

Mr. Mustafa Erkoru
Project Manager
1350 Collins Avenue Group
1350 Collins Avenue
Miami Beach, FL 33139

10 October 2024
PJ2024-1436-L01

Subject: Acoustical engineering study – Sound analysis for Conditional Use Permit
Casa Orchidea, 1350 Collins Avenue, Miami Beach

Dear Mr. Erkoru:

As requested, Brooks Acoustics Corporation (BAC) has conducted a sound analysis for a proposed venue to be located at 1350 Collins Avenue. The proposed venue is to be operated as a restaurant known as “Casa Orchidea”. This sound study is part of the application for a Conditional Use Permit (CUP) for the venue.

The Applicant is requesting a Conditional Use Permit (“CUP”) for the first floor of the property which will include a restaurant with Entertainment. The second floor will have 6 boutique Hotel Suites. During regular operation hours of the restaurant the venue will feature background (ambient) music during most of the operation. Some operating time will feature non-ambient musical entertainment.

The exterior areas have nearby buildings on the north and south boundaries, with a building across the alleyway to the west and buildings across Collins Avenue to the east.

Trees will be planted on either side to act as sound barriers. The interior and exterior areas of the venue will have an independent audio system to effectively control, manage, and monitor sound levels, allowing for compliance with Miami Beach, Florida Resiliency Code (the Code) and City of Miami Beach Planning Staff requests.

The objective of this sound study project was to determine the sound levels of the music loudspeakers that may reach six locations outside of the venue. These receiver locations are:

1. Sidewalk on Collins Avenue at the entrance to the venue, and from there east across Collins Avenue to the Hotel Clifton and Rock Apartments
2. Club Deuce building behind the venue (west across Collins Court alleyway)
3. Commodore Hotel (1360 Collins Ave) to the north
4. Shepley Hotel (1340 Collins Ave) to the south
- 4a. Residential building (1334 Collins Ave.)
5. Orchid Hotel (above the venue) guest suites

A sound study was conducted to determine the expected sound levels at these locations. This sound study was based on the proposed audio design for the venue, as submitted by Audio Engineer Samuel Vallerrotta of Mix3 Sound, Inc.

Findings Summary

The sound study confirmed that the music played over the loudspeakers in the proposed venue during both background ambient operation and also non-ambient entertainment are expected to be *below normal conversation sound levels at the outside receiver locations of interest*. This will not interfere with normal conversation at the sidewalk location adjacent to the venue. The sound levels will also be below conversation level at the hotels adjacent or near the venue. The sound levels at hotels and residences at further distances from those properties will be even lower. Moreover, the sound from the music operation is not expected to be plainly audible at a distance of 100 feet from the venue.

These sound study results for the audio system equipment and loudspeakers on site indicate that the proposed venue at 1350 Collins Avenue would be **in compliance** with typical Conditional Use Permit requirements.

Conditional Use Permit

The Applicant intends to file an application with the Planning Board of the City of Miami Beach for a Conditional Use Permit (CUP) for the Property located at 1350 Collins Avenue, for entertainment at a proposed restaurant venue, pursuant to of the City Resilience code.

This sound study (also known as a “noise attenuation plan”) is submitted to satisfy the CUP application requirements.

Typical requirements for an entertainment venue CUP may include the following provisions:

“Exterior doors/windows may remain open, provided, however, that sound levels along the abutting sidewalks shall not exceed a level that would interfere with normal conversation (i.e. shall not exceed an ambient volume level).”

“The house sound system shall be installed and set in such a manner as to limit the acoustical output of the system and have password protected security on all controls, at all times. The equipment and installation plan for the sound system, including the location of all speakers and sound level control shall be submitted for the review and approval of the Planning Department. 60 days after opening, the sound systems in the facility shall be tested by a qualified acoustic professional, and a report shall be submitted to the Planning Department for review, to verify that it is operating as designed.”

“Televisions, and projectors shall not be located anywhere in the exterior areas of the property.”

To *summarize*, the following provisions may be imposed on a venue in a Conditional Use Permit:

- The entertainment sound system must have limited output controlled by venue management.
- Indoor and outdoor loudspeakers and open doors/windows are permitted, providing that the speakers are played at ambient (i.e. normal conversation) sound level, along exterior public sidewalks.

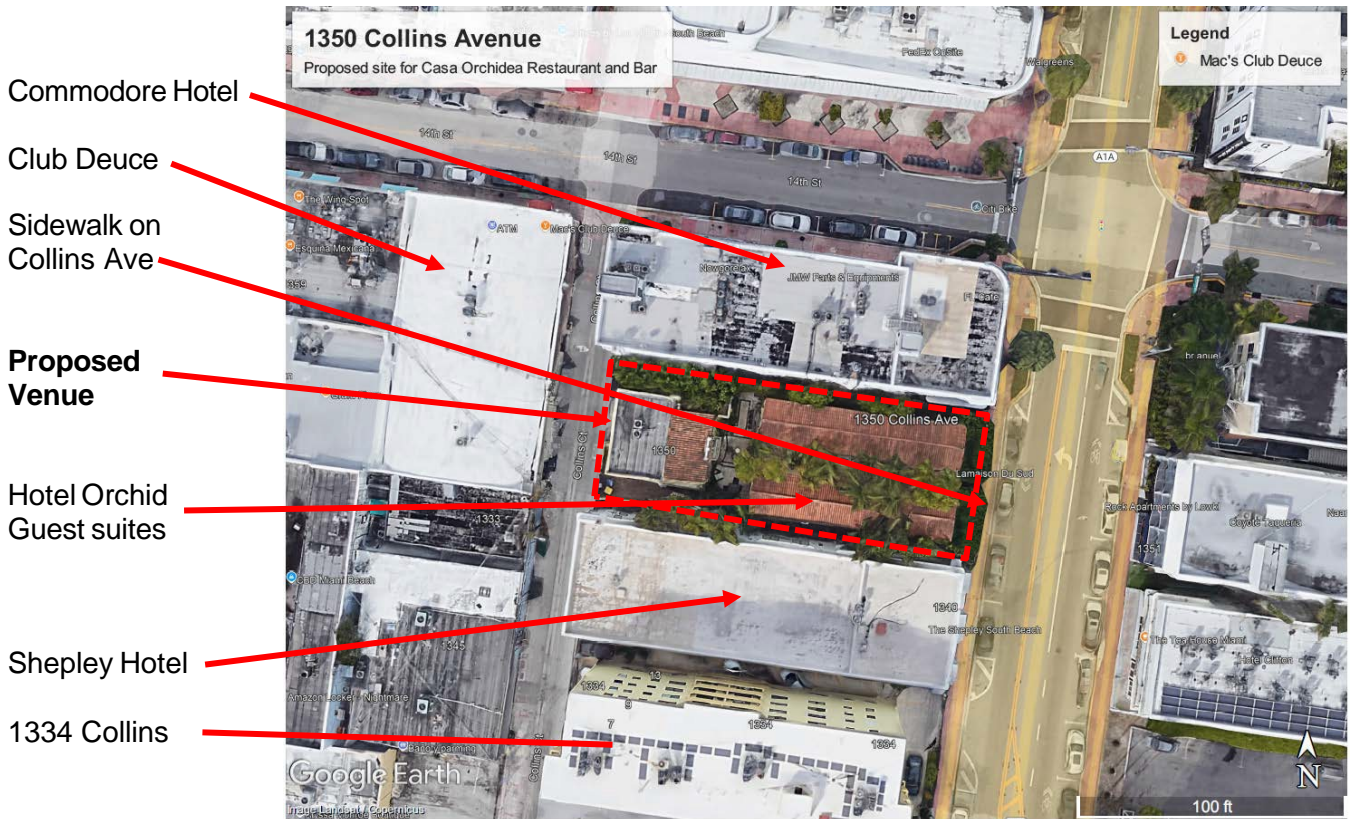
Sound level criteria

For the purposes of this CUP study, the criteria for maximum A-weighted sound level limits were set at the level of a normal conversation (**70 dBA**) at an outdoors receiver position, such as the sidewalk and adjacent hotel exterior locations. Further, the maximum C-weighted sound level limits were set at **80 dBC**.

