



MAIN CONSTRUCTION COMPANY : Hansen Yuncken  
 ARCHITECTS : Lyons / EJE Architecture  
 STRUCTURAL ENGINEER : Aurecon  
 CONSTRUCTION VALUE : \$95 million

## NEW HORIZONS

The \$95M New Space project is 8-levels and will house the Business and Law School Faculty at the University of Newcastle. The 5 Star Green Star design comprises extensive student spaces, modern bike storage and end of trip facilities and retail areas.

**Hansen Yuncken is engaged in the challenging task of constructing the NeW Space building for the University of Newcastle in the heart of the city.** By any measure this is a stunning creation by the University which will not only be an excellent learning facility but also an iconic landmark in Hunter Street. It is well on for completion in time for students to commence in July 2017.

As indicated by its name, NeW Space creates a benchmark in indoor environments, fostering exceptional learning and research outcomes across the 8-levels of occupied space, containing formal and informal teaching and learning spaces, a moot court, the Law School, library outlets, collaboration and staff workspaces. Housing the Business and Law Faculty, this dynamic facility will be the catalyst for the Newcastle CBD renewal strategy, projected to be visited by over 3,000 students and staff every day. With natural ventilation a key attribute of the 5 Star Green building design, it also features a dual-directional sun shading system wrapping around the building form, specifically designed for each solar orientation and to provide excellent sunlight protection.

Hansen Yuncken has an enviable reputation in building educational facilities and relishes the opportunity to be at the forefront of next generation teaching and learning models within the sector. NeW Space fits this category but as would be expected it has provided plenty of challenges.

Mike Curtis, Senior Project Manager for Hansen Yuncken, said that NeW Space is the most complex building with which he has been involved. "It has been the most rewarding assignment I have had, largely because of the tremendous effort by members of my team, the University's people and all the subcontractors. Significantly, most of the people on the project were locals, many of them graduates of the University. This is a Newcastle building built by Newcastle people. It has been a real team effort and we are all very proud to be contributing to this outstanding project."

Not the least of the challenges was the lifting of an 85 tonne mega truss onto the building

from Hunter Street. Named the Nobby's Extension after the vista it provides out to Newcastle's iconic headland, the installation of the mega truss that had been fabricated by Gonzales Steel was an impressive feat.

Although completed without a hitch on the day, the methodology and installation was a result of many hours of discussion and debate with all stakeholders. It was agreed that a pre-fabricated lift was the most efficient and practicable from a safety and logistics perspective. Overall loads, wind and safe access post-installation were all part of the hundreds of hours of pre-planning.

In April, the team successfully erected Nobby's structure onto the previously installed columns and secured the 124 bolts to tie it to the main structure with very tight tolerances. This was the first time two 500 tonne mobile cranes had been involved in a lift in the region. Mike said that the key to the success of the construction has been the degree of planning that has gone into the project. "NeW Space is being built to a fairly tight time frame, but we are on track because of the complex and detailed planning that went into the project before any physical work began. There has also been a very strong focus on health and safety which reflects Hansen Yuncken's priority in this area."

Mike said that creativity and innovation are a primary focus at Hansen Yuncken. "The construction landscape is ever-evolving, so is our approach to systems, technology and innovation. We continually seek smarter and more efficient ways to improve every aspect of our business. Our award winning platform HYway is playing a major role in the building of NeW Space." Adding to their success, Hansen Yuncken recently attended the Master Builders Association 2016 Excellence in Building Awards in Newcastle and was awarded the Safework Excellence in WH&S Award.

**For more information contact Hansen Yuncken,** 50 Honeysuckle Drive, Newcastle NSW 2300, phone 02 4908 6300, fax 02 4908 6301, email [newcastle@hansenyuncken.com.au](mailto:newcastle@hansenyuncken.com.au), website [www.hansenyuncken.com.au](http://www.hansenyuncken.com.au)



# STEEL TRUSS MEGA LIFT STOPS THE TRAFFIC

The University of Newcastle's NeW Space building is spectacular by any measure. Even during the construction phase it has been a traffic stopper on Hunter Street, the city's main thoroughfare! The mega lift of a pre-fabricated steel truss built by Gonzalez Steel has been just one episode in the life of this project which has attracted the city's imagination.

