### UNIVERSITY OF WISCONSIN AT MADISON MADISON, WISCONSIN

# Wenger | "RCLANCY

PROJECT PROFILE



DIVA® ACOUSTICAL SHELL

"With J.R. Clancy and Wenger together as a single entity, collaborating on our unique design solution for the rigging and shell was a simpler, more efficient process."

– Jody Kovalick, Senior Theatre Consultant, Schuler Shook



SHELL TOWER HOIST



SCENECONTROL<sup>®</sup> 5100

#### CHALLENGE

Enhance the acoustical quality of a multiple-use, 76-year-old historic theater without crowding the backstage areas or making significant changes to the stage house.

#### WENGER SOLUTION

Wenger and J. R. Clancy (JRC) developed a custom solution, combining a Wenger Diva<sup>®</sup> Acoustical Shell with lifting storage rack and hoist with the capacity required to store the shell and its towers above the stage.

#### BENEFITS

- Preservation of a much-loved theater space
- Reduced load-in and load-out times
- Dramatically improved sound quality
- Flexibility to host many kinds of performances
- Easy, pushbutton control
- Above-stage storage frees wing space

#### HIGHLIGHTS

When the University of Wisconsin-Madison took on the herculean task of renovating its 76-year-old Wisconsin Union Theater, acoustical quality became one of the top priorities of the two-year project.

"It's a historic Art Moderne theater, known and loved by the university and community as well," said Michael DiBlasi, Partner and Principal Designer at theater consultancy Schuler Shook. "The Union Theater fills a lot of different needs for the university and the community, presenting dance, theater, school events, graduations, lectures, and music."

While the building's acoustical qualities were lauded by its first performers—the legendary acting duo Alfred Lunt and Lynn Fontanne—at the theater's opening performances in 1939, the superlatives faded over time in comparison with 21st century expectations. The university added an orchestra shell to the theater decades ago, but this shell came secondhand from the UW-Madison School of Music, and it did not fit the space well enough to deliver the sound quality audiences demanded.

"The old shell had to be stored in pieces backstage, so it was always in the way," said Julie Grove, Project Manager in Capital Planning and Development at UW-Madison. "It was not designed specifically for this theater and therefore never functioned at 100 percent. We wanted to find a way to enhance the quality of stage performance as needed, but not at the expense of stage size reduction. It was hard to find a convenient place where it could be stored."

To this end, the university hired world-renowned acoustician Rick Talaske to determine the internal elements required to produce a new level of sound quality. Talaske selected the Wenger Diva® Acoustical Shell for the task, adding custom modifications to the shell's architecture.

There was one more degree of complexity to surmount in the execution of this design: With so many different kinds of performances taking place in the Union Theater throughout the year, the space needed to maintain flexibility. The shell's structure had to allow stagehands to change over from one event to another in a matter of hours.

"We started by creating an area in which the shell towers could be hoisted out of the way and avoid the original loading area," said DiBlasi. "There was area off stage left, against an outside wall that was clear of the stage rigging. We moved the theater's loading doors and freed up this location, allowing the very heavy shell to be raised vertically."

To handle the load and design the hoisting capability to take the shell to the grid, Schuler Shook turned to Wenger's partner, rigging company J. R. Clancy, Inc. (JRC). "We worked with Clancy to create a shell support frame that could grasp the towers and haul them away," said DiBlasi. "It had to be able to fly with only a partial load as well as the whole load, for days when the performance would need fewer shell towers."

JRC's engineers designed the frame with structure at the bottom to hold the towers, and a ramp to allow stagehands to push the towers up to a stable position within the frame. "The ramp is hinged, so it folds up and becomes the closure to the frame and helps lock the shell in place," said Jody Kovalick, Senior Theatre Consultant, Schuler Shook. The frame includes a guardrail on both sides, and a bracket fabricated by Wenger that attaches to the shell towers and the rail.

To hoist the frame and shell above the stage, JRC provided a highcapacity custom hoist controlled with a simple pushbutton pendant for basic up-down operation. "The stagehand can just hold the button until the hoist reaches the end of its travel at 31 feet above the stage, or down at the stage floor," said Kevin Auses, JRC Project Manager.

The end result provides the functionality UW-Madison sought as well as the sparkling acoustics the theater deserved. "Yo-Yo Ma played at the opening concert," said Grove. "He dramatically held on to several notes as long as he possibly could, and you could hear the touch of his bow so clearly. The audience was literally silent. It was a truly memorable listening experience for me."



SCENECONTROL

5200



POW/ERLIET

HOIST

MULE BLOCKS

FIRE CURTAIN LINE SHAFT AND CONTROL CABINET

#### PRODUCT LIST

Wenger Diva® Acoustical Shell, J. R. Clancy custom products including shell support frame, ramp, guiderails, and pushbutton control pendant, J. R. Clancy PowerLifts, SceneControl® 5200, high-capacity lineshaft hoist, drum hoists, and fire curtain hoist.

#### About Wenger | J.R. Clancy

Wenger and J.R. Clancy provide the widest array of innovative, high-quality products and services for the performing arts industry. Their advanced products provide the highest levels of safety, reliability and aesthetics, helping transform performance venues and engineer unforgettable experiences.

## Wenger **PRC**



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