

Dedicated Excellence

Hindmarsh is an Australian company with a significant overseas presence as well as within Australia. They have undertaken work on major development projects in North America, South East Asia, and recently they have opened new offices in the booming city of Shanghai, China.

The development of the Martin Towers Project within the heart of Adelaide was an exercise in construction that required significant attention to the surrounding area. Fronting the wide boulevard of Adelaide's North Terrace in the heart of the CBD, and with restricted site access and space, the project was a challenge even for an experienced developer such as Hindmarsh.

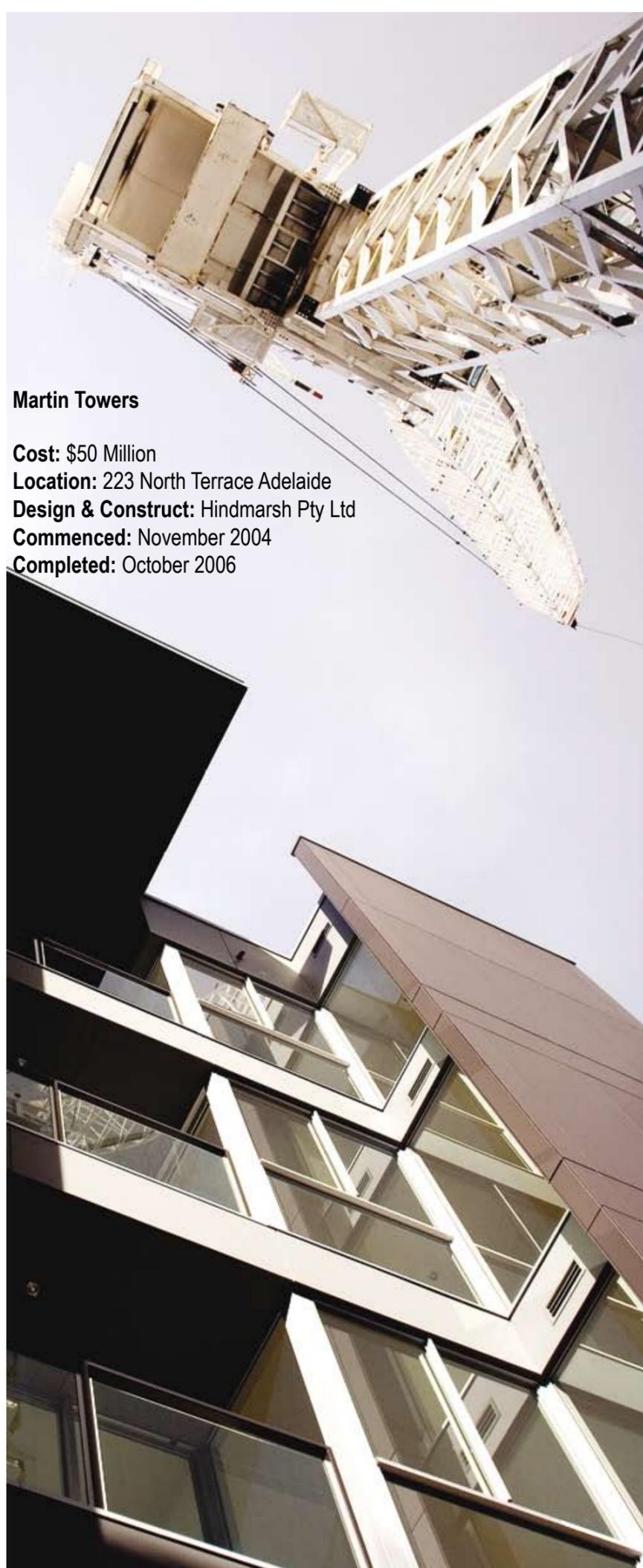
Extensive and thorough planning of access, public safety, and logistics were essential to ensure that the project progressed without undue delay or interruptions. In particular the operation of a single tower crane for the whole site required thorough scheduling of deliveries and turn around times to ensure that the numerous contractors and site staff were not held up. Complicating this further was the single access point for the entire site from one side street. The fact that the project progressed as smoothly as it did is testament to the skills of Hindmarsh, and it clearly demonstrates a level of communication and planning that is far and above the industry norm.

