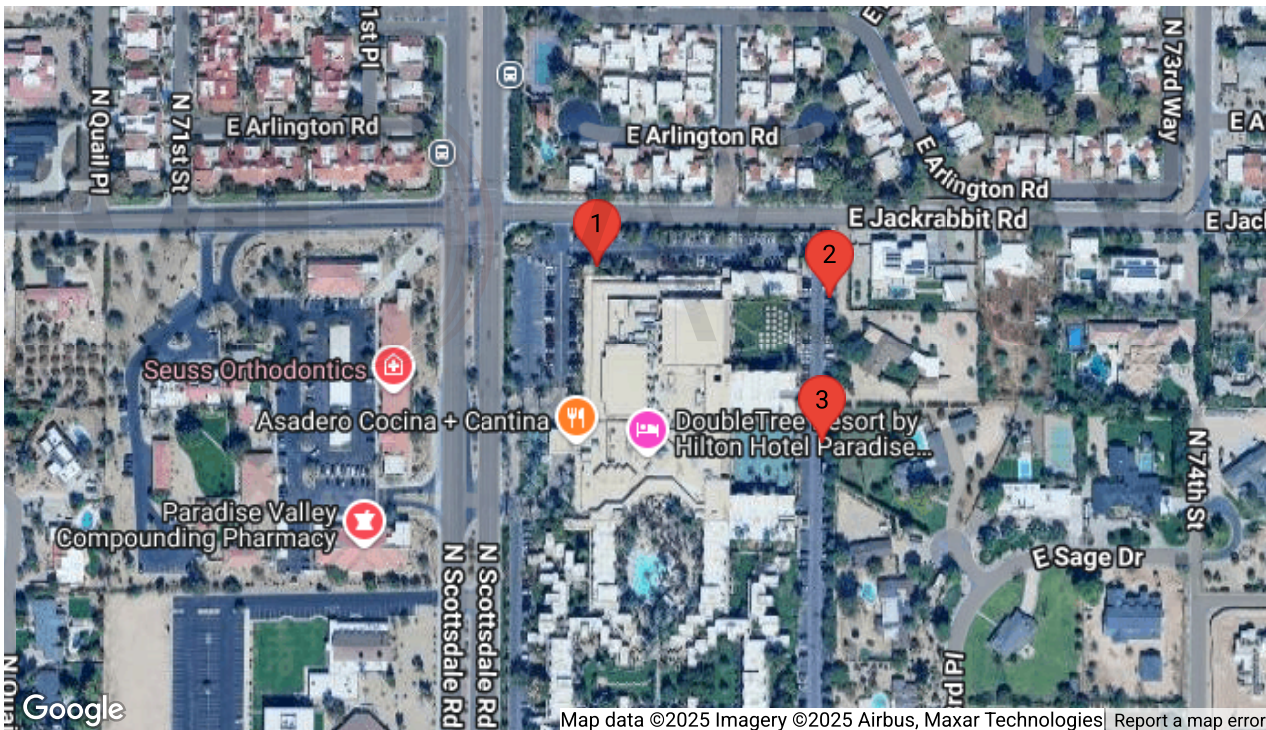
24-Hour Continuous Noise Measurement Datasheet - NM-1, NM-2, NM-3

Project Name: DoubleTree Paradise Park
Project: #/Name: 1480-2025-001
Site Address/Location: 5401 N Scottsdale Rd
Date: 07/10/2025
Field Tech/Engineer: Shon Baldwin

Site Observations:

Temp was approximately 105 degrees, light breeze. NM 1 was placed on the north west corner of the building approximately 1 ft away from the building, 50 yards away from the corner of Scottsdale Rd and E. Jackrabbit rd. NM 2 was place on the north east corner of the property, approximately 20 yards away from Jackrabbit Rd in shrubbery 1 ft from a 6 ft brick wall. NM 3 was placed approximately 20 yards south of NM 3, 1 ft away from the same wall.

Sound Meter: Piccolo 2, Soft dB **SN:** P0222022801
Settings: A-weighted, slow, 1-min, 24-hour duration
Site Id: NM-1, NM-2, NM-3



STICS

24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-1, NM-2, NM-3

Project Name: DoubleTree Paradise Park

Calibrator:

Site Address/Location: 5401 N Scottsdale Rd

Cal Check: Pre-test: **Post Test:**

Site Id: NM-1, NM-2, NM-3

Figure 1: NM 1



Figure 2: NM 2



Figure 3: NM 3



24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-1

Project Name:	DoubleTree Paradise Park	Site Topo:	Flat	Day: 1 of 3
Site Address/Location:	5401 N Scottsdale Rd	Meteorological Cond.:	100F Sunny Winds 0-10 Mph	Noise Source(s) w/ Distance:
Site Id:	NM-1			68 feet from E Jackrabbit Rd
		Ground Type:	hard	

Table 1: Baseline Noise Measurement Summary

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
7/10/2025	1:00 PM	2:00 PM	59.3	78.7	46.5	66.3	61.5	59.2	58.1	54.6
7/10/2025	2:00 PM	3:00 PM	57.9	69.7	47.5	61.1	59.8	58.6	57.5	55.5
7/10/2025	3:00 PM	4:00 PM	59	69	47.1	62.1	61.5	60	58.7	55.4
7/10/2025	4:00 PM	5:00 PM	60	79.7	47.4	64.5	62.2	60.8	59.2	56.3
7/10/2025	5:00 PM	6:00 PM	58.5	73.4	46.2	61.7	60.7	59.5	58.2	54.7
7/10/2025	6:00 PM	7:00 PM	58.6	77.8	43.8	62.8	60.3	59.2	58.1	56.5
7/10/2025	7:00 PM	8:00 PM	59.1	85.4	44	64.3	60.3	58.8	57.4	55.8
7/10/2025	8:00 PM	9:00 PM	57.9	81.3	45.2	64.7	59.2	57.7	56.9	54.2
7/10/2025	9:00 PM	10:00 PM	56.2	72	43.2	60.3	58.3	56.4	55.6	53.3
7/10/2025	10:00 PM	11:00 PM	54.5	67.9	44	57.1	56.2	55.4	54.3	52.4
7/10/2025	11:00 PM	12:00 AM	56.6	71.5	44.9	60.8	58.8	57.2	56.3	53.5
7/11/2025	12:00 AM	1:00 AM	58.1	80.2	49.2	60.1	59.5	57.9	56.8	53.6
7/11/2025	1:00 AM	2:00 AM	54.3	71.4	41.4	60	59.3	54.9	51.7	45.3
7/11/2025	2:00 AM	3:00 AM	49.1	62.7	41.1	53.8	52.3	50.4	48.1	42.9
7/11/2025	3:00 AM	4:00 AM	49	63.1	41.7	53.3	51.9	50.1	48.2	44
7/11/2025	4:00 AM	5:00 AM	50.7	68	41.3	56.3	54.1	51.1	49.6	45.4
7/11/2025	5:00 AM	6:00 AM	54.1	70.8	42.1	58.3	56.2	54.8	53.5	50.5
7/11/2025	6:00 AM	7:00 AM	56.4	73.5	44.4	59.8	58.6	57	56	53.5
7/11/2025	7:00 AM	8:00 AM	60.3	81.3	46.7	67.2	64.6	59.9	58.1	54.9
7/11/2025	8:00 AM	9:00 AM	65.5	91.6	46.5	71.7	68.2	59	57.4	54.4
7/11/2025	9:00 AM	10:00 AM	61	85.3	46.6	65.8	62.3	60.1	58.8	55
7/11/2025	10:00 AM	11:00 AM	57.1	76.9	45.5	63.2	59.3	57.4	55.8	53.5
7/11/2025	11:00 AM	12:00 PM	57.5	71.7	43.3	63	59.9	57.5	56.7	54.6
7/11/2025	12:00 PM	1:00 PM	58.3	70.6	49.4	61.2	60.1	59	58	56.5

	DNL	63	CNEL	63
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24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-2

Project Name:	DoubleTree Paradise Park	Site Topo:	Flat	Day:	2 of 3
Site Address/Location:	5401 N Scottsdale Rd	Meteorological Cond.:	100F Sunny Winds 0-10 Mph	Noise Source(s) w/ Distance:	111 feet from E Jackrabbit Rd
Site Id:	NM-2	Ground Type:	hard		

