ACOUSTICAL REVIEW & NOISE ATTENUATION PLAN

Date: 14 February 2025

To: Fadi Abdulnour
VP Administration and Development

Ultra Supper Club Miami, LP
1691 Michigan Avenue, Suite 501
Miami Beach, FL 33139

From: Sam Shroyer, ASA INCE
Edward Dugger, FAIA ASA NCAC INCE

Re: **Acoustical Review & Noise Attenuation Plan**
Tenant Improvements
1681 Lenox Avenue
Miami Beach, FL 33139
ED+A 251586

Mr. Abdulnour,

Edward Dugger + Associates (ED+A) has prepared this report for submission to the City of Miami Beach Planning Department in conjunction with Ultra Supper Club Miami, LP's (the Applicant) application for a Conditional Use Permit for a Neighborhood Impact Establishment (the CUP)/supper club at 1681 Lenox Avenue in Miami Beach, Florida. The existing building on the property was previously the site of a Yard House restaurant and is to be renovated by the Applicant.

The report is intended to serve as the "noise attenuation plan" required by Miami Beach Resiliency Code Section 7.5.5.4(G), documenting ED+A's review of the project, its design, and details concerning the surrounding area and potential noise impacts created by the project. Long-term acoustical measurements conducted to sample existing ambient sound level conditions at and near the subject property are also documented. From this assessment, ED+A has concluded that the project will be compatible with relevant City of Miami Beach, Florida Code of Ordinances criteria.

Please contact ED+A with any questions or comments regarding this document.

SUMMARY

The following report documents an assessment conducted by Edward Dugger + Associates (ED+A) concerning sound-related aspects of Ultra Supper Club Miami, LP's application for a Conditional Use Permit for a Neighborhood Impact Establishment at 1681 Lenox Avenue in Miami Beach, Florida.

The restaurant will feature live performances and amplified music indoors. The building is approximately 160 ft south of an adjacent residential zoning district. The elements comprising the building façade and buffer zones will reduce the level of sound transmitted through the structure to the building's exterior. Additionally, the main entrance is being relocated to the south face of the building and the current design includes double-door vestibules at doorways leading to the exterior, creating "noise locks" that will minimize the transmission of interior sound to the building's exterior during ingress and egress. There are currently acoustically absorptive ceiling panels in place, though it is unclear if they will remain following renovations. Such materials will reduce reverberant sound levels and the buildup of sound within the building, ultimately reducing the level of sound which would otherwise emanate from the building via open doors.

An exterior dining area will be located along the southern half of the building, roughly 210 ft south of the residential zoning district. It will be enclosed on all sides by the building façade, a metal screen, wall, and foliage. It is intended that amplified music in the exterior area will not exceed background levels that interfere with normal conversation. Further, this report details sound system design principles and guidelines that can be followed to effectively contain, control, and manage amplified sound generated on the property.

INTRODUCTION

Ultra Supper Club Miami, LP (the Applicant) is seeking a Conditional Use Permit for a Neighborhood Impact Establishment to include Entertainment for a proposed supper club at 1681 Lenox Avenue in Miami Beach, Florida. This report has been prepared to serve as a noise attenuation plan addressing the control of noise to meet Code of the City of Miami Beach, Florida Section 46-152(b) criteria as required by Miami Beach Resiliency Code Section 7.5.5.4(G).

PROJECT REVIEW

The proposed restaurant will be an upscale, high-end supper club with an emphasis on arts, performance, and ambience. Live artistic performances will be incorporated into the experience, as will amplified and live music. Performances will take place inside the restaurant, though the project includes both indoor and outdoor dining areas. Moving curtains and other architectural features will be used to create a veil and private niche areas separate from public spaces, while also reducing impact on the surrounding neighborhood. The existing building was previously the site of a Yard House restaurant and is to be renovated by the Applicant. The property's previous operations included indoor and outdoor dining, similar to that proposed by the Applicant. Both the interior and exterior are to be renovated for the proposed project.

Location

The property is situated on the east side of Lenox Avenue between Lincoln Lane North and 17th Street. It is adjacent to parking lots on its north and south, with another commercial parking lot located on the west side of Lenox Avenue and other commercial uses to its east. The property is a High Intensity Commercial (CD-3) future land use in a High Intensity Commercial (CD-3) zoning district.

Properties to the south and west are Public Facility: Governmental Use (PF) land uses in a Public Facility: Governmental Use (PF) zoning district. There are other CD-3 uses and zoning districts to its east, southwest, and further south beyond the PF properties. There are parking lots adjacent to the building on its north and west sides. There are properties zoned and designated as Low Density Multi Family Residential (RM-1) uses across the well traversed 17th Street, which is a four-lane principal artery connecting the City of Miami Beach to the mainland. The building is located approximately 110 ft south of 17th Street and 160 ft from the residential properties. A parking lot is located between the building and 17th Street. There are no residential properties within 100 ft of the establishment. An exterior dining area (the terrace) will span the southern half of the building's west side, roughly 50 ft from the north face of the building and 210 ft from the residential zoning district.