The project itself consists of a seven-storey north tower, which accommodates 66 apartments of varying sizes, and a five-storey south tower with 45 two-bedroom apartments, these two towers were built on top of a pre-existing six-storey car park. The development incorporates a lap pool, spa, sauna, and gym to keep the residents happy and much effort has been made to include communal or plaza areas of shared space. The car park was actually designed in the late 60's to incorporate a hotel rising from its roof, but the hotel never eventuated. For this project, Hindmarsh were required to obtain the 'air rights' during the planning stage, and this is the first instance of 'air rights' being granted in South Australia for a major development.

The completion of Martin Towers eloquently demonstrates Hindmarsh's abilities. The fact that they were keen to undertake this challenging project and produce the prestigious apartment towers as a result speaks volumes of the company's work ethic and dedication to excellence.

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Martin Towers

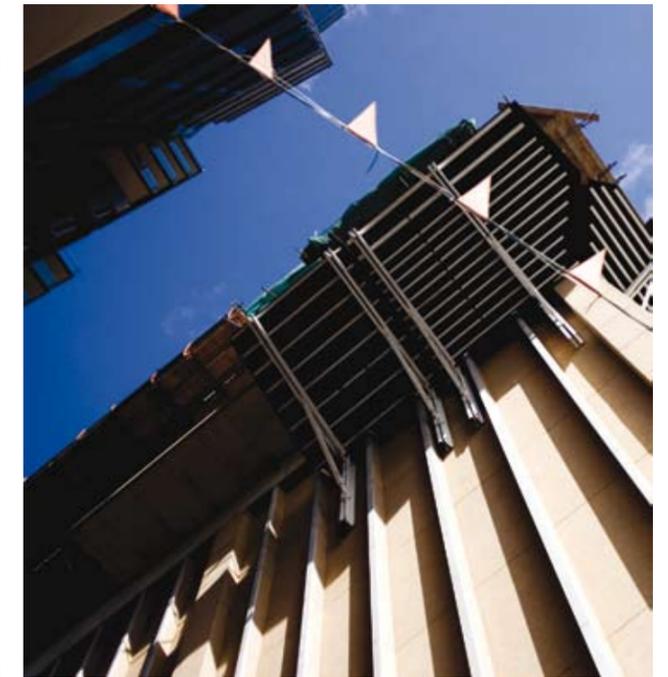
Cost: \$50 Million

Location: 223 North Terrace Adelaide

Design & Construct: Hindmarsh Pty Ltd

Commenced: November 2004

Completed: October 2006



A company that not only survives, but also thrives in a tight competitive market is a company that has learnt to provide exceptional service and satisfaction to its clients.

One such company that has become a leader in its field is Area Construction Labour Services (ACLS). Operating out of South Australia and with a list of multinational clients and prestigious projects under their belt, ACLS were naturally a strong contender to provide their specialised services on the Martin Towers project.

ACLS are in the business of people, the company was established to provide skilled and trained personnel to the construction industry, and they have been doing this successfully for many years. All areas of construction labour are covered, including; safety officers, traffic management, first aid, trade assistants for painters, electricians, plumbers, they also supply riggers, dogmen, forklift operators and staff for almost any other aspect of major construction.

For the Martin Towers Project, ACLS provided materials and personnel

hoist operators, general labourers, and safety officers who not only met, but also exceeded the stringent requirements for such a high profile and prestigious project.

ACLS were delighted to have the opportunity to work with Hindmarsh on such an innovative and prominent development and their involvement has once again demonstrated their skill and experience in the provision of personnel for large-scale development projects.

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Engineered design



Operating in over 20 countries around the globe, URS is a specialised engineering design services company with a broad base of technical knowledge and skills that benefit governments, corporations, and private clients in a wide range of areas such as property development, mining, oil and gas, agriculture, forestry, water resources, and many more.

Involved in and committed to the provision of high quality environmental and engineering expertise, they are backed by a network of over 29,000 staff, with 1000 of those being based in the Asia Pacific region including Australia.

