

MOSAIC OF LIFE

DEVELOPER : Kazcorp
MAIN CONSTRUCTION COMPANY : Duffy Kennedy Constructions
ARCHITECT : Tony Owen Partners
CONSTRUCTION VALUE : \$25 million

Kaz Tower is an iconic 15-storey luxury mixed use development comprising 36 luxury residential apartments with beautifully crafted interiors, 3-levels of commercial office space, retail spaces, a state-of-the-art automatic car parking system, and a unique façade which uses a parametric calculation of reflected sun to maximise solar amenity.

Duffy Kennedy Constructions have a vision to be Australia's most client focused building company. They pride themselves on being fluent in the art of problem solving, turning a vision into reality – an approach they call Intelligent Construction.

One of the latest projects to demonstrate their approach is Kaz Tower, a 15-storey mixed use, residential and commercial development which has transformed Sussex Street in Sydney's CBD. Duffy Kennedy were appointed for demolition of the existing building and construction of the new development.

"The experience of our company is what enabled us to deliver this project," said CEO, Gavin Duffy. "We are able to do the majority of the work inhouse which gives us control over both time and labour that sets us apart from any other contractor in Australia."

"Kaz Tower is a truly iconic building, there isn't another building like it in Australia. We were breaking new territory and new ground. We have 25 years of experience in the industry and the internal capability to work with the design team which allowed us to become a true partner in the design process."

The project presented many challenges that had to be faced on a daily basis throughout the job. "We had to be very innovative as a team," said Gavin. "It was a very complex build with skewed brickwork and an oscillating glazed façade. Each façade panel was hand installed. We made custom extrusions that were designed inhouse to meet all the angles and ensure the building was watertight."

"We also faced challenges working in the Sydney CBD with the Sydney Light Rail works nearby, the project was in the part of the city where all the action is happening. We did a lot of coordination to manage

deliveries and ensure our contractors hit the mark every time."

There were also heritage aspects to consider with the project located in a historically significant area. "In the early 1900s, the site was the first abattoir in Sydney Cove," said Gavin. "A range of domestic and abattoir tools were found and will be part of a permanent archaeological display in the residential lobby."

The building has been carefully designed and detailed to respond to the surrounding historical context. "Some of the wharf timber from the existing building was carefully removed from site and partially reinstated in the new building," said Gavin. "We also used English bond brickwork to the first 4-levels to keep with the appearance of Sussex Street."

Duffy Kennedy have grown to over 100 employees and are experienced at delivering a wide range of project types including educational campuses, assisted living projects, residential and mixed use projects, CBD projects on constrained sites, commercial and industrial facilities. They are a progressive

company that is nevertheless supported by strong traditional values."

"In the last few years we have become very well rounded and now we can take on any project," said Gavin. "The market has expanded greatly and that has allowed us to diversify our business. We've got both the ability and capacity to deliver complex projects."

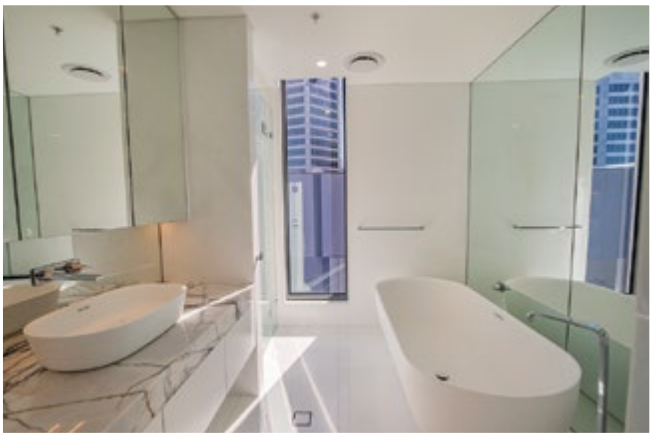
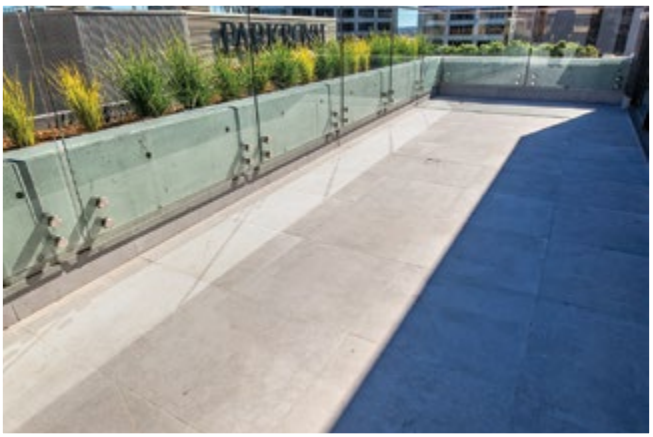
As problem solvers, Duffy Kennedy have an ability to work collaboratively with clients and project teams as true partners and experts in design, construction and engineering. This collaborative dynamic can lead to a personal investment in achieving successful project outcomes and its clear that Kaz Tower is no exception. "We are very passionate about this job," said Gavin. "It has been a huge success and that is testament to the ability of our design and delivery team."