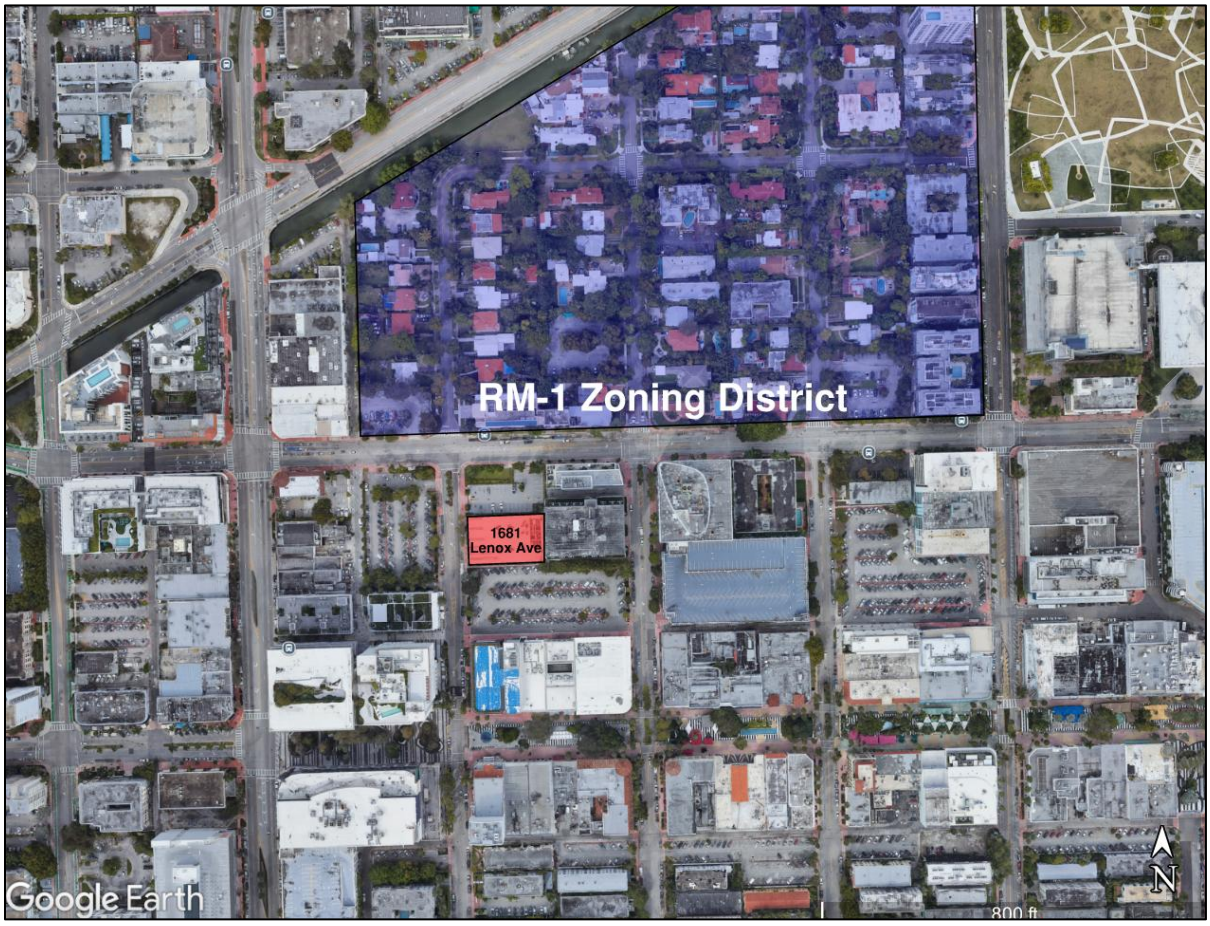

Figure 1. Project location and nearby residential area.

Operating Hours

The indoor restaurant will operate as follows:

- Sundays – Saturdays 11:00 a.m. – 2:00 a.m.

The outdoor area will operate (with background music) as follows:

- Sundays – Thursdays 11:00 a.m. – 12:00 a.m.
- Fridays – Saturdays 11:00 a.m. – 2:00 a.m.

Project Design

Entertainment will take place in the interior Dining area on elevated stages. The primary stage will be in the north portion and in the center of dining area. There will be Dressing Rooms between Dining and the building's north façade, functioning as buffer spaces to reduce or eliminate transmission of entertainment sound through the north façade. Kitchen, Bathroom, and other various back-of-house separate the east façade from the Dining area. Existing impact-rated windows are located along the east façade. The Entry will be relocated from the west façade to the south. Double-door vestibule proposed for the passageways between the Dining area and the Outdoor Terrace will reduce the level of sound transmitted from the Dining area to the exterior.

The project design—as detailed on MAK Work's Occupancy Plan (LS-101), dated December 17, 2024—incorporates multiple architectural features that will provide sound level reduction and contribute to the containment of sound within the building and on the property:

1. The Applicant has relocated the main entrance to the southern property line.
2. Double-door vestibules will separate the Dining area from the exterior at the Entry and at the internal passageway between Dining and the Outdoor Terrace. This will minimize the level and duration of sound transmitted to the exterior while patrons or staff are moving between the areas and opening/closing the doors.
3. A barrier consisting of laser-cut metal screens with dense foliage and the west building façade will enclose the Outdoor Terrace, reducing the level of sound emanating from this area.
4. Dressing Rooms and Kitchen/back-of-house spaces separate the Dining area from the north and east building façades, respectively. Sealed, impact-rated windows are located on the west façade only.
5. If they are not removed or replaced, suspended acoustical panels will reduce reverberation and the level of reflected sound throughout the Dining area and ultimately the level of sound transmission through the exterior and open doors. Other materials such as curtains may provide additional absorption.

Audio System Design

The existing audio system is to be replaced during renovations to allow for entertainment in the Dining area and ambient level music in the Outdoor Terrace. The audio system design has not been provided to ED+A. However, the following criteria and design principles should be incorporated into the design of audio systems configured for this project to allow for effective control of sound generated on the property:

1. System components and controls should only be accessible to management and/or designated engineering staff via control panels in a secure location or mobile control applications.
2. All sound—live or prerecorded—should be reproduced through a permanent house system. Entertainers should not temporary or additional loudspeakers or other system components for entertainment. Performers should connect to the audio system through designated inputs and should not have access to devices controlling the output of the audio system.
3. Audio systems should be comprised of several small- to medium-sized loudspeakers providing even coverage and consistent sound levels throughout the entertainment areas. The number of large loudspeakers and/or subwoofers should be kept to a minimum.
4. Audio systems should include multiple coverage areas, or zones, that can be controlled independently of one another.
5. One or more digital signal processor (DSP) devices should be programmed to set, limit, and/or adjust the sound levels generated throughout the various coverage areas. Additional output level limitations may be necessary for low-frequency sound produced by the system.
6. In absence of objective noise level requirements, acoustical tests may be conducted to establish maximum allowable system settings in all areas to ensure acceptable sound levels at the nearest noise-sensitive properties or other locations specified for the evaluation of sound by the CUP or other relevant ordinances.
7. Acoustical tests may be conducted to establish system settings to ensure operations comply with relevant criteria at locations specified by Miami Beach's noise ordinance or the project's CUP, and at the nearest noise-sensitive properties.

