

COVER STORY

QLD PROJECT FEATURE HERITAGE LANES

Mirvac



QUEENSLAND HERITAGE MEETS THE FUTURE

MAIN CONSTRUCTION COMPANY : Mirvac
ARCHITECT : Woods Bagot
FITOUT DESIGN : Hassell
ENGINEER : Aurecon, Arup, AECOM
CONSTRUCTION VALUE : \$375 million



Heritage Lanes at 80 Ann Street Brisbane is a 35-level world-class office tower with over 60,000m² of premium-grade office space. The project blends heritage with contemporary aesthetics, while embracing leading technology, sustainability, and design which will set a new benchmark for Brisbane's premium office market and for workplaces all over the country.

Heritage Lanes is an exciting development that sets a new benchmark in both style and sustainability for commercial office space. On completion the new tower will integrate seamlessly with the heritage structures, retaining the spirit of the past within a contemporary environment.

“Built on the site of the 1906 Brisbane Fruit and Produce Exchange, Heritage Lanes has incorporated features and materials from the past,” explained Head of Integrated Investment Portfolio at Mirvac, Campbell Hanan. “The podium reflects the pitched roof design of the old marketplace, while a Heritage Market zone on the ground plane incorporates original shed formwork into a new energetic retail space. Timbers from the original buildings are reused in the modern tower foyer on Level 1, which is designed to speak to the traditional ‘Queenslander’ veranda.”

Elevating the tower lobby meant the entire ground plane could be public space with three new laneways, exciting art installations, retail stores and event facilities. Native sub-tropical planting and water features make a gorgeous urban garden setting, suited to contemporary hybrid working expectations where the office transforms into a hub of community and collaboration.

Mirvac formed an Art Committee for the development, appointing art curator, Simon Koger from iAM Projects, to work with architects Woods Bagot and representatives from the Mirvac Development and Mirvac Asset Management teams, as well as co-owners, M&G and Suncorp. The committee

commissioned artworks that celebrate Brisbane's environment including a digital display on the foyer ceiling and a fully integrated BIM system was used to facilitate full 3D modelling.

“From a sustainability perspective we have achieved net carbon in operations, and we are on track to be the first building in Australia to achieve 6 Star certification for Green Star Buildings.”

The 6 Star Rating represents ‘World Leadership’ in environmentally sustainable building practices and we're extremely proud of that achievement. Heritage Lanes targets some of the highest standards across NABERS, WELL and additional Green Star ratings, and is one of the most intelligent buildings in Australia.

“The comfort of employees and visitors was emphasised throughout the design, with several permeable and breathable floors with openable façades that reflect a quintessentially Queensland ‘life lived outdoors’ experience.”

“We also have a best-in-class IT infrastructure with a fully Integrated Building Platform and Integrated Communications Network. The project also included the delivery of nearly 50,000m² of integrated fitout across Suncorp and IWG Co-working.”

“Beyond constraints due to COVID, the challenges included the introduction of jump steel to address programme pressures. Structural steel was built to span from the lower ground to Level 5, enabling us to get

into building our typical office floor plates from Level 5 and above much quicker. It was extremely important that we were able to deliver the project without any disruption to our anchor tenant Suncorp, with them having early occupation from October 2021.”

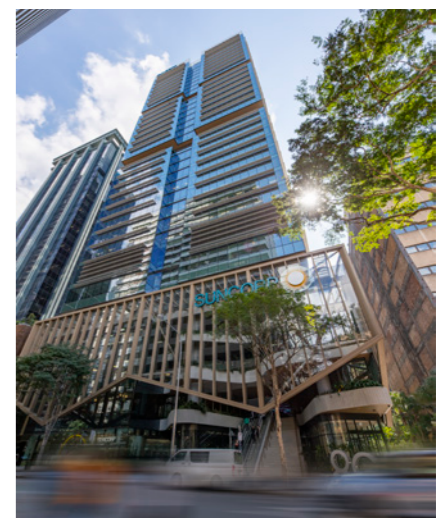
Mirvac is actively pursuing other opportunities in the Brisbane CBD as we look to further expand our commercial and mixed-use portfolio in the thriving Brisbane marketplace and across other cities in Australia.

“We are also one of Australia's leading developers of Built to Rent (BTR) which arrives in Brisbane with LIV Anura, a pilot project delivered in partnership with State government. Located in the inner-city suburb of Newstead, LIV Anura sits within our broader Waterfront Newstead masterplanned development.”

“Waterfront Newstead also includes the Build to Sell (BTS) projects, Quay and Isle, luxury residential apartment buildings with an innovative green ‘biophilic’ focussed design that will deliver more than 50% of the ground level for public use and open space to create an even bigger Waterfront Park.”

