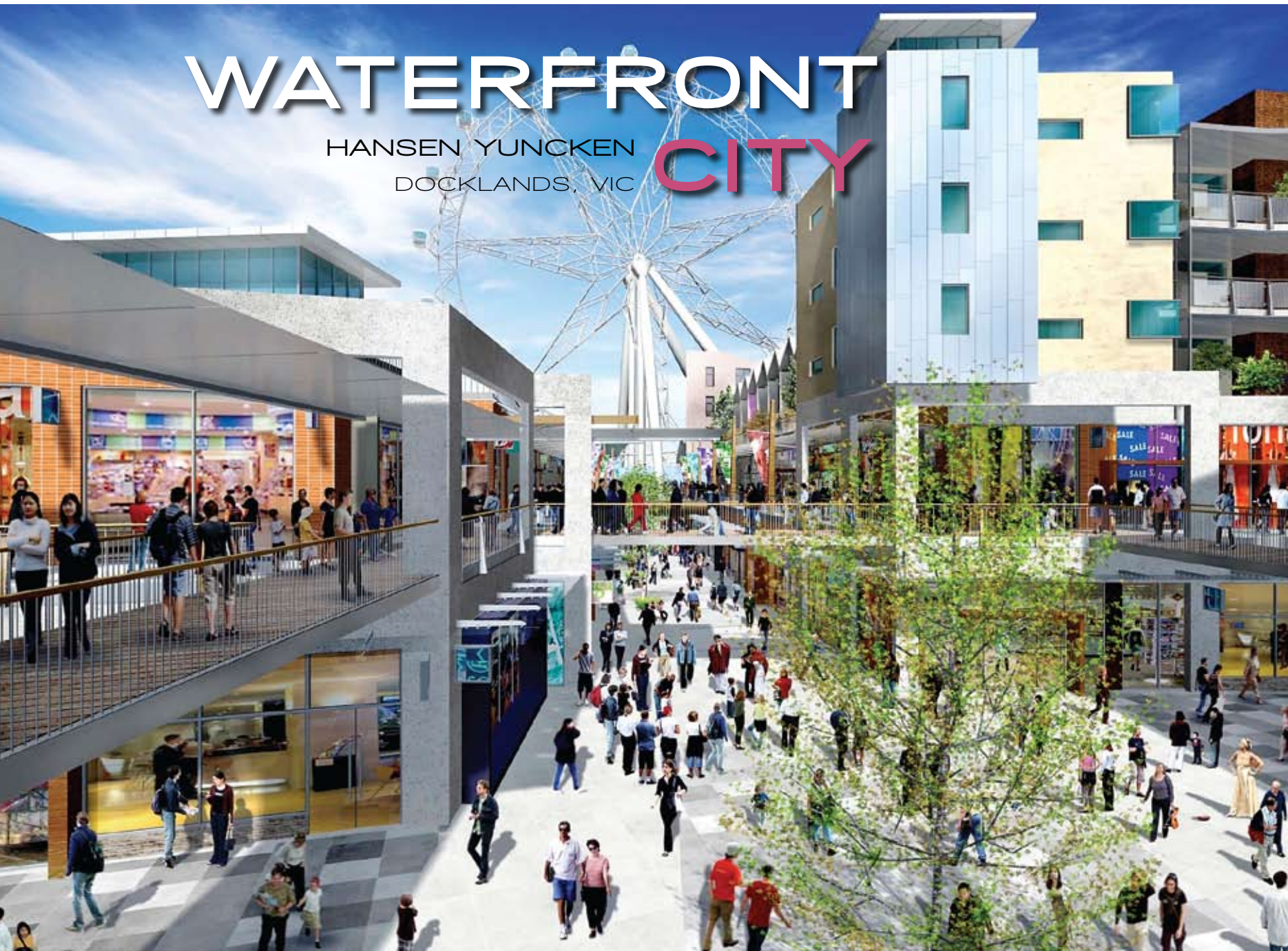


WATERFRONT

HANSEN YUNCKEN
DOCKLANDS, VIC

CITY



ON THE WATERFRONT



Hansen Yuncken is one of Australia's largest privately owned construction companies. It operates nationally with offices in Victoria (Melbourne, Shepparton and the border area of Albury/Wodonga) and in New South Wales in Sydney and Newcastle, in South Australia, Queensland and Tasmania.