Miami Beach Resiliency Code Section 7.5.5.4(G) requires that a noise attenuation plan addressing the control of noise to meet ordinance requirements be submitted for outdoor entertainment, open air entertainment, and neighborhood impact establishments.

Code of the City of Miami Beach, Florida Section 46-152(b) declares sound levels louder than necessary for convenient hearing for voluntary listeners on a property to be unreasonably loud, excessive, unnecessary or unusual noises in violation of the section. Sound that is plainly audible 100 ft from the building in which it is generated is also considered a violation between 11:00 p.m. and 7:00 a.m.

ACOUSTICAL MEASUREMENTS

Sound levels were measured at the northwest corner of the property, south of the parking lot and east of Lenox Avenue, logging data continuously from January 22, 2025, through January 29, 2025. The measurement microphone was roughly 6 ft above hard ground and was near enough to a wall surface for measured sound levels to be affected by reflected sound, increasing measured levels by up to 3 dB (see Figure 2). The system was calibrated before its installation and prior to its removal from the site. Details specific to the devices used for measurements are included in Table 1.

A-weighted equivalent-continuous sound levels were measured in fifteen-minute and one-hour intervals. A-weighted percentile-exceeded sound levels (L_{A10} and L_{A90}) were measured and evaluated for the same observation periods. A-weighted levels were assessed as the A-weighting network corresponds best with human sensitivity to sound for most community noise assessments. C-weighted sound levels were also measured for additional analysis with respect to low frequency sounds in the area. Measured one-hour sound levels were evaluated to characterize the existing sound environs at the site and were utilized for the calculation of day-average sound levels (L_{Ad}), night-average sound levels (L_{An}), and day-night average sound levels (DNL) for each day of the measurement period per ANSI S12.9 Part 4. The time between midnight and 7:00 a.m. and between 10:00 p.m. and midnight are considered night while the day period consists of time between 7:00 a.m. and 10:00 p.m. DNL is often used to evaluate community noise following American National Standards Institute (ANSI) standards-particularly the ANSI/ASA S12.9 series, which detail procedures for the measurement and assessment of environmental sound. Like L_{Aeq}, DNL is a time-average sound level measured over a twenty-four-hour period, but with a 10 dB “penalty” applied to sound levels measured during night periods (between 10:00 p.m. and 7:00 a.m.) to account for increased sensitivity to sound at night. A comparative sound level chart has been included for reference purposes (see Figure 3).

Table 1. Measurement Equipment			
Manufacturer	**Model**	**Serial Number**	**Laboratory Calibration**
Brüel and Kjær	Type 2270 Analyzer	2706869	April 12, 2024
Brüel and Kjær	Type 4952 Outdoor Microphone	2788753	February 1, 2024
Brüel and Kjær	Type 4231 Sound Calibrator	3031921	July 18, 2024

Figure 2. Measurement system and microphone.

