

# A NEW SCHOOL OF THOUGHT

The \$36M Regency Tafe Mining and Engineering industry training centre will provide South Australia with a centre for training excellence and involves the upgrade of approximately 17,000sqm of existing space, the creation of a new 1500sqm high bay facility, a 1,500sqm covered vehicle and teaching aid storage area, and a new student car-parking area.



MAIN CONSTRUCTION COMPANY : Hansen Yuncken  
CONSTRUCTION VALUE : \$36 million  
COMPLETION DATE : June 2014  
ARCHITECT : Greenway Architects  
ENGINEER : Wallbridge & Gilbert  
SURVEYOR : 3D Surveys

**The Regency TAFE Mining, Engineering Industry Training Centre in South Australia is helping to ensure the future of skilled labour within the state.**

Funded by the Department of Further Education, Employment, Science and Technology (DFEEST), the new facility at TAFE SA's Regency Campus provides a centre of training excellence in the mining, engineering, advanced manufacturing, defence and transport industries.

With a construction value of \$36m, the three-stage project comprises the development of new facilities and refurbishing existing buildings. In addition to upgrading around 17,000m<sup>2</sup> of current trade and training workshops, the project also incorporates a new 1500m<sup>2</sup> high bay for heavy vehicle training, a 1500m<sup>2</sup> covered vehicle area and teaching storage, as well as additional parking for students.

With Stages 1 and 2 already complete, the final stage, which started in early December

last year, is due for completion in the middle of 2014 — weather permitting. "Stage 3, which we're working on at the moment, is mainly refurbishment," Hansen Yuncken Project Manager George Doudakliev explained.

"There are three buildings that need refurbishment. All existing services, mechanical, electrical, plumbing, fire protection and various gases (oxygen, acetylene, etc) are partially removed and modified to meet the requirements of new

TAFE teaching programs," he said. "There will be, when finished, new computer suites, hydraulics, CNC machining, mechatronics, heavy and light fabrication, heavy and light welding, pneumatics, vehicle body build, panel and paint workshops.

"The new teaching facilities also have state of the art chassis and engine dynos, spot repair and spray booths.

The dynos are a complete computerised diagnostic tool and teaches students how to

check a truck's performance, including its temperature, oil and fuel consumption."

Around 90 sub-contractors continue to work on the site every day. At peak times, numbers on the site rose to around 120. According to George, the first stage of the project was vital. "Stage 1 technically was the most critical, because all the courses were booked in. We had to finish on time, otherwise there could have been huge implications for TAFE, including financially," he said. "Stage 2 was probably the easiest one, as it was a smaller

stage requiring the three new buildings. Stage 1 and 3 were very big."

One of the biggest challenges was working within the existing facility — particularly when it came to the demolition side of things. "The demolition was very complicated and dangerous, and our priority was to make sure no one got injured. We had to identify all existing services, electrical in particular, and also developed procedures to make sure that nobody gets electrocuted during demolition," George said. "However, because it is an industrial facility, it was not actually a difficult site overall. "One of the challenges was to keep the TAFE operational throughout the project," George added. "We made sure we worked with TAFE SA on the co-ordination of any site issues that would impact on them."

Hansen Yuncken also worked closely with Greenway Architects, who project-managed the site on behalf of the client, and South Australian Government agencies including DFEEST.

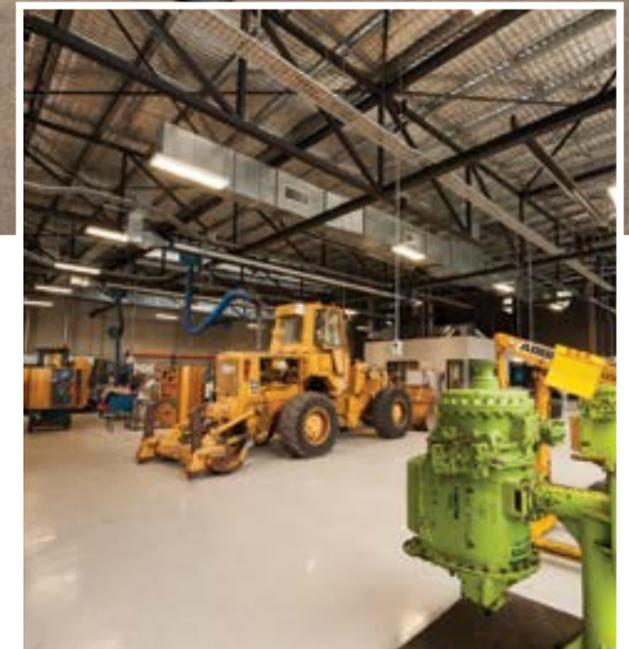
As well as the mining industry, the new school offers a broad skills set to add to South Australia's labour force. "The school provides skilled labour for the construction, automotive and mining industries — it's a huge site. Most of the students will end up in the automotive industry or construction. Some will go into mining," George said. "They are training people to become skilled tradesman — that's what we need."



