



AFFORDABLE HOUSING NOW MORE IMPORTANT THAN EVER IN PERTH

By Simone Wilkins



Images courtesy of Rob Ramsay,
JCY Architects and Urban Designers.

It's no surprise that Western Australia's economy is currently the worst performer in the nation and it certainly doesn't take a rocket scientist to ascertain why. The mining bubble had to eventually burst and whilst we knew we would never be able to sustain such an economy from mining alone, many were not prepared for it to happen with such gusto.

The knock-on effect has seen housing prices tumble, unemployment rise whilst the cost of living is still right up there.

The advent of affordable housing in WA couldn't be more important than now and the existence of organisations such as Foundation Housing, Access Housing and others together with the support of the Department of Housing, play a significant role in its necessary increase.

In light of the recent budget announcement and our current economic environment, the statement below is very poignant.

The Australian Institute of Architects' (AIA) current National President, Ken Maher told an audience of federal politicians, "As a key player in the development of the built environment, the architecture profession has the skills to deliver housing that addresses crucial issues, such as affordable living, sustainable design and flexible housing, providing savings in both upfront costs and the ongoing cost of occupation".

The lodging and affordable housing projects that are sprouting up are providing more than just that, they are being cleverly planned with a sense of community, pride and contribution all at the forefront of the overall design.

Gone are the days of the concrete block, eye-sore designs that unfortunately still protrude out of our city and surroundings. Just because they are classed as affordable living or lodging dwellings doesn't mean style and creativity in the look and feel have to be avoided.

Ian Hart, Director of JCY Architects and Urban Designers, who are responsible for many of the latest affordable housing projects such as 67 Bennett St in the CBD and the Ashton Avenue complex in Claremont, said housing affordability is about more than providing housing with a low purchase price on the outskirts of the city.

"Housing affordability is also about reducing ongoing living costs, this includes lower transport costs (to get to work, amenity and services), reducing energy and water bills and reducing ongoing maintenance," he said.

A sense of community, safety and belonging when faced with adversity are also paramount and organisations such as Foundation Housing know that the underlying issues of social housing can't just be fixed by building more accommodation. It's about working closely with tenants and the community in general to improve their situation and work towards exiting the social housing system.

Kathleen Gregory, CEO of Foundation Housing, said completing the Bennett Street complex represented a very important step for ensuring that those who are often the most vulnerable in our community, can live independently in housing that is affordable and safe.

"Residents enjoy modern, inner city living close to public transport while being supported by Foundation Housing's programs and services that assist them to maintain their home and also to strive for more independent living," she said.

When designing complexes such as 67 Bennett St, high quality architectural design and the use of quality yet affordable materials enrich the overall appeal and the presence of communal areas, gardens and terraces only enhance the sense of ownership for all residents.

Mr Hart said incorporating simple passive solar principles into the design provides the opportunity for passive solar heating and cooling, natural daylighting and natural cross ventilation.

"If these principles are coupled with shading devices, improved building fabric thermal performance (additional insulation) and high performance glazing, the reliance on air-conditioning systems for heating and cooling is reduced, which can help reduce energy costs and improve the health and wellbeing for residents," he said.

A key feature of the brief for the development at 67 Bennett St was to minimise maintenance issues for Foundation Housing, who will be long term owners/occupiers of the development. This required the consideration of whole of life cycle costs in the selection of building materials to minimise both construction costs and ongoing maintenance and operational costs, with specific attention given to materials that can be easily and economically maintained and replaced.

"The choice of materials also has an impact, not just in what is selected, but how and where they are used," Mr Hart said.

"In the Perth climate, it is important to provide dwellings with a high level of insulation but also high levels of thermal mass, (when used in conjunction with good passive design) which can be used to moderate internal temperatures, increasing comfort and reducing energy costs. Affordable Housing is a misnomer - it should really be termed 'Affordable Living'."

