

PARRAMATTA SQUARE 1PSQ**THINKING OUTSIDE
THE SQUARE****OWNER/DEVELOPER :** Charter Hall Group**MAIN CONSTRUCTION COMPANY :** John Holland Pty Ltd**TENANT :** Western Sydney University**ARCHITECT :** Architectus Sydney Pty Ltd**ENGINEER :** Arcadis**CONSTRUCTION VALUE :** \$118 million

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The construction of Western Sydney University's (WSU) new CBD campus, **1 Parramatta Square (1PSQ)** in the heart of **Parramatta**, is a game changer for the fastest growing CBD in Australia. The new vertical campus will showcase the environmental pinnacle of how workspaces and education can co-habit to deliver a smarter and more energy efficient city. And now the first building in the redevelopment of Parramatta Square has achieved a 5 Star Green Star – Education v1 Design rating on 1PSQ.

1PSQ, located at 169 Macquarie Street, is nearing construction completion and is the first stage of the urban regeneration redevelopment of Parramatta Square. 1PSQ is a 14-level Property Council of Australia (PCA) Grade A commercial office tower across 26,500m² of nett lettable area that is fully leased to Western Sydney University.

Charter Hall Group is a leading property group in Australia with a total managed property portfolio of over \$18 billion. The group owns and manages 295 commercial properties across Australia, including office buildings, supermarket anchored retail centres and a fast expanding stable of industrial and logistics assets on behalf of its institutional, wholesale and retail investors. Charter Hall employs approximately 400 people.

1PSQ's prominent location at the junction of Macquarie and Smith Street's in Parramatta has direct access to a new master planned Public Domain that offers students and workers alike open space and amenity at the buildings front door, in addition to having a direct link to Parramatta bus and rail lines. Charter Hall and the D&C builder for the project John Holland have worked closely with WSU to create a bespoke, technology enriched, mixed-use accommodation solution in the heart of the Parramatta CBD to cater for WSU's specific education and teaching needs through a vertical campus offering.

Groundbreaking occurred in February 2015 with architectural firm Architectus leading the design of the iconic building which features highly integrated spaces and inter-floor connectivity throughout, as well as a central atrium (from ground to 9th floor) to connect the podium floors. "Charter Hall has worked with our key strategic partners Western Sydney University and John Holland through the construction and development phase to

bring this outstanding new vertical campus in the heart of the Parramatta CBD to life. For Charter Hall, the delivery of 1PSQ is about forming a longer term partnership with Western Sydney University across the project life cycle," said Michael West, Senior Development Manager NSW with Charter Hall.

There will be a vibrant ground floor retail offering featuring a range of food and beverage operators that will have frontage to the new Parramatta Square Public Domain. The 1PSQ building will have a direct visual connection to the Public Domain through the southern façade that has view lines up and through the building atrium, together with the new piece of Public Art designed by Emily Floyd that will be installed on the underside of the Level 2 soffit at the junction of Smith Street and the entry to the Public Domain that will set a new marker for the entrance into Parramatta Square.

"The thousands of students who will study here will be immersed in one of the country's most technologically-advanced learning environments. Western Sydney University have been visionary in their pursuit of creating new ways for students to learn" Michael said. "As one of the leading developers of education precincts Charter Hall have gained a comprehensive understanding of the key drivers for tertiary education providers through listening to our development stakeholders and implementing a true partnership model with Western Sydney University right the way through the development life cycle and beyond. This will provide us with valuable insights as we seek further opportunities in the education sector."

Technical specifications for the building include the following; 26,500m² PCA Grade A accommodation, 5 Star Green Star Education v1 Design rating achieved (as built rating targeted in 2017), basement end of trip facilities, 330m² accessible outdoor terrace area on Level 9, population densities from one person per 6m² on the lower levels through to one person per 10m² on the upper levels, low temp VAV mechanical system, premium grade wait times for building lifts.

For more information contact Charter Hall Group, Level 20, No.1 Martin Place, Sydney NSW 2000, phone 02 8651 9000, fax 02 9221 4655, website www.charterhall.com.au

Below Rest Interiors installed and manufactured the joinery, paneling and upholstery across 12-levels of Parramatta Square.

