

CATERING FOR TRAVELERS NOW AND INTO THE FUTURE

DEVELOPER : Adelaide Airport Ltd
MAIN CONSTRUCTION COMPANY : BESIX Watpac
CONSTRUCTION VALUE : \$200 million



The Adelaide Airport Terminal Expansion included the construction of a new international arrivals area, with additional arrivals baggage belt, premium international lounge, and a complete refurbishment of retail areas. The project also saw the expansion of emigration and immigration processing, security screening, and the duty-free precinct for arrivals and departures.

The Adelaide Airport Terminal Expansion Project is the biggest infrastructure project at the airport since the completion of its existing terminal in 2005.

The \$200 million project will upgrade the airport's international arrivals and departures, and expand retail and dining for domestic and international travellers.

With overall passenger numbers at Adelaide Airport increasing by almost 50% (2005 to 2018), the expansion project caters to the airport's growing needs and provides better facilities for inbound and outbound passengers.

"The project has added a significant amount of indoor and outdoor space, provides existing passengers of the terminal an improved footprint, including international arrivals, and improved passenger flows, as well as expanded processing facilities," said Adelaide Airport Managing Director, Mark Young.

The terminal's footprint has been expanded to 16,500m² with an additional terminal refurbishment footprint of 18,400m², while the total retail footprint has increased more than 80% to 7,257m².

There is also an improved international boarding gate and queuing system, dedication of Gate 18 to an international departures gate, second international baggage belt, and expansion of emigration and security screening space.

The first stage of the project, the northern retail concourse area, opened in February 2020, featuring Penfold's Wine Bar and Kitchen, Precinct Adelaide Kitchen, Soul Origin, Boost Juice, Lego Kaboom and Airport Pharmacy. Additionally, the project has recently seen the opening of the Coopers Alehouse, while Virgin Australia opened its new expanded lounge in February.

"We've [also] opened the Southern Providore, showcasing South Australian wine and produce," said Mark. "It features boutique South



Australian producers and has really been an opportunity to bring South Australia into the airport."

Another significant highlight of the project is the relocation of the Vickers Vimy aircraft to a new purpose built, climate controlled space – putting the aircraft and its story front and centre to visitors.

The Vickers Vimy aircraft was flown by Adelaide brothers Sir Keith and Ross Smith in the famous London to Australia air race in 1919 – the first official flight from England to Australia.

"There are only two of these aircraft in the world," Mark explained. "We have taken the opportunity to incorporate it as part of the project. It will feature in a more prominent location, and will enable visitors to see the amazing vision of these people.

The project has provided \$200 million directly into the South Australian economy. "60-70% of this is local content for South Australia – there's very little overseas product," Mark said. "The total number of jobs is



around 200 at the peak of construction. Ongoing, from the expansion of retail and dining, will be around 630 direct and indirect jobs."

The airport worked closely with retailers during construction and COVID-19 restrictions, to help minimise the impact on the day-to-day operations throughout the airport. "We recognised we needed to be in this together and be as strong as we can, and build together on coming out the other side [of the pandemic]," Mark said.

Mark praised the multi-disciplinary project team behind the Adelaide Airport Terminal Expansion, including BESIX Watpac, the project's main builder and Adelaide Airport personnel. "Particularly in the building of such a complicated structure in and around an airport environment, while maintaining passenger flows, it has been an amazing team effort," he said.

For more information regarding the Adelaide Airport Terminal Expansion contract, website www.adelaideairport.com.au/corporate



The Adelaide Airport Terminal Expansion Project saw a first for Dickson Glass – the design, fabrication and installation of a blast-resilient façade that complied to international airport requirements.

The façade is also the first of its kind in South Australia, with not many buildings requiring this kind of specification in the country. The fact the blast-resilient glass was a curtain wall, made the project even more unique.

A requirement of airports following bombings and other incidents, blast-resilient glass protects people inside from injury – holding in place in the event of a blast, or a vehicle being driven into it. The company spent extended time designing and developing the curtain wall façade.

“We got contracted on the project in 2018 and we spent 18 months in design and development, and then moved to fabrication and install,” explained Brenton Keogh of Dickson Glass.

“The curtain wall basically hangs off the edge of the building and it runs past the slabs so you don’t see any floor-to-floor. This was probably one of the only curtain walls, I think, that’s ever been done in Australia, as a blast-resilient façade.”

The glass used was a customised, insulated glass unit that incorporated three panes of glass and expanded metal mesh.

Dickson Glass worked with Architectural Glass and Cladding, to complete the exterior curtain wall, as well all the internal glazing.

The glass units were manufactured in Germany by Okalux, which are the pioneers of the Okatech product used in the project. “Our scope really started with the architect who came up with a solution that met their design intent in way of aesthetics, as well as a solution to meet quite strict performance requirements of the façade,” said Brad Woods, from Architectural Glass and Cladding.