These limits recognize the typical CUP requirement that the music at the venue not exceed the sound level of a normal conversation, and not be disturbing to persons in the vicinity.

Venue sound study

A sound study for the proposed venue was conducted to satisfy that requirement for the Conditional Use Permit application. An aerial view of the proposed venue location at 1350 Collins Avenue is seen below.



Proposed restaurant venue location at 1350 Collins Avenue.

The location of the proposed venue at 1350 Collins Avenue is in the heart of the South Beach district. This site is surrounded by other restaurant and bar operations.

Collins Avenue is located directly to the east of the proposed venue. The entrance to the proposed venue will be from Collins Avenue.

Areas of interest outside the venue include those listed above, and as shown in the aerial photo. Residential uses include the Hotel Clifton and Rock Apartments across Collins Ave, the Shepley Hotel to the south, the building adjacent to the Shepley Hotel (1334 Collins), the Commodore Hotel to the north, and the Hotel Orchid guest suites above the venue. To the west is a commercial use, the Club Deuce.

The property is comprised of 3 buildings. The proposed restaurant venue is located on the first floor of the building. Some of the outdoor seating is situated between two of the buildings, creating a barrier. Most of the seating will not be visible from the street or neighboring properties.

The Miami Beach Planning Staff generally recommends that Miami Beach’s standard for nighttime sound levels should be applied. According to this standard, sound should not be clearly audible at 100 ft beyond the property’s boundary.

Since the adjacent properties are less than 100 ft from the boundaries of the venue, the venue must take steps to prevent sound-related impacts on the neighboring properties. Furthermore, the venue should not operate in a manner that could result in complaints from hotel guests.

The venue is designed to contain the sound within the property. The layout of multiple buildings provides structural barriers that will help reduce the level of sound coming from the outdoor area. Sound can be further controlled and contained through careful audio system design, installation, and regulation.

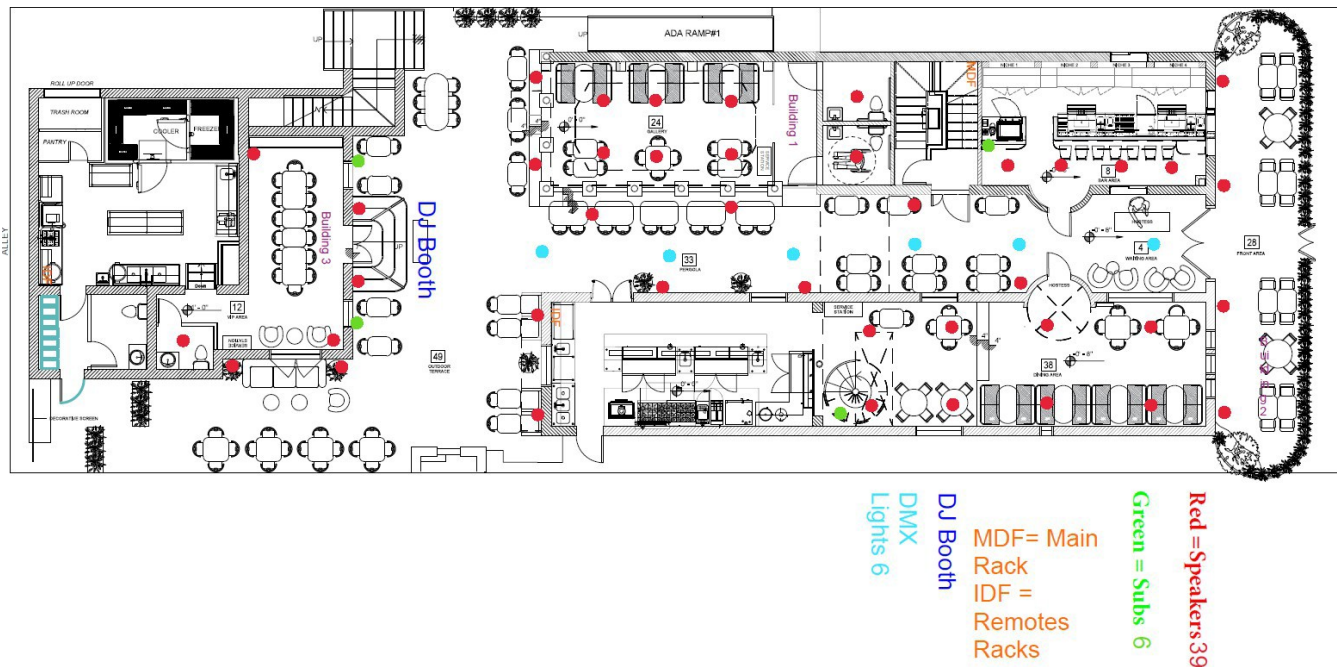
Ambient/background music and non-ambient entertainment music will be provided during all regular operating hours at sound levels that will not interfere with normal conversation outside of the property.

The entertainment sound systems which are proposed to be installed will be the latest technology and designed to operate in a robust and reliable manner. The sound components of the system are to be installed in an equipment rack with a lockable door.

Only Management will be able to adjust the maximum output. None of the sound components in the rack are adjustable at the component. The sound adjustments for the system will be made using various password protected presets for entertainment scenes such as dining background music.

Once installed and commissioned, these preset conditions cannot be altered and will be under the control of the venue management. It is noted that no televisions or projectors are planned for outside the building.

A proposed floor plan for the venue is shown below, with the audio system loudspeaker and equipment layout, based on Mico Design drawing A-01, dated 1/19/2024.



