





REPORT CARD

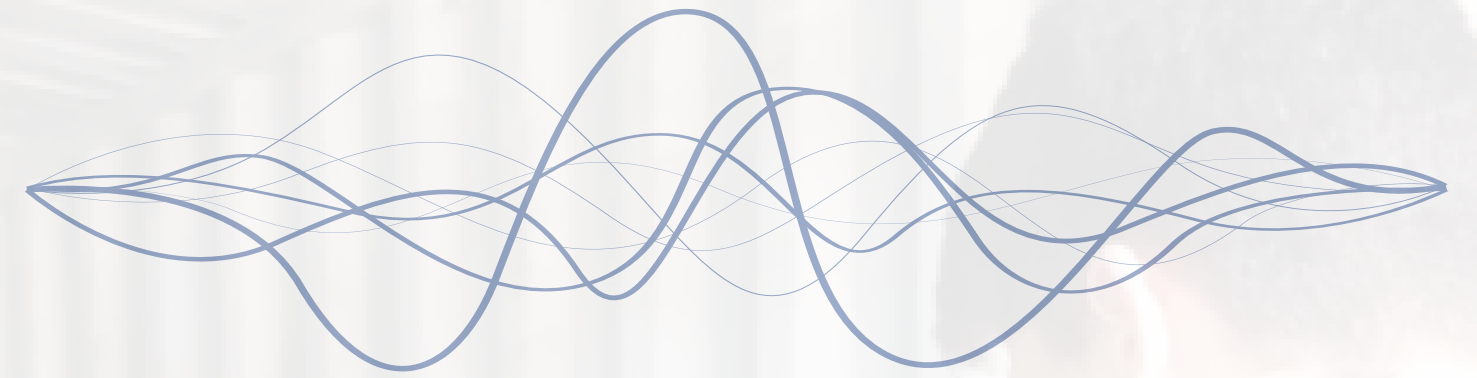
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What is Sonosfera?

Sonosfera is a company **specialized in acoustic, architectural projects and consulting**. Our focus is to provide high-quality reports, sophisticated and implemented acoustic projects, from buildings and acoustic solutions to environments in general. Our expertise helps optimize spaces for the best possible sound experience, ensuring clarity, comfort and balance in all environments, whether in a recording studio, office or public space.

Who is Stéfano?



Stéfano Mastella Corrêa

Acoustical engineer graduated from the Federal University of Santa Maria (UFSM), Stéfano has extensive experience in **acoustic design, acoustics laboratories, building measurements, environmental noise assessments and noise mapping.**

Who is Matheus?

Architect specialized in **creative architecture** and **hyperrealistic 3D renderings**. His designs blend functionality and aesthetic beauty, creating spaces that evoke sophistication and tranquility. With a strong influence from art, music, and photography, Matheus brings a unique, interdisciplinary approach to architecture.

"Through architecture, we sculpt and create worlds where sensory experiences flourish, shaping not only the visible aesthetic but also the profound subconscious perceptions of space."

Matheus Fernandes



Who is Jehmerson?

Sales architect with field experience managing an influencer mansion in Balneário Camboriú, Jehmerson has deep expertise in **organic growth strategies**, social-media algorithms, content scripting, video editing, and audience conversion on YouTube, TikTok, and Instagram.

“In marketing, the digital environment is not just pixels and posts—it is flows that guide the experience. By crafting compelling narratives, we shape the virtual space to forge genuine connection...”

Jehmerson Santana



EXPLORE OUR PORTFOLIO



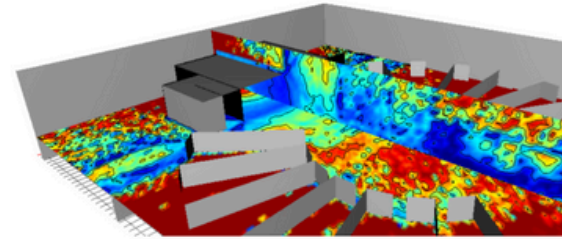
"An environment is far more than mere barriers and textures; it is a **realm of vibrational fields** that resonate deeply with your **profound well-being**."



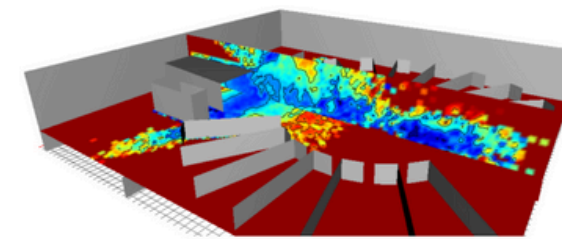
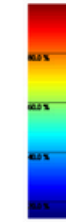
Orquestrando Arte Headquarters

Santa Maria - Brazil

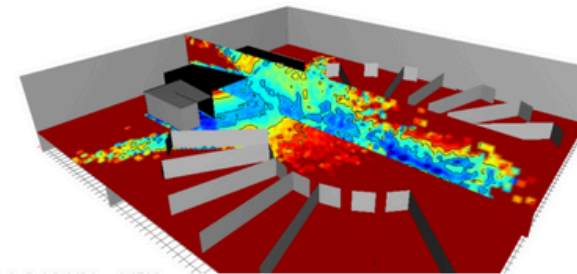
Isolation and treatment of modular container units



(a) D50 para a configuração de paredes do auditório paralelas.

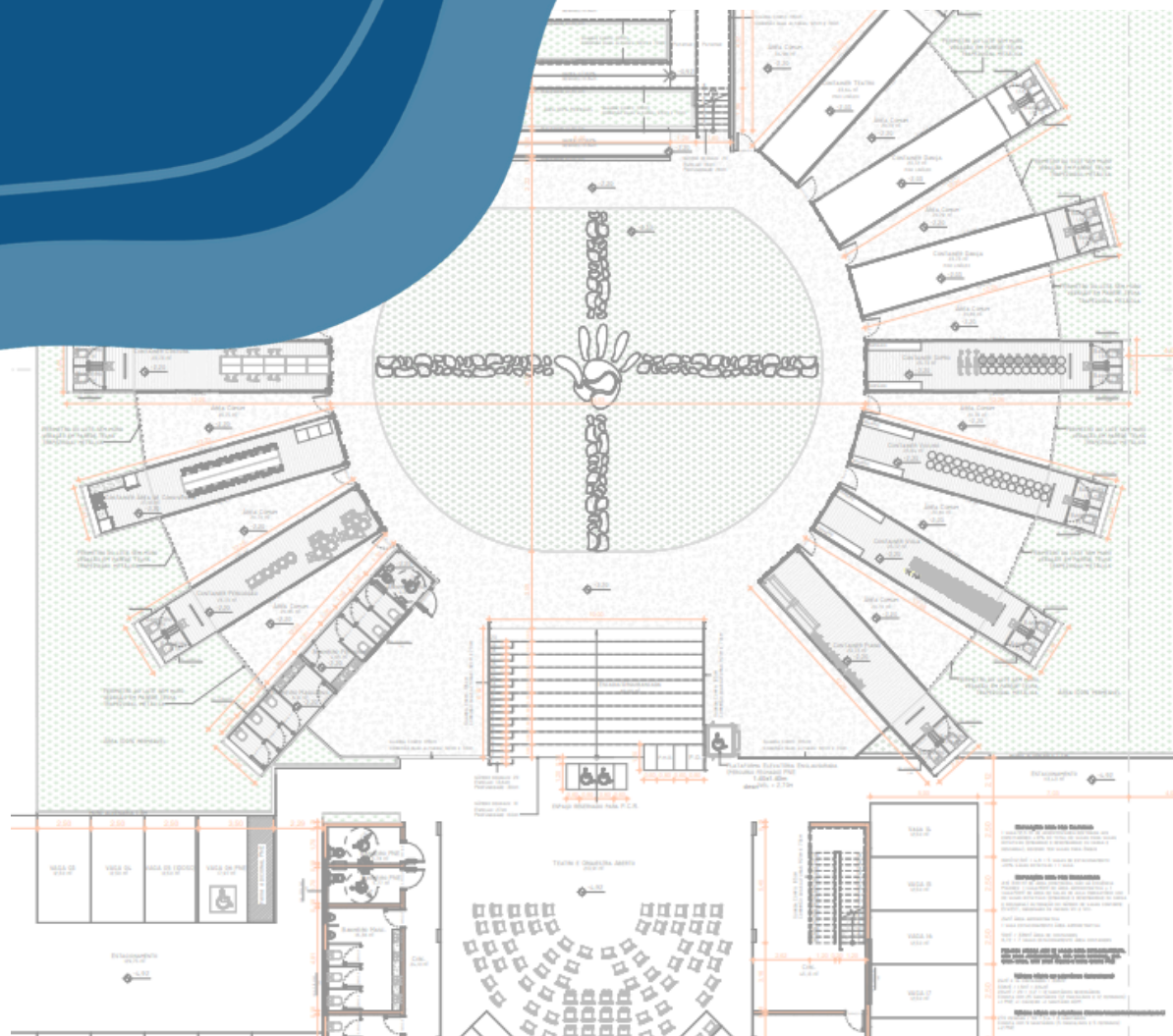


(b) D50 para a configuração de paredes do auditório com desalinhamento angular.



(c) D50 para a configuração de paredes e teto do auditório com desalinhamento angular.

Social Initiative for
Music, Dance, and
Theater



Orquestrando Arte Headquarters

Social Initiative for
Music, Dance, and
Theater

Isolation and treatment of modular container units

We developed the **sound isolation and acoustic treatment for 13 container-based rooms** designed for music, theater, dance, social spaces, and administrative purposes. Additionally, we designed the acoustics and sound system for the headquarters' **auditorium**. This project supports a social initiative.
Instagram Page: [@orquestrandoarte](https://www.instagram.com/orquestrandoarte).



Orquestrando Arte Headquarters

Isolation and treatment of modular container units

Engineered advanced "box-in-box" isolation, achieving up to **48 dB Rw noise reduction** in music studios by **mitigating structural noise with strategic material integration**.

Optimized reverberation times (RT 0.2-1.0s) across diverse spaces using discreet, certified treatments, **ensuring superior clarity and comfort** without compromising design.

Utilized 3D simulations to precisely shape **auditorium geometry**, delivering a consistent 2-second RT and enhanced D50 definition for an **immersive sound experience**.

