





Art That Inspires

**THE FISHER CENTER FOR THE PERFORMING ARTS
AT BELMONT UNIVERSITY**

BY HEIDI VAN HEEL

Before construction even started, the stakes for creating a new multi-functional auditorium at Belmont University were high. “The president of Belmont called and says, ‘I want to be able to search “finest performing arts center on a university campus,” and I want Belmont to pop up,’ so that was our charge,” says David Minnigan, Principal of ESa Architects.

With the bar set high, Minnigan and his ESa Architects colleagues worked with Theatre Projects Consultants, Akustiks, R.C. Matthews, and several members of Wenger Corporation's engineering and design team went to work on what would eventually become The Fisher Center for the Performing Arts.

Lofty Goals

Belmont University is a private, four-year Christian university serving more than 8,700 students located just two miles from downtown Nashville, Tennessee. The school's College of Music and Performing Arts offers internationally recognized, nationally accredited programs in music, theatre and dance.

The Fisher Center is a 1,700-seat, multi-functional auditorium built to accommodate the school's dance, theatre, and musical performances, along with an array of

special events, including performances by the Nashville Ballet, Nashville Opera, traveling Broadway shows, and international artists. The specially engineered, horseshoe-shaped auditorium was modeled after traditional European opera houses, with ornate chandeliers, aqua-painted interior, tall domed ceilings, and world-class acoustics. However, completing it took an extraordinary amount of collaboration, communication, and planning.

The Star of the Show

The focus of the new center is a custom Diva® Acoustical Shell. "This is a highly customized one-of-a-kind shell, which was years in the making," explains Carrie Renchin, Project Manager. The main requirement for the shell was to match its decorative features to those in the room. Custom urethane shapes were applied to the front of the tower and ceiling panels to mimic the intricate design of the venue. The shapes required several iterations and model changes prior to final approval to

ensure the aesthetics would complement the space.

Engineers then made a full-size mockup of a tower and a portion of a ceiling row at the manufacturing facility. After some minor modifications, the shell design was approved for production. The shell has thirteen towers that are each twelve feet wide and forty feet tall. There are four onstage ceiling rows and one forestage reflector. The ceilings and forestage reflector incorporate a combination of Lieto™ LED White and RGBW light fixtures.

The Lieto fixtures provide more lumen output than other fixtures currently used in acoustical shells, meaning fewer fixtures are required in the shell ceiling. They're also silent—which is critical for performers on stage—much cooler than conventional lighting, and dim down to zero percent. Plus, they're easy to adjust, with three-axis beam positioning to provide tool-free pan, tilt and rotation, as well as the ability for front-face

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focusing. Now Belmont is able to keep the stage incredibly well-lit with a variety of options and add a pop of color for special events.

Creativity in Engineering

The first challenge engineers had to solve was how a forty-foot-tall tower would fit into a thirty-foot-tall storage area. They designed motorized sections that fold the top ten feet back so the shell can be stored when not in use.

The second challenge was the sheer weight of the towers. “The team reinforced the aluminum and steel structure to withstand the weight but made sure it was mobile enough to maneuver on stage,” explained Kellie Cultice, Lead Project Engineer. In addition, extra weight meant regular castors would damage the floor. Cultice asked R.C. Matthews, the general contractor for the project, to send them flooring samples. Having these materials available allowed the team to experiment and settle on a final solution before sending the shell to Belmont. “Making it simple for the end-user was really important,” offers Millie Dixon, Theatre Projects Director/Project Manager. “Wenger

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really stepped up to the plate when it came to balancing those practical needs of height, weight, and functionality with all of the features that the architect wanted on the face of this shell. They did an outstanding job.”

Fine Tuning

The Belmont shell was customized not only from an engineering perspective but from an acoustical one, too. Performances here range from professional orchestras to student choirs, to a variety of large and small ensembles, to any number of special events requiring a very versatile shell. “We start with the room,” explains Russ Todd, Akustiks Principal and Managing Partner. “What we do in designing a multi-use hall is create a concert hall condition in a room that also has the ability to function as a theatre with a full fly tower. The way we do that is by designing an orchestra shell. The shell is an extension of the room, and it blends in perfectly.”

Todd points out that the room needs to work for amplified music, too. Todd and his team also designed a sound-transparent ceiling as opposed to a plaster ceiling. This approach allows the sound to project up into the upper volume of the room for the orchestra or opera for a full, rich resonance. “But for the amplified mode, we bring in adjustable acoustics above the sound transparent ceiling to dampen that reverberation,” he says.

