

Transforming Automotive Skills Training

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Mark Freeman is an Associate at Gray Puksand and has many years' experience in planning and design of education and training facilities across the Primary, Secondary, TAFE and University sector.

Through a variety of diverse projects, on-going research and international study tours, Mark is passionately aware of the importance of engaging with the transformations underway in the design of education space. This on-going commitment to innovation is also evidenced in several recent projects being successful in receiving various Architecture and Design Excellence Awards.

John Nicholas is the Project Director for the Automotive Centre of Excellence development and has been instrumental within Kangan Institute in realising their vision to develop a world leading skills training facility.

Johns resolute commitment to the project is evidenced by his strong leadership role through the duration of both project stages, and work now underway for planning of a third stage.

The Automotive Centre of Excellence was first established by Kangan Institute in the Docklands precinct of Melbourne in 2006. Master planned to be developed across several distinct project stages, this unique inner city campus has been envisaged as a catalyst to assist in transforming all aspects of automotive skills training and research, and automotive component and vehicle testing.

The recently completed Automotive Centre of Excellence Stage 2 project is a technologically advanced, energy efficient multi-level campus building, designed to integrate seamlessly with the previously completed Stage 1 facility, and go beyond the notion of conventional classrooms and workshops. It is an exemplar 21st century skills training facility planned and designed in response to current and future skills needs of local, national and the international automotive industry.

ACE Stage 2 has been conceived and developed as a stimulus for change, to replace numerous existing dated and obsolete inner city TAFE campuses which no longer reflects best practice automotive skills training, nor the capacity to accommodate and integrate advances in technology, therefore not meeting staff and student expectations of quality learning spaces and provision of good campus amenity.

The project team responded to the challenge of planning in excess of 14,000 sqm of flexible future proofed training spaces and automotive workshops on an inner city site of less than 5,000 sqm within an overall development height envelope of 20m.

Within these parameters, the team envisaged an efficiently planned multilevel training facility with approximately 50% less floor area, but able to provide the Institute with previously unrealised facility spaces creating further opportunities for interaction and collaboration, supported by world leading training and testing facilities.

The original "nuts and bolts" project facility brief was redeveloped and "re-visioned" by the project team. This required thorough analysis and assessment of existing skills training practices and processes, substantial audits of vast amounts of practical training tools, demonstration devices and vehicles. There also existed few examples of such multi-faceted automotive skills training facilities, and so parallel with development of the project brief, the project team undertook to research and investigate local and international projects to establish key benchmark functional and operational attributes.

Through collaboratively engaging with a diverse range of project users and facility staff the project team was able to develop a clear understanding of the diverse range of functional and spatial requirements, equipment and testing facilities, and sometimes complex operational services infrastructure required. By establishing and maintaining ongoing dialogue within and between the multitude of planning teams, through the design and construction phases, the project team was able to acknowledge previous processes and practices, but advocate for efficient and highly flexible technologically advanced training environments and testing facilities

This presentation will share the approach and challenges experienced by the project team through several years of project development and construction, by illustrating the importance of maintaining information flow, the ability to analyse and translate complex functional and technical requirements, and the ability of this process to accommodate and be responsive to a complex and evolving facility design brief.