## A NEW LEASE ON LIFE

**DEVELOPER: Cromwell Property Group** MAIN CONSTRUCTION COMPANY: FDC Construction & Fitout **ARCHITECTS: HDR and Nettleton Tribe** STRUCTURAL ENGINEER : Enstruct Group **REDEVELOPMENT COST:** \$130 million

The Northpoint Tower Redevelopment saw the refurbishment of North Sydney's tallest tower, as well as the construction of a new 187-room, 8-storey Vibe Hotel with rooftop pool and gym. Also included are new retail and restaurant offerings within a modern 4-level glass structure topped with a new rooftop bar. The development is designed to create a 7-day destination, in the heart of North Sydney.

Positioned in the heart of the up-andcoming North Sydney CBD, Cromwell Property Group's revitalised Northpoint Tower has set a precedent for office, retail and dining.

Located on the corner of Miller Street and the Pacific Highway, the \$130 million redevelopment of North Sydney's tallest tower stands out for all the right reasons. Aligned with the North Sydney City Council's plan to create a 7-day destination, the area craved a landmark retail and dining precinct to service the ever increasing residential and professional population.

Bobby Binning, Cromwell Head of Property, said the Northpoint Tower Redevelopment has been key to the revitalisation of North Sydney. "We are proud to deliver a truly integrated lifestyle hub for many generations of North Sydney workers, residents and business travellers to enjoy. In creating a 7-day destination, it's so pleasing to round out Northpoint's offering with Vibe Hotel and so many top tier restaurants, bars and food outlets."

Cromwell acquired Northpoint in 2013 and commenced planning for a major refurbishment and overhaul of the landmark site to include an integrated retail and dining experience, as well as a 187-room Vibe Hotel.

With the support of FDC Construction & Fitout (FDC), the works commenced in January 2016. The existing low rise structure at the podium level of the tower was demolished to make way for the 8-storey Vibe Hotel at the northern end, and the 4-level glass structure at the southern end.

As the focal point of the development, the glass 'shard' structure with 2-pointed spires at the leading corner of the triangular shaped site, welcomes workers and locals inside. The large central atrium, flanked by specialty retail, is overlooked by sophisticated dining and restaurants. With a focus on convenience, Woolworths, BWS, OPSM and Westpac Bank feature as key retailers.

Escalators guide guests to the main commercial lobby and hotel via a dedicated street address at 171 Pacific Highway. Atop the glass atrium and opposite the rooftop bar sits the hotel swimming pool and gymnasium, which overlooks the city skyline, 5-way intersection and pedestrians below. 3-floors of the existing commercial tower have been converted into hotel rooms and conference facilities, available for use by hotel guests, tenants and visitors.

Cromwell Property Group (ASX:CMW) is a Global Real Estate Investor and Manager with operations on three continents and a global investor base. The Group is included in the S&P/ASX 200. As at 31 December 2017, Cromwell had a market capitalisation of \$2 billion, a direct property investment portfolio in Australia valued at \$2.5 billion and total assets under management of \$11.2 billion across Australia, New Zealand and Europe.

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FDC were engaged under a lump sum Design and Construct contract to deliver the refurbishment of the Northpoint precinct.

FDC's engagement commenced early in the design phase in order to provide buildability advice, value engineering, and conduct site investigations of the existing facility. The following initiatives were the result of the early engagement and planning.

In order to withstand the weight of the new hotel building at the northern end of the site, 9-levels of existing carpark basement structure had to be strengthened, including the column footings. To minimise noise and vibration within the basement carpark, which would otherwise have caused significant disruption to Cromwell's tenants - who remained onsite throughout the redevelopment, a hydro demolition technique was employed to excavate the existing sandstone foundations.

Once the demolition and strengthening was complete, the new lightweight steel structure was constructed. This solution was selected in order to minimise the dead load of the new structure on the existing. As the site is constricted between two prominent roads, a key focus was placed on prefabrication. The use of structural steel assisted in this by minimising the amount of materials coming to and from the site such as formwork, reinforcing steel, and concrete.