The use of the glass product came off the back of Architectural Glass and Cladding’s work on the Hong Kong Art Museum, which used a similar type of product.

“[The Hong Kong Art Museum] was again something where we used the expanded metal mesh, it was curved and there were some very large panes in that, to achieve a desired result on that project,” Brad added.

In terms of the blast-resilience requirements, there were certain challenges, particularly in the build-up of the particular units.

“We were trying to marry up the performance with the complexity of the blast resistance in the overall make up,” explained Brad.

“Things that came together were the customisation of the mesh, the metal insert to meet the performance requirements, along with the blast resistance. But also added into that was concave and convex curved panels, which added to the complexity, not just with the glass but also the curving of the expanded metal inserts.”

Both Brenton and Brad agree the project was an overall success, including the unique façade. “It was a good and successful project,

it was very time consuming and very onerous, and meticulous, but it was a good outcome at the end of the day,” Brenton said.

“It looks fantastic. I think everyone is quite happy with it,” Brad said. “All aspects were met in regards to the design intent, aesthetics, the blast resistance and performance of the façade. The whole project went incredibly well. The work between ourselves and Dickson Glass, they were very good to work with.”

“Working with Hassell, BESIX Watpac was trouble-free and everyone was pretty understanding, they took on the risks of unknown territory for these sorts of products, but I think it all turned out quite well.”

Specialising in commercial projects such as high rise buildings, commercial properties, hospitals and airports, Dickson Glass has been in business for 25 years.

Supplying to projects Australia wide, as well as New Zealand and South East Asia, Architectural Glass and Cladding have been around for 15 years. The company has benchmarked around providing solutions for products that are more bespoke or customised, including façade solutions.

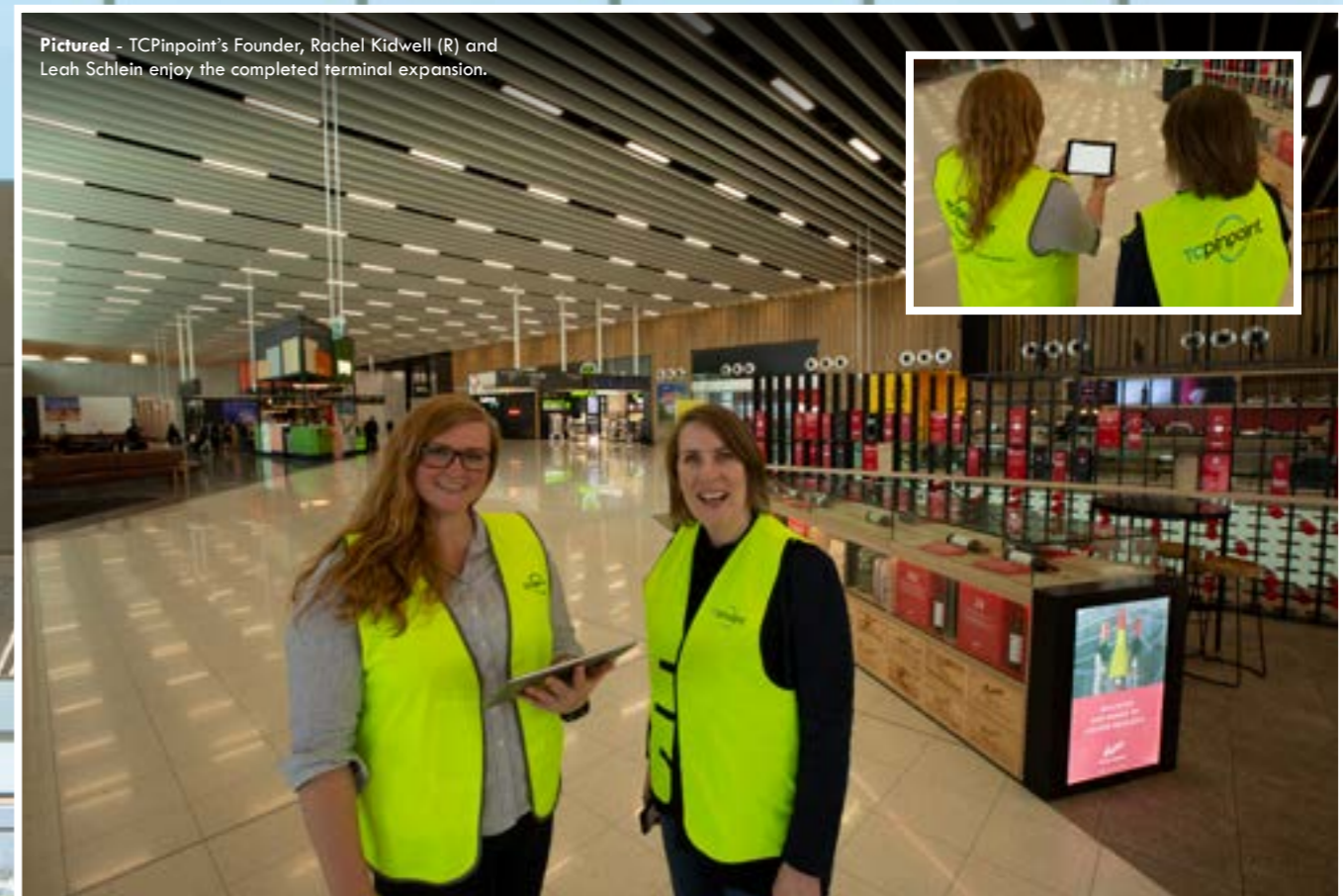
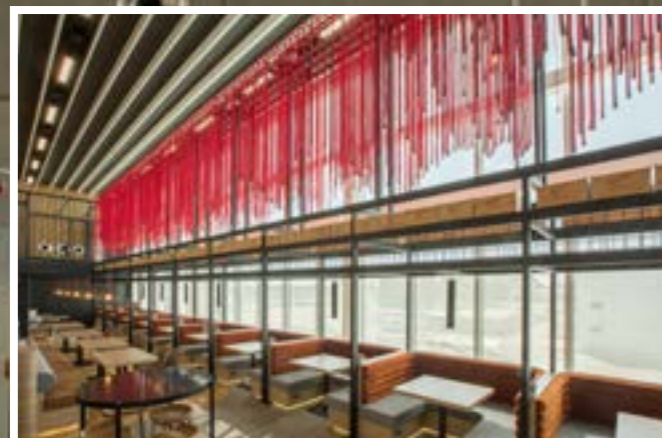
For more information contact Dickson Glass, 1 Lindsay Road, Lonsdale SA 5160, phone 08 8387 0600, email brenton@dicksonglass.com.au, website www.dicksonglass.com.au