Orquestrando Arte Headquarters

*Isolation and treatment of
modular container units*



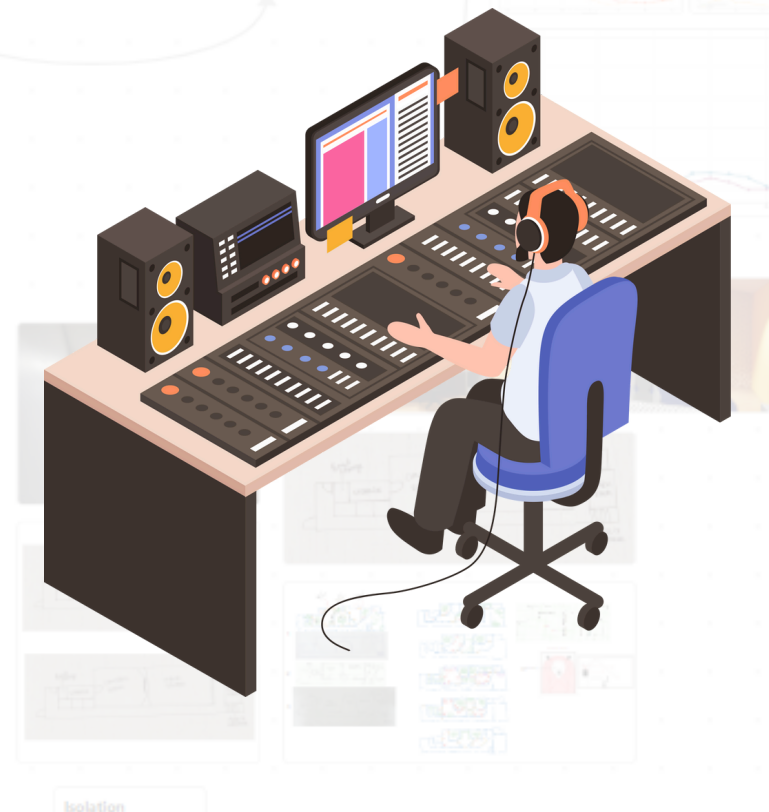
Original Music Workshop

Music Studio

*Wellington -
New Zealand*

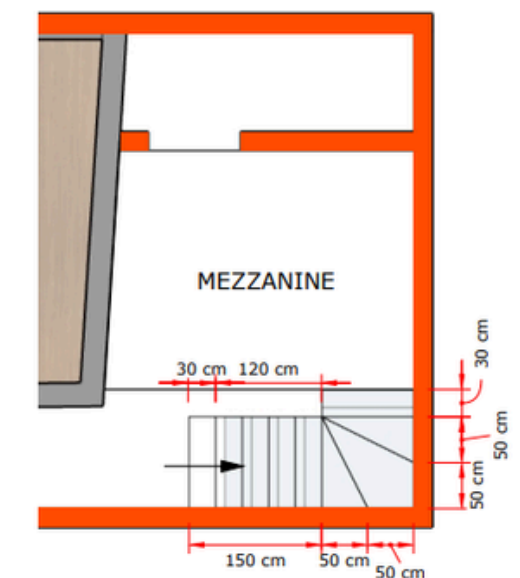
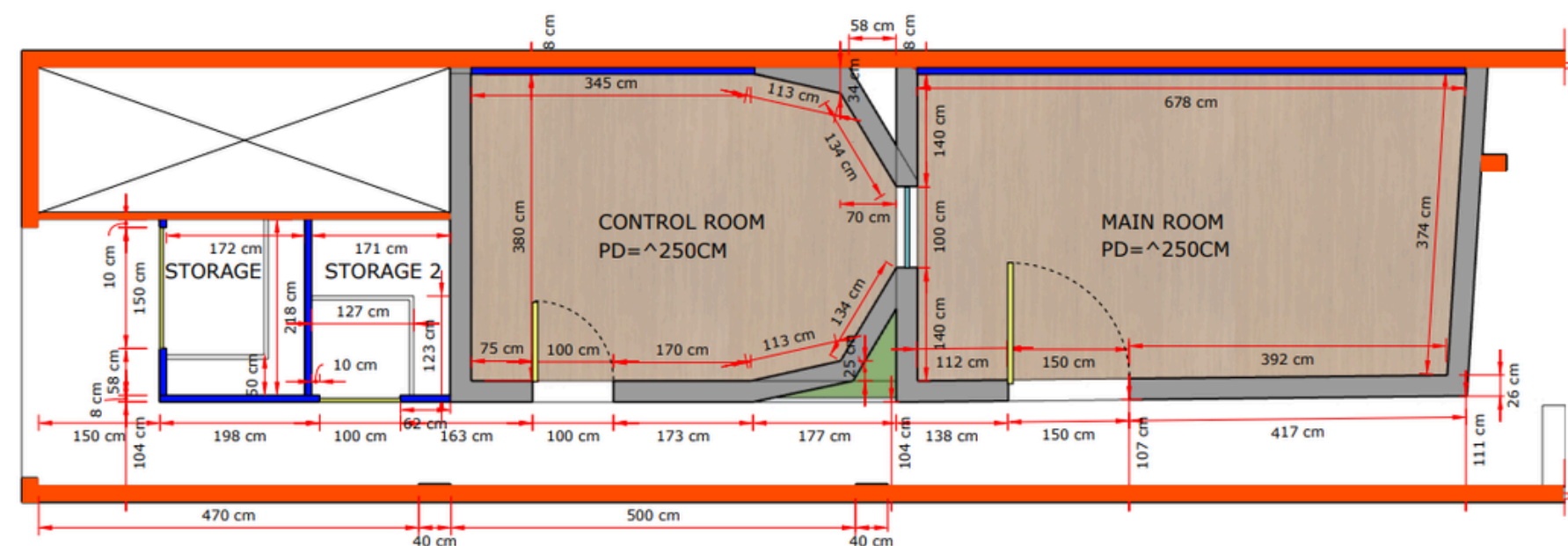
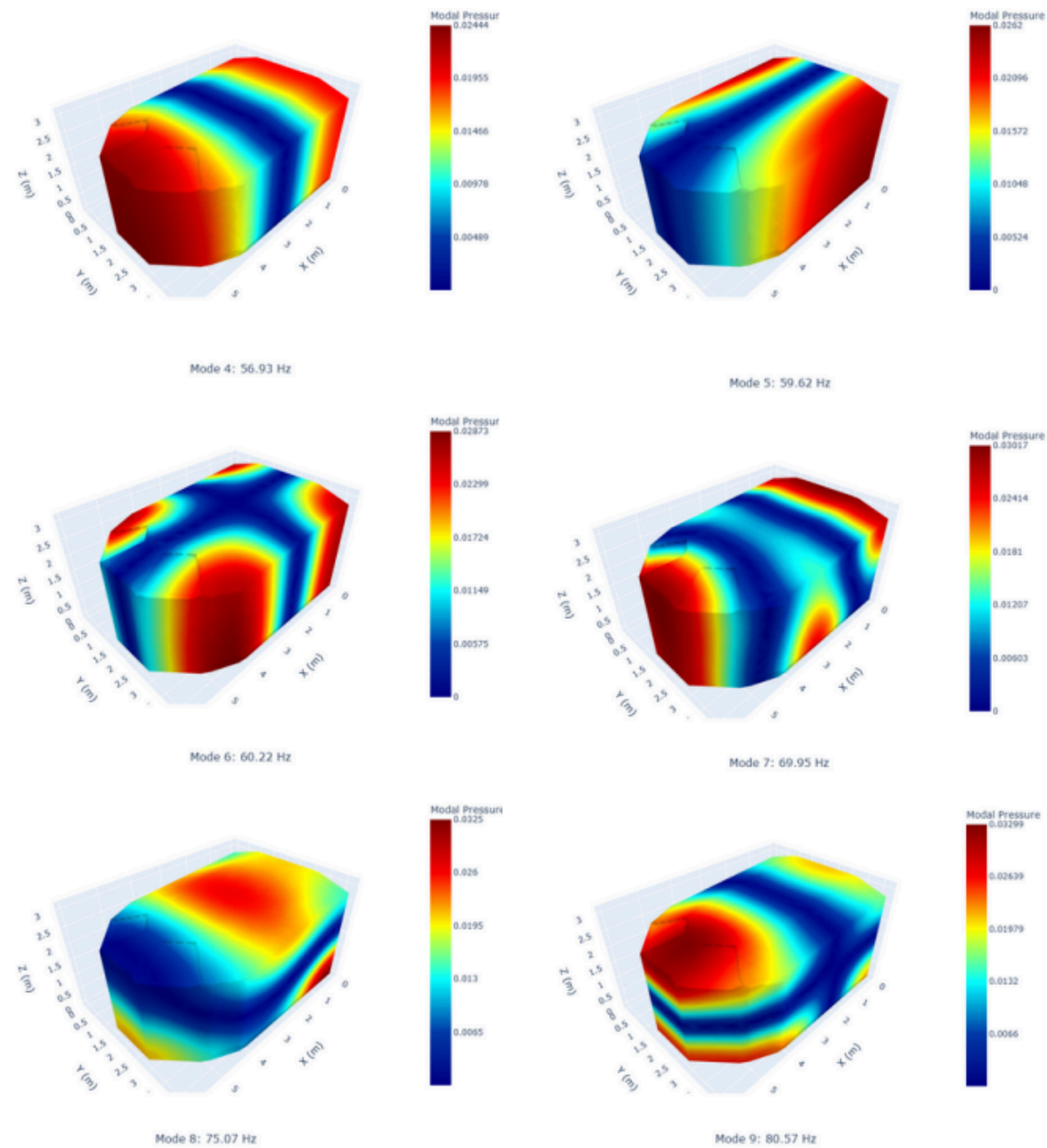


For the Original Music Workshop (OMW), we engineered a **cutting-edge multifunctional studio**, encompassing dedicated **rehearsal/recording and control rooms**. Our primary objective was to deliver **superior acoustic isolation** and **optimized internal acoustics**, ensuring an impeccable sound experience for all users. Utilizing advanced 3D modeling and Finite Element Method (FEM) simulations, we meticulously detailed solutions for precise reverberation control and the effective mitigation of flutter echoes through thoughtfully designed geometries and specific acoustic treatments.

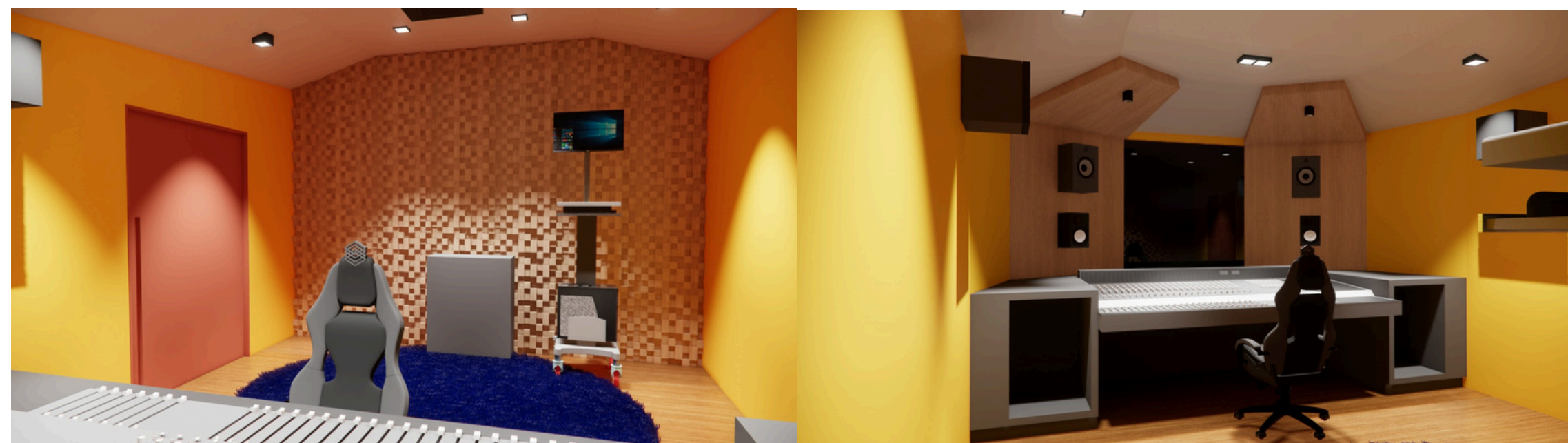
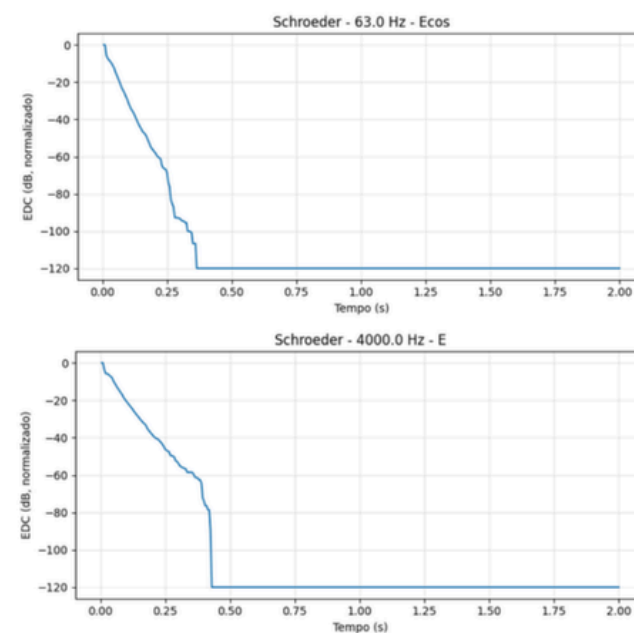


