

OPULENCE IS STANDARD

DEVELOPER : Luxcon
MAIN CONSTRUCTION COMPANY : TQM Design & Construct
ARCHITECT : MKD Architects
CONSTRUCTION VALUE : \$58 million

The \$58M Jardine Residences is an iconic 22-storey architectural statement of 56 luxurious residences with expansive open plan interiors, incredible views, curved balconies, elevated ceilings, floor-to-ceiling glass, and elegant bathrooms in a captivating shimmering façade. Situated in the heart of the Epping Town Centre, Jardine Residences rises above its environment, offering spectacular views of the tranquil suburban skyline.

TQM Design & Construct, a group of professional consultants, provide design, engineering, construction and project management services specialising in the construction of high rise mixed use developments within the Sydney metropolitan region.

In early 2016, TQM Design & Construct were awarded the contract for the \$58 million Jardine Residences, a 22-storey mixed use development. The project comprises 56 luxury one, two and three bedroom apartments, including three penthouse units, above a 2-storey podium with BBQ area, gym and swimming pool for the exclusive use of residents.

The individual units of Jardine Residences are light filled and airy due to an expansive open plan design, high ceilings and floor-to-ceiling tinted glazing. Privacy and quiet is a priority for residents with few common walls and a limit of two or three apartments to each floor. Interior fittings are of high quality with polished floors of wide timber boards and areas of plush wool carpet. Modern bathrooms have stone and timber finishes and the kitchens are supplied with contemporary Meile appliances and stone benchtops. Each apartment has ducted air conditioning, video security, and a curving balcony giving access to sweeping views to the city.

Toward the end of 2016 onsite work for Jardine Residences started with demolition work followed by excavation for 3-levels of underground parking for 69 cars. With up to 100 workers onsite during peak periods the building was completed by September 2018. Jardine Residences is a concrete structure with in situ floors and the lift core, stairwells and walls constructed of precast elements.

“Precast concrete is a great product,” said Project Manager Anthony Moran.

“TQM use it often, it contributes to the speed of the build enormously. Also its use on the façade is superior to other products such as aluminium cladding. The combustibility of façade cladding contributed to the spread of fire at Grenfell Tower in London and, more recently, to some smaller fires in high rise buildings in Melbourne.”

The ribbed and painted precast concrete surfaces at Jardine Residences certainly complement the metalwork of the louvres and window boxes that give the 72m high structure a sparkling façade. Vertical gardens, timber privacy screens and different set backs give the building an interesting and lively appearance.

“The site was very small,” said Anthony. “We had to get permission from neighbours to use a hammer head crane that encroached on their boundaries. It was very busy on site and it was a challenge to coordinate the timing of deliveries and sequencing of different trades.”

TQM Design & Construct also works in Wollongong and is currently building the \$89 million 19-storey Avante. Similar to Jardine Residences, Avante is a mixed use residential tower and podium of curving precast elements. TQM Design & Construct’s extensive portfolio of mixed use developments includes

the \$110 million Eden Residence in Wollongong completed in May 2018. The building comprises 110 apartments and over 2,000m² of commercial space within a shimmering glass façade. Also at Wollongong is the \$120 million Cahill Gardens, a distinctive 14-storey structure of 185-apartments, five commercial tenancies and gym, completed in April 2018.

Established in 1999 TQM Design & Construct offers the full range of services from structural design and engineering through to construction and project management. The company provides weekly monitoring and reporting on all their building projects, a system that has contributed to TQM Design & Construct achieving a solid reputation for successfully delivering a broad array of residential projects, on time and to budget.

TQM Design & Construct is committed to environmental sustainability and aims to reduce energy and water use on their construction projects as well as working with its clients to build structures with a low carbon footprint.

For more information contact TQM Design & Construct, Unit 6, 44 O’Dea Avenue, Waterloo NSW 2017, phone 02 9556 1046, email info@tqmdc.com.au, website www.tqmdc.com.au



Below RJS Aluminium completed all the glazing units for the external doors, façades and shopfronts for the Jardine Residences.



Below AFS supplied both its Logicwall® fibre cement and Rediwall® pvc permanent formwork walling systems which were utilised in applications including blade walls, basement, stair and lift cores.



RJS Aluminium is a leading fabricator and supplier of aluminium framed windows and doors for domestic and commercial applications. At Jardine Residences RJS Aluminium designed, manufactured and installed glazing units for the façade, external doors to the apartments' balconies as well as shopfront glazing for the commercial tenancies at podium level.

Starting work on the Jardine Residences project in late 2016, Project Manager, Kristal Mon produced technical drawings then consulted with the architect to incorporate design changes before drafting the final shop drawings and the cutting sheets for fabrication in their factory.