“On the back of a very strong sales response we've also recently commenced construction of the next stage of our Ascot Green masterplan, further expanding supply in the highly sought-after Ascot suburb.”

For more information contact Mirvac, Level 14, 80 Ann Street, Brisbane QLD 4000, phone 07 3859 5888, website www.mirvac.com



Below Fredon designed, supplied, installed, commissioned and certified the electrical, communications and security systems, on the project.

Fredon is the leading provider of electrical, HVAC, technology, security and asset services to suit a variety of commercial and industrial needs. The company was contracted to design, supply, install, commission and certify the electrical, communications and security systems.

“Fredon won this project due to our inhouse design engineering capabilities and project team structure, which enabled us to provide a competitive bid that included value engineering,” explained Project Manager, James Jones. “Fredon re-engineered the entire project during the bid phase and presented the new design with costings at a meeting with the client.”

Over 95% of the re-engineered design was approved and this demonstrated significant savings for the client. The client later advised Fredon senior management that it was awarded the project because of our innovations and design changes that improved the overall lifecycle of the development.

“The project consisted of a \$21 million base building works package followed by a \$21 million integrated fitout. A team of 60 from Fredon worked on the project designing and detailing for the installation of:

- The distribution system from the onsite Energex substation
- Diesel generators
- A 130kW solar system on the roof
- A 160kVA UPS for the base building
- Two 250kVA UPS for integrated fitout
- Communications throughout the building including an N+1 ICN network
- The security system including access control and CCTV
- Lighting including specialty architectural lighting and lighting control
- DAS (distributed antenna system) throughout.
- MATV (digital master antenna television) – a technology used to service multiple use facilities with a number of television outlets from one antenna system

“We designed and deployed one of the largest solar systems in the Brisbane CBD for a commercial tower totalling a 130kW of renewable energy. This powers the entire

building’s base build lighting load including all carparks, lift lobbies, amenities, lobbies, the market hall and all terrace and façade lighting. Early occupation by Suncorp required the major infrastructure and building systems be commissioned and operational almost a year before the building was finished.

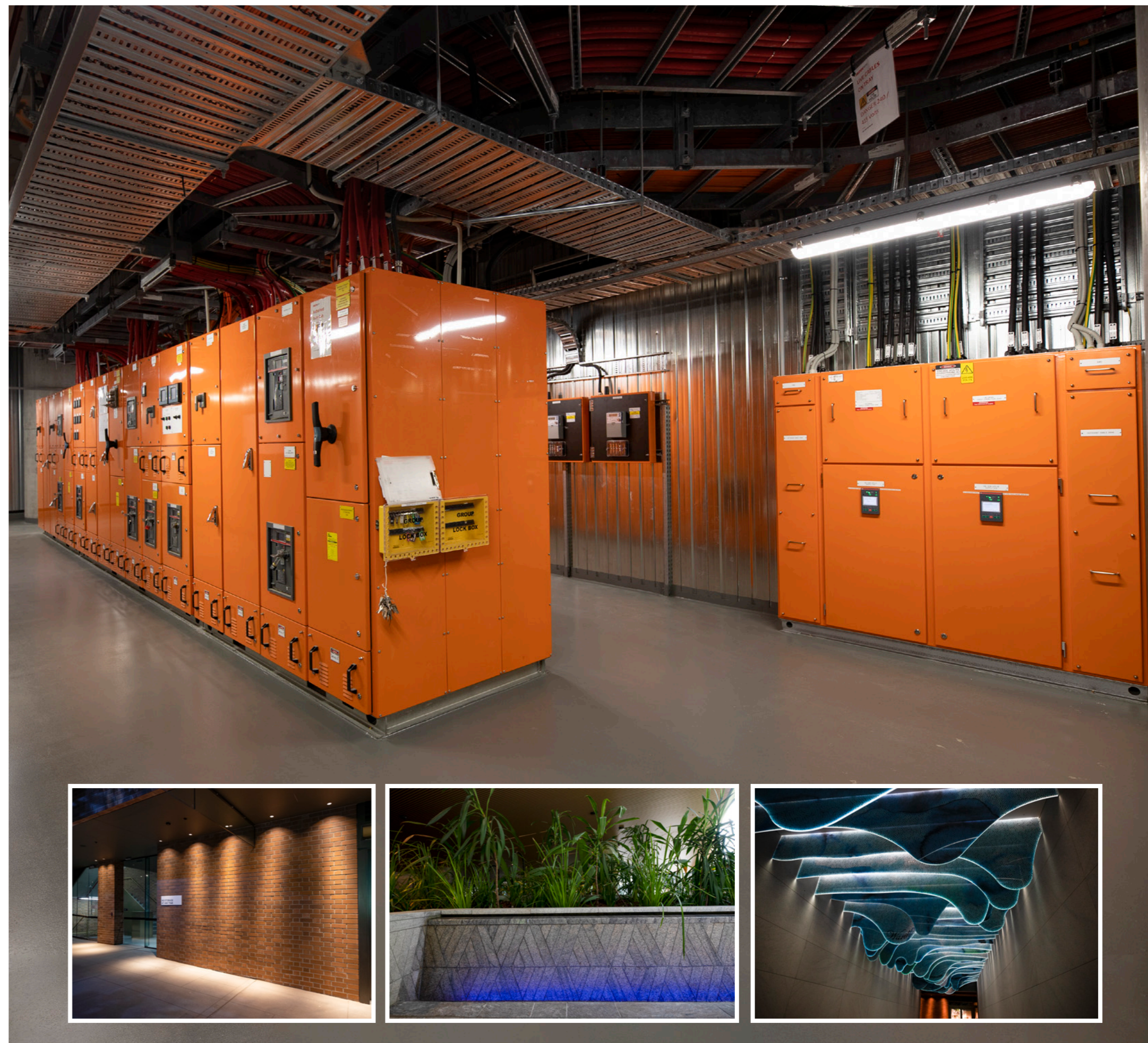
“We were also required to demonstrate a WELLS compliant building, and introduced a new uniformity test that was recognised by the builder and the peer review consultant as unique and innovative. The building has also achieved a 6 Star Green Star as built rating, a 5 Star NABERS energy rating, a 4 Star NABERS water rating and Platinum Core Certification.