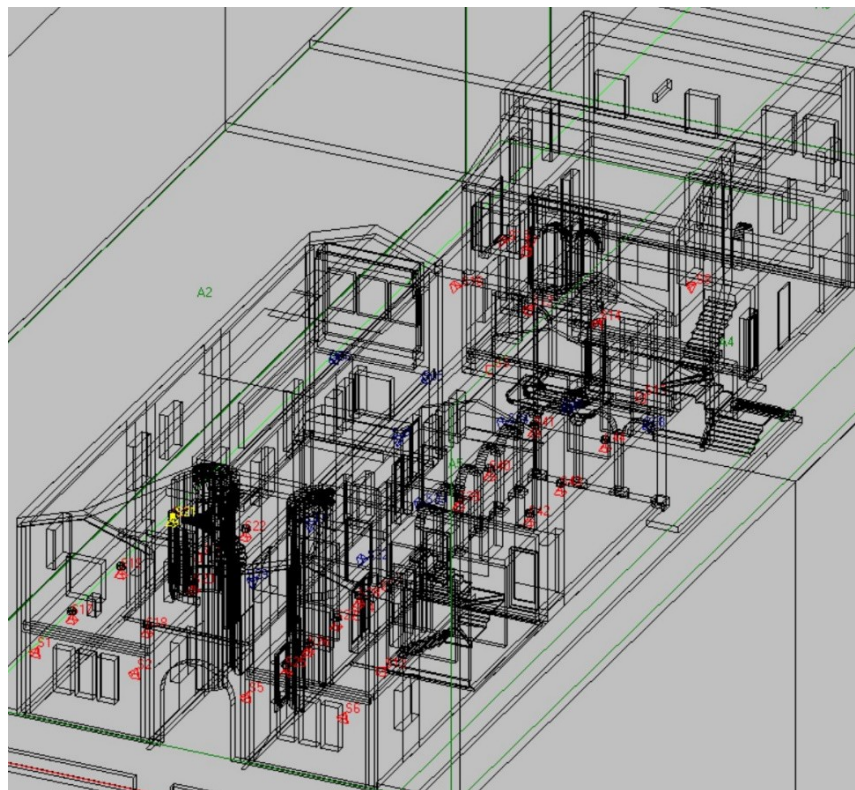
Proposed Casa Orchidea restaurant sound system.

Venue acoustical 3D modeling and sound level calculations

A sound level study was made, based on the proposed background music sound system design as presented by Audio Engineer Samuel Vallerrotta of Mix3 Sound. This system is comprised of a number of small background fill speakers (from EAW) and a few distributed sub-woofers for the bass portion of the background music. A listing of the speaker distribution from the Mix3 design is attached in the Appendix.

The acoustical analysis of the sound system design was composed of the following elements.

- The proposed venue space was studied and modeled using a 3 dimensional (3D) acoustical modeling package known as **EASE** (Enhanced Acoustic Simulator for Engineers).
- In conjunction with the creation of the EASE model, a SketchUp model was created to assist with the model rendering.
- The effects of building geometry and surface finishes on the room acoustics of this space were assessed in developing this model and acoustical analysis, per best design practices.
- To ensure that the EASE acoustical model matches the architectural drawings, the original Revit 3D model was reconstructed following the PDF drawings. The EASE model also included all of the loudspeakers in the audio design. The acoustical design analysis started from that point.
- Once the EASE model geometry with the correct finishes was created, it was analyzed to achieve all the acoustical goals of the project, including the CUP requirements of sound level at the boundaries and nearest receptors.



Proposed Casa Orchidea restaurant – view of the EASE acoustical 3D model.



Proposed Casa Orchidea restaurant – Sketchup view of the front façade of the venue on Collins Ave (viewing west).



Proposed Casa Orchidea restaurant – Sketchup view of the rear façade of the venue on Collins Ct - alley (viewing east).

Model sound calculations – Data analysis

In this analysis, calculated sound levels are given in terms of standard decibels, or “dB”. These sound levels were both A- and C-weighted. Sound level calculations which apply **A-weighting** are designated by the symbol "**dB_A**". A-weighting of the sound levels is meant to approximate the response of human hearing to the impacts of sounds. Sound level calculations which apply **C-weighting** are represented by the symbol "**dB_C**" and are considered to be more sensitive to low (bass) frequencies, and as such are of interest to the City of Miami Beach for planning purposes.

Spectral Analysis – 1/3 Octave Bands

Also included in this report are calculated sound spectral data. The sound spectral data are calculated in this analysis since the geometry and finishes of the space respond differently to sounds of different frequencies, or pitch.

In this analysis, the calculated sound is divided into bands, known as 1/3 octave bands (1/3 OB), which range from low frequency (bass) to high frequency (treble) sounds. The sound levels associated with each of these frequency bands may be shown on a **spectrum chart** ranging from low pitch on the left to high pitch on the right, like the arrangement of a piano keyboard. The most important frequencies in the analysis of this venue are the middle range frequencies of about 250 to 2000 hertz (Hz), as these are the predominant frequencies of human speech.

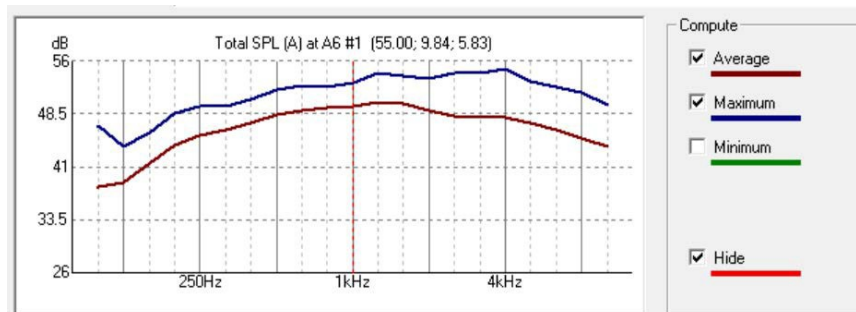
Calculation Results

Inside the Restaurant space – background ambient music

The sound calculations were conducted with the loudspeaker systems set to produce a fairly constant sound level across all spectrum frequencies, from bass to treble, as a worst case. The background ambient music level was also set to result in a *maximum* sound level of about **65 dBA** (70 dBC) in the restaurant seating area. This sound level was selected as providing enjoyable background music while also being favorable to guest conversations.

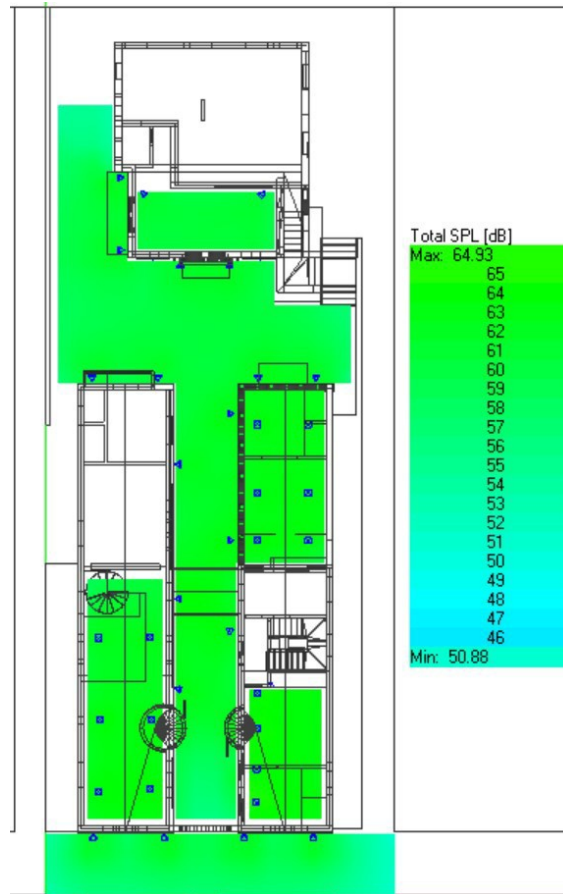
Due to the room geometry, room finishes and configuration of the loudspeakers throughout the dining area, with each speaker set to produce the same volume, the room acoustics calculations show a range of levels which result in an average level across the dining space of about **60 dBA** (65 dBC). This will provide a smooth coverage of the guest occupied area, with some small variations in level to suit individual tastes.