“The Jardine Residences project was less complex than most of our work due to the specification of standard units. We worked to a tight programme and it all went very smoothly with the installation completed by September 2018,” said Kristal.

RJS Aluminium manufactures standard glazing units as well as unique pieces to designer specifications. Their products include sliding windows and doors, casement and double hung windows, bi-folds, frameless glazing and louvre windows in a range of colours and styles

made to Australian standards. Installation is carried out by qualified installers who have been trained to work with RJS Aluminium's products and methods. The company works across the greater Sydney metropolitan area, extending to the Central Coast and the Blue Mountains, focusing on high rise residential and commercial projects.

RJS Aluminium has a solid reputation within the construction industry due to their 15 years experience of designing and fabricating quality product and efficient installation procedures.

“We have a good relationship with TQM and are regular suppliers of aluminium framed glass products for its developments,” Kristal said. “We have recently finished work at a TQM project in Burwood, a 21-storey mixed use building where we manufactured, supplied and installed aluminium framed glazing to the façade as well as aluminium framed windows and glass doors in the commercial areas.”

For more information contact RJS Aluminium, 5 Cottam Avenue, Bankstown NSW 2200, phone 02 9790 3445, fax 02 9796 1944, email sales@rjsaluminium.com.au, website www.rjsaluminium.com.au

AFS Systems is a leading manufacturer of permanent formwork walling systems. For Jardine Residences, AFS Systems manufactured and supplied over 7,000m² of AFS Logicwall® fibre cement permanent formwork to construct internal walls such as blade walls, basement and lift shafts.

AFS Logicwall® is a fibre cement based permanent formwork system and a faster alternative to conventional masonry and blockwork. CodeMark Certified and AS3600 compliant Logicwall® is load bearing for multi-level structures up to 30-floors. Logicwall® panels are delivered with shop drawn accuracy and labelled for rapid installation. Consisting of lightweight panels created by bonding hard wearing CSR Cemintel® fibre cement sheets against galvanised steel stud frames, Logicwall® panels are load bearing (when core-filled) but lightweight enough for manual installation. The Logicwall® panels consistently provide a flat, true surface to deliver high quality finishes. “The job at Jardine went very quickly with a seven day floor cycle across 22-storeys that translated to a major time saving,” said Andrew Horsfall, AFS Systems Senior Sales Consultant.

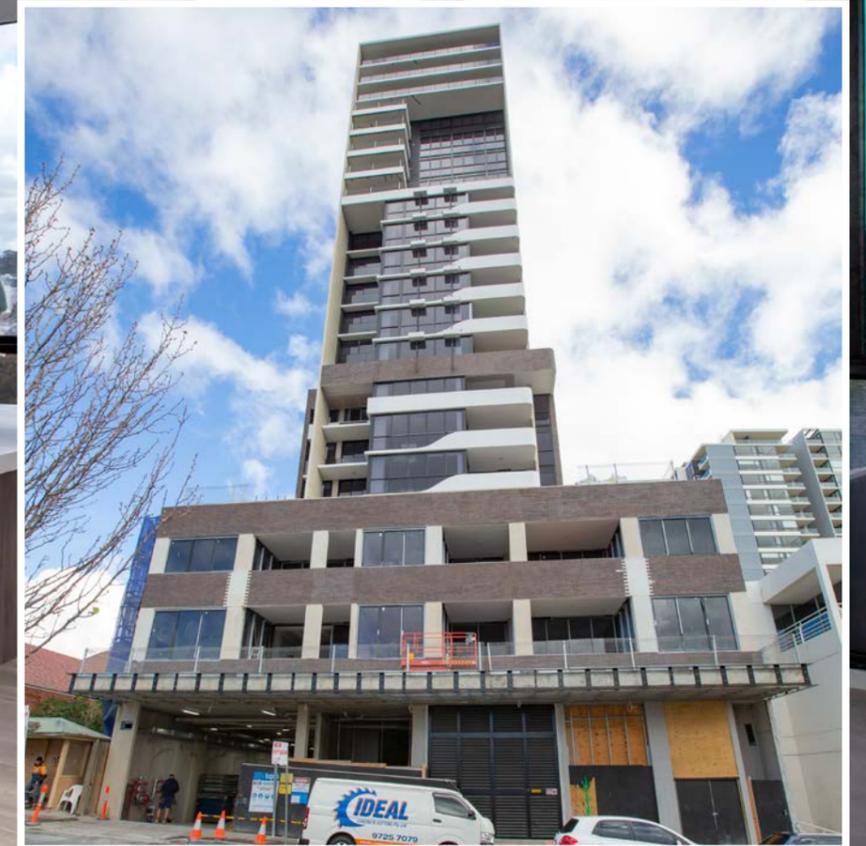
AFS Systems also provided their Rediwall® PVC permanent formwork to the project for construction of the stair shaft. AFS Rediwall®

features precision-extruded components that easily interconnect for rapid installation. AS3600 compliant Rediwall® is load bearing for multi-level structures providing a consistently clean, even and water resistant surface that often doesn't require any finishing.