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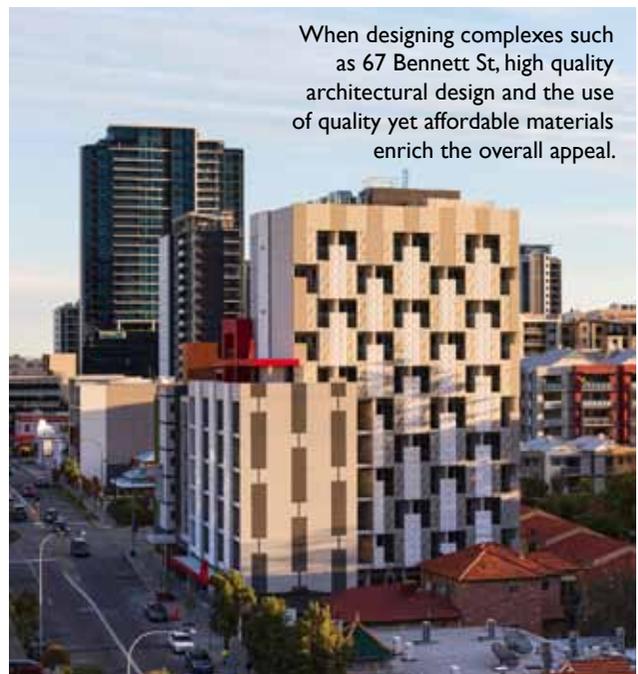


Image courtesy of
JCY Architects, Urban
Designers and Crone
Partners. Photo by
Rob Ramsay

KINGS SQUARE 2 ACHIEVES A 5.5 STAR NABERS ENERGY RATING

Dexus' Kings Square 2 Shell House has achieved a 5.5 Star NABERS Energy Rating, joining an elite group of buildings to achieve this excellent energy performance that is unsurpassed in Perth. The building's mechanical and electrical services were designed by Floth Sustainable Building Consultants.

Floth Sustainable Building Consultants have successfully operated in Australia and Asia for over 33 years by applying a simple design philosophy that has three key components; technical excellence, commercial viability and environmental sustainability.

The 5.5 Star NABERS Rating is the outcome of a process of integrated design of the building's form and function to achieve market leading environmental performance. In addition to the 5.5 star NABERS Rating, the building has achieved a 5 Star Green Star Office V3 Rating and a LEED Silver Rating. The environmental performance has been achieved whilst maintaining a PCA A Grade standard of office space. The building services include:

- Low temperature variable air volume HVAC strategy.
- Modified variable flow primary chilled water system.
- Central heating hot water plant for AHU heating coils.
- 1 Low load, 2 Duty and 1 standby variable speed drive centrifugal chillers.
- Auxiliary condenser water system for tenant supplementary air-conditioning.
- Electric reheat in perimeter zone VAV terminals.
- Average Office NLA Lighting power density 4.6 W/m².

It is notable that the building services don't include a Solar PV array, Cogeneration or Tri-generation. Such initiatives are often found in buildings with top NABERS Ratings, but can have significant capital cost impacts. The Rating is also without GreenPower. The KS2 5.5 Star NABERS Rating is the culmination of the continued efforts of the whole design team to optimise the environmental and economic sustainability of the building. The result is an exemplar of the Floth approach; good results are the outcome of good design.

"KS2 is a perfect example to show that energy efficiency does not have to come via complex and expensive design solutions. Paying attention to the detail and sticking to the correct engineering principals, Floth employed a Low Temperature VAV air distribution system, providing a robust, low cost, highly efficient system that also provides great flexibility for tenant chur," said Tim Philp, Perth Office Manager Senior Mechanical Engineer.



KINGS SQUARE 2 PROJECT DETAILS

- 12-storey development comprises 18,400m² Office
- 850m² of Ground Floor Retail
- Basement Car Park and end-of trip-facilities
- 5 Star Green Star Office Design v3 Rating
- 5.5 Star NABERS Energy Rating (Without GreenPower)
- LEED Silver Rating
- Practical completion May 2015

FLOTH HEADQUARTERS SHOWCASE SUSTAINABILITY BUILDING SERVICES

Floth's leadership in sustainable building services is nowhere more evident than at 69 Robertson Street, the company's headquarters in Brisbane. The building is the first to receive a 6 Star Green Star Design and As-Built V1.1 Rating and also the first to receive a 6 Star NABERS Indoor Environment Rating and be recognised as the first ASBEC Zero Carbon Standard Building.

"As sustainable building consultants, we undertook to 'walk the talk' by testing and optimising the building design and construction against the latest sustainable building rating systems, while minimising additional cost," said R. Glenn Ralph – Floth Managing Director.

Floth 69 Robertson Street was completed in 2015 and has since won:

- 2017 Property Council of Australia, Innovation & Excellence Award for Best Sustainable Development – New Buildings.
- 2016 World Green Building Council, Asia Pacific Leadership in Green Building Awards – for Leadership in Sustainable design and Performance category.
- 2016 UDIA (Qld) Mitchell Brandtman Awards for Excellence - for Consultant's Excellence.