The company directly employs approximately 600 staff, and has an annual turnover close to \$1 Billion. Hansen Yuncken was founded 1918 as a partnership between Lauritz Hansen and Otto Yuncken in Melbourne. Hansen Yuncken's philosophy is one of building value, fair dealing and high quality client service. They are committed to developing and maintaining long-term relationships by

focusing on achieving our client's project objectives.

Hansen Yuncken's work on Waterfront City at Docklands, Victoria includes Stage 1B South, 1B North, the North East carpark and Southern Star Observation Wheel. The project has an end value of around \$500 million and is expected to be completed in late 2008.

The 1B North works comprise a mix of retail, residential, food and beverage and entertainment facilities, spread across six buildings ranging in height from two to six level structures. The construction comprises a 'whole of development' approach, including all site infrastructure, linkways and 27 interconnecting

bridges, pedestrian and vehicle access – together with landscaping and site presentation. When complete, more than 65,000m² of new built area will be completed in this stage, including over 90 retail tenancies, 58 residences and around 2,000 parking spaces.

Waterfront City Stage 1B South works comprises 46 residences and about 210 car spaces. These are spread across four buildings ranging from two two-storey structures, the South East and West facilities, the South Central up to six stories, the two storey Centre Management complex and link bridges. The development also encompasses the construction of three roadways between Docklands Drive and Footscray Road, internal

pedestrian streets and associated landscaping. When Complete this stage will offer over 41,000m² of retail space, 104 residential homes and townhouses, eight commercial offices, and around 2,000 parking spaces.

Waterfront City Stage 1C Southern Star Observation Wheel is a premier mixed-use development comprising premium retail, residential and commercial space which covers over 14 hectares, approximately the size of 7.5 MCG ovals.

The precinct is a natural extension of the Docklands, with the central attraction a 120m tall Southern Star Observation Wheel, to be built in the unique landscaped piazza. The wheel will

act as a focus for Waterfront City, Docklands and be seen as the gateway to Melbourne.

The North East Carpark, known as Stage 2B of the Waterfront City Project, consists of seven levels with a total floor area of over 65,000m² accommodating approximately 2,200 cars. The project is located on the corner of Waterfront Way and Little Docklands Drive with 50% open sides ensuring that mechanical ventilation and sprinkler protection are not required to the main car park floors. The project has a striking façade of predominantly architectural pre-cast concrete and coloured perforated aluminium panels. Hansen Yuncken has demonstrated 'Building Value' by redesigning the concrete structure to provide a more economic and

aesthetically pleasing design. The project provides carparking for and is linked by two pedestrian bridges to the 1B North and 1B South stages of the Waterfront City retail, commercial and residential.



Hansen Yuncken
25 Huntingdale Road
Burwood Vic 3125
t. 03 9831 6500
f. 03 9831 6599
www.hansenyuncken.com.au



RE-INVENTING DOCKLANDS

Founded in Adelaide in 1938, HASSELL is an international design-based practice with Australian origins and over 900 people in studios throughout Australia, China and Thailand.

HASSELL has developed an enviable reputation for design excellence, collaboration, sustainability and commercial realism to major master planned projects throughout Australia and overseas. Its approach seeks to create exciting, uplifting and well-ordered places, which challenge people's thinking about the way they live and interact.

Their range of work includes large scale commercial-use development, infrastructure and smaller scale work, including schools, educational facilities and interior fitout work.

HASSELL is design focused but is not about a signature style - it is about project content and process, according to Senior Project Architect, Costa Papadopoulos.

Unlike other specialist design firms, we don't have one individual controlling the appearance or style of our work. "We allow the process to generate that. Our projects are client driven and we have a strong Environmentally Sustainable Development commitment. So science and research drives the process well. "Our areas of expertise include architecture, interior design, landscape architecture, urban design and planning. "We have a strong design focus with a mission for collaborative work not only across the disciplines but also with our stakeholders," Mr Papadopoulos said.

"HASSELL educates clients about changing and upcoming trends and also the climate debate so we can respond socially to the changing environment. We focus on developing six and five-star Green Star rated buildings."

HASSELL's projects include the interior fitout for the commercial tower at 50 Lonsdale Street, Melbourne and the AXA building at Docklands; and architecture and fitout of a 60-storey commercial tower with retail at the base for Department of Human Services and the ANZ campus at Docklands - the largest commercial building in Australia.

