

THE FUTURE OF HEALTH IN SOUTH AUSTRALIA

MAIN CONSTRUCTION COMPANY : Lendlease
ARCHITECTS : Lyons Architecture and Cox Architects
STRUCTURAL ENGINEER : Lyons Architecture and Wallbridge & Gilbert Consulting Engineers
CONSTRUCTION VALUE : \$246 million





The Hon. Jack Snelling M.P. South Australia's Minister for Health; Minister for Health Industries and Minister for Arts., recently toured the University of Adelaide's Health and Medical Sciences Building, which includes fully automated natural ventilation, a high performance double glazed façade, low pollutant materials, and energy saving infrastructure.

2017 is shaping up to be an exciting one for South Australia with the opening of our state-of-the-art, new Royal Adelaide Hospital (new RAH) later this year. We're now one step closer to establishing the biggest health and biomedical precinct in the southern hemisphere.

The new RAH is situated alongside the flagship South Australian Health and Medical Research Institute (SAHMRI) in Adelaide's west end, as well as the impressive and recently opened University of Adelaide Health and Medical Sciences building, the University of South Australia's new medical research facility, and potentially a new SAHMRI 2.

The State Government and our State's universities have invested significantly in the development of the West End Precinct, employing thousands of staff in the heart of Adelaide's Central Business District. The Precinct integrates health care, education and research into one central hub – a centre of excellence, leading the nation with international best practice models in teaching, research and healthcare delivery.

The University of Adelaide's construction of its impressive \$246 million new Health and Medical Sciences building, housing the new medical and nursing school, represents a huge opportunity for South Australia. It also houses the new 89 chair Adelaide Dental Hospital, due to open in mid-2017, following a partnership agreement between the University and the South Australian Government, ensuring staff, students and patients will have access to state-of-the-art dental facilities.

As a component of a thriving Biomedical Precinct, the University of Adelaide's impressive building is part of the transformation of our city's west end, putting South Australia on the map.

The building will play a valuable role in the training of our future health professionals and researchers, supporting medicine, nursing and dentistry students as well as around 400 health sciences researchers. It'll provide a vibrant environment where health students, staff, researchers and clinicians are fully integrated, moving easily from classroom to bedside, to lab; as they work to build the future health of South Australians.

The school will both benefit from, and contribute to, the strong commercialisation focus of the Health and Biomedical Precinct which will drive research, industry growth and attraction of foreign investment in medical devices, pharmaceuticals and related areas while providing thousands of new job opportunities for South Australians. The new Precinct is expected to create jobs for an estimated 8,000 South Australians, as well as deliver education to an estimated 6,000 students at any given time.

The Health and Medical Sciences Building has already contributed to our State's economy with South Australians accounting for about 90% of the construction site labour. Many elements of construction, from mechanical, electrical, hydraulics, cladding, landscaping and structural steel, were carried out by local companies.

The close proximity of the new University building to our state-of-the-art new RAH will ensure we build on more than 130 years of University of Adelaide partnership with the RAH. The new RAH is not only a game-changer for healthcare in South Australia, but is also a magnificently designed building. It will be Australia's most advanced hospital, delivering world-class healthcare in a modern and safe environment. It has been planned, designed and built around the needs of the patient, providing a comprehensive range of the most complex clinical care to patients.

The new hospital has an increase in inpatient capacity of nearly 30%, when compared to the current RAH, with 120 more beds. All general inpatient beds are in single rooms with an ensuite and a daybed that allows a visitor to stay overnight. Single rooms have windows that open to allow access to natural light, fresh air and views of the River Torrens, surrounding parklands and gardens.

The innovation in the new RAH's design is replicated in the University of Adelaide's building, which also has well thought out design features, which are unique to South Australia.

Having recently completed a tour of the new University building, I was extremely impressed with what I saw. The design makes

very good use of space and is bright, beautiful and light. It has space for conferences and exhibitions, and its layout encourages collaboration among clinicians, staff and students, by blurring boundaries between teaching zones and casual space.

The building features some of the most high-tech, cutting-edge healthcare teaching environments in Australasia. The innovative learning environment is designed to mirror real life spaces within the new RAH, using advanced simulation and the latest in technological digital learning platforms.

Simulation classes are run to emulate real world scenarios, to help students practice and hone their skills. I was lucky enough to have witnessed some budding surgeons practising tying internal stitches on a life-like model human body, in a simulated operating theatre; as well as midwifery students taking part in a simulated, and also very life like birth!