For more information contact Duffy Kennedy Constructions, PO Box 626, Miranda NSW 1490, phone 02 8521 0000, fax 02 8521 0022, email admin@dkc.com.au, website www.duffykennedy.com.au



Below April Showers Waterproofing installed their independently developed waterproofing system to Kaz Tower.

Below AENEC ensured that Kaz Tower is BCA compliant by performing JV3 alternative solution analysis.



April Showers Waterproofing is warranted for the life of internal wet areas. Externally, the range of membranes carry a warranty covering labour and material for periods in excess of the Builder’s statutory warranty period.

The April Showers system was developed in the 1980’s to address the shortcomings of conventional waterproofing systems, and had to possess the following properties: Elongation before break had to be a minimum of 300%; Unaffected by all chemicals that would be encountered in sewage; Consistent and uniform thickness; Unaffected by any building movement, vibration and settlement; Complete installation in a single site visit; Fume free for following trades; Nil curing time; Similar price to liquid systems, and saves up to three days.

“Our products are designed a bit differently,” said Director, Bob Hearn. “We have independently developed an alternative internal waterproofing system that overcomes the shortcomings of a liquid system.”

“Our product lasts for a long time which allows us to offer a warranty for the life of the bathroom. It’s loose laid over the substrate, which means the structure can move without stressing the membrane. With an elasticity of 300% the structure will fail before the membrane.”

April Showers Waterproofing have a wide range of benefits over conventional systems but perhaps one of the most compelling is their track record of over 35 years with no known failures. They offer the quickest possible service that achieves the best quality at a competitive price. With such a compelling offer April Showers were the perfect fit to supply and install the waterproofing systems to the Kaz Tower project. “We have a very strong relationship with Duffy Kennedy,” said Bob. “This is the 4th D.K. project that we have completed. Our role with D.K. has grown to almost that of a waterproofing consultancy, we work with the management to plan and prepare upcoming projects.”

April Showers Waterproofing’s record of successfully waterproofing over 30,000 new bathrooms without defect speaks for itself, as do the glowing testimonials from many happy clients. “The most popular question we get asked is ‘how long has this been on the market?’. A growing number of our customers know there is a product that carries a warranty and saves them three days on every bathroom they deliver.”

For more information contact April Showers Waterproofing, phone 1300 427 745, mobile (Phil) 0498 398 937, email info@aprilshowers.com.au, email phil@aprilshowers.net, website www.aprilshowers.com.au

Building energy efficiency plays an increasingly important role in the construction industry and has become an integral part of any building project these days. The regulatory environment is complex and constantly evolving, making the selection of the right energy efficiency team crucial, for achieving great overall budget results while achieving the right building performance.

AENEC (Australian Energy Efficiency Consulting) have been providing building energy sustainability services to the Australian construction industry since 2009, offering a wide range of services to suit the requirements of any project. AENEC utilised the JV3 alternative solution for Kaz Tower in order to achieve the compliance of the building with BCA (Building Code of Australia) energy efficiency requirements.

AENEC played a key role in developing the right solutions/configurations to ensure the most positive outcome for the project. “Bringing the glazing in line with BCA requirements was the most challenging part for us,” said Dimitri Harakidas, Managing Director. “The client preferred High Solar Heat Gain window for the top floors. That caused building to overheat, however through optimisation we were able to provide a cost effective solution that also enabled

us to “thermally balance” the building by using the right window specifications for the lower floors.”

In addition to BCA Section J assessments, AENEC offers a range of other services including BASIX certifications and NatHERS assessments. They use advanced software and CAD technology to achieve the best results and the best value for their clients. “We put a lot of focus on communication, and are working closely with our clients to understand their needs,” said Dimitri. “We want to spend the time to get the best outcome since a bit of extra effort in the modelling process can lead to greater benefits for our clients in the long run.”