Gonzalez Steel is a local structural steel fabrication company extremely well credentialed to undertake the complex task of detailing, fabricating, installing and painting the steel framework in this unique building. Situated in the Newcastle suburb of Beresfield, Gonzalez Steel was involved in the project from inception.

Owner Director, Juan Gonzalez, said that it has been an exceptionally interesting project with which to be involved. "The building has presented many complex challenges, but with careful planning by all members of the construction team, it has come together very successfully."

"Over the life of the NeW Space Project, the skills and experience of the whole Gonzalez Steel team were utilised. The fabricated steelwork they proudly produced included feature columns, stairs, framework for the sun roof and five floors of the building."

A special challenge onsite was the positioning of the 2 tonne cast in plates which spanned 2.4m in length and consisted of hundreds of

holes which required to be aligned with millimeter accuracy in the vertical and horizontal positions in order to ensure that the 'Mega Truss' steelwork would connect as per the design, five floors up.

The Urban Room frames made from 508mm Circular Hollow Sections measured 12m by 8.5m in addition to the 914mm Circular Hollow Section Mega Columns which also spanned a lengthy 28m. The biggest lift of all was reserved for the 85 tonne Mega Truss which Gonzalez Steel fabricated at the base of the building prior to lifting.

"Mention must be made that not only was the complex structure fabricated and installed with precision, the high quality requirements required by the architects, engineers and the client had also been met without an issue." Detailed planning with all stakeholders was necessary as two 500 tonne cranes were required which meant Hunter Street had to be closed to traffic between 2am and 7am on the morning of the lift. The mega truss forms part of the contemporary design to take advantage of the panoramic views over Newcastle Harbour.

With over 35 years experience, Gonzalez Steel has the expertise, the technology and the skilled workforce to deliver on projects of any size.

For more information contact Gonzalez Steel Pty Ltd, 7 Pippita Close, Beresfield NSW 2322, phone 02 4966 8949, fax 02 4966 8223, email [juan@gonzalezsteel.com.au](mailto:juan@gonzalezsteel.com.au), website [www.gonzalezsteel.com.au](http://www.gonzalezsteel.com.au)



## A CUT ABOVE THE REST

When it comes to precision concrete cutting, Nova-Cut Concrete Sawing has the skilled operators and equipment to do the job. Nova-Cut is currently working on the University of Newcastle's NeW Space project in the city's central business district.

Owner and Director of Nova-Cut Concrete Sawing, Waru Whiteman said that he had operators on the site when required by the builder Hansen Yuncken. "Often we have two employees engaged for a week but other times it may only be one. The tasks being undertaken include diamond blade wall sawing and cutting for air conditioning duct work. We also have the specialised equipment available when needed to do precision circular holes with core sizes from 18mm to 1m."

Based at Edgeworth in Newcastle with nine employees, Nova-Cut Concrete Sawing, delivers concrete cutting and sawing services throughout New South Wales and in the last year has established a branch in Bundaberg, Queensland.

Major projects completed in recent months include work on the safety augmentation project at Chaffey Dam in the Tamworth district and the Westfield Kotara extensions. Other contract work has taken Nova-Cut Concrete Sawing, to Moree and Goondiwindi.

Nova-Cut Concrete Sawing provides its services to a wide range of businesses ranging from owner-builders to leading construction companies. "We do not limit ourselves to any one segment of the

building industry nor to any geographical location. Nova-Cut is prepared to look at any project large or small," Waru explained.

"We perform precision road sawing to depths from 30mm to 800mm including electric road sawing for jobs in confined spaces where petrol or diesel equipment cannot be used. In addition to our wall sawing and core drilling services, we undertake concrete grinding, joint sealing, soff cutting, wire sawing and concrete scanning to locate structural items up to 1m depth. With a reliable team of employees we can provide a 24 hour, 7 day a week service."

