

PARK FRONT LIVING

The \$120M Cahill Gardens comprises of 185 residential apartments, five commercial spaces, 2-levels of basement parking, gym outdoor communal area. The project also includes floor-to-ceiling glazing, vertical gardens, and oversized cantilevered balconies designed for seamless indoor-outdoor living.

Constructed amidst the natural surrounds of Wolli Creek, Cahill Gardens offers a fresh luxurious retreat for residents. Designed to capture the surrounding views of the neighbouring parklands and the foreshore, the mixed use project offers one, two and three bedroom residences, commercial and retail tenancies, basement parking and communal recreation spaces.

Drawing inspiration from the surrounding landscape, each apartment has been designed to capture the natural light of the location, which filters into the apartments through floor to ceiling glazing. Timber floors and caesarstone bench tops blend the natural environment into the interiors, connecting the interiors to the balconies and green façade elements, to give a timeless refined tranquillity to the apartments.

The architectural design called for a number of visual elements to be included, such as large unsupported freestanding vertical blades and cantilevers. Responsible for the design, engineering, construction and certification for the Cahill Gardens development is TQM Design & Construct.

Cahill Gardens consists of passive environmental design such as cross-flow ventilation, rainwater detention and sun shading. There are a variety of apartment layouts that comprise one, two and three bedrooms with and without studies, the ground level of the building consists of restaurants and an arcade of specialty shops that opens out to an external street terrace and Cahill Park. The concept for Cahill Gardens is an abstract floating structure which contains living and breathing spaces filled with light, air and space. Cahill Gardens' design focuses on abstraction to create a framework for living. The apartments feature oversized balconies that extend space and give occupants flexibility.

The project is a prototype for an urban living environment. The reductive and restrained exterior masks the richness and complexity

of the interior. The façades of Cahill Gardens has an ever changing appearance with all apartments letting in light, air and spectacular views to the city, Botany Bay and airport skyline. The cross-flow ventilation through the apartments is induced by the winds blowing in from Botany Bay. The spaces are fluid, adaptable and designed for occupation rather than visitation. The Cahill Gardens interiors are versatile, sometimes open and sometimes partitioned.

The project location situated in Sydney's inner South on the banks of the Cooks River delta was faced with the most challenging ground conditions. TQM had to identify the most suitable and cost effective remediation, shoring, foundation and structural systems.

"At TQM we believe it is imperative that an efficient and durable structural system is designed and constructed to ensure a project meets its functional and financial requirements for our clients and end users," said Maroun Taouk, Managing Director of TQM Design & Construct.

TQM aims to provide the correct solutions to engineering and construction, based on an appreciation of the constraints, expectations and aspirations of their clients. The success of these types of projects relies on the experience of planning, designing, implementation of contemporary technology, materials and construction techniques. They endeavour to provide a rational approach to design and construction whilst ensuring the engineered solutions and the final design has been 'tested' not only from an engineering viewpoint, but also from the perspective of cost, time and buildability, to ensure the successful delivery of the project on time and under budget.

For more information contact TQM Design & Construct, Unit 6, 44 O'Dea Avenue, Waterloo NSW 2017, phone 02 9556 1046, email info@tqmdc.com.au, website www.tqmdc.com.au



DEVELOPER : Grand City International Development
BUILDER : TQM Design & Construct
ARCHITECT : Tony Owen
CONSTRUCTION VALUE : \$120 million

Below HHH Consulting provided extensive design for the mechanical, fire, hydraulic and electrical services.



HHH Consulting is a multi-discipline engineering consultancy that provides comprehensive design, building and maintenance for electrical, mechanical, hydraulic and fire systems. The company pride themselves on offering a hands on approach to building services design, eliminating layers of management which makes it easy for their clients to get a hold of people they need, with all their designers being senior and attending meetings, site inspections and certification.

Building services consultants from HHH Consulting provided design in mechanical, electrical, fire and hydraulics. Through detailed coordination with structure and building services, the basement carpark ventilation design enabled maximum efficiency of the basement levels and reduced the necessary excavation which would have been required on similar projects. Services plantrooms and louvres were carefully positioned to ensure they do not stand out and blend seamlessly with the building's façade.

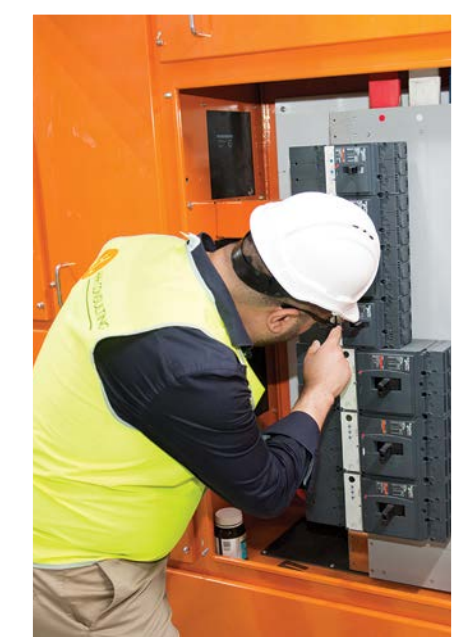
Being a landmark site located in close proximity to the busy city and airport, HHH Consulting's goal was to provide the apartments with a low noise, stress free indoor setting combining edgy modern lighting and fresh air connected to the air conditioning.

