



CASE STUDY

# Freed Theater

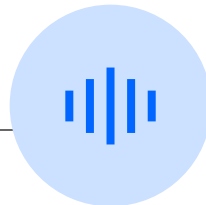


## ADDITIONAL FORMATS

[Online](#)

## JUMP TO

- [Overview](#)
- [Challenges](#)
- [Solutions](#)



Even, intelligible sound for every seat using Q-SYS PL Series loudspeakers

EVEN, INTELLIGIBLE SOUND FOR EVERY SEAT

# Freed Theater



## No Bad Seats: How Q-SYS PL Series Transformed Audio in a Historic Theater

### CUSTOMER NAME

Freed Theater

### LOCATION

Orange, CA

### INDUSTRY

Performance Venue

### INTEGRATOR

JTAUDIOGUY DESIGNS

The Freed Theater at the [Christ Cathedral Campus](#) in Orange, CA, is designed to support a wide range of live performances, including lectures, school productions, choir festivals, and musical performances. For years, the space struggled with inconsistent, unintelligible sound depending on where you sat.

“On the surface, people would walk in and think, ‘Oh, this is a nice theater,’” said Juan Ramos, Director of Christ Cathedral Campus Facilities. “But the moment you tried to hear a speaker or a performance, you realized how antiquated the system really was.”

A campus-wide effort to modernize the venue focused on one primary goal: make every seat sound the same, without over-amplifying the room or compromising its character. The solution centered on the [Q-SYS Platform](#) and [Q-SYS PL Series loudspeakers](#) (available in both black and white) to deliver clarity, control, and ease of use.

# Challenges



## WHEN DESIGN ELEMENTS BLOCK THE SOUND

Before the upgrade, audio performance in the Freed Theater was uneven and unreliable. Coverage varied dramatically depending on where audience members sat, with usable sound limited to a narrow center area of the room.

“The sound was atrocious from every aspect of the theater,” Ramos said. “If you sat in the front, you couldn’t hear well. If you sat on the left or right sides, you couldn’t hear either. You basically had to sit dead center to get something usable.”

Contrary to early assumptions, the core issue was not excessive reverberation or poor room acoustics. An independent acoustical assessment confirmed that reverberation times already fell within an acceptable range for speech-focused venues. In fact, the room slightly favored intelligibility over musical bloom—appropriate for its primary use.

The real limitation was coverage control. Legacy loudspeakers, originally designed for a different building on campus, were repurposed for the theater and could not evenly distribute sound across the seating area. Turning the system up only made reflections and intelligibility problems worse.

**“What stands out most is how seamlessly everything works together. The Q-SYS PL Series loudspeakers bring proven performance, and Q-SYS gives us the control and flexibility to fully optimize the system for the room.”**

**John Trenholm**  
Owner, JTAUDIOGUY DESIGNS

# Solutions

Instead of altering the room or adding unnecessary absorption, the design team prioritized precision over volume. The goal was clear, intelligible speech, even coverage throughout the house, musical support without drying out the space, and simple operation for a wide range of users. Meeting those needs demanded a platform that could deliver consistency, control, and flexibility as a single system, ultimately leading to a Q-SYS solution.

“Clarity and intelligibility were the main mission,” Ramos said. “There are absolutely no bad seats now. That’s the triumph of this upgrade.”



[Q-SYS CX-Q Series](#)