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## A REPUTATION FOR ENGINEERING EXCELLENCE



## SURVEYING ACCURACY ACROSS ALL LEVELS

Using the latest technology and innovation has allowed specialist construction surveyors 3D Surveys to overcome any possible challenges on the Regency TAFE project. “As we were engaged from day one on this project, we gave it dimensional accuracy before the project came out of the ground. This in turn ensured that all components of the project went together easily,” 3D Surveys Managing Director Adam Spencer said.

“We also utilised the latest in robotic total station technology, allowing for one-man surveying and setout, saving both time and money. “There are always challenges on any construction site, but with the cutting edge technology and innovative techniques that we use, it allows us to quickly adapt and overcome any situation,” he added.

Established in 2010, 3D Surveys provide surveying services to many industries across Australia including building, earthmoving, engineering and architectural. The company is continually striving towards becoming the benchmark standard for construction surveying in Australia, including using the latest software and equipment available.

“We are also BIM ready with a range of High Definition Scanners (HDS) suitable to many services and situations,” Adam explained.

“We are able to accurately capture the as-constructed site and provide working models in the 3D environment.”

Its continually growing team of full-time Surveyors, in-house Draftsmen, support staff and contractors have been involved in many landmark projects. “We are currently working on the Adelaide Convention Centre, have just finished the Eastern Grandstand roof and structural steel at Adelaide Oval, and handled the intricate structural steel flower columns at the South Australian Health and Medical Research Institute (SAHMRI),” Adam said.

The company has an unwavering dedication to customer service, consistency and accuracy. The team also prides itself on using their specialised knowledge and experience to help clients deliver their projects on time, on budget and with ease.

It is this dedication that is certain to see 3D Surveys achieve its goal of “setting the benchmark” in the industry. ’

*For more information contact 3D Surveys, Innovation House, 50 Mawson Lakes Boulevard, Mawson Lakes SA 5095, phone 08 8185 3099, email info@3dsurveys.com.au, www.3dsurveys.com.au*

The structural and civil consulting engineers for the Regency TAFE project were national consultants Wallbridge & Gilbert. Wallbridge & Gilbert’s head office is in Adelaide and with a company vision statement of Technical Excellence, Innovation and Professionalism, Wallbridge & Gilbert have been providing excellence and innovation in engineering solutions for more than 30 years.

Supported by 160 employees, the company offers structural, civil, maritime, mechanical, heavy lifting, traffic and transport, geotechnical, water management and environmental engineering.

The company’s solid reputation for producing high-quality project solutions has been demonstrated through its work on the state-of-the-art Regency TAFE project.

Under Principal Stephen Inglis and Senior Civil Engineer Colin Hill, the company provided full civil and structural engineering design and construction supervision.

A number of engineering innovations are evident throughout the project. From the heavy vehicle workshop with its coloured precast concrete walls and truck tyre tread pattern imprints, to the 1500m<sup>2</sup> covered vehicle compound and storage area with its long-spanning Aramax roof sheeting.

