

UTS FILE NOTE

PROGRAM MANAGEMENT OFFICE

ITEM/ACTIVITY: BON MARCHE / CB04 DEVELOPMENT
SUSTAINABILITY BRIEF

DATE: 9.04.2019

AUTHOR: DANIELLE MCCARTNEY

FILE NO: 5091496

UTS – Sustainability Overview

UTS has a strong commitment to sustainability across all of the University's core areas of Research, Teaching and Learning, Campus Operations and Community Engagement. The *UTS Sustainability Strategy 2017 – 2020* ensures that sustainability is fully integrated across the University.

As part of the University's \$1billion ten year City Campus Master Plan, the Dr Chau Chak Wing, Faculty of Engineering and IT and Vicki Sara buildings all achieved certified Green Star ratings, two 5 stars and a 6 star rating respectively under the Green Building Council of Australia (GBCA)'s Educationv1 tool. The UTS Central building, currently under construction, is targeting a 5 star certified Design + As-Built rating. The University is targeting a 30% reduction in greenhouse gas emissions based on 2007 levels by 2020-21. UTS completed a \$9 million program over 3 years in 2012 to increase the energy efficiency of existing buildings.

UTS has been collaborating with neighbouring organisations to improve sustainability outcomes at the University as well as the local precinct. UTS has signed contracts with Flow Systems, managers of Central Park's Water Factory, to supply the new UTS Central building (currently under construction) with recycled water for irrigation and toilet flushing, thereby reducing potable water consumption. Phase 2 of this project is investigating the feasibility of supplying the cooling towers on existing UTS buildings with recycled water. UTS has also signed a contract with Brookfield, managers of Central Park's Energy Plant, to supply the new UTS Central building with chilled water, thereby reducing the University's greenhouse gas emissions and negating the need to install an additional chiller. The University has two Power Purchase Agreements in place with rural NSW solar farms to supply the University with renewable energy and is in the process of finalising a third.

Bon Marche / CB04 Development – Sustainability Overview

The project team, guided by an Ecologically Sustainable Design (ESD) consultant, shall incorporate sustainability principles into the detailed design of the building fabric and building services to maximise energy efficiency and optimise sustainability performance in operation.

The following sustainability aspects are to be investigated in the future detailed design phase of the project :

- **Energy** – climate responsive design, seasonally-optimised solar access, shading, glare-control, better than National Construction Code (NCC) Section J fabric and glazing performance requirements, selection of energy-efficient, appropriately-sized plant, equipment and HVAC controls, natural ventilation, mixed-mode ventilation, lighting zoning, metering, commissioning, tuning, renewable energy (e.g. PVs, solar hot water) etc.
- **Water** – selection of water-efficient fixtures and equipment, metering, stormwater collection, storage, treatment and reuse, water sensitive urban design etc.
- **Indoor Environment Quality** – fresh air intake, daylighting, visual comfort (glare control, lighting levels, views to the outside), thermal comfort, acoustic comfort, selection of low Volatile Organic Compound (VOC) and low formaldehyde emission products etc.
- **Land and Ecology** – enhancement of local biodiversity, selection of drought-tolerant indigenous species, green roofs and walls etc.
- **Materials** - selection of sustainable, low embodied energy materials, selection of timber from recycled or sustainable (FSC, PEFC) sources, construction waste management plan, operational waste management plan, recycling storage area etc.

- **Emissions** – selection of zero Ozone Depletion Potential (ODP) insulation and refrigerants, minimisation of external light night sky pollution etc.
- **Transport** – provision of or access to cyclist facilities etc. Green Travel Plan etc
- **Management** – provision of building user guide, building maintenance guide, construction environmental management plan etc.
- **Education for Sustainability** – creation of opportunities to create a “living lab” where sustainability features are promoted to staff and visitors with the aim of raising awareness. All of the University’s utility meters are connected to a campus-wide monitoring system. Staff and students have access to this system for coursework or research. The three new buildings (CB07, CB08 and CB11) all have digital displays of building sustainability information in foyers.