

BOSE

PROFESSIONAL

CASE STUDY - EDUCATION

UNIVERSIDAD PANAMERICANA - CIUDAD UP CHAPEL



UNIVERSIDAD
PANAMERICANA



BUILDING ON A HERITAGE OF EXCELLENCE

The Universidad Panamericana (UP) — originally founded in 1967 as a business school then reclassified in 1978 as a university — is one of Mexico's most prestigious private educational institutions. Located in Mexico City, the UP is a Catholic university that shares the vision and principles of the Opus Dei, an institution of the Catholic Church that seeks Christian perfection and strives to implement Christian ideals and values in their occupations and society.

In 2021, the university added the Ciudad UP, a new campus complete with a multipurpose chapel in the Bosque Real area of Mexico City. The interior architecture of Ciudad UP's chapel is of understated elegance, combining stylized lines and religious symbols with a simple, modern design. An excellent example of balance between form and function, the chapel used wood throughout and incorporated two sliding glass doors as the back wall to create an open environment and enable the chapel to accommodate larger groups on special occasions. The indoor capacity accommodates up to 100 people and can easily expand to the exterior terrace, providing an additional 656 square feet.

In charge of designing these new collaborative spaces and incorporating sustainability into the campus's functionality was the prestigious, Boston-based architectural firm, Sasaki. An important piece of the design included a custom, discreet audio solution for the chapel, and Foto Commo,

a company located in Mexico specializing in audiovisual solutions integration, ensured Sasaki and Ciudad UP's vision was realized.

CREATING A SOUND SOLUTION FOR AN ASPIRATIONAL EXPERIENCE

Ensuring audio clarity and intelligibility of the spoken word and music was of utmost importance, whether the chapel was at full capacity utilizing the exterior terrace and indoor sanctuary or only using one space or the other.

"The main challenge was to ensure that the voices of the priests would be heard with great clarity, both when the chapel was closed and when the terrace doors were open," stated Manuel Galán, project manager for Foto Commo.

The audio solution for the chapel also needed to address two additional needs that Sasaki required. First, all technology installations needed to integrate into the chapel's aesthetic and be as discreet as possible. Second, the solution must address the acoustic challenge and nearby vehicle noise — a distraction during services — when the terrace was in use.

The opportunity allowed for Foto Commo to tap into the team's expertise in creating and installing a flexible, personalized sound solution.



CREATING A SUPERIOR SOUND EXPERIENCE

The Foto Commo team captured the different needs and requirements of the architects, construction company, university’s technical managers, and priests with ease. This inclusive approach set the tone for success as the project developed, utilizing the technical information from the engineers and designers as it was artfully integrated.

Since the chapel consists of indoor and outdoor spaces, creating two separate zones was a natural step in the design. For the interior, a Panaray MA12 loudspeaker was installed on the front columns on each side of the altar. This provided the horizontal coverage and vocal intelligibility the chapel required and also met the architects’ requirement of mounting embedded loudspeakers within custom niches so that they were flush with the surface of the columns.

The outdoor terrace represented the most significant challenge since the area is exposed to a variety of noises. Using two ArenaMatch Utility AMU206 loudspeakers mounted on the façade — at approximately nine feet apart with an inclination of 10 degrees — provided the focused coverage needed for both spoken word and music while camouflaging the road noise. Like the loudspeakers inside the chapel, the AMU206 loudspeakers were also embedded in a niche, blending seamlessly into the beautiful design aesthetics.

“Although there were initial doubts around mounting loudspeakers within a niche, the acoustic performance of the MA12 clearly showed us that this would not be an issue,” added Francisco Gaytán Téllez Girón, director of project design for Foto Commo. “The Bose Professional

loudspeakers performed without any issues, highlighting their capabilities even under unique mounting conditions.”

To provide the best user experience for the priests, who would be managing and using the system, Foto Commo implemented a simple loudspeaker system automation solution. When the terrace doors are open, the AMU206 loudspeakers are activated, and when they remain closed, only the MA12 loudspeakers are used.

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— Francisco Gaytán Téllez Girón
Director of Project Design for Foto Commo

In addition, the priests can control the system and create presets as needed through the ControlSpace Remote software installed on a mobile device. To control the sound in the chapel, a Control Space EX-440C digital signal processor is used to manage echo, delay, or audio filters, which is powered by a PowerSpace P2600A amplifier.

