

THE RESIDENCE

Hyde Park

CONSTRUCTION COMPANY : J.Hutchinson Pty Ltd
PROJECT CLIENT GROUP : AMP Capital Investors,
Cbus Property,
Galileo

COMPLETION : November 2011
ARCHITECT : Scott Carver
STRUCTURAL ENGINEER : MPN Group Pty Ltd
PROJECT END VALUE : \$100 Million



tight, we could only get small trucks in there, it was difficult to get material in and out.'

The demolition and structure trades were tested as the core of the building was relocated from the east side, where it obscured valuable views, to the centre. New lift shafts were built up to level 15 and the building was cross-braced from levels 15-20 to keep structural integrity before the old core was demolished. The precast unit facade was craned off with the help of highclimbers and a tower crane set on purpose-built grillage on level 20. The top two floors were taken out and four new levels built in their place.

At the same time, workers down in the basement were braving constricted head heights to underpin and reconfigure the car parking. Piling rigs were brought in to tackle extremely tough ground and create more space. Mechanical car stackers and a vehicle turntable for the penthouses maximised the space.

Surrounded by a cross-section of urban life including Sydney Grammar, a Salvation Army Crisis Centre and the Marriott hotel, ongoing noise issues with local residents was dealt with at weekly neighbourhood meetings. Acoustic baffles were used, and pulverisers that crushed rather than hammered, were used during the demolition process.

Project Manager Lloyd Grigg says the 'challenge from a design point of view has been reconfiguring existing structure, existing floor plates, adding on or extending those floor plates and adapting new wet areas on existing structure.' The building was extended on three sides. The Northern elevation is dominated with a striking curtain wall, the centre of which aligns the meridian line of the twin spires of St. Mary's Cathedral and the paired shells of the Sydney Opera House.

LUXURY LIVING

Hutchinson Builders took on the transformation of prestige development 'The Residence' on College Street, across from Hyde Park in the centre of Sydney. With a \$100 million construction budget, work began in September 2009 aiming for a 24 storey building housing 87 luxury apartments, three swimming pools, 24 hour concierge and five star hotel facilities. Due for completion mid-November 2011, the construction topped out with around 330 workers on site, a high number for a city job.

Originally built in 1970, the building was well known as the old police headquarters. Site Manager Andrew Gulliford says the construction was complicated 'because we were building on many different fronts all the time, it wasn't a building that could be built in the usual sequential manner. Basically, all the demolition and reconstruction was programmed to come to a point where we could pour a full floor plate and go up, and then a typical floor cycle started from there with two waves of construction going up through the building.'

Mr Gulliford also spoke of the challenge of working with just a 20m work zone on College Street, 'All lifting from cranes and concrete pumping had to be done from that area, access from the basement via College Lane was very

Throughout all of the demolition and the majority of construction, a sales display unit was open on level 17. Prospective buyers were reassured that everything was ok during inspections, as demolition works continued around them.

The development is clad in sandstone from Mount White up to level four, keeping the sandstone band flowing from neighbouring Australian Museum and Sydney Grammar. Mr Grigg says 'From a cost savings point of view, we could have sourced sandstone from China or India, but it's generally not as aesthetic as Sydney sandstone, so we made the decision to use local sandstone from a local quarry with a local contractor and we're very pleased with the result.'

Hutchinson Builders won a 2010 Master Builders Association Site Safety Award for 'The Residence', which acknowledged the unusual OHS requirements needed to simultaneously manage finishing trades such as carpet laying with heavy demolition.

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A WEALTH OF EXPERIENCE

L yall Dix counts the number of stairs as we walk down the fire exit - eighteen on this particular stretch, the legal maximum allowed on any one flight. As the Director of Dix Gardner and the principle certifying authority on site at 'The Residence', Mr Dix and his colleagues have had an oversight and enforcing role, approving and advising on safety features including emergency lights, exit signs, structural stability, hydrants, disabled access, toilets, ventilation, fire escapes, fire control centres and of course, fire stairs.

Dix Gardner was established in 1999 when Lyall Dix was appointed the first private NSW building certifier. Developers can go to the Council for building regulation approvals, or go to a company such as Dix Gardner, whose functions, duties and responsibilities are identical to the council, but they can process approvals faster - at a competitive cost. And on big budget projects such as 'The Residence', prompt approvals can have a serious positive impact upon project economics which benefit the consumer.

Working closely with the architects and the project manager of Hutchinson, certifying 'The Residence' was not straight forward.

Applying current standards in the building code to an existing building requires flexibility and thinking outside the square. Mr Dix said in this incidence 'the building was unusual in that it required a 'Fire Engineering' approach, which requires a certifier to exercise discretion and approvals for designs and developments that are outside the normal scope of the rules. They still comply with the regulations, but they allow for the innovation that the architect is striving to achieve.'

Dix Gardner approve over one billion dollars worth of work per year, mainly large complex builds. Employing 14 staff/consultants, they have offices in Sydney and Newcastle as well as a national alliance. They are accredited by the government to advise and make decisions on regulatory building compliance, always acting in the public interest.

