



FAST FACTS	
Location:	North Quay, Brisbane, Queensland
Contract Value:	\$160 million
Total Project Value:	\$198 million
Construction Period:	September 2003 – Early 2006
Architect:	Denton Corker Marshall
Structural Engineer:	Quantec McWilliams Engineering
Services Engineer:	Norman Disney & Young
Levels:	37 levels plus three basement levels
Site Footprint:	7,740 m ²
Floor Plate size:	1,800 m ²
Office Space:	60,000 m ²
Passenger Lifts:	18
Total Lifts:	23

BRISBANE SQUARE

SETS INNOVATION AND SAFETY BENCHMARKS

BRISBANE'S MOST SIGNIFICANT COMMERCIAL BUILDING IN 10 YEARS, the \$198 million Brisbane Square, is transforming building processes with the introduction of construction innovations and safety initiatives.

Baulderstone Hornibrook Project Director for Brisbane Square Mike Farrell said new construction solutions, such as the anti-

collision systems on the site's tower cranes, have allowed the project to maintain a consistent high standard of materials handling, both within the site boundary and for public safety external to the site. "The collision avoidance system improves interference control between cranes and also manages restricted areas around the site, such as footpaths, roads and 'no go' zones" Mr Farrell said.

"This allows us to maintain the site's productivity and operational efficiency at a very safe level so workers can get the job done as efficiently and safely as possible." After 16 months of construction which included the demolition of the 14 storey office tower "40 Queen Street" and the excavation of the 3 level car park in rock, the core jump currently stands at Level 12, typical floor at Level nine and the podium area at street level.

Mr Farrell said given the site's confined space, it is imperative to minimise the possibility of site accidents through a well planned materials handling and safety system.

"As construction progresses, the number of site workers will increase from 200 workers to 500, which means the possibility of unforeseen workplace health and safety incidents also increases," he said.

"As part of our safety management procedures we conduct site evacuations every six weeks and core jump form evacuations every six months. This is not an industry standard, but by trialling the procedure now and training staff up on quick, efficient jump evacuation methods, we can confidently conduct a real evacuation if necessary.

"This sounds like a very basic task, but I don't know of many other companies that actually practice their jump form systems even once, let alone on a regular basis.

"The evacuation involves removing an injured dummy worker from inside the jump form lobby deck using a Queensland Fire and Rescue system as well as an alternative site tower crane and first aid box."

Since construction started at Brisbane Square, Baulderstone management have focused on the prevention of onsite lost time injuries and medical treatments. As such, management have introduced site communication sessions which provide a forum for workers to discuss up to date information about the construction progress and important safety information.

Mr Farrell said the sessions are developed in consultation with site workers, Baulderstone management and subcontractors.

"The most pleasing aspect of the initiative is

that it is organised and run by the workers themselves with support from the unions and management," he said.

The communication sessions, scheduled for the Fridays before RDOs, will complement the existing monthly safety and innovation awards.

Baulderstone's Queensland Director of Building Stephen Green said apart from creating innovative safety solutions, the Brisbane Square site has hurdled over several building restrictions.

"On the northern side of our site is the heritage listed Treasury Casino and to ensure the premises remained unaffected throughout Brisbane Square's excavation process we got the Treasury Casino Management involved in vibration management," Mr Green said.

"Brisbane Square is in the heart of the CBD and the last thing we want to do is create more traffic congestions in such a confined area.

"This is why we talked to the Brisbane City Council authorities and together we agreed upon the best unloading site zones and traffic management strategies, which slightly altered public transport routes along the busy Adelaide Street."

Mr Green said since the Brisbane Square structural design is quite complex, several reinforcement solutions were produced to make sure the building will adequately support its 37 levels.

"Brisbane Square is essentially being constructed with a post tensioning concrete frame for reinforced support and a high performance curtain wall cladding which incorporates environmentally sustainable development (ESD) initiatives," he said.

Brisbane Square is also credited with having a

world-class environmental design which labels the building a 'green' project. This design was developed by Baulderstone in collaboration with the developer, tenants and various consultants.

