



Bovis Lend Lease
GFA: 12,000sqm
TARGET RATING: 5-Star ABGR
COMPLETION: Early 2007
ARCHITECT: Bligh Voller Nield
OWNER: MGJ Properties



Centre of attention

From the very beginning Bovis Lend Lease were keen to provide an efficient yet flexible approach on this landmark project

Celebrating 50 years in Canberra in 2006, Bovis Lend Lease (BL) has demonstrated their continuing commitment to the nation’s capital. Formerly known as Civil & Civic, BL won some of their first construction contracts in the ACT, and their presence has been a consistent factor in the capital’s growth over the ensuing decades.

The latest BL venture in the nation’s capital is the Centraplaza Development. This 6-storey A-Grade commercial office project in the Woden Town Centre is, as with all BL projects, at the cutting edge of technology and environmentally responsible development. Not only does it highlight their commitment to the area, but it also demonstrates their on-going ability to meet and exceed their client’s desires and aspirations.

“The project is a gem.” Meagan Hill from BL said, “There is tremendous synergy between the Client, BL, Design Team, and Subcontractors which makes it a nice job to work on, somewhere that people want to go. In an industry which is deeply pressed for resources, this simple yet obvious driver, explains the success of the job.”

From the very beginning, BL were keen to provide an efficient yet flexible approach. Detailed design and documentation was ‘fast-tracked’ whilst the excavations were still underway, and an adaptable, on-going design de-

velopment was incorporated into the project as it progressed, allowing for alterations and adjustments as they occurred, including a later than usual integration of fit out. Another result of this fluid approach was the ability of BL to reappraise the original 4.5 star rating, at the client’s request, and create a new target of 5-star compliance. The modification of plant on-site to achieve this aim is still underway. In a demonstration of the client’s commitment to environmental development, both ABGR and Green Star accreditation is being sought.

Environmental initiatives incorporated into the project include the use of Interface Carpet Tiles with Glasbac RE, Low VOC paints + adhesives, and high performance glass achieving a shading coefficient of 0.35 and U value of 1.7. A policy of PVC Minimisation with HDPE pipe work was also used throughout, this included changes to the perimeter blind design brief to accommodate zero PVC blinds. BL also redesigned a bicycle and waste enclosure, required by Planning Authority (and previously approved), to allow a mature tree to remain.

Structurally, 20% Fly Ash used in Post Tensioned Concrete Structure to reduce cement content. Glass, aluminium, plastic, paper, and organic recycling were provided during site establishment. The development also incorporates Waterless Urinal’s installed in site sheds (as a ‘test’/‘education’ vehicle rais-

ing awareness). Other changes implemented to achieve the stretched 5-star target included; Exhaust and Supply Air fans reselected to achieve lower discharge velocities. Alterations to the stairwell lighting to further reduce energy consumption and the integration of a fully addressable lighting control system to reduce future consumption.

As with all their projects, BL sought the involvement of the local community in the project, not only as a means of generating a sense of ownership, but also as a way of educating and informing. Groups of schoolchildren and special needs children were invited to the site on day-trips to learn about safety and decorate some of the hoardings. In addition, a number of TAFE students studying architecture and construction were given informative tours of the site, and a university student was assisted in the preparation of their thesis on energy management tools within commercial buildings.

BL also ensured that the education process was not limited to the community, introducing quarterly apprentice only lunches, which were facilitated by BL General Foreman as networking and mentoring sessions. Quarterly safety BBQ’s were also held for all site personnel with a director of key subcontractor’s on site, present to speak about their approach to safety and initiatives within their company. Other initiatives designed to improve the understanding and awareness of OH&S issues included a regular newsletter,

