



Exposed steel joists and girders are on display at the 3rd floor council chamber.

sions and member sizes. Repetition of member sizes and dimensions was used as much as possible. For the manufactured joists, a detailed schedule showed loading requirements, joist depths, panel point dimensions and cantilevers for each individual joist. Each joist and girder had an identification number that related to the floor and wing where it was located. Communication and coordination between the steel fabricator and design team was streamlined by this system of ID numbers and schedules.

The use of an entirely exposed steel structure also required special attention to the protection of the steel, both from weather and fire and the finish appearance of the steel. Most of the steel on the project was finish-painted per a special written specification. The specification included commercial blast cleaning of the exterior steel in the fabrication shop prior to primer application and an exterior-use primer. Fire protection of the exposed steel was also a concern, especially in the City Council Chambers Assembly Room on the third floor, where large groups of people are

expected to gather. To accommodate both safety and aesthetics, intumescent paint (a thin, fire resistive coating) was used in lieu of the unsightly fireproofing spray that would traditionally be hidden by walls.

Tied to the Community

It was important to the city government to have all of its facilities gathered under one roof in order to offer more efficiency and convenience to the residents of Pittsburgh. The community wanted the center be a place where a visit would be memorable and where they could be informed about the programs, history and activities that the City offers. The architectural design accommodated both parties. The structure houses many of the city's departments under one roof, including the various administrative offices, council chamber and the police facility. The glazed steel

entry hall functions as an educational mall, exhibiting elements of the city's history. The dramatic curved form of the building and exposed steel structure creates a focal point for the community.

Close Collaboration

The design team worked together to determine the requirements for the floor and roof decking. Epic Metals deck was chosen for several reasons: it satisfied engineering requirements for vertical and lateral load capacity, the decking could be supplied with acoustical perforations where necessary, and it could be used with an electrical duct distribution system in a topping slab. Since it is exposed to view from below, the clean, smooth appearance was an advantage. The same decking profile is used at the floors and the sloped roof.

Vulcraft, the joist manufacturer, was an integral part of the design of the project. They were present at early design team meetings to help determine joist depths, member sizes and coordination with mechanical systems. "This project was a splendid example of meeting architectural and structural requirements utilizing steel joists," says Darrell Marchell of Vulcraft. It is unusual for joists to be exposed and care was taken to ensure that the finished joists would be acceptable architecturally.

The project had 50 pieces of shortspan joists comprising 11 tons and 153 pieces of longspan joists weighing 139 tons for a total of 150 tons. The project had a number of



Front view of Pittsburgh Civic Center.