Due to the shape and external façade, the main challenge faced by the company was to make the building compliant with codes relating to mechanical and fire services. The company worked closely with the architects and structural engineers to have the engineering designs implemented as part of the structure.

Considering the challenges faced with building compliance and noise impacts of the location, HHH Consulting took the stance to implement tried and tested installation techniques and more robust products for the building services, ensuring a smooth and trouble free project programme, completed on time and on budget.

HHH Consulting mainly work in New South Wales with some projects in Queensland and Victoria. They are currently in the design stages for a 300 apartment project in Liverpool, New South Wales for Merhis Construction which comprises of four towers with a four level basement carpark.

For more information contact HHH Consulting, Suite 101, 4 Clarke Street, North Sydney NSW 2060, phone 02 9966 5984, email admin@hhhconsulting.com.au, website www.hhhconsulting.com.au



Below Modern Painting Group completed the internal and external painting for the Cahill Gardens project.



Below Sandhub provided the sand, gravel, decorative stone and building materials for the construction of Cahill Gardens.



Established in 2001, Modern Painting Group's dependable reliability for delivering high calibre workmanship has led them to grow to be recognised as one of Australia's best painting companies. In keeping with their motto 'Never Compromise', they provide their services at a reasonable cost without compromising on quality. It comes as no surprise that they have been consistently winning awards for excellence every year since 2009.

For the Cahill Gardens Project, Modern Painting Group was contracted to paint all internal and external surfaces. The company provided a colour consultant who helped with choosing the colours, showcasing 35 colour samples from which the final choices were made that included texture painting. Additionally, Modern Painting Group took care of all patching and make good surfaces, and fixed all the gaps between the precast panels.

During the construction stage, the scaffolding was pulled down earlier than planned, which created a challenge in that it reduced the amount of time they had to complete their work and also made external access to the building more difficult. However, thanks to Modern Painting Group's flexibility, they were able to overcome this. First by increasing the number of staff and resources for the project

to deal with time constraints. Secondly, they provided additional training for their staff, allowing them to complete the external painting during the swing stage.

Modern Painting Group deployed a team of 20 for this job at peak, they commenced painting in May 2017 and completed it by June 2018 as scheduled. The company mainly work in New South Wales, Victoria and South Australia along with their sister company Modern Glazing Group which specialises in design, fabrication and installation of glazed systems.

Other projects they currently have include painting 200 Units in Macquarie park for TOGA and 536 Rooms in Haymarket, New South Wales.

For more information contact Modern Painting Group, Suite 307/14 Lexington Drive, Bella Vista NSW 2153, phone 02 8824 7240, mobile (Frank) 0414 770 999, email admin@modernpainting.com.au, website www.modernpaintinggroup.com.au

Sandhub stock and deliver a extensive range of high quality quarry sourced, as well as recycled products for the construction industry, including extensive types of aggregates, soils, sands, landscapes and hardware. They are committed to their customer's material requirements for all kinds of projects and the company pride themselves on their reliability and customer service. Sandhub have established a solid reputation as a reliable supplier of high grade building materials.

Sandhub was responsible for supplying and delivering all building materials, sand, cement, landscaping, gravel and decorative stones for Cahill Gardens. The main products provided by Sandhub for the project include Newcastle sand; general purpose cement supplied by Cement Australia; Cowra river pebbles which were used as decorative stone and white brickies sand, used for mortar between bricks. As well as top soil and planter box mix for landscape gardens and pot plants.

Sandhub had 30 employees deployed for Cahill Gardens at its peak, who have provided ongoing support to the project, beginning their initial supply of products in August 2016 and completed all deliveries in February 2018. The Cahill Gardens project is one of the larger projects that Sandhub has worked on which required a large quantity

of materials. This has allowed them to demonstrate their extended capabilities and be able to successfully meet high demand.

In line with their experience and reliability, Sandhub did not face any significant challenges. Their careful planning and organisation meant that the job was very well executed and as such there were no major issues or delays.

Sandhub service the entire greater Sydney area, and most regional areas across New South Wales. Other major projects that the company has worked on include the Darling Harbour Convention Centre and with companies such as Lendlease on Barangaroo, and on various projects with TOGA.

For more information contact Sandhub, 8 Dunlop Street, Strathfield South NSW 2136, phone 02 9742 3555, email info@sandhub.com.au, website www.sandhub.com.au