



Postal Sorting Facility Converted Into A Satellite Sanctuary With Assist From Danley Loudspeakers

Cornerstone Church Opens Satellite Sanctuary In Bowling Green, Kentucky

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What started as a meeting of fifty-five people in the Wharton living room in 1983 grew to become Cornerstone Church, one of the landmark megachurches of the South. Located in Nashville, Tennessee, Cornerstone recently outgrew its 3,200seat sanctuary, prompting the church to consider building a satellite facility.



Because a large contingent of congregants were making a two-hour round -trip drive from Bowling Green, Kentucky, it made sense to situate a satellite sanctuary there. The church purchased an old U.S. Postal Service sorting facility and converted it to a sanctuary where live elements, including a band, would meld with a videotaped sermon from the pastor in Nashville.

Nashville's Pro Audio Solutions prescribed and installed a sound system centered on Danley loudsepakers and subwoofers, which deliver superlative fidelity and pattern control, for the new space.

Scott Oliver, sound designer and installer with Pro Audio Solutions, assessed the prospects of building a first-class sound system in a space that consisted primarily of prefabricated metal walls.

"Everything was working against us," he said. "Metal pre-fab is the last thing you want, acoustically. Perhaps worse, we only had ten feet above the floor to work with for a room that is a hundred feet by sixty feet." The stage was installed in the middle of one of the long walls, forcing Oliver to come up with a reinforcement solution with greater horizontal distribution than depth. At the same time, he had to prevent the system from unduly exciting the drywall-encrusted metal that formed the walls.

Oliver turned to Danley loudspeakers to offer the right pattern control. He distributed four SH-95 full-range boxes along the front wall, two above the sides of the stage and two more beyond those in either direction. The SH-95 delivers a 95- by 55-degree beam width and boasts the same tight, low -frequency pattern control of Danley's other patent-pending Synergy Horn (SH) boxes.

"The SH-95 was perfect for this application," he said. "It cuts up close to the ceiling without actually exciting the ceiling, and, using Danley's comprehensive and easy-to-manipulate mounting hardware, we were able to just hit the back row, avoiding the back wall and making acoustical treatment unnecessary."

Although Cornerstone can switch to mono if need be, Oliver gave the system a unique stereo configuration. The four SH-95s divide the room into three stereo fields. The center field is true to the left-right imaging of the stage, whereas the outside fields are flipped relative to the stage.

"I like to avoid mono like, ...well, like mono," he laughed. "For this application, it's not like the stereo image actually tracks instruments or, like in a movie, a car driving from left to right."

"Rather, the stereo adds excitement and dimension to the sound – think of a fat stereo organ pad or stereo chorus on a guitar rig. With the Bowling Green configuration, no one misses out on stereo information, no matter where they sit!"

The origin of the room's construction and its proximity to a nearby apartment complex placed considerable constraints on Oliver's low-end solution. The building's metal frame has a tendency to rattle and its ceiling tile frame is very sympathetic to the low end of the frequency spectrum.

"Fortunately, the church wasn't banking on a sledgehammer low frequency response," he said. "They really just wanted something that would round out the low end in a musical way."

Oliver placed a Danley TH-MINI subwoofer on either side of the stage, delivering just the right amount of low end without getting out of control.

An Allen & Heath iLive digital console not only provides a recall-able front end for the Cornerstone satellite, but also all of the modest back-end DSP requirements of the Danley loudspeakers and subs. Crest CPX-series amplifiers provide the muscle for the system, and QSC K-series powered monitors deliver a mix to the stage. The all-important video system centers on Kramer video control with Sanyo projectors and Da-Lite screens. http://www.danleysoundlabs.com" title="Danley Sound Labs" target="blank">Danley Sound Labs
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