“Heritage Lanes is considered to be a next generation workplace setting a new benchmark for office space in Brisbane and across Australia. Fredon is extremely proud to have been able to work on this project. The client will now work with us to target future projects that will make use of our internal engineering capabilities. Our new innovation in light testing and modelling with whole of lifecycle readiness deployment of systems will offer future advantages for the business.

“In business for 54 years Fredon employ 340 people across Queensland. We are a multi-disciplinary team with years of experience in the design and implementation of complete integrated solutions. At Fredon each division employs specialists in their respective fields, who draw on each other’s expertise to achieve result-driven outcomes.”

Currently Fredon are at work providing their electrical and communications expertise to the Southern Queensland Correctional Precinct Stage Two, due for completion in late 2023; and at Melbourne Quarter, Fredon is the mechanical contractor for the 36-storey premium grade commercial tower, Sky Park. The works will target 6 Star GreenStar and 5.5 Star NABERS energy ratings and will be completed in 2024.

For more information contact Fredon QLD, 7 Welch Street, Underwood QLD 4119, phone 07 3340 7300, website www.fredon.com.au



Below Ellis Air Conditioning designed, supplied and installed the HVAC system into the new and heritage sections of the project.



Ellis Air Conditioning is expert in the design, supply and installation of heating, ventilation and air conditioning solutions for commercial properties across Queensland and Victoria.

In May 2019, Ellis Air Conditioning was awarded the D&C contract by Mirvac for the HVAC services at Heritage Lanes. The project involved the design, supply and installation of contemporary air conditioning equipment to the new tower, as well as a more complex installation in the heritage component.

“The major challenge involved fitting the ductwork and AC equipment into the existing structure. Ellis Air’s engineers designed the HVAC to fit within the existing constraints of the building with the goal of limiting the affect the new work would have on the existing structure and the ceiling space,” explained Project Director, Joshua Daley. “At Heritage Lanes we had a large timber truss to work around and we had to thread the ductwork through what was available. Often the building fabric is compromised in older buildings and the challenge includes ensuring that fire ratings are achieved.”

“We had a team of 10 installing at the heritage part of the build, however the HVAC system for the tower was a much larger job, at \$35 million. Our inhouse engineers modelled the design using BIM and we then installed HVAC equipment across all 32-storeys, a plant room on Level 6 and five cooling towers to the roof. At peak periods we had many different trades at work including 30 sheet metal workers and 20 electricians. Other challenges included restrictions due to COVID, volatile prices and long lead times.”

Founded in 1964, Ellis Air Conditioning boosted its staff and capabilities in 2011 to serve a wider range of commercial applications with a Queensland office opening in 2014. Ellis Air Conditioning designs and installs HVAC systems across a range of commercial sectors from offices, apartments, factories and sports complexes to laboratories, hospitals and clean room facilities. In Melbourne a large portion of their work involves HVAC installations for luxury residences with Ellis Air Conditioning’s own inhouse design team providing tailor-made solutions.

Ellis Air Conditioning provide a comprehensive service from design and product specification, sourcing, installation and commissioning. The company focus on achieving and maintaining ongoing working relationships with clients that add value to both businesses, provide a 24-hour emergency service, and a preventative and essential services maintenance programs.