Table 2: Baseline Noise Measurement Summary

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
7/10/2025	1:00 PM	2:00 PM	57.5	78.4	42.5	65.3	62.7	54.9	52.3	48.4
7/10/2025	2:00 PM	3:00 PM	54.9	78.5	42.6	63.2	56.5	53.2	51.5	47.5
7/10/2025	3:00 PM	4:00 PM	52.4	63.5	42.7	55.8	55	53.8	52	48.3
7/10/2025	4:00 PM	5:00 PM	52.6	66.9	43.6	57.3	55.5	53.2	52.2	48.8
7/10/2025	5:00 PM	6:00 PM	50.8	67.4	43.7	55.6	53.1	51.5	49.8	47.4
7/10/2025	6:00 PM	7:00 PM	51.2	70	43.2	57	53.5	51.8	49.5	47.3
7/10/2025	7:00 PM	8:00 PM	53.1	70.3	43	59.3	56.5	55	50.5	47.2
7/10/2025	8:00 PM	9:00 PM	52.2	69.8	43.1	56.7	56.1	53.6	50.4	47.8
7/10/2025	9:00 PM	10:00 PM	50.1	68	43.4	56.5	53.2	50	48.4	47
7/10/2025	10:00 PM	11:00 PM	49.4	64.8	43.9	54.6	51.9	49.7	48.2	46.6
7/10/2025	11:00 PM	12:00 AM	52.9	70.8	43.7	57.4	56.1	53.6	51.9	48.2
7/11/2025	12:00 AM	1:00 AM	54.8	76.6	48	56.6	55.5	55	53.6	51.2
7/11/2025	1:00 AM	2:00 AM	51.2	77.6	41.5	55.5	54.5	51.4	46.6	43.2
7/11/2025	2:00 AM	3:00 AM	44.8	61.7	39.7	51.9	45.3	44.3	43.7	42.2
7/11/2025	3:00 AM	4:00 AM	45	63.3	41	50.3	46.7	45.1	44.1	43
7/11/2025	4:00 AM	5:00 AM	44.9	57.7	41.1	48.3	47.1	45.3	44.1	42.8
7/11/2025	5:00 AM	6:00 AM	48.8	64.3	41.8	54.7	51.3	49.3	47.2	44.4
7/11/2025	6:00 AM	7:00 AM	48.6	62.6	42.2	54.6	51.6	49.1	47	45.1
7/11/2025	7:00 AM	8:00 AM	56.5	81.3	43	61.3	58.6	52.2	50.2	47.2
7/11/2025	8:00 AM	9:00 AM	57.7	82.6	42.8	68.5	59.9	53.9	51.5	47.6
7/11/2025	9:00 AM	10:00 AM	52.7	72.5	40.9	60.3	56	52.5	50.7	47.5
7/11/2025	10:00 AM	11:00 AM	54.4	80.2	42	62.9	53.6	51.7	49.6	45.6
7/11/2025	11:00 AM	12:00 PM	51	68.9	41.2	58.6	54.5	52	48.1	45
7/11/2025	12:00 PM	1:00 PM	50.5	64	42.4	55.7	53.8	51.9	48.7	45.2
7/11/2025	1:00 PM	2:00 PM	52.4	72.8	41.3	60.7	52.6	50.6	48.8	46.4
							DNL	57.9	CNEL	57.9

24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-3

Project Name:	DoubleTree Paradise Park	Site Topo:	Flat	Day:	3 of 3
Site Address/Location:	5401 N Scottsdale Rd	Meteorological Cond.:	100F Sunny Winds 0-10 Mph	Noise Source(s) w/ Distance:	200 feet from E Jackrabbit Rd
Site Id:	NM-3	Ground Type:	hard		

Table 3: Baseline Noise Measurement Summary

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
7/10/2025	1:00 PM	2:00 PM	62.3	79.6	43.5	65.7	64.9	63.9	61	51
7/10/2025	2:00 PM	3:00 PM	58.2	77	43.9	65.4	64.5	57.2	51.3	48.2
7/10/2025	3:00 PM	4:00 PM	58.5	71.7	43.8	64.2	63.7	60.7	54.4	49.2
7/10/2025	4:00 PM	5:00 PM	59.1	69	43.7	66.5	64.2	59.6	54.5	48.7
7/10/2025	5:00 PM	6:00 PM	53.4	65.6	44.1	61.4	57	52.6	49.6	47
7/10/2025	6:00 PM	7:00 PM	52.4	72.5	44.1	59.2	55.4	52.8	50.1	46.9
7/10/2025	7:00 PM	8:00 PM	58	69.9	43.6	63.8	62.9	61.8	51.1	47.3
7/10/2025	8:00 PM	9:00 PM	55.2	70.7	44.5	62.4	61.1	54.6	51.8	47.2
7/10/2025	9:00 PM	10:00 PM	50.3	66.2	43.8	55.7	53.8	50.2	48.4	46.4
7/10/2025	10:00 PM	11:00 PM	50.5	67.5	44.3	56	53.9	51	48.8	47
7/10/2025	11:00 PM	12:00 AM	56.3	74.6	45.6	62.1	59.6	57.6	55.1	50.2
7/11/2025	12:00 AM	1:00 AM	60	76.8	48.9	64.3	63.3	61.2	58.9	55.4
7/11/2025	1:00 AM	2:00 AM	53.6	74.8	39	61.6	58.6	53	46.7	40.8
7/11/2025	2:00 AM	3:00 AM	42.6	58.8	39	47.6	44.6	42.6	41.8	40.8
7/11/2025	3:00 AM	4:00 AM	44.6	64.3	40.7	47.8	45.4	44.6	44	42.4
7/11/2025	4:00 AM	5:00 AM	44.3	61.9	39.9	50.6	46.3	44.4	43.1	41.6
7/11/2025	5:00 AM	6:00 AM	50.1	66.3	40.8	57.8	55.6	49.5	46	43
7/11/2025	6:00 AM	7:00 AM	47.6	69.7	41	53.2	50.9	47.8	46	44.4
7/11/2025	7:00 AM	8:00 AM	58.6	68	42.2	65.3	65.1	58.3	50.7	46.4
7/11/2025	8:00 AM	9:00 AM	60	81.9	41.4	66.1	65.5	56.8	51	45.2
7/11/2025	9:00 AM	10:00 AM	59.6	69.8	41	64.8	63.4	61	58.7	44
7/11/2025	10:00 AM	11:00 AM	59.9	77.4	41.8	65.6	63.7	62.2	56.8	44.1
7/11/2025	11:00 AM	12:00 PM	55.9	66.9	41.8	64	63.1	54.3	47.2	44
7/11/2025	12:00 PM	1:00 PM	61.2	68.6	42.2	67.2	66.3	63.7	57.7	44.8
7/11/2025	1:00 PM	2:00 PM	58.9	70.2	42.8	65	64.2	60.6	53	45.8