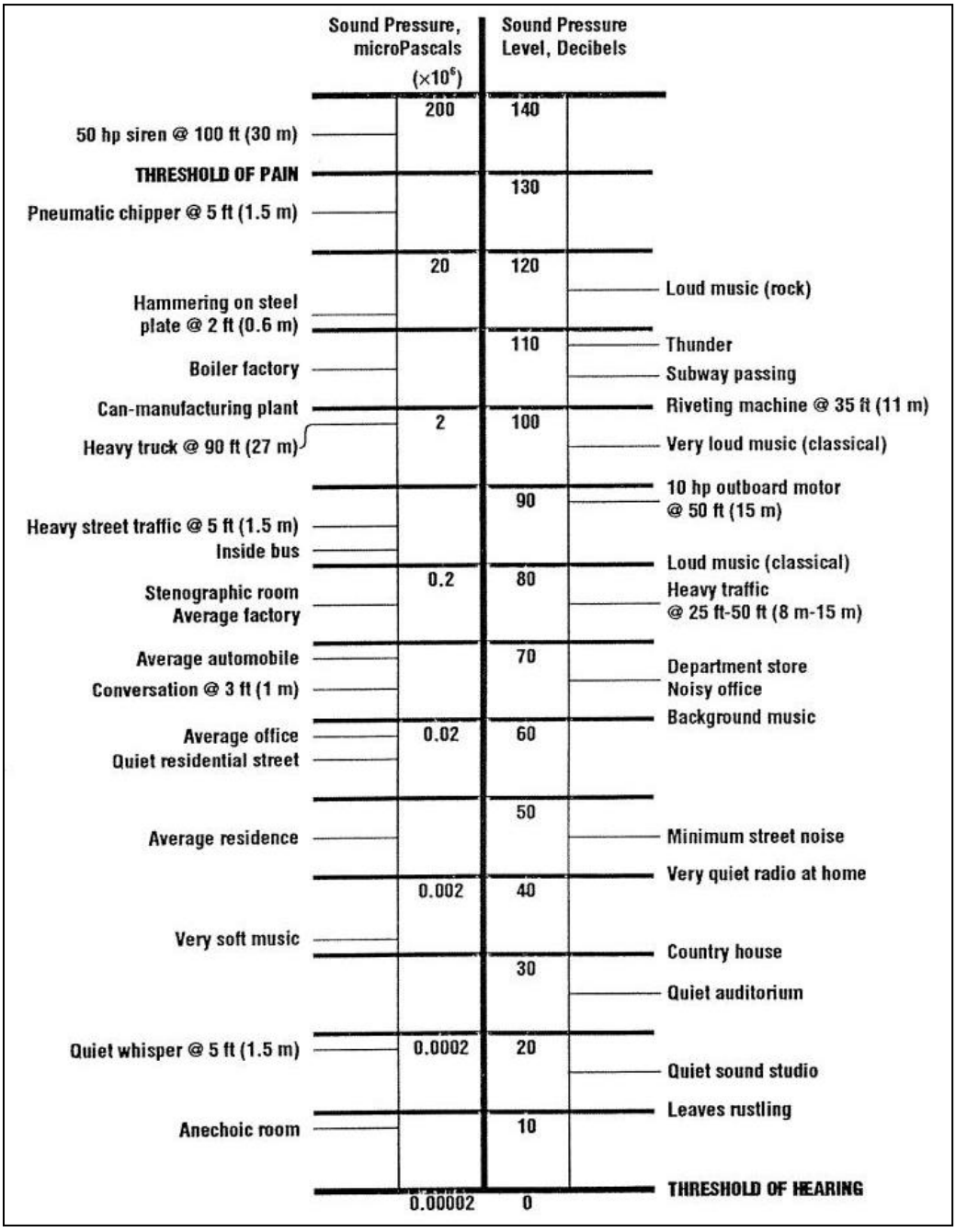

Figure 3. Decibel level comparison chart.

* Reprinted from *Acoustics and Noise Control Handbook for Architects and Builders*, by L. K. Irvine and R. L. Richards, 1998, Malabar, FL: Krieger Publishing Company. Copyright by L.K. Irvine and R.L. Richards.

RESULTS

One-hour L_{Aeq} have been compiled with L_{Aeq}, L_{Ad}, L_{An}, and DNL calculated for each day in Table 2. One-hour L_{Aeq} logged over the entire measurement period are also plotted in Figure 4. Fifteen-minute L_{Aeq} are plotted for each day of the measurement period in Figures 5 through 12.

Measured L_{A90}, which are often representative of residual sound levels at a measurement location, typically ranged from 53 to 57 dBA. Measured L_{Aeq} were consistently above 60 dBA during day and night periods and between 55 and 60 dBA during early morning hours. C-weighted sound levels followed similar temporal patterns with levels ranging from 65 to 75 dBC.

Table 2. Time-Average Sound Levels

Hour / Period	Wed 22-Jan	Thu 23-Jan	Fri 24-Jan	Sat 25-Jan	Sun 26-Jan	Mon 27-Jan	Tue 28-Jan	Wed 29-Jan
0000		57	57	59	61	56	55	59
0100		54	55	59	56	54	54	55
0200		54	54	57	55	52	54	53
0300		53	56	55	55	51	54	53
0400		56	57	55	54	55	54	55
0500		59	57	57	55	56	56	56
0600		59	59	59	56	58	59	59
0700		63	61	61	56	60	63	62
0800		63	63	62	59	61	62	66
0900		62	62	59	58	62	60	68
1000		64	63	61	59	61	61	63
1100		63	67	61	60	62	64	66
1200		65	63	62	61	61	62	
1300	61	64	66	63	64	61	61	
1400	63	61	62	61	60	61	62	
1500	64	61	62	60	61	62	59	
1600	63	63	64	63	62	60	62	
1700	63	64	63	61	61	59	60	
1800	62	62	64	61	60	64	61	
1900	62	62	61	64	59	60	59	
2000	62	62	62	60	61	59	60	
2100	61	61	70	60	61	58	59	
2200	60	61	61	59	59	59	58	
2300	58	59	60	58	57	58	57	
L_{Aeq}	59	61	63	60	60	60	60	62
L_{Ad}	60	63	64	61	61	61	61	66
L_{An}	53	58	58	58	57	56	56	56
DNL	61	65	66	65	64	64	64	66

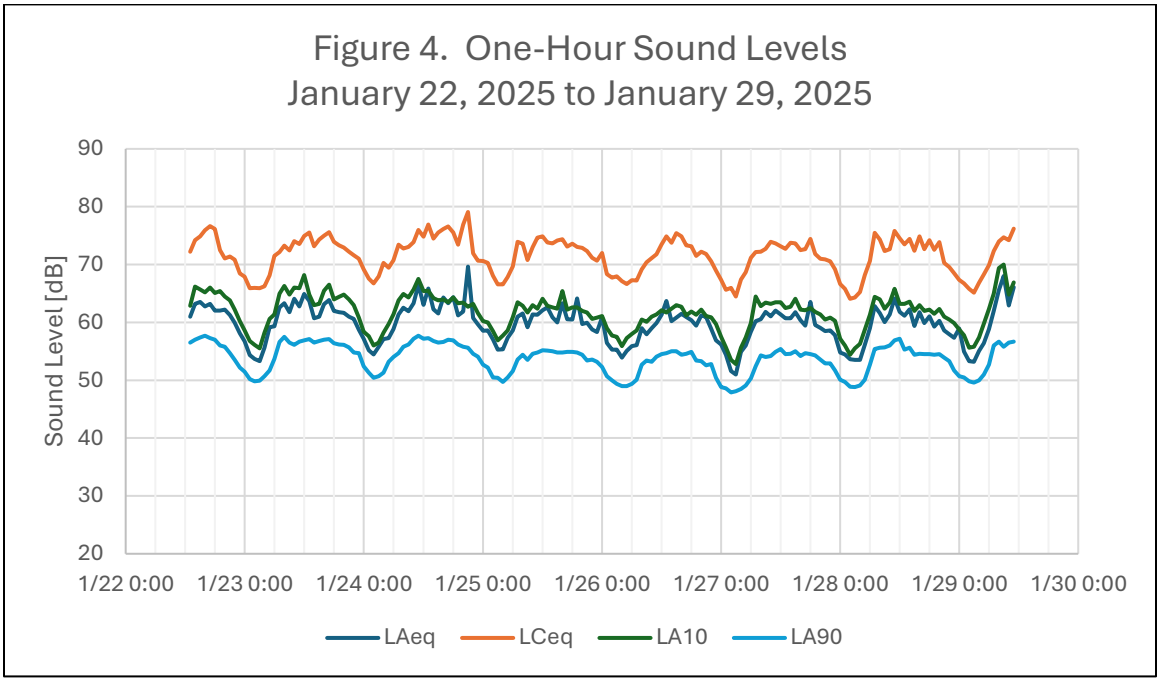
Figure 4. One-Hour Sound Levels
January 22, 2025 to January 29, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/22 0:00
1/23 0:00
1/24 0:00
1/25 0:00
1/26 0:00
1/27 0:00
1/28 0:00
1/29 0:00
1/30 0:00
LAeq
LCeq
LA10
LA90