The sound level spectral chart indicating the frequency content at the maximum sound level location and also for the average across the restaurant areas is shown below.



Maximum and Average Sound Pressure Level in dBA

The spectral chart above shows small differences across the sound spectrum for the current design loudspeaker array in the restaurant. This is also seen in the sound pressure level (SPL) map, below.



Sound Pressure Level MAP in dBA – 65 dBA max (plan view)

The calculated sound pressure level map above shows the distribution of sound level across the venue space in A-weighted decibels (dBA). This map shows the smooth and even consistency of the background music sound level across the entire restaurant space. With the loudspeakers set up in this way, the audio design will provide a background music atmosphere that enhances guest conversation, as appropriate for a fine dining venue.

Inside the Restaurant space – non-ambient entertainment music

The sound calculations were conducted with the loudspeaker systems set to produce a fairly constant sound level across all spectrum frequencies, from bass to treble, as a worst case. The non-ambient entertainment music level was also set to result in a *maximum* sound level of about **80 dBA** (85 dBC) in the restaurant seating area. This sound level was selected as providing enjoyable entertainment music for the guests.

The non-ambient entertainment music level is 15 dBA higher than the ambient background music level. As the response of the building to the sound system is expected to be a linear (straight line) function, the sound levels for the non-ambient entertainment music will have the same relative distribution in the restaurant seating area as the ambient background music, shown in the map above, except at levels 15 dBA higher.

Sound level calculation results – outside the venue at receiver locations – background ambient music

Sound level calculations were made for the background ambient music using the 3D model for the receiver locations of interest outside the venue. Detailed calculation sheets are given in the attached Appendix.

Sound level *calculation results* for **background ambient music** are shown in the Table below.

| Operating Condition | Receiver Distance | Sound level Outside (A-weighted) | Sound level Outside (C-weighted) |
|--|--|----------------------------------|----------------------------------|
| Background music in proposed restaurant venue | Pos 1 – Sidewalk to E Collins Ave ~ 12 feet | 52 dBA (soft voice) | 55 dBC |
| Background music in proposed restaurant venue | Pos 1a – Rock Apts to E ~ 70 feet across Collins | 47 dBA (very soft voice) | 50 dBC |
| Background music in proposed restaurant venue | Pos 2 - Club Deuce to W ~ 20 feet across alley | 45 dBA (whisper) | 50 dBC |
| Background music in proposed restaurant venue | Pos 3 – Hotel to N Commodore ~ 10 feet | 53 dBA (soft voice) | 57 dBC |
| Background music in proposed restaurant venue | Pos 4 – Hotel to S Shepley ~ 10 feet | 49 dBA (very soft voice) | 54 dBC |
| Background music in proposed restaurant venue | Pos 5 – Orchid Hotel Guest Rooms above | 40 dBA (quiet whisper) | 50 dBC |

The calculated sound levels above may be compared to typical conversation levels of 65 to 70 dBA. This would also be the range for quiet television (TV) viewing or radio listening. The venue audio system design sound levels are *below these conversation levels* at the outside receiver locations.

The sound level calculated at Position 1, the sidewalk to the east, is about **52 dBA** (52 A-weighted decibels), the level of a *soft voice*. The sound level at this location is well below that of a normal conversation.

The sound level calculated at Position 1a, the Rock Apartments to the east, is about **47 dBA**, the level of a *very soft voice*. The sound level at this location is well below that of a normal conversation.

The sound level calculated at Position 2, across the alley to Club Deuce to the west is about **45 dBA**. This is the level of a *whisper*, well below a normal conversation.

The sound level calculated at Position 3, the Hotel Commodore to the north, is about **53 dBA**, the level of a *soft voice*. This is estimated to be the highest receiver level outside. Still, the sound level at this location is well below that of a normal conversation

The sound level calculated at Position 4, the Hotel Shepley to the south, is about **49 dBA**. This is the level of a *very soft voice*, well below a normal conversation.

It is also *estimated* that the sound level at the residences located at **1334 Collins Avenue**, (Pos. 4a) south of the Hotel Shepley, will be even lower by 7 to 10 dBA than at the Shepley. This is due to two factors, 1) the greater distance to 1334 Collins, and 2) the fact that the music speakers are on the first floor of the Orchid and the two story Shepley Hotel will provide an additional sound barrier buffer to 1334 Collins.

The sound level at Position 5, in the *Orchid guest rooms* above the venue is estimated from typical sound attenuation for windows, and floor/ceiling assemblies to be about **40 dBA**. This is the level of a *quiet whisper*, well below a normal conversation.

Sound level calculation results – outside the venue at receiver locations – non-ambient entertainment music

The sound level calculations which were made for background ambient music using the 3D model for the receiver locations of interest outside the venue may be extrapolated for non-ambient entertainment music.

As noted above, the response of the building to the sound system is expected to be a linear (straight line) function. Therefore, the sound levels for the non-ambient entertainment music will have the same relative distribution outside the venue as the ambient background music, except at levels 15 dBA higher.

Sound level calculation results for **non-ambient entertainment music** are shown in the Table below.

| Operating Condition | Receiver Distance | Sound level Outside (A-weighted) | Sound level Outside (C-weighted) |
|---|--|----------------------------------|----------------------------------|
| Background music in proposed restaurant venue | Pos 1 – Sidewalk to E Collins Ave ~ 12 feet | 67 dBA (normal voice) | 70 dBC |
| Background music in proposed restaurant venue | Pos 1a – Rock Apts to E ~ 70 feet across Collins | 62 dBA (quiet voice) | 65 dBC |
| Background music in proposed restaurant venue | Pos 2 - Club Deuce to W ~ 20 feet across alley | 60 dBA (quiet voice) | 65 dBC |
| Background music in proposed restaurant venue | Pos 3 – Hotel to N Commodore ~ 10 feet | 68 dBA (normal voice) | 72 dBC |
| Background music in proposed restaurant venue | Pos 4 – Hotel to S Shepley ~ 10 feet | 64 dBA (quiet voice) | 69 dBC |
| Background music in proposed restaurant venue | Pos 5 – Orchid Hotel Guest Rooms above | 55 dBA (very quiet voice) | 65 dBC |

The calculated sound levels above may be compared to typical conversation levels of 65 to 70 dBA. This would also be the range for quiet television (TV) viewing or radio listening. The venue audio system design sound levels are *below these conversation levels* at the outside receiver locations.

The sound level calculated at Position 1, the sidewalk to the east, is about **67 dBA** (67 A-weighted decibels), the level of a *soft voice*. The sound level at this location is compatible with and will not interfere with a normal conversation.

The sound level calculated at Position 1a, the Rock Apartments to the east, is about **62 dBA**, the level of a *quiet voice*. The sound level at this location is below that of a normal conversation.

The sound level calculated at Position 2, across the alley to Club Deuce to the west is about **60 dBA**. This is the level of a *quiet voice*, below that of a normal conversation.

The sound level calculated at Position 3, the Hotel Commodore to the north, is about **68 dBA**, the level of a *soft voice*. This is estimated to be the highest receiver level outside. Still, the sound level at this location is compatible with, and will not interfere with a normal conversation

The sound level calculated at Position 4, the Hotel Shepley to the south, is about **64 dBA**. This is the level of a *quiet voice*, below a normal conversation.

