THE UNIVERSITY OF MELBOURNE

SUSTAINABILITY FACT SHEET

THE SPOT

The Business and Economics building, also known as 'The Spot', is among the first 'Australian Excellence', 5 Star Green Star Education buildings in Australia. Alongside other 'green' buildings on the University of Melbourne's campuses, it demonstrates the University's commitment to Sustainable design principles.

Greening Melbourne, one building at a time

As a leader in environmental performance in Australian higher education, the University of Melbourne aims to be carbon neutral by 2030 and develop our campuses for a sustainable future.

How we develop and use our buildings is critical in determining if we achieve this goal.

The design and operations of our facilities, and the space we use, directly affects our ability to minimise the amount of natural resources we consume, the greenhouse gases we emit, and our overall carbon footprint.

With this in mind, we have committed to minimum rating target of 5 Star Green Star for all new buildings, and 4 Star Green Star for all major building upgrades under the Green Building Council of Australia's standards.

Basement Theatre, 'Spot Building'

The Facts – The Spot

- Architect: Metier 3
- 20,000 square metres of usable floor area
- 24/7 student access to resource and support facilities
- State-of-the-art collaborative and individual teaching spaces
- A 400-seat theatre

Building for the future – 'the Spot'

Located at 198 Berkeley Street, the 12-storey Spot building is a purpose-built teaching and research centre that services the staff and students of the Faculty of Business and Economics.

Featuring a suite of 'green' innovations, the Spot remains at the vanguard of sustainable architecture.

The Spot incorporates a range of low-emission temperature control and ventilation options. Layered into functional zones, the double-glazed facade of the building maintains the temperature while optimising the use of natural light. Overall, the sustainable design features result in a 46 per cent reduction in energy use and 83 per cent less water compared with the average educational building.

Some of the unique design features of the building include:

THE FAÇADE

- The facade is designed to minimise the intensity of the sun while maximising daylight penetration in order to improve the quality of the indoor environment for occupants
- The grey spots on the exterior are a type of glazing that regulates the internal temperature but reduces glare from the sun

ENERGY

- The central stairwell is ventilated by fresh air from the lower floors – a highly efficient ventilation system that reduces the need for air-conditioning
- The stairs are close to the glazed façade and naturally lit to reduce the need for artificial lighting
- Close to the building's entrance points, the stairs offer a convenient alternative to using the lifts
- The building uses 46 per cent less energy than comparable buildings, saving at least $180,000 annually

CHILLED BEAM TECHNOLOGY

- Air is cooled by active and passive 'chilled beam' technology, a low energy alternative to air-conditioning – a first for an education building in Australia
- Chilled water flows through beams on the ceiling. As the beam chills the air around it, the air becomes denser and falls to the floor, occupying the space below. This regulates the temperature and creates the effect of cooling the area.
- The technology reduces air-handling energy use by 80 per cent compared to a regular air-conditioning unit

WATER

- A black-water recycling plant, capable of treating 30,000 litres of sewerage per day, reduces the flow to the sewer
- Water from this plant is also recycled back into the same system for toilet flushing

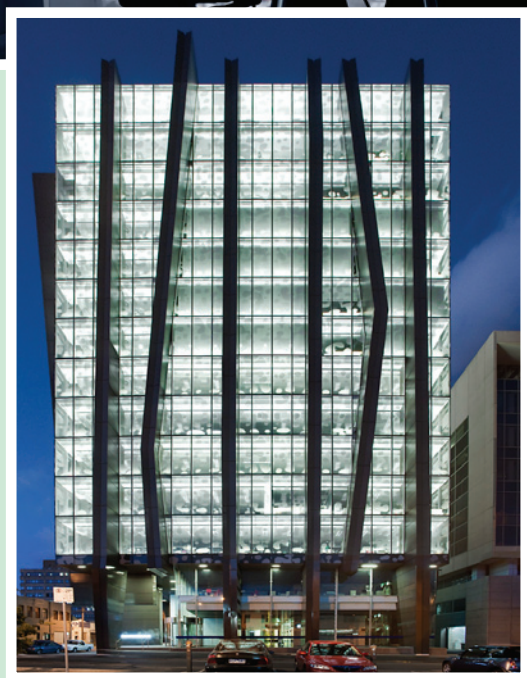
INDOOR ENVIRONMENT

- Blinds are controlled by light sensors to adapt the levels of sunlight allowed into the building to suit the weather
- Displacement ventilation circulates fresh air throughout the building – cool air spreads through the floor space and then rises as the air warms from the heat from light globes and other sources
- Demountable partitions in the space give the building greater functional flexibility. This reduces the impacts of more permanent structures, saving on hard waste

TRANSPORT

- Bicycle hub located in secure and weather-protected area
- 42 bicycle parking spaces are available
- End-of-ride facilities such as changing rooms, showers, and lockers

The Spot receives maximum daylight penetration through most hours of the day



An external view of the building, taken at night

achieving a sustainable campus

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