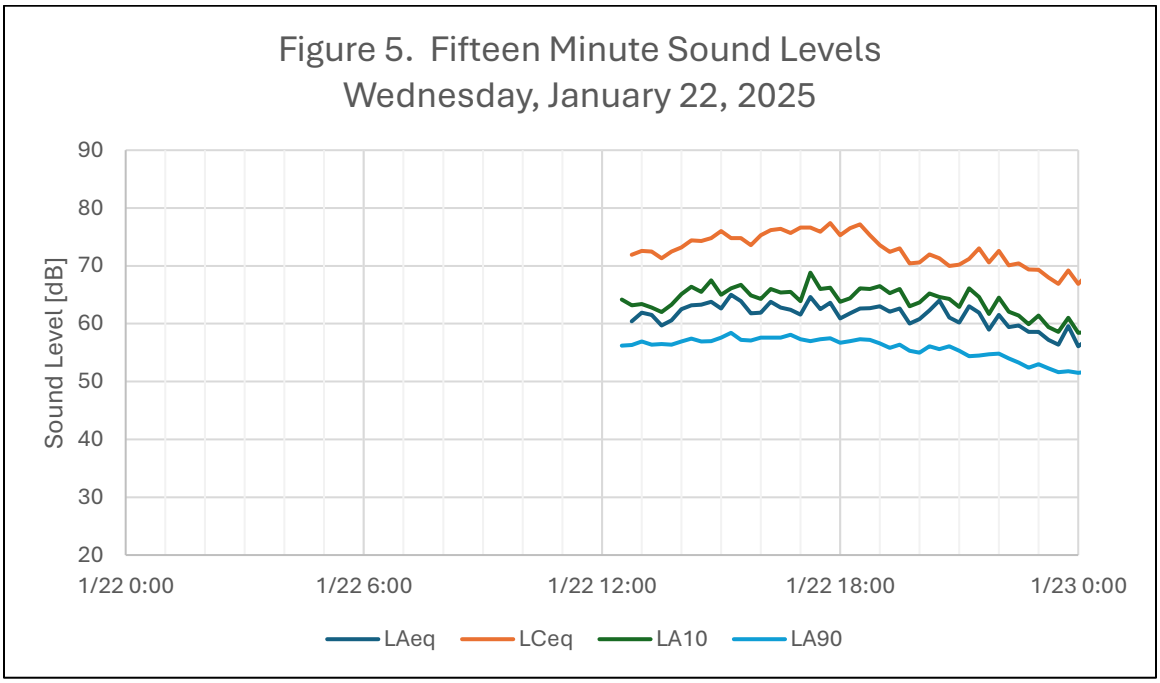
Figure 5. Fifteen Minute Sound Levels
Wednesday, January 22, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/22 0:00
1/22 6:00
1/22 12:00
1/22 18:00
1/23 0:00
LAeq
LCeq
LA10
LA90

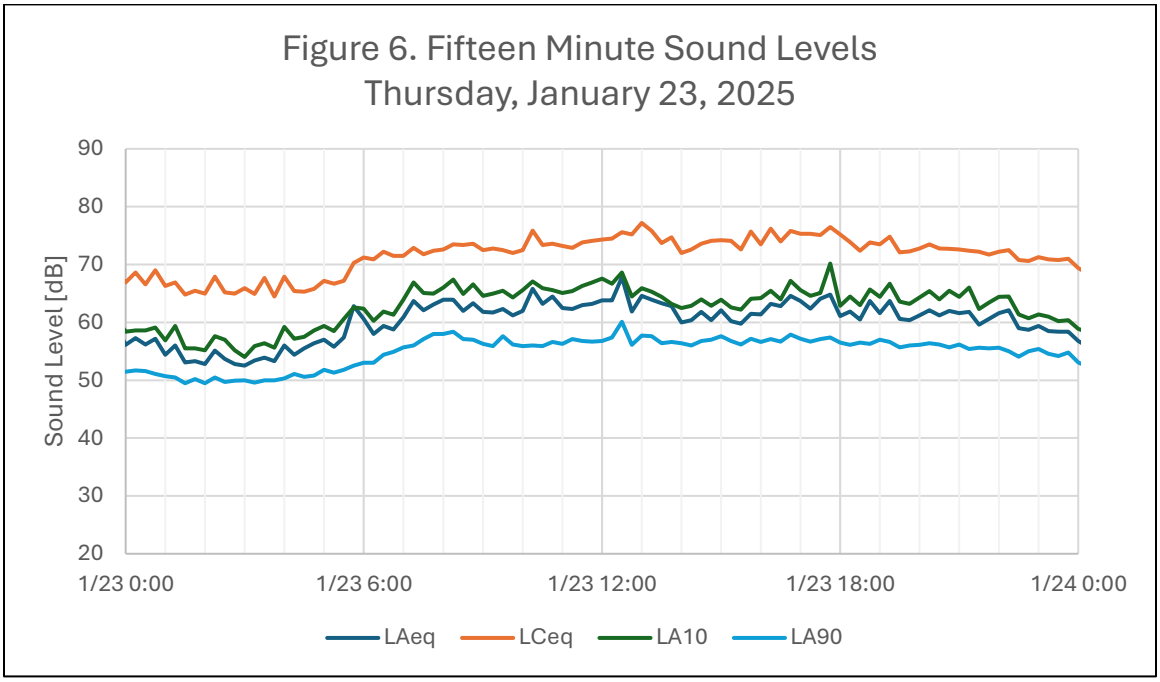
Figure 6. Fifteen Minute Sound Levels
Thursday, January 23, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/23 0:00
1/23 6:00
1/23 12:00
1/23 18:00
1/24 0:00
LAeq
LCeq
LA10
LA90

