



## BYU Auditorium, Rexburg, Idaho

BYU's auditorium consists of a 16-inch thick precast concrete radiused shear wall nearly 96 feet tall, and over 400 linear feet long, precast stadia risers, and exterior CarbonCast® architectural cladding. With an architectural concrete mix and an acid etch finish, the single color precast panels span the building horizontally. The low weight cladding, 53 psf, lowers the overall building mass, reducing the seismic base shear and the seismic lateral force resistance system. The building's primary shear wall is clad with an insulated carbon cast panel system to meet thermal high performance requirements. Overall weight reduction in the exterior building system is paramount since Rexburg is located in a Seismic Design Category D zone.

The auditorium interior features precast prestressed risers, installed in double and single riser sections. The steel raker beams are in an upper and lower bowl configuration for a total seating count of 15,000 attendees.

Construction of the precast system was completed in ten weeks, a savings of over seven months as compared to the cast-in-place schedule. The auditorium shear wall is the first wall of this magnitude and with this innovative design to be constructed in this region.

### Project Facts:

**Project Value:** \$162,862,634  
**Market Segment:** Higher Education  
**Building Type:** Auditorium, gymnasium  
**Products Used:** Tub sections, U-girders, pier caps, deck panels



### Project Design Team:

**Owner:** Brigham Young University, Rexburg, ID  
**General Contractor:** Okland Construction, Salt Lake City, UT  
**Architect of Record:** FFKR Architects, Salt Lake City, UT  
**Engineer of Record:** Tanner Smith Barfus & Associates, Centerville, UTU



### Company Information:

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The auditorium's precast prestressed risers are built in single and double riser sections on steel raker beams and house seating for 15,000 attendees.



The auditorium interior is designed with an upper seating bowl and lower seating bowl.



Open back, insulation filled CarbonCast® panels span the building horizontally. The low weight CarbonCast® precast cladding system is used to reduce the weight of the enclosure system in order to reduce overall seismic forces.



CarbonCast® architectural cladding panels can be designed with infill insulation to reduce their weight.

