

# CARDITA

SOUTHERN CROSS  
CONSTRUCTIONS

LITTLE BAY NSW





## A LITTLE BAY GOES A LONG WAY

Stockland's Prince Henry development at Little Bay in Sydney's Eastern Suburbs is a landmark project. The \$440 million development is a major urban renewal project of the former Prince Henry hospital site and will ultimately house 1,000 new residents, including a collection of commercial and retail facilities - creating a vibrant coastal community at Little Bay.

Southern Cross Constructions (NSW) Pty Limited commenced construction of Cardita in July 2006, and the completed apartments welcomed their first residents in December 2007.

Designed by award-winning architects, Eeles Trelease, Cardita is a high prestige housing development that consists of 52 luxury

apartments in three buildings that share a common basement.

Not only is Cardita positioned in an exceptional locale, with well appointed apartments, it is also one of the first residential projects to be completed in NSW with a minimum 2.5 star Nationwide House Energy Rating Scheme (NatHERS) rating or equivalent BASIX score of 40% for energy.

Southern Cross Constructions Project Manager, Terry Edwards, pointed out the innovative nature of the development and noted that in order to meet Stockland's key requirements of a sustainable development; the following was incorporated into the design:

- Carefully designed windows to maximise natural cross ventilation
- Naturally ventilated basement
- Water conservation measures such as installation of grey water filtration plant as part of the hydraulic design. This system recycles waste water from baths, sinks, showers and laundries for re-use in washing machines, toilets, car wash bay and common landscaped areas
- Solar boosted hot water by installation of solar heating panels
- Photovoltaic panels to generate renewable energy to power internal common area lighting and irrigation pumps

In addition, water use at Cardita is designed to utilise grey water and capture rainwater in

tanks, a key element of the building.

With client satisfaction paramount and a green star target to achieve, Southern Cross Constructions, found themselves using the latest in environmental technologies and sustainable resource friendly techniques.

Along with the environmental technologies continually developing it was essential that Southern Cross Constructions implement the newest energy rating technologies. This meant understanding variables in order to implement the numerous advances in construction in a manner to get the best from the project.



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## CALLING ALL SECURITY

**E**VS Group have ten years providing labour hire and multi-skilled security personnel for the construction industry across Australia, and have a portfolio that includes work for all of the country's major construction companies, including, Southern Cross Constructions, Mirvac, and Australand, alongside many others.

Aware of the potential for escalating costs on medium-sized and large-scale construction sites EVS Group are able to provide staff who are

multi-skilled, for example employees may be licensed and experienced in traffic management and control in addition to being accredited in security. This enables staffing costs to be kept comparatively low, and maximises the potential of all staff on site.

In using multi-skilled security staff, and staff specialised in maintaining security for the construction industry, EVS Group are able to provide a specialist service with a team that recognise the unique site security demands that

characterise the construction industry.

The company uses specially trained German Shepherd dogs in order to patrol sites at night, and these guard dogs have helped the company maintain its highly successful record and the image of the guard dogs is one of the iconographic images that the company chooses to use as a logo.

An additional asset to the company in New South Wales is its sheer size with workers

coming from across Sydney and its suburbs. This enables the company to place workers on sites in their own location which not only helps EVS Group to maintain a record of staff efficiency and punctuality, it also means that security guards bring with them a specialist knowledge of the suburb in which they are located. In looking after these little details the company is able to tailor its service to the demands of a client.

For the Cardita development, EVS Group

provided a service that included day guards during the very early stages of the development, night time security, night patrols, and support for the crane, and traffic control during the later stages of the development.

In order to guarantee the service provide, and maintain rigorous quality assurance, EVS Group employs supervisors to insure all of its representatives are working to the best of their potential, and that the company is correctly represented. Through maintaining this quality

of service the company are able to attract repeat clients, and it is a testament to their dedication that many of the contracts on which they work are gained through word of mouth recommendations from satisfied clients.

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Photography by Rowan Turner

## SURVEYING THE SCENE

Project Surveyors has been building a reputation for quality work since 1972, specialising in construction set out and strata subdivision across Sydney, proving themselves to be the ideal candidate for the Cardita Apartment project. The team has grown to over 30 employees with the ability to work on a number of residential and commercial projects, from simple home extensions through to multi-story apartments like Cardita. Project Surveyors have also worked on a number of other high profile projects, including Sydney's Lane Cove Tunnel and the Babworth House Estate, a heritage listed site located in Darling Point.