Ensuring Rest Interiors and its subcontractors sourced and used only Green Star rated products for the Parramatta Square 1PSQ project wasn't a problem for General Manager, Ali Hashem.

His firm manufactured and installed 12-levels of joinery and 2,500m² of wall paneling, including to the many lift lobbies, for the fast tracked project. Rest Interiors also completed much of the upholstery comprising Australian and imported fabrics in common areas, study areas, seating and even wall cladding.

"These were architecturally designed units. Some of them were quite intricate involving specialist designs. There was a lot of bespoke material, mostly Australian product and definitely they all had to be Green Star rated materials," said Ali.

Everything they manufactured or used for the project from substrate to adhesives had to be Green Star certified to be used onsite. They also had to ensure their partners and contractors used only Green Star products. "We had to be on top it. With my glazier, for example, we informed them since the tendering stage that their products had to be Green Star certified. We asked them to submit datasheets about the products they were going to use."

Another challenge was the "sheer quantity" of wall paneling Rest Interiors needed to manufacture, handle, polish and paste for the project. To meet the timeframe, the company outsourced to within its trust network.

"We have quite a large facility, however we were fortunate enough to partner with other companies on this one who were able to produce items and do the painting finishing works for the wall cladding for us to fast track. We still managed the process from beginning to end with no detriment."

About 100 people work for Rest Interiors and about 60 of them on the Parramatta Square project.

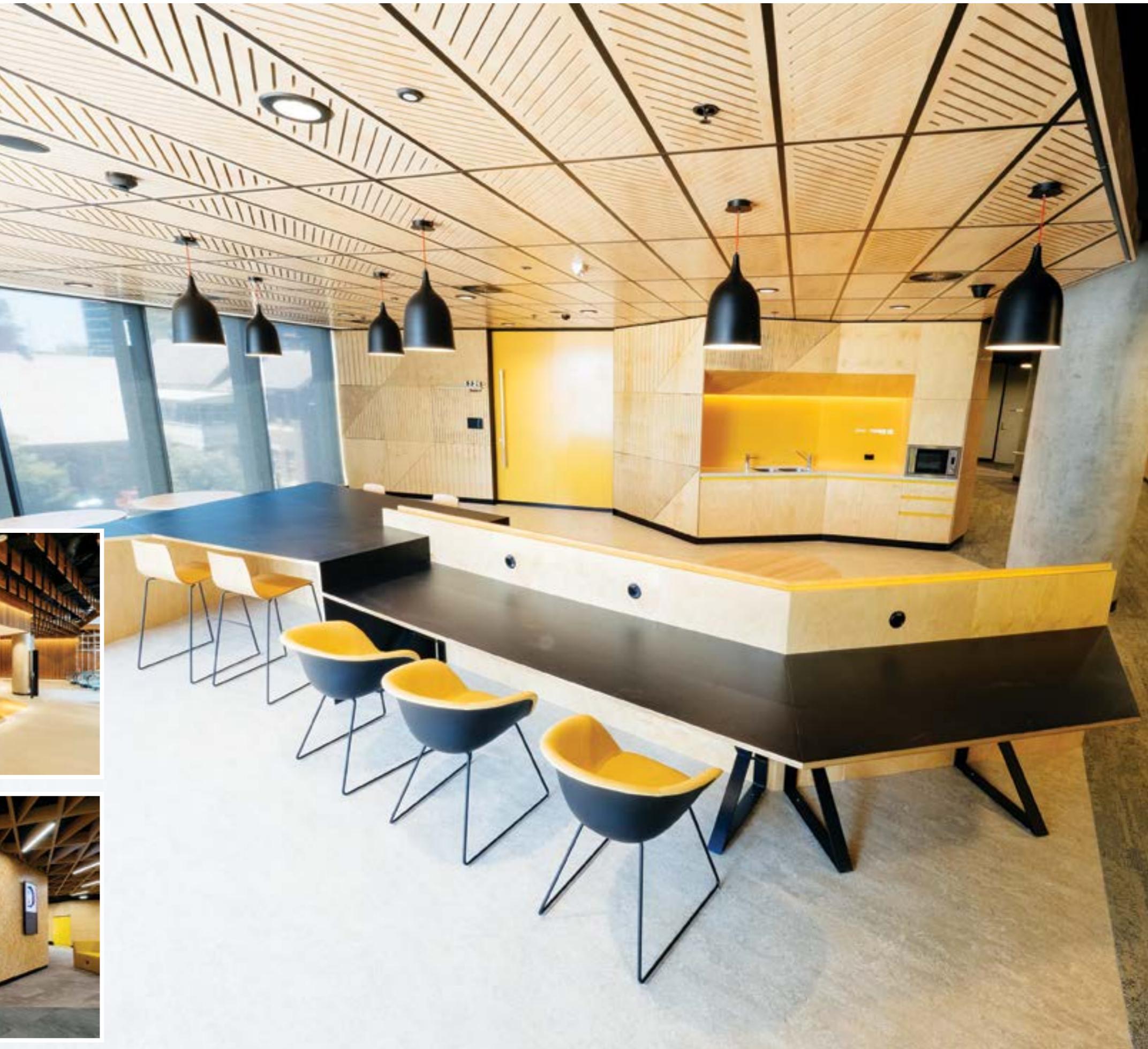
"We feel we have grown with this experience with Green Star rated projects. Other high quality, bespoke office fitouts we've previously completed had more joinery in it, but was over a longer stage. These sizable projects are definitely our forte," he said.

