

A CLASS OF ITS OWN

DEVELOPER : Student One
MAIN CONSTRUCTION COMPANY : Hutchinson Builders
ARCHITECT : Arkhefield
STRUCTURAL ENGINEER : ADG Structural
CONSTRUCTION VALUE : \$80 million

The 38 Wharf Street Student One Accommodation project will provide 753 beds made up of studio, executive, and multi-share apartments. The tower includes retail and recreation spaces, including an exercise room, pool, games room, as well as outdoor dining and lounge areas.

Hutchinson Builders were responsible for the design and construction of the \$80 million Student One Accommodation project at 38 Wharf Street in Brisbane's bustling CBD. Taking the project through from documentation to delivery, the 39-storey, 753 bed development has been a challenging and exciting undertaking for the experienced construction company.

According to project manager for Hutchinson Builders, Joel Martin, the Student One apartments are a long term project, with the construction starting in December 2015.

"The location of the site is very tight. It's on the corner of Wharf Street and Adelaide Street, which are primary arterials through the CBD. Logistically, it's been very challenging," Joel said.

Generally the build was a typical concrete construction with post tension slabs. The vertical elements are predominantly precast, with the stair and lift core being conventional reinforced in-situ concrete. There was a monumental jump system on the project that took up a third of the site," he said.

With particular concern for the building's aesthetics, a Keim mineral paint finish was applied to all precast concrete, creating a stained finish and low-level opacity that allowed the natural texture of the concrete to show through.

Joel explained that the building uses a new and different aesthetic typology in terms of building style. Using a mixture of precast,

glass and aluminium, the façade is heavily articulated on the north side. "It has three layers of façade; being precast, using an aluminium rainscreen, and then with the glazed window wall units behind that. It's quite complex in its construction," he said.

In addition to its complex tower façade, the building has honed coloured precast panels which span three levels on the outer podiums, which proved an interesting challenge for installation.

"Internally, the architect has adopted an industrial look, with exposed concrete soffits and galvanised sprinkler pipes," he said. To soften the building's industrial feel, the architect introduced touches of timber joinery, perforated ply ceilings, and signature pink and purple colours to add warmth to the space.

Being the world's tallest purpose built student accommodation tower to date, a number of employees and trades have contributed to the project. Joel estimated that site workers at the location peaked at 170 persons on a per day basis. "Across the duration of the project, in excess of 1,500 people have worked on the job," he said.

Having built largescale residential, industrial and commercial structures since 1912, Hutchinson Builders is one of Australia's largest and longest running privately owned construction companies, working on over 250 projects on an annual basis. Joel said that a number of projects are currently underway, with two of the most exciting being the Student One Accommodation, and the Spire Apartments project, which is located on a site just across the road.

"Our main state for construction is Queensland, but we do have a good national exposure," Joel explained. "If you look across the Brisbane horizon, the blue Hutchinson cranes popping up are a testament to how the blue machine operates in Brisbane."

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MAKING THE GRADE

MCD Fire Engineering provided accredited fire safety engineering solutions to the 38 Wharf Street Student One Accommodation project. With 41-storeys and space for 750 residents, the large scale project required innovative techniques and a collaborative approach.

Taking responsibility for the project was Mark McDaid, MCD Fire Engineering's Founder and Director. "It's a highly performance based building," Mark explained. "Being the director and registered fire engineer, I worked on it solely due to its unique design challenges."

Mark said his work was solution driven, and innovative. With apartments designed as 'clusters', six bedrooms open onto common living spaces. "In Australia, the concept of not fire separating the bedrooms in the student cluster is relatively new. Under the Building Code of Australia strict DTS provisions, bedrooms need to be totally fire separated."

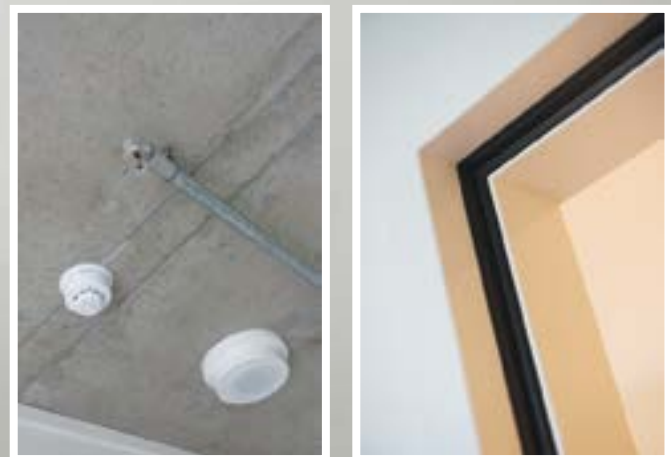
To address this, Mark explained that bedrooms and common spaces were designed with enhanced fire safety systems. "If the code required a certain safety level, we designed to an equal or superior level for sprinklers, detection, alarms, emergency lighting etc. The Building Certifier accepted the design to be equal or higher than the BCA's strict DTS means of compliance," Mark reported.