The project was undertaken in distinct phases to minimise impact, and allow tenants to continue working from the heart of North Sydney. The commercial lobby in particular was completed in a number of stages to facilitate safe access and egress for the existing tenants.

The use of a steel structure required early planning and detailed coordination with the services trades in order to fabricate the appropriate service penetrations into the structural beams. Significant coordination was also required to incorporate the new steel structure into the existing concrete structure, including temporary support of partially demolished areas of the building.

Further prefabrication initiatives were utilised such as a panelised curtainwall system, and modular pod bathrooms. The 187 hotel bathrooms were prefabricated in Melbourne, delivered finished on the back of a truck, lifted into position by a tower crane, connected to the base building services and construction of the room completed around the installed pods.

Once again the pod bathrooms forced the design to be ratified early, minimised wastage, and enhanced the quality of the installation by manufacturing in a controlled environment.

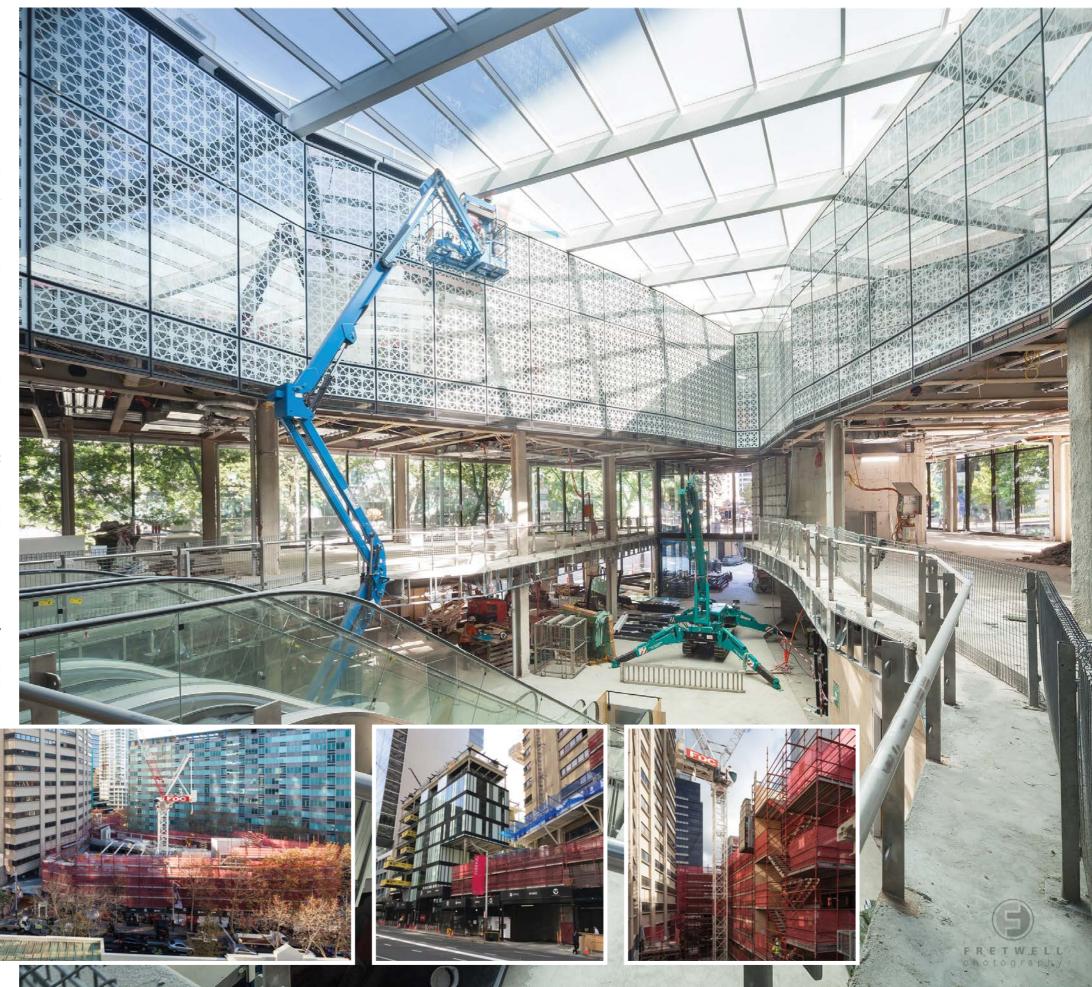
Due to the nature of the property and the refurbishment design, a complex fire engineered solution was developed to address the interaction between the various fire compartments resulting in a combined mechanical and natural smoke relief system.