URS Australia was engaged by the developers of the "223 North Terrace" project to undertake structural engineering design and site inspection services for the development, which unusually, was constructed on top of an existing 7 story car park. The original development of the car park building built in the 1960's, had provided for the inclusion of a hotel on its roof, and therefore with the addition of a concrete transfer slab, the two-tower project could proceed.

URS demonstrated their ability to provide innovative solutions in the shallow depth steel and concrete floor and column systems involved in the construction. The floor is created using steel ribs forming back-to-back 'Z' sections, supporting a steel form deck, which in turn is held by 'hot-rolled' beam sections, which are supported by hollow steel columns. The hollow

steel sections are then filled with concrete to create a composite design. In the event of a fire, the steel is expendable and the concrete infill becomes the integral support of the structure.

The large amount of pre-fabrication involved with this system ensures reduced site assembly, minimal fire and corrosion protection for beams and columns, no rolled steel required for secondary beams, no shear studs due to the integrated beam/slab system and reduced site storage and access requirements.

The project, due to its nature, was a difficult site to access and the floor and column system design that URS were able to generate, provided significant efficiency associated with difficult or awkward access sites and conventional floor column design. The other benefits of the system are also clearly apparent and the resultant completed project is a testament to their innovative approach.

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Moving on up

Otis Elevator Company was engaged by the developer, John Hindmarsh Constructions, to provide vertical transportation for the prestigious Martin Towers project in Adelaide.

In the North Tower, Otis installed two Gen2™ Premier elevators that will cater for up to 13 passengers and travel between nine levels at a speed of 1.75m/s. They were installed in an existing lift shaft that had been built previously for future use. The car interiors incorporated a number of architectural features in keeping with the development's impressive credentials.

In the South Tower, the existing elevator's travel was increased by five floors to service the apartments above the car park. The elevator itself underwent extensive refitting, including new fixtures and landing door locks. It was also reshaped to accommodate a stretcher and ensure the development met required safety codes. Once again, the lift car was finished with architectural features in keeping with the architect's design. Otis installed a state-of-the-art control system, the MCS321M, specifically to enhance the smooth operation of Otis's advanced gearless elevator cars.

The Gen2 elevators installed in the North Tower are one of a range of advanced models developed and manufactured by Otis. Incorporating flat polyurethane coated steel belts - as opposed to conventional steel cable - the Gen2 is a composite of 21st Century technologies and materials that boast a 50% improvement in energy efficiency over conventionally geared elevators. The advanced design integrates the machine and its supporting structure within the hoist way, eliminating the need for rooftop housing thereby increasing usable space. The Gen2 range is also unsurpassed in passenger safety and reliability. The belt operation results in 75% faster installation times and improved acoustics (it is one of the quietest elevators in the industry), smoothness and longevity. Being 20% lighter, lasting 2 to 3 times longer and with no need for lubricating oils, the Gen2 steel belts and machine have become a worldwide benchmark within the industry.

The design of the Gen2 also affords flexibility and allows for a number of variations to suit any particular project. Standard features include digital technology to ensure smooth, seamless acceleration and deceleration, a maintenance free disc brake system, slotted door sills to prevent debris interfering with the door tracking plus a wide range of accessories, including lighting display panels, buttons etc.

Otis also provides a wide range of other models for specific purposes, including the Otis medium-speed geared 300VFE, the high speed gearless SKYWAY™, the Elevonic 411 and OTIS4000 systems plus the Eclipse®2 hydraulic elevator for home and private usage. In addition to its extensive range, Otis can breathe new life into existing elevators with its Transit range of system modernisation packages. Otis's operating systems are also state-of-the-art. The RSR Plus™ Dispatcher selects the most appropriate car to answer a call, while the REM® (Remote Elevator Monitoring) system gives 2-way, 24-hour access to OtisLine® customer response representatives, providing peace of mind to passengers and building owners.

Otis Elevator Company's involvement in the Martin Towers project has provided the company with an opportunity to display its products and expertise in a premier residential development. As Otis's South Australia Branch Manager Ken Brine said: "The former John Martin site is an iconic one for our state, and the development of this residential tower is an important moment in Adelaide's building history."