Ellis Air Conditioning are up-to-date with changing environmental regulations and the achievement of contemporary building standards. Understanding that current legislation requires property owners and tenants to have an essential services maintenance program in place for air conditioning and ventilation systems, Ellis Air offer a free site visit to enable preparation of a detailed maintenance plan for air conditioning and ventilation equipment. They offer NEBB Certified Air and water balancing, upgrades for energy efficiency, BMS integration and condition reports on HVAC and gas appliances.

In February 2022 Ellis Air Conditioning was awarded the mechanical services package at the Logan Hospital Expansion Project in Brisbane. The project involved the installation of air conditioning equipment to serve specialist laboratories and air-tight rooms. Ellis Air Conditioning will continue at Logan Hospital till mid-2023.

At the University of Queensland, Ellis Air Conditioning installed their own prefabricated structural steel risers comprising 16 sections installed into the central shafts of the new Andrew N. Liveris Building. For the Thomas Dixon Centre, Ellis Air Conditioning’s mechanical services involvement included a combination of concealed and exposed ductwork to the heritage structure.

Recently Ellis Air Conditioning started major HVAC installation works for the Cross River Rail Project in Brisbane, winning contracts for mechanical services at Woolloongabba and at Albert Street stations.

For more information contact Ellis Air Conditioning, 54 Alexandra Place, Murarrie QLD 4172, phone 07 3213 9700, email ellis@ellisair.com.au, website www.ellisair.com.au





Building Experts Australia (BExA) is Queensland's leading independent provider of building and engineering consultancy services specialising in defect assessments and quality control management. In July 2021 BExA started onsite at Heritage Lanes ensuring compliance with contract documentation and quality control.

"We undertook quality assurance of finishes throughout the interior and exterior of the building, including the sound insulation compliance and the functionality of the lift security communications system," explained BExA CEO, Bruce Haines:

"Onsite we worked with Mirvac engineers to identify and resolve some commonly occurring defects, for instance we had an issue with tiles and grout cracking on curved sections of wall in the amenities area. We assisted Mirvac in changing construction details and it has been successful in preventing recurring damage.

"A first for us was the use of Zutec Defect Management software. Mirvac dictated our use of this software and provided our access to it. The system had each area of the building uploaded into it and this made it easier to identify defect locations; and we could photograph

defects, upload them into the numbered defect description item and track its repair."

Established in Brisbane in 2018 BExA operate throughout north and east Australia providing building and engineering consultancy services, project management, and design drafting. They also carry out forensic damage investigations and write reports for expert witness services, to assist clients succeed in building industry tribunals or in court. BExA offer defect and maintenance inspections, as well as strata property condition reports.

"Recently we wrote an insurance repair scope and assisted in the remediation design for a \$40 million fire damage claim at a rendering plant near Beaudesert. That remediation scope incurred extensive fire, mechanical, structural and electrical engineering works, plus extensive chemical analysis works undertaken to determine the extent of heat and soot damage," added Bruce.

For more information contact Building Experts Australia, 2 Brookvale Close, Kenmore Hills QLD 4069, phone 0475 454 350, email admin@bexa.net.au, website www.bexa.net.au

Micos designed, manufactured and installed the curtain wall and window wall to the podium and tower at Heritage Lanes. "A special feature of the façade is the vertical and horizontal decorative fins and the Micos design team worked to allow the fins to be folded, with a pivot connection, so they wouldn't clash with the builders' screen," said Design Manager, Poppy Veerasawmy.

"Manufacture took 12 months, and included extrusion die trials, procuring glass and the fabrication of powder coated aluminium frames, steel, galvanized sheeting and insulation for all the panel components," said Project Manager, Brendan Booth. "We also carried out machining and assembly of the aluminium frames and structural glazing of the panels ready for installation in August 2020."

"The biggest challenge onsite involved installing the curtain wall panels behind the builders' screens. The curtain wall panels arrive onsite with the glass facing upwards and we flip the panels so the glass is facing down. The distance between the slab and the screen was so tight we were unable to launch the panels in the conventional way and a machine was specifically made to flip the panels and then we attached the fins. After removal of the builders' screen, an abseiling team unfolded the fins to their intended position."

The Micos installation team of 19 worked as two crews installing simultaneously on multiple floors to complete the installation by January 2020.