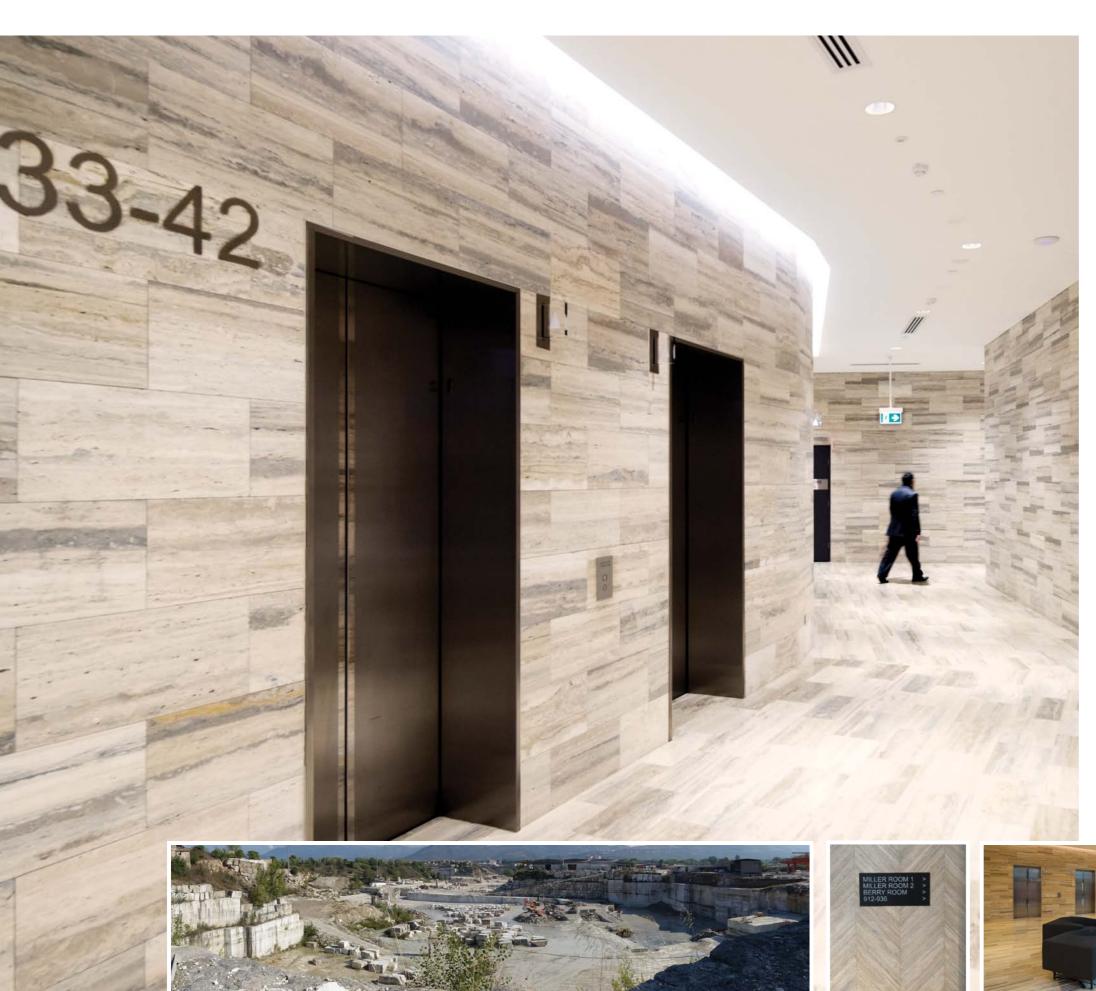
The project was completed on time and on budget in early 2018 and has proven to be another successful collaboration between Cromwell Property Group and FDC Construction & Fitout.