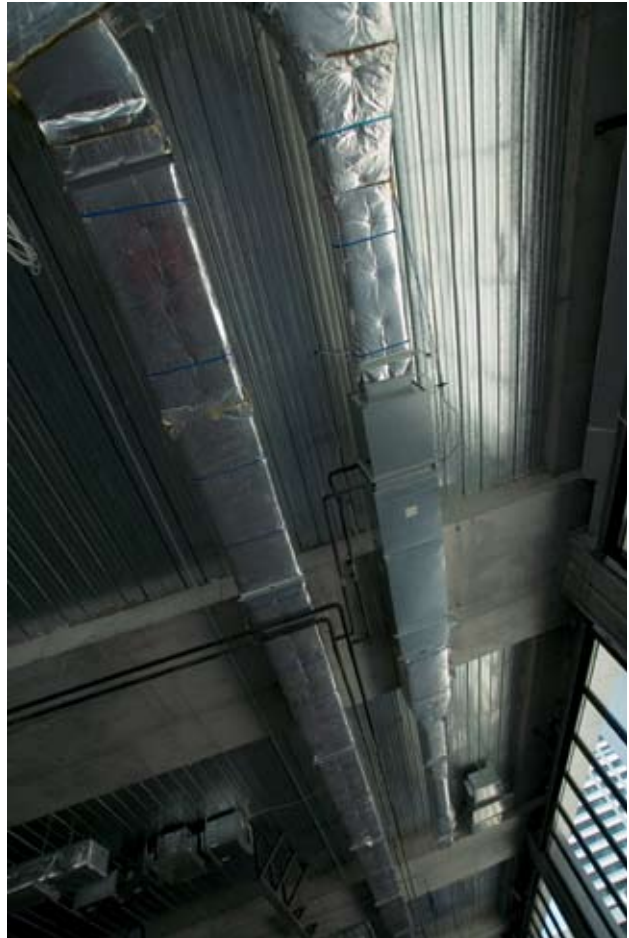
awards for the best safety question of the month, and eye protection and testing for everyone working on the site.

Perhaps the summation of the project is best left to the BL spokesman, who stated, “We are very proud of the group of guys we have working on site each day -the right attitude goes a very long way to having a safe and enjoyable work environment. We are very fortunate at Centraplaza.” This clearly demonstrates the company’s people focused ethos, whether it be the client, the workers, or the broader community, the integration of the human element has become a trademark for BL, and is a cornerstone of their success not only on Centraplaza, but in all their endeavours.

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Darren McQuaid, Bluescope Lysaght and Bill Dunn, OneSteel



A collaborative success

Bluescope Lysaght has over 130 years of experience in producing steel products, and during this time has grown to be a leading manufacturer of steel building products in Australia and sites throughout Asia. The company maintains its position in the market through hard work, innovative and extensive research, and the ability to produce quality products with customer focus. To this end, the company presented a comprehensive and compelling proposal for the Centraplaza Project in the nation's capital. Resulting from the proposal, BlueScope Lysaght were contracted by Bovis Lend Lease (BLL) to provide LYSAGHT BONDEK® profiled steel decking formwork for the entire project.

BONDEK® formwork is widely recognised as one of the most efficient and speedy methods of formworking on major construction projects. BONDEK® is roll formed from DECKFORM® steel, which is a hot-dipped, zinc-coated, high tensile steel strip and is available in base metal thicknesses of 0.6, 0.75, and 1.0mm. The profiled sheeting requires minimal propping, and remains in situ after the slabs have been poured negating the

need for costly and time-consuming removal. The galvanised sheeting also provides additional structural strength and can be painted or finished to the clients requirements.

Other advantages of the BONDEK® system are; the increased speed of installation, the fact that it can be used as part of a composite slab reducing reinforcement costs, less handling required, and impressive spanning characteristics. The system also incorporates dovetail ribs, which allow for the installation of suspended ceiling services and fittings without the need for drilling into the slab. In effect once installed it forms a complete flooring system. For all of the above reasons, BLL were keen to employ the BONDEK® system on the project and the results proved their choice correct, with reduced costs and increased installation and formworking speed.

BlueScope Lysaght are renowned for providing their products on time and within the required specifications. An additional complication for the Centraplaza project was the lack of space available for all site deliveries. This

constricted site access required extensive planning and coordination by BlueScope Lysaght, with other contractors and deliveries, to ensure that the BONDEK® formwork arrived on time, and was lifted to the required area as soon as was practical. A key aspect of the project was the collaborative approach taken by BlueScope Lysaght, BLL, OneSteel, and IC Formwork. The combined efforts of this 'team' approach produced significant time and cost savings, and ensured the smooth expedition of the works.

The research, development, and provision of high quality steel building materials is a significant aspect of BlueScope Lysaght operations. However, their success in these areas is backed up by an equally dedicated team of managers, coordinators, and communicators who facilitate the delivery of efficient services from factory to site, down to the smallest detail.

