

2018 ACE AWARDS

Category 10: Best Building Project
(General Contractor \$40-\$70 Million)

**University of Colorado
Colorado Springs Ent Center
for the Arts**

PROJECT TEAM

OWNER
University of Colorado
Colorado Springs

**GENERAL CONTRACTOR/
CONSTRUCTION MANAGER**
JE Dunn Construction

DESIGN FIRMS
Semple Brown
H3 Hardy Collaboration
Architecture

PROJECT NARRATIVE

Project Overview

How do you encapsulate a 40-year old arts and entertainment vision within 92,000 SF? You do it within a show stopping building.

The seed of this vision was planted by TheaterWorks founder Murray Ross in 1975 when he was hired to join the UCCS team to teach English and run the theater program. With many years of hopes and dreams on the line, UCCS knew that they had to be selective in choosing the right team to deliver a project of this caliber. Ultimately, they selected the design team of Semple Brown and H3 with JE Dunn as their general contractor for the right combination of experience and innovation. Once assembled, we leveraged our collective experience and set out as a team to navigate the intricacies of this specialized facility.

Prominently visible from the south corridor of I25, the 92,000 SF University of Colorado Colorado Springs’ (UCCS) Ent Center for the Arts is impossible to miss. Drawing you in and welcoming engagement, the Ent Center features sleek curves on the outside and state-of-the-art performance venues on the inside. This facility combines academic and performance spaces and brings together various groups that had previously been scattered. The new Ent Center for the Arts houses:

Shockley-Zalabak Theater - 786 seat theater created to allow partner organizations to use this space for large music performances, dance, speaking engagements, and film productions.

Dusty Loo Bon Vivant Theater - 250 seats, two level flexible theater. This space allows TheaterWorks to accommodate about 50 percent more audiences for any given show that it could in its previous space.

Chapman Foundations Recital Hall -252 seat music hall that serves as the central music performance venue of the Ent Center and is designed to be one of the highest quality acoustic music spaces in the region.

Marie Walsh Sharpe Gallery of Contemporary Art - 2,500 SF space that features rotating art exhibitions.

Osborne Theater – Flexible theater with a professional control booth, the Osborne can be rearranged in multiple configurations and seat up to 120 people.

There was intention behind every design element and every material selection throughout the Ent center, from acoustical drapery to the choice in flooring, every element was deliberate. This space was designed for a greater purpose beyond music, art, and performance, it was designed to unite the community.

Solutions of Special Projects

With challenges, comes true growth. While each firm entered into this process with a deep respect for each other’s talents and capabilities, the real galvanizing moment was when they became united through a shared struggle. That moment was when the team realized that the cost model was broken. The model had been based off one venue under one roof, instead of 6 venues under 1 roof. The team began the Target Value Design process and looked at many creative options including completing a significant skin study pricing exercise to find the optimum solution, one that created a standout building for the campus while meeting the budget goals. Throughout this process the team kept the primary goal in mind – world class acoustical spaces.

Excellence in project execution and management/team approach

The key to success was the team’s commitment to rowing in the same direction. Partnering and working towards a shared goal, the team lived their project purpose statement “Exceptional acoustic performance in an iconic building”.

Everyone at every level stepped up and stepped in to get the job done. Design assist trade partners were on board early and the design team made engagemen and collaboration a priority. This included Semple Brown and H3 in addition to their subconsultants, ME Engineers and Martin/Martin, all of whom were instrumental in the process. Our trade partners, Encore Electric, MTech Mechanical, Midwest Steel and JR Clancy were also able to engage early in the process to directly impact project success. JE Dunn, for their part, took a large role in BIM and clash detection and were able to guide their team and sub consultants. This was a whole team whole project effort and as a result UCCS’ budget never increased, and contingency never had to be used to solve construction problems.

Construction innovations/state-of-the-art advancement

The Ent Center for the Arts was designed to meet the many technical challenges required for the programming and aesthetic form of the building. Communication down the line was very important, from drywall to flooring, all team members understood the purpose of the facility. We were continually challenged by the owner with the question “How do I know it’s going to perform the way it’s supposed to?”

The design team worked with the acoustic consultant to provide a system of solid grouted masonry walls and connection details that met acoustical requirements for the theaters, recital and performance halls. The roof system was designed to support the catwalks, rigging, acoustical elements and lighting with tight deflection requirements to limit the amount of movement during performances. Spaces were laser scanned to make them more acoustically tuned. The main theater’s cantilevered balcony was designed for stiffness and vibration criteria to limit the perception of movement during performances. The corridors and public areas floor framing outside of the performance halls were also designed to limit floor vibrations. Both the Recital hall and Main Theater have variable acoustical baffles for tuning of the spaces to each type of performance. Tuning of the spaces was done both electronically and live with various instruments, and even with the full Colorado Springs Philharmonic playing during one tuning session. Now, the recital hall is the most acoustically sophisticated space in Colorado which can be tuned in the morning for a single violin and in the afternoon for 52-person orchestra.

Early on we completed the buildout of two complete mockups of practice rooms side by side to test and evaluate the acoustical quality. Every element was designed and built with an intense focus on the details. Acoustical adjacencies were considered early on to enable changes early in design. Quality walks with the acoustician occurred before studs were placed to ensure quality of sound.

The goal was to make recital and theater spaces flexible. One solution was to make the Main forestage floor motorized, which would greatly enhance flexibility and functionality. With some diligent investigative work we were able to identify only two fabricators that could execute the spiral lift that we were hoping to incorporate and ultimately only one of those could get it into the shallow space we had available. This was an example of problem solving at its best. Ultimately, every space met or exceeded design performance.

Environmental/Safety

Early on JE Dunn recognized the exposure of performing this project on a live campus would have with active student foot traffic and vehicular traffic. With that in mind, a site-specific safety

plan was developed that included orientation for all employees on site, a focus on awareness and sensitivity of students and faculty, movements, language, construction parking, student walking paths and timing of construction deliveries. As the project progressed these methodologies were adjusted for continuous protection.

Throughout the project life cycle, multiple primary scope trade partners provided on-site education sessions formally and informally. These include electrical safety and awareness, fall protection, scaffold erection and excavation competencies. Education was also elevated by JE Dunn's sharing of formal in-house safety inspection results with trade foreman as an opportunity to provide positive recognition for safe acts and areas for improvement from a compliance side and behaviorally.

JE Dunn planned, demonstrated and performed follow through actions in support of a unified safety culture on the project. Several examples of this include daily written Job Safety Analysis by each individual, top management being visibly committed, front-line supervision being performance based, with employees actively participating within a system that was flexible enough to accommodate the culture. Additionally, owner participation was achieved by weekly safety walks with JE Dunn leadership, engagement during weekly foreman meetings, positive recognition of project milestones for safety and verbal interaction with tradespeople to intercept production challenges or road blocks.

Excellence in client service and/or contribution to the community

The impact that the Ent Center for the Arts will have on the surrounding community was illustrated in a very appropriate way at its topping out which featured an opera singer singing Ave Maria as the last beam was placed. This facility is certainly something to sing about.

What makes this place exceptional is its private partnerships. Regional and cultural organizations that have and will use the Ent Center for the Arts include the Colorado Springs Youth Symphony, Chamber Orchestra of the Springs, Colorado Springs Choral Society, Colorado Springs Conservatory, Colorado Springs Children's Chorale, Colorado Springs Dance Theatre, The Colorado Springs Philharmonic, and the Opera Theater of the Rockies among others.





