

A CLASS OF ITS OWN

The \$30M Melbourne Grammar School Science & Technology Centre is a new 5-level building replacing the school's existing science building. It is comprised of cutting edge design to facilitate the teaching of science, technology, engineering and IT. It encourages collaborative thinking and provides dynamic teaching methods in both formal and informal learning spaces.

When Melbourne Grammar School decided it was time their science building needed a fresh approach, Kane Constructions were engaged from the outset. Responsible for the demolition of the old establishment and the full construction of the new Geoff Handbury Science and Technology Hub, the client-contractor relationship was rigorous.

Commencing work on the school's new \$30 million project in July 2016 with completion having taken place late 2017, Kane Constructions had no time to waste. The unique, 5-level development housing teaching laboratories and learning spaces had two agendas to deliver: a singular architectural form in keeping with heritage requirements and the capacity to allow a collaborative teaching/learning environment. This, coupled with a need for a contemporary design with stylistic longevity, meant Kane Constructions were working with complex spaces involving cutting edge features.

Multi-award winners with over 330 employees, the privately owned commercial company were in their prime working in the education sector. With a business history of over 44 years, it was a visit to their roots, having branched out across many sectors from their original school-based engagements. Now operating at a high level turnover, their uniqueness can be attributed to their promise for doing what they know best; delivering quality projects across all sectors – at any location – on any scale.

Operating in both Australia and overseas with offices in Melbourne, Sydney, Brisbane and Canberra, the company's Business Management System is at the forefront of innovation. Helping to design their very own interactive digital platforms, Aconex and Aconex Field has meant employees and clients can access, inspect and review projects as they progress. Aconex Field is the platform's extra arm, allowing mobile and real-time interaction with projects.

With such a strong WH&S and quality assurance scheme, Melbourne Grammar School was assured from the outset that the company was delivering labour and planning with great transparency. Creating new spaces for learning in science, technology, engineering and IT, Kane Constructions faced repeated challenges concerning architectural innovation. With a bespoke façade system and feature wall panelling, the product specifications were always complex and detailed. Constructing the project has meant Kane Constructions' successful completion of the innovative façade has facilitated a learning/teaching space with spectacular, slit-eye views across the school grounds.

To look at the space itself is to see a slim, streamlined building boasting a magnificent interplay of natural and artificial light. Collaboration offering a design brief that inspired a 5-level building with interactive vantage points and exposed learning spaces, stand out features include exposed piping, unobtrusive vents and a bright design palette of yellows, pristine white and subdued greys. Interior surfaces are highly polished while the interior structures are fresh. To look, for example, at the science fiction inspired curvaceous, pristine white laboratory desks alone, is to sample the performance/aesthetic newness of the development.

Feature projects by Kane Constructions show their commitment to teamwork and active participation across all sectors of the industry with developments spanning from the multi-award winning Geelong Library and Heritage Centre to the Master Builder of the Year Winner – University of Melbourne Arts West Redevelopment, proving their broad expertise and unique project application in eclectic and diversified developments. Then there is the impressive list of current projects such as the Cabrini Health New Clinical Building and Glebe Social Housing in New South Wales.

Clearly for Kane Constructions there is a work ethos that is unrelenting when it comes to energy and enthusiasm. With the construction of the aesthetically pleasing and high end performance capacity of Melbourne Grammar School's new Science & Technology Centre, they have shown there is no challenge which they can't dazzle into materialisation.

For more information contact Kane Constructions, 658 Church Street, Richmond VIC 3121, phone 03 8420 1200, fax 03 8420 1201, website www.kane.com.au

BUILDER : Kane Constructions
ARCHITECT : Denton Corker Marshall
STRUCTURAL ENGINEER : Irwinconsult
CONSTRUCTION VALUE : \$30 million



Below Menco Electrical installed highly detailed and complex electrical works to the new Science and Technology Centre.

MENCO

ELECTRICAL & DATA

Engineering Installation Maintenance

Menco Electrical, a Tier 1 Electrical and Communication Design and Construct contractor, were engaged for the new Melbourne Grammar School Science and Technology Centre, and at a casual glance, their project presents as no small feat. Responsible for the complex, sophisticated and highly detailed electrical works to the architecturally designed, 'Geoff Handbury Science and Technology Hub', Menco Electrical planned and delivered, with timely completion in December 2017.

With a project agenda inclusive of major electrical infrastructure and distribution, energy efficient long life LED lighting, KNX lighting control comprising open protocol bus technology, integrated voice and data structured communications systems, WAN fibre optic links, and critical infrastructure to support multi-vendor audio-visual systems, Menco Electrical's contribution was extensive.

Defined as an electrical business which covers the engineering, installation and maintenance aspects of a project, their work on the demolition of the old Science building to make way for this new and innovative hub, meant Menco Electrical's reputation for zero harm and maintaining high levels of health, safety and environmental performance, was a test that strengthened their profile.

A company operating out of Victoria, their mission statement reads as the perfect solution to such a cutting-edge architectural development. Claiming, "from concept to connection – our people make it happen," Menco Electrical have a straightforward

objective and the high tech expertise for success, as demonstrated by their use of 3D design tools to optimise design, multidisciplinary coordination, buildability and fast track installation.

