

A Window Onto Worship

Pinnacle Hills Installation
Brings Church
Out of the Box

By Erin M. Blakemore

“Normally I don’t
like putting
trussing that
has to be climbed
into a church
environment,
but this was a
request backed
by the church.”

—Dave Loftin

Think show-stopping effects and state-of-the-art design elements are reserved for big-time Broadway shows or Hollywood sets? The Church at Pinnacle Hills in Rogers, Ark. begs to differ. After two years, an exhaustive team effort and at least \$2 million devoted to the staging installation in its new 3,000-seat worship facility, church leaders and community members alike are enjoying a high-tech, TV-ready church that boasts an integrated and responsive theatrical system as it helps to redefine production values in worship.

The new worship center at Pinnacle Hills isn’t just a congregant’s dream — it’s unbelievable theatrical eye candy with impressive specs. Brawner & Associates (www.brawnerassociates.com), a live event production and technical consultancy firm based in Springfield, MO., thought big — but big obstacles also came into play when planning and producing such a mammoth installation.

Window on Innovation

When president and principal consultant of Brawner & Associates Donnie Brawner took on the contract in 2004, he knew it wouldn’t be easy. Not only was the project conceived on a large scale, but it also had to meet flexible technical specifications for HD live broadcast, weekly service, touring production and special event capabilities. The contract included lighting design for three systems for the main sanctuary, children’s ministry and a Gatheria lobby area where the pastor will be doing televised weekly summits. The space itself presented real lighting difficulties, given its range of projected uses. Featuring a spectacular 600 square-foot rear upstage glass win-

dow, the space was designed around natural backlighting that would highlight the pastor and provide a view to an outdoor water and sculpture landscape.

“It was an obstacle,” admits Brawner, noting that the outdoor view provided an undeniable sense of inspiration to the space. “The natural light challenged us in terms of color temperature and the ever-shifting changes in the room’s light level.” After exploring the possibility of HMI sources that would fight against the room’s color temperature concerns, Brawner’s team abandoned the idea in favor of other solutions that could allow a color-corrected theatrical system. In conjunction with the architect, Brawner & Associates opted for “smart glass” technology and sought out a glass product that would meet its multiple goals of maintaining transparency and view while reducing light by several F stops.

SPD or Sage glass may be what the doctor ordered — for the present, at least, the window has been given a heavy tint for worst-case scenario light transmission. In the future, the ideal glass product will be determined and the tinted glass replaced. But the decision for SPD elements meant that an extensive virtual lighting study had to be undertaken. This study pitted the designed lighting system against a barrage of sunlight projections throughout the course of a day or a year. A 3D model was built with realistic textures and surfaces. “Our renderings showed accurate sun projections at over 36 times throughout the year,” says Brawner, whose team then designed a system that uses color scrollers to correct to day light during the day and retains a 3200k color temperature at night. “The virtual lighting and sun study provided really gave us the confidence and knowledge we need to proceed in this space,” says worship pastor Josh Stanbery.

Sizzling Lighting Effects with an Eye on Safety

Natural light wasn’t the only challenge Brawner & Associates faced while designing the custom church space — the installation’s flexible service and video applications meant that a responsive and flexible lighting design was needed. The end result is over 500 lighting fixtures in a fully integrated ETC network that features 42 intelligent lighting units and more than 600 dimmers. In addition to the array of lights from lines such as Robert Juliat (Korrigan followspots), Martin (MAC 2000 wash units and Profile with custom gobo package),

and Apollo (Smart Color scrollers), LED units from Color Kinetics play a vital role in Pinnacle Hills’ lighting design. Point-of-light LED units were designed to mount inside the intersection points of the window mullions that face the congregation, bringing color into the naturally-lit room and providing an instant background when the window is shaded or natural lighting is sub-optimal.

“We designed our LED installations to change the tone of the picture without altering the spectacular view,” says Brawner, who worked with lighting systems design manager Ron Robertson, rigging design and project supervisor Dave Loftin and Associated Theatrical Contractors on the lighting design and implementation. “There was definitely nothing standard about this installation,” adds Loftin. “We really enjoyed the challenge.”