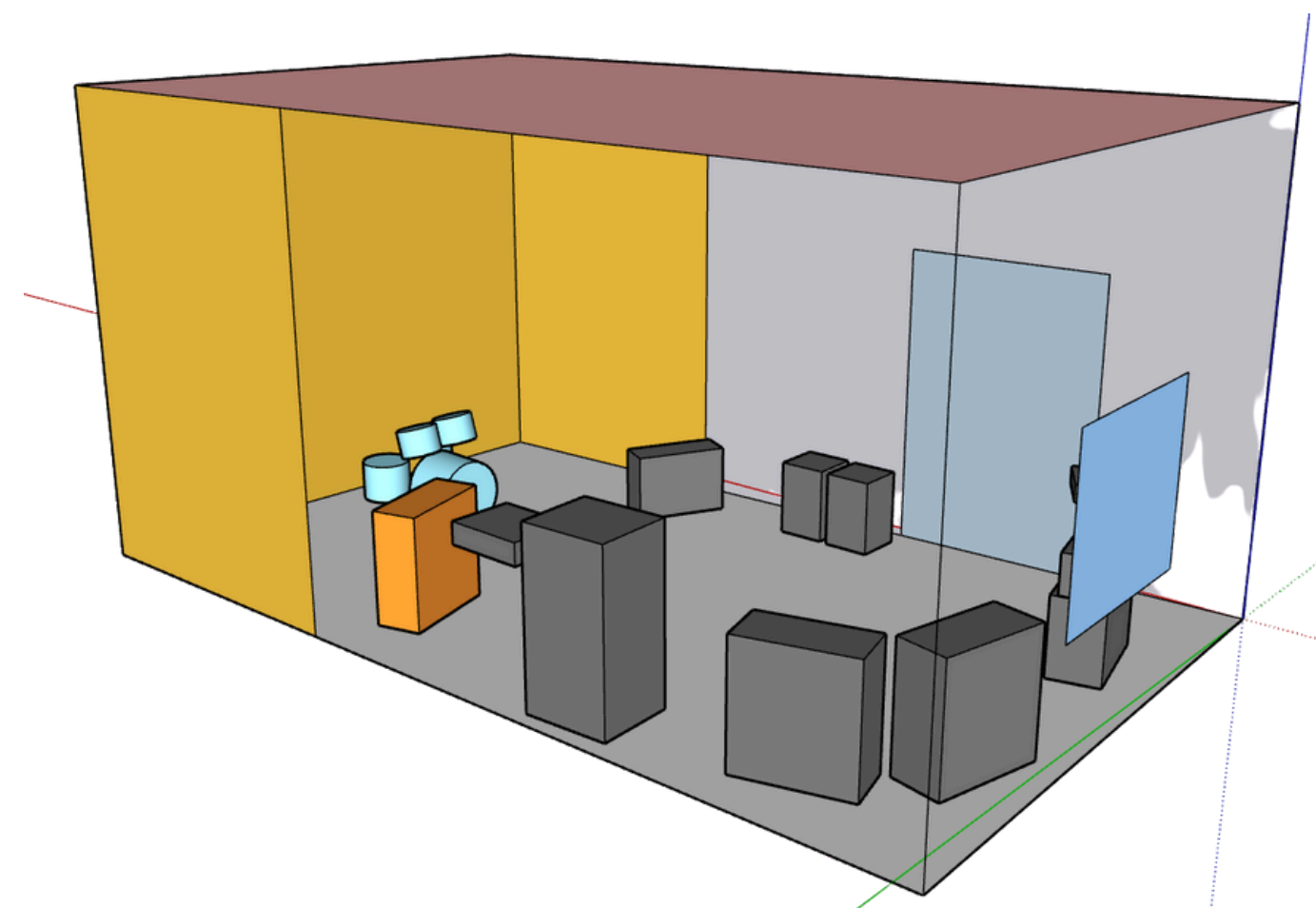
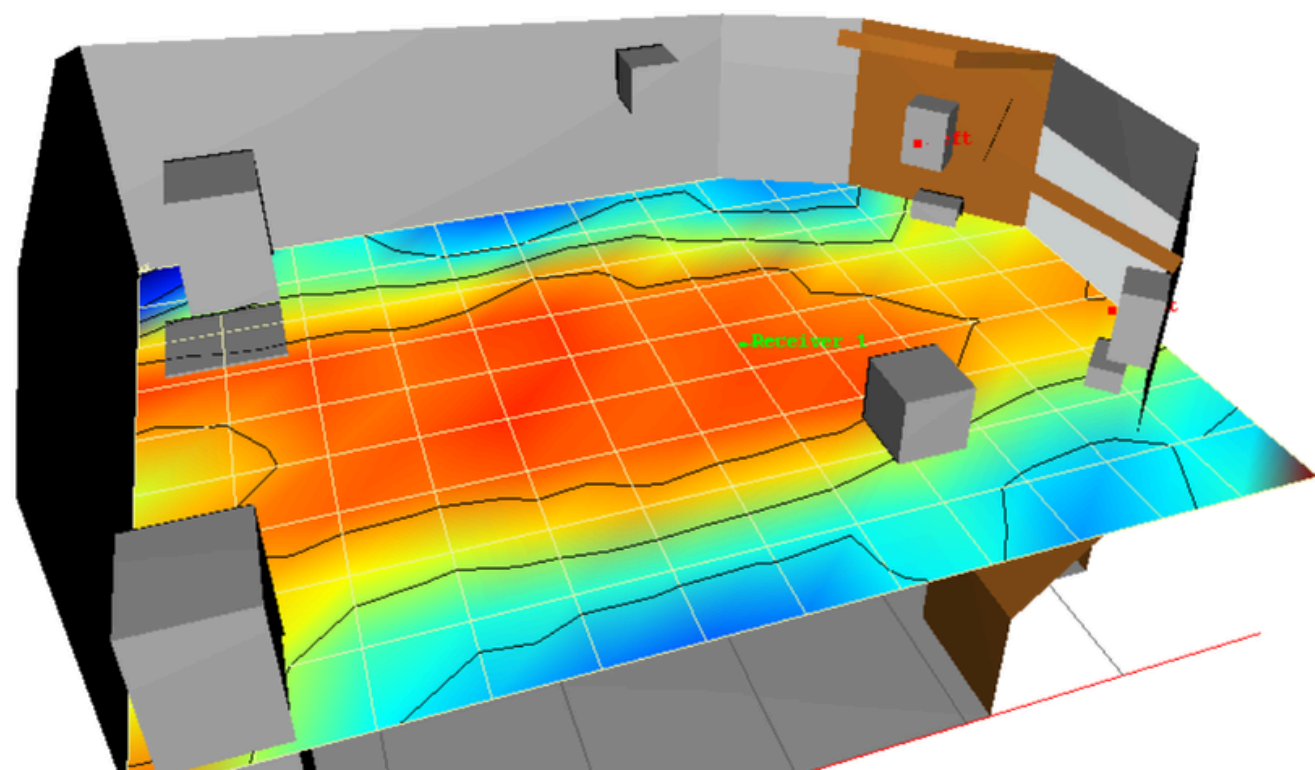
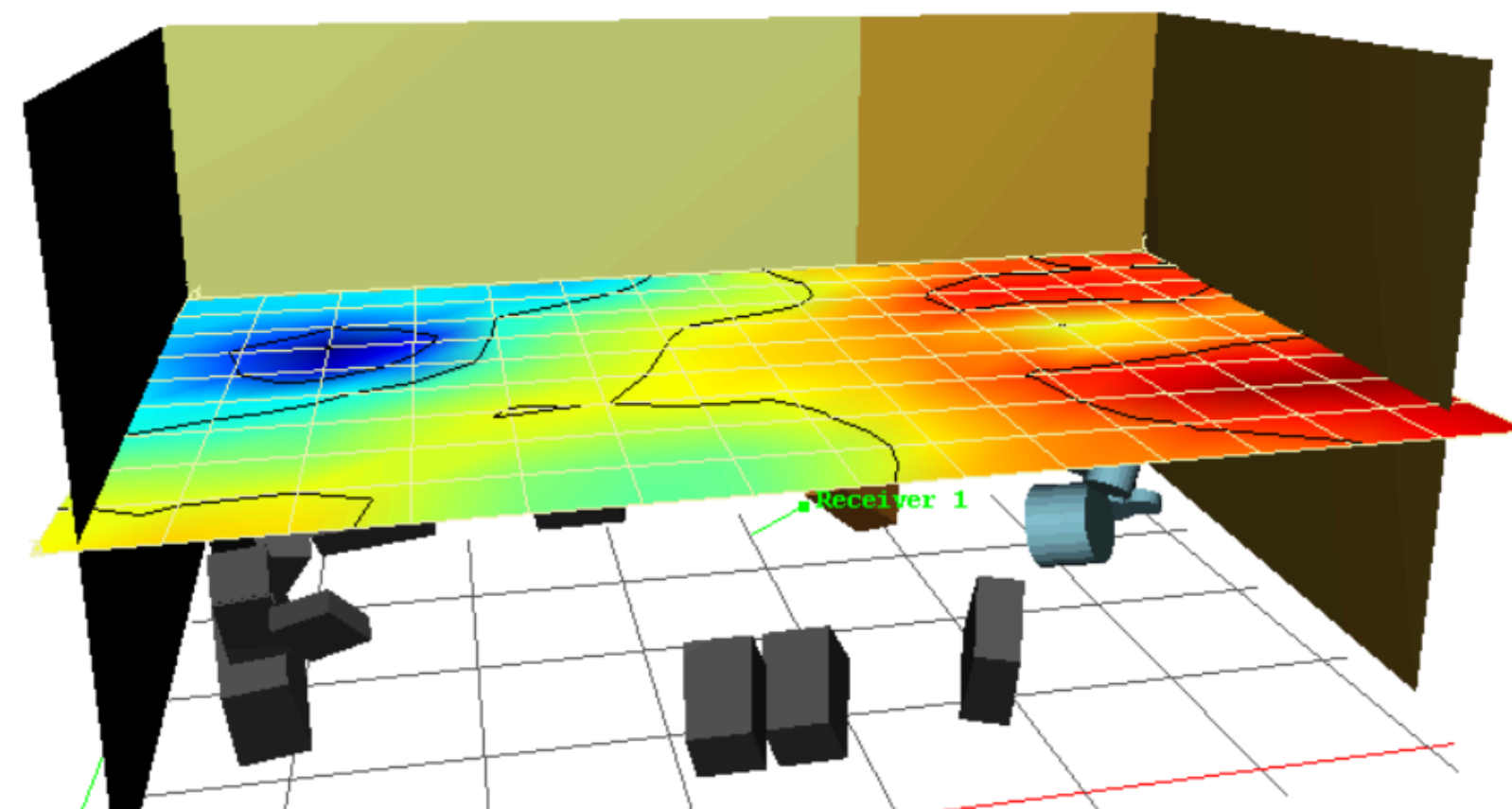
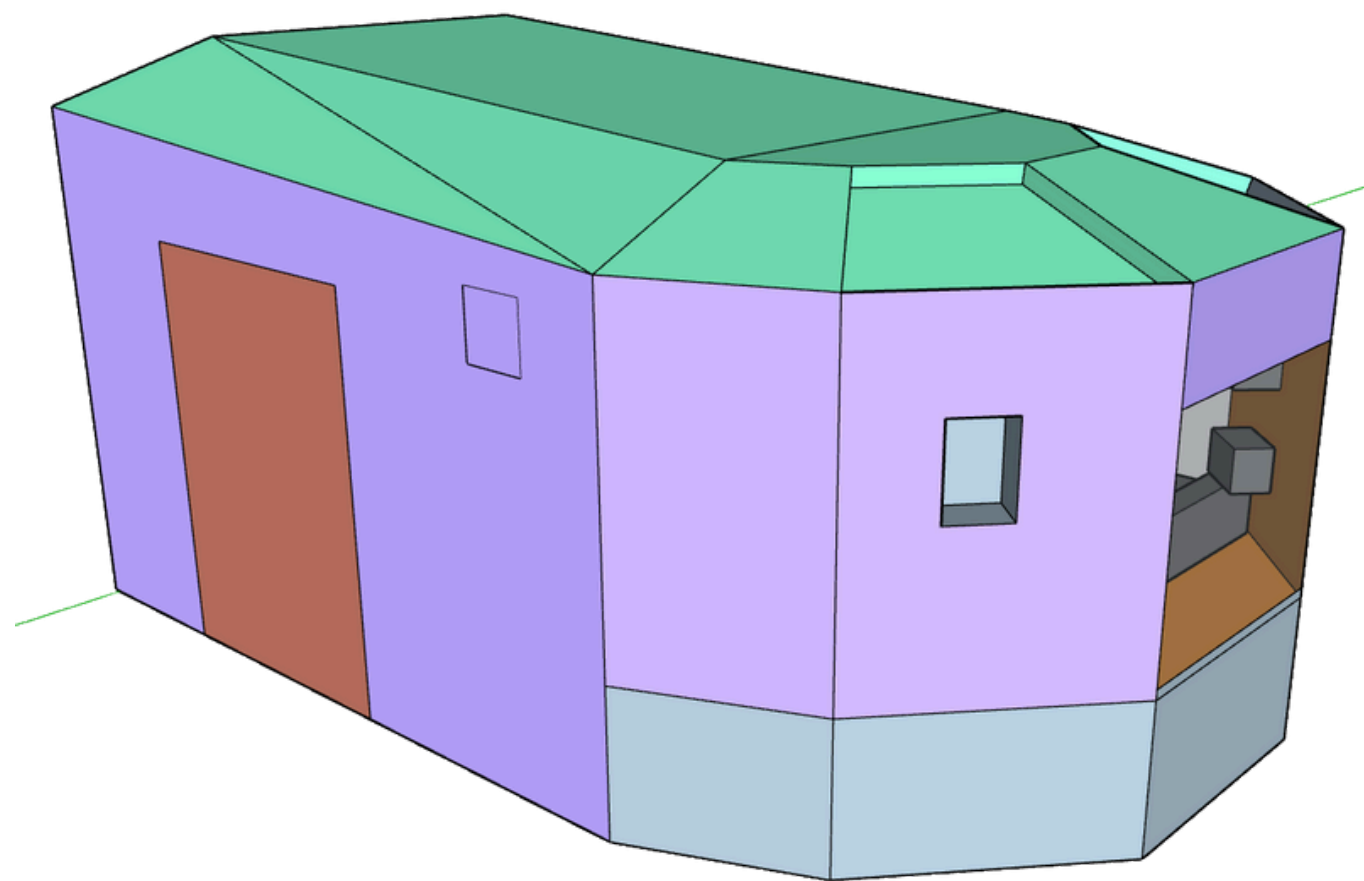
Recommendations for **high-performance isolation for walls, doors, and windows** (achieving **STC/Rw ratings exceeding 50 dB**). This comprehensive approach guaranteed quiet, functionally diverse environments – from the vibrant "live" drum area to the precisely controlled recording space. This project stands as a testament to our proficiency in **blending acoustic engineering precision with architectural flexibility** to craft truly inspiring spaces.