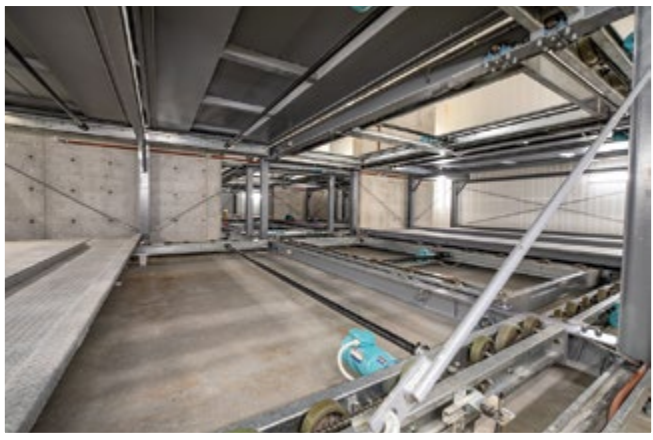
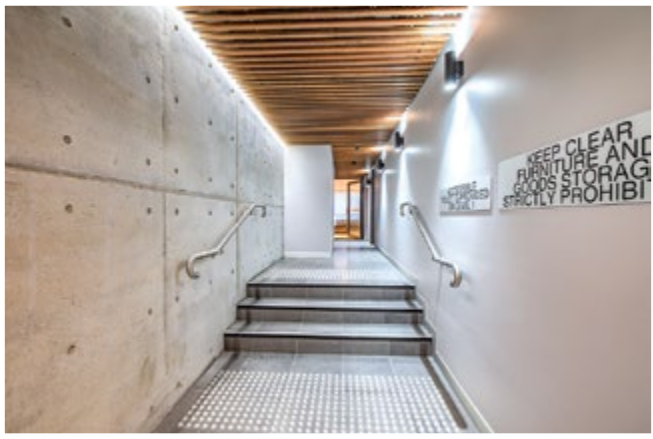
AENEC’s willingness to push boundaries to find the best solution allows them to build long term relationships with their clients. “We’ve been working since day one with many of our current clients, while we are continuously expanding our clientele and growing our reputation,” said Dimitri. “We are always investing in enhancing our procedures so we can deliver even better results.”

For more information contact AENEC Australian Energy Efficiency Consulting, Level 14, 309 Kent Street Sydney NSW 2000, phone 02 9994 8906, email info@aenec.com.au, website www.aenec.com.au

Kaz Tower, New South Wales



Below CBS Engineers worked in collaboration with the fire engineer to create the mechanical smoke ventilation solution.



CBS Engineers are a building services engineering consultancy with a reputation for innovation, integrity and professional excellence. They designed the mechanical, electrical, hydraulic and fire services for Kaz Tower.

CBS Engineers are experienced at delivering the best outcomes in a safe, timely and sustainably manner. They approach all their projects with a ‘can do’ attitude which is apparent in some of the innovative solutions that were developed for this unique project.

One such solution was the twin shaft for the mechanical smoke ventilation that was developed by CBS Engineers in collaboration with the fire engineer on the project. “Buildings over 25m in effective height need both a sprinkler system and a relief shaft,” said Director, Maher Chamsine. “In case of a fire smoke is sucked into the shaft. We designed one shaft for supply air and one for exhaust, on opposite sides of the lobby. We documented the solution and it was confirmed by the fire engineer’s modelling.”

The design presented other challenges that required close coordination by the design team. “To keep the façade looking nice we had to make sure services penetrations were not exposed,” said Maher.

“For example, we located the exhaust louvres from the toilets in the balcony ceilings so they can’t be seen.”

“There were also spatial constraints in the lobby which houses the main comms and hydraulics cupboards. We were really embedded with the architects when it came to the coordination,” said Maher. “Everyone working on the project was excited knowing that the building would be a real landmark on Sussex Street.”

The fantastic result is testament to the skill and creativity of the entire team. “We like to come up with solutions,” Maher said. “Our mindset is that there is no barrier we can’t overcome. No matter how big or small the project is we like to take it head on.”

For more information contact CBS Engineers, 23 Penshurst Street, Penshurst NSW 2222, phone 02 9788 6446, email sydney@cbsengineers.com.au, website www.cbsengineers.com.au