

THE FEELING IS MUTUAL

DEVELOPER : The Mutual Bank
MAIN CONSTRUCTION COMPANY : North Construction & Building
ARCHITECT : dwp | design worldwide partnership
CONSTRUCTION VALUE : \$19 million

The Mutual Bank's head office project involved the construction of a new 6-level commercial building offering 8,000m² of floor space which includes car parking, landscaping, associated civil works, and special structural elements, including a large exposed Y-shaped column supporting Level 4 and higher, with the upper two floors housing the head office of The Mutual Bank.

It has been a hectic 18 months on the East Maitland site of The Mutual Bank's head office project since the sod turning ceremony was held in March 2019. North Construction & Building, a regional New South Wales commercial construction company with offices in Tuggerah, Newcastle, and Dubbo, was engaged to deliver this \$19 million state-of-the-art commercial office building.

Designed by dwp | design worldwide partnership, the building boasts dramatic features, both internally and externally, and separated into three distinct elements: a 2-storey face brick component which contains the entry lobby, retail/commercial space and also conceals the carpark levels beyond; a vertical batten screening system wrapping the carpark levels; and 3-storey commercial office levels. The Y-shaped column element is the most dramatic component of the design.

"A project as impressive as this one does not come around all that often," states Matthew Cook, North Construction & Building Managing Director. "It had a mix of some of the most complex structural and architectural features that North would usually experience on several individual projects and combined them into the one unique project."

"North has relished the challenge to showcase our construction skills in tackling all of the highly technical requirements the architect and engineer have inspired and developed into the design of this landmark project."

The project held some unique challenges for the North building team. The site location and the building being designed from boundary to boundary brought some serious challenges to consider, particularly when there were multiple neighbours and stakeholders to engage.

North arranged an internal, rather than external, builders hoist through penetrations in the main floor slabs to provide man and material transportation to the upper floors during construction.

Significant temporary soldier and whaler retaining walls had to be installed on the boundary to the adjacent KFC restaurant to enable the excavation and construction of the lift shaft.

The Y-shaped column that supported the cantilevered structure at Level 4 was a significant engineering exercise. It had to be fabricated onsite from six individual pieces due to its size and prohibitive transport logistics if it were transported in one piece. It required seven



bespoke onsite fabrication jigs in order to position and fabricate the item. It was craned into place at night requiring a full road closure of the busy main street.

Once in place, the Y-column had to be filled with concrete and due to its size, this had to be done from the base of the column using a concrete pump attachment welded to its base. Traditional 'pour down' techniques were not possible due to the congestion of internal steel reinforcement.

The 'hit and miss' brickwork to the carpark façade required strict engineering and quality control. North utilised the technical input of the brick manufacturer, Austral Bricks, plus the expertise of the University of Newcastle to provide physical sample testing and mortar bond mix design and admixture specifications to achieve the required outcome.

"I was advised that projects of this size, scale and location are always met with several challenges, which certainly proved true with this build and I congratulate North on their ability to remain focused, manage each challenge with the upmost professionalism, working collaboratively with all parties involved to achieve the most cost and time effective outcomes," noted Geoff Seccombe, Chief Executive Officer of The Mutual Bank.

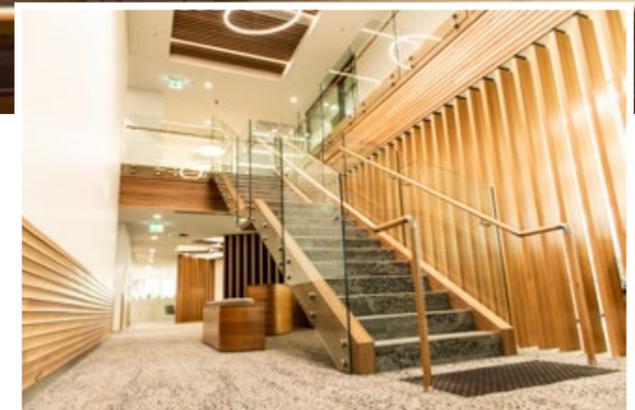
In addition to the unique construction challenges faced on this project, North also had to accommodate the COVID-19 crisis.

"COVID-19 had an immediate impact for the project," explained Richard Telfer, North Construction Manager. "Not only was the level of productivity that could be achieved onsite effected, a rapid shift in the site's daily operational procedures was needed. North mobilised quickly to develop safety systems and processes for all sites across the business to mitigate the coronavirus risk – actions that have, to date, successfully warded off any infections on our sites."

North had zero lost time injuries (LTI) on the project with more than 700 workers inducted onto the site.

"We are very proud to have been part of The Mutual Bank head office project," expressed Mr. Cook. "Thanks to a great client for their trust in us. Thanks, and respect also, to a great group of subcontractors who brought the project to fruition. It's one of those jewels that we will always drive past and be proud of our involvement."

For more information contact North Construction & Building, Mariners Centre of Excellence, Level 5, Suite 501, 1 Bryant Drive, Tuggerah NSW 2259, phone 02 4323 2633, website www.north.com.au





CHECKING ALL THE COLUMNS

SM Concrete Constructions (SMCC) is a rapidly growing specialist in all forms of concrete construction, servicing Newcastle and the Central Coast of New South Wales. Founded in 2015 by Sandy Martin, each member of the management team has over 20 years experience in the construction industry which ensures that SMCC delivers a high quality end result on every project.

SMCC supplied the concrete, pumped into place and finished all the in situ concrete elements for the new multi-level The Mutual Bank head office building. In addition, the SMCC team undertook the formwork, reinforcing and concrete pour to all slab-on-ground construction including the external pavements and stairs.

General Manager Adam Truong, said that SMCC also supplied and placed Oxtek's X550 Carpark Warehouse sealer to the carpark slabs. "This is one of SMCC's special customer offerings as we are trained and certified by Oxtek Australia to use this product."

"The construction zone was restricted to a busy road on the northern side of the site," Sandy said. "We had to work with a limited pump reach and the inability to achieve a 2-truck feed for the slab pours which limited pumping volumes. However, by working cooperatively with North Construction & Building and Hunter Valley Concrete Pumping Services we achieved a highly satisfactory outcome."

The building had a feature 'Y-column' and SMCC used a custom made shut-off valve to enable the core filling of the structural

steel column to be pumped up from the base. "The complex shape and reinforcement design of the concrete column encasement section posed challenges with concrete vibration," Adam explained. "To solve this issue a special proprietary concrete mix was developed and used which was extremely fluid and self-compacting. This mix provided an exceptional, highly aesthetic, architectural type finish to the column."

SMCC has a highly trained, experienced workforce committed to excellent quality and first class service on all projects. SMCC is current working on multiple projects including the Catherine McAuley Catholic College Development, North Gosford Private Hospital and the ING Bank Office Tower at Wyong.

For more information contact SM Concrete Constructions, email sales@smconcrete.com.au, website www.smconcrete.com.au