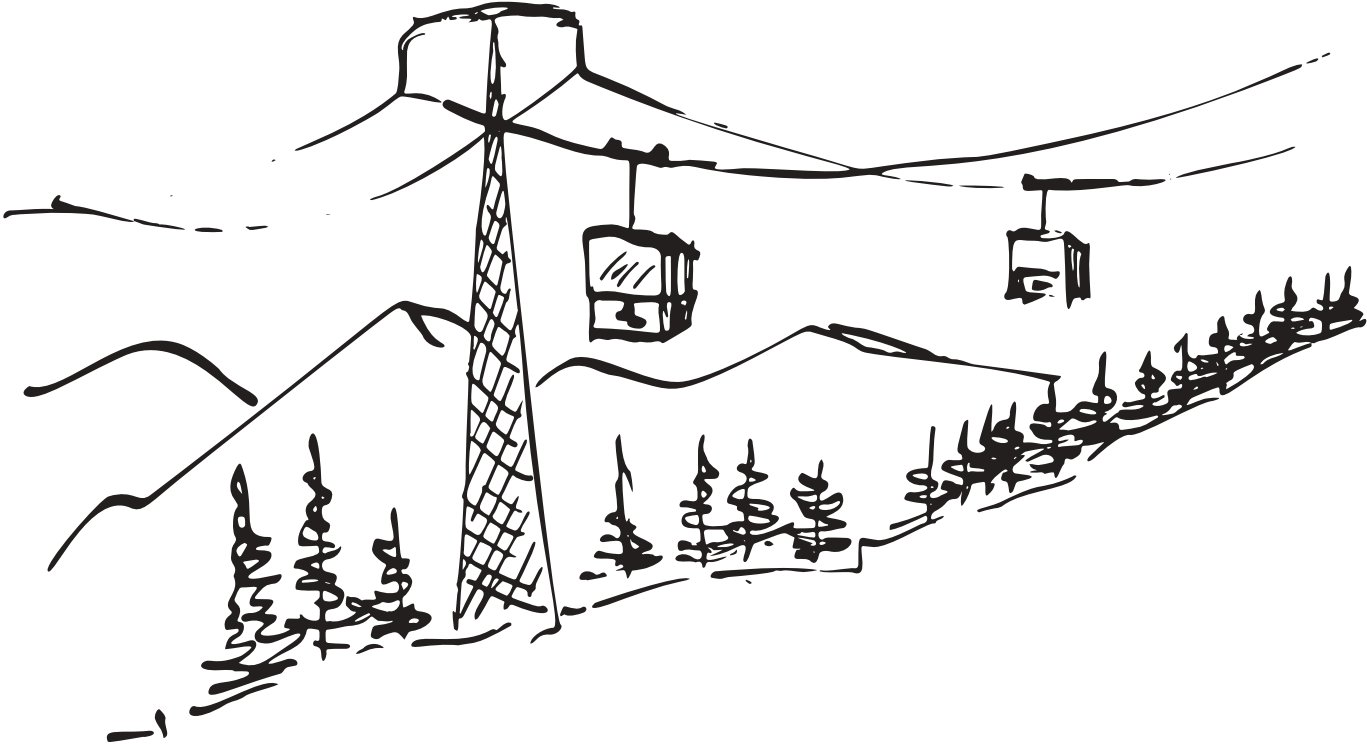




3d prints



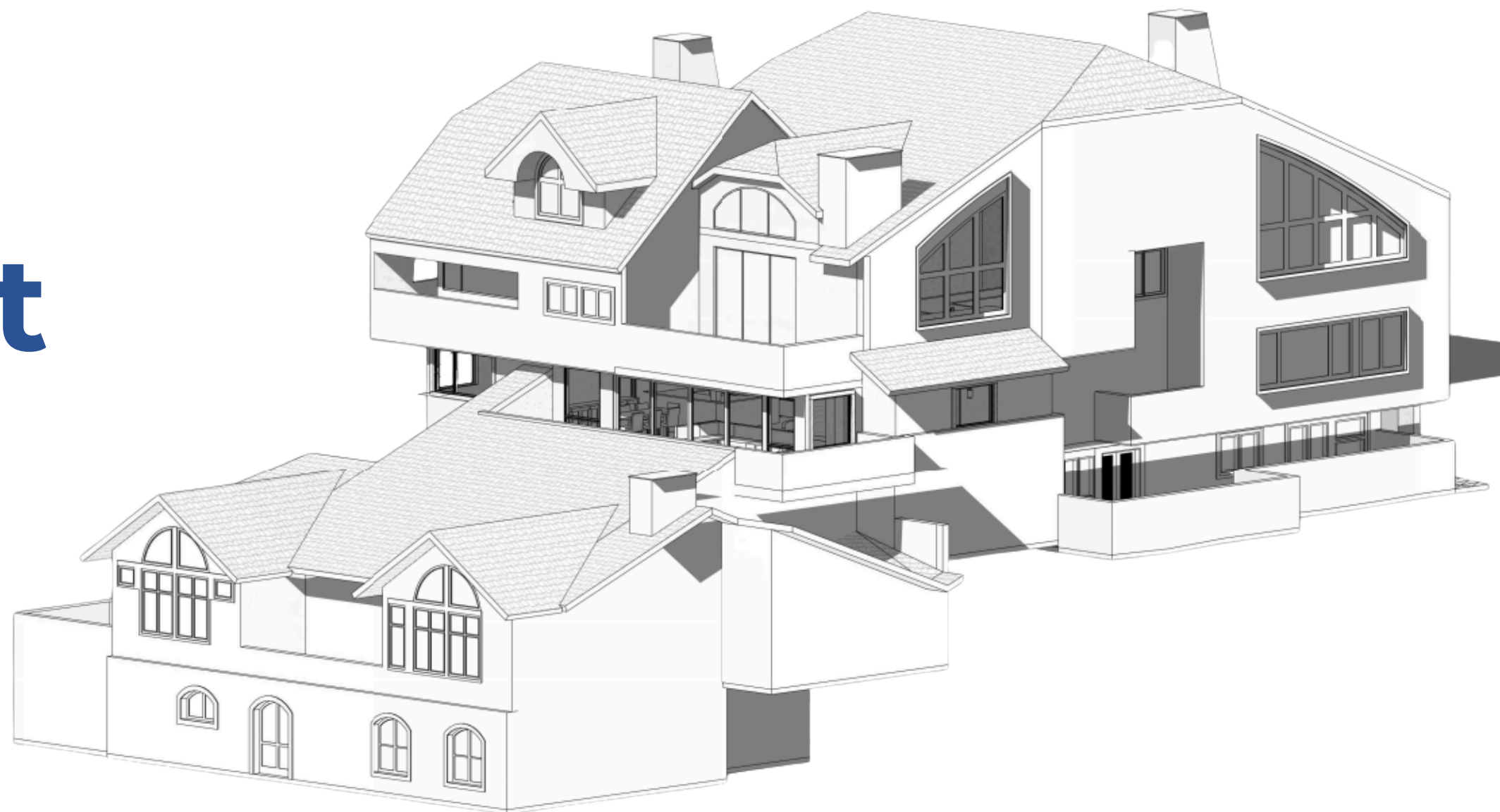


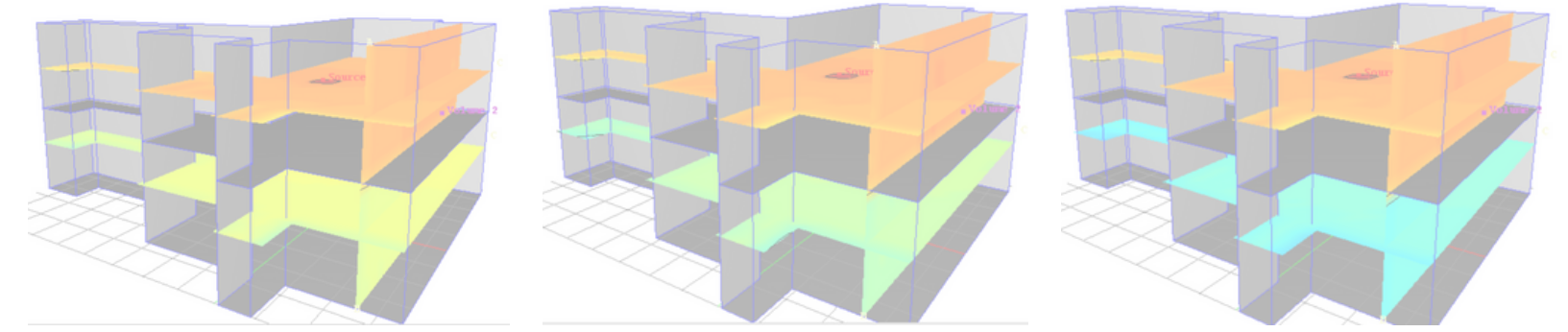


Ski Resort

*Vail Valley -
United States*

Acoustic isolation
Project





Ski Resort

*Vail Valley -
United States*

Acoustic isolation
Project

This project involved a comprehensive acoustic upgrade for an existing apartment to **mitigate noise transmission from the unit above**.

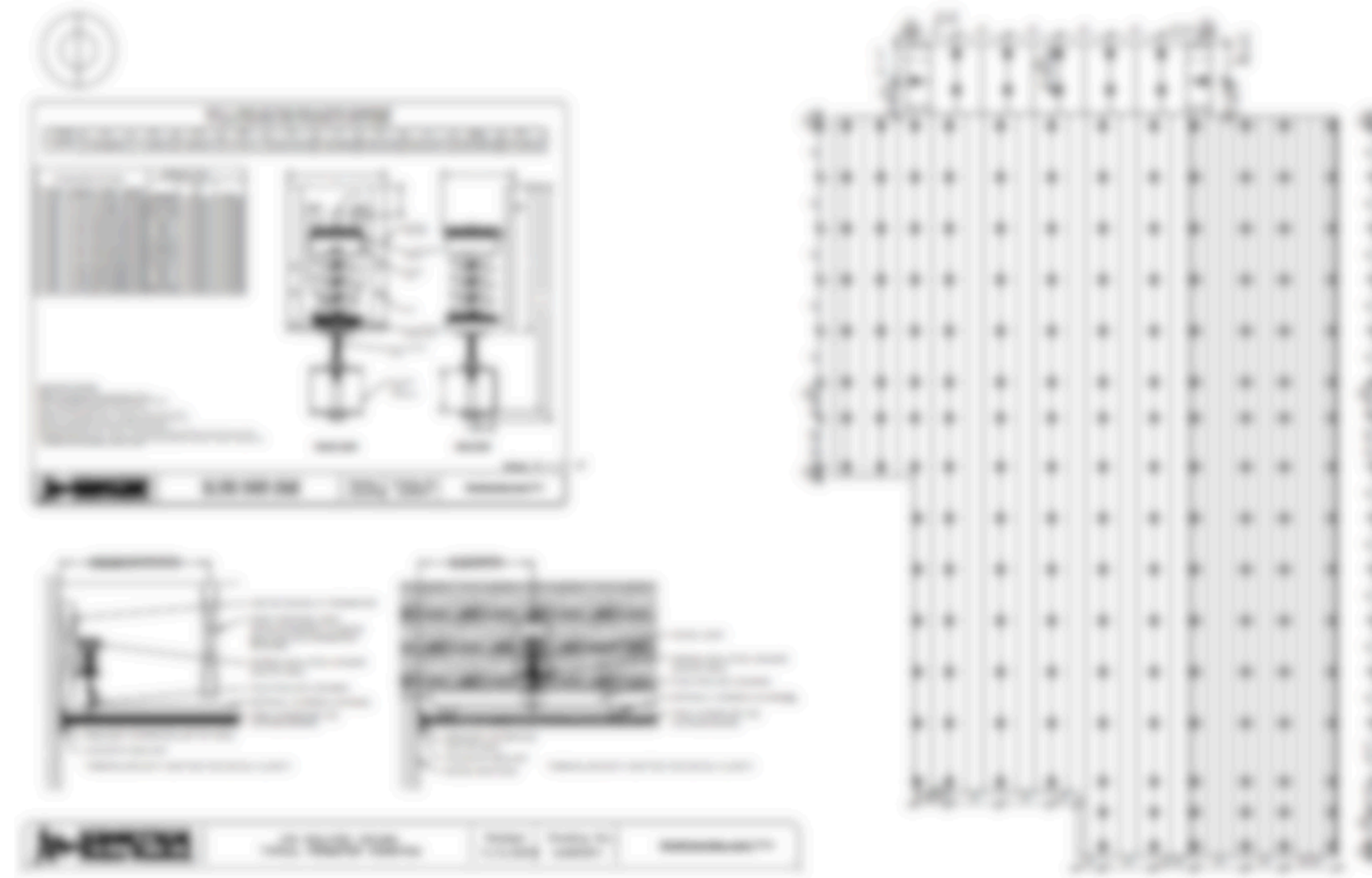
Utilizing predictive modeling, including STC calculations, and a **holistic approach** based on ISO 12354 principles, we designed a customized solution to address **both direct and flanking sound transmission paths**, ensuring a significant improvement in sound isolation.

Ski Resort Penthouse Sound Isolation

Ski Resort

Vail Valley -
United States

Acoustic isolation
Project



INTERNATIONAL
STANDARD

ISO
12354-1

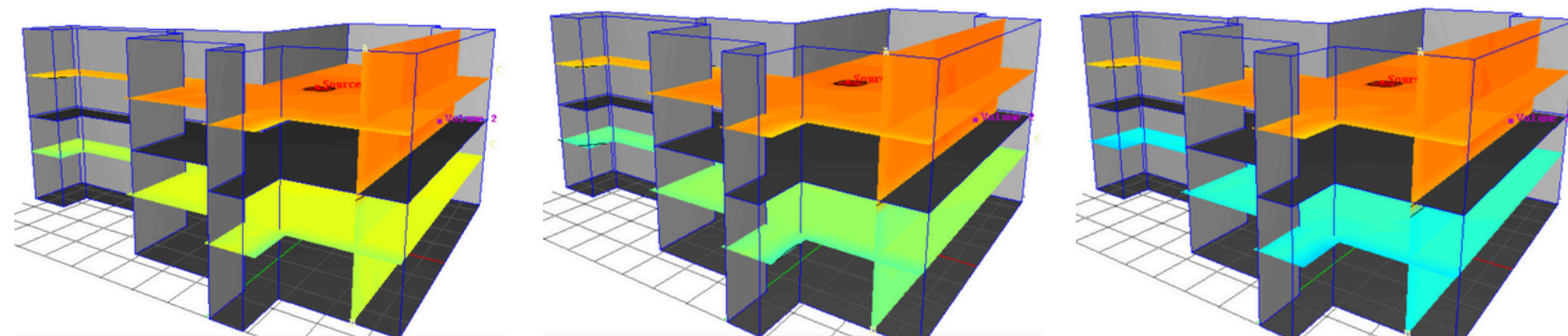
First edition
2017-07

**Building acoustics — Estimation of
acoustic performance of buildings
from the performance of elements —**

**Part 1:
Airborne sound insulation between
rooms**

*Acoustique du bâtiment — Calcul de la performance acoustique des
bâtiments à partir de la performance des éléments —*

Partie 1: Isolement acoustique aux bruits aériens entre des locaux



Village Inn Plaza

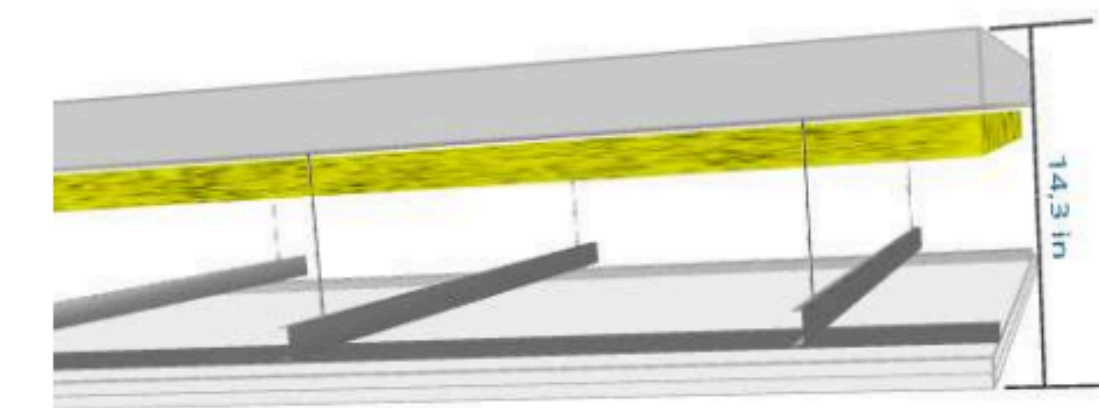
*Ceiling
Sound Attenuation*

Vail Valley - USA



Village Inn Plaza

This project involved a targeted acoustic analysis to address **sound transmission concerns between a restaurant and a residential unit** at Village Inn Plaza. Using predictive modeling tools, including acoustical simulation software for **airborne and impact sound**, we evaluated existing construction details and recommended **cost-effective strategies** to mitigate noise transfer.



STC	65
OITC	62



Diagnosis of *historic facades*

State Audit
Court
(TCE-PR)

Paraná - Brazil





State Audit Court (TCE-PR)

We tackled the challenge of delivering premium indoor acoustic comfort and "silent luxury" amid urban noise in a **significant heritage building**. Our rigorous diagnosis of the TCE-PR facades utilized eight **in situ sound insulation tests** (ISO/NBR compliant), demonstrating our expertise in **large-scale, complex architectural projects**.

Detailed analysis revealed critical façade performance variability (from 15 dB to 28 dB $D_{2m,nt,x}$). Spectral analysis **precisely identified vulnerabilities**, leading to **actionable, data-backed recommendations** that optimized acoustic comfort without compromising architectural integrity. This provides a robust **blueprint for high-end revitalization**, ensuring superior occupant experience, international standard adherence, and maximized long-term property value.

The full scientific article can be read in the [link](#).