For more information contact Architectural Glass and Cladding, Suite 5, 421 Golden Four Drive, Tugun QLD 4224, phone 07 5523 2335, email info@agcproducts.com.au, website www.agcproducts.com.au



Below Yellow Sky Design created a vibrant and engaging visual landscape for the Adelaide Airports new retail space.

Below TCPinpoint's cloud based platform facilitated engagement and clarity across the retail tenancy delivery component of the project.



Pictured - TCPinpoint's Founder, Rachel Kidwell (R) and Leah Schlein enjoy the completed terminal expansion.

Yellow Sky Design was contracted to complete the Retail Design Style Guide and Fitout Guide documents that set the vision for the Adelaide Airport Terminal Expansion Project's retail design, and manage the process.

"At Yellow Sky we believe that our visual landscape is a constant snapshot of people's aspirations and lifestyle," said Nicole Cox, Yellow Sky Design's Director of Design. "We focus on understanding our clients' and all stakeholders' briefs, working in a collaborative process to customise design solutions to suit our growing and changing environment."

Among the features of the design was the use of colour in differentiation and branding to create an enticing and interesting environment to shop, while managing world class design and detail design management through construction.

There are no solid bulkheads, only open framed architectural forms which maximise sight line visibility and create an open environment to maximise the transmission of light and transparency. "The Retail Design Strategy is very unique for Adelaide Airport, taking inspiration and vision from the Okalux façade system used to encase the new

terminal expansion building," Nicole added. "This provides a sheer curtain to create the perfect environment for retail."

Yellow Sky Design encouraged the integrated use of digital technology and sophisticated LED illumination, and perfectly rendered colour to maximise the visual effectiveness of the product placement. "The use of all natural materials and finishes was inspired by the Adelaide landscape – oxidised perforated metal, exposed LED neon, and an overlay of the artisan in each exhibitionist retail environment," Nicole said.

"We work to bring our clients' personality into living brand theatres creating individual and innovative solutions to each interior environment where form follows function and sophistication," explained Nicole. "The design principles and practice are drawn from an authentic and holistic approach. Authenticity resonates through working with natural materials and the sharing of knowledge between craftsmen and women."

For more information contact Yellow Sky Design, Level 24, 91 King William Street, Adelaide SA 5000, phone 0424 038 721, email nicole@yellowskydesign.com.au, website www.yellowskydesign.com.au

Engaged to manage the tenancy delivery across the Adelaide Airport Terminal Expansion Project, the use of the TCPinpoint platform was a resounding success. TCPinpoint's cloud-based platform facilitated clarity across process management, improved collaboration through dedicated communication channels and document storage, and enabled one version of the truth. This created transparency across projects, and empowered project teams to work efficiently and productively.

Over 1,400 documents specific to Stage 1 of the project were easily accessible, rather than lost in email inboxes. Additionally, over 2,000 comments were shared across the platform. Stakeholders engaging with the platform included tenants, tenant designers, shopfitters, leasing administrators, retail design managers, project managers and service consultants.