The company was engaged in 2003 to master plan and design Waterfront City, a unique re-development, including restaurants, cafes and entertainment, commercial workplaces

and housing. A key objective was to create a unique waterfront destination at one end of the development and Australia's first observation wheel, similar to The London Eye at the other, connected by attractive and enjoyable spaces for people living, working and visiting the precinct. The Southern Star Observation Wheel, which is the final piece to the Waterfront City development, is expected to be completed by November this year and will comprise 21 floor-to-ceiling glass cabins mounted on a 117 metre high rotating structure. It will give a smooth, controlled ride in air-conditioned pods and is designed to attract visitors to the site.

"Waterfront City integrates all our expertise seamlessly," Mr Papadopoulos said. "We have brought imagination and intelligence to create a sense of community and place."

The development uses the European model with shop-top residential housing and internal pedestrian-friendly streets, shopping,

semi-private community gardens for residents and private courtyards and balconies for each resident. An integrated model which comprises 60,000 square metres of retail and future proofing for 400 residents.

The environmentally sustainable features include solar-generated power, bio-retention facilities and recyclable building products throughout the site.

"We have achieved high-level Dockland's ESD commitments for residential, commercial and retail," Mr Papadopoulos said. "The challenges were meeting these ESD commitments from a design perspective. And other challenges were having a diverse design approach throughout a large-scale development while maintaining consistency. This was achieved through the master planning process, keeping the development consistent in terms of mood and style within the retail streets, while allowing aesthetic diversity throughout."

To be completed before the end of 2008, Waterfront City will be one of the largest urban renewal projects to be undertaken in Victoria. Covering 19.3 hectares, it forms the final stage in the redevelopment of the Docklands on the edge of Melbourne's central business district. Waterfront City has already won several awards including the Australian Institute of Landscape Architects National Award for Excellence for Planning in Landscape Architecture and the Australian Steel Institute Award for Architectural Steel Design Award.

HASSELL Melbourne Studio

61 Little Collins Street
Melbourne, VIC
Australia 3000
t. 03 8102 3000
f. 03 9654 1422
e. melbourne@hassell.com.au



Southern Star Observation Wheel
-Waterfront City, Docklands Vic.

GEOTECHNICAL SUPPORT

Douglas Partners is an Australian company, wholly owned by its employees with 14 offices throughout Australia and more than 300 professional staff. It was formed in 1960 as Ground Test and became Douglas Partners in 1983 when purchased by senior staff.

Douglas Partners specialises in geotechnical, groundwater and environmental engineering. It has extensive experience in the residential, commercial, industrial and retail fields and has a team of specialists dedicated to solving geological, geotechnical, hydrogeological and environmental problems.

Douglas Partners has extensive experience in the Government Sector gained from involvement in a significant number of major projects throughout Australia and has been involved in major infrastructure projects in both Australia and South East Asia. The company has a thorough understanding of the issues associated with complex infrastructure projects in urban and remote locations.

Douglas Partners operates fully equipped NATA accredited soil testing laboratories in almost all our offices and maintains modern field testing and monitoring equipment to provide comprehensive and accurate data for our clients' projects.

Our involvement in the Waterfront City project was geotechnical investigation and laboratory testing to assess sub surface and groundwater conditions. We recommended site preparation, including excavation stability methods and design foundations and used the second application in Australia of deep soil mixing stabilisation columns.

One of the challenges on the site was to develop an appropriate design solution to satisfy strict ground settlement criteria. Under Project Manager Michael Broise, we successfully co-ordinated and implemented foundation design solutions that minimised risk for the developer.

Michael Broise has over 25 years experience with geotechnical engineering consultants and specialist foundation engineering contractors. He is an experienced practitioner in formulating geological models for the purposes of engineering characterisation and design. He has been involved with design and construction on many major public infrastructure projects in Australia and overseas. His areas of interest also extend to terrain evaluation, slope stability assessment and engineering geomorphology.

Douglas Partners
68 Brighton Street
Richmond, VIC 3121
t. 03 9428 1831
f. 03 9428 7841





NO TIME TO WASTE

When the Waterfront City project was envisioned, the waste management had to be factored in to the development. Only one company came to mind for such an important part of the process.

Veolia Environmental Services Australia are the leaders in this field with over 30 years of industry experience implementing innovative, sustainable waste management programs for industry, commerce and the general public, it is inconceivable that they wouldn't be involved in Waterfront City.

