

Vista Xchange Integrated Civic and Cultural Hub

Singapore

Owner

Rock Productions and CapitalLand

Client/Architect

Aedas

Engineer of Record

Parsons Brinckerhoff

General Contractor

Hexacon Construction

Completion Date

2011

Construction Cost

\$300 million

Total Area

54,000 m² (581,256 sf)



Thornton Tomasetti provided structural engineering consulting services for the Integrated Civic and Cultural Hub at Vista Xchange, slated to be the landmark cultural focal point of the area. The 54,000-square-meter complex has a 5,000-seat auditorium with meeting and event rooms, amphitheaters, shops and restaurants. A skybridge located outside the theater spans almost 80 meters between the end supports.

The design involved complex geometry with slanted columns and façades. The centerpiece of the unconventional building is the floating theater and lobby atrium, supported all around by four-story-deep wall trusses that rest on elegant sloping columns. The initial design for the project included performing extensive vibration analysis and devising the structural and lateral support systems that make the building's unique geometry possible.