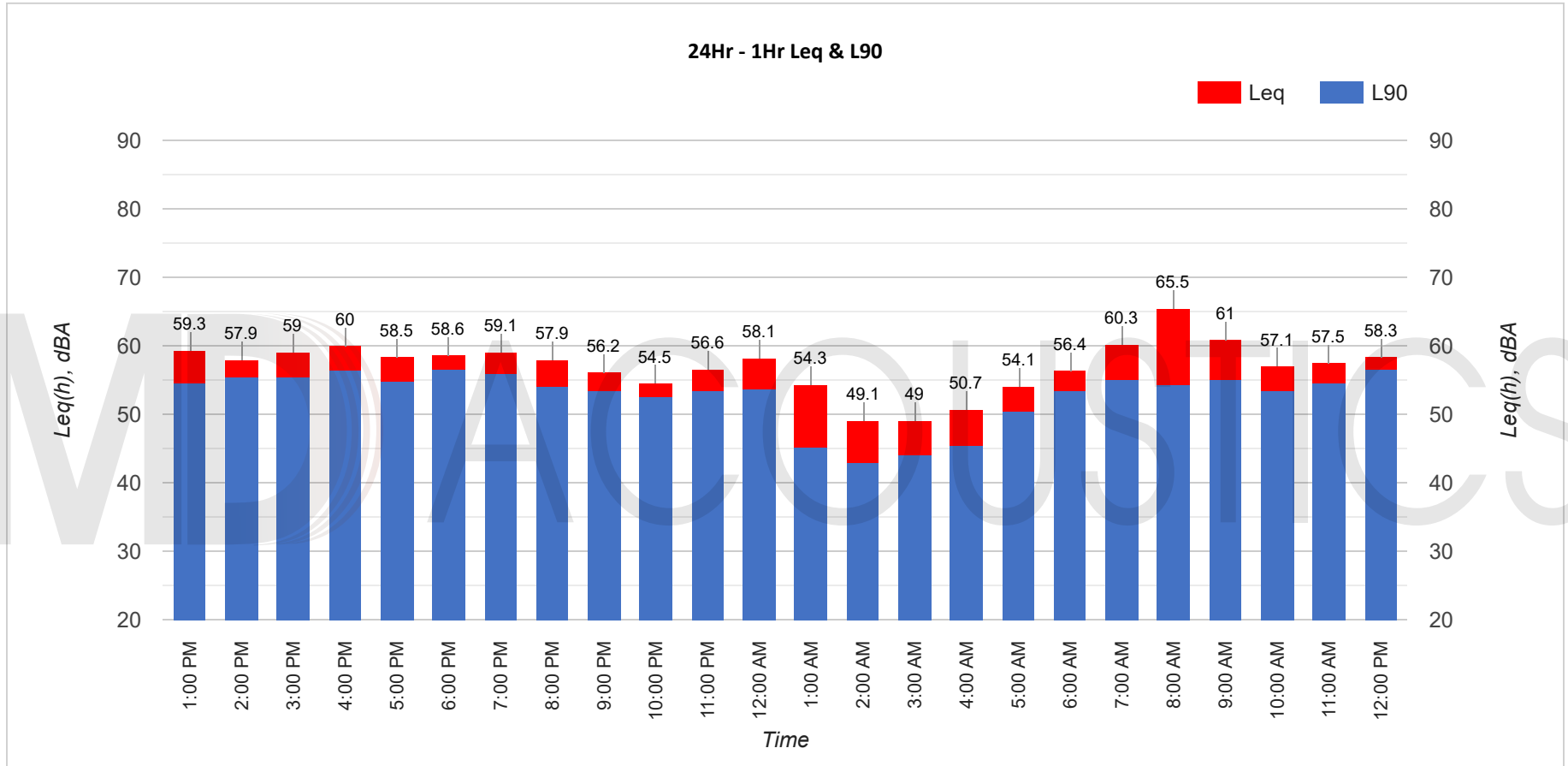
							DNL	61.6	CNEL	61.6
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24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-1

Project Name: DoubleTree Paradise Park
Site Address/Location: 5401 N Scottsdale Rd
Site Id: NM-1

Site Topo: Flat
Meteorological Cond.: 100F Sunny Winds 0-10 Mph
Ground Type: hard

Day: 1 of 3
Noise Source(s) w/ Distance: 68 feet from E Jackrabbit Rd

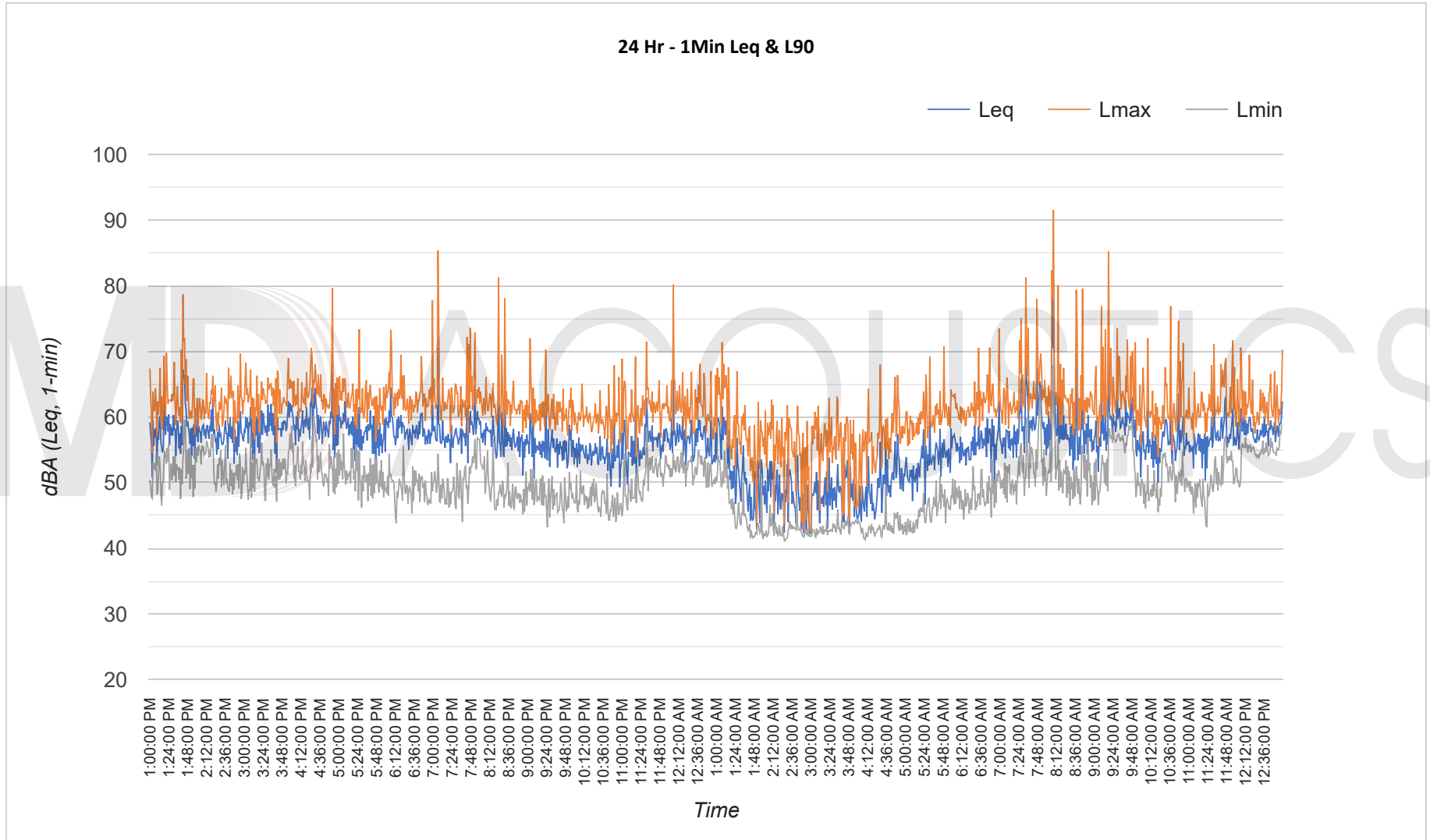


24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-1

Project Name: DoubleTree Paradise Park
Site Address/Location: 5401 N Scottsdale Rd
Site Id: NM-1

Site Topo: Flat
Meteorological Cond.: 100F Sunny Winds 0-10 Mph
Ground Type: hard

