

# COLLEGE

## Planning & Management

CONSTRUCTION • FACILITIES • PURCHASING • TECHNOLOGY

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### ATHLETIC FACILITIES: Bigger Is Better

Keeping Up With Today's  
High-Tech Facilities Tools

Trends in  
Locker Room Design

## 2. A Spacious Multipurpose Arena

Administrators at the University of South Alabama in Mobile needed to renovate and expand the 25-year-old, 3,500-seat Jaguar Gymnasium. A preliminary study concluded that the facility would not accept an expansion large enough to produce the desired seating, suites and amenities. So administrators decided to reserve the Jag Gym for practices and intramural sports and built the Mitchell Center, a 10,000-seat multipurpose arena, near the old structure.

The project was initially let for bid as a dome structure, but with alternate quotes invited for a rigid frame building clad with brick veneer and stucco. A bid for the latter ran nearly \$1 million less and the focus immediately shifted away from a dome. The low bid was submitted by Butler Heavy Structures, a structural engineer based in Kansas City, MO, which offered to develop an even better design that could still be executed within the statutory limits for change orders.

Butler recommended replacing the framing concept with a braced truss rafter system using single-shaft W30 and W36 mill sections for columns. This adopted alternative reduced shear reactions at the base of the columns by 50 percent and thereby saved in

foundation costs. The straight columns also eliminated sightline conflicts that would have affected nearly 100 seats.

The resulting effort produced a truly admirable — and more functional — facility. The building has a total of 210,000 sq. ft. on three levels. Offices, three classrooms, 18 ticket windows, a 200-seat meeting/banquet room, lockers and training rooms are on the First Level. The suites and spectator seating are primarily accessed on the Second Level Concourse. The Third Level is used for storage, with some surplus space there envisioned as the candidate for a proposed sports bar.

The facility was completed earlier this year, at a cost of \$31 million. Mobile-based Harvey Gandler Associates designed the structure.

Photo courtesy Butler Heavy Structures



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Photo courtesy Butler Heavy Structures

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