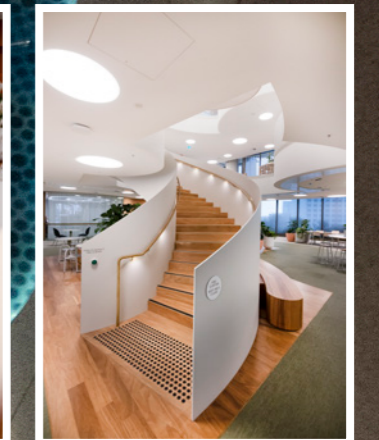
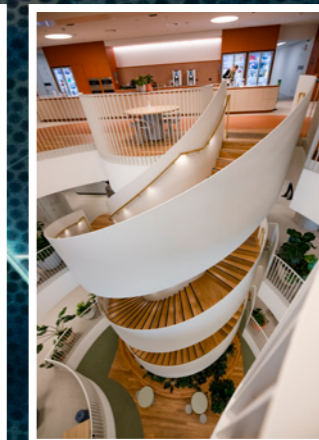
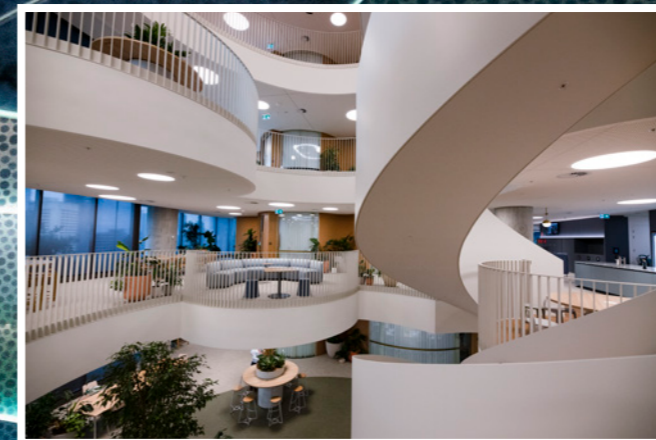
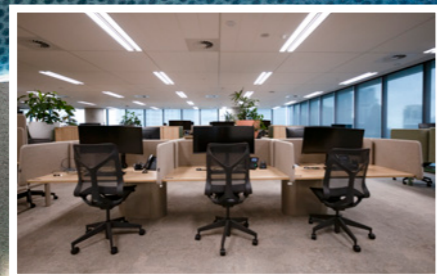
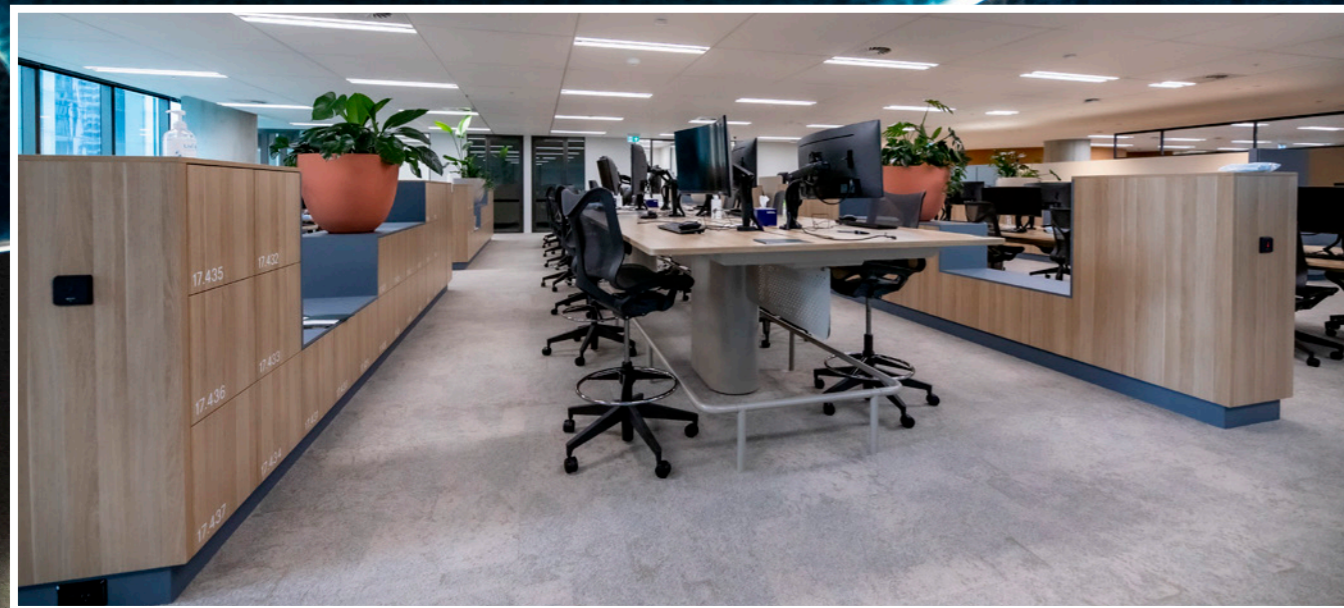
Established in 1958, Micos offer a comprehensive service of design and detailing, sourcing and fabrication, project management, and a quality installation. Heritage Lanes is a testament to Micos' ability to manage entire projects and rise to the challenge of today's unique design and construct demands.

Previous successful projects for Mirvac include the Pavillions at Sydney Olympic Park and St Leonards Square, two stylish tall towers on Sydney's north shore.