Façade Sound Insulation in Heritage Buildings: Acoustic Diagnosis of the Parana State Court of Accounts Before Revitalization

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Paulo Fernando Soares²

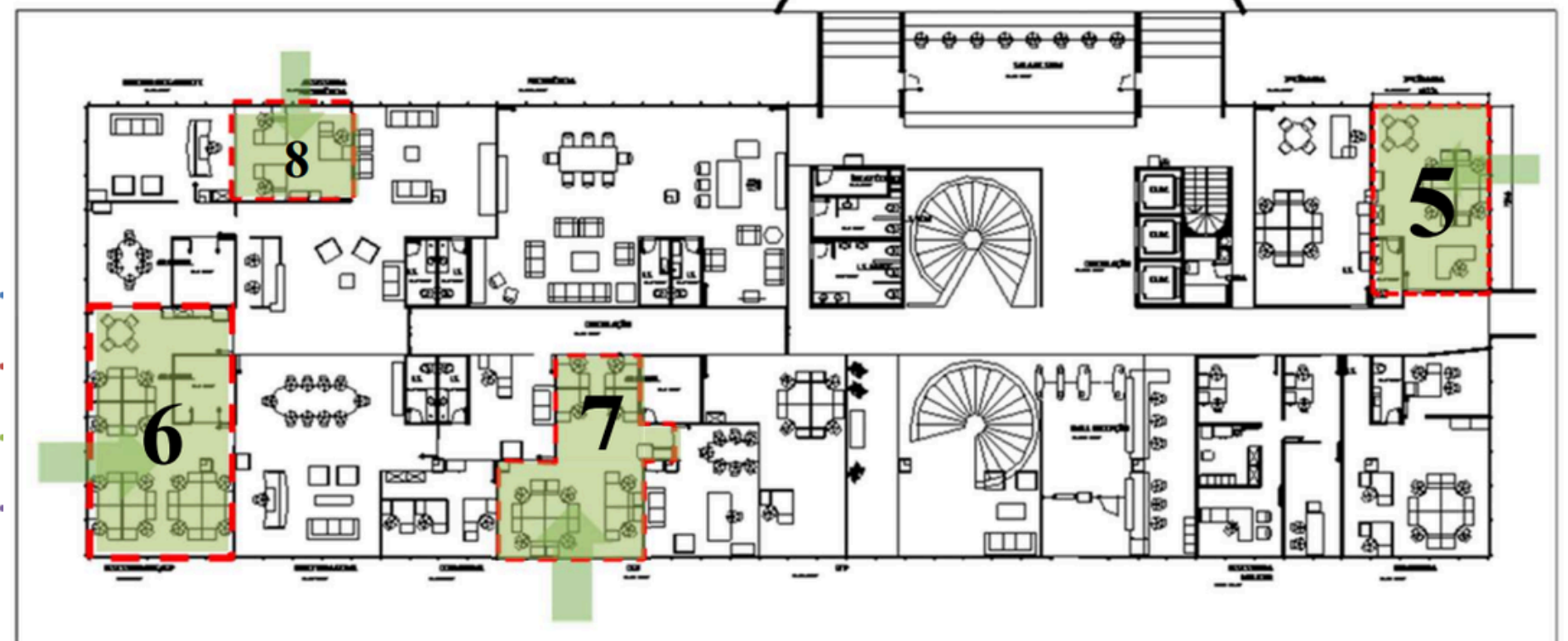
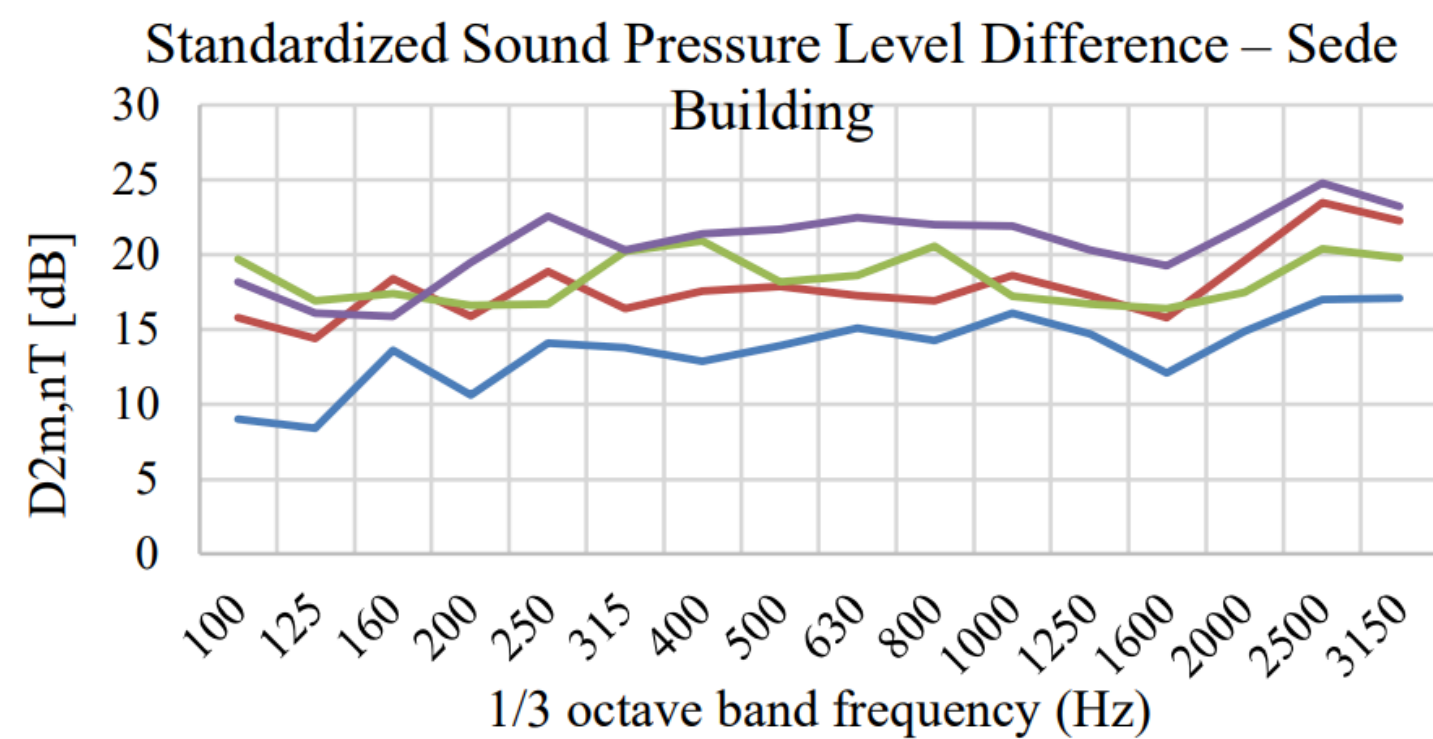
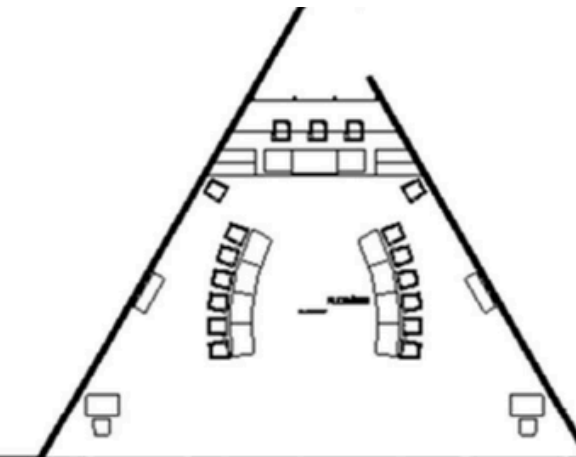
Universidade Estadual de Maringá

Av Colombo, 5790 – Jardim Universitário, CEP 87.020-900, Maringá-PR, Brazil

Stefano Mastella Correa³

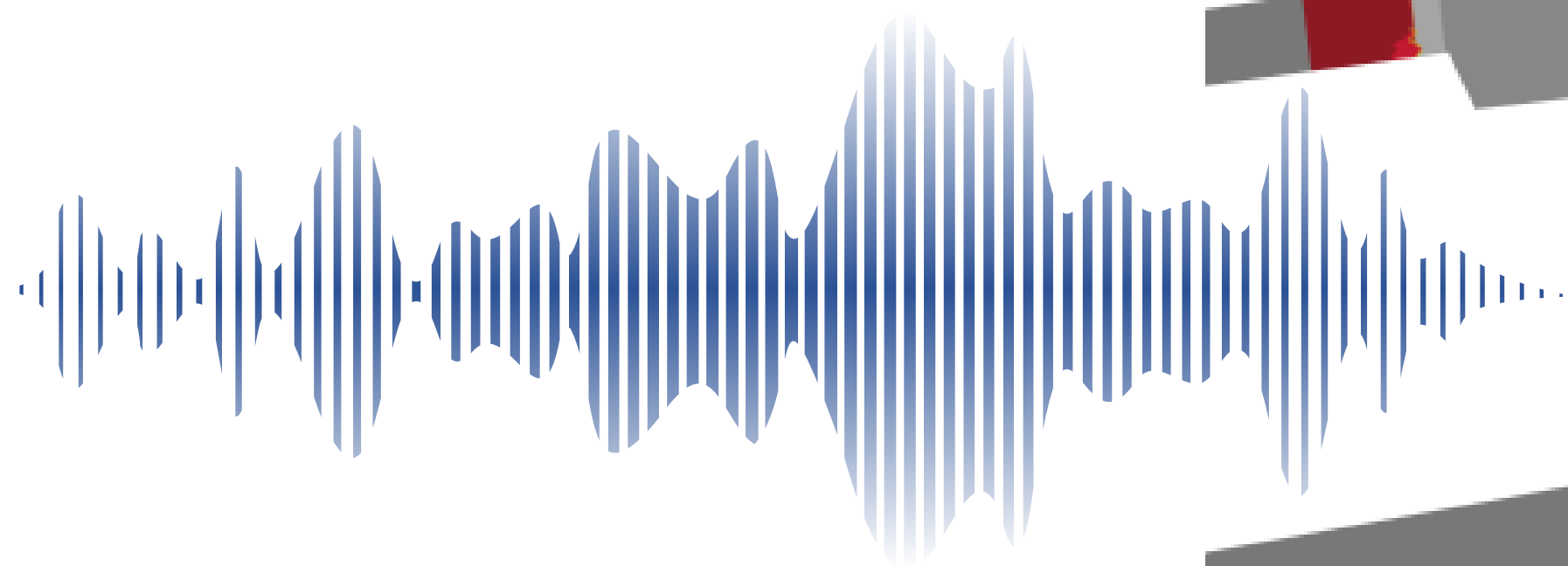
Sonosfera

Rua Victorino da Cás 600, Casa 94-A, Bairro Cerrito, Cep 97060-491, Santa Maria-RS, Brazil