A national multi-disciplinary building contractor with expertise in construction, fitout and refurbishment, FDC has offices in Sydney, Melbourne, Brisbane, Perth, Adelaide and Canberra. It works across a multitude of market sectors including commercial, industrial, retail and data centres.



For more information, contact FDC Construction & Fitout, 22-24 Junction Street, Forest Lodge NSW 2037, phone 02 8117 5000, fax 02 9566 2900, website www.fdcbuilding.com.au





96 NSW PROJECT FEATURE THE NORTHPOINT TOWER REDEVELOPMENT

Nash Group is a professional and reputable tiling and stonework company that can provide a 'complete package' for their clients.

Apart from supply and installation, Nash Group can also provide direct worldwide stone and tile procurement, waterproofing, acoustic membranes, stone floor polishing, sealer applications and the like.

Striato travertine stone selected for The Northpoint Tower Redevelopment was procured from Italy. Nash Group conducted two overseas inspections to ensure the best selection; an initial quarry and block inspection by Nash Group General Manager, Mel Ferro, followed by a final control sample inspection by Nash Group Directors, Sam and Michael Nachabe.

Such inspections are critical in confirming whether the proposed selection is not only achievable but meets programme and budget constraints.

Nash Group imported over 4,500m² of Italian Striato travertine in different sizes and finishes to meet the architect's design requirements. The vast majority of the stone was fabricated in Italy to ensure the very best quality and finish, allowing streamlined deliveries for immediate installation upon arrival.

For the chevron pattern feature wall cladding, Nash Group supplied travertine-aluminium honeycomb composite panels to ensure the necessary tight tolerances, consistent quality and to expedite installation times. The same innovative technology was used to clad the Miller Street ventilation lourves.

Apart from the travertine, Nash Group also supplied and installed Andesite stone

and numerous ceramic tiles to various commercial areas.

Nash Group's involvement on the project took over 12 months to complete from their commencement in March 2017, working closely with the builder, FDC Construction & Fitout, and their programme.

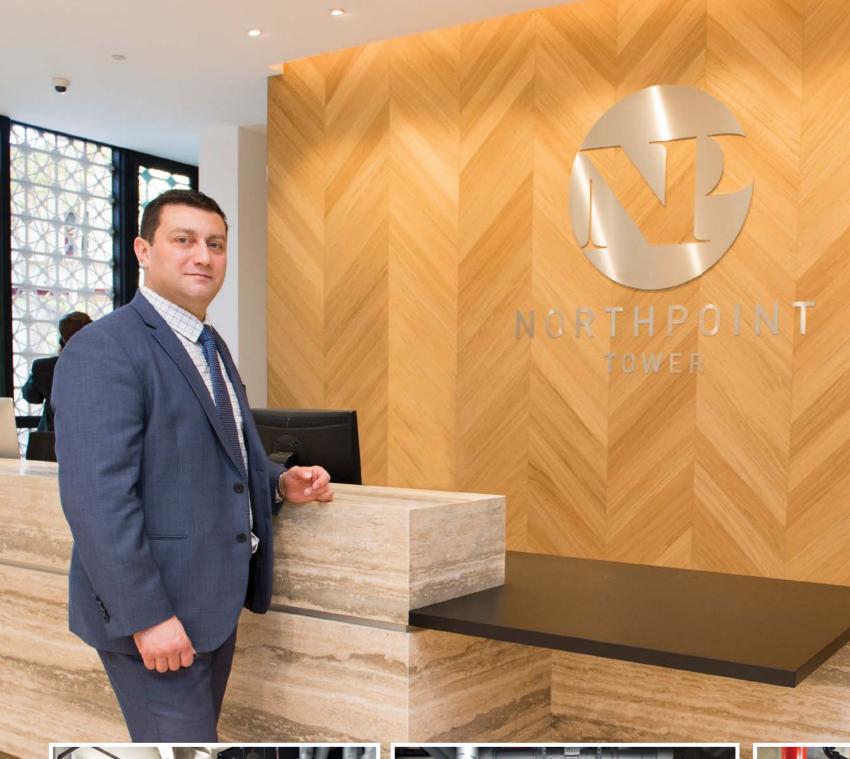
At their peak, Nash Group had over 35 workers and subcontractors working in unison with FDC in various work areas and interfaces. "Our labour resources are adaptable to meet our client's programme requirements, ensuring time and cost efficient installation," said Nash Group General Manager, Mel Ferro.