AFS Systems was established in 1996 and acquired by CSR in 2014. With offices in New South Wales, Queensland and Victoria, the company manufactures and supplies product to a range of developments including multi-residential apartments, hotels, student accommodation, shopping centres, hospitals, prisons and aged care facilities.

AFS Systems have worked repeatedly for TQM Design & Construct, recently supplying product for the Eden Residence and Cahill Gardens projects at Wolli Creek. Currently AFS Systems is supplying Rediwall® at TQM Design & Construct's 10-storey mixed used development in Everton Road, Strathfield.

For more information contact AFS Systems, 110 Airds Road, Minto NSW 2566, phone 1300 727 237, fax 1300 715 237, email afssales@csr.com.au, website www.afsformwork.com.au



Modun specialises in steel reinforcement fixing for medium to high rise apartment developments across the Sydney metropolitan region. At Jardine Residences Modun supplied and installed all the steel reinforcement for the 22-storey concrete tower.

Starting in February 2017, Modun had up to 10 of their workers fixing reinforcing steel for footings, the basement, lift core and stairwells. The steel reinforcing was installed in stages to ensure safety and their work was completed by March 2018. Modun then carried out the initial clean of the Jardine Residences display unit.

Modun was established in 2016 and now employs 39 well trained steel fixers, specialising in supplying and fixing bar and mesh reinforcement for conventional and post tensioned slabs, suspended slabs, cores, footings and retaining walls. The company follow strict safety guides assuring a safe work environment and Australian Standards are met.

“We have completed numerous jobs fixing steel reinforcement at large scale mixed use residential developments for TQM Design & Construct,” said Munkhbat Ulziikhutag of Modun. “In March this year we completed a steel fixing job at Burwood, The George, an 18-storey tower with 3-levels of underground car parking.”

The repeat work Modun has received from TQM Design & Construct is testament to the quality of their work and the reliability of the company. Modun prides themselves on completing their work on time and to budget.

Other contracts for TQM Design & Construct include steel fixing for the \$56 million 9-storey development, Park 85 at Homebush; Hutch & Hutch, a smaller apartment building consisting of 18 luxury units at Surry Hills as well as apartment blocks at Eastwood and Strathfield.

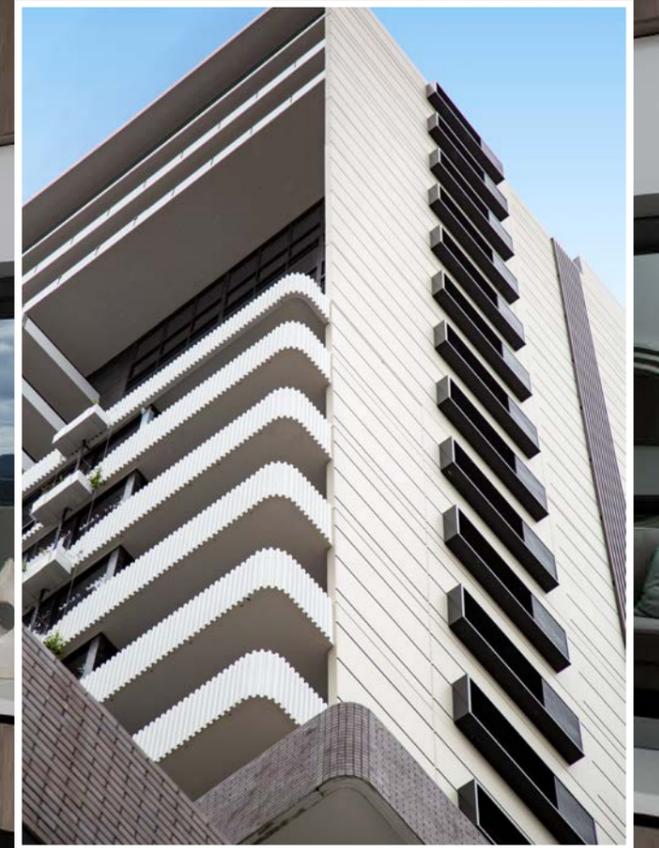
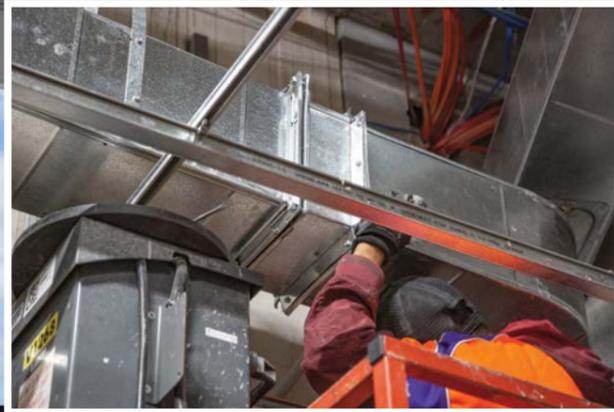
Recently Modun supplied and fixed steel reinforcing for underground tanks at petrol stations in Marsden Park and Werrington as well as a job in regional New South Wales at Bomaderry.