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Keeping it under wraps



RMD Australia and Independent Scaffolding join forces in the Martin Towers Project

RMD Australia and Independent Scaffolding joined forces in developing a unique scaffolding solution for the Martin Towers project.

The Martin Towers Project is a high profile apartment complex comprising two towers. The Northern tower is 7 stories high and the Southern tower is 5 stories high, the towers are being constructed on top of the existing John Martins Car Park, North Terrace, in Adelaide. John Hindmarsh Pty Ltd is the principal contractor building the structural steel framework with a clad facade.

Due to the positioning of the towers near the extremities of the existing building, access scaffold had to be erected on the outside of the building. To negate the need for multiple floors of needle beams to support the scaffold, and to disrupt cladding on one floor only, RMD Australia engineers provided a needle/frame solution made of RMD's Super Slim Soldiers to allow scaffold to be erected to the full height of the structures. In some areas the needle frames extended 4m past the slab line of the building.

At times there was up to 200t of Rapidstage Scaffold and Safety Hand railing, and 80t of RMD's Super Slim Soldier's and Megashor with associated components on site.

The Rapidstage scaffolding and Super Slim support system utilised on the Martin Towers project was erected by Independent Scaffolding Pty Ltd. They were chosen to implement the structure because of their competitive pricing and their excellent reputation within the industry. Independent Scaffolding has been providing a professional scaffolding service to the construction industry for more than twenty years. They have a great depth of experience within their company management, which when combined

with its highly skilled workforce make it a preferred contractor for many of Adelaide's leading builders.

Independent Scaffolding Company Manager, Fred Wright said that "the Martin Towers project is a fine example of a complicated engineered support system successfully installed by a more than competent work force, special praise goes to Frank Leudwig the company's Site Foreman on the project."

RMD Australia has over 50 years of experience supporting the construction industry in Australia with innovative formwork, scaffolding and shoring solutions including comprehensive engineering designs. To provide convenient service for its customers RMD Australia has established a network of 17 branches around the nation, providing equipment sales, hire and design support services.

RMD Australia has released a number of innovative, highly productive products in recent years including:

- Alshor Plus – the latest generation aluminium shoring.
- Reflex – is quickly adjusted to provide easily formed curved walls.
- Airodek – is a high productivity soffit system.
- Minima – modular, medium panel formwork system.

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Solid structures



SA Structural are a relatively new company, having been established four years ago in 2002, however their youth belies their exceptional industry perception and they have grown rapidly, capitalizing on a number of significant successes, and on the abilities, skill and the extensive experience of their staff. SA Structural now employs 52 full time staff, including draftsman, quantity surveyors, project managers and tradesmen, and they operate out of brand new state of the art premises in Salisbury North.

With using advanced 3D modelling drafting software, automated workshop and with four, 5-tonne lifting gantries available to them, they are capable of handling a wide variety of projects from small to large-scale steel design, manufacture, and erection. SA Structural competitively bid on a broad range of construction and mine projects across the country, and have made significant inroads into the industry since they have been in operation. The company's outlook is progressive, and provides a fresh, innovative approach, both in their work, and in generating cost effective, functional solutions for their clients.

SA Structural were engaged for the Martin Towers development to manufacture and erect the structural steel for the entire project, including the 'pan' type Kingfloor system incorporated into both the north and south towers. Their involvement began early on in the project as they assisted with the design phase prior to the commencement of construction, advising the design team on the most appropriate methods of erection of the steelwork, and the best materials to use. In all they provided approximately 1400 tonnes of manufactured steel product, a large proportion of which was 250 X 250 SHS, and UB beams. The pan floor systems consisted of 'Z' section frames with K57 Kingfloor infill.

The project presented similar challenges for SA Structural as it did for other contractors on site, the main issue being the initial start height, six-floors above ground level. This meant that everything had to be lifted, prior to work beginning, although a large proportion of the pan floor systems could be preassembled off site. Communication, and cooperation were instrumental in the success of the development and it is a credit to all the parties involved that they were able to utilise the single tower crane efficiently and effectively.

SA Structural have proved themselves on this prestigious project and their company has grown significantly in stature due to their work on the Martin Towers development, quite naturally they are very proud of what has been achieved, and also proud to have been associated with the landmark development in the heart of Adelaide.

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