"Our new office and warehouse facilities in Condell Park provide over 2,000m² to accommodate all our administration and storage requirements. We anticipate to have our showroom fully completed in the coming months, allowing our clients the ability to peruse current and future trends in both stone and ceramics," said Mel. "We are located 32km southwest from the Sydney CBD, easily accessible via the Hume Highway or M5 Motorway."

Nash Group is proud to be associated with FDC Construction & Fitout on The Northpoint Tower Redevelopment. Like all construction, the project did raise various challenges. However, with their professional team of skilled workers and subcontractors, vast experience and procurement expertise, Nash Group delivered another quality project 'from quarry face to building face'.

For more information contact Nash Group, 58 Harley Crescent, Condell Park NSW 2200, phone 02 9708 3244, email mel@nashgroup.net.au, website www.nashgroup.net.au





In delivering extensive building services engineering support for the Northpoint Tower Redevelopment, Waterman AHW designed the mechanical services, electrical, communications and security systems, fire protection and hydraulic services and building management systems to support the redeveloped areas and in some parts, to integrate into the existing main tower services. All services were designed in 3D.

"Waterman's specific experience across all disciplines in retail and hotel projects, coupled with our specialist experience in the modification of existing and complex facilities and site infrastructure systems, placed Waterman in the forefront to undertake a project of this specific type and size," explained Senior Electrical Engineer, Daniel Blando. "Our knowledge in the design and construction support of facilities like this is extensive."

Waterman committed to an early detailed assessment of the existing site infrastructure. This was a necessary prerequisite to enable adequate design planning and assessment of infrastructure capacity with a challenging site, such as that of Northpoint, particularly given its location to other buildings, the heavily populated block and the tenants that remained onsite during the enabling works.

Mechanical Services designed by Waterman included a new chilled water system, incorporating a high efficiency Daikin

'screw' chiller with Turbo Inverter Starter with step-less capacity control (integrated into the compressor body) and unique Variable Volume Ratio (VVR) technology, which enables infinitely variable capacity control from 100% down to minimum load, thus ensuring exceptional part load efficiencies. Conditioned air is delivered through AHUs and FCUs serving the various retail outlets and specialty shops.

In addition to the retail areas, Waterman designed for an 800kW Daikin VRV IV heat recovery system to serve simultaneous heating and cooling to all areas of the new hotel tower, built above the retail podiums. This system provides maximum efficiency by utilising heat recovery technology, thus transferring rejection heat from one zone 'being cooled' and utilising this in another 'being heated'.

The Daikin VRV System also incorporates bulkhead FCUs in guest rooms and ceiling cassettes in lobby areas. The intelligent touch manager with remote WEB access controls manages all the VRV system including outside air fans. The guest room FCUs are interlocked with card readers to be enabled during occupancy, and turned off and disabled when unoccupied.

Waterman were also responsible for the design of electrical, communications and security services for both the hotel and retail sections of the development, where electrical systems included a new hotel substation (Level 3 Design), and extensive lighting systems throughout, inclusive of lighting control, emergency lighting, exit signage, lightning protection system and a generator for back-up power to the commercial tower.

A hotel and retail security and CCTV system, hotel front desk/back office duress alarm, front desk help button, hotel and retail MATV systems and hotel hearing augmentation loop were also provided as part of the overall system design.