Loftin faced a more specific challenge when the space’s architect asked for illumination on catwalks in order to take the site’s lighting as high as possible. This required the custom design of eight self-climbing trusses. “Normally I don’t like putting trussing that has to be climbed into a church environment, but this was a request backed by the church, so we worked to design a system that could be as safe as possible,” says Loftin, who chose James Thomas custom 20-inch by 20-inch truss with custom motors and line shaft winches by Rigging Innovators. “By using the internal line-set winch system that incorporated two wire ropes at each pick up point, we were able to maintain stability. Truss control was specified to be on a pendant, allowing direct line of site from operator to every truss and allows only one truss to be moved at a time for added safety.” Loftin adds that standard horizontal fall arrest systems were specified for each truss, ensuring that safety would accompany the space’s amazing visual effects.

Efficient power distribution was also a priority for the lighting designers, who designed 208V intelligent lighting power and 110V Edison convenience power into the raceways and circuit boxes along with the dimmer circuits to provide maximum flexibility for light placement. No matter the element — and scrollers, moving lights and LED are well-represented in the Pinnacle Hills installation — light placement is effective and efficient. And the designers went the extra mile to plan for touring shows and special events when they included road show power disconnects for lighting and sound in their installation.

The final decision for ETC was a no-brainer for Rob Robertson, who chose the grandMA console to preside over the installation’s multiple lighting and architectural elements. The console allows stable control of multiple universes within the ETC network in a state-of-the-art system that is flexible enough to handle future expansion.



A service at Pinnacle Hills.



Construction on the Pinnacle Hills Worship Center's new sanctuary.



The 600-square foot window dwarfs the large HD projection screens and pastor during service.



Pinnacle Hills' new sanctuary during a service.

“Our renderings showed accurate sun projections at over 36 times throughout the year.”
 —Donnie Brawner

Scenic Design and Video

When it came to scenic design, Brawner & Associates recruited award-winning scenic design partner Michael Hotopp, whose career features runs with the *CBS Morning Show*, Olympics, Emmy Awards, National Basketball Association and the *Oprah Winfrey Show*. Hotopp was tasked with creating a set that could accommodate a full orchestra, choir risers and pastor while providing background treatments and television set for the church's daily television broadcasts.

The Church at Pinnacle Hills' media minister, Bryan Bailey, was impressed with the results produced by Hotopp. "It's a seamless integration of elements," he says, noting the space's wood-finish selections, metal work and frosted glass. "Better yet, it shows beautifully on video."

Video was the next piece of the mammoth installation's puzzle, and SG Integration was on hand to design and install the space's video projection system. Tony Bishop, senior designer and general manager of SG Integration, notes that the video system had to be integrated into the space's overall design along with decorative elements. Eventually, he chose two Barco 16-foot by 9-foot ILite 6mm LED video displays, which were installed in the sanctuary for video content delivery image magnification. Seven Ikegami high-definition video cameras capture live video, and the screens also project pre-produced content recorded on Sony digital disc recorders. A Visual Circuits Mantis content server manages the impressive display programming, while an Extron IP link system monitors all projection and video components throughout the installation. As usual, "flexibility" was the keyword behind the church's video installation.

End Result: Worldwide Outreach on an Integrated Scale

The Church of Pinnacle Hills has an ambitious mission — "Reaching Northwest Arkansas, the Nation and the World for Jesus Christ." It's a mission they've come closer to achieving with the help of the massive team effort that produced the TV, performance and service-ready space in Rogers. But the success was hard-won; implementing the big vision of architect, consultant and church required a team effort with an eye on flexibility, integration and future growth.

Bailey is enthusiastic about the results. "We've already featured Travis Cotrell Band, The Crabb Family, and Veggie Tales in addition to regular services in the past five weeks," he notes. "It looks incredible on high-definition recordings." He is grateful that the church's unique lighting and installation needs were responded to with innovation and a sense of challenge, a sentiment that is echoed by Brawner. "This project was definitely out of the box. Luckily, this church realized the importance of the integration of lighting, video, audio and set elements and didn't indulge in all of the value engineering options and cutbacks, and Brawner & Associates was able to maintain these important elements."

The impressive and inspirational space is slated for good use: Pastor Ronnie Floyd's "Winners" program will receive wide satellite distribution nationwide in the coming year, and current congregants are enjoying a state-of-the-art space as they engage in worship services and see touring productions and concerts. "It's a new form of church worship," says Stanbery. "I think it has definitely put us on a track of originality and creativity that is missing in many modern worship services." **PLSN**

2/3 JR. VERTICAL AD

1/4 JR. HORIZONTAL AD