Again, it is *estimated* that the sound level at the residences located at **1334 Collins Avenue**, (Pos. 4a) south of the Hotel Shepley, will be even lower by 7 to 10 dBA than at the Shepley. This is due the greater distance to the 1334 Collins building, and that the two story Shepley Hotel will provide an additional sound barrier buffer to 1334 Collins.

The sound level at Position 5, in the *Orchid guest rooms* above the venue is estimated from typical sound attenuation for windows, and floor/ceiling assemblies to be about **55 dBA**. This is the level of a very *quiet voice*, well below a normal conversation.

Effect of Background Sound

It is noted that Collins Avenue is a busy road, and that the surrounding area is very active with elevated background sound levels due to vehicular traffic. So, the estimated sound levels from the restaurant venue at the outside receiver locations, as described above, are expected to be *below the ambient sound level* in the area.

Further, exterior walls and windows typically provide at least 25 dBA sound reduction from the outside to the inside. This would reduce the maximum background music sound inside the *Commodore Hotel* to the north. There will also be a significant reduction in C-weighted sound level inside the guest rooms.

The levels *inside* the *Shepley Hotel guest rooms* to the south and the *Rock Apartments* to the east are expected to be even lower.

These sound levels would typically be below the sound level of the HVAC unit in the hotels and apartments. So, it is *unlikely* that any sound from the venue will be audible indoors at the hotel guest rooms and residences. It is expected that the operation of the venue with background music will **not disturb the comfort and repose** of any person in the vicinity.

Discussion

Based on the sound study results for the proposed venue at 1350 Collins Avenue, the designed audio system in the ambient background music mode and the non-ambient entertainment music mode are expected to operate such that it produces a sound level at each receiver location that is *below the ambient sound levels* for both the A-weighted and C-weighted decibel scales.

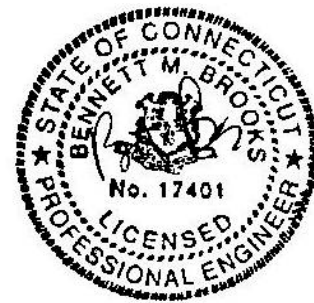
The venue music system is *not expected* to produce sound levels that would interfere with normal conversation, nor will it intrude on the ambient conditions.

Please contact me if you have any questions concerning these findings.

Very truly yours,
BROOKS ACOUSTICS CORPORATION



Bennett M. Brooks, PE, FASA, INCE
President



APPENDIX

1350 Collins Avenue CUP Sound Study

1. Sound calculations
2. Loudspeaker system design

1350 Collins Avenue CUP Sound Study Results

Calculations for the restaurant audio system operating in **ambient background music** mode are shown below. Time based calculations ran for 1 second duration, computing and summing all direct sound and wall reflections.

Summary Table

| Total SPL (Hz) | Restaurant SPL Max. (dBA) | Restaurant SPL Max. (dBC) | North Building SPL Max. (dBA) | North Building SPL Max. (dBC) | South Building SPL Max. (dBA) | South Building SPL Max. (dBC) | East Building SPL Max. (dBA) | East Building SPL Max. (dBC) | West Building SPL Max. (dBA) | West Building SPL Max. (dBC) | Sidewalk SPL Max. (dBA) | Sidewalk SPL Max. (dBC) |
|----------------|---------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|-------------------------|-------------------------|
| 100 | 46.8 | 65.6 | 30.6 | 49.4 | 30.9 | 49.7 | 21.5 | 40.3 | 25.2 | 44.0 | 20.2 | 39.0 |
| 125 | 43.9 | 59.8 | 30.7 | 46.6 | 28.5 | 44.4 | 24.1 | 40.0 | 23.1 | 39.0 | 27.2 | 43.1 |
| 160 | 45.8 | 59.1 | 34.1 | 47.4 | 29.6 | 42.9 | 26.9 | 40.2 | 25.7 | 39.0 | 31.2 | 44.5 |
| 200 | 48.6 | 59.5 | 36.3 | 47.2 | 31.4 | 42.3 | 29.5 | 40.4 | 28.9 | 39.8 | 33.6 | 44.5 |
| 250 | 49.7 | 58.3 | 38.1 | 46.7 | 33.3 | 41.9 | 30.0 | 38.6 | 30.1 | 38.7 | 35.5 | 44.1 |
| 315 | 49.5 | 56.1 | 38.7 | 45.3 | 34.7 | 41.3 | 32.0 | 38.6 | 31.6 | 38.2 | 37.1 | 43.7 |
| 400 | 50.6 | 55.4 | 39.7 | 44.5 | 35.3 | 40.1 | 33.6 | 38.4 | 31.6 | 36.4 | 38.3 | 43.1 |
| 500 | 51.9 | 55.1 | 40.7 | 43.9 | 36.5 | 39.7 | 34.4 | 37.6 | 32.6 | 35.8 | 39.4 | 42.6 |
| 630 | 52.6 | 54.5 | 41.5 | 43.4 | 37.7 | 39.6 | 35.7 | 37.6 | 33.7 | 35.6 | 40.2 | 42.1 |
| 800 | 52.4 | 53.2 | 41.9 | 42.7 | 38.8 | 39.6 | 36.2 | 37.0 | 34.0 | 34.8 | 41.0 | 41.8 |
| 1000 | 52.9 | 52.9 | 42.3 | 42.3 | 38.6 | 38.6 | 36.0 | 36.0 | 35.0 | 35.0 | 41.3 | 41.3 |
| 1250 | 54.2 | 53.6 | 43.2 | 42.6 | 38.6 | 38.0 | 36.4 | 35.8 | 35.7 | 35.1 | 41.4 | 40.8 |
| 1600 | 54.0 | 52.9 | 43.0 | 41.9 | 38.6 | 37.5 | 36.5 | 35.4 | 35.7 | 34.6 | 41.5 | 40.4 |
| 2000 | 53.5 | 52.1 | 41.1 | 39.7 | 38.1 | 36.7 | 36.2 | 34.8 | 34.3 | 32.9 | 41.8 | 40.4 |
| 2500 | 54.3 | 52.7 | 39.9 | 38.3 | 36.8 | 35.2 | 35.7 | 34.1 | 31.8 | 30.2 | 41.3 | 39.7 |
| 3150 | 54.4 | 52.7 | 39.9 | 38.2 | 34.9 | 33.2 | 34.5 | 32.8 | 32.3 | 30.6 | 40.1 | 38.4 |
| 4000 | 54.8 | 53.0 | 40.0 | 38.2 | 33.8 | 32.0 | 34.5 | 32.7 | 31.4 | 29.6 | 39.6 | 37.8 |
| 5000 | 53.1 | 51.3 | 38.4 | 36.6 | 33.8 | 32.0 | 32.7 | 30.9 | 30.6 | 28.8 | 39.2 | 37.4 |
| 6300 | 52.3 | 50.4 | 37.3 | 35.4 | 32.5 | 30.6 | 31.6 | 29.7 | 29.7 | 27.8 | 38.9 | 37.0 |
| 8000 | 51.6 | 49.7 | 36.6 | 34.7 | 30.8 | 28.9 | 30.3 | 28.4 | 26.2 | 24.3 | 37.6 | 35.7 |
| 10000 | 49.8 | 47.9 | 35.3 | 33.4 | 29.2 | 27.3 | 27.0 | 25.1 | 25.4 | 23.5 | 36.2 | 34.3 |
| Lmax | 65.3 | 70.1 | 52.9 | 57.0 | 48.8 | 54.1 | 46.9 | 50.2 | 45.2 | 49.8 | 52.2 | 54.6 |

