

Collaboration with Fire Officials and Design Team Helps Meet Code and Building Owner Requirements

Challenge. During construction of the new Cobb Energy Performing Arts Centre in Atlanta, a state-of-the-art 2,750-seat theater with a 10,000-sq.-ft. grand ballroom and 1,000 parking spaces, Rolf Jensen & Associates (RJA) tackled some tough life safety, egress and smoke management system issues. Finding a way to ensure that all performing arts center occupants are able to safely and swiftly exit the building on all levels during an emergency situation was the first challenge. The second required RJA to participate in the commissioning of the contemporary building's four-level atrium – a process that involved meeting requirements related to the new International Building and Fire Codes.

Solution. Solving the performing arts center's exiting and egress problem was complicated by the fact that all levels of the theater and atriums were designed to be open to one another and egress simultaneously during an emergency. The theater consisted of six levels of seating, which were defined as three stories in accordance with the *Life Safety Code*, NFPA 101. Egress from the six levels was designed using two emergency exit stairs and two means of non-traditional egress through the smoke-protected atrium. RJA was successful in negotiating with the Cobb County Fire Marshal's office and the State Fire Marshal's office to accommodate the egress requirements. The solution also satisfied the building owner's program requirements and provided a cost-effective alternative to constructing four emergency exit stairs.

In regard to the commissioning of the atrium, RJA was requested to play the role of Special Inspector on behalf of the owner. In this role, RJA addressed make-up airflow and overall system operability concerns related to the atrium smoke management system. RJA worked with the general contractor, the building's design team and the owner on developing a sequence of operations and testing protocol for the atrium smoke management system on primary power and back-up power to ensure all occupants would be able to safely exit the building and the smoke management system functioned in accordance with the approved design.

Result. RJA was able to meet the building owner's timeline while satisfying the applicable building and fire code requirements. The Cobb Energy Performing Arts Centre held its Grand Opening on Sept. 15, 2007, featuring a major headliner concert followed by a black-tie benefit gala to support the Cobb Energy Performing Arts Centre Foundation.

Throughout construction of the Cobb Energy Performing Arts Centre project, RJA provided general consulting specific to fire protection and life safety issues. RJA also provided code consulting services during the Schematic Design, Design Development and Construction Documents Phases and participated in project planning meetings with the design team and the Authority Having Jurisdiction. Specifically, RJA provided Exit Calculations, a Summary of Code Requirements report, a Fire and Life Safety Master Plan report and Life Safety Plans.



- **Code Consulting**
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