The environment-friendly construction design includes utilising the Brisbane River water for cooling the mechanical systems, harvesting rainwater for toilet water and irrigating the plaza gardens, and fitted solar powered hot water systems.

By early 2006 major tenants the Brisbane City Council and Suncorp are expected to take up tenancies in the 60,000m² office space.

Reinforcing the major tenant's corporate identities, the North Quay Podium will be clad in the BCC yellow and blue colour scheme and the George Street Podium will be branded in Suncorp's green and orange scheme.

When Brisbane Square is complete, BCC will occupy Levels 6 to 23 as well as the customer services centre and public library on the podium level and Suncorp will tenant Levels 24 to 37.

Brisbane Square will house the new Brisbane Metropolitan Transport Management Centre which is a Brisbane City Council and Beattie Government initiative that will integrate traffic and incident management services

ABN Amro awarded Baulderstone with the Brisbane Square design and construct contract late 2003.

Baulderstone is currently building \$625 million worth of projects throughout Queensland and has a track record in delivering landmark projects.



Clifton Coney Group Pty Ltd

THE \$200+ MILLION DOLLAR ABN/AMRO PROJECT BRISBANE SQUARE

is well on track for completion mid 2006. The 151m (495ft) 38 floor development when finished will provide approximately 54,000m² of net lettable space, with 1200m² of retail space and parking for 350 cars.

Project managers for the development, Clifton Coney Group have been with the project from inception when their services were engaged by the original promoters Suncorp Metway; this relationship was continued by Suncorp's successors ABN/AMRO who acquired the development rights in 2003. The facilitation of a smooth changeover between the two developers was something that Clifton Coney worked hard to achieve and their assistance in this area was integral, to the transition and progression of the project.

Originally formed in 2000, through the merger of two independently successful companies, Clifton Project Management and Coney Stevens Project Management, the Clifton Coney Group now forms one of Australia's most experienced project and development management companies. Part of the diversified listed group, Coffey International Ltd, they have connections to a global network of associates, from as far apart as Dubai, Vietnam, New Zealand and South Africa. This endows Clifton Coney with international awareness and access to the resources of a global company.

The group provide their services to many industry sectors including education, health and aged care, large-scale high-rise offices, retail, industrial, infrastructure, commercial and residential. This

diversity of service gives Clifton Coney a broad knowledge foundation from which to draw on.

Clifton Coney Group has been working closely with the client, architect Denton Corker Marshall, and the construction company Baulderstone Hornibrook, (in their role as Superintendent for Design and Construct contract) to ensure optimal project delivery. This task has involved a number of challenges, not only the fact that it is the largest Brisbane CBD commercial development in 10 years, but also due to the incorporation of a large number of ESD initiatives in keeping with the Future Tenant, Developer and the Architect's vision.

Clifton Coney Group delivers exceptional services to their clients. They do this by focusing on what they do best and remaining true to their core business. This focus allows them to direct their whole attention to their specialised field of project and development management services. The results of this are clear in the smooth operation of the Brisbane Square Project. A project that Clifton Coney is proud to be associated with.

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Donald Cant Watts Corke

ESTABLISHED IN MELBOURNE IN 1966, PRIVATELY-OWNED AUSTRALIAN COMPANY

Donald Cant Watts Corke (DCWC) specialises in delivering cost and project management services to the construction industry.

With offices situated in Melbourne, Canberra, Brisbane, Sydney and Kuala Lumpur, the company has experience in:

- Cost, risk and project management
- Quantity surveying
- Asset and development management
- Exhibition and interpretative work
- Contract and claims defence
- Property taxation services

DCWC was appointed by ABN AMRO as their independent financial certifier on the largest commercial building in Brisbane currently being constructed by Baulderstone Hornibrook. This financial audit role extends to the fitout of the two major leases, for Brisbane City Council and Suncorp Metway. DCWC has also been recently commissioned

on two other major ABN AMRO projects since providing services on Brisbane Square.