Veolia have a strong, stable background rising from a small, five vehicle collection operation then known as Collex to the current mammoth-sized network operating from at least 100 sites Australia wide. This is all backed up by the expertise of the world's largest waste management group. Veolia employ over 3100 people to service well in excess of 40,000 clients. A comprehensive range of waste services from design right through to implementation are provided. That is why Veolia was chosen for the Waterfront City development. Veolia worked in collaboration with the environmental manager of the project

and provided the waste and recycling services that were required for the job. This included the 240L paper recycling wheelie bins and the 240L bottle/can recycling bins. Veolia were able to identify the need for bulk construction bins and the disposal of the refuse that filled them. These bins contained a mixture of waste types that needed to be sorted and recycled. One of the main points of policy that Veolia stand for is the recycling and re-use of as much of the waste that they collect as possible. The idea behind that being any action that can contribute to the sustainability of the environment is of paramount importance. Waterfront City required front lift bins for the landfill waste from the lunchroom. Veolia provided them in addition to installing a 2000L septic tank and pumping out a huge groundwater pit.

If there were any problems or difficulties on the site, Veolia would have made short work of them.

Veolia are very proud of their involvement in the Waterfront City project which is destined to be a glittering jewel perched at the gateway to Melbourne's Docklands.



Veolia Environmental Services
Level 1, 85 Buckhurst Street
South Melbourne, VIC 3205
t. 132 955
f. 03 9626 2277
www.veolia.com.au

COFFEY AT ITS BEST

Coffey Projects is one of the world's largest providers of specialist project management services, located in five continents with over 450 project staff. Our Melbourne team consists of 50 qualified and experienced project specialists making us the largest specialist in town. Coffey Projects is owned by Coffey International Limited, an ASX Top 300 company.

Coffey Projects delivers projects across all industry sectors including retail, commercial, industrial, residential, aviation, stadiums, education, justice, health, defence and infrastructure. With this diversity, comes the capability and experience of our people from not only the traditional engineering and construction management disciplines, but also from business, property, architecture, valuation and development backgrounds.

As an organisation in growth, Coffey Projects retains its specialist service offering by employing only the best people whose values are non-negotiable. Career paths, the best and most varied projects in the industry, accredited internal training programs and opportunities across multiple countries all contribute to our preferred employer status.

Coffey Projects is the Contract Administrator for the second stage of Waterfront City.

On schedule to open in the latter half of 2008 the second stage will offer a dynamic mix of retail, residential, commercial and entertainment including:

- Over 41,000sqm of retail comprising traditional retail outlets and the Harbour Town brand direct concept.
- 104 residential homes and townhouses.
- A food and entertainment precinct.
- The Observation Wheel.
- A dedicated Tourism Lounge.
- Around 2,580 public car spaces.

The Coffey Projects team is directed by Colin Stuckey and the project is divided into IB North, IB South, the Car Park and the Observation Wheel.

The Observation Wheel is one of the most exciting features of the project. Featuring 21 enclosed glass "pods" or cabins it will stand over 120 metres tall.

Waterfront City is part of the Docklands, located immediately west of the City of Melbourne.





TOTAL ELEVATORS LIFTING THE GAME

Total Elevators is a premium Global Elevator company delivering a total product solution to its customers. Its products and services are sold and distributed all over the world.

General Manager, Jason Purser said the company has earned a reputation for providing quality elevator design, consultancy and after sales service to the Australian market over the past ten years.

“With a product range of standard and individually designed elevators, Total Elevators aims to continue to grow market share and customer base. In addition, our total product solution, including price and finance guarantees, will contribute to our customers profitability,” he said.

“Our focus is to work closely with architects, builders, developers and installation companies using our innovation and know-how to supply elevator products for specific project needs.”

A recently modernised manufacturing facility in Shanghai, China is capable of producing quality elevator units as well as mechanical and electrical parts and components.

“An energetic and innovative approach to business, providing our customers a complete elevator solution, including, design, technical consultancy, manufacturing, delivery, after sales service and finance arrangements,” Mr Purser said.

Total Elevators also restores historical lifts, such as the 95-year-old lift in Richmond’s Ritz Mansions. The project was done in conjunction with the Victorian Conservation Society and included gold leaf restoration of the lift ceilings.

The 21st Century technology at Waterfront City will include four Total Space MRL passenger lifts with a capacity of 1600 kilos and a speed of 1.6 metres per second, with seven stops. They will feature the latest full multi-media LC screens.



19-21 Dudley Street,
West Melbourne VIC 3003 Australia
t. 03 9329 2555
f. 03 9329 2511
www.totalelevators.com
sales@totalelevators.com
technical@totalelevators.com
admin@totalelevators.com

THE WHEEL DEAL

Specialising in the design, manufacture, installation and testing of deep foundations, Frankipile was a sound choice for the challenge that was Waterfront City. With numerous building stages and worksites including the Southern Star Observation Wheel, construction company Hansen Yuncken was in need of the economical and inventive foundation solutions that Frankipile could provide.