In the venue restaurant



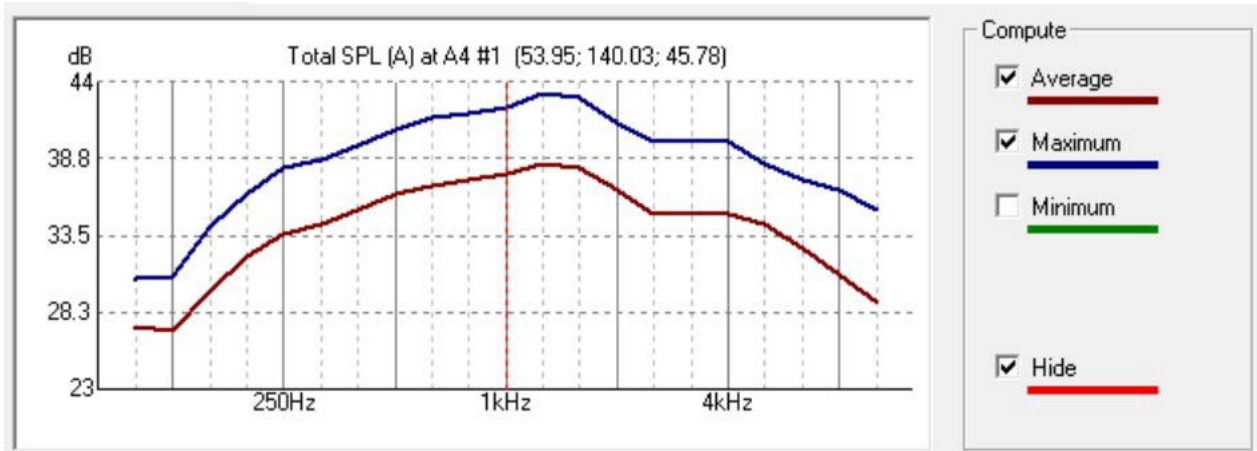
Maximum and Average Sound Pressure Level in dBA

In the venue restaurant

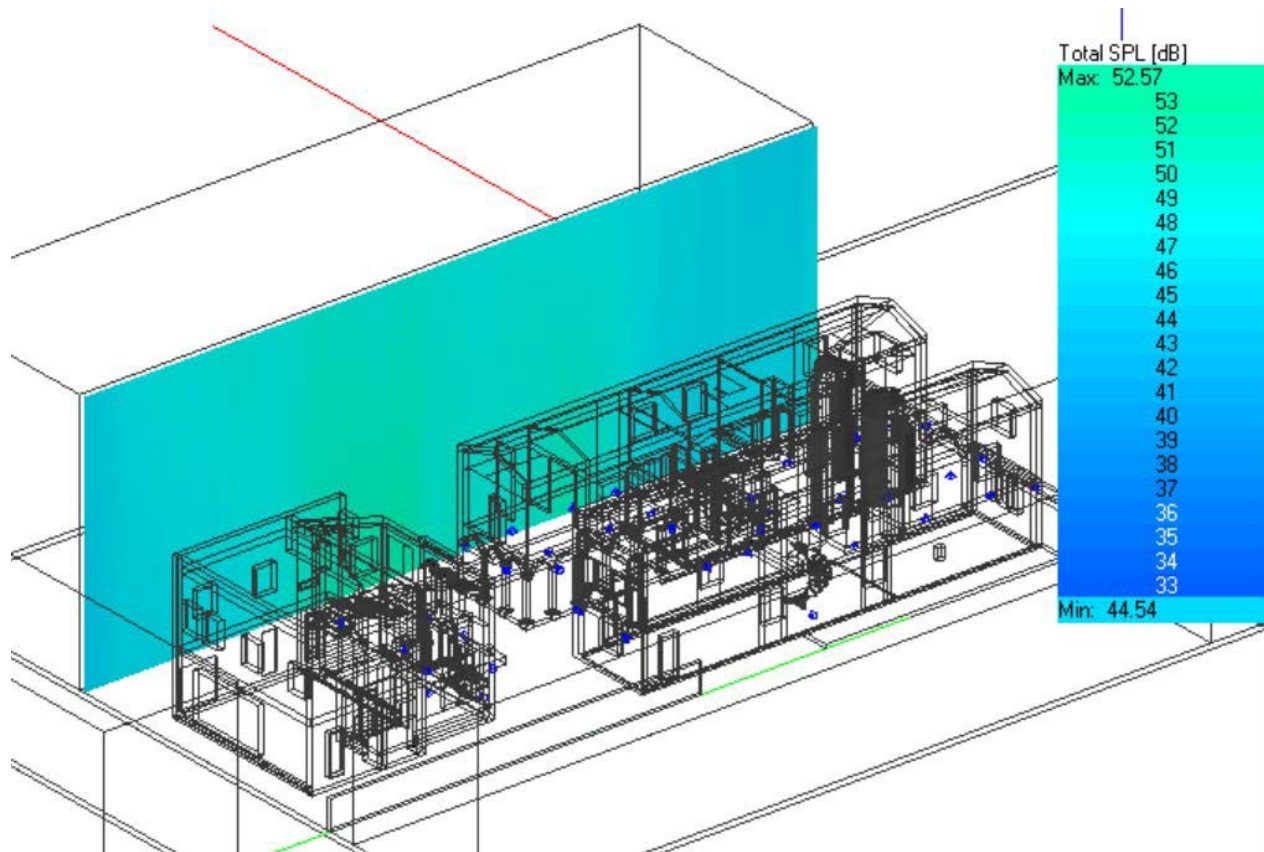


Sound Pressure Level MAP in dBA – 65 dBA max (plan view)

North Side Building (Commodore Hotel):