"Our senior management is actively involved in every project and ensures the highest quality of detail is achieved – and this quality project is no exception," said DCWC Queensland Director, Graeme Whitmore.

"We regard ourselves as being the best in our field and provide sound advice in all areas within the construction industry — focusing on our customers' needs with integrity, knowledge, accuracy and timely service."

Current Projects where DCWC have or are provided cost management advice include "Vision" (Brisbane's tallest mixed commercial & residential highrise), Southbank Tafe and SW1, & redevelopment of All Hallows School. These projects along with Brisbane Square have DCWC managing in excess of \$1 billion in Brisbane alone.

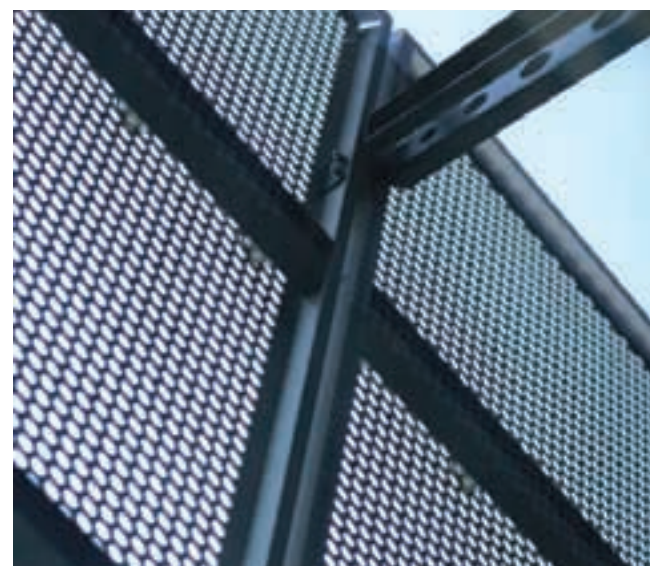
"DCWC are providing similar services throughout the State including New Control

Centres for Ergon Energy & the redevelopment of the Shangri la Hotel in Cairns" said Associate Director Mark Mammarella

DCWC has also recently been awarded the Independent Financial & Certifiers role for the new \$300 million Parramatta Justice Precinct for the NSW Dept of Commerce

Other projects that DCWC has been involved with include the National Museum of Australia in Canberra; the Australian Institute of Sport Swimming Complex plus the Australian Film and Television School developments in Sydney; and the Stage 2A Angliss Hospital, Applewood Residential Village, Austin and Repatriation Medical Centre, Monash University Biotech & Research Facility and the Commonwealth Industrial Research Organisation (CSIRO) Bio-Molecular Research Laboratory projects in Melbourne.

For further information regarding Donald Cant Watts Corke, contact us on 1800 329 277 (1800 DCWC QS) www.dwc.com.au.




Permasteelisa

PERMASTEELISA'S ACTIVITIES STARTED IN 1973.

The company's growth and international expansion continued throughout the 1990's with the creation of numerous subsidiaries in different countries. With the acquisition of the Gartner Group, Permasteelisa became the global leader in the engineering, manufacturing and installation of architectural envelopes and internal walls systems. The breadth of experience offered by Permasteelisa positioned it perfectly for a leading position on The Brisbane Square Project.

The Group's product lines are architectural envelopes, or curtain walls, special steel structures, machined extruded aluminium profiles, internal walls and partitions. Permasteelisa-Gartner has executed the architectural envelopes for many hundreds of prestigious buildings around the world including the Goldman Sachs Headquarters in New Jersey, the Museum Of Modern Art in New York, Taipei Financial Centre, to name only a few overseas projects; Brisbane Magistrates Courts, Regent Place Sydney, Eureka Melbourne are some of the projects completed in Australia.

One of the key strengths of the Group is the capability to work with architects in the early phase of the project, thanks to the Group's strong know-how in design and engineering. "In house research and development, material testing and interior design are some of the many integral processes we can offer on any project from day one" says John Zerafa, the Project Manager. "Anything in cladding we can do" says John gleefully.