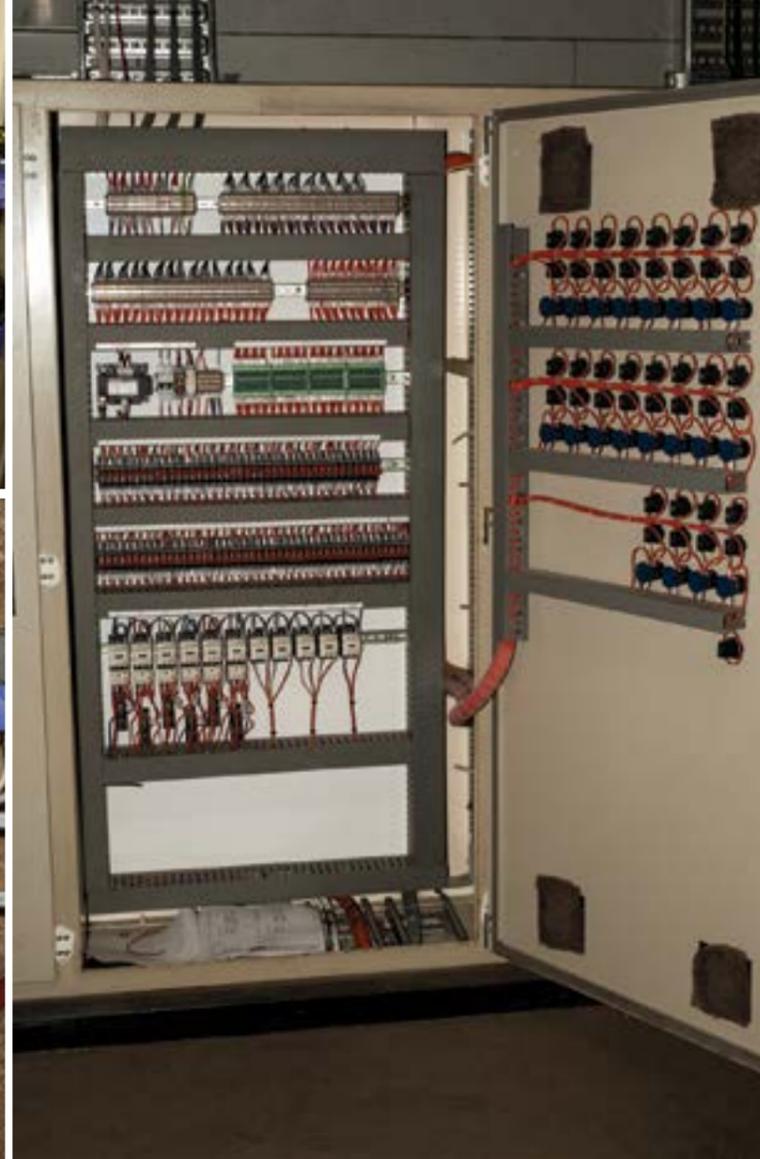
“These roof sheets spanned an unsupported distance of 12 metres on to structural steel trusses, with a further four-metre cantilever beyond the truss line to the lower end of the roof slope. The structural steel trusses supported on cantilevered SHS columns typically spanned two 13.5-metre spans with a further four-metre truss cantilever beyond the column lines. One support frame was also required to be column-free

for the entire 27-metre span of the Block M compound, plus four-metre cantilevers at each end. The entire 1500m<sup>2</sup> compound area required only 11 support columns, enabling maximum vehicle storage space and manoeuvrability,” Wallbridge & Gilbert’s Stephen Inglis explained.

The company’s work on the Regency TAFE development is just one example of the extensive variety of successful projects it has undertaken during its three-plus decades in business.

Wallbridge & Gilbert were the structural designers for many of the notable buildings around Adelaide. This includes the Adelaide Airport Terminal, the National Wine Centre and the new Royal Adelaide Hospital, which is currently under construction.

*For more information contact Wallbridge & Gilbert, 60 Wyatt Street, Adelaide SA 5000, phone 08 8223 7433, fax 08 8232 0967, adelaide@wgeng.com, www.wallbridgeandgilbert.com.au*



## ALIEN ROOFING – ALWAYS ON TOP

Working on the roofing for Stage 3 of the Regency TAFE project posed several challenges for Alien Roofing Contractors. “The total project was inclusive of about 10,000 square metres of roof areas – some new and some existing. We also had an important commitment to provide an incident free workplace,” Alien Roofing’s Manager, Craig Marshall said.

Included in the overall space was a 1,500m<sup>2</sup> covered vehicle and storage compound area, which used versatile ARAMAX FreeSpan cladding supplied exclusively by Fielders.

Matt Lloyde, Fielders General Manager of Sales, Marketing & Engineering, explains the advantages of using this particular roofing profile.

“ARAMAX is bolder and deeper than other steel cladding profiles and was able to deliver large spans of up to 20 metres without the use of purlins or girts required in conventional structural framing. Given the unique V shape, it added a modern and cutting edge component to the building’s design,” Mr Lloyde said.

“One of the key advantages of ARAMAX, particularly in the case of the Regency TAFE development, is its unique ability to be rolled onsite using a mobile roll-former to significantly reduce the construction and installation time and improve project efficiencies,” he added.

After working through initial budgetary constraints with its client, Alien Roofing was marred by bad weather conditions at the beginning of the construction phase, with the company needing to act fast to find a solution.

“The site had been weather damaged. Despite the challenges this posed, we overcame the situation by using larger machines to access the site from a greater distance,” Mr Marshall said.

The entire Alien Roofing crew, at one time or another, worked on the Regency TAFE project (including stages 1 and 2). In line with the project’s criteria, the business also hired people with barriers to employment, including working with Aboriginal and Torres Strait Islanders and providing on-the-job training.

