

Show places play complex shapes

Melbourne Recital Centre & Melbourne Theatre Company theatre

Steel was chosen to perform some creatively complex structures on the construction of the new Melbourne Recital Centre and Melbourne Theatre Company (MTC) theatre within the established inner-city arts precinct.

Located on the corner of Southbank Boulevard and Sturt Street, Melbourne, the development of both venues involves constructing a 500-seat theatre for the MTC and a 1000-seat recital hall, honouring arts philanthropist Dame Elisabeth Murdoch.

Two main architectural features define each venue - the steel framed window measuring 25-30 metres incorporating 80 tonne of steel for Melbourne Recital Centre, and 219mm diameter pipes giving the illusion of a 3D pipe structure for the MTC theatre.

The project has been one of the most complex design projects undertaken by Bovis Lend Lease and Alfasi Steel Constructions in recent years from a steel structure perspective.

"The steel in this project is extremely complex with just 1200 tonnes comprising over 14,000 individual components," Project Manager for Alfasi Steel Constructions, Steve Downes said.

This not only created difficulties due to the extremely limited storage space onsite and the resulting logistical challenges, but has also required in-depth tracking of all members throughout the manufacturing process.

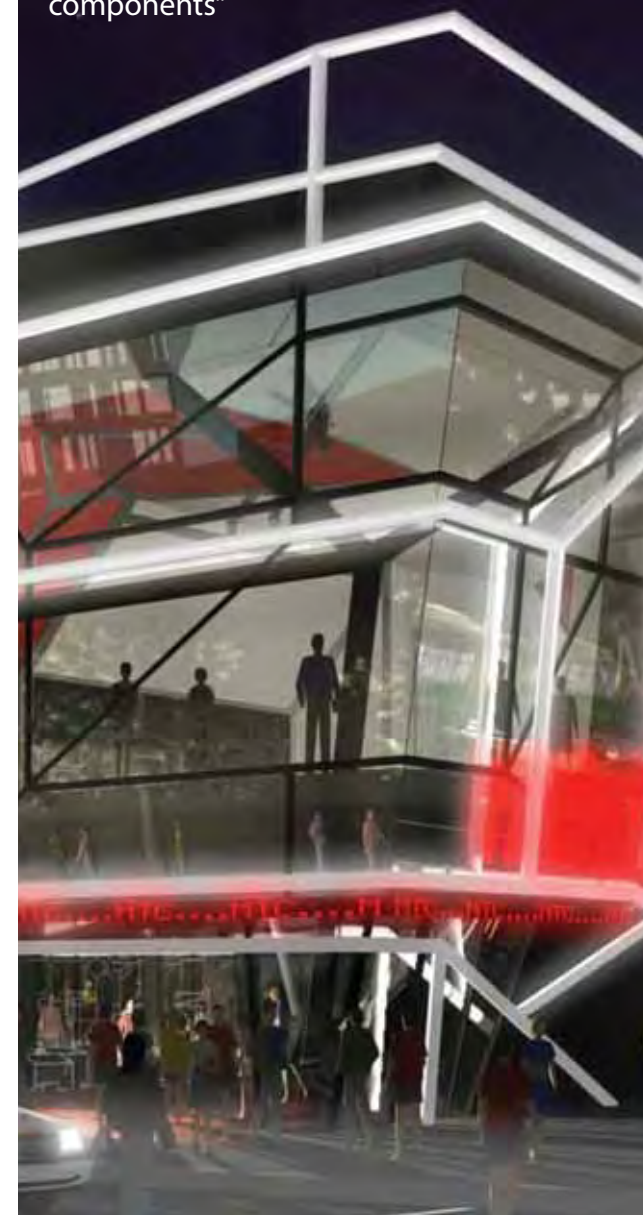
"Small cranes were initially thought to be the way to erect the steel but site conditions dictated that special purpose winches and access equipment were needed," Mr Downes said.

The Southbank Boulevard and Sturt Street façades comprise lightweight metal cladding supported directly by a steel stud and structural steel frame. This façade frame, inclined at 14 degrees to the vertical, also supports the adjacent floor levels.

Alfasi Design and Drafting were contracted to perform these works utilising the latest 3D drafting programs. The company has had 13 detailers working on this project for the past nine months with just over 60 percent of the steel erected at the time of this issue going to press.



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Bovis Lend Lease has employed four on-site staff managing the construction and erection process as well as an additional five staff members managing the offsite procurement.

Alfasi Constructions deployed 13 people on site as well as four office staff to manage and erect the steel in detailing, fabricating and erecting the steel structure.

Surdex Steel is supplying steel sections and Stramit Building Products the cold formed purlins for the complex design.

Steel products have been specified for the project for several reasons, such as reduced lead time in building the complicated structures and flexibility in forming complicated shapes that retain high strengths required of the project's unique structure and architectural features, such as the glazed 'bubble' window façade to the Melbourne Recital Centre building and external pipe façade designs of the MTC building.

The buildings are due to be open for business in 2009.

Project Team

Client: Arts Victoria, University of Melbourne
Project Director: Major Projects Victoria
Head Contractor: Bovis Lend Lease
Architect: ARM (Ashton Raggot McDougal)
Structural Engineer: Bonacci Group
Steel Contractor: Alfasi Steel Constructions