I acknowledge the Federal Government for its vital contribution to the University of Adelaide's project, and congratulate the University of Adelaide for its vision. Through this amazing new building – the largest capital works project in its history – the University of Adelaide has demonstrated its ability to lead in the ever evolving and constantly advancing field of health care, and health education.

The proximity of the Health and Biomedical Precinct to the Adelaide Riverbank Precinct with the recently upgraded and extended Adelaide Convention Centre, the world class Adelaide Oval, the Adelaide Festival Centre, and soon to be upgraded Adelaide Festival Plaza, draw together many opportunities for conferences, tourism and the arts in South Australia.

The University of Adelaide's Health and Medical Sciences building will play an important part of the Precinct's success, the economy of our State, and the future of all those who will work, study, discover and prosper in this terrific new asset for South Australia.

For more information contact Office of the Hon. Jack Snelling M.P., phone 08 8463 6270, fax 08 8463 6277, email healthministerforhealth@sa.gov.au

Below Australian Glass Install, along with Load 28, installed 12,356m² of glass, over 1,000 curtain wall panels on the building.

The University of Adelaide's Health and Medical Sciences (AHMS) building incorporates 11,500m² of glass throughout, all of which was installed by Australian Glass Install (AGI). This included glass installation for the building's external façade as well as internal shopfront glazing for the ground floor – including the glass entry auto beam doors.

Manager, Marcus Rigney explains that the number of glass sunshades and their size was different to façades typically seen in Adelaide. "We installed 12,356m² of glass, over 1,000 curtain wall panels, fitting 5,700 glass sunshades to the panels. Every panel is of a different sunshade colour, so we adopted a stringent QA system to manage this situation and ensure that every panel was launched from the building in the correct order."

"This was completed incident free, on time and at a very high quality standard," Marcus says, adding that the job did come with its challenges. "The main external curtain wall façade install posed some interesting challenges, as the panels were fitted with [these] sunshades, and in some cases weighed up to 800kg."

"AGI has a number of strong business systems, managing safety, schedule performance and quality. Our QA systems ensured that quality was maintained at a very high standard."

AGI's integration with crane hire company, Load 28, also provided a distinct advantage when it came to installing the building's glass, particularly in locations with limited access. "As AGI is linked with Load 28, our crane hire division complements AGI, giving it the ability to manage diverse installation, using our fleet of mobile cranes and equipment, coupled with our specialist rigging equipment," explains Marcus. "Our unique installation equipment enabled us to perform installation in confined locations. This was also seen in the ground floor glazing, where we completed a large install of façade panels through the lecture theatres and main entry areas."

While Load 28 began as a crane hire firm established in Adelaide six years ago by Marcus and his brother Thomas, the evolution of works by the company soon saw the founding of AGI.

It was in the second year of Load 28 that the company started to complete a number of glass panel installation projects for various major developments across Adelaide. This led to the company purchasing a Maeda Mini Crawler crane, fitted with a remote glass handler. The purchase not only gave Load 28 an edge on its competition, it also enabled the company to install glass panels in areas with limited access.

"As part of our crane hire division [Load 28], we become specialists at lifting large glass elements," explains Marcus. "Three years ago, we found ourselves lifting that much glass that we decided to start an install company [AGI]. Three years down the track we have completed a number of major projects, both here and in Victoria and currently now operate with 90 employees."

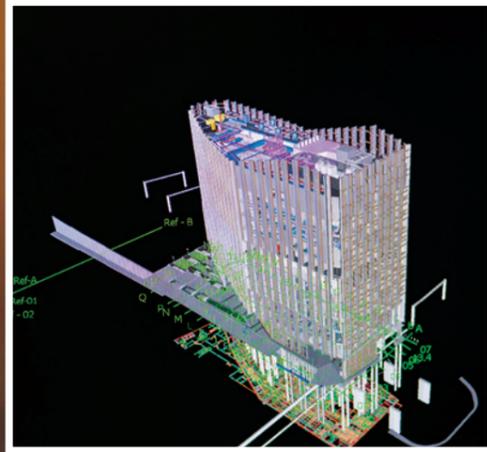
The collaboration with Load 28 ensures that AGI can continue to specialise in high rise glass installation, as seen on the AHMS building.