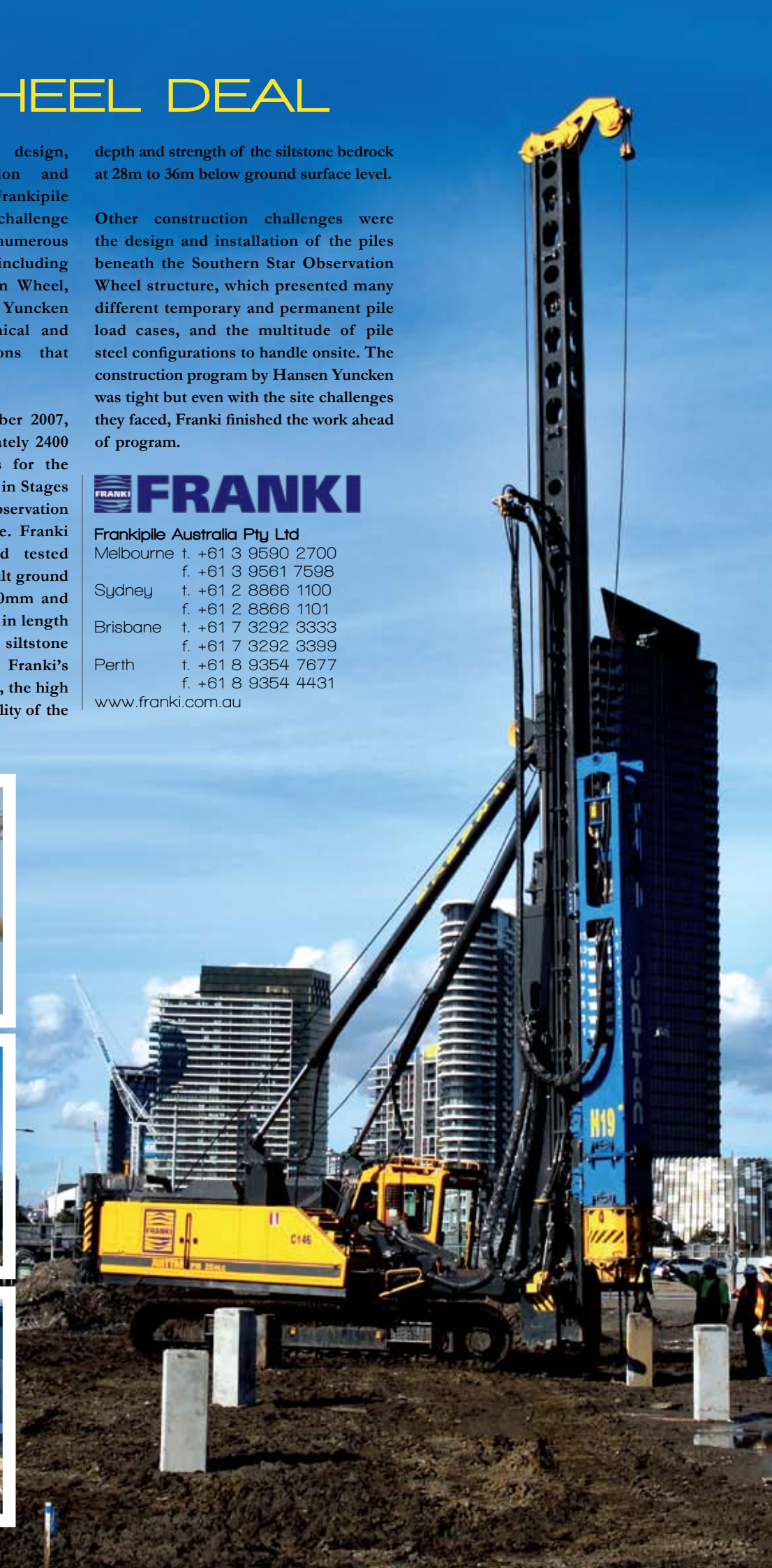
From August 2006 to September 2007, Frankipile installed approximately 2400 precast concrete driven piles for the foundations of Waterfront City in Stages 1B and 2B, the Southern Star Observation Wheel and the Dining Terrace. Franki installed the piles and load tested approximately 70 piles in difficult ground conditions. The piles were 350mm and 400mm square, from 28 to 36m in length and were driven to refusal on siltstone bedrock. Primary amongst Franki’s challenges were the pile lengths, the high capacity loadings and the variability of the

depth and strength of the siltstone bedrock at 28m to 36m below ground surface level.

