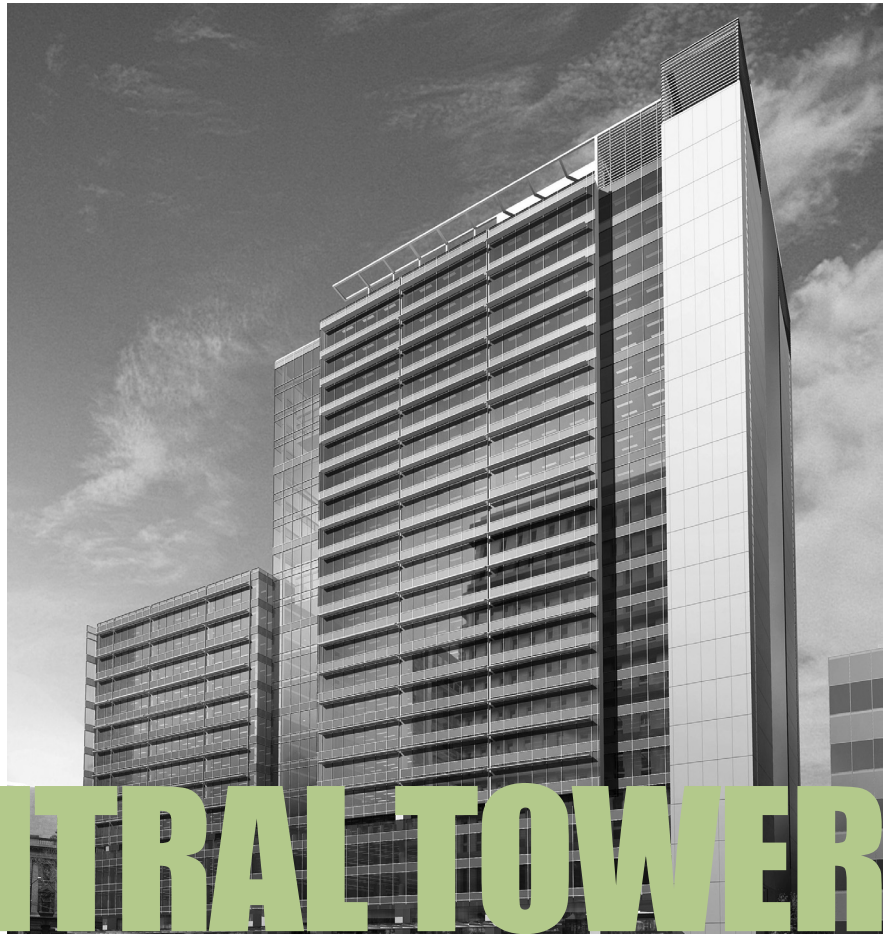


5 star rating



©green building council australia



CITY CENTRAL TOWER 1

GREEN BUILDING COUNCIL AUSTRALIA OVERVIEW

The Green Building Council of Australia's mission is to define and develop a sustainable property industry in Australia and to drive the adoption of green building practices through market-based solutions.

The Council's objective is to promote sustainable development and the transition of the property industry to implementing green building programs, technologies, design practice and operations. To do this, it advances and promotes the creation of a green building rating tool, economic incentives, government initiatives and programs, new technologies and industry knowledge.

CONTACT US:

Address:

Level 15 / 179 Elizabeth St
Sydney NSW 2000

Postal Address:

PO Box Q78, QVB Sydney,
NSW 1230

Telephone: 612 8252 8222

Fax: 612 8252 8223

Email: info@gbca.org.au

Web: www.gbca.org.au

GENERAL PROJECT DESCRIPTION

City Central Tower 1 is the first 5 Star Green Star Certified project in South Australia, recognising 'Australian Excellence'. It is also the largest Green Star development to date with more than 30,000m² of NLA over 21 storeys. Tower 1 is the first stage of City Central redevelopment, which is the largest master-planned precinct to ever be developed in Adelaide.