New automatic fire sprinkler system, fire hydrants, smoke detection systems and an

emergency warning and evacuation systems were carefully planned and designed to be successfully integrated into the existing tower installation to form an integral part of the overall fire protection system.

New drenchers were added to glazed façades and hydrant rationalised and located in fire isolated stairs to comply with the latest codes.

Waterman also designed for the replacement of the existing pump assemblies to significantly reduce duties and subsequent impact on the pipework and fittings. The atrium glazed roof was designed with Optical Beam Detection for smoke detection and coverage at high levels in the atrium.

Hydraulic works included hot and cold water services throughout, storm water and downpipe systems, sanitary plumbing and drainage, as well as an upgrade to existing services and infrastructure.

New hot water plant and water pumping systems were designed and implemented. New trade waste grease arresting systems were also designed to serve the new food retail tenancies.

"The Northpoint Redevelopment Project has been a fantastic project for Waterman, creating much valued interest amongst staff, exposing us to great industry contacts, allowing us to further our experience and expertise in the larger retail and hotel sector and to display our achievements to the marketplace," commented Ben North, Managing Director of Waterman NSW.

"We were very privileged to work alongside FDC and their trade contractor teams and Cromwell, the client, as all parties worked well together as a whole. This project was a no nonsense, well programmed and synergistic operation and we hope to see more like it in the marketplace in times to come."

For more information contact Ben North of Waterman AHW Pty Ltd, 31 Hunter Street, Sydney NSW 2000, phone 02 9411 9900, email bnorth@wahw.com.au, website www.wahw.com.au







Below Green Formwork Group completed core walls for lift and stair shafts, stairs and supplied 1,200 tonnes of structural slab infills, and vertical structural elements.



As formwork specialists, Green Formwork Group pride themselves on being problem solvers in their industry. This problem solving ability was evident during the company's work on The Northpoint Tower Redevelopment project, where they completed core walls for lift and stair shafts, stairs and slab infills, and vertical structural elements, working together with a reputable and competent builder.

Green Formwork Group's Zeb Carroll says the prefabrication of timber formwork shutters onsite with tight space restrictions presented a challenge for crane handling into position. "Our company overcame this challenge by utilising the limited space onsite, as well as offsite, as effectively and efficiently as possible," he explains. "This involved planning, manufacturing and transporting the shutters to the site using our trucks, and utilising the crane to position and install directly into place."

Where shutters were made onsite, Green Formwork Group overcame space limitations by erecting shutters and neatly stacking them in a sequential order that made final handling into position a smooth and streamlined process.

Green Formwork Group also coordinated with other trades on the project. "Due to the complicated works involved on the job, our company made concerted efforts to coordinate with other trades, through the demolition, structure and finishing phases of the project," said Zeb.

There was also careful planning with regards to access for the tight site given its location in the heart of North Sydney, and the interconnected nature of the development with the surrounding buildings. Formwork materials had to be manually handled, as the cranes could only handle materials to certain locations. This required logistically planning and timing to ensure that Green Formwork Group's workflow was not impeded and could continue accordingly.

Green Formwork Group's General Manager, Sam Merkabawi said that the high profile nature of the project and location in the centre of North Sydney, and the complexity of upgrading and retaining an existing structure, provided opportunities for the company to further showcase its work on challenging projects.

For more information contact Green Formwork Group Pty Ltd, 365-367 Park Road, Regents Park NSW 2143, phone 02 9743 7005, email gfg@greenformgroup.com.au, website www.greenformgroup.com.au

As experts in complicated projects, including those with difficult site access, the restrictive site for The Northpoint Tower Redevelopment was another straight forward project for Pacific Steel Constructions.

The company completed the structural steel package for the redevelopment, including strengthening of the existing structure and the new high rise structure. "We completed the steel framing for the new floors for the multi-storey hotel and mixed use areas on both sides of the existing tower," explained one of the Directors, Con Diakos.

At least 90% of the work completed by the company is concealed, however for Northpoint Tower, aspects of their work is visually prominent throughout the project. This includes the main entrance steel skylight, glazed awnings around the perimeter and the cantilevered fire stairs. Pacific Steel Constructions also completed the framing for the impressively striking 4-storey glass structure.