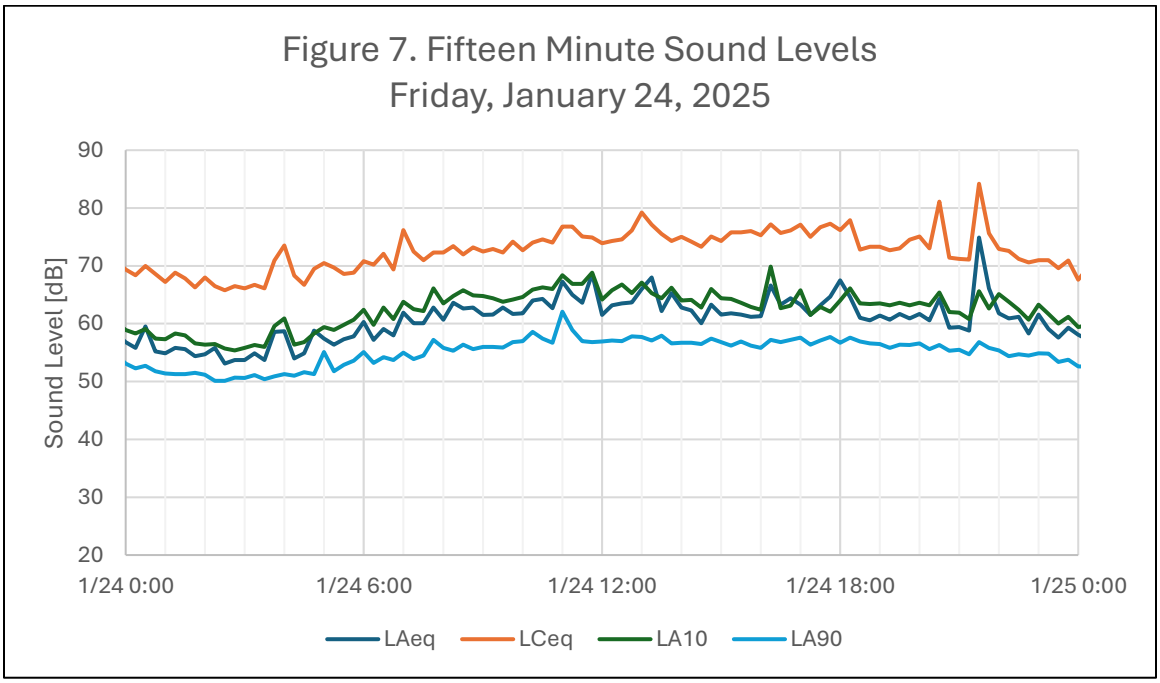
Figure 7. Fifteen Minute Sound Levels
Friday, January 24, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/24 0:00
1/24 6:00
1/24 12:00
1/24 18:00
1/25 0:00
LAeq
LCeq
LA10
LA90

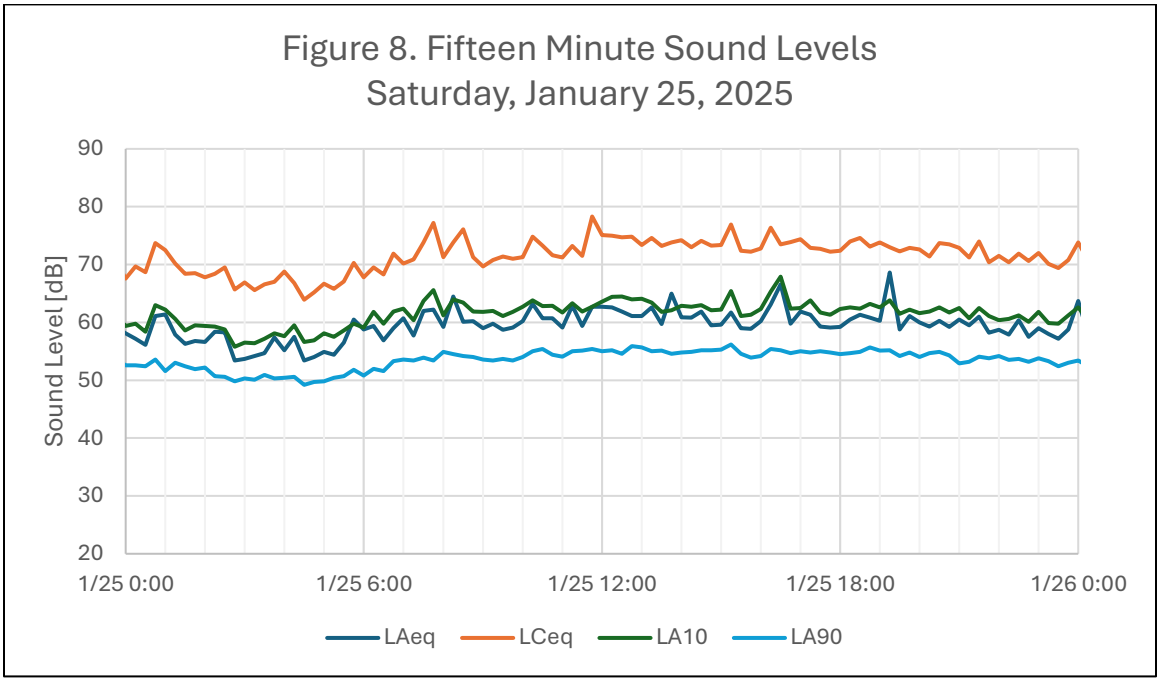
Figure 8. Fifteen Minute Sound Levels
Saturday, January 25, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/25 0:00
1/25 6:00
1/25 12:00
1/25 18:00
1/26 0:00
LAeq
LCeq
LA10
LA90

