

Architectural steelwork defines striking roof forms

50 Martin Place Sydney

The Brookfield Multiplex construction of the new Macquarie Group headquarters in Sydney follows on from its success with The Star Events Centre using structurally exposed steelwork to crown a prominent inner city redevelopment.

The new work has transformed an historic building into a new workplace with over 11 levels whilst preserving its heritage.

One of the main design features of the redevelopment is the exposed structural steelwork supporting the new glassed dome roof. In doing so, the project's design professionals embraced the ASI's Architecturally Exposed Structural Steelwork (AESS) principles and guidelines to develop the distinctive new roof structure.

Architect **Matthew Morel** from JPW Architects referenced the AESS Code of Practice after attending a seminar through the AIA in Sydney put on by the ASI.

Project engineers Taylor Thomson Whitting specified AESS Class 4 with high level of quality detailing including tri-columns, raking columns and lower portion of roof rafter in Level 11 meeting room, and Class 3 for the remainder of the main roof, glass lift, glass bridges and atrium stairs.

The roof comprises 27 tonnes of exposed steelwork out of 200 tonnes of Australian-made steel for the whole project. All rafters were fabricated into box sections from profiled plate.

ASI National Manager Marketing, **David Ryan** said the Institute's AESS resources aim to encourage better communication upfront between design professionals and steelwork contractors to articulate through specification what the architect is trying to convey.

"Steel is a beautiful material for architects to express their design intent, however at the work level where steel is generally just for structural purposes a different level of communication is required for all parties to understand their requirements," he said.

The project was also a 6 star Green Star Office Design requiring mostly Australian steel from compliant sources and was opened in October. A maximum green star point has been awarded for the steelwork including a dematerialisation point for design efficiency of the new steel roof.

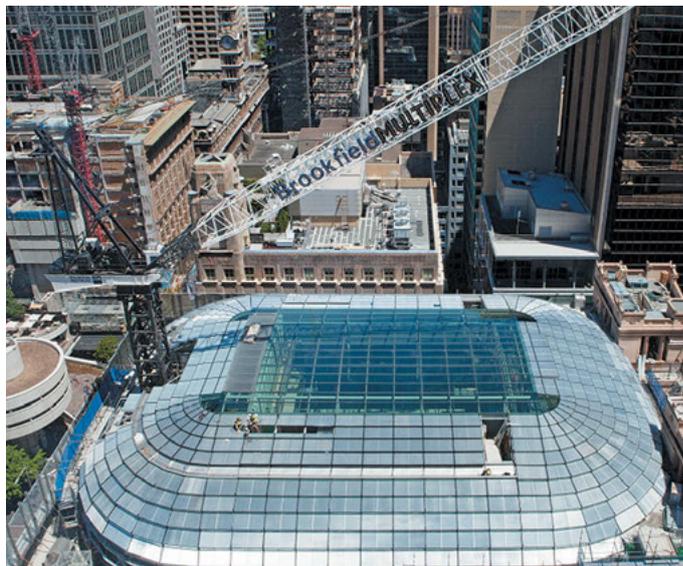
Project Team

Architects: JPW Architects

Prime Contractor: Brookfield Multiplex Constructions

Structural Engineer: Taylor Thomson Whitting

ASI Steel Fabricator: Pacific Steel Constructions



The ASI undertook a major project in 2012 to provide a reliable basis to specify construction of architectural steelwork. In conjunction with the Australian Institute of Architects, the ASI held a national presentation series with Architect **Terri Meyers Boake** from Canada and published an Australian and New Zealand edition of the guide on AESS she authored. To purchase the Guide from the ASI bookshop or to download sample specifications for engineers or the AESS Code of Practice for Fabricators, visit: <http://steel.org.au/key-issues/steel-in-architecture>