"The [4-storey glass structure] was rather intricate steel work – it wasn't a conventional concrete and glass structure. The pool deck and gym for the hotel were also structural steel," says Con. "Overall, there is over 1,200 tonne of structural steel in the project."

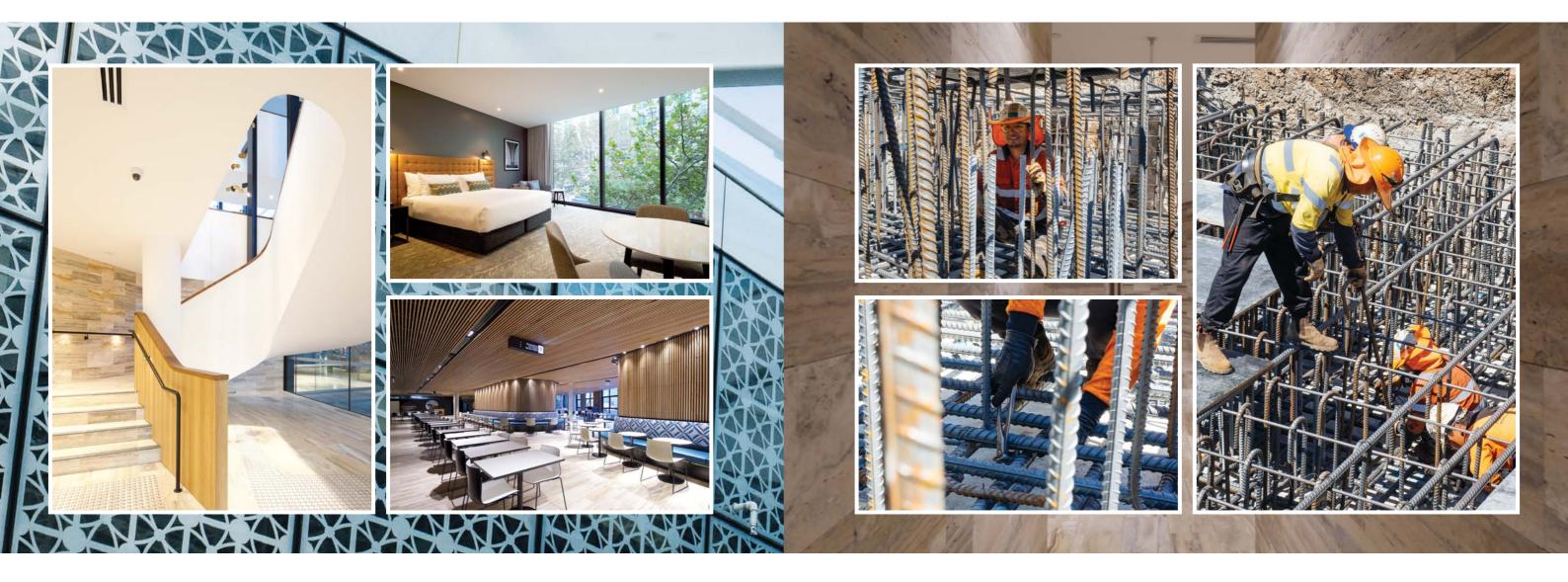
The company started work on The Northpoint Tower Redevelopment in February 2016, providing the complete package from design through to fabrication and installation.

"We started off with inhouse shop drawings – it was a fast paced project, with lots of design development challenges. Fabrication took place in our workshop at St Marys with local steel and then installed with our personnel," added Con. "We were very excited to work alongside FDC and this has been another high profile, successful project for Pacific Steel Constructions. We have proudly worked with FDC on previous projects and have been successful."

Pacific Steel Constructions recently completed work on Darling Harbour Theatre, one of the company's biggest jobs to date. They have also completed work on Australia's tallest residential steel building for Meriton in North Sydney, as well as No. 5, No. 20 and No. 50 Martin Place. Currently Pacific Steel Constructions is working on the Roundhouse Building and Biological Science Building for UNSW.