The results of BlueScope Lysaght involvement in the project are a resounding affirmation of their abilities in providing excellent service and product. It is also a clear demonstration of why they are one of the largest suppliers

of steel building in products in the industry. Quite naturally, the company is very proud to have been given the opportunity to demonstrate their products and skills on such a prestigious development.

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Planning ahead



Pick up artists

B&D Crane Hire Pty Ltd
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Directors
Bob Taylor 0413 700 039
Dan Philips 0417 704 498

B&D CRANE



On any major project, the distribution of information accurately and efficiently is of critical importance. This distribution relates directly to the successful outcome of the development, and ensures clear understanding of the works to be undertaken between all contractors and parties. To this end, Bovis Lend Lease engaged the professional services of Aaltech Plan Printing.

Aaltech have been involved in the printing industry since the early 90's. Initially with experience in photographic printing, they identified a niche market in the building sector for very high quality large format reproductions. Starting as a small operation the company progressed, along with the available technology as it emerged. In the ensuing 16 years, Aaltech has expanded its range of services and products and now provides a wide range of colour and black and white large and small format work, tender document services, scanning, laminating, aperture card scanning and electronic document storage.

This expansion and the considerable technological advances in the field of printing now mean that Aaltech are able to tailor specific solutions for their clients. Aaltech provides consultation and advice on how their services can best be adapted to suit the project, whether large-scale commercial development or much smaller residential work. All site plans, architectural drawings,

and structural designs can be produced speedily and exactly to the client's specific requirements.

For the Centraplaza development, Aaltech provided colour and black and white large format productions of site plans, architectural drawings, and structural drawings for the many contractors involved. They were also responsible for the printing of the tender documents.

Aaltech's involvement in the Centraplaza Development continued for the duration of the project. The accurate, efficient, and speedy service they provided ensured that their already strong reputation has been further enhanced. Understandably, they are very pleased with the results achieved.

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B&D Crane Hire are a relatively new company in the nation's capital. Established in 2002, they bring a fresh and energetic approach to the industry, and with over 30 years of experience between the founding directors, they have a depth of knowledge that is hard to match.

Due to the constricted nature of the Centraplaza site, and the difficulty in operating tower cranes within the confined area. Bovis Lend Lease (BLI) sought the assistance of B&D in utilising a fleet of mobile cranes to perform the required lifting tasks for the development. Having worked with BLI on a number of occasions, and being well acquainted with the high standards demanded by the developer, B&D were more than happy to be involved. To cover the varying requirements of the project, B&D supplied an 80 tonne Demag all terrain mobile crane, and a 50 tonne, and 30 tonne Kato. They also supplied, erected, serviced, and dismantled the materials hoist whilst providing trained crew to operate it. B&D are the only company in Canberra to offer a full, on-site materials handling capacity to their clients.

The Centraplaza project required strategic placement of the cranes, to cater for the specific lifting jobs as they arose, this involved close collaboration with the developer, contractors, and site personnel. Skilled operation was also a key factor including the use of 'Spiderman lifting equipment' for the glass and Gyprock, which was lifted through tight window access.

B&D Crane Hire was established to cater for the mobile crane hire market; however, the company also incorporates B&D Tower Cranes, a separate division designed to provide for the specific hiring requirements of tower cranes, trucks, material hoists, and auxiliary equipment. In the four short years, that B&D have been in operation, the company has established a significant market presence and now boasts one of the largest fleets of mobile cranes in the ACT with cranes ranging from 18 tonne to 80 tonne, and with access to much larger cranes as required.

B&D are currently awaiting delivery of their 'newest baby' a 95 tonne Liebherr LTM-95 on which the company has recently placed a deposit. The arrival of this capable and powerful machine will be a first for Canberra, being the most versatile, longest boom, all-terrain-crane in the region; it will also provide a significant enhancement for B&D's mobile fleet.

As with any successfully coordinated operation, the works for B&D ran very smoothly, and there were no lost time injuries. The company consistently achieves this result through extensive staff training and OH&S protocols. The professionalism, coordination, and cooperation demonstrated by B&D is clearly evident in the successful completion of their works on the Centraplaza development. Naturally, they are extremely pleased and proud to have been involved.