Day: 1 of 3
Noise Source(s) w/ Distance: 68 feet from E Jackrabbit Rd

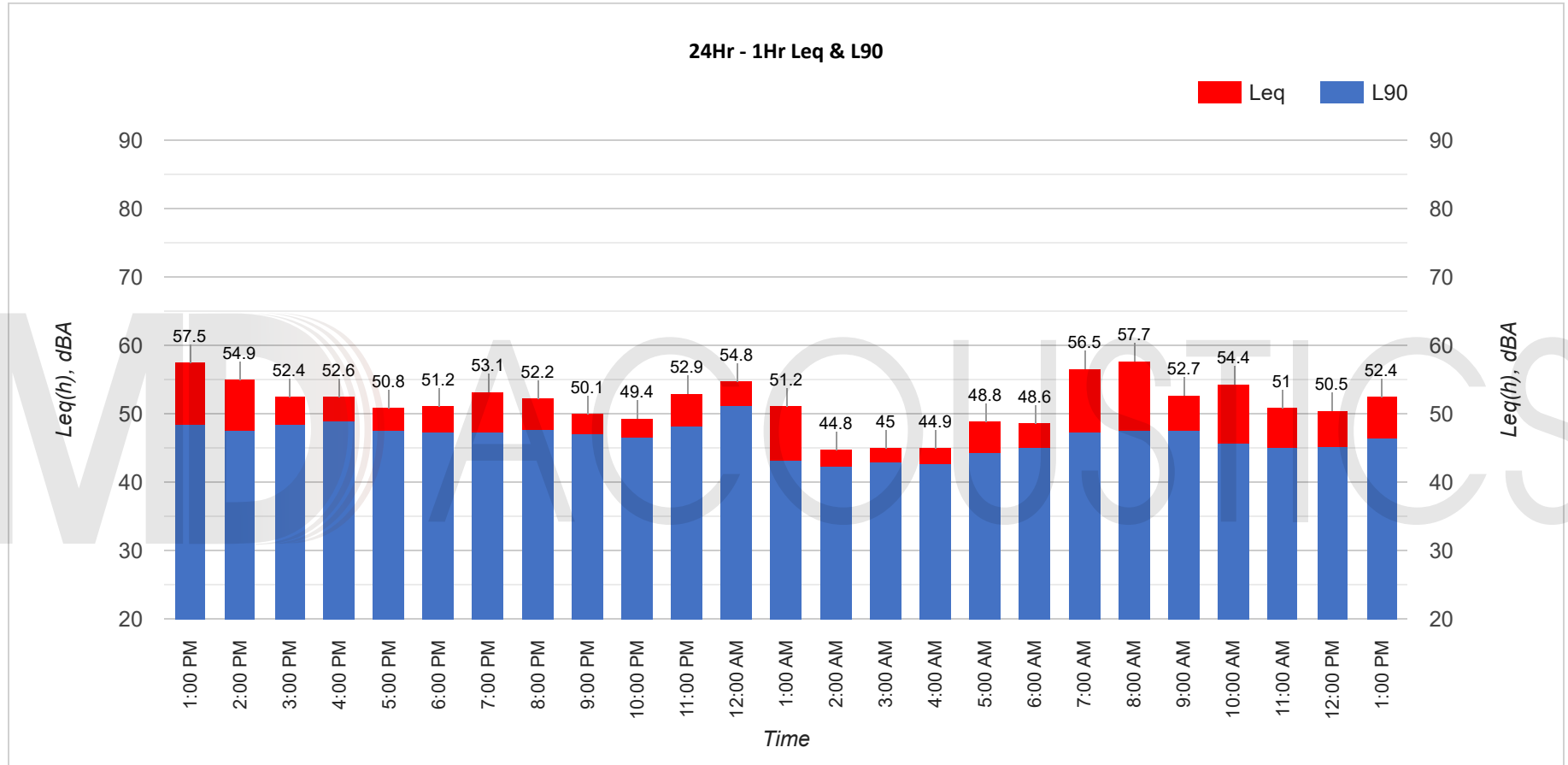


24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-2

Project Name: DoubleTree Paradise Park
Site Address/Location: 5401 N Scottsdale Rd
Site Id: NM-2

Site Topo: Flat
Meteorological Cond.: 100F Sunny Winds 0-10 Mph
Ground Type: hard

Day: 1 of 3
Noise Source(s) w/ Distance: 111 feet from E Jackrabbit Rd

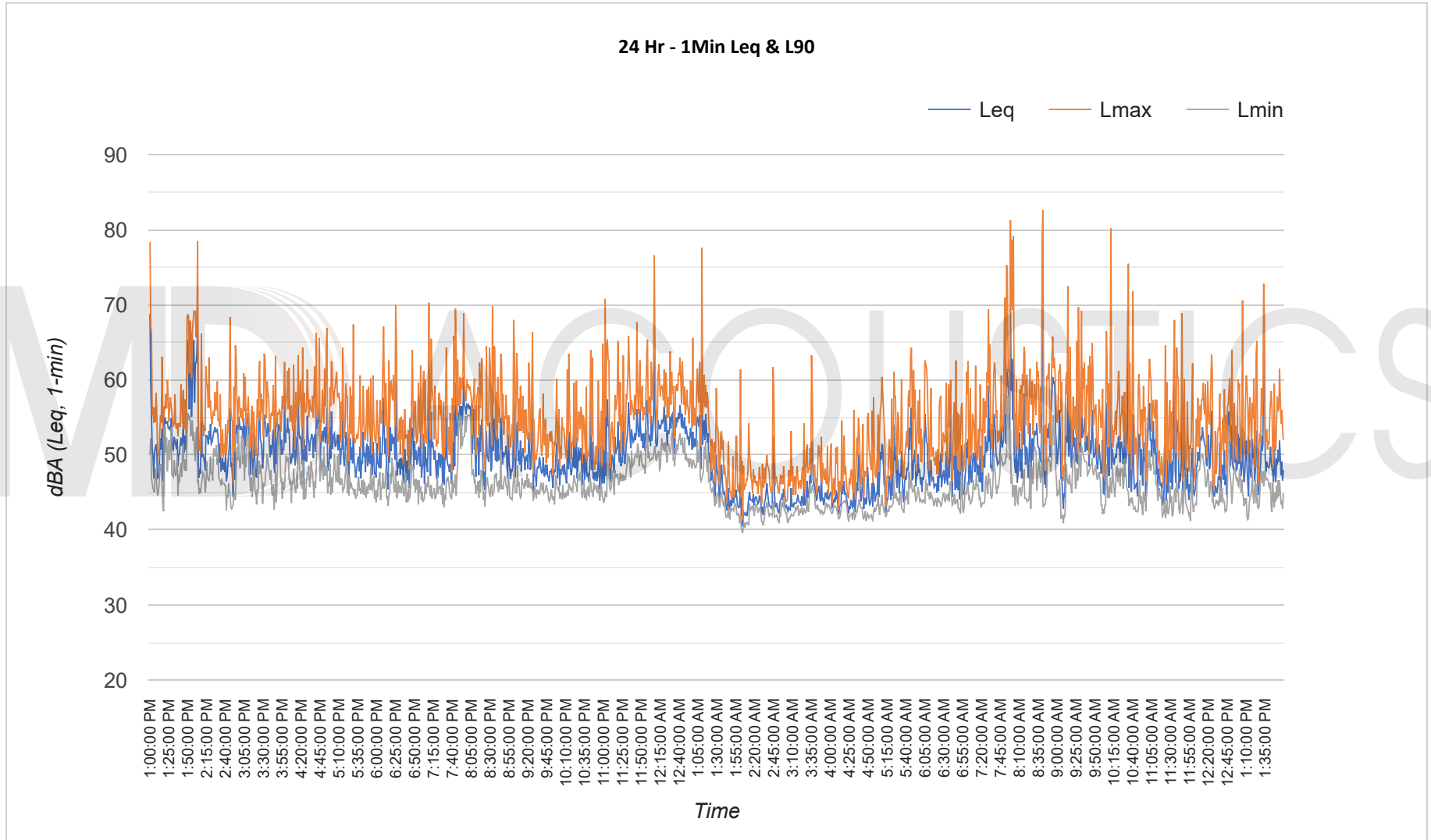


24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-2

Project Name: DoubleTree Paradise Park
Site Address/Location: 5401 N Scottsdale Rd
Site Id: NM-2

Site Topo: Flat
Meteorological Cond.: 100F Sunny Winds 0-10 Mph
Ground Type: hard