Another aspect that enhances their activity is the development and adoption of "Blue Technologies". These innovations are being used in the initial design phase in order to achieve the lowest energy consumption in the building; in short, smart design principles which take into consideration the "footprint" of a building, whilst improving the comfort and living conditions within. "Random flash windows in the pencil boxes and the use of perforated sheets for sunscreens were a challenge due to the sheer size of the project" says John, who feels unfazed with any challenge thrown his way.

The Brisbane Square project wasn't without it's obstacles. The complex geometry of the podium provided the most pressing challenge during the

project, clad in four different bright colours.

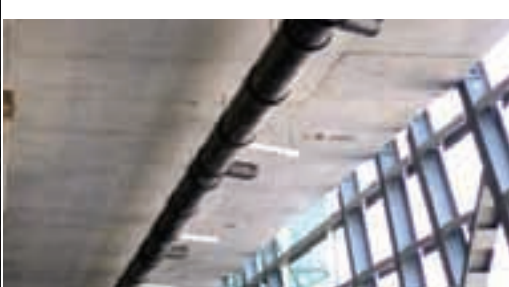
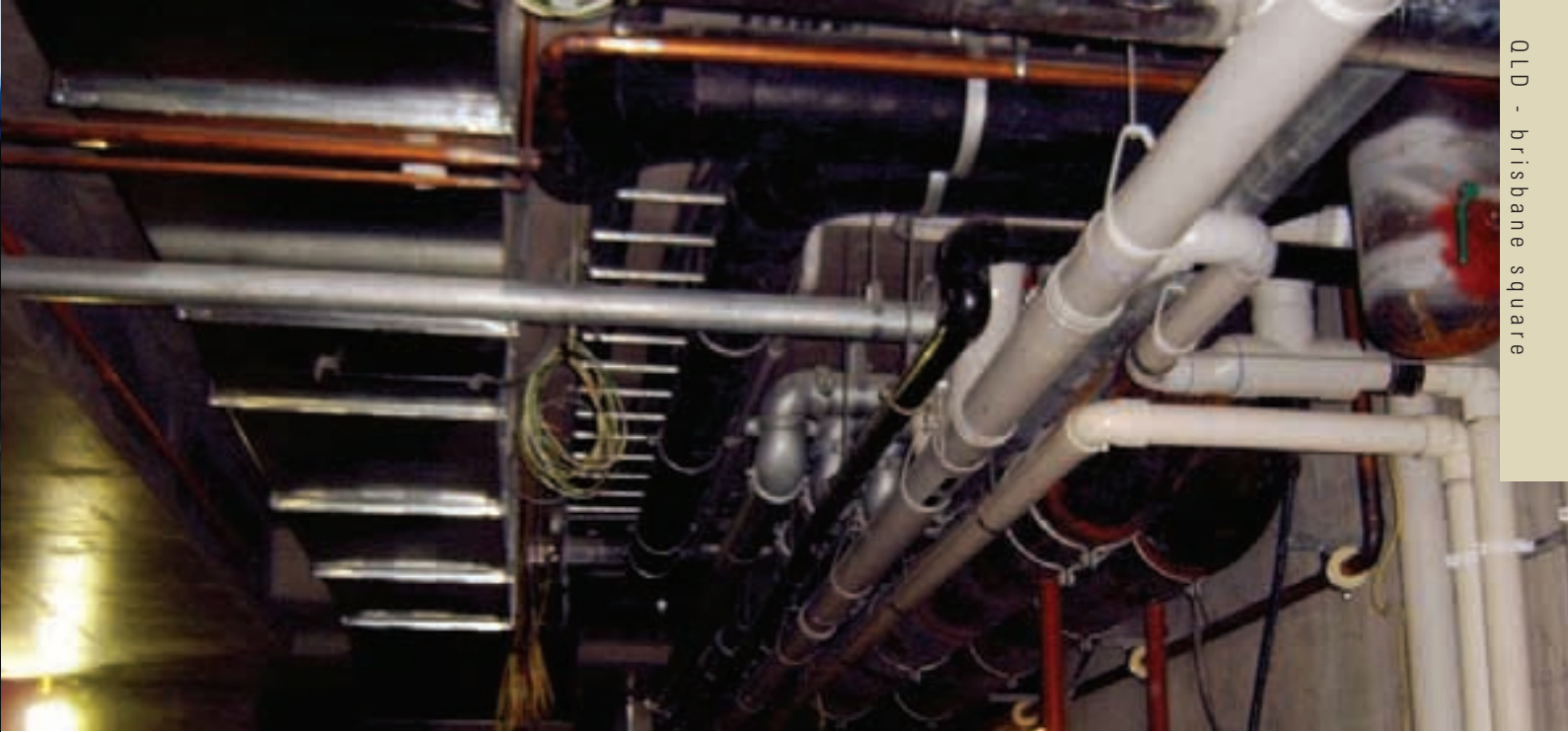
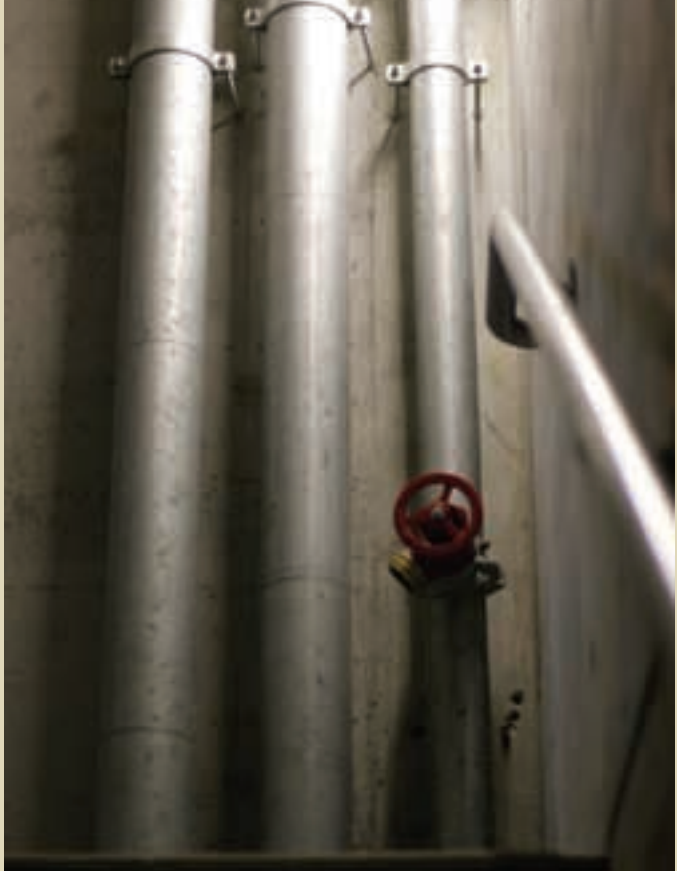
Permasteelisa has the ability to integrate and use its resources from many branches to tackle complex projects.