For more information contact Micos Group, Suite 1.02, Unit 16B, Discovery Cove Estate, 1801 Botany Road, Banksmeadow NSW 2019, phone 02 8058 3000, website www.micos.com.au

Below Zenith installed a Floorsense desk booking and locker solution, as well as workstation and furniture for the Suncorp fitout.

Below ARDEN designed, manufactured and installed all of the steel staircases, that feature throughout the development.



Zenith designs, manufactures and distributes high-performance furniture solutions that inspire people and organisations to thrive. “Our furniture brands include products designed and manufactured by Zenith, along with prominent local and international designers,” explained Queensland Manager for Zenith, Chadd Burdon.

“At Heritage Lanes, Zenith was contracted to complete the internal fitout for the Suncorp workspaces and the Queensland team supplied and installed contemporary workstations and loose furniture items. As a response to the demand for more flexible workspaces, Zenith supplied a Floorsense desk booking solution, allowing employees to pre-book their desk space, choosing a setting suitable to their day’s tasks. We also installed a fully customised Smartalock locker solution, and both of these systems were integrated with Suncorp’s IT infrastructure.”

Established in 1956 as a humble partitions and joinery company, Zenith Interiors have grown into one of APAC’s leading design and experience-centric furniture solutions companies. Zenith is built around the core belief that people should be inspired and motivated by their work environment, so they can focus, collaborate, socialise, and feel part of a community.

“With a growing network of 13 showrooms across Australia, New Zealand and Asia, our clients and partners have local customer service and support teams on hand,” said Chadd.

“We also have manufacturing plants in Sydney, Melbourne, Auckland, and Shanghai, which are supported by our digital production platforms. This vertically-integrated business model allows us to be agile and versatile in our design, manufacturing and delivery operations, enabling us to deliver affordable luxury and exceptional quality at scale. This is how we curate modern, dynamic and inspirational workspaces for all our clients. By partnering with local and international designers, architects, interior designers and builders, we curate modern working environments for our clients that reflect their core values and culture.”

For more information contact Zenith, Level 2, 11 Commercial Road, Newstead QLD 4006, phone 07 3170 0000, email info@zenithinteriors.com, website www.zenithinteriors.com

Established in Brisbane in July 2000, Arden Architectural Staircases design, manufacture and install functional and elegant staircases to commercial developments. For Heritage Lanes the ARDEN design team of six spent three months detailing and producing shop drawings for the manufacture of the structural steel staircases.

“We took the architectural vision and the engineering input to design the staircases and balustrades,” explained CEO, Jim Browne. “For the Suncorp fitout on the upper storeys, we installed three triple storey helical staircases assembled one above the other, they are very impressive. A further 17 flights of steel helical staircases were put throughout the building. The scope of the work was challenging and we had to ensure our installation method was efficient and safe. It was our biggest project to date.”

ARDEN has developed strong working relationships with leading architectural firms and construction companies and has previously completed contracts with Mirvac.

“The Mirvac team is very good to work with,” said Jim. “We prefer to be involved early in the design process and we were able to do this at Heritage Lanes and ensure a quality outcome.”

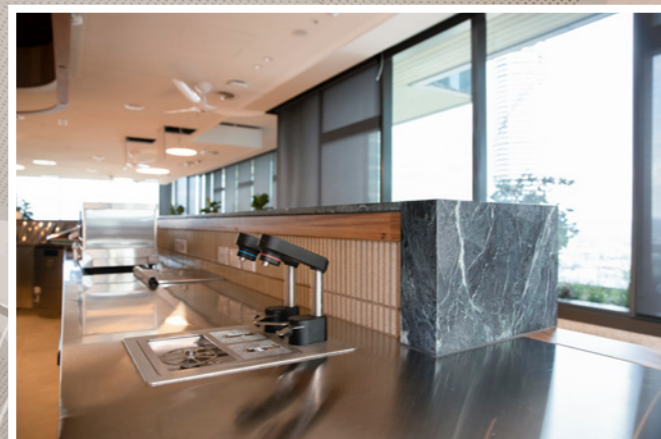
ARDEN employ CAD operators and 3D modelling professionals to produce quality designs, skilled fabricators in manufacturing and an experienced onsite installation team. They also offer well designed associated structures such as contemporary tiered seating arrangements, and all their products are manufactured in compliance with Green Star, WELL and LEED ratings.

In 2018 ARDEN won the QLD MBA award, Commercial Trade Contractor of the Year, for second year running, for its work at the Aurizon building in Brisbane. Other successful projects for ARDEN include the design, manufacture and installation of a 5-tonne staircase craned four storeys into the Midtown Centre for a Rio Tinto fitout. The team were again awarded Commercial Trade Contractor of the year, for their exceptional delivery on the project.