"The aviation environment is incredibly dynamic... we have a lot of services and a lot of other systems that we need to integrate with our tenants and our tenancy fitouts," said Adelaide Airport's Head of Project Delivery, Sarah Kirkwood. "Having all of that information captured on TCPinpoint provides a really solid point for our facilities team to reference, to make sure we're cross-checking everything for future reference."

TCPinpoint enabled understanding of where blockages occurred throughout the delivery process. This resulted in strategies being put in place to mitigate these risks for future tenancy deliveries. "The use of the information helped us enormously in terms of tracking the progress of each of those tenant and commercial arrangements," explained Head of Retail and Commercial at Adelaide Airport, John Pearce. "So, bringing all of that together on one platform, being able to have very clear reporting headlines, made our job easier."

One of the challenges on the project was the COVID-19 pandemic, which hit when Stage 1 of the project was drawing to a close. This included the major issue of transfer of personnel. However, the TCPinpoint platform meant that no matter how complicated logistics became, historical data was available in a central location and structures existed that made onboarding much more streamlined and straightforward.

For more information contact TCPinpoint, Suite 26, Stone and Chalk Startup Hub, Lot 14, North Terrace, Adelaide SA 5000, website www.tcpinpoint.com

Below Johnson Controls modernised existing BMS and Access Control System, and installed their airport-specific suite of products, throughout the project.



Below DCM Services installed a new Building Management Systems (BMS), chilled and heating water central plant system and condenser water reticulation.



Offering a full range of systems and digital solutions, Johnson Controls makes buildings smarter, resulting in a safer, more comfortable, more efficient, and ultimately, more sustainable building.

As an Original Equipment Manufacturer and service provider of HVAC, Building Management Systems (BMS), security, fire and digital products in Australia since 1965, Johnson Controls provides a full lifecycle service from install through maintenance and repair to retrofit solution.

The company's work on the Adelaide Airport Terminal Expansion Project involved the installation of new BMS and Access Control Systems in the new terminal expansion. Additionally, the company retrofitted and modernised existing BMS and Access Control System in the existing terminal building.

The project was the first installation of Johnson Controls' airport-specific CEM AC2000 suite of products in Australia. The products combined the modernisation of the existing security access control system in the main terminal along with new installation and connection into the newly constructed terminal expansion.

Key Johnson Controls' staff on the ground for the project were Anthony Underwood, Shane Wright and Michael Arbon, along with South Australian based teams.

Operating globally since 1885, Johnson Controls employs over 400 staff in Australia, with more than 100,000 staff serving their customers in over 150 countries.

The company has a strong presence in South Australia, Victoria, New South Wales, Queensland and Western Australia – providing coverage through its 14 branches nationally.

Johnson Controls are currently working on a BMS upgrade and chiller replacement at Modbury Hospital, and chillers at the Bragg Centre for the new medical research hub, SAHMRI II.

For more information contact Johnson Controls, Unit 2, 5-7 Stephen Street, Melrose Park SA 5039, phone 1800 659 378, website www.johnsoncontrols.com

Providing cost effective, energy efficient, quality solutions which are simplistic, yet innovative, DCM Services' solutions always aim to not only meet, but exceed, client expectations. The company's work on the Adelaide Airport Terminal Expansion was no exception, again demonstrating DCM Services' commitment to quality project delivery as well as their expertise and open communication approach.

DCM Services was contracted to undertake the design and development of significant mechanical services works on the project. This consisted of new Building Management Systems (BMS), chilled and heating water central plant system and condenser water reticulation. This also interfaced with the existing airport central plant operation and future-proofed the system.

The Adelaide Airport Expansion was undertaken over a three year duration in a staged approach (27 stages). Therefore, this required DCM Services to undertake meticulous planning and coordination to seamlessly integrate with existing services and structure, and minimise disruption and downtime to airport operations. This included significant temporary infrastructure to ensure critical operational areas remained serviceable while new infrastructure was installed.

Additionally, these various stages of the overall project required a collaborative approach that saw DCM Services work with all stakeholders – incorporating prefabrication and full building information modelling (BIM). DCM Services also had an inhouse engineering and drafting team based onsite to streamline resolving building interface challenges.

Extensive logistical planning and coordination of all aspects of the project to overcome challenges DCM Services encountered while working in the airside environment in a live international airport, along with COVID-19 requirements.

DCM Services is currently working on a number of projects, including a significant Defence project, hospital operating theatre installations, education facilities, Monarto Zoo Hotel, shopping centre upgrades and refrigeration/cool room installations.

For more information contact DCM Services, 2/107 Hayward Avenue, Torrensville SA 5031, phone 08 8462 9700, email receptionsa@dcmservices.com.au, website www.dcmservices.com.au