Permasteelisa's comprehensive experience in large scale construction, along with their open minded attitude, makes them an ideal choice for their expertise.

Visit Permaseelisa at their website or query them at: Info@permasteelisa.com.au

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Asset Fire & Security

"BRISBANE SQUARE" IS BRISBANE'S MOST SIGNIFICANT COMMERCIAL BUILDING IN 10 YEARS, the \$198 million Brisbane Square is transforming building processes with the introduction of construction innovations and safety initiatives, and is being constructed in Brisbane's CBD.

Asset Fire & Security is a Brisbane based company who specialize in the installation and maintenance of fire protection systems. Led by more than 80 years combined experience in the industry they were an obvious candidate for this demanding project.

With a staff of 20, Brian Davies directed a small hands on team of between 8 and 12 people who collectively spent two and half years completing the hefty installation of fire detection units, sprinkler systems and fire hydrants. The fitout was performed without obstacles (besides of course the weather and industrial climate at times) in conjunction with the base building according to normal industry requirements.

Asset Fire & Security's commitment to fire detection and prevention is backed by a capability which includes product design and development, complemented by system design, installation and servicing. A leader in their field, these capabilities are supported by a massive commitment to continuing education following current research and development in fire safety technology.

Besides the Brisbane Square Project, Asset Fire And Security have a number of major projects on their books as commercial projects are their speciality. Some of these include The Edge Development in Milton, The Element on Coolum and the Queen St Westpac project. They also hold Maintenance and Testing contracts for clients including Hills Industries, Fort Knox Storage, Capilano Honey, Valley Metro, and various Retail First and Centro shopping centres.

For all enquiries concerning the installation, maintenance and testing of fire detection equipment, contact Brian Davies on 0416 123 359

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D&F Plumbing Pty Ltd

BEING THE LARGEST COMMERCIAL DEVELOPMENT

in Brisbane during the past ten years, Brisbane Square presented a number of challenges to D&F Plumbing, outside of the normal on site challenges that occur during construction works of this calibre.

D&F Plumbing Pty Ltd trading as "The Norris Group" has been operating for 21 years beginning life as a sole trader. Now they employ a significant staff and are responsible for a number of major project works extensively in Queensland but also throughout other areas of Australia, often working in the food processing industry and laboratory projects. The company also specialises in hydraulic fire protection and suppression installations, and drainage systems from sewers, house drainage and civil drainage works of varying descriptions.

Baulderstone Hornibrook Queensland Pty Ltd engaged D&F as the plumbing and drainage contractor to assist them in a number of areas of general plumbing, including the harvesting of rainwater to basement storage tanks constructed below the lift shaft core. Through the use of a controlled diversion drainage system, the collected water is returned to roof tanks and treated for reuse and distributed down through the building to be used in all flushing of the plumbing fixtures. Rainwater reuse and installation of water saving initiatives are common throughout the development.

D&F installed a syphonic water collection system that conveys the rainwater from the roof to basement gravity drainage to lift shaft tanks and, when tanks are full, diverts it to a common drainage system from the plaza and

landscaping features which has been micro tunnelled below main city streets to connect to Brisbane City Council stormwater drains.

The differing levels of the roof heights on the independent four low level buildings to the development meant that two separate syphonic systems had to be installed both feeding into the basement tank, which was fitted with sensors and using the building automated management system controlled pneumatically operated diversion to prevent uncontrolled overflow of the tanks.

The water treatment plant was installed on the roof to condition the water before gravity feeding it back down to the toilets, urinals, and other sanitary applications.

Material selection was based on environmental impact and functionality.

Reclaimed rainwater was installed using polyethylene pipe system due to the possibility of variable Ph of this non potable supply. Potable hot and cold water mains are installed in copper pipe but the run out pipes in all water systems are cross linked polyethylene. All booster and circulating pumps are stainless steel.

Sanitary drainage in PVC connects to a velocity reduction stack system which incorporates the latest in European design in Australia. Stack materials are high density polyethylene as is the complete syphonic downpipe system. A separate PVC drain system is installed for the discharge of AC condensation and testing of the fire hydrant and sprinkler installation.

D&F also installed gas fired hot water units with solar hot water systems as back up. All

taps and water using appliances installed within the building have been fitted with features to restrict the volume of water use but have adequate flow for use.

The recyclability of these materials and energy consumption in their operation and manufacture advised of D&F plumbing concerns for the future whilst providing a high degree of quality in material selection and workmanship to the hydraulic installation which helps enhance the complete BRISBANE SQUARE project.

D&F have worked with Baulderstone Hornibrook Queensland Pty Ltd on a number of projects in recent years, more notably the Mater Children's Hospital, the Queensland Institute for Medical Research building at RBH, recently completed a 40-storey apartment/retail block in Mary St Brisbane and the UQ- CSIRO laboratories at Queensland University. Their ability to coordinate their approach and work closely with the builders is a key aspect of their success.

Their involvement in the Brisbane Square project is something they are very proud of and it clearly displays the importance of the environmentally intelligent plumbing systems that D&F are able to install. Naturally, they are also delighted to have been able to team up with Baulderstone Hornibrook once again.

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