

## **Innovation and Transformation in Adaptive Re-Use of University Facilities**

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This paper will explore the dilemma facing many universities as they look to optimise the value of ageing building assets - replace or re-life?

In keeping with the theme of the 2012 conference: "The Right Blend: Innovation and Transformation", this paper will investigate "The Right Facilities" and present case studies where the decision to retain and re-life obsolete building stock has been highly successful.

As the dynamic needs and expectations of tertiary institutions rapidly evolve and inter-disciplinary interaction and collaboration builds, campuses need to provide more flexible, multi-functional and connected learning for increasingly diverse cultures and communities.

In step with these changes, the physical design of University facilities has evolved to reflect the demand for more open, flexible and adaptable spaces.

Most established universities find themselves with building stock that does not readily support the evolution in teaching and learning. In many cases, these buildings have heritage significance with major constraints on options for their future use.

Some of the challenges inherent in the re-living of these facilities are:

- Building Code of Australia and Disability Discrimination Act compliance
- integration of building services upgrades into the existing building fabric
- providing open and flexible spaces within existing structural constraints
- improving sustainability, eg reduction in energy consumption, improving air quality, increasing natural lighting without solar gain.

The challenges can generally be overcome - often with spectacular results. A number of case studies will be presented to demonstrate successful responses to demanding physical and cultural environments. The case studies will include:

### **H Block QUT Gardens Point Campus**

H Block is listed as a building of cultural significance within QUT's Gardens Point campus. The brief was to transform the former workshop into a Higher Degree Research studio within the heritage context for students from the faculties of Built Environment and Engineering, and Science and Technology. The objective was to provide flexible, comfortable and creative studio spaces to encourage HDR students to engage, collaborate, write and present their thesis.

### **Boilerhouse Community Engagement Centre, University of Qld Ipswich Campus**

The Boilerhouse Community Engagement Centre facilitates a range of community services as well as training and research activities. The building is a significant landmark within a state heritage listed precinct, the site of a former mental institution. The adaptive re-use of the former boilerhouse follows conservation best practice methodology and techniques. The architectural language of the centre uses a palette of glass and steel to reinforce the character of the original building, allowing the new insertions to lightly touch the heritage fabric.

### **Blair and Charles Pavilions, University of Qld Ipswich Campus**

The Ipswich campus of the University of Qld contains a wonderful assortment of significant buildings spread across its generous and spacious state heritage listed site. Situated in the south-western corner of the site, the Blair and Charles Pavilions have been vacant for many years. The University of Qld engaged Suters to explore refurbishment options for these structures, both of which are structurally sound and visually prominent. As former accommodation buildings for child and adult patients, their cellular planning provided a serious impediment to functional open planning. It was considered that the best use would be a commercial fitout providing modern office accommodation with training facilities, suitable for a diverse range of internal and external tenants.

### **Climate Change Facility, University of Western Sydney Hawkesbury Campus**

The refurbishment of Building L9 presented an exciting opportunity to reflect the aspirations of a climate change and energy research facility through innovative sustainable initiatives.

The existing building, dating from the 1930's, provided a unique set of challenges to adaptively re-use the building and integrate the requirements of the project brief. A new double storey glass facade encloses an "environmental atrium" incorporating plants, pedestrian activity and multi -purpose zones to activate the building.

The refurbishment resolved a number of program challenges including a major services upgrade and integration, the incorporation of numerous PC2 laboratories and the improvement of the levels of natural light within the building.

### **Fisher Library, University of Sydney**

In collaboration with Geyer Design and Rubida Research, Suters was engaged to undertake a major upgrade of the significant Fisher Library. The client had undertaken a Conservation Management Plan, which provided a framework for future interventions. Although originally designed as a library when its primary resource was books, the new brief required the culling of one million books, catering for an enlarged student population, modern technologies and flexible learning spaces.

Challenges faced have included non compliant stairwells and balustrades, fire separation and egress, and the integration of new mechanical and electrical services into tight ceiling spaces, whilst protecting the heritage fabric and character.

### **Conclusion**

All of these project outcomes demonstrate that existing buildings – whether protected by heritage significance or not – should be carefully investigated for their potential adaptive re-use and re-living. Whilst there are challenges in functional planning, integration of upgraded building services, and generally a cost penalty, the above examples illustrate that properly planned and executed, older buildings can make a valuable new contribution to the campuses of tomorrow.