

# Saint Sabina Church

Designed and Installed by Advanced Sound & Communication



In 2003, the Saint Sabina parish dedicated an architecturally unique worship space enabling greater accessibility and versatility to serve their diverse and growing congregation. Following numerous PA upgrades, leading Kansas City AV integrator Advanced Sound & Communication (ASC) was selected to design and install a system to make Saint Sabina Church sound as remarkable as it looks.

## Challenges

Consistent coverage and high fidelity were required from compact, full-range speakers with minimal visual impact on church architecture and iconography. Precise pattern control and extended low-frequency control were also essential to keep sound off hard, reverberant surfaces lacking acoustic treatment.

## Solution

“Previous Saint Sabina Church sound systems using line array and column speakers failed to provide clear, uniform coverage throughout the sanctuary,” explains ASC systems consultant Brent Handy. “Rather than using a long 55-foot throw to the back of the church, our approach was to get high-fidelity, point-source speakers as close to the congregation as possible to provide the same tone and sonic character to everyone.”

Handy based his design on Fulcrum Acoustic’s compact CX Series coaxial loudspeakers. To cover the center liturgical area, he deployed four downward-firing Fulcrum CX896 8-inch coaxial speakers with 90° x 60° dispersion along the side wooden trusses. Each CX8 is backed by a CCX1265 12-inch cardioid coaxial loudspeaker on the opposite side of the truss directed at the horseshoe-shaped seating area. Two standalone CCX1265s with 60° x 45° horns provide even coverage for seating closest to the church entrance.

“Fulcrum had just launched their cardioid CCX product family, applying their patented Passive Cardioid Technology™ to their best-selling line of compact coaxial installation loudspeakers,” states Handy. “The timing couldn’t have worked out better for us as this truss-speaker design approach demanded cardioid patterns to minimize low-frequency blowback and work within the architecture rather than fight against it.”

“When Father Jeff Stephan uttered his first hello with the new system, parishioners had never heard such volume and clarity in their church sound,” remarks Handy. “Church members love the musicality of the new Fulcrum system and as far as Father Jeff’s homilies, well, he had them at hello.”

## Project Details

### Location

Belton, Missouri

### Product Category

House of Worship

### Project Type

550-seat sanctuary

### Fulcrum Products

(6) CCX1265 12 inch Subcardioid Coaxial Loudspeakers, 60° x 45°

(4) CX896 8 inch Coaxial Loudspeakers, 90° x 60°

### Supporting Products

Q-SYS DSP

Allen & Heath SQ-5 Digital Mixer