For more information contact Pacific Steel Constructions, Unit 1/4 Maxim Place, St Marys NSW 2760, phone 02 9623 5247, fax 02 9623 1795, email info@pacificsteel.net, website www.pacificsteel.net

**Below** DDI Architectural Projects completed internal fitout of the hotel and retail areas, including the food court.



Specialising in internal fitout and residential building, Sydney based DDI Architectural Projects is a leading subcontractor in the area. This is demonstrated by the company's extensive track record working on a number of large projects, including The Northpoint Tower Redevelopment.

DDI's work on the project consisted of completing the internal fitout of the hotel and retail areas, including the food court. Their work varied across internal walls in plasterboard and aluminium, as well as internal wall cladding using Speedpanel, Supawood and Woodform. An example of DDI's use of Woodform can be seen in the retail area's feature ceilings and walls.

DDI's experience working on big jobs ensured the company was able to meet any challenges on The Northpoint Tower Redevelopment with ease. This included accommodating a change in the sequencing for new building systems, to allow the fitting of the hotel's pod pre-built bathrooms and building around them.

Among DDI's other recently delivered projects is the William Inglis Hotel and Riverside Stables at Warwick Farm for the builder FDC. Completing the fitout of the hotel's office levels and internal partitions

of the stables and hospitality areas, this project involved great detail involving hardwood timber ceilings, a large number of special order custom doors and numerous architectural feature works.

DDI has completed projects for Home Hub Marsden Park, IKEA MFLU, ALDI Minchinbury, Rockdale City Aquatic Centre, Tank Stream Hotel in Sydney, Mercedes Mona Vale and GSK Pharmaceuticals.

The company is currently working on an FDC job site in Camperdown for Sydney University's new Faculty of Arts and Social Sciences building. The project consists of six floors as well as a refurbishment of the existing RD Watt heritage building.

Even though the company has built its reputation within the internal fitout sector of construction, DDI is also making a name in residential building. In 2017 DDI successfully built two homes in the Willowdale area in Sydney's west, with two more dwellings underway in 2018. Recently the DDI successfully completed work with NRMA and Fujitsu in Homebush, winning awards for thier expertise and precision.

For more information contact DDI Architectural Projects, Unit 1/11 Lagana Place, Wetherill Park NSW 2164, phone 02 9757 3411

With more than 20 years in the steel fixing business, Nitro Steel Fixers has become a name synonymous with outstanding commercial construction projects and steel fixing reinforcement. Specialising in superior quality, ultra-durable steel fixing reinforcements, Nitro Steel Fixers' reinforcements provide unmatched strength to new building projects.

Working on countless commercial building projects across Sydney, the company provides wall steel fixing, steel fixing of building foundations, columns, stairs and footings, commercial building services, ground and suspended slabs, and steel fixing reinforcements.

Offering the services of only the most qualified steel fixers, Nitro Steel Fixers exceptional experience means you can be rest assured your project is in safe hands. The company guarantees its steel fixing and reinforcement services will give a building project strength and that the structural integrity of your building remains good as new – even after many years.

With an expertise encompassing all aspects of commercial construction, ensuring a client's complete satisfaction is the company's utmost priority. Nitro Steel Fixers offers only the absolute best

when it comes to quality, workmanship, efficient management and competitive rates. Along with top standards of quality material and work, all of its services are insured and managed by highly qualified professionals. These professionals are skilled in working with builders, architects and civil engineers to shape up a successful construction project.

Implementing the latest, most effective concepts in steel reinforcements (ensuring all its building projects are masterpieces), Nitro Steel Fixers' work and services comply fully with Australian Standards.

The business takes pride in the potential and outstanding efforts of their team, a team that has never failed to exceed the expectations of clients – no matter how big or small a project.

For more information contact Nitro Steel Fixers, 2/219 Lakemba Street, Lakemba NSW 2195, mobile 0402 000 830, email nitrosteelfixers@outlook.com, website www.nitrosteelfixing.com.au