Project Surveyors were required to complete the construction set out of the structural elements of Cardita, including the piles, columns, slabs and walls in spite of the complex grid

system of the building. The work on the Cardita Apartment development by Project Surveyors also required the set out of curves and step downs, and due to the significant emphasis on the appearance of the finished product, it was particularly important for the team to liaise with the builder to ensure the superior quality of the final structure.

The consistency, professionalism and results-driven approach of Project Surveyors has seen the team work on developments across Sydney, mandated with the task of providing quality construction set out working against tight deadlines. This was no less demonstrated than on the Cardita Apartment development where documentation issues and stringent time constraints could have brought a lesser firm undone. The success of past ventures has allowed Project Surveyors to grow to one of

Sydney's largest survey firms, guaranteeing that the team has the ability to tackle both large and small scale projects in the future.

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## SUSTAINABLE DESIGNERS

With a national shift towards green technologies and practices, it is encouraging to find that established companies are now able to incorporate their sustainable experience into local mainstream projects. The Cardita Apartment project lived up to the demands of "going green" due in part to the hard work and dedication of the team at Eeles Trelease the project architects – a broad based firm who specialise in master planning, architecture and interiors for sustainable, residential, commercial, public and assisted living projects.

Utilising their 20 years of experience Eeles Trelease Architects were charged with the responsibility of incorporating design elements into the Cardita Apartments that would enhance the environmental sustainability of the project. These elements included photo-voltaic cells, solar hot water, grey water recycling and storm water

management, which are each especially useful in the close quarters of apartment style living. The reduced demand on the existing power grid ensures that while being both environmentally friendly and cost effective, the Cardita Apartment venture will be a model for other firms with a view towards creating sustainable housing.

Eeles Trelease were able to integrate each of these green technologies into the design without impacting on the visual appearance of the apartments. This was particularly important given the coastal outlook of the Little Bay surrounds. The smooth integration from design to finished product was only possible because of the continued input of Eeles Trelease as the project progressed, from concept design to development application, detailed design and architectural consulting during construction.

Eeles Trelease's sustainable design extended beyond implementing new technologies with the implementation of a common-sense approach of harnessing abundant natural light, cross ventilation and extensive use of spacious balconies and terraces to create useable outdoor living space. Eeles Trelease have incorporated energy efficiency into the very core of the project design offering residents an alternative to artificial light and temperature control.