To glean an overview of the project itself, the Science and Technology Centre is a singular complex with five levels. Designed to accommodate learning in science, technology, engineering and IT, the laboratories and study spaces are collaborative and interactive. Each level offers both upper and lower views, presenting an overall impression of invaluable exposure and shared clarity.

With a focus on teaching laboratories and learning spaces, the electrical demands were high, with requirements for a superior system that promised long-lasting effectiveness. Achieving a gentle balance between natural and artificial light would seem tantamount to work stations demanding scrutinous visual lucidity. Menco Electrical's sensitive approach to their interior electrical solutions reflect nothing less than superiority in this pitch.

Aside from its outstanding aesthetic charm, the development's capacity to perform has a complexity understated by its upfront qualities. With sleek views of the college grounds across four levels, the project presents a delicate combination of natural and artificial light.

For Menco Electrical this necessitated careful planning and implementation of the intelligent lighting controls, including the position of exterior accent lighting to showcase the building after hours. Further Menco Electrical credits to the project

include custom main electrical switchboards, PhotoVoltaics, NABERS energy metering across the power distribution network, and high speed fibre infrastructure pathways for integration with the school's existing networks.

Adopting an ethical approach to successfully manage a range of developments is evident not only in this exciting educational venture, but also in Menco's other latest works including the redevelopment of the T&G building at 161 Collins Street, the new 20-level commercial building at 271 Spring Street, the redevelopment of the Ford Asia Pacific Engineering Headquarters and Buchan's Architects new Melbourne Studios. In all engagements, it is clear Menco Electrical have the contemporary classiness to meet the demands of innovation and design cleverness.

Menco Electrical is a company above distinction in reliability, efficiency and fashionable design capacity. Promising to see a project through to the end and beyond in terms of building tuning, service and maintenance to ensure its optimum performance, Menco have taken the worry out of the nitty gritty challenges of high end developments. Their elegant contribution to the Melbourne Grammar School Science & Technology Centre is nothing short of award-worthy, leaving no questions as to why they are often the preferred Electrical and Communications Design and Construct contractor.

For more information contact Menco Electrical & Data, 58 Wirraway Drive, Port Melbourne VIC 3207, phone 03 9681 9800, Tony Lukic (Managing Director), email t.lukic@menco.com.au, website www.menco.com.au



Below Dandy Steel Fabrications provided all of the structural steelwork including four levels of staircases and the wrap-around façade frames.



Below Greencap provided Kane Constructions with risk management and compliance services saving up to \$250,000 in soil disposal costs.



Curved auditorium structure in Mount Waverley for SJ Higgins Pty Ltd



Curved auditorium structure in Mount Waverley for SJ Higgins Pty Ltd



Dandy Steel Fabrications provided the structural steel and façade steelwork for the Melbourne Grammar School Science and Technology project, including four levels of staircases and the wrap-around façade frames.

Although Dandy Steel Fabrications comes from a largely industrial background, previous school-based jobs at Caulfield Grammar School and Sacred Heart in St Albans have allowed Dandy Steel Fabrications to establish themselves as equally capable of working to aesthetic specifications, including Melbourne Grammar's curved building design. "Each of the curves are at different radiuses, and there are approximately 10 to 15 different radiuses," said Chi Chih, General Manager of Dandy Steel Fabrications.

"The steel takes more processing time, as well as experienced boilermakers to ensure the steel is accurately fabricated. The material used is quite light so the material is prone to deforming under heat. Further, we are working with a curved slab, so the tolerances are very small."

Dandy Steel Fabrications are also working on a curved auditorium structure in Mount Waverley for SJ Higgins Pty Ltd (pictured above).



For more information contact Dandy Steel Fabrications, 5-23 Carter Way, Dandenong VIC 3175, phone 03 9799 6180, email chi@dandysteel.com.au

Australia's largest risk management and compliance company, Greencap, was engaged by Melbourne Grammar School to complete a soil contamination assessment and hygiene services during the contaminated soil removal for its latest project.

As a result, significant savings were made following a data review conducted by the company, according to Regional Practice Manager – Environmental (VIC/TAS), Darren Cordy. "Greencap was initially engaged directly by Melbourne Grammar School to undertake a third party data review, collect supplementary soil classification data at the site and provide a soil management strategy for proposed bulk excavation works."

"Based on the outcome of the data review and using statistical analysis, Greencap was able to realise a saving of around \$250,000 in soil disposal costs."

Five of Greencap's 300 employees worked on the project alongside a team from Kane Constructions. During the excavation process, several areas of unexpected contamination were found. "They required quick sample analysis to ascertain the offsite disposal requirements and effective communication in partnership with

Kane Constructions to manage the contamination," Darren said. "Kane Constructions were a pleasure to work with and I particularly enjoyed watching the works involving the preservation of a historic bluestone wall as part of the project."

Greencap is highly regarded for assisting businesses in managing risk and compliance by providing integrated expert services, training and online solutions.

"The company mission is to benefit society through the improved risk management of people, property and the environment and our vision is to be 'best in class', delivering value through practical solutions," Darren explained.

The company dates back to 1984 when Noel Arnolds and Associates commenced business. It then became part of Greencap which was acquired by Wesfarmers Industrial and Safety in 2013.

For more information contact Greencap Pty Ltd, Level 1, 677 High Street, Kew East VIC 3102, phone 03 9896 8600, website www.greencap.com.au