

Sawmill Event Center Scope

The Sawmill Museum, located along the Mississippi River in Clinton, IA, serves as an attraction to the city's residents and visitors. The museum is looking to expand onto the lot it owns directly North and West of the existing museum. The event center will provide a space for events for the community and attract more tourists to the area. The building design needs to be aesthetically pleasing and display the features of the area important to the museum, the train tracks and the Mississippi River. In addition, the museum desires to incorporate elements to make the space easily transformed to fit the purpose of various events and showcases.



Figure 1. Typical events that will be held at the new event center

Event Center Site Design

The site design provides adequate green spaces as well as controls stormwater. To help minimize stormwater runoff, the parking lot was designed with permeable pavement from True Grid[™] that utilizes gravel to provide stormwater detention and drainage. A large parking lot to the West of Grant St. and accessible parking lots on the East side of Grant St. provide 168 total parking stalls to service the building. Sidewalks leading from all sides of the parking lot were designed using handicap accessible standards and allow access to the all Sawmill Museum attractions.



Figure 2. Site layout and True Grid[™] pavers

Codes and Standards

In site and parking lot design, Iowa SUDAS, Clinton City Ordinances and ADA Accessible codes were used. In the building design ASCE 7-16 Design Loading Criteria, AISC Design Manual and the International Building Code were utilized.

SAWMILL MUSEUM EVENT CENTER

Libby Lorts, Jack Marchiori, Eric Vidamali, Cade McNeill **Department of Civil and Environmental Engineering** The University of Iowa

Event Center Building Design

The Event Center building shape models a sawtooth from the symbol of the museum, and the interior layout provides a flow for visitors through the building. The tall ceilings and open floor plan, made possible by long-span steel Howe trusses, allows space for about 40 vendor stands, while also providing space for additional events on the second level.



Vulcraft[™] steel joists and metal decking are supported by the trusses which connect to wide flange steel beams and columns transferring the load to pier foundations. The exterior finishes give a modern look to the surrounding area, including large windows, aluminum cladding and slated wood allowing the building to be visually striking to its visitors.



Construction Cost Estimate

The construction cost of the site, parking lot and building design for the Sawmill Event Center is estimated to be \$12,301,000. This cost includes construction and materials cost.



Figure 3. First (left) and second (right) floor layouts

Figure 4. Three-dimensional rendering of building design