Among AGI's projects are the Flinders University Tonsley, Adelaide Convention Centre (Stage 1 and 2), Vue Apartments, the new Bendigo Regional Hospital (major façade installer) and Whitehorse Towers in Box Hill Victoria, which is currently 60% complete. AGI is also working on the University of South Australia's Health Innovation Building (North Terrace).

For more information contact Australian Glass Install, phone 08 8240 5692, website www.load28.com.au



Below O'Connors Services provided the University of Adelaide with mechanical services throughout the building.



Committed to delivering quality mechanical services with enthusiasm, O'Connors has been associated with the mechanical engineering and construction industry for five generations. As the mechanical services maintenance provider for the University of Adelaide, the company also has a long history with the institution. This extends to the construction side of O'Connors, with five of its staff holding a Bachelor of Engineering from the university.

O'Connors' extensive laboratory and pharmaceutical experience ensured the company was a natural choice to work on the University of Adelaide Health and Medical Sciences Building. Forty of O'Connors' 100 employees and our fabricators shop Tinmen, worked on the project, completing the building's air conditioning, dental suction, prefabricated risers and automatic controls. Additionally, it completed the building's medical gases, dental equipment, attenuation, specialty gases, fume cupboards and associated electrical and pipework.

"We prefabricated one of the largest exposed roof plant rooms and the multi-service risers to facilitate the project being built in a compressed timeframe," says Director, Alan Porter. "We also commenced commissioning early with our NEBB certified commissioning technicians to enable quick occupancy. The project has been commissioned by our experienced NEBB certified commissioning team led by Engineer, Alek Wcislo and has involved our asset management team in the commissioning process."

In addition to the University of Adelaide Health and Medical Sciences Building, O'Connors has been contracted to work next door on the Health Innovation Building.

Whilst enthusiastically delivering services, the industry-leading O'Connors promises to bring a whole of life perspective towards a building. The company's staff of professionals have earned a well respected reputation throughout the international construction industry. By taking pride in their work and ensuring they meet their clients' most demanding requirements ensures the company continues to exceed expectations. "We are committed to delivering quality mechanical services. O'Connors' reputation is built on how we deliver and maintain our systems long term," adds Alan.

For more information contact O'Connors Services, 107 King William Street, Kent Town SA 5067, phone 08 8410 4099, website www.oconnorservices.com.au

Below Grandstand Scaffold provided scaffolding, lift drivers, traffic control and general labouring on the project.



Working on the University of Adelaide Health and Medical Sciences building for 18 months saw Grandstand Scaffold services' role on the project evolve. "We started off providing scaffold and then developed a relationship with Lendlease, and went from scaffolding to providing lift drivers, traffic control and general labouring," explains Grandstand's, Mick Claxton.

As well as scaffolding for trade access, edge protection and general labouring, the company supplied engineering for the design and construction of scaffold for access to tight areas. This includes a 32m high loading bay to get into the building's stairwells and a ground floor, cantilevered loading bay for access to Level 2 while workers trenched underneath. Grandstand also achieved the development of two 27m bridge openings, rated at five KPA loading to the site's main entrance.

"Because the access was tight, the bridge was installed to allow semi trailers to get in and out along one of Adelaide's busiest roads," Mick says. "This was work outside the scope of traditional scaffolding methods."

The company also provided its versatile edge protection – which can be attached to concrete slabs, live forming decks, steel frames and parapets, and uses a quick release '1 TOOL' system. "Our edge

protection is a no-fuss, no bolts, very quick and labour-friendly, which we call edgeguard. It can be installed from a minimum 1.2m high to a full height of 3.5m high," adds Mick.

The South Australian-owned and operated Grandstand has been around since 1997. Whilst returning to the commercial sector, Grandstand's work with ASC, have been providing labour hire for the Air-Warfare Destroyer Project for the past five years. "We currently employ in the vicinity of 150 personnel," adds Mick. "We have everything from scaffolders, riggers, crane drivers, sheet metal workers, insulators, carpenters, labourers and more – the whole box and dice."

The company also plans to expand Australia-wide, starting with Sydney and the Gold Coast. Grandstand is working on Bohem Apartments, the Adelaide Festival Centre, Adelaide's new Holiday Inn, and Urbanest Student Accommodation to name a few.

For more information contact Grandstand Scaffold Services, 585 Mersey Road North, Osborne SA 5017, phone 08 7225 1267, fax 08 8219 0139, email admin@grandstandsscaffold.com.au, website www.grandstandsscaffold.com.au