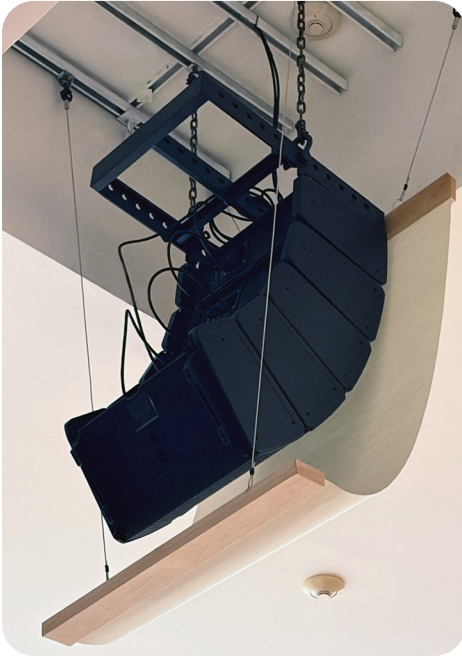
## CONSISTENT LISTENING TO EVERY SEAT

The updated system standardized on Q-SYS, pairing controlled-directivity loudspeakers with centralized processing, monitoring, and user control. Q-SYS PL Series loudspeakers were selected to precisely manage dispersion and ensure direct sound reached every seating area. Their pattern control allowed coverage gaps to be corrected without raising overall system volume: **a critical factor in maintaining intelligibility.**

At the core of the system is a [Q-SYS Core 24f](#), handling audio processing and routing while integrating seamlessly with control and monitoring. [Q-SYS CX-Q](#) Series network amplifiers provide consistent power delivery and system visibility.

The system offers high output capability while maintaining tight pattern control. The QSC LEAF™ Waveguide design ensures sound is distributed evenly while avoiding phase inconsistencies and unwanted reflections. The result is a system that produces powerful, impactful audio while maintaining exceptional control. “What stands out most is how seamlessly everything works together,” said John Trenholm, Owner of JTAUDIOGUY DESIGNS. “The Q-SYS PL Series loudspeakers bring proven performance, and Q-SYS gives us the control and flexibility to fully optimize the system for the room.”

# Solutions



## CONTROLLED COVER WITH Q-SYS PL SERIES

To support a wide range of users, from experienced technical staff to renters with little or no AV background, the system was designed to be both approachable and resilient. The goal was to make everyday operation intuitive while ensuring the system could withstand inconsistent use without compromising performance.

Ramos asked Trenholm to design a system that a wide range of users could operate successfully. “Sometimes the space is rented to people with no experience at all,” Ramos explained, “so the system has to protect itself while still letting them do the basics.” Trenholm selected a 48-channel mixer that incorporates a friendly user interface via an iPad, with Q-SYS integration to meet the facility’s functionality and integration requirements while keeping the user interface tightly controlled. The result is a system that allows operators to complete essential tasks without the risk of inadvertently altering critical settings.

## CLEAR SPEECH AND MUSICAL RANGE

Since the upgrade, reactions from performers and audiences have been immediate and consistent. “The first thing people say is, ‘Wow, I can actually hear and it sounds great,’” Ramos said. “It’s a huge leap forward.”

Speech is clear and evenly distributed throughout the seating area. Musical performances retain warmth and impact without overwhelming the room. Most importantly, the experience is consistent—no matter where you sit. “I recently went to a show at a major stadium in Los Angeles and was proud knowing we’re running the same Q-SYS platform on our campus,” Ramos added. “That confidence goes a long way.”

With the Q-SYS Platform and PL Series loudspeakers in place, the Freed Theater now supports a broad range of productions with confidence, ensuring every audience member hears the performance as intended.



Q-SYS is a globally recognized manufacturer of audio, video and control (AV&C) solutions for huddle rooms to stadiums—and everything in between. Our systems make it easy for your team to design and integrate flexible, scalable solutions and deliver the native IT integration and standards-based technology your customers expect.

©2025 QSC, LLC all rights reserved. QSC, Q-SYS™ and the QSC logo are registered trademarks in the U.S. Patent and Trademark Office and other countries.

**QSC, LLC**  
1675 MacArthur Blvd.  
Costa Mesa, CA 92626 USA

**Phone** 1.714.957.7100  
**Fax** 1.714.754.6174  
**Toll Free** 1.800.854.4079  
**Outside the U.S.** 1.714.754.6175



**Learn More.** Chat with a Q-SYS representative in your region to learn how Q-SYS can help.

**CONTACT US**