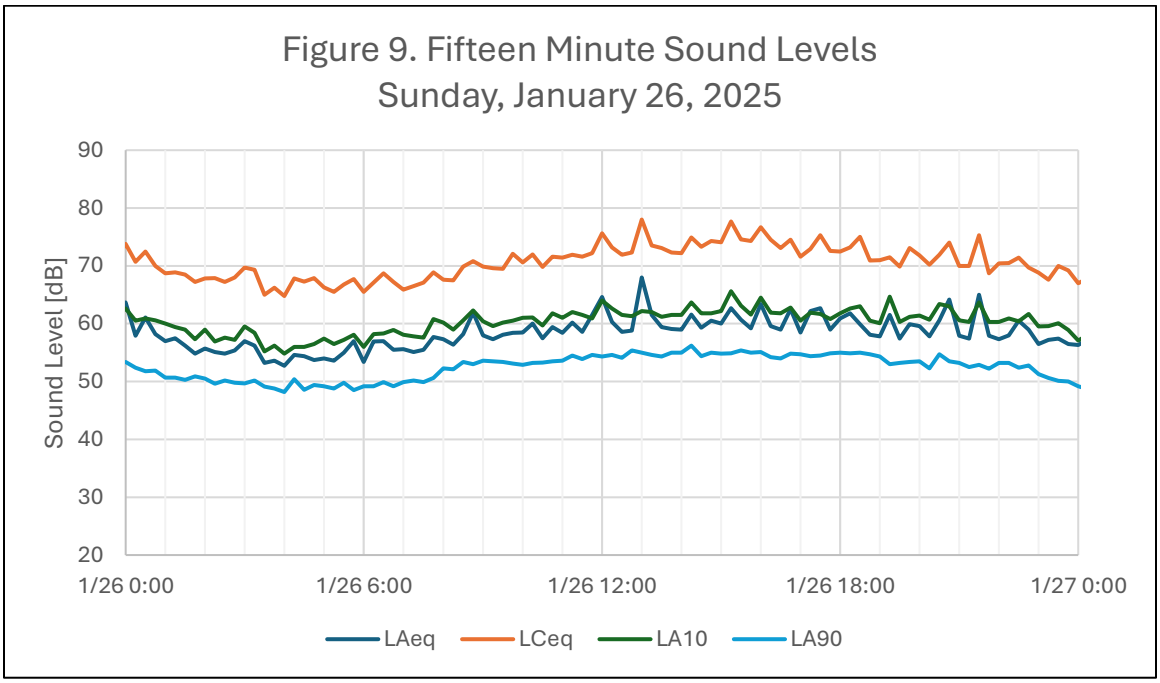
Figure 9. Fifteen Minute Sound Levels
Sunday, January 26, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/26 0:00
1/26 6:00
1/26 12:00
1/26 18:00
1/27 0:00
LAeq
LCeq
LA10
LA90

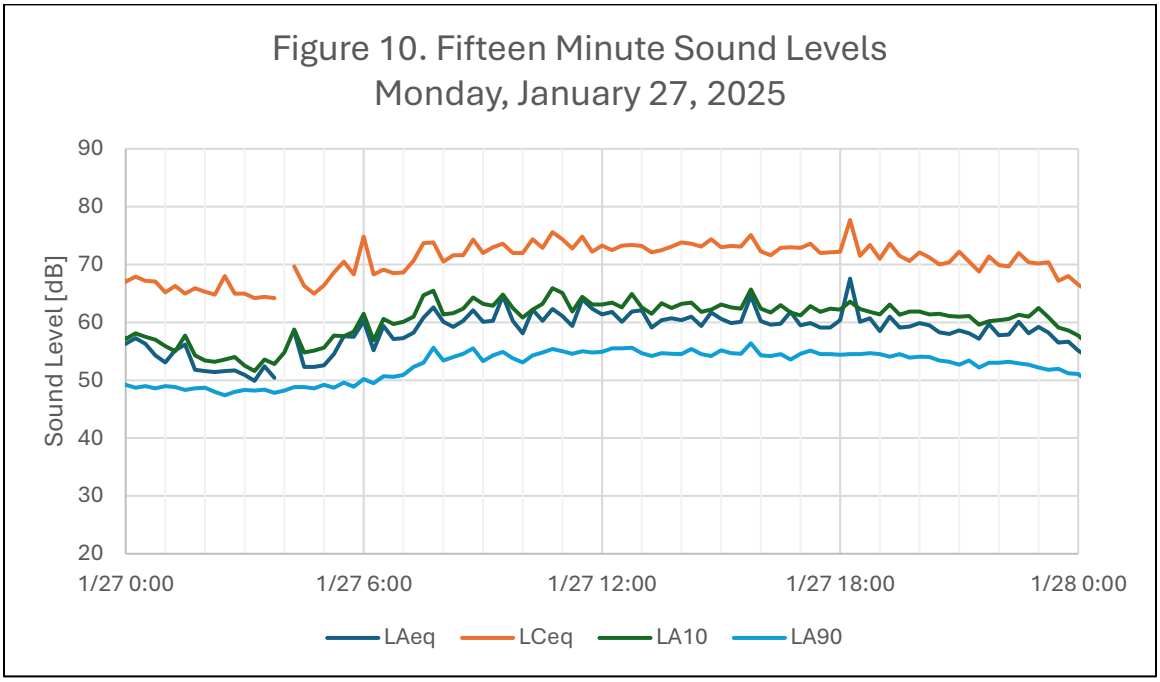
Figure 10. Fifteen Minute Sound Levels
Monday, January 27, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/27 0:00
1/27 6:00
1/27 12:00
1/27 18:00
1/28 0:00
LAeq
LCeq
LA10
LA90