Day: 1 of 3
Noise Source(s) w/ Distance: 111 feet from E Jackrabbit Rd

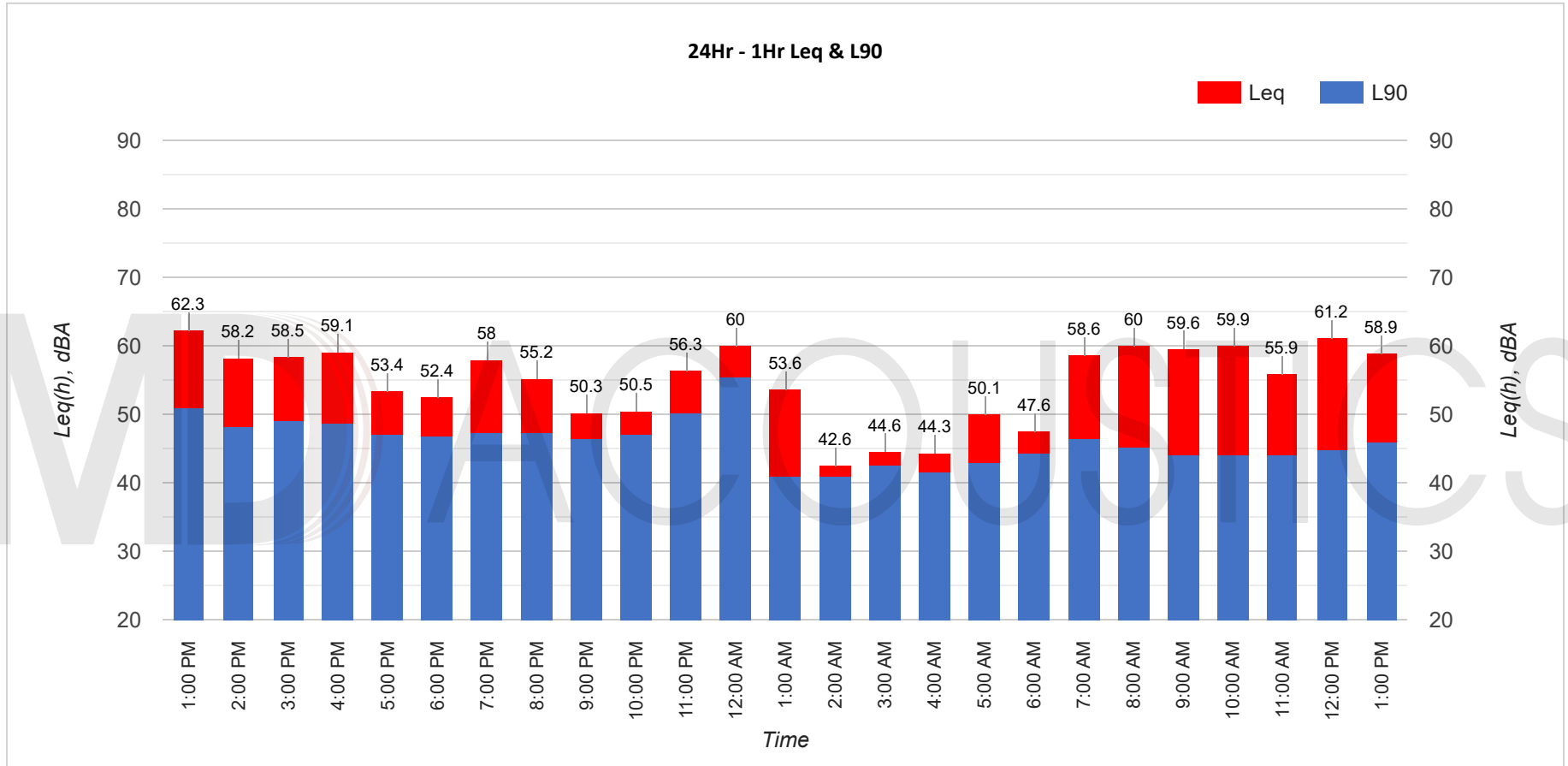


24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-3

Project Name: DoubleTree Paradise Park
Site Address/Location: 5401 N Scottsdale Rd
Site Id: NM-3

Site Topo: Flat
Meteorological Cond.: 100F Sunny Winds 0-10 Mph
Ground Type: hard

