Temecula Civic Center

Temecula, California

Owner
City of Temecula

Architect
Nichols, Melburg & Rossetto

Contractor
Edge Development

Completion Date
2010

Construction Cost
$31 million

Total Area
100,000 sf

Number of Stories
3

photos courtesy Nichols, Melburg & Rossetto

Thornton Tomasetti provided structural design for this Mission Revival administration building that features archways, colonnades, plazas, and an 85-foot tall domed clock tower.

Several towers, including the main entryway clock tower, are steel framed with Special Concentrically Braced Frames (SCBF) with columns supported on deep transfer girders situated on the floors below. Because of the atypically shaped floor plates, structural diaphragms were strengthened at critical areas. The structural frame includes metal deck with concrete floor and roof decks supported by steel wide flange beams, girders, and columns. Concrete shear walls make up the lateral seismic resisting system, which are supported on concrete grade beam footings at the ground level.

The new civic center features an advanced Indirect Direct Evaporative Cooling (IDEC) HVAC system that pumps in outside air to improve inside breathing quality. Thornton Tomasetti's coordination with the mechanical engineer was critical in order to provide a roof framing system stiff enough to prevent unwanted vibration of the sensitive HVAC units.

Once completed, the building's use of local materials, low-flow water fixtures and daylighting will assure the project receives a minimum LEED Silver certification.