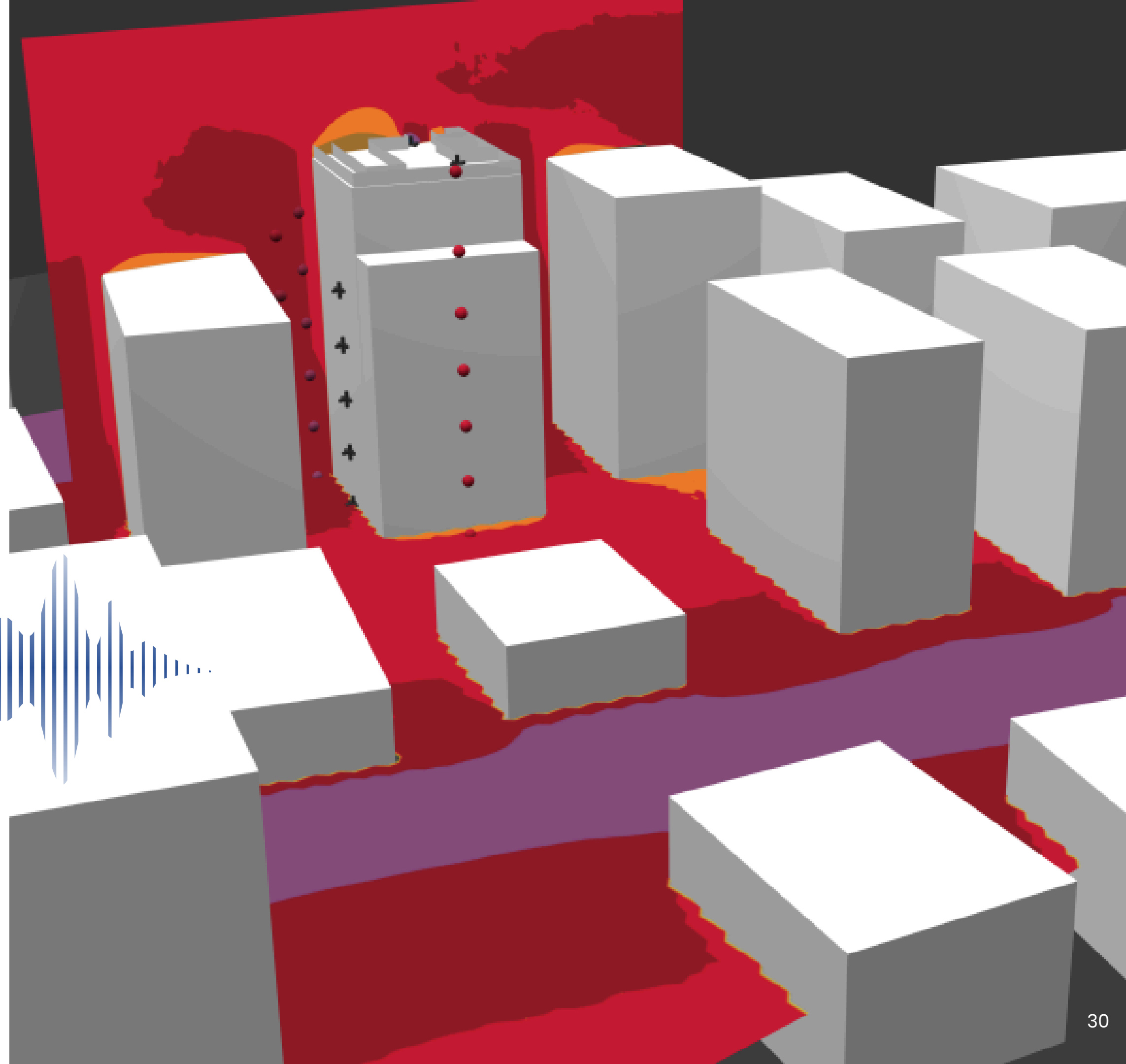


Beriah Yarkon

Sound Map



Tel Aviv - Israel

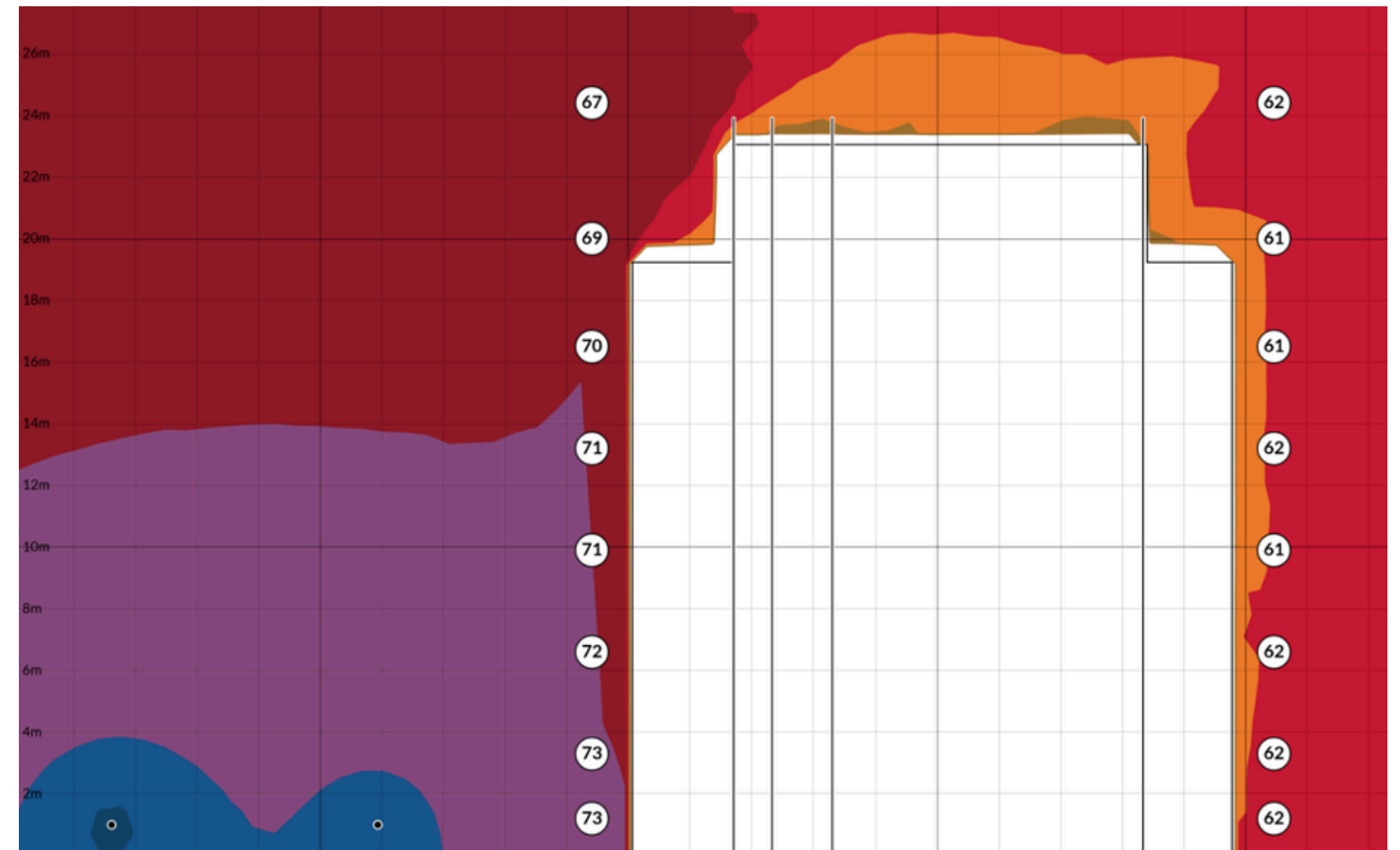
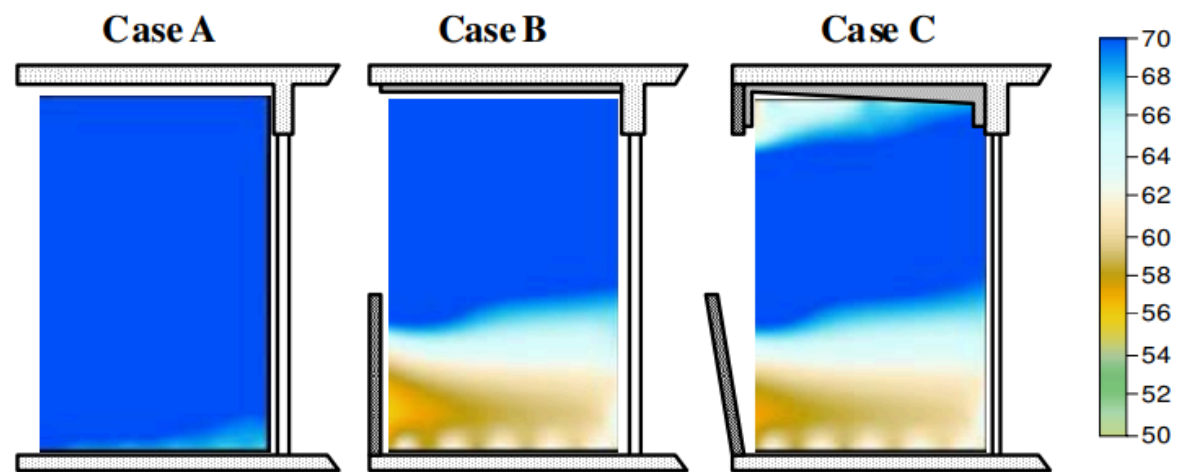
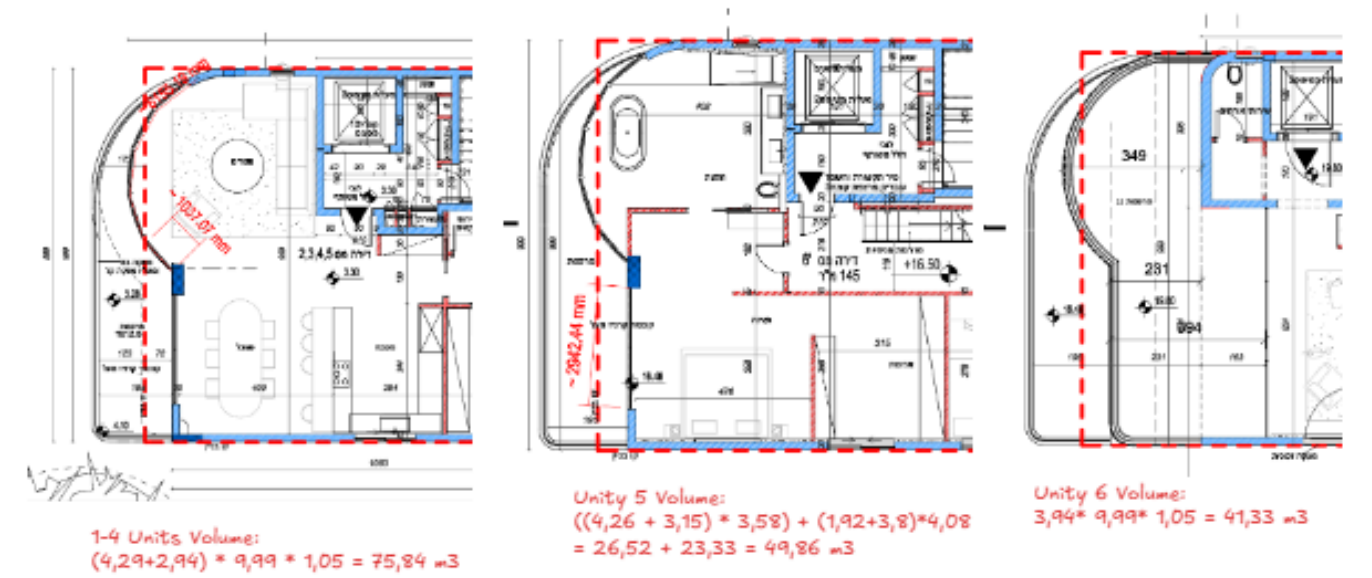
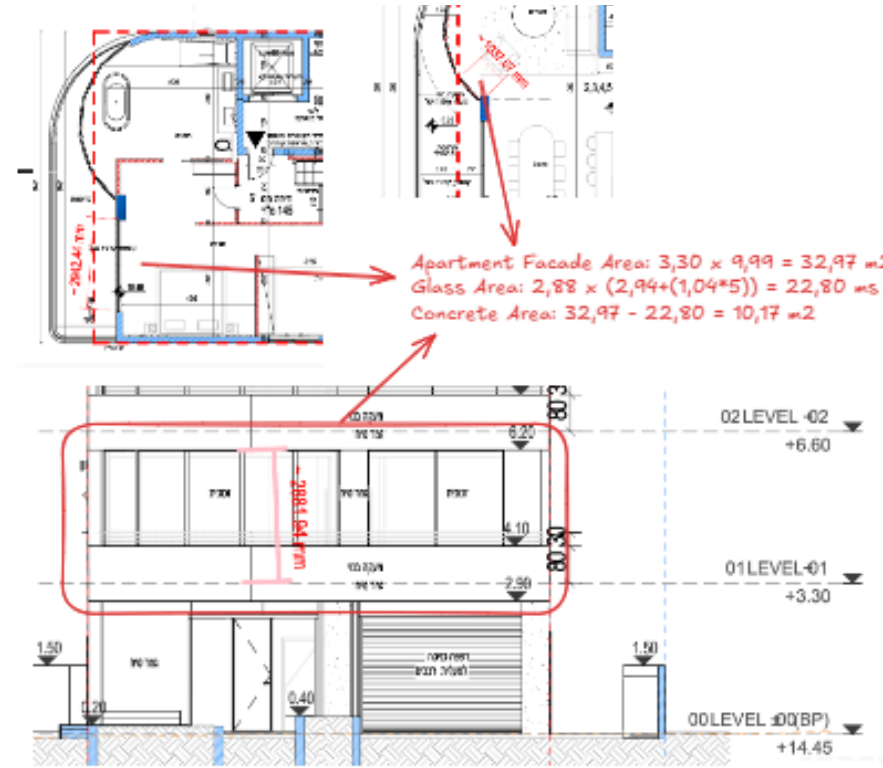


Beriah Yarkon

Sound Map

For the Beriah Yarkon residential project, we executed a detailed environmental noise assessment to **quantify the impact of external noise sources (traffic and building facilities)** on the proposed building. Our approach included **advanced noise mapping** to accurately visualize sound pressure levels across the building's facade at various heights and sections. This provided critical data for understanding the acoustic environment.

Crucially, we employed predictive modeling with integrating principles from **ISO 12354 standards**, to simulate outdoor-to-indoor sound transmission. This allowed us to precisely evaluate the acoustic performance of the facade, including specific **glazing configurations and concrete elements**, under realistic conditions. We analyzed the combined effect of traffic noise and noise from adjacent sources (such as embassy **condensers, smoke machines, and a rooftop swimming pool pump**), ensuring a holistic understanding of the acoustic challenges.