Day: 1 of 3
Noise Source(s) w/ Distance: 200 feet from E Jackrabbit Rd

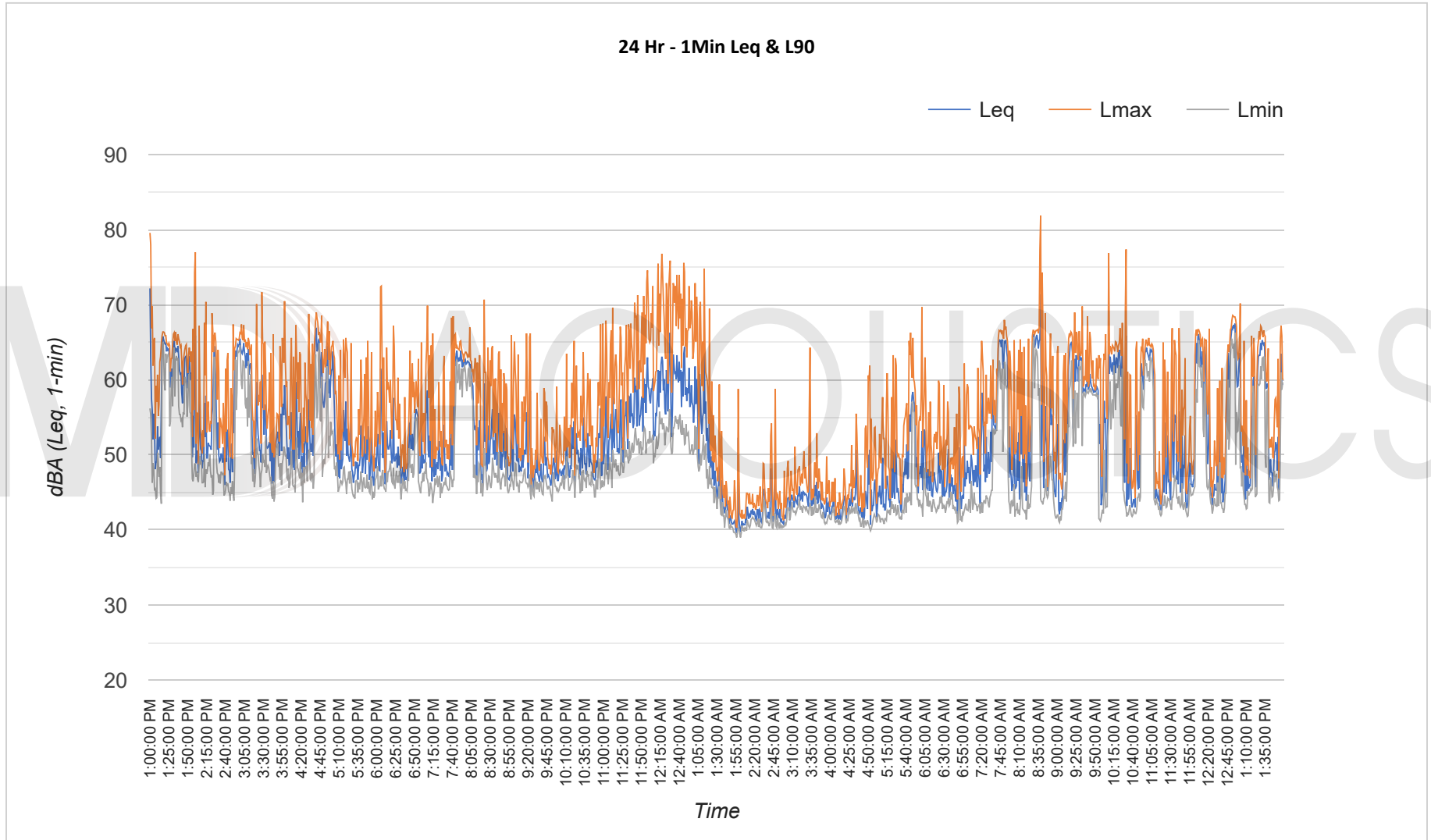


24-Hour Continuous Noise Measurement Datasheet - Cont. - NM-3

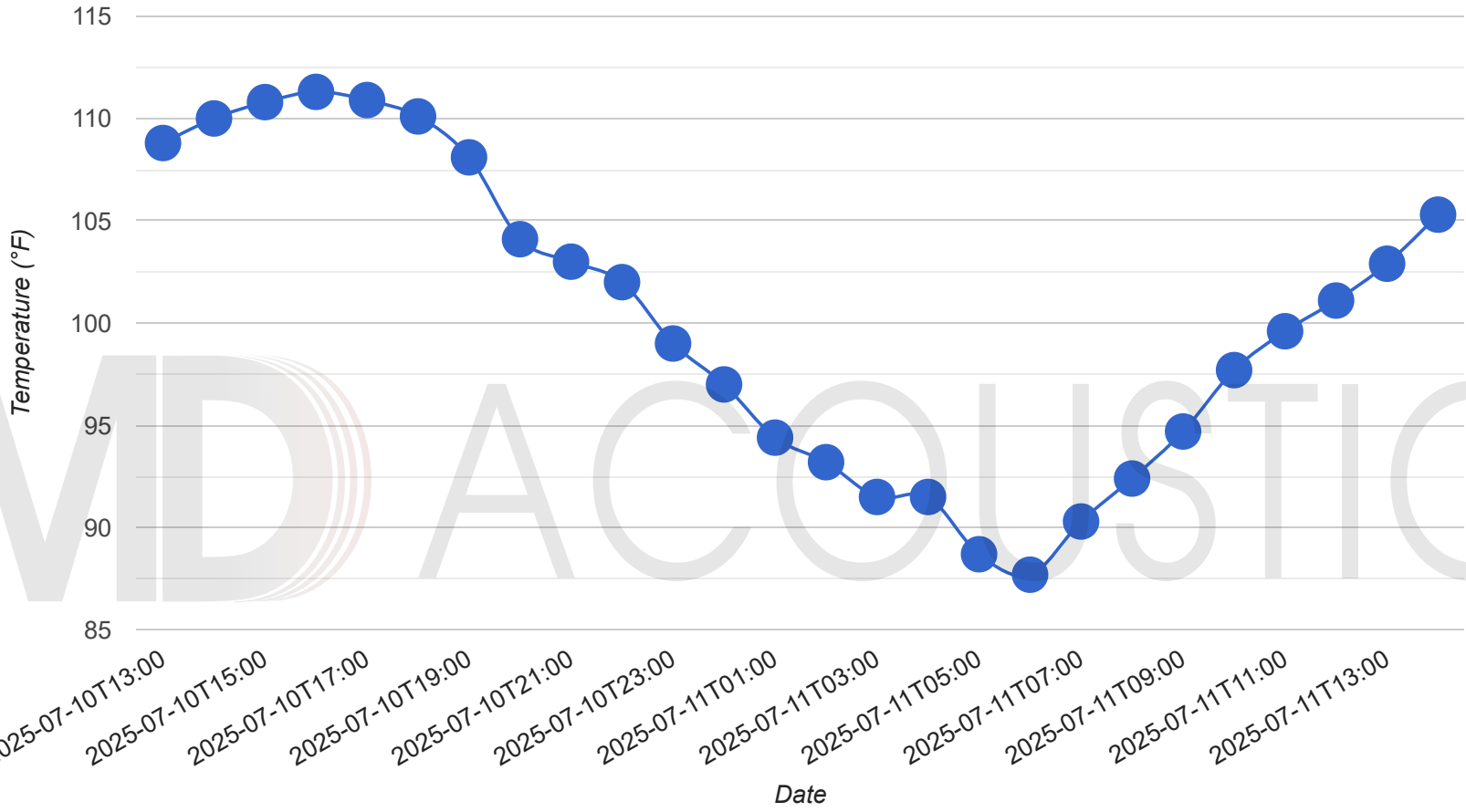
Project Name: DoubleTree Paradise Park
Site Address/Location: 5401 N Scottsdale Rd
Site Id: NM-3

Site Topo: Flat
Meteorological Cond.: 100F Sunny Winds 0-10 Mph
Ground Type: hard

Day: 1 of 3
Noise Source(s) w/ Distance: 200 feet from E Jackrabbit Rd

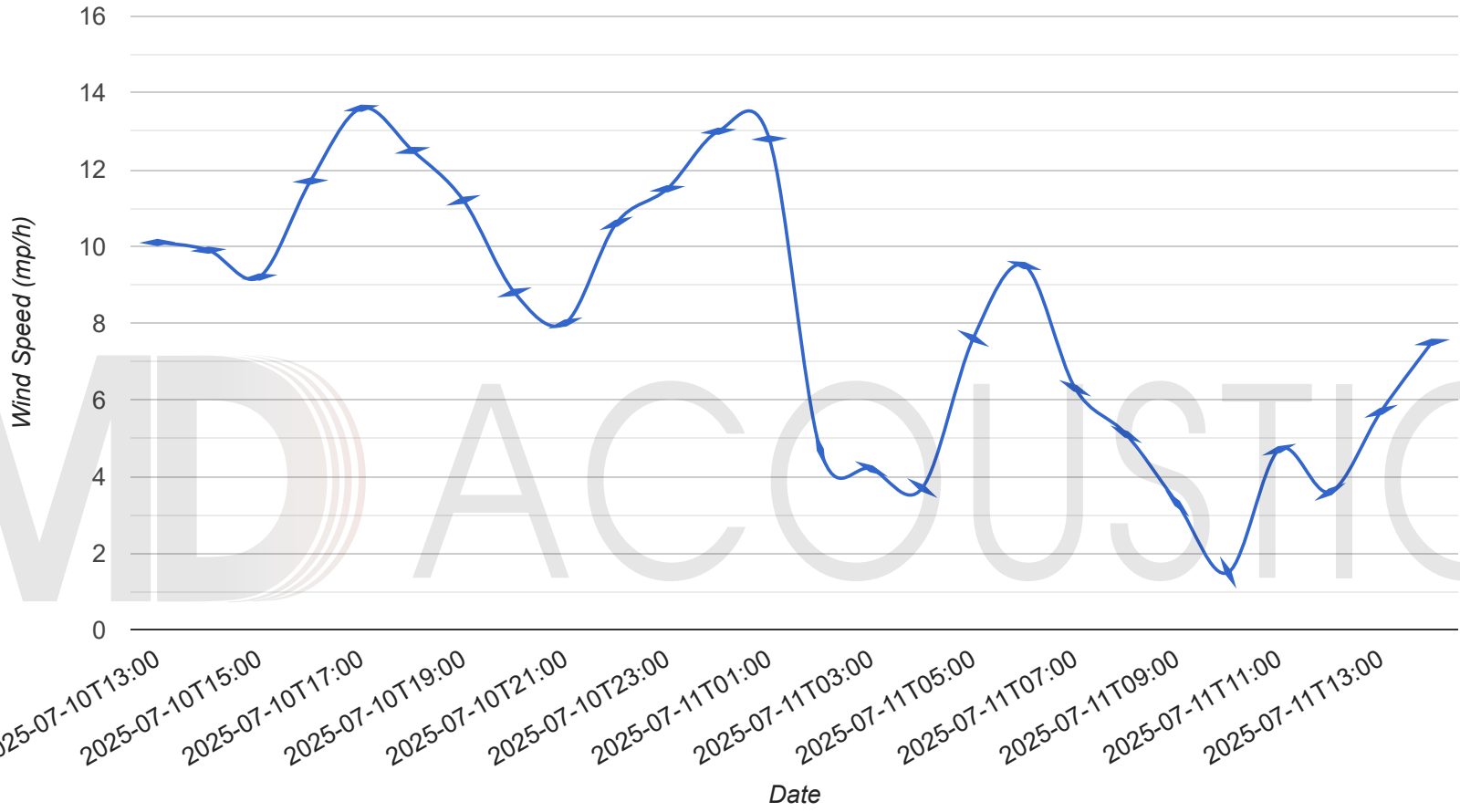


Weather forecast for 2025-07-10 to 2025-07-11



Source: Global Forecast System (GFS) weather forecast model

Wind speed and directions for 2025-07-10 to 2025-07-11



Source: Global Forecast System (GFS) weather forecast model

Appendix C
SoundPLAN Reference Sheets

Paradise Park Noise
Contribution level - 004 - Paradise Park - Wall - 4 Speakers

9

Source	Source group	Source ty	Tr. lane	Leq,d dB(A)	A dB	
Receiver R1	FI GF Lr,lim dB(A)	Leq,d 35.7 dB(A)	Sigma(Leq,d)	0.0 dB(A)		
Sports Lawn	Default industrial noise	Area		35.7	0.0	
Receiver R2	FI GF Lr,lim dB(A)	Leq,d 28.9 dB(A)	Sigma(Leq,d)	0.0 dB(A)		
Sports Lawn	Default industrial noise	Area		28.9	0.0	
Receiver R3	FI GF Lr,lim dB(A)	Leq,d 26.3 dB(A)	Sigma(Leq,d)	0.0 dB(A)		
Sports Lawn	Default industrial noise	Area		26.3	0.0	
Receiver R4	FI GF Lr,lim dB(A)	Leq,d 19.7 dB(A)	Sigma(Leq,d)	0.0 dB(A)		
Sports Lawn	Default industrial noise	Area		19.7	0.0	
Receiver R5	FI GF Lr,lim dB(A)	Leq,d 17.1 dB(A)	Sigma(Leq,d)	0.0 dB(A)		
Sports Lawn	Default industrial noise	Area		17.1	0.0	