City Central's Tower 1 showcases the most extensive application of passive chilled beam technology in Australia, the use of which is not just a first for a building in South Australia, but a first for a speculative office building in the country.

The project started under Green Star – Office Design v1 in 2004, and upgraded to the subsequent version of the rating tool during the design process. The 5 Star Green Star – Office Design v2 Certified Rating was awarded in April, 2006.

CITY CENTRAL TOWER 1 ADELAIDE

Address:

11-29 Waymouth Street

Owner:

Investa Property Group

Design:

Woods Bagot (Architect) Advanced Environmental (ESD Consultants) Lincolne Scott (Building Services Engineer) Baulderstone Hornibrook (Main Contractor) Connell Mott MacDonald (Structural/Civil Engineer) Davis Langdon (Quantity Surveyor) Vipac Engineers & Scientists Ltd (Acoustic Consultant)

ESD Consultant:

Advanced Environmental

MANAGEMENT

Over 90% of the points achieved including:

- Extensive commissioning, building tuning and handover to building owner, with an independent Commissioning Agent
- Building User's Guide to facilitate the building performing to its designed potential
- 60% of construction waste diverted from landfill
- The Contractor has an Environmental Management Plan (EMP) and is accredited under the ISO 14001 Environmental Management System, which has ensured environmental management of the construction site

INDOOR ENVIRONMENT QUALITY

- Ventilation at a rate 100% greater than the Australian Standard
- 100% fresh air supply with no re-circulated component
- Electric lighting levels and high frequency ballasts improve occupant comfort
- Daylight Factor above 2.5% for 30% of the NLA
- High thermal occupant comfort with PMV $\leq \pm 0.5$ for 99 -100% of the year
- Acoustic comfort design levels
- Low levels of indoor air pollutants from low off-gassing carpets, adhesives, sealants and composite wood products
- Removal of indoor pollutants from printing and photocopy areas through a dedicated tenant exhaust riser

ENERGY

- Reduction of CO2 emissions equivalent to 20% improvement over 5 star ABGR
- Highly efficient cooling system via passive chilled beams in the offices
- Low energy T5 fluorescent lighting with 2w/m² per 100 lux
- Good occupant control with dimmable ballasts and zones of no more than 100m²
- Extensive sub-metering for all major energy uses
- Highly efficient spectrally selective façade glazing with external shading

TRANSPORT

- 80% reduction on local planning car-parking allowances for significant CO2 reduction equivalent to permanently removing 770 cars off the road
- City centre site within close proximity to public transport

WATER

- 5 points awarded for potable water consumption, this includes AAAA rated WC's, waterless urinals and taps with a flow restrictor achieving 2l/min
- Water meters on major uses and linked to the BMS for leak detection
- Water efficient irrigation system for Colonnade planting
- Cooling tower with 6 cycles of concentration

MATERIALS

- Segregation facilities for recycling office waste
- A speculative building with over 30% of the NLA delivered as shell-and-core
- 100% recycled post-consumer content for 80% of the building's steel
- Sustainable timber sourced for internal joinery, loose and built-in furniture and formwork

EMISSIONS

- Refrigerants and thermal insulation with Ozone Depleting Potential (ODP) of zero
- Stormwater pollution management and treatment
- Water-efficient amenity fixtures and fittings reduce the flow to sewer
- No external upward light dispersion, in accordance with AS4282-1997

INNOVATION

- Two points awarded to recognise the environmental benefits of direct condenser cooling tower cooling, of adapting the chilled beam technology to South Australia, and of affording easy integration of the building into the urban fabric via a reduced slab-to-slab height. In addition, the points acknowledge the City Central Tower 1 project as the most extensive application of passive chilled beams in Australia.

0.5=First application of chilled beams to a high-rise speculative office building in SA

0.5=Condenser water cooling

?? Largest (by over 10,000m²) GS-Certified bldg

?? Slab-to-slab height reduced 600mm - neighbourhood integration + embodied energy

LAND USE AND ECOLOGY

- Re-use of an under-utilized site in the city centre

OVERALL GREEN STAR BUILDING PERFORMANCE