Flushed with success



Perhaps a urinal in a men’s toilet in a new development in the nation’s capital is not something most of us would consider as being at the cutting edge of environmentally responsible development. However, we would be wrong. When Bovis Lend Lease (BLL) began work on the Centraplaza Project in the Canberra suburb of Woden, they were very keen to create a responsible environmental footprint, not only during construction, but also for the effective life of the building. To this end, the urinal became a key factor.

Watersave Australia is a young company that has grown out of a desire to serve the public, business, and the environment in a practical, yet effective way. Established almost four years ago, Watersave is now at the leading edge of sourcing, producing, and supplying, environmentally responsible water saving products. They were engaged for the Centraplaza development, in the nation’s capital, by Bovis Lend Lease (BLL) a company that also prides itself on its environmental approach to major commercial and residential development.

It is almost a natural conclusion that BLL, when sourcing technology for the Centraplaza Project, would be very interested in the products that Watersave

had to offer. As a result, Watersave were contracted to provide Uridan waterless urinals for the development. The Uridan waterless urinal, imported from Denmark, is revolutionary in design and operation and each unit has the ability to save around 65,000 litres of water a year in a commercial setting. The system on which these urinals operate is simple, yet very effective. The waste trap contains a layer of biodegradable vegetable oil which floats on top of the urine underneath. The oil forms a seal (the equivalent to an ‘S’ bend in a conventional flushing toilet), preventing the escape of any odours and negating the need for flushing.

Without flushing, there is no need for the expensive associated plumbing such as flushing valves, cisterns, and pipe work (a 50mm waste pipe is all that is required). The cost is also significantly less than conventional urinals, and installation is simple and quick with the units weighing only 16kg. The Uridan urinals are made from a high quality ceramic material and considered by the manufacturer to be almost vandal proof, and importantly, they are less prone to the blockage problems and overflow of conventional systems.

Watersave have had great success with the Uridan waterless system and some developments are already reaping significant rewards in water savings and

operational costs. Aurora Place, in Sydney installed 117 Uridan urinals over 44 floors and it is believed that in the first year of operation the units were responsible for saving about 5 million litres of water.

Watersave also has an extensive range of other water saving products in their range. Including ‘Waterguard’ an intelligent leak detection and water monitoring system that can also shut off flow or send an SMS/email alert when abnormal usage is detected. ‘Shower Monitor’ which monitors water usage in the shower and can save water and energy costs, the ‘AquaMaker’, that produces pure fresh water from the air for homes and offices and the ‘Just Right’ convection hot water recirculation system that provides hot water instantly without the need for extra power. The flagship of their product range is though, without doubt the Uridan waterless urinal.

Significant and effective savings in water usage can be achieved, in either the home or a commercial setting with the correct application of simple yet effective technology. Watersave’s involvement in the Centraplaza development is a terrific example of this paradigm in action.

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Photograph taken during installation process

Climate controllers

In recent years, McQuay air-conditioning equipment has featured prominently in numerous prestige construction projects around Australia. The company's provision of a tailored system approach to meet the specific efficiency and environmental needs of each project is synonymous with McQuay.

Working with Lend Lease Design engineers during the initial project phases of Centraplaza, McQuay proposed a variety of equipment options based on the sustainability ratings being considered. The final selection combines a McQuay Ecoplus XE water-cooled chiller, rated at 260 kWt, with a coefficient of performance of 4.3. In addition, a McQuay PFS water-cooled chiller, rated at 500 kWt with a coefficient of performance of 5.8. Each chiller incorporates an efficient McQuay StarGate single screw compressor, which is consistent with McQuay's reputation for quiet operation, innovation, and technology leadership.