Maximum and Average Sound Pressure Level in dBA

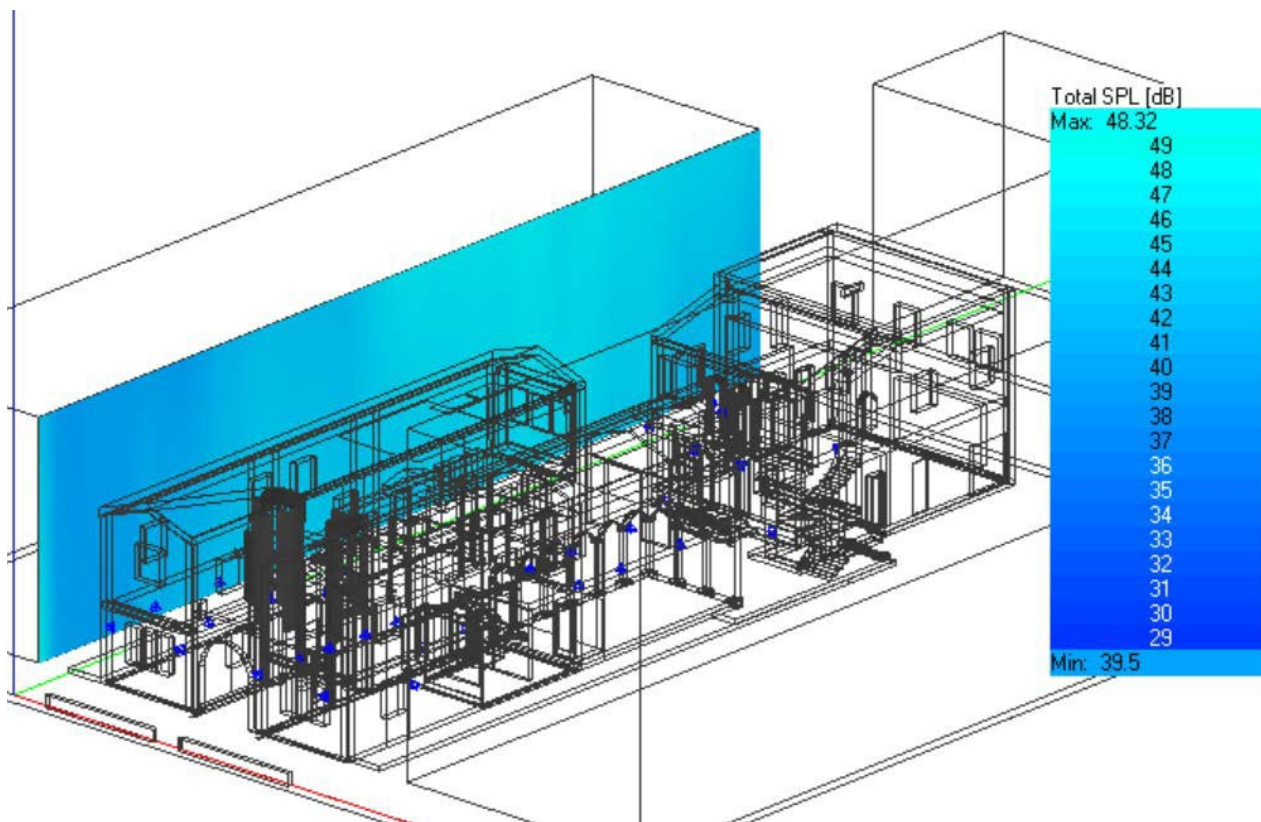


Sound Pressure Level MAP in dBA – 53 dBA max

South Side Building (Shepley Hotel):



Maximum and Average Sound Pressure Level in dBA

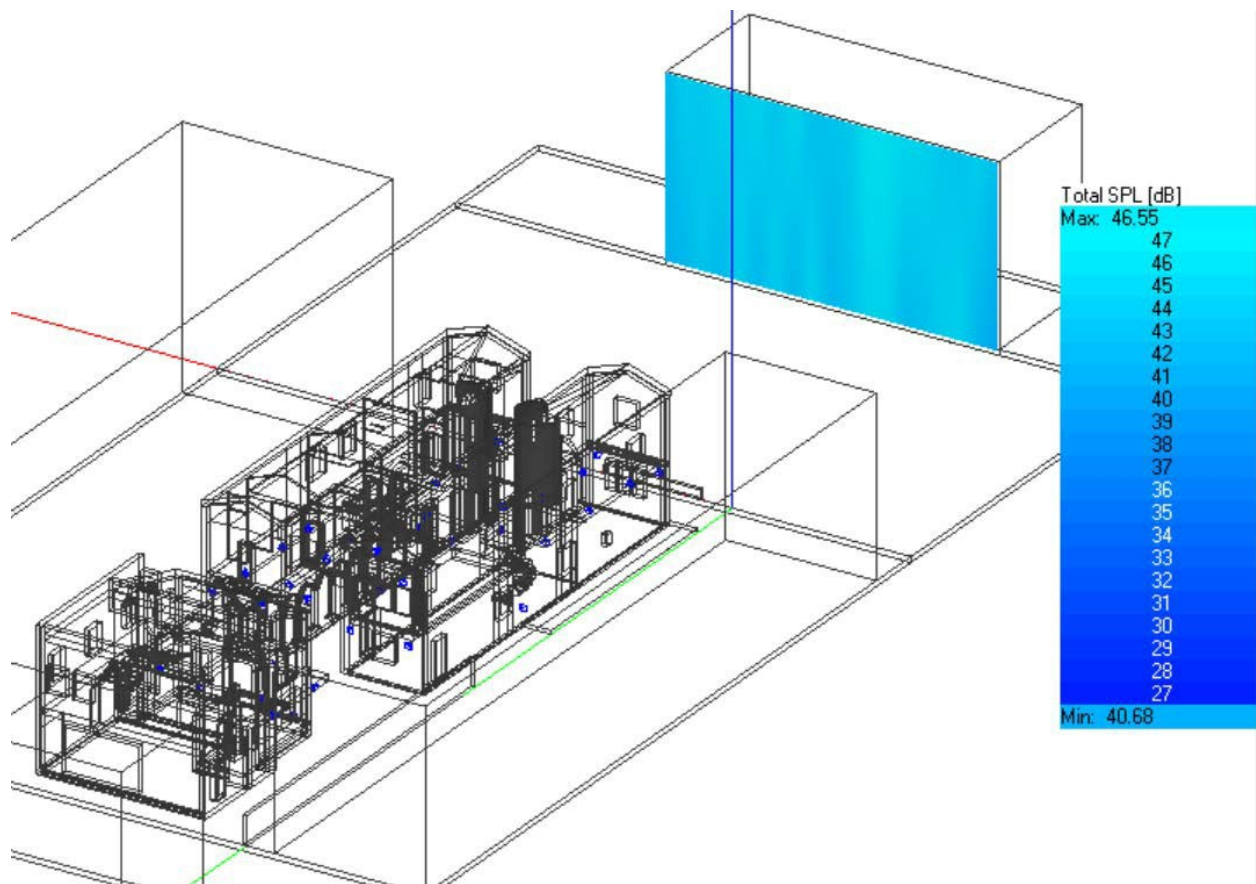


Sound Pressure Level MAP in dBA – 48 dBA max

East Side Building (Rock Apts across Collins Ave):