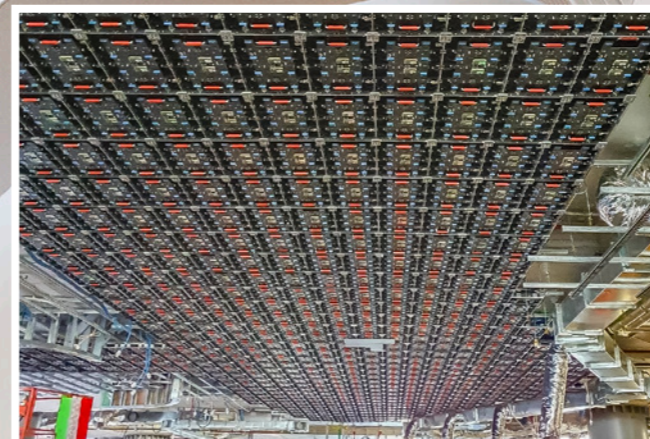
ARDEN also designed the beautiful flowing staircases installed at 200 George Street, Sydney, in 2016.

For more information contact Arden Architectural Staircases, 46 Radley Street, Virginia QLD 4014, phone 07 3267 6100, email admin@arden.net.au, website www.arden.net.au

Below Tilecorp installed floor and wall tiling throughout the apartments and common areas of Heritage Lanes.



Below CI Group installed the largest indoor LED screen in the southern hemisphere measuring 232m², made up of 4,240 individual LED tiles.



Tilecorp is one of Queensland's largest commercial tiling contractors carrying out the supply and installation of a vast range of wall and floor tiling including ceramic, stone, marble and granite. Tilecorp started onsite at Heritage Lanes in November 2020.

"We installed floor and wall tiling throughout the apartments and common areas from the basement to Level 31, as well as stone cladding to the ground floor and Level 1. This included tiling the lobby and main staircase as well as exterior works to the street entrance," explained Tilecorp's Project Manager, Rod Walls. "The stone cladding was challenging as the pieces were huge, measuring 600mm x 1500mm. We also installed terrazzo benchtops on Level 23, in the Suncorp offices."

Due to COVID restrictions, the company needed to carefully manage labourers to ensure all aspects of the project were met. "We also spent time implementing the new laws concerning dust and silicosis, however it was a good project for us and the job went very well," said Rod.

Tilecorp is a family operated business with over 29 years experience in the commercial market with contracts completed for highrise

apartments and office blocks, shops, fitouts, hospitals and railway stations. Brisbane based, Tilecorp work across the CBD and along the Gold and Sunshine Coasts.

With an installation team of 35, Tilecorp provides quality tiling and cladding solutions for large scale and complex projects. "We take on the jobs that other tiling companies won't tackle, and we've achieved a reputation for reliability and a timely, quality outcome," added Rod.

In 2017 Tilecorp completed the tiling contract for the two towers, Unison Apartments in Brisbane and in 2018 they finished a high quality supply and installation job to the kitchens and common areas of Brisbane Racing Club.

Currently Tilecorp is at work on some major developments including Queens Wharf Apartments in Brisbane and the Gold Coast Airport.

For more information contact Tilecorp, 108 Stradbroke Street, Heathwood QLD 4110, phone 07 3279 9009, email kelsey@tilecorp.com.au, website www.tilecorp.com.au

The Ci Group is a national technology and AV company working within the contemporary discipline of media architecture, the idea of enlivening a building's static surfaces with LED screens to creatively communicate and stimulate.

"The reason we do practically all the major project examples in Australia is that they all need what our inhouse team provides. Without it, a builder risks an unhappy client and they would rather enjoy a risk-free turnkey success instead," said Director, Chris Gauci

"Our design and construct team includes R&D people, project managers, AV engineers, specialist installers and fabricators, software programmers, and more. This provides the necessary skill-set to collaborate with the client and content provider. Control and content need to cooperate for success, and on Ann Street we again worked closely with Spacesuit & Co from Bengar Films to help them realise their creative vision."

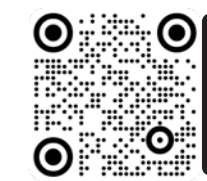
"The project features two LED ceilings: one on the first level where we installed the largest indoor LED screen in the southern hemisphere measuring 232m², made up of 4,240 individual LED tiles and powered by a custom-built PC. Its content aligns with the building's wellness

aspiration. Above the rooftop terrace, we added an outdoor screen of 384m². 23m wide, it can be seen from street level and displays real-time digitally rendered art. A macro bubble system is generated by BOM wind direction and velocity data."

The Ci Group successfully met technical challenges of construction at Heritage Lanes that other installation companies would have found difficult, such as accommodating HVAC items or screens needing sweeping curves. Most of the complex LED projects throughout Australia are Ci projects. There is no other technical facilitator in the country as committed to the cause, and they also provide the ongoing support LED demands.