While working on the Regency TAFE development, Alien Roofing also maintained work on several other projects including the Parks Community Centre and the Myer Centre upgrade (both with Built Environs). In addition, the business completed office tower works for the Adelaide and Bendigo Bank building in Adelaide’s CBD.

It’s currently working on Adelaide’s luxury Mayfair Hotel with Watpac Construction, James Nash House with Badge Constructions and undertaking re-roofing at Bolivar wastewater treatment plant with BluBuilt.

For more information contact Alien Roofing Contractors, 473 Grand Junction Road, Wingfield SA 5013, phone 08 8347 0935, fax 08 8347 0563, email [alien@bigpond.net.au](mailto:alien@bigpond.net.au), website [www.alienroofing.com](http://www.alienroofing.com)



## ADELAIDES FIRST CHOICE

Just two years since it was founded by its owner Scott Morphett, Adelaide Central Electrical has established itself as one of Adelaide’s leading electrical companies.

The company’s vision is a simple, yet important cornerstone of the business — to be the first choice electrical contractor in South Australia through building a “professional reputation through hard work and good service”.

Its 72 employees work across five specialist areas of expertise — mechanical services and refrigeration, commercial construction lighting and power, switchboards, electrical design and estimation, and commercial service and maintenance.

It was this expertise that was utilised on the Regency TAFE project. Adelaide Central Electrical installed all the mechanical electrical wiring. It maintained the existing building while upgrading to the new standards and requirements.

Adelaide Central Electrical’s Hugh Jackson explains that the company offers a complete electrical package, including electrical design, be it for an entire project or one element. “If a customer puts forward an idea, then our drafting department can design this concept for us

to then to install,” Hugh said. “This was the case with the Regency TAFE project.”

Adelaide Central Electrical’s estimation department also provides a complete, professional pricing and estimation service.

Hugh explains that the company is now in a position to further expand into other aspects of electrical systems including communication and security. It’s currently working on Adelaide’s new Mayfair Hotel where as well as electrical power, the company is carrying out security and communication works.

The business also has trusted sub-contractors providing a range of services including voice and data structured cabling, security/CCTV, audio visual, lighting control systems and nurse call systems, and more.

“We manage everything to do with cables — if it’s electrical, we’ll do it,” Hugh adds.

For more information contact Adelaide Central Electrical Pty Ltd, Unit 2/4 Adelaide Terrace, St Marys SA 5042, phone 08 8276 9318, fax 08 8276 2887, email [info@ac-electrical.com.au](mailto:info@ac-electrical.com.au), website [www.ac-electrical.com.au](http://www.ac-electrical.com.au)

# THE SECURITY FENCING SPECIALISTS

Fieldquip offers a wide range of fencing solutions from chainmesh, tubular and high security perimeter fencing right through to retaining walls. Fieldquip are the experts when it comes to high-quality fencing solutions.

Catering to the civil, mining, government, commercial, industrial and school sectors, Fieldquip specialises in security fencing, retaining walls, balustrades and handrails.

Fieldquip was utilised on the Regency TAFE project. The company provided all the security perimeter fencing, gates and automation, internal chain mesh fencing as well as internal pedestrian barriers.

This well-established business has a dedicated management team and is committed to meeting clients' expectations and providing complete peace of mind.

Having been in the metal and wire industry for over 40 years, and specialising in security fencing and balustrades since 2003, Fieldquip offers its clients additional value when it comes to alternative solutions to best suit their projects.

From design and tendering right through to supply and installation, Fieldquip's vision is to ensure it delivers a prompt, professional service and quality products to meet your expectations.

With its in-house fabrication site in Adelaide, Fieldquip can also supply its clients with customised fencing solutions that are tailored to specific requirements to accommodate a project.

With skills, knowledge and experience managing the most complex of projects, Fieldquip's dedicated team of Project Managers and installers are also on hand to ensure exceptional and innovative fencing outcomes.

As a market leader, the company's expertise has been contracted on a number of large construction projects, including Wayville Station, Big W Cumberland Park, Churchill North Shopping Centre and the upgrade of the Northfield Women's Prison.

Fieldquip also supplied fencing for the Adelaide Desalination Plant Pump Station, Goodwood Rail Corridor, Inverbrackie Immigration Detention Centre, SA Super Schools project, Aldinga Waste Water Treatment Plant, BHP Olympic Dam and many more.

For more information about Fieldquip's quality fencing solutions call them on **(08) 8293 2299** or visit [www.fieldquip.net](http://www.fieldquip.net)

Regency Tafe Mining and Engineering, SA

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