For more information contact Modun, 5 Potter Street, Waterloo NSW 2017, phone 0420 436 273, email modun.pty.ltd@gmail.com, website www.moduncompany.com

Below Ark Air Solutions supplied and installed all the Daikin air conditioning systems to the Jardine Residences.



Below Adseal Group provided concrete finishing and sealing services for the façade panels of the project.



Ark Air Solutions specialises in the supply and installation mechanical services for large scale high rise residential developments. In June 2017 Ark Air Solutions were contracted to supply the heating, ventilation and air conditioning (HVAC) services for Jardine Residences. A team of two prepared working drawings for the manufacture of the air conditioning system's risers and ductwork as well as for the electricals needed to support the system. Ark Air Solutions had their own manufacturers fabricate the required sheet metal and a dedicated team to fit the hardware and install Daikin air conditioning units to all the apartments.

"Installing the mechanical services is usually a complex operation," said Accounts Administrator, Sarah Hallak. "We have different trades, such as electricians and ductwork installers, working at different areas of the building simultaneously. As one of the last contractors on the job we usually have to work fast to meet milestones and site requirements. This job in particular had challenges of minimal services provision which required onsite turnkey solutions due to the nature of the footprint and area space of the project."

Established in 2015, Ark Air Solutions is a young company employing seven staff and a team of 10 installers and uses CAD drafting to

create working drawings. The company supplies and installs HVAC systems for existing buildings as well as for new developments and have vast experience designing and installing water cooling systems for their mechanical services.

Ark Air Solutions has worked on multiple projects for TQM Design & Construct including fitting mechanical services to the 110-apartments and 2,000m² of commercial tenancies at the \$110 million Magdalene Terrace at Wolli Creek.

For more information contact Ark Air Solutions, Unit 30, 50-55 Norman Street, Peakhurst NSW 2210, phone 0406 992 338, email admin@arkairsolutions.com.au, website www.arkairsolutions.com.au

Adseal Group are specialist concrete finishing and waterproofing contractors. In early 2018 Adseal Group were contracted to patch repair and caulk the precast panels of the façade of the 22-storey Jardine Residences. Adseal Group had six tradesmen onsite grouting and patching the panels as well as grinding and patching concrete floors and the columns in the basement carpark, completing the job within six months.

"This building has an interesting façade and is clad with a number of different shaped panels," said Site Supervisor, Nico Wolski. "The main challenge of the job involved smoothing the joints between the panels on the façade so that it looked good. It was also a challenge to work around the riggers and finish the job quickly to meet the tight programme."

"Often the concrete building structure is left quite substandard, and this may simply be due to time constraints," said company Director Athol Stead "How often onsite do you hear 'The scaffold is coming down tomorrow.' Our team allows building contractors to keep their projects on schedule, whilst maintaining a high level of finish – we have the skilled labour resource to repair damaged or substandard concrete surfaces very quickly"

A well established Australian company, Adseal Group has more than 30 years experience in concrete repair and waterproofing new and existing structures. Although their main focus is Sydney, they also operate in Melbourne, Brisbane, Adelaide and Perth and have the capacity to operate on remote sites.

Previous contracts for TQM Design & Construct include the \$110 million Eden Terrace and the huge 14-storey Cahill Gardens. In May 2018 Adseal Group completed work at TQM Design & Construct's high end residential apartment blocks the \$39 million Neo Central in Waterloo and Maison, a 5-level mixed use development in Maroubra.

For more information contact Adseal Group, Level 17/40 Mount Street, North Sydney NSW 2060, phone 1800 010 233, email info@adsealgroup.com, website www.adsealgroup.com