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A UNIQUE PERSPECTIVE

C ivil and structural engineering firm MPN Group were intrinsic to the redevelopment of 'The Residence'. Viktor Mateffy, Director, had a unique perspective on the project as his father, Stephen Mateffy, was one of the original engineers on the building when it was constructed as an office block in 1970. Viktor Mateffy spoke of the 'building gymnastics' involved in the transformation, including relocating the lift and stair core to suit the new use of the building.

MPN Group worked closely with Hutchinson Builders to ensure the building remained stable during the demolition of the old core and creation of the new - the transition took a year and a half, requiring huge amounts of planning and propping. Creating more car parking was another massive task, foundations were underpinned and geo-technicians consulted as deep pits were dug to accommodate mechanical car stackers. Other challenges included putting a pool on level 2 with a void above it extending to level 5 and two other pools on the roof of the building.

Different loading requirements for office and residential developments came into play and MPN Group assessed each level for weight-bearing

and floor sag. This was critical as high-end developments are fond of heavy materials such as marble and granite. Wall systems were carefully selected to assist the capabilities of the existing structure as well as meeting stringent acoustic requirements.

Originally one of the first buildings the MPN Group designed using post-tension techniques, the new building is a hybrid, keeping some of the post-tension and some conventionally reinforced floor slabs. A thin veneer of carbon fibre was used to strengthen parts of the existing floor - about 70% of the existing building structure was retained. The firm were fortunate to still have the full suite of original drawings, invaluable in the transformation of the 70's office block into a swish modern residential building - engineered (once again) by long standing family business, MPN Group.

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QUALITY COMES FROM SUNSHINE INTERIORS

When it comes to a home, how it looks behind closed doors really matters. Sunshine Commercial Interiors have made sure those who live at The Residence have homes as beautiful on the inside as they are on the outside. Sunshine supplied and installed all the internal partitions, ceilings, skirting and reveals for the apartments.

In keeping with the high end nature of the project, Sunshine ensured their workmanship was of the highest possible standard. For eleven months, around 50 trades staff worked to complete the scope of works. Quality was one challenge, the pace required to complete work another, as the construction program moved to demanding time frames.

“This is the top quality project and we are the finishing trade. Our boys have been working very hard to achieve the expected quality of work, and pushed the job to finish on time. We are proud to have achieved it,” said Sunshine Commercial Interiors Spokesman, Tony Zong.

“Sunshine is a professional organization that has tailored itself to meet the demands of the current commercial building industry. We are compliant with all aspects of the workplace Health & Safety Act, comprehensively insured with Public liability and Workers Compensation insurance.”

Sunshine works on projects across the Sydney region, supplying and installing interior fit out including partitions, ceilings, doors and hardware. The company also undertakes external cladding. With access to a network of suppliers and manufacturers which can provide their trade teams with the means to realize a wide range of aesthetic visions, the finished spaces they deliver are first class. Sunshine has been in business for 12 years and has 35 skilled and experienced staff. On all their projects, Sunshine strive to give complete satisfaction to clients, ensuring that all the finer details of the fitout design and specifications for a project are met on time and within budget.



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BRIGHT IDEAS FOR ELECTRICAL SYSTEMS

By combining design innovation with safety-conscious installation expertise, Carrington Electrical gave The Residence prestige results without massive energy use. The scope of work for the project was complex, including lighting, heating, security, TV/comms and home automation systems for each apartment. Up to 25 staff on any given day were on site for 18 months from April 2010 completing the work.

One of the challenges of this project was a specification of low power consumption for the development. To meet this, Carrington delivered a custom-designed electrical works package, using the best available technology to ensure functionality and energy efficiency, while also meeting the aesthetic vision of the project architect.

For example, the architect was inspired by Kevin Reilly, a French lighting designer, so Carrington sourced and imported light fittings from overseas. These fittings also met the BASIX requirements for the project, and in some areas of the apartments, LED globes have been used which deliver an extremely low maintenance, highly efficient lighting solution.

Another innovation at The Residence is the custom-designed floor heating system installed throughout the apartments. The system uses only 55 watt through the living spaces and 80 watt in wet areas, ensuring comfort in cold months without using vast amounts of power.

Each apartment has a Home Automation system, with touchscreens which control lighting, the fireplace, floor heating and the electric

blinds. Each aspect can be controlled individually, or residents can activate a variety of single-touch modes, customised to each resident's lifestyle, appropriate for social occasions, viewing movies, or when residents are away. Resident's own sound systems can also be configured into the automation system.

“This was a project which gave us an opportunity to showcase our ability to fulfil complex requirements and produce results which meet the needs of the client,” said Carrington's Project Manager, Chris Christofis.

Since 1991, Carrington Electrical has been delivering electrical system solutions and installations for high rise residential, commercial/ industrial and BER schools projects. As a Code Compliant company with an LTI-free safety record and over 40 qualified electrical tradespersons, Carringtons can provide innovative electrical packages for multiple major projects concurrently.

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