A special 40-minute presentation of The Ci Group's project capabilities at your premises can be requested.

For more information contact The Ci Group, phone 1300 242 742, email contact@thecigroup.com.au, website www.thecigroup.com.au



80 ANN STREET ONE OF AUSTRALIA'S MOST INTELLIGENT BUILDINGS

Most buildings present a data ecosystem that very few tenants have the opportunity to engage with. 80 Ann Street provides a platform that delivers information and value from hundreds of thousands of data points throughout the building, which enables access to data for Mirvac, their chosen third party stakeholders and tenants with the appropriate access credentials.

VAE Group's Technology department were contracted by Mirvac to provide an Integrated Building Platform (IBP) and Integrated Communications Network (ICN) for 80 Ann Street which enables all the building's data sources to be integrated into one platform.

The interactive displays showcase the advanced technological capabilities built into 80 Ann Street. The scalable, future-proofed infrastructure and data capacity in the base build makes 80 Ann one of Australia's most advanced data rich buildings, projected to collect over 16 million data points daily.



THE INNOVATIVE TECHNOLOGY OFFERING AT 80 ANN STREET DELIVERS:

- **Responsive action-based insights:** The buildings integration also helps to ensure a swift and supportive response to any building issues. For example, if an escalator outage notification is received, real-time CCTV is available on your device (i.e., mobile phone) to instantly understand whether there are people in need of assistance. With real-time data securely captured across every building system, any problem can be analysed based on the data record to ensure clear and transparent answers are available.
- **Leading security:** Every sensor and device installed in 80 Ann was meticulously qualified to ensure they met the highest possible cyber security standards, including on-going live monitoring for any irregularities or network traffic anomalies, where devices are disabled, or shutdown should suspicious activity occur.
- **Ongoing enhancements:** Building data is stored and analysed to explore improvements in existing assets as well as refine the design of future projects.
- **Customised Tenant Smart Platform:** A collaborative design approach was undertaken for Suncorp's specific operational requirements within their space offering lighting, blind control, air conditioning and security control through mobile apps and integrated AV systems. This means a meeting room booking will prepare all smart systems in the space automatically, responding to the environmental conditions on the day, and ensuring it's ready for any meeting or event taking place within.

KEY ACHIEVEMENTS

- Designed to seamlessly enable connectivity to Mirvac's Enterprise Cloud ecosystem
- Over 2,350 connected operational technology devices
- Over 150,000 hardware and software points with over 170,000 history extensions
- Customized user interfaces and branded tenant graphics and systems which eliminates the need for an independent user interface for each service, providing one unified system for the building managers, this reduces training and increases productivity.



VAE GROUP
1300 829829
www.vaegroup.com.au

Below MCRA completed the craning and installation of 600 tons of structural steel for the Jump Start construction process.



Mulherin Rigging & Cranes Australia (MCRA) specialise in the installation of structural steel with a range of cranes, qualified operators, riggers and installers. At Heritage Lanes MCRA completed the craning and installation of 600 tons of structural steel for the Jump Start construction process. The steel frame was installed to Level 5 and, working up and down the building, a rapid construction programme followed.

“The Jump Start steel exceeded our expectations and allowed us deliver high quality end product,” said Project Supervisor, Liam Liddell. “We completed the job safely and quickly and continued onsite with mechanical rigging, assisting Mirvac, and number of trade’s with complex rigging installation including methodologies and high risk workshops.”

MCRA installed the stunning steel veil façade on Ann Street and the strong steel arches at roof level, as well as manufacturing and installing precast concrete panels and elegant curved seating.

“We made a design change to the roof to include roof sheeting, façade cladding and solar panels to minimise the risks of working at heights, improve utilisation of the tower crane and keep to the programme.

We used new product, Hilti X-HVB shear connectors, as an efficient replacement for welded shear connectors. Also new for us was the Bimtek 3D laser scanning which gave us a schematic representation of existing works and easy access to information about the structure in real time,” said Liam.

Mulherin Rigging & Cranes Australia were founded in Queensland in 1995 and by 2013 had established a precast concrete facility to support their construction services, offering design, fabrication and installation in one package. Their portfolio includes 1 William Street in Brisbane, which features interesting steel work installed by MCRA, they installed the huge spire, finishing the building at 259.8m. At the beachfront at Surfers Paradise, MCRA installed the gold patterned crown steel to the stunning slimline 78 storey residential tower, Ocean Apartments.

“We focus on designing the way to erect and install steel and concrete with safety and efficiency. To achieve this it's best to be involved early in the construction planning,” added Liam,

For more information contact Mulherin Rigging & Cranes Australia, phone 07 3807 0222, email admin@mulrig.com.au, website www.mulrig.com.au