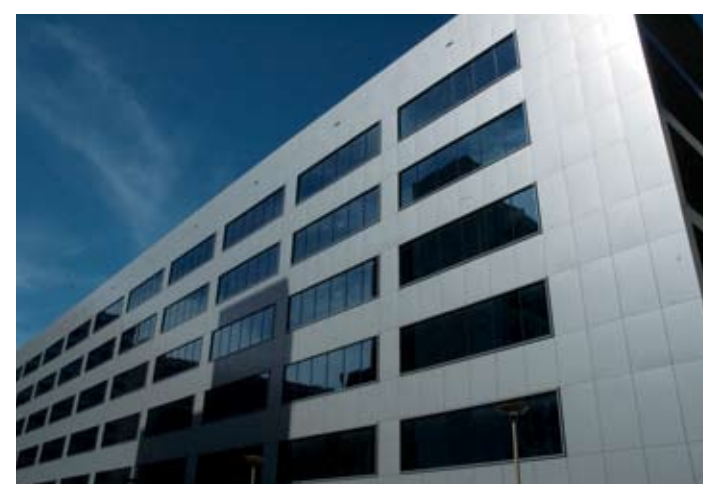
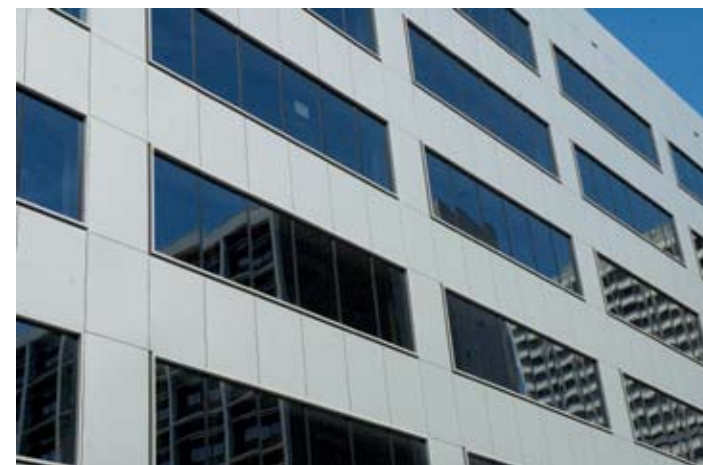
Matched to the McQuay chiller plant are McQuay Modular Air Handling units featuring double wall construction for enhanced indoor air quality, low sound levels, and ease of service.

McQuay's strength at developing the right solution stems from its ability to integrate complementary technologies. McQuay offers a full range of water chillers that utilize single or multiple, screw, centrifugal, or revolutionary oil free magnetic bearing "frictionless" compressors, which can be matched with state of the art air handling units, to produce engineered packages that minimize total system energy use.

McQuay service engineers ensure that customer expectations for equipment reliability and performance are maintained for the building life cycle. Their

clever integration of the appropriate technology on the Centraplaza project is testament to their desire and ability to present tailored solutions specific to their clients needs. Understandably, they are very proud to have been associated with such a prestigious development.

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Smart solutions

Smartfix® are a family owned company that has been involved in the façade trade since the eighties. Their initial focus on façade construction led them to develop a revolutionary new fixing system that is not only durable (Exceeds Australian Standard Requirement S4284), but unobtrusive, with no outstanding fixing components. In the construction boom of the late nineties, and heavily involved with a number of successful projects, smartfix® panel fixing solutions is proving a benchmark product in its field.

All components of the mechanical attachment system are easily removed and recyclable, and product is available in an unlimited range of colours to suite almost any application.

Bovis Lend Lease (BLI) have always sought to place innovation and environmentally conscious development at a level of importance that is comparable to the other prerequisites for major construction and development, such as architecture, design and cost. The Centraplaza development in Canberra was no different, and as a result of their paradigm of conscious development, BLI sought the services of smartfix® to supply and install the interior and exterior aluminium composite cladding, and the curtain wall glazing and associated cladding.

smartfix® were involved with Centraplaza for eight months, and during this time, they designed and developed five new aluminium glazing and cladding sections to accommodate the technicalities of the project. Integral to the overall finish was the patent protected smartfix® Mechanically fixed system, ensuring that no heavy silicones or visible fixings were used.

smartfix® are a company dedicated to quality of service and product, having supplied and worked on the recently completed MBA winner of Building Excellence, John Curtin Medical School. The Centraplaza development is yet another addition to an already long list of successful projects of which smartfix® are very proud.

