

ST BRIGID'S HEALTH SCIENCE BUILDING



The St Brigid's Building is a 5-Star Green Star building on ACU's Ballarat Campus. It is the first building in the city of Ballarat to achieve a 5-Star Green Star rating and demonstrates ACU's commitment to sustainable development of all its campuses.

The St Brigid's Building is located at the heart of the Ballarat campus. The building has state-of-the-art anatomy wet labs and specialist teaching labs and is the home of the Bachelor of Physiotherapy course offered by ACU's national School of Physiotherapy.

Building Sustainability Features

Energy

- The building has many features that ensure it uses energy efficiently. These include:
- Double glazed windows, shaded by eaves
- High-efficiency heating and air-conditioning units
- LED lighting used in most parts of the building
- Lighting sensors
- Combined solar and gas hot water systems
- A 30KW array of 115 solar panels expected to produce around 36,000 kWh annually

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Water

- 18kL dual-purpose rainwater tank: the tanks store rain water not only to flush the building's toilets but also to retain a sudden inflow of stormwater to reduce its potentially-damaging outflow into local storm-water drains
- Water efficient taps, toilets and urinals
- Xeriscape landscaping: *xeriscaping* is the planting of gardens that can thrive on rainwater alone, without supplemental watering.

Health and wellbeing

The building adds sixteen new, undercover bike racks to the campus

Several features act to improve the air quality inside the building. These include:

- High rates of fresh air introduced into the building
- CO₂ sensors combined with high ceilings, which will maintain CO₂ concentrations around 800ppm;
- The use of paints, adhesives, sealants, internal materials, furniture and finishes that minimise the emission of volatile organic compounds and formaldehyde

Sustainable Construction Practices

- Construction waste: 80% of the waste generated during construction was re-used or recycled;
- More than 50% of the water used to mix the building's concrete was sourced from recycled and reclaimed water rather than potable (tap) water
- The building uses structural steel sourced from environmentally responsible steelmakers and has concrete-reinforcing steel has a high stress grad. This reduced the total amount of concrete the building's construction required
- The building's timber is sourced from sustainably-managed forests