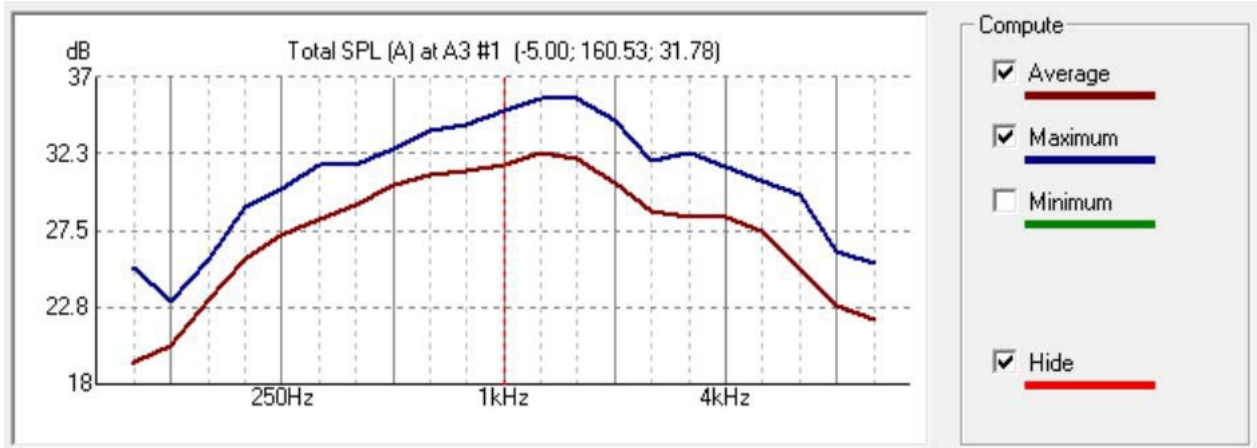


Maximum and Average Sound Pressure Level in dBA

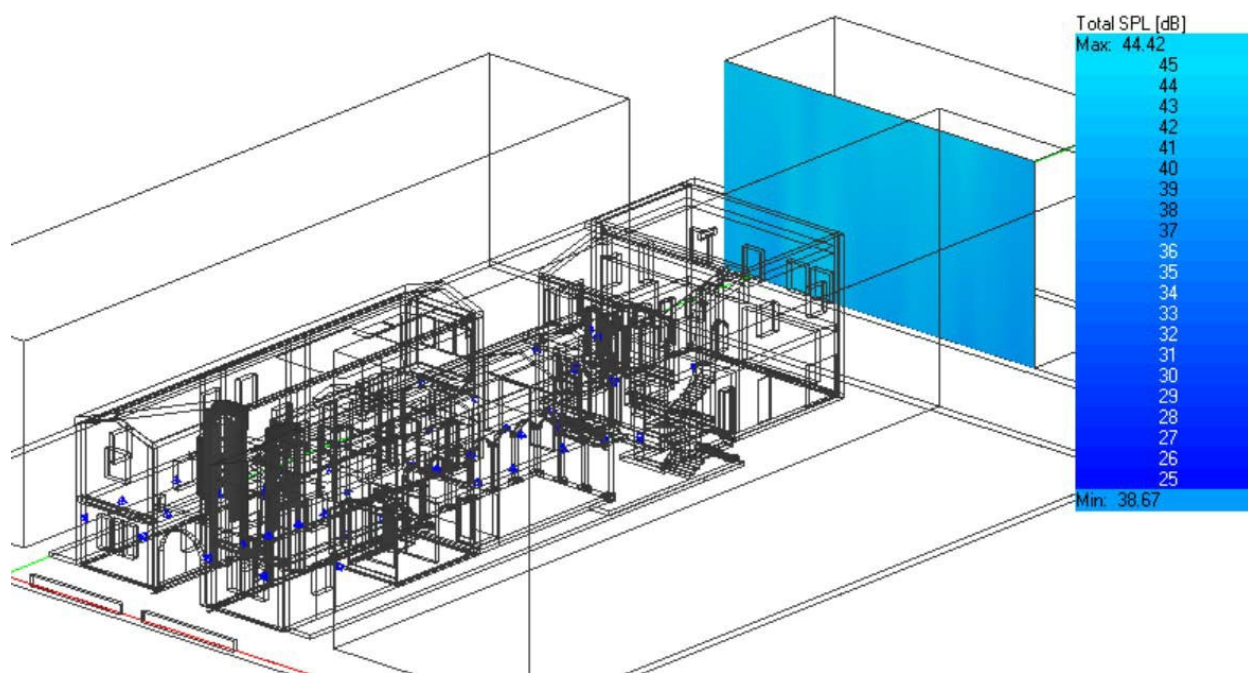


Sound Pressure Level MAP in dBA – 47 dBA max

West Side Building – (Club Deuce across Collins Court alley):



Maximum and Average Sound Pressure Level in dBA



Sound Pressure Level MAP in dBA – 44 dBA max



Mix3 Sound, Inc.
 305.824.9007
 1592 NW 159th St
 Miami, FL 33169

Sound System Information for 1350 Collins

We have eight zones both inside and outside the premises. Inside the building, Rockwool Safe 'n' Sound insulation has been installed in the ceiling spaces and interior walls. Outside, plants and trees will be planted along the perimeter to absorb audio. The speaker design is precisely angled and placed to ensure the audio is contained within the specified areas. Below is a detailed breakdown of the speakers, including quantity, locations, mounting, and angle type.

Zone 1- Dining

OK

- | | |
|--------------------------------|-------------------------------------|
| 1. Brand : EAW | 1. Brand : EAW |
| 2. Model : SB120zP WHITE | 2. Model : CIS400 White |
| 3. Quantity: 1 | 3. Quantity: 4 |
| 4. Mount type/Angle: Floor | 4. Mount type/Angle: Ceiling / Down |
| 5. Interior/Exterior: Interior | 5. Interior/Exterior: Interior |

Zone 2 - Bldg 1 Dining Area

OK

1. Brand : EAW
2. Model : CIS400 White
3. Quantity: 6
4. Mount type/Angle: Ceiling / Down
5. Interior/Exterior: Interior

Zone 3 - Outside Hallway

- | | |
|---------------------------------------|--------------------------------|
| 1. Brand : EAW | 1. Brand : EAW |
| 2. Model : MKC60MTPL-WP WHITE | 2. Model : SB120zP-WP WHITE |
| 3. Quantity: 10 | 3. Quantity: 2 |
| 4. Mount type/Angle: U Bracket / -19° | 4. Mount type/Angle: Floor |
| 5. Interior/Exterior: Exterior | 5. Interior/Exterior: Exterior |

OK



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Zone 4 - Bldg 2 Dining Area

- | | | |
|-------------------------------------|--------------------------------|----|
| 1. Brand : EAW | 1. Brand : EAW | OK |
| 2. Model : CIS400 White | 2. Model : SB120zP WHITE | |
| 3. Quantity: 8 | 3. Quantity: 1 | |
| 4. Mount type/Angle: Ceiling / Down | 4. Mount type/Angle: Floor | |
| 5. Interior/Exterior: Interior | 5. Interior/Exterior: Interior | |

Zone 5 - Patio

- | | |
|---------------------------------------|----|
| 1. Brand : EAW | |
| 2. Model : EAW MKC50MTPL-WP WHITE | |
| 3. Quantity: 4 | OK |
| 4. Mount type/Angle: U Bracket / -35° | |
| 5. Interior/Exterior: Exterior | |

Zone 6 – Outdoor General

- | | | |
|---------------------------------------|--------------------------------|----|
| 1. Brand : EAW | 1. Brand : EAW | OK |
| 2. Model : MKC60MTPL-WP WHITE | 2. Model : SB120zP WHITE | |
| 3. Quantity: 4 | 3. Quantity: 2 | |
| 4. Mount type/Angle: U Bracket / -19° | 4. Mount type/Angle: Floor | |
| 5. Interior/Exterior: Exterior | 5. Interior/Exterior: Exterior | |

Zone 7 - Bldg 3 Dining Area

- | | |
|---------------------------------------|----|
| 1. Brand : EAW | OK |
| 2. Model : EAW MKC50MTPL-WP WHITE | |
| 3. Quantity: 2 | |
| 4. Mount type/Angle: U Bracket / -19° | |
| 5. Interior/Exterior: Interior | |



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Zone 8 - Restrooms

1. Brand : EAW
2. Model : CIS400 White
3. Quantity: 4
4. Mount type/Angle: Ceiling / Down
5. Interior/Exterior: Interior