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Paradise Park Noise
Octave spectra of the sources in dB(A) - 004 - Paradise Park - Wall - 4 Speakers CO1 - Sports Lawn: Outdoor
SP

3

Name	Source type	I or A m,m ²	Li dB(A)	Rw dB	L'w dB(A)	Lw dB(A)	KI dB	KT dB	LwMax dB(A)	DO-Wall dB	Day histogram	Emission spectrum	500Hz dB(A)
Sports Lawn	Area	1396.37			50.0	81.5	0.0	0.0		0	100%/24h	Beer garden, normal	81.5

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Paradise Park Noise
Octave spectra of the sources in dB(A) - 005 - Paradise Park - Wall - 4 Speakers CO1 - Camelback Lawn:
Outdoor SP

3

Name	Source type	I or A m,m ²	Li dB(A)	Rw dB	L'w dB(A)	Lw dB(A)	KI dB	KT dB	LwMax dB(A)	DO-Wall dB	Day histogram	Emission spectrum	500Hz dB(A)
Camelback Lawn	Area	587.35			55.0	82.7	0.0	0.0		0	100%/24h	Beer garden, normal	82.7

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Paradise Park Noise
Contribution spectra - 004 - Paradise Park - Wall - 4 Speakers CO1 - Sports Lawn: Outdoor SP

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Source	Time slice	Sum dB(A)	400Hz dB(A)	500Hz dB(A)	630Hz dB(A)
Receiver R1 FI GF Lr,lim dB(A) Leq,d 35.7 dB(A) Sigma(Leq,d) 0.0 dB(A)					
Sports Lawn	Leq,d	35.7	30.9	30.9	30.9
Receiver R2 FI GF Lr,lim dB(A) Leq,d 28.9 dB(A) Sigma(Leq,d) 0.0 dB(A)					
Sports Lawn	Leq,d	28.9	24.2	24.2	24.2
Receiver R3 FI GF Lr,lim dB(A) Leq,d 26.3 dB(A) Sigma(Leq,d) 0.0 dB(A)					
Sports Lawn	Leq,d	26.3	21.5	21.5	21.5
Receiver R4 FI GF Lr,lim dB(A) Leq,d 19.7 dB(A) Sigma(Leq,d) 0.0 dB(A)					
Sports Lawn	Leq,d	19.7	14.9	14.9	14.9
Receiver R5 FI GF Lr,lim dB(A) Leq,d 17.1 dB(A) Sigma(Leq,d) 0.0 dB(A)					
Sports Lawn	Leq,d	17.1	12.3	12.3	12.3

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Paradise Park Noise Contribution spectra - 005 - Paradise Park - Wall - 4 Speakers

Time slice	Source	Sum dB(A)	500Hz dB(A)	
Receiver R1 FI GF Lr,lim dB(A) Leq,d 14.6 dB(A) Sigma(Leq,d) 0.0 dB(A)				
Leq,d	Camelback Lawn	14.6	14.6	
Receiver R2 FI GF Lr,lim dB(A) Leq,d 19.5 dB(A) Sigma(Leq,d) 0.0 dB(A)				
Leq,d	Camelback Lawn	19.5	19.5	
Receiver R3 FI GF Lr,lim dB(A) Leq,d 16.9 dB(A) Sigma(Leq,d) 0.0 dB(A)				
Leq,d	Camelback Lawn	16.9	16.9	
Receiver R4 FI GF Lr,lim dB(A) Leq,d 19.2 dB(A) Sigma(Leq,d) 0.0 dB(A)				
Leq,d	Camelback Lawn	19.2	19.2	
Receiver R5 FI GF Lr,lim dB(A) Leq,d 21.1 dB(A) Sigma(Leq,d) 0.0 dB(A)				
Leq,d	Camelback Lawn	21.1	21.1	

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Paradise Park Noise
Octave spectra of the sources in dB(A) - 006 - Paradise Park - Wall - 4 Speakers CO1 - Full Event Space
Occupancy: Outdoor SP

Name	Source type	I or A m,m ²	Li dB(A)	Rw dB	L'w dB(A)	Lw dB(A)	KI dB	KT dB	LwMax dB(A)	DO-Wall dB	Day histogram	Emission spectrum	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)	16kHz dB(A)
Camelback Lawn	Area	587.35			55.0	82.7	0.0	0.0		0	100%/24h	Beer garden, normal				82.7					
Speakers	Point				92.0	92.0	0.0	0.0		0	100%/24h	12' from 2 Speakers	77.6	81.2	87.7	87.4	79.9	78.7	77.5	73.4	61.9
Speakers	Point				92.0	92.0	0.0	0.0		0	100%/24h	12' from 2 Speakers	77.6	81.2	87.7	87.4	79.9	78.7	77.5	73.4	61.9
Speakers	Point				92.0	92.0	0.0	0.0		0	100%/24h	12' from 2 Speakers	77.6	81.2	87.7	87.4	79.9	78.7	77.5	73.4	61.9
Speakers	Point				92.0	92.0	0.0	0.0		0	100%/24h	12' from 2 Speakers	77.6	81.2	87.7	87.4	79.9	78.7	77.5	73.4	61.9
Sports Lawn	Area	1396.37			50.0	81.5	0.0	0.0		0	100%/24h	Beer garden, normal				81.5					

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Paradise Park Noise Contribution level - 006 - Paradise Park - Wall - 4 Speakers

9

Source	Source group	Source ty	Tr. lane	Leq,d dB(A)	A dB	
Receiver R1	FI GF Lr,lim dB(A)			Leq,d 47.5 dB(A)		Sigma(Leq,d) 0.0 dB(A)
Speakers	Default industrial noise	Point		41.7	0.0	
Speakers	Default industrial noise	Point		43.1	0.0	
Speakers	Default industrial noise	Point		40.8	0.0	
Speakers	Default industrial noise	Point		36.9	0.0	
Sports Lawn	Default industrial noise	Area		35.6	0.0	
Camelback Lawn	Default industrial noise	Area		14.4	0.0	
Receiver R2	FI GF Lr,lim dB(A)			Leq,d 53.5 dB(A)		Sigma(Leq,d) 0.0 dB(A)
Speakers	Default industrial noise	Point		47.6	0.0	
Speakers	Default industrial noise	Point		48.9	0.0	
Speakers	Default industrial noise	Point		46.3	0.0	
Speakers	Default industrial noise	Point		46.6	0.0	
Sports Lawn	Default industrial noise	Area		28.9	0.0	
Camelback Lawn	Default industrial noise	Area		19.4	0.0	
Receiver R3	FI GF Lr,lim dB(A)			Leq,d 49.5 dB(A)		Sigma(Leq,d) 0.0 dB(A)
Speakers	Default industrial noise	Point		46.0	0.0	
Speakers	Default industrial noise	Point		43.1	0.0	
Speakers	Default industrial noise	Point		39.0	0.0	
Speakers	Default industrial noise	Point		43.2	0.0	
Sports Lawn	Default industrial noise	Area		26.3	0.0	
Camelback Lawn	Default industrial noise	Area		16.7	0.0	
Receiver R4	FI GF Lr,lim dB(A)			Leq,d 44.8 dB(A)		Sigma(Leq,d) 0.0 dB(A)
Speakers	Default industrial noise	Point		38.9	0.0	
Speakers	Default industrial noise	Point		39.4	0.0	
Speakers	Default industrial noise	Point		36.5	0.0	
Speakers	Default industrial noise	Point		39.7	0.0	
Sports Lawn	Default industrial noise	Area		19.7	0.0	
Camelback Lawn	Default industrial noise	Area		19.1	0.0	
Receiver R5	FI GF Lr,lim dB(A)			Leq,d 40.7 dB(A)		Sigma(Leq,d) 0.0 dB(A)
Speakers	Default industrial noise	Point		33.9	0.0	
Speakers	Default industrial noise	Point		35.2	0.0	
Speakers	Default industrial noise	Point		34.9	0.0	
Speakers	Default industrial noise	Point		34.4	0.0	
Sports Lawn	Default industrial noise	Area		17.1	0.0	