Connection Point Church

*Reverberation
Control*

Lafayette - USA

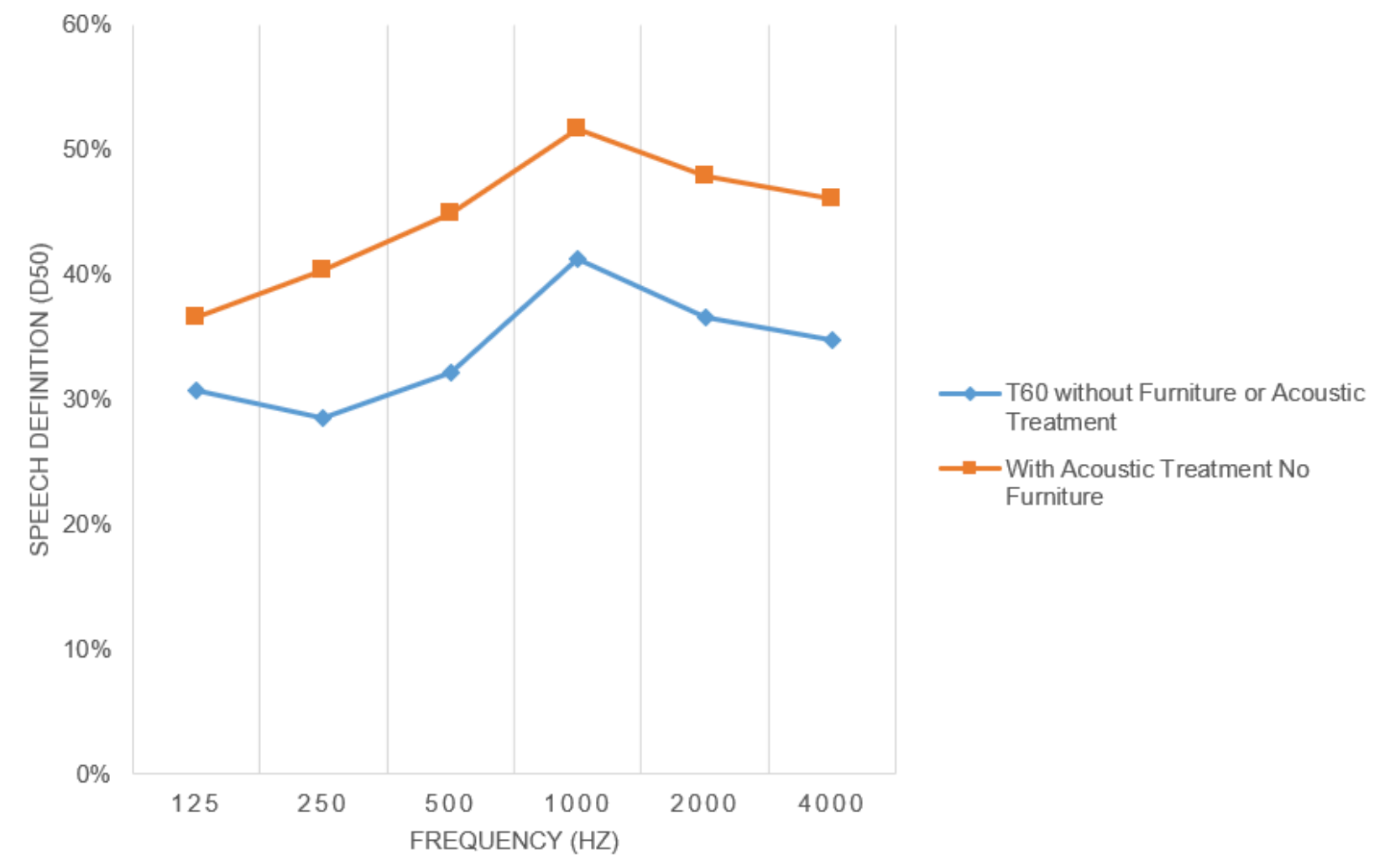
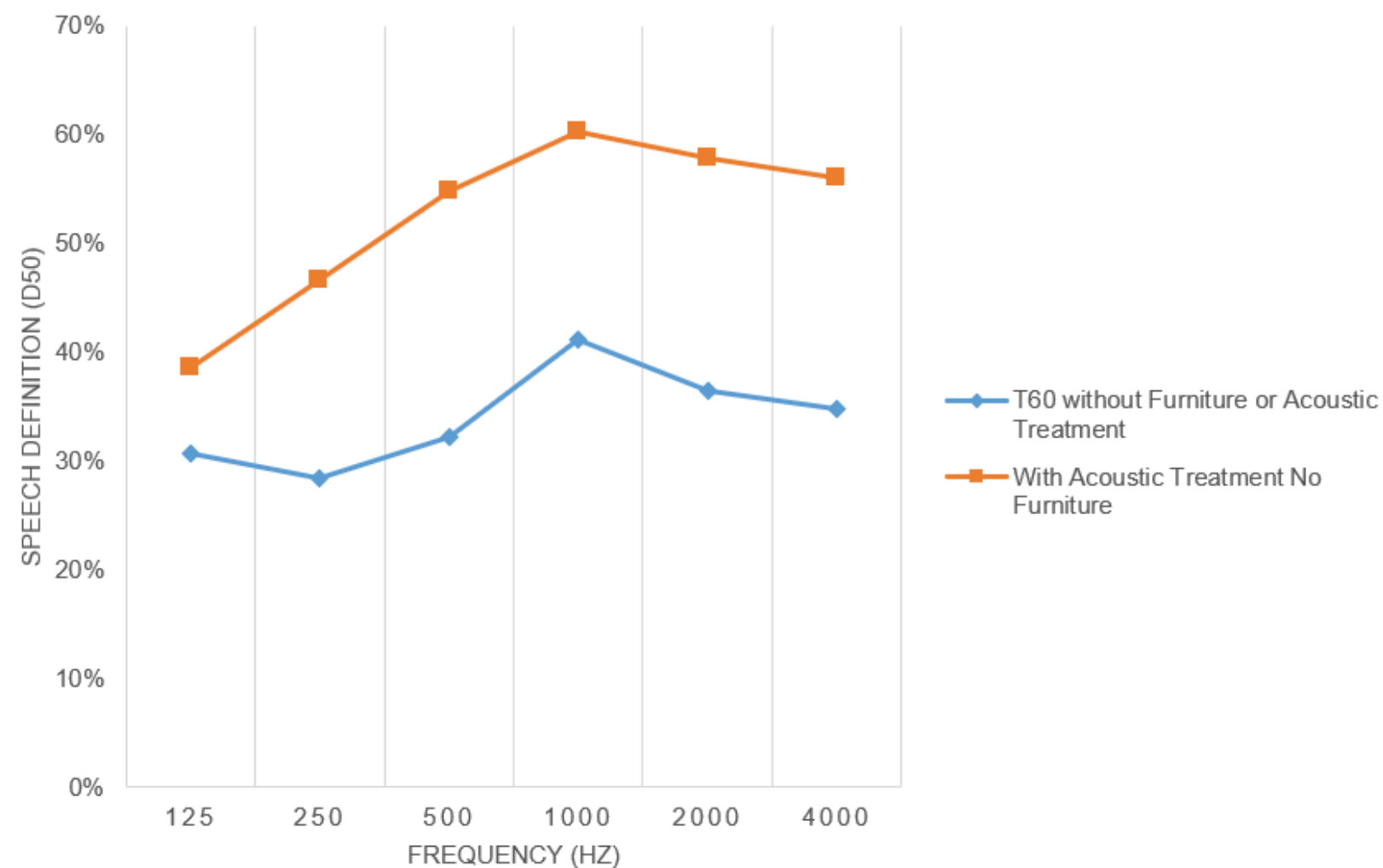


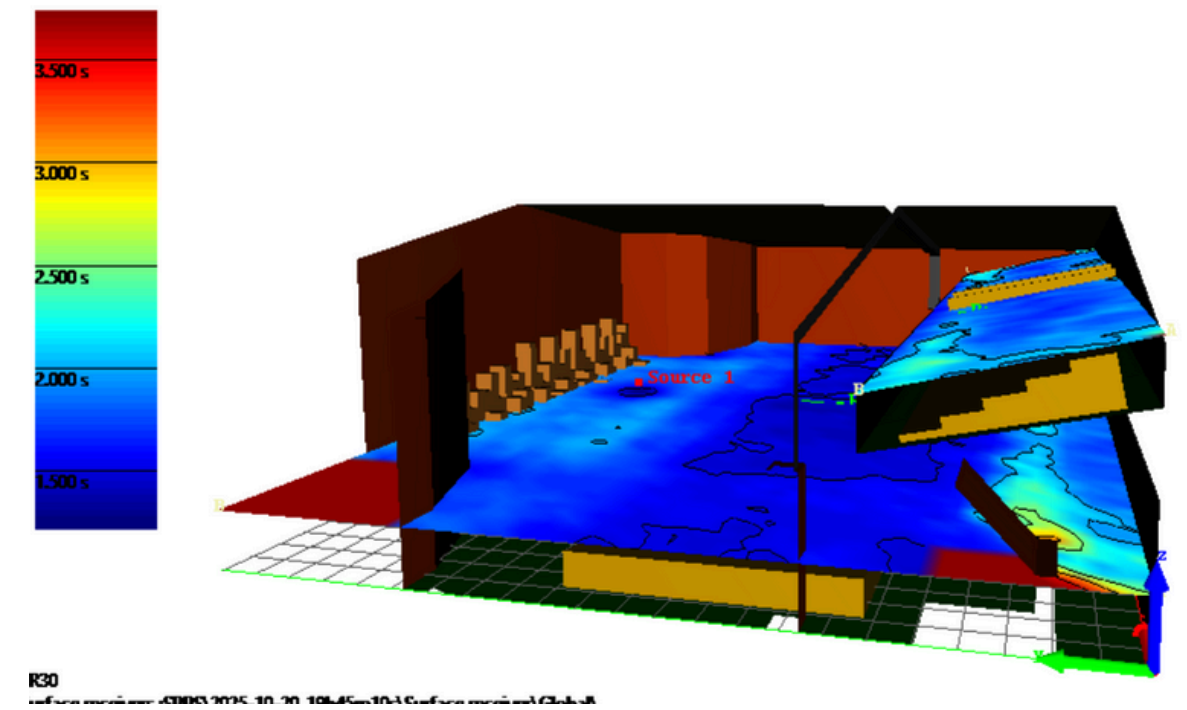
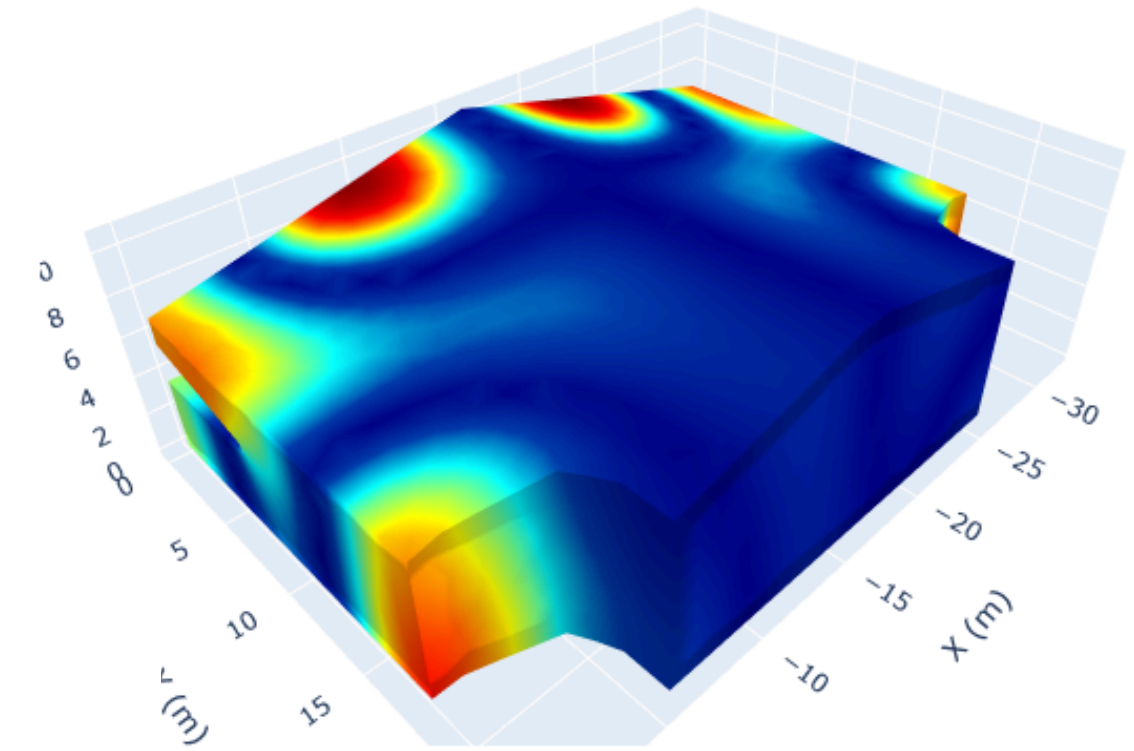
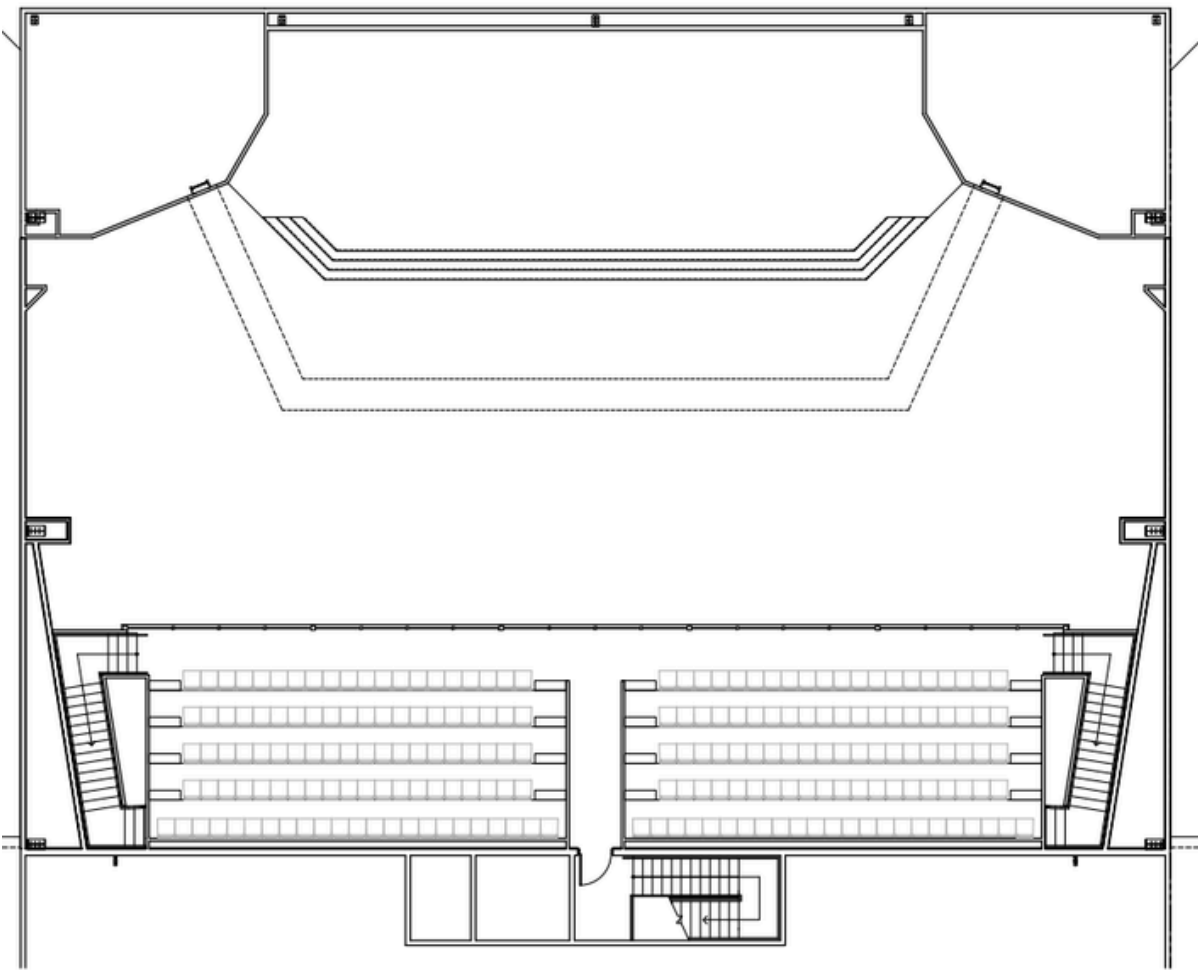
Connection Point Church

For the Connection Point Church, our mission was to dramatically improve the acoustic environment of their sanctuary, directly addressing excessive reverberation that impaired sermon intelligibility. We conducted comprehensive 3D acoustic **simulations**, complemented by **on-site measurements** for precise model calibration. This approach allowed us to identify critical areas of sound concentration and develop two targeted treatment options.