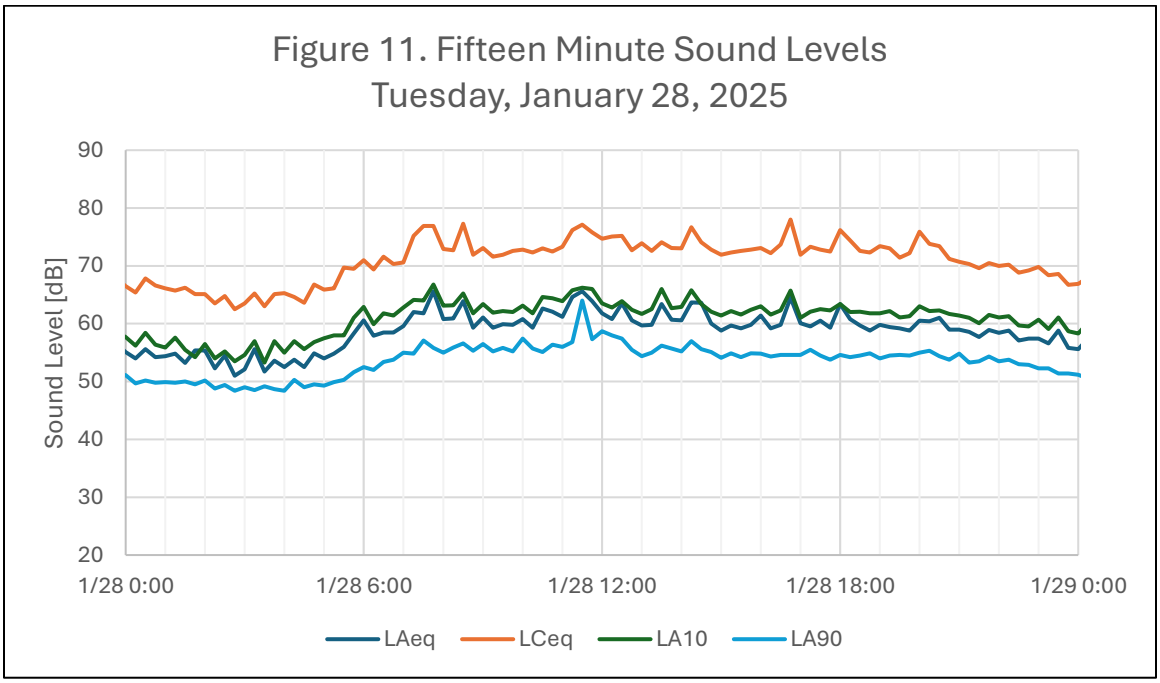
Figure 11. Fifteen Minute Sound Levels
Tuesday, January 28, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/28 0:00
1/28 6:00
1/28 12:00
1/28 18:00
1/29 0:00
LAeq
LCeq
LA10
LA90

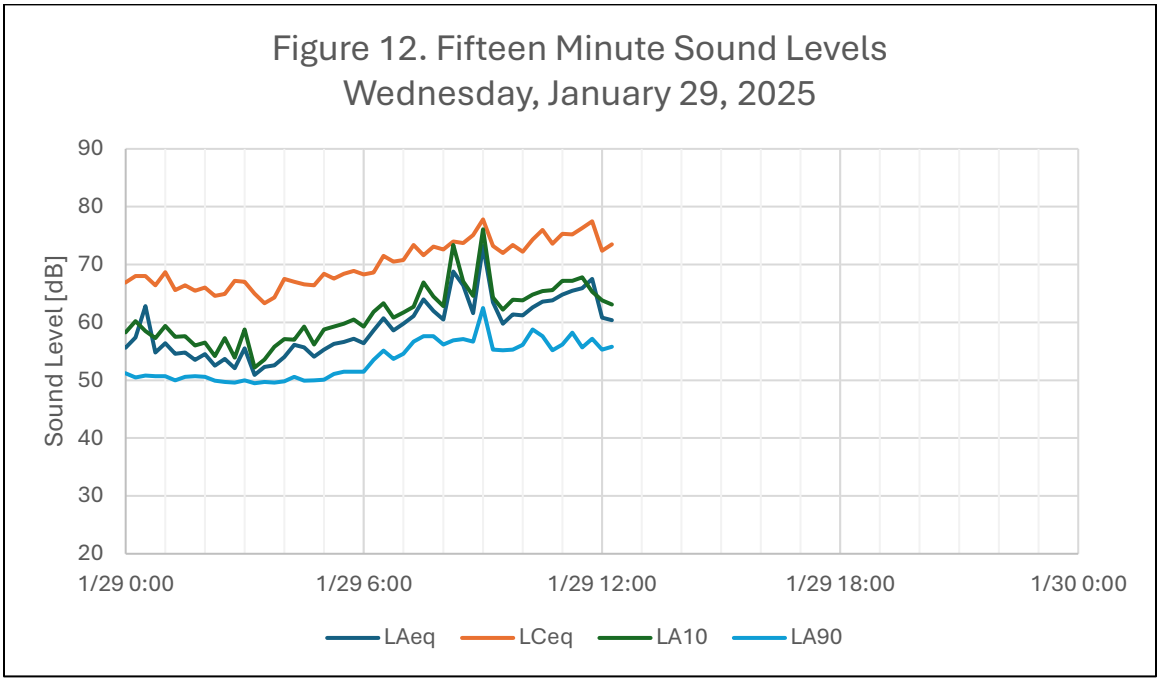
Figure 12. Fifteen Minute Sound Levels
Wednesday, January 29, 2025
Sound Level [dB]
90
80
70
60
50
40
30
20
1/29 0:00
1/29 6:00
1/29 12:00
1/29 18:00
1/30 0:00
LAeq
LCeq
LA10
LA90