To capture the priests’ sermons and guests’ lectures, Foto Commo integrated Shure microphones into the Bose Professional solution. This included a wireless lavalier to allow mobility, a gooseneck model installed in the pulpit, and another fixed microphone in the sacristy. Additionally, if a musician ever performs in the space, a microphone input was installed for capturing guitar or other musical instruments.



BOSE PROFESSIONAL SOUND TURNS A VISION INTO REALITY

The resulting audio solution not only met the design criteria from Sasaki but now provides the Ciudad UP chapel clear, intelligible audio for any service or event. The experience inside the chapel and outside on the terrace is now enjoyable and without disruption, successfully masking the surrounding road traffic.

The Foto Commo team reiterated that everyone involved in the project — from the design team to the chapel priests — were extremely satisfied with the audio experience and system's performance.

“By collaborating on the project from the beginning, we had the opportunity to propose the appropriate loudspeaker and microphone solutions for this space,” shared Laura García, audio design manager for Foto Commo. “We achieved excellent voice and music capture, which is essential to delivering the expected sound quality, clarity, and intelligibility.”

Because of the clear audio provided by the Bose Professional system, the Ciudad UP priests, patrons, and community members now look forward to many years of worship and gathering. ■

SYSTEM COMPONENTS

ArenaMatch Utility AMU206 loudspeaker

ControlSpace EX-440C conferencing signal processor

ControlSpace Remote app

Panaray MA12 modular columnar array loudspeaker

PowerSpace P2600A amplifier



PARTNER: **FOTO COMMO**

With more than 30 years of experience in audio and video integration, Foto Commo specializes in creating and installing flexible and personalized solutions to improve the audiovisual experience of spaces in residential, corporate, educational, and commercial projects.



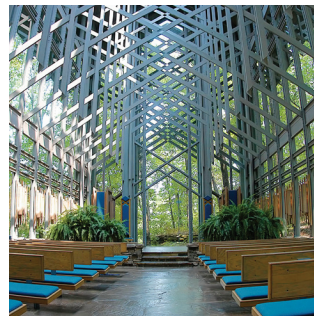
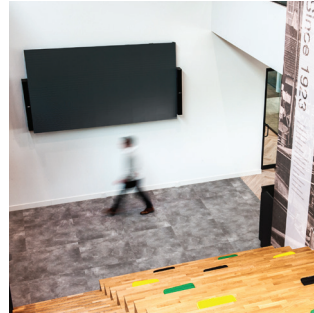
PANARAY **MA12**

The Panaray MA12 modular line array loudspeaker is designed for acoustically demanding indoor spaces where speech intelligibility is critical and speech reproduction is the main requirement. To deliver full-range music performance, bass augmentation is required. Twelve 2.25" (57mm) mid/high-frequency drivers mounted in a vertical line array deliver 145° of horizontal dispersion and narrow vertical pattern control. The MA12 loudspeaker delivers 300 watts of power handling and can be mounted in single or multiple loudspeaker configurations. This loudspeaker is well-suited for indoor applications such as houses of worship, auditoriums, transportation hubs, atriums, malls, gymnasiums and multipurpose spaces.



ARENAMATCH UTILITY **AMU206**

Built for zone-fill coverage or high-SPL foreground music, ArenaMatch Utility AMU206 is a small-format ArenaMatch Utility model for outdoor applications that require excellent audio from compact loudspeaker. It provides wide, even coverage with a 120° x 60° constant-directivity high-frequency horn, 80 Hz – 16 kHz frequency response, 122 dB peak SPL, and supports the lowest vocal ranges with two LF6 6.5-inch woofers.



Bose Professional serves many different markets, delivering great sound in venues all around the world — performing arts centers, theaters, places of worship, stadiums, restaurants, schools, retail stores, hotels, and corporate buildings.

We know that our pro audio customers depend on us in a unique way. This is your business, your reputation, your livelihood — not just an amp, not just a loudspeaker. So, when you buy a Bose Professional product, you get the full weight of the global Bose Professional team behind you — our time, support, and attention. We see every purchase as the beginning of a partnership.



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