The results were transformative:

Reverberation time **reduction of 59%** (to 0.73 seconds),
further enhancing musical warmth and **boosted
Speech Definition by ~10%.**



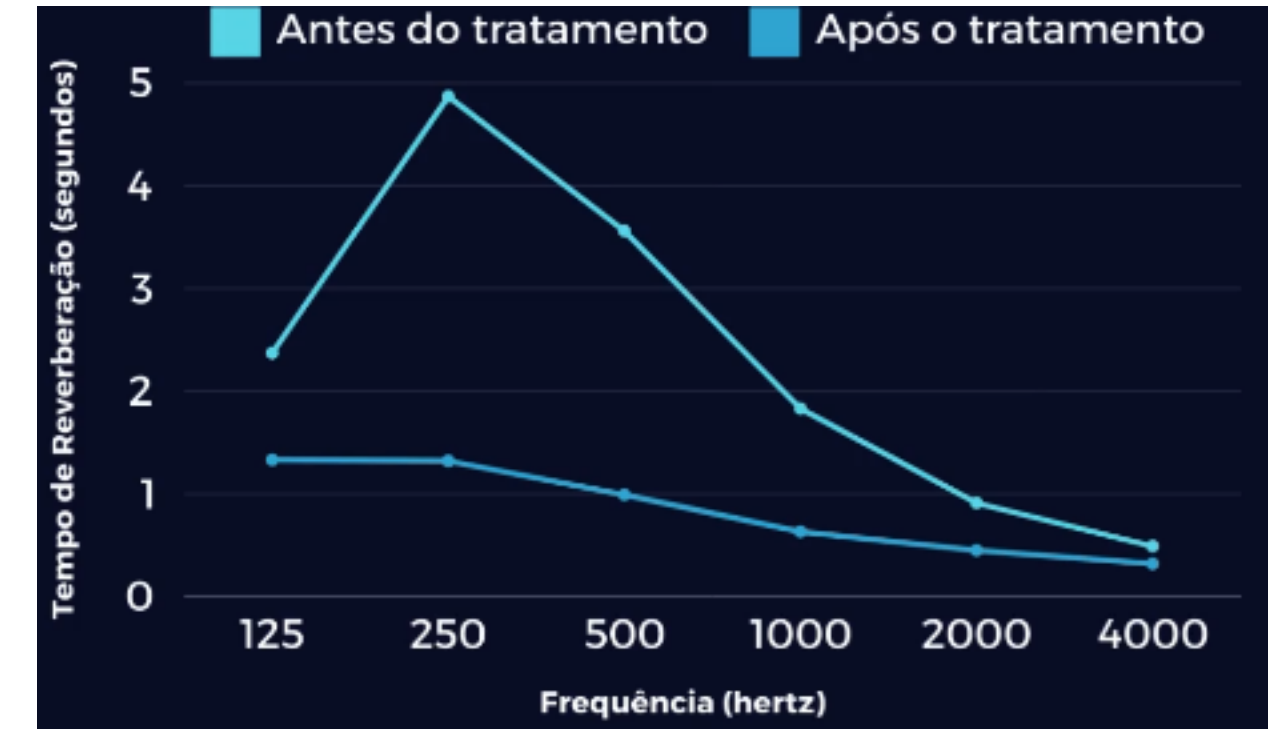


Pode Saúde

Podcast Studio



Cruz Alta - Brazil



We adapted an existing room to create a podcast recording studio, focusing on reverberation control, sound reflection treatment, and improving the sealings of window and door frames. As a result, we achieved a **reduction in internal noise levels** and **minimized vocal strain** for the participants. Check their YouTube channel [here](#).



Penumbra Bar

*Noise Map and
Sound Isolation*

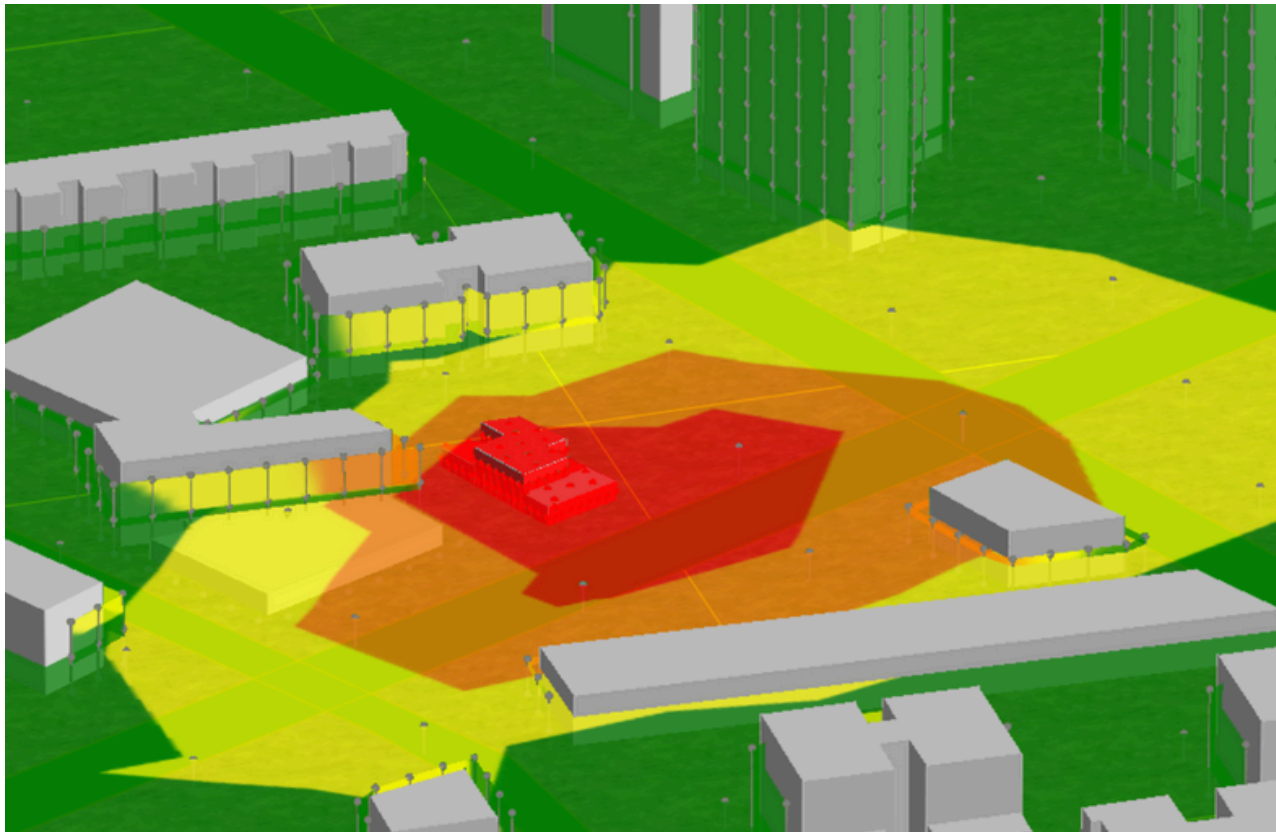
Florianópolis - Brazil



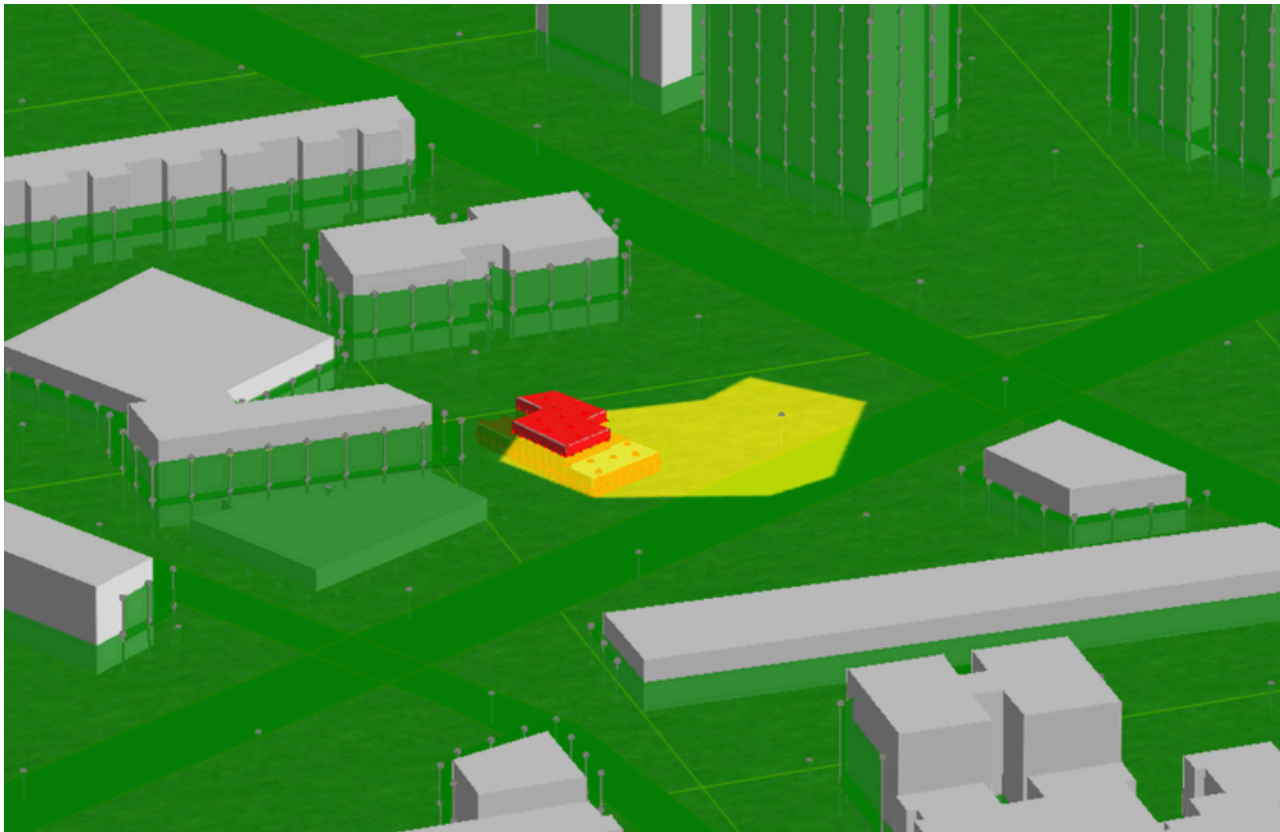
Environmental Noise Mapping and Treatment for Bar

We conducted a **noise mapping** to assess how the bar's sound affects the surrounding area, following the Brazilian NBR 10151:2019 standards, harmonized with international best practices for environmental noise assessment. Based on the results, we developed an **acoustic isolation solution for walls, ceilings, and windows.**

Before Acoustic Treatment



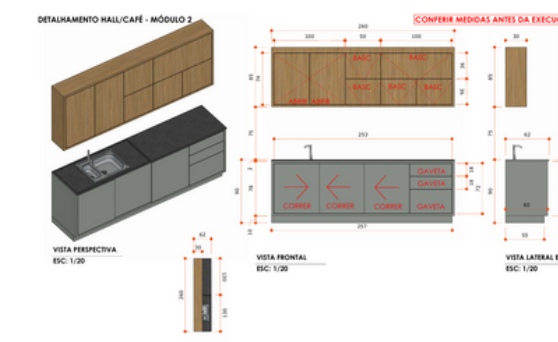
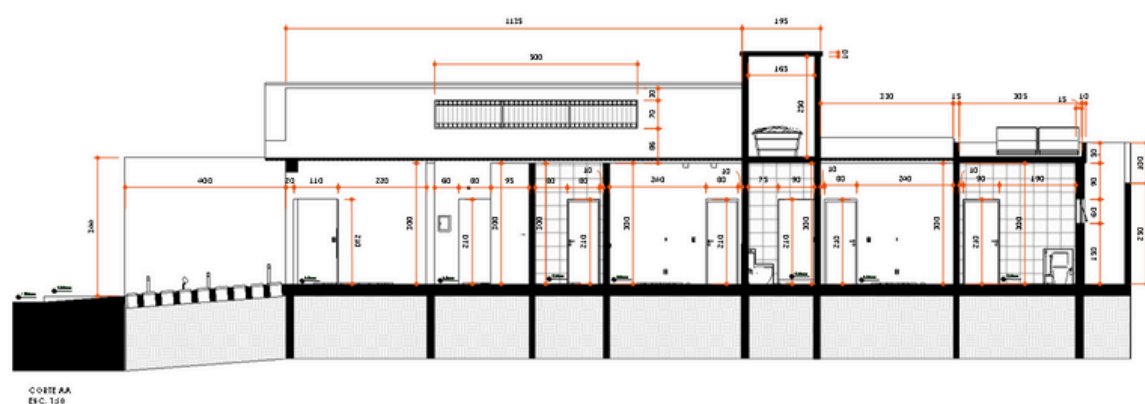
After Acoustic Treatment

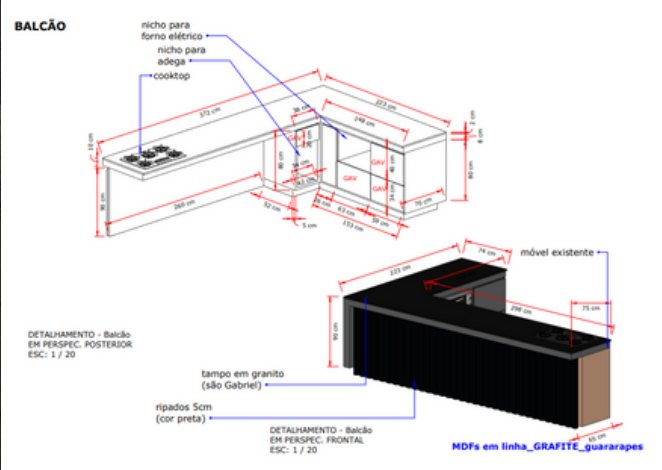


Descrição do equipamento		Fabricante	Número de série	IEC atendidas
Sonômetro Tipo 1, modelo SVAN 971		SVANTEK	C111629	IEC 61672-1, IEC 61672-2, IEC 61672-3, IEC 61260
Microfone capacitivo 7052E		ACO PACIFIC	81102	ANSI S1.11
Calibrador de Nível de Pressão Sonora tipo 1, modelo: CALPRO		INLITE	200501203	IEC-60942:2003

Architectural projects and general details, with realistic renders

Architectural detailing involves creating accurate technical drawings that specify each element of a building, ensuring that it is executed as planned and meets standards. Realistic 3D renderings are crucial for visualizing the planned space, allowing for adjustments and effective communication between stakeholders.









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A C Ú S T I C A E A R Q U I T E T U R A