"This project was very well managed on behalf of John Holland. They did a good job of having the tradies working and coordinating together," he said.

Rest Interiors is a family run business established by Ali's father in 1985. It specialises in architecturally detailed joinery for all facets of the construction and fitout industry. The company has completed commercial and office fitouts, education, hospitality as well as retail, health and large residential projects. Currently, they have approximately six aged care residential projects on their books.

The unique selling point of the business, Ali said, is the level of service they provide and their "ability to go over and above what's in the best interest of the project."

For more information contact Rest Interiors Pty Ltd, 20 Clements Avenue, Bankstown NSW 2200, phone 02 9708 0633, fax 02 9793 9133, email info@restinterior.com.au, website www.restinterior.com.au



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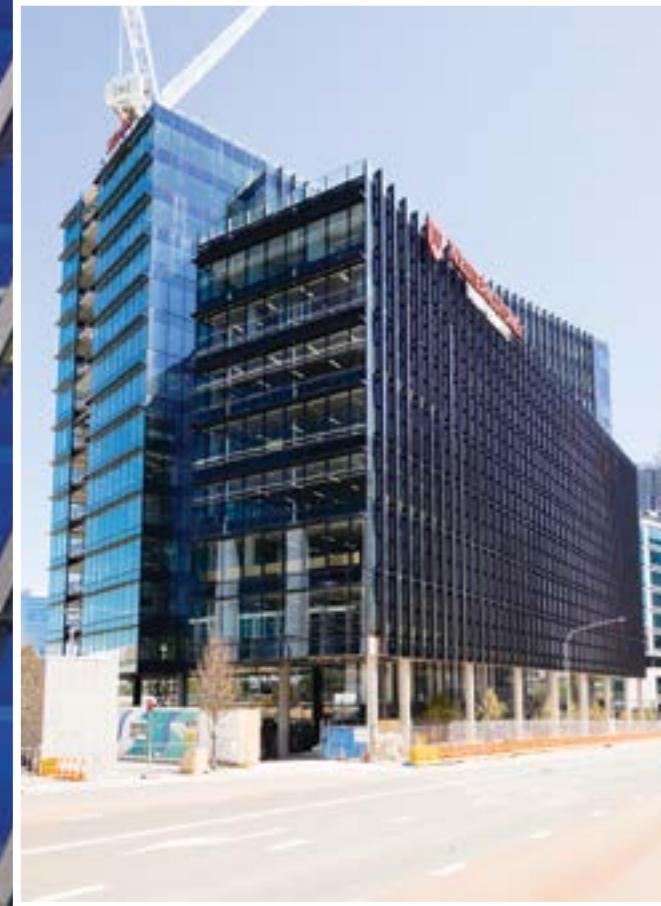


Photo: 169 Macquarie st, Parramatta. © Moits 2016.