Another custom element of the shell towers is a series of venting doors in the side wall towers. The venting allows for balancing sections of the orchestra. Or, if amplified sound is too intense, doors can be opened to allow some of the sound energy to escape. The shell is versatile, depending on the number of towers utilized for performances. The full shell occupies the full depth of the stage, which will accommodate a full orchestra plus a choir. The adjustability of the shell benefits ensembles of any size.

And finally, the shell is as intricately beautiful as it is complex. Many of the colors on the 3D faces of the shell match the paint in the interior of the room. The result is a multi-functional shell that produces excellent sound and blends perfectly into the rest of the room. “Having worked with Wenger, Theatre Projects, and ESa on many installations

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before, we've really grown as a team over time and advanced ideas and thoughts about how to create these halls," Todd says. "It's exciting when it comes together."

"This is a very specialized industry, and there aren't that many companies that actually design and build shells," Minnigan says. "Wenger is definitely the best, and we knew they had the capabilities to meet the requirements that this building and this shell would need to fulfill."

Ready to Roll

Named for retired Belmont President Dr. Bob Fisher, the Fisher Center for the Performing Arts was officially dedicated in a special ceremony. The first official performance in the hall was the filming of the annual "Christmas at Belmont" concert, a massive holiday spectacular featuring nearly 650 student musicians and vocalists that was broadcast nationally on PBS. Dr. Stephen Eaves, Belmont's Dean of the College of Music and Performing Arts, knew the students were ready. "This new space truly helps Belmont students reach for higher excellence in the arts," he says.

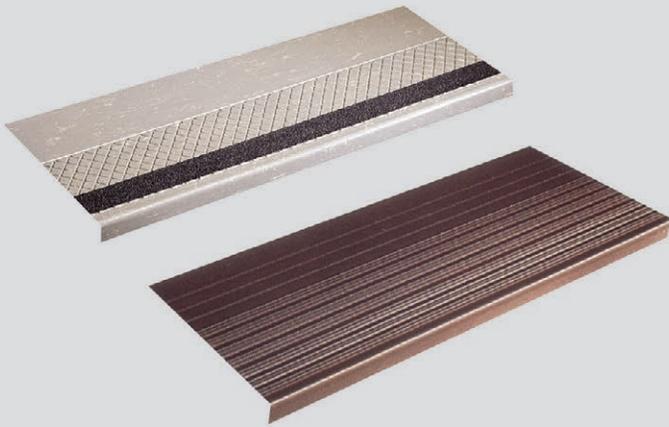
New Belmont President Dr. Greg Jones agrees. "The beauty and performance capabilities of The Fisher Center for the Performing Arts are simply unmatched, and its possibilities are unparalleled," he says. "This venue equips students with the confidence and real-world experiences that set them apart as Belmont graduates, while also attracting world-renowned artists to share their immense talents with our campus and the local community. With Belmont's rich tradition of creativity and imagination across our campus, the Fisher Center is now a place for those values to come to life through curating, producing and presenting stories and art that inspire."



ABOUT THE AUTHOR: Heidi Van Heel is a freelance writer and digital producer based in Minneapolis. Over her career, she's had the privilege of working on a wide range of projects, from high-profile PBS primetime specials to the performing arts.

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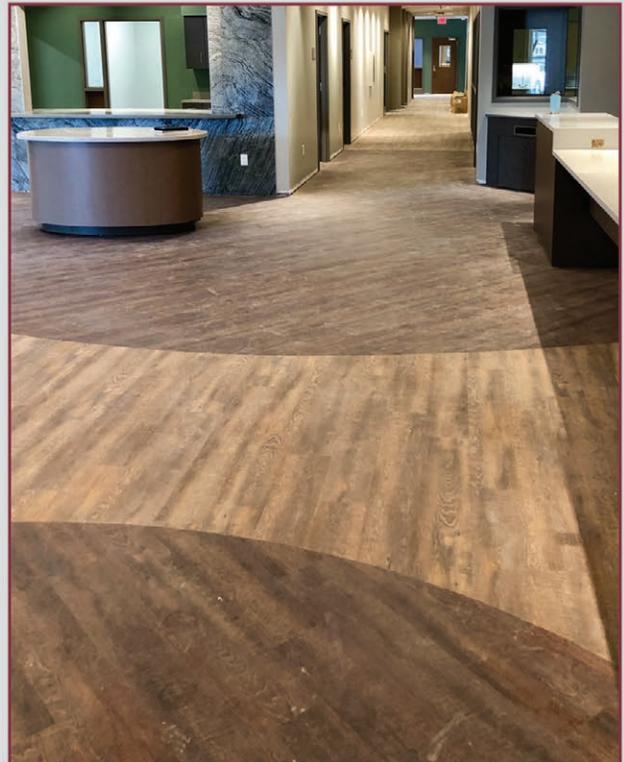
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