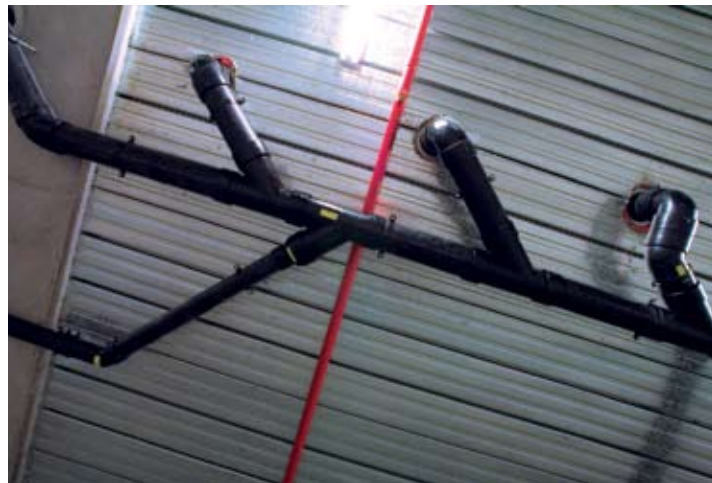


THE FUTURE OF FACADE FIXING TECHNOLOGY

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Piping hot

D Group (DG) is a young and dynamic company. Since they began operations in 1994, they have also established a strong reputation founded on quality, efficiency, service to their clients, and safety. The company provides a 'one-stop-shop' for all commercial plumbing requirements, including gasworks, and drainage. In addition, DG Civil also provides plant equipment, which includes earthmoving machines, trucks, and other aspects of excavation equipment available for, bulk excavation, detail work, new water, sewer & stormwater mains as required for ACTEW urban infrastructure.

DG was founded with the aim of providing excellence in both plumbing and earthworks and now, after 12 years, they are one of the major players within the ACT, employing 40 staff with a combined industry expertise of over thirty years.

The Centraplaza Project provided the company with an ideal opportunity to demonstrate their professionalism and client focused approach. Works were delivered within budget requirements and on time and the team from DG were able to ensure that whatever challenges they faced were expedited quickly and without delay to the project. Close collaboration with Bovis Lend Lease and the other trades on site ensured that works were carried out with minimal interruption to the other aspects of the project, and extensive OH&S training ensured that all operations were undertaken safely. The company prides itself on its approach to OH&S and regular training and updates are an integral aspect of their operations.

DG have recently completed projects as diverse as a 160 room Hotel in Barton (ACT), together with excavation of a double storey carpark also in Barton, and works on a seven storey commercial tower in the city.

The successful involvement of DG on the Centraplaza project is a good illustration of their 'Can do' attitude, and it is refreshing to see that as the company has grown they have not lost any of their enthusiasm for their work. Additionally, the company's original vision of providing excellence in all aspects of their operations has now become a core feature of their business and the results of this paradigm are clear in their achievements on Centraplaza.

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Cool operators

Significant to the intended environmental credentials of any development is the procurement, type, and efficiency of the air conditioning plant chosen for the project. Centraplaza was no different, and with a desired ABGR rating of 4.5 stars, and Bovis Lend Lease's (BLI) dedication to environmentally responsible development, it was clear that the most effective system for the project would be chosen.

BAC is one of the world's leading manufacturers of state of the art evaporative cooling products and they have the backing of over 65 years of experience in the industry. Quality is paramount and all BAC manufacturing plants have AS/NZS ISO 9002: 2000 Certification. Extensive research and development and an on-going commitment to generating customer-focused products has created an enhanced atmosphere of continual improvements in technology, energy efficiency, environmental credentials, and safety. This in turn has ensured BAC remains at the forefront of the industry.

Balticare are the Australian distributors of BAC evaporative cooling systems. They provide a complete range of products and services from initial consultation right through to installation and on-going servicing. Trained staff engineers and specialised evaluation software enables Balticare to provide prospective customers with evaluation requirements, performance data, noise rating, layout recommendations, and technical support as required. This enhanced service is necessary to match the customer with the most appropriate BAC solution for their cooling needs.

The Centraplaza Project made use of BAC's flagship evaporative cooling towers, the Rigid Composite Technology (RCT) 2000. Extensive testing in both Australia and the USA has ensured that the RCT 2000 provides innovative performance coupled with easy inspection, maintenance, and cleaning,

all factors considered essential for commercial applications. The low height counter-flow cooling tower operates on a low noise threshold and can be adapted to a variety of sites and configurations. Modular construction from high strength Pultruded Composite components ensures that the unit is easily installed and lighter than conventional chopped strand fibreglass units, in fact the strength to weight ratio of Pultruded Composite is up to five times that of chopped strand glass.

Naturally, BAC and Balticare are extremely proud of the RCT 2000, and they are equally proud to have been given the opportunity to demonstrate its efficient environmental credentials on such an outstanding project.

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