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DOWN TO EARTH

Below Mesh & Bar supplied 1,400 tonnes of reinforced mesh and bar to the Parramatta Square 1PSQ project.

Below BSA is responsible for the design and construction of the mechanical services throughout the building.



Mesh & Bar is one of Australia's leading independent reinforcing steel suppliers who have serviced the Australian construction industry since 1999 with reinforced bar and mesh, concrete accessories and various associated building products.

One of the benefits of dealing with Mesh & Bar is their commitment to a sustainable environment, with the company using only recycled steel in its reinforcing mesh and reinforcing bar products.

Four staff members at its Glendenning, New South Wales office worked on the Parramatta Square 1PSQ project. Mesh & Bar were John Holland's chosen supplier of reinforced mesh and bar, supplying approximately 1,400 tonnes to the project.

One of the challenges of the project was producing monthly reports and other documents necessary to assist the project gaining its green star accreditation.

The materials had to be sourced and manufactured as required. The reinforced bar that arrives in batches each month at our site has to have traceability of the steel back to the mill. "It was time consuming but not difficult," said John George, Key Account Manager.

The Parramatta Square project required various Ancon products, meaning Mesh & Bar had to coordinate production schedules with bartec couplers and threading as well as key boxes to help with the developments jump form and site program.

"The project was very fast paced; there were regular drawing changes and revisions and constant program changes sometimes daily because of the complexity of the project," said John.

The company offers a full service for scheduled reinforcing steel and prepares detailed schedules and marking plans from the information provided by its customers.

Mesh & Bar's philosophy of customer service is to 'provide cost effective solutions and proactive service with uncompromising quality' and 'to establish long term strong relationships with its customers.'

For more information contact Mesh & Bar Pty Ltd, 15 Owen Street, Glendenning NSW 2761, phone 02 9832 2000, fax 02 9832 2550, email salesnsw@meshbar.com.au, website www.meshbar.com.au

BSA Build HVAC (formally Allstaff and Triple M), are working on the iconic Parramatta Square commercial office development, which will function as a campus for Western Sydney University.

BSA is responsible for the design and construction of the mechanical services throughout the building. During the construction there was more than 80 team members working on the project, from offsite design and drafting to onsite installation and commissioning.

The design incorporates heating and cooling systems with on-floor VAVs including on-floor allowances for tenant CW.

Offsite works consisting of design and drafting started in mid 2015, while the team began onsite work in December and anticipate completion at the end of 2016.

During the design phase, there were several challenges including the smoke exhaust system, which serves the low rise floors.

Traditionally, the essential services system would comprise of a 'deemed to satisfy' solution, but here the low-rise smoke exhaust uses

an atrium, which is open from ground to Level 7. Extraction is via fans located on Level 9 plant room space.

The solution called for extensive CFD modelling, which follows as part of the fire engineer's report.

Installing the supply duct risers within a larger return air plenum riser proved to be a challenge for the site teams. The design and installation sequencing had to take into account safety of installation in the first instance, as well as accessibility within the riser, which was provided within the riser itself, together with access from the floors into the space.

For more information contact the BSA Build HVAC, Level 3, Quad 2, 6 Parkview Drive, Sydney Olympic Park NSW 2127, phone 02 9763 6200, fax 02 9763 6201, email admin@triple-m.com.au, website www.bsa.com.au

Below Signdraft's team installed safety line access systems for façade maintenance and window cleaning.



For more than a quarter of a century, Signdraft has developed and refined its expertise as a one-stop shop for signage in Sydney.

"I started the business out of the garage at home in 1990 and now employ 15 people. We do a whole lot of different things from a small sticker that goes on a wall to probably 50% of the sky signage in Sydney," said Michael Hurst, Founder and Managing Director of Signdraft.

Signdraft does the concept artwork, drafting, engineering, manufacturing and installation of signs.

"With the products we now have available, the sky signage is maintenance free for five years. That's five years before you even need to think about the sign," he said.