Rather than using a stair pressurisation system, MCD adopted an open access balcony approach, allowing any smoke to dissipate rather than entering the stairs. "We weren't relying on a mechanical system, so there's less risk of it failing – a balcony acts as the ventilator," Mark explained.

Mark attributes part of the project's success to his international experience in this field but most notably in this case, client engagement. "The end user isn't always involved at design stage, but they came to meetings and gave feedback. It benefited the whole process," he said.

MCD Fire Engineering is also working on similar projects across Brisbane and also as a court appointed expert on building defects and non-compliances.

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A BETTER WAY TO BUILD

Interpod was responsible for the manufacture and installation of all student bathrooms in the 41-storey Student One Accommodation project, utilising new products and overcoming a number of challenges to achieve both great design and efficient use of space.

Having installed 382 student accommodation bathroom pods for the apartments within the building, including four varied designs and disabled compliant DDA bathrooms, the company had its work cut out for it from day one.

"The 38 Wharf Street project site faced significant challenges with an extremely tight deadline, with 41-levels on a footprint of under 1,000m²," said Interpod's Project Manager for the Student One Accommodation, Nathan Light. "In the heart of Brisbane's CBD, Interpod was successful in streamlining the construction through reducing trades onsite, and with reduced logistics and storage of raw materials onsite," he continued.

With over 25 years' experience in modular building and the ability to manufacture bathrooms offsite and deliver ready for installation, Interpod were largely unhindered by weather conditions and site access. Furthermore, the company made intuitive use of space in the bathrooms, using products that were fit for purpose.

"This project utilised a skirting tile in conjunction with Interpod's Astron Designer Panel System to achieve the modern architectural

design concept. Cabinets used were recessed into wall cavities to maximise usable space within the bathrooms," Nathan said.

Interpod has over 150 employees, with between 35 and 40 working on this large scale project. Nathan said that the company has recently reached a major milestone of manufacturing 10,000 pods and have been busy working on a number of exciting projects, including the IGLU Redfern Student Accommodation, the William Inglis Hotel at Warwick Farm, and Unilodge South Brisbane Student Accommodation, amongst others.

"The key advantage of working with the Interpod Bathroom Solution is the way that we listen, partner and deliver," Nathan added.

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A NEUTRAL PALETTE

Sarri Painters worked on both internal and external finishes on the student one project at 38 Wharf Street, which will provide 687 students with accommodation in Brisbane's city centre. Specialising in large-scale projects, the company utilised its experience on high profile developments to complete the painting of the internal student rooms, lobbies, common areas and building facilities, as well as concrete stains on the expansive exterior of the building.

While no new products were used on the Student One project, the company had to think innovatively to overcome the challenges the development posed. "The difficulty in the project was working in the city environment and working with large technical external finishes like concrete stains. It's not your typical external paint finish you'd find down at Bunnings," explained Aaron Sarri, Owner and Director of Sarri Painters.

The 35-storey building, high wind levels and unpredictable weather, made the external staining and painting particularly problematic. Having worked on similar projects in the past, Aaron said the company are able to navigate the high areas with a relative degree of ease.

Having traded in the commercial painting industry as Sarri Painters for 34 years, and with roots dating back to 1951, the company and its staff are well placed for large scale commercial projects such as this. With employee numbers fluctuating between 80 and 100 employees depending on demand, the company assigned 15 staff members to the project to complete large areas of painting and concrete staining.

Sarri Painters has a long standing relationship with Hutchinson Builders, working together for 18 years, with 38 Wharf Street the latest in a long

list of successful projects and Aaron and the team are looking forward to seeing the final results. "We haven't finished, we're only about a third of the way through. We expect to finish by the end of 2017," he said.

The company is also currently working on the Sunshine Coast University Hospital and the Ivy and Eve apartments in Brisbane. The company's preferred projects include large commercial developments and landmark projects.



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