Other construction challenges were the design and installation of the piles beneath the Southern Star Observation Wheel structure, which presented many different temporary and permanent pile load cases, and the multitude of pile steel configurations to handle onsite. The construction program by Hansen Yuncken was tight but even with the site challenges they faced, Franki finished the work ahead of program.



Frankipile Australia Pty Ltd
Melbourne t. +61 3 9590 2700
f. +61 3 9561 7598
Sydney t. +61 2 8866 1100
f. +61 2 8866 1101
Brisbane t. +61 7 3292 3333
f. +61 7 3292 3399
Perth t. +61 8 9354 7677
f. +61 8 9354 4431
www.franki.com.au



STREET WISE

Founded in Melbourne in 1979 and with a history of involvement in high profile Australian engineering projects, Cardno Grogan Richards was well placed to impart expertise in traffic engineering, infrastructure services and civil site works on the Waterfront City development.

The provision of traffic engineering for various stages of Waterfront City development required the assessment of all traffic and parking demand requirements and the preparation of functional layouts for all road works along with authority negotiations and approvals and the detailed design and documentation of signalized intersections.

This multi-faceted company was also responsible for the design and documentation of civil site works and coordination of all service infrastructure to Waterfront's 1B site. The breadth of this work ranged from full documentation of the road network, including the design of pavements and stormwater drainage, through to the documentation of sewer

and water infrastructure services and the construction supervision of these works prior to transferring responsibility to Melbourne City Council and City West Water.

Cardno Grogan Richards was able to overcome a number of challenges and to provide solutions where necessary. Difficulties encountered during documentation included poor ground conditions with underlying low bearing capacity Coode Island Silt, high water table and contamination of groundwater. Solutions included use of lightweight trench backfills, flexible joint details and tied joints. The drainage works were hampered by extremely flat site grades. Rain Gardens were used to provide Stormwater Quality treatment but it was necessary to protect these from the inflow of salt water from the Moonee Ponds Creek. This was achieved by pumped discharge from the site with an overflow weir catering for larger rainfall events. By this method Cardno Grogan Richards successfully designed a Bio Retention Rain Garden to meet Best Practice Guidelines

The Cardno Grogan Richards team works in areas of expertise including civil infrastructure, wetlands and flood hydrology, traffic engineering, structural engineering and hydraulic and fire engineering. Providing a comprehensive service to their clients right through from initial traffic planning approvals and functional design through to detailed civil, structural and hydraulic engineering services, the team creates productive business partnerships with its clients. Having recently joined the Cardno Group of integrated professional services, Cardno Grogan Richards offers the capacity to call on specialist services from the greater Cardno Group when needed.

Cardno Grogan Richards
150 Oxford Street
Collingwood, VIC 3066
t. 03 8415 7777
f. 03 8415 7788
www.grorich.com.au



WALKER ON WATER

Waterfront City located in the heart of Melbourne's Docklands, is well on its way to becoming a landmark. These types of structures are impeccably designed and the fore thought that goes into them phenomenal. That is why Walker Plumbing were brought onto this job to be involved with the 1B north, 2B north and Southern Star Observation Wheel projects. Right from the beginning they have been involved in the design and carried out the installation of the hydraulic, sanitary and civil works. The fire hydrant / hose reel service was also installed by Walker's. At least 22 staff worked on this project and with over 30 years experience, certainly makes it look easy.

Over the years, Walker's have developed solutions for the management and removal

of polluted groundwater, treatment of grey and black water and of late, harvesting rain water. The company has developed practical science-based techniques for cleaning up and working within biohazards such as those found at the site.

Walker Plumbing was formed in 1969 as a small operation, fitting plumbing in new and existing residential properties. By 1977 the company had grown and decided to pursue the commercial and retail sector. The company now has 58 employees and in 2003 moved to the new premises in Tullamarine. Walker Plumbing is currently working on the Southern Star Observation Wheel which in itself has opened up new challenges in the method of installation while working within challenging ground conditions.

Walker Plumbing
45a Lillee Crescent
Tullamarine, Vic. 3043
t. 03 9338 9353
f. 03 9338 3171
e. service@walkerplumbing.com.au