For further information contact Nova-Cut Concrete Sawing Pty Ltd, 7 Aluminium Close, Edgeworth NSW 2285, phone 02 4958 3798, fax 02 4913 5353, (mobile 0412 388 413), email [info@novacut.com.au](mailto:info@novacut.com.au), website [www.novacut.com.au](http://www.novacut.com.au)



# WORKING FOR THE FUTURE

A recovery rate of almost 90% from the waste generated on the University of Newcastle NeW Space building site has been achieved by REMONDIS Australia.

Scott Smith, Hunter Western Region Manager for REMONDIS Australia said that eight or nine hook-lift bins of 15-20m<sup>3</sup> were being delivered and exchanged per month. By the end of September 2016, 515 tonnes of waste had been generated and removed from the NeW Space site with more than 435 tonnes of this product being recycled and therefore diverted from local landfills. This is a great environmental outcome for the project and for Newcastle and the Hunter Valley.

“One of the challenges we faced was that there was limited space for sorting onsite so all bins were transported to our depot at Thornton. This is a licenced EPA site and we can weigh-in on entry to the site enabling us to determine our success in recycling materials which pass over the weigh bridge on the way out of the depot.”

Waste products which were recovered from the NeW Space project included concrete and concrete rubble, natural and engineered timbers, electrical waste, steel, paper and cardboard, plastic, plaster board, PVC and bulker bags. The recovery operation at Thornton, where REMONDIS Australia has a total of 60 employees, was achieved through a combination of mechanical and hand-sorting methods.

REMONDIS Australia, founded in 1982, commenced operations with a municipal bin supply and waste collection contract for Penrith

City Council in Sydney. Since then, REMONDIS Australia has experienced significant and sustained growth and is amongst the top five for this industry sector.

The company currently provides waste collection services for more than 15,000 commercial customers and, through partnerships with local authorities, approximately 2 million residential premises.

Scott said that with over 35 business locations across the nation, REMONDIS Australia is able to fulfill customer needs in most locations, passing on the benefits of operational efficiencies to both commercial and municipal customers. “The company prides itself on world’s best practice in the handling and recycling of waste, substantially reducing the volume of material which once ended up as landfill.”

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## GUARDIANS OF SAFETY AND SMOOTH TRAFFIC FLOW

When a major crane lift took place at the University of Newcastle’s NeW Space project, three-quarters of Hunter Street, the city’s main thoroughfare, was closed. Entrusted with traffic management and safety was the experienced team from Guardian Traffic Services.

Kelly Groen, Guardian Traffic Services Director, said that the incident-free event was a testimony to the extensive planning undertaken with all stakeholders. “We place a great deal of emphasis on pre-planning for any job, large or small.”

“Our involvement with the NeW Space project began when construction first started and is on-going. Guardian Traffic Services developed a traffic management plan to cover every stage of construction and our dedicated traffic control crews implement those plans on a day-to-day basis. Usually three to six employees are onsite depending on what construction activities are taking place.”

Guardian Traffic Services was formed five years ago but the people behind the family-owned and operated business have an extensive 20 years experience in all facets of the traffic industry. Offering a 24 hour 7 days a week service, the emphasis is on a personal and

reliable service to all clients covering the daily supply of traffic control crews, emergency traffic crews and all traffic management needs, including computer-generated traffic plans, site inspections and traffic control audits.

With two locations, one in Newcastle and one on the Central Coast, Guardian Traffic Services has participated in large infrastructure projects including the Sancrox Interchange near Port Macquarie to more local assignments like the Nelson Bay Road upgrade. Guardian also prides itself on its safety record and has a comprehensive occupational health and safety management system. All personnel are trained in risk management processes and safety procedures to meet the legislative requirement for the traffic management industry. “As a local company, we have been very excited to be a part of the NeW Space project,” Kelly said. “The building will add to the on-going transformation of Newcastle.”

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