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Paradise Park Noise

23

Contribution spectra - 006 - Paradise Park - Wall - 4 Speakers CO1 - Full Event Space Occupancy:

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	12.5kHz	16kHz					
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)					
Speakers	Leq,d	48.9	-34.0	-25.1	0.6	10.5	18.1	33.0	31.0	30.6	31.8	34.0	40.8	38.2	36.9	41.6	39.3	32.9	32.5	36.0	35.6	35.2	29.4	35.7	32.5	29.6	28.7	24.8	21.1	12.4	-5.5					
Speakers	Leq,d	47.6	-34.5	-25.6	0.1	10.0	17.6	32.5	30.5	30.1	31.3	33.3	40.2	36.7	35.4	40.0	37.8	31.6	30.9	34.2	33.5	33.1	27.5	33.7	30.8	28.3	27.4	23.4	19.7	10.9	-7.0					
Sports Lawn	Leq,d	28.9													28.9																					
Remaining contrib. of src "Camelback Lawn"	Leq,d																																			
Remaining contrib. of src "Speakers"	Leq,d																																			
Remaining contrib. of src "Speakers"	Leq,d																																			
Remaining contrib. of src "Speakers"	Leq,d																																			
Remaining contrib. of src "Sports Lawn"	Leq,d																																			
Receiver R3	FI GF	Lr,lim	dB(A)	Leq,d	49.5	dB(A)	Sigma(Leq,d)	0.0	dB(A)																											
Camelback Lawn	Leq,d	16.7													16.7																					
Speakers	Leq,d	43.2	-41.2	-32.3	-6.5	3.3	10.9	25.8	23.7	23.2	26.5	26.7	35.3	33.3	32.2	36.7	34.3	27.3	26.4	29.9	28.8	28.0	21.8	27.5	23.4	19.9	18.1	12.7	6.4	-6.1	-28.9					
Speakers	Leq,d	39.0	-38.0	-29.4	-4.1	5.4	12.6	26.9	24.2	23.0	25.1	26.3	32.3	27.9	25.8	29.4	26.1	18.2	23.6	27.9	26.6	25.6	19.0	24.1	19.5	15.2	12.2	5.0	-3.1	-17.8	-42.9					
Speakers	Leq,d	43.1	-39.3	-30.4	-4.7	5.2	12.8	27.7	25.6	25.2	26.3	28.8	35.7	32.2	31.1	35.6	33.3	26.5	26.3	30.4	29.6	28.8	22.8	29.0	25.5	22.6	21.7	16.7	11.4	0.0	-21.4					
Speakers	Leq,d	46.0	-36.4	-27.5	-1.8	8.1	15.7	30.6	28.6	28.2	31.2	31.7	38.6	35.1	33.9	38.5	36.2	29.4	28.9	32.5	31.9	31.4	26.0	32.1	29.1	26.3	25.2	20.8	16.6	6.9	-12.2					
Sports Lawn	Leq,d	26.3													26.3																					

Paradise Park Noise

23

Contribution spectra - 006 - Paradise Park - Wall - 4 Speakers CO1 - Full Event Space Occupancy:

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	12.5kHz	16kHz		
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)		
Remaining contrib. of src "Camelback Lawn"	Leq,d																																
Remaining contrib. of src "Speakers"	Leq,d																																
Remaining contrib. of src "Speakers"	Leq,d																																
Remaining contrib. of src "Speakers"	Leq,d																																
Remaining contrib. of src "Sports Lawn"	Leq,d																																
Receiver R4 FI GF Lr,ljm dB(A) Leq,d 44.8 dB(A) Sigma(Leq,d) 0.0 dB(A)																																	
Camelback Lawn	Leq,d	19.1													19.1																		
Speakers	Leq,d	39.7	-41.5	-32.7	-7.1	2.7	10.1	24.9	24.7	23.9	24.5	24.2	32.5	28.2	26.4	31.1	29.3	25.3	25.2	28.3	27.2	26.1	19.5	24.7	20.3	15.8	12.1	4.1	-5.7	-23.0	-50.7		
Speakers	Leq,d	36.5	-38.8	-30.1	-4.6	5.0	12.2	26.7	26.0	24.8	25.0	24.4	30.1	25.5	23.1	26.6	24.0	15.9	16.4	20.1	18.3	18.1	10.7	15.0	9.5	4.5	1.3	-4.8	-10.3	-21.2	-41.7		
Speakers	Leq,d	39.4	-39.7	-31.1	-5.7	3.9	11.2	25.7	25.2	24.3	24.9	24.5	32.6	28.3	26.5	30.1	28.6	24.6	24.1	27.7	26.6	25.7	19.2	24.2	19.6	15.5	12.6	5.4	-3.6	-20.0	-47.6		
Speakers	Leq,d	38.9	-37.4	-28.8	-3.5	6.0	13.1	27.4	26.6	25.4	25.5	24.9	30.7	26.0	23.6	27.1	30.1	23.4	23.2	27.3	27.4	26.1	19.5	24.6	20.0	15.8	12.9	6.0	-1.8	-16.0	-39.6		
Sports Lawn	Leq,d	19.7													19.7																		
Remaining contrib. of src "Camelback Lawn"	Leq,d																																

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Paradise Park Noise

23

Contribution spectra - 006 - Paradise Park - Wall - 4 Speakers CO1 - Full Event Space Occupancy:

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	12.5kHz	16kHz					
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)					
Remaining contrib. of src "Speakers"	Leq,d																																			
Remaining contrib. of src "Speakers"	Leq,d																																			
Remaining contrib. of src "Speakers"	Leq,d																																			
Remaining contrib. of src "Speakers"	Leq,d																																			
Remaining contrib. of src "Sports Lawn"	Leq,d																																			
Receiver R5	FI GF	Lr,lim	dB(A)	Leq,d	40.7	dB(A)	Sigma(Leq,d)	0.0	dB(A)																											
Camelback Lawn	Leq,d	20.9													20.9																					
Speakers	Leq,d	34.4	-42.2	-33.4	-7.8	1.9	9.3	23.9	21.3	20.3	20.9	20.5	28.7	24.5	22.7	26.5	23.2	15.5	13.7	15.8	14.6	12.5	5.2	9.4	4.0	-0.6	-4.2	-11.6	-19.5	-33.9	-59.0					
Speakers	Leq,d	34.9	-39.7	-30.9	-5.4	4.2	11.6	26.2	23.6	22.6	23.1	22.6	28.5	23.8	21.4	24.8	21.2	14.7	17.1	20.8	18.8	16.8	9.4	13.6	7.7	2.2	-1.9	-8.8	-15.0	-26.4	-47.4					
Speakers	Leq,d	35.2	-42.9	-34.1	-8.4	1.4	8.9	23.7	21.3	20.6	21.4	21.1	27.4	25.9	24.3	28.1	25.0	17.3	15.6	20.8	19.4	17.9	10.8	15.3	10.0	4.9	0.3	-8.7	-18.3	-34.1	-60.5					
Speakers	Leq,d	33.9	-41.3	-32.5	-7.0	2.7	9.9	24.5	21.8	20.7	21.0	20.4	26.3	21.8	19.7	23.3	19.9	19.1	18.7	22.6	21.0	19.6	12.9	18.1	14.0	9.1	5.0	-3.6	-13.6	-29.8	-54.4					
Sports Lawn	Leq,d	17.1													17.1																					
Remaining contrib. of src "Camelback Lawn"	Leq,d																																			
Remaining contrib. of src "Speakers"	Leq,d																																			