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# BPM

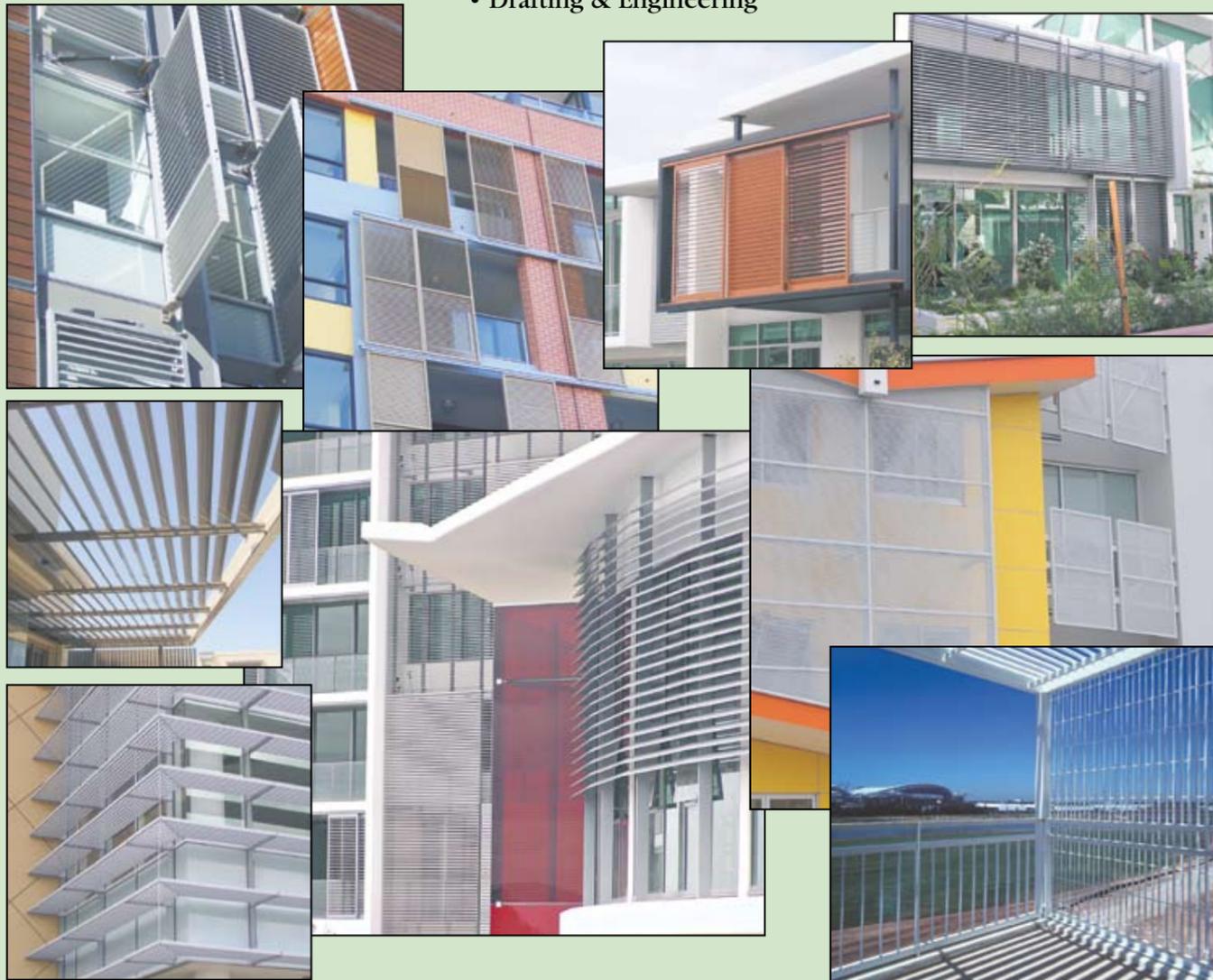
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## A CIVIL APPROACH

A comparatively young company, with a three year history, Civil Foundations can call upon the extensive experience of their 18 employees and managing director Tony Derham, who has been in the industry since 1992.

As recognised specialists, Civil Foundations were the natural choice for the Cardita development. Called upon at short notice to design and construct the basement for the development, Civil Foundations rose to the task with ease, and were working on site within two days of being awarded the contract. For the Cardita development the company installed shoring anchors, bracing to a depth of 5 metres for roads and walkways around the site and the steel sheet piling. As Managing Director Tony Derham aptly puts it the company's role on Cardita was the "obvious choice".

Civil Foundations supplied and installed the interlocking steel sheet piles at the perimeter, joined by weld on studs; these were rapidly ready for concrete pouring. Civil Foundations also constructed the lift shafts and stairs. Working at speed they were able to install

35 metres of wall every day, compared to the average of six metres using traditional construction techniques.

Through a meticulously managed, quality assured, system of pile driving and coordination of excavation contractors, Civil Foundations were able to maintain a rigorous, uniform production that drove the project at maximum speed and efficiency without sacrificing their high construction standards. So efficient were Civil Foundations that the work was completed well ahead of schedule. As a result of this other trades people were able to commence work on site at the earliest opportunity.

On site Civil Foundations utilised the Bauer RTG 19 – which is capable of installing 19 metre sheet piles, as well as the ABI TM 12/15 and the Liebherr LRB 255 multi purpose piling rig capable of installing all pile types of which there are only three in Australia. This commitment to mechanical excellence has meant that Civil Foundations have invested extensively in the latest technology and the company have recently purchased three

Liebherr piling rigs capable of installing 32 metre sheet piles, the machines are the largest of their kind in the country. They have also added another new Bauer rig designed for diaphragm and secant piles

Their dedication to efficiency and ability to call upon unique machinery, as well as their highly experienced team, has enabled Civil Foundations to emerge at the forefront of their profession. Coupled with their ability to work across Australia, and their understanding of all work undertaken as, as Tony Derham states, "problem solving, timely, and cost efficient" it is unsurprising that the company are going places.

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