The biggest sign he's produced is for the MLC building in North Sydney, which has approximately 15,000 individual LEDs that were installed by hand. Signdraft has also installed signs for AMP and CBA across Sydney city.

For the Parramatta Square 1PSQ project, it's not actually the signs Michael and the team are putting in, it's safety line access systems

for façade maintenance and window cleaning, which is headed by Signdraft's spinoff business, Difficult Access Engineering. Three of Michael's staff were working there.

"They just had to change their shirts," he said. "We're using the same employees as Signdraft, just using their skills to do different things. We've been doing that for 15 years."

Difficult Access Engineering sets up its permanent systems, and checks them yearly, to allow building remediation work, such as concrete cancer repair, resealing façades and chimney remediation work at power stations.

"The hardest thing was coordinating with the builder to have the components onsite ready for the concrete pour for example. We overcame any issues through good communications with the builder and clarifying just when they need us onsite to do our work."

For more information contact Signdraft Pty Ltd, Unit 3, Captain Cook Drive, Caringbah NSW 2229, phone 02 9523 0557, email mike@signdraft.com.au, website www.signdraft.com.au

For the past five years, Mela Bar Chairs Pty Ltd has been supplying large construction projects, steel suppliers and distributors in Sydney and Canberra with plastic bar chair products for concreterework.

The Sydney-based company has 27 plastic products in its line up and is the only Australian company to offer 200mm to 340mm high bar chairs in plastic.

Their innovative design continues to be refined with new plastic moulds created each year. The products are made in one of two factories in the Sydney metro area.

"A lot of builders, suppliers and subcontractors don't know you can get plastic bar chairs that high. We offer the perfect height range. This larger size of bar chair in the past were usually made of steel, but this new design replaces steel thus reducing the risk of concrete cancer and allows for easier manual handling due to the reduction in weight of bags."

The products are ideal for harsh coastal environment exposed to salty air. Being plastic, Mela Bar chairs stay rust-free. The company offers

24-hours lead time, competitive prices and all of its products are tested and certified.

"The main feature of our square design plastic bar is that it sits very rigid on bondeck and formwork slabs, creating a safe and stable top-mat for workers such as concreters and steelfixers."

Mela Bar Chairs Pty Ltd has supplied to other large projects including Barangaroo, where about 60,000 tonnes of steel was tied and all bar chairs were supplied to Southside Reinforce (AUS) Pty Ltd and Courtly Reo Pty Ltd.

For more information contact Mela Bar Chairs Pty Ltd, PO Box 581, Engadine Sydney NSW 2233, phone 0418 461 584, email info@melabarchairs.com.au, website www.melabarchairs.com.au

Below Mela Bar Chairs supplied their products for the steel and concrete works on the project.



Strategic Formwork entered the Australian market in 2002, with its inhouse designed and developed self-climbing 'CoreMaker' jumpform system for the construction of core vertical elements.

Site logistics at Parramatta Square 1PSQ, demanded that the CoreMaker being extended in plan at the set-up stage to integrate the northern and southern stair cores which were incorporated later at ground floor. Subsequently the CoreMaker was designed to lift these additional formwork panels and working platforms throughout the first two floors where these elements were not present.

Strategic Formwork invests heavily in the planning and design phases, producing detailed fabrication and assembly drawings which are professionally endorsed to Australian standards. The scope of work includes exact climbing sequences for the full height of the core construction plus step-by-step assembly and dismantle sketches with associated method statements.

The company's logistics team ensures that despatches, including wide loads, are matched to site requirements meeting time and zone restrictions, unloading and storage restrictions.

An in-house trained site technician supervises all aspects of the site works, with a 'Fit for Use Certificate' issued on completion of the site erection and a 'Certificate of Competency' issued to the system operators once the system is in full operation.

Currently Strategic Formwork is the market leader having over 40 jumpform systems in operation, in all major capital cities along the eastern seaboard.

For more information contact Strategic Formwork, Level 3, 33-35 Belmont Street, Sutherland NSW 2232, phone 02 9545 0244, fax 02 9545 0255, email reception@strategicformwork.com, website www.strategicformwork.com