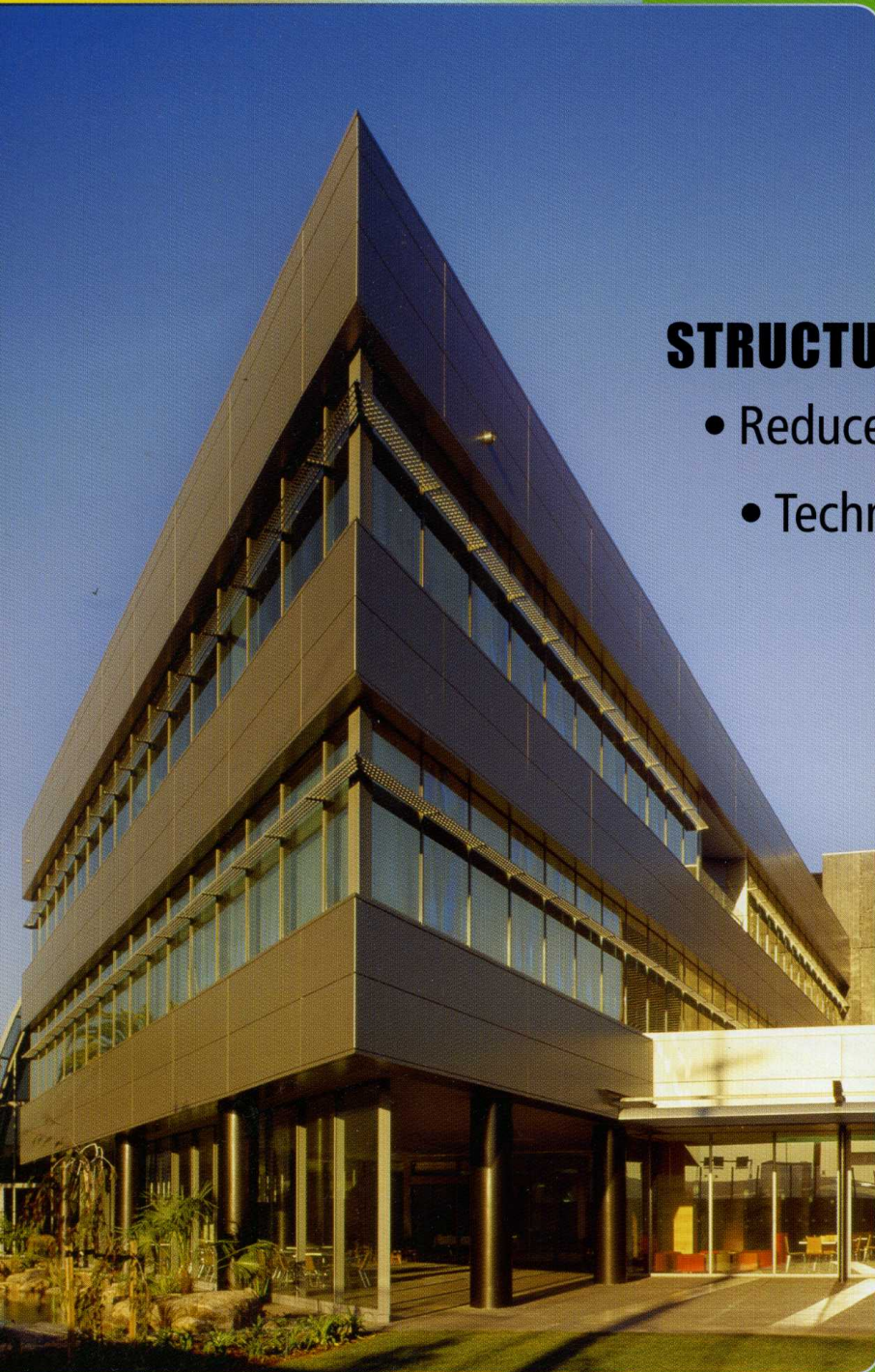


Toyota Motor Corporation Australia Head Office

Port Melbourne, Victoria



STRUCTURAL STEEL delivered:

- Reduced Risks
- Technology



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Toyota Motor Corporation Australia Head Office

Port Melbourne, Victoria

Client: Toyota Motor Corporation Australia

Architect: Woods Bagot

Structural Engineer: W P Brown & Partners

Project Manager: D G Jones & Partners

Builder: Probuild Constructions (Aust)

Steelwork Fabricator: Structural Challenge

Steel Detailer: SteelOne



The new 11 000 square metre Corporate Head Office and Administration Building for Toyota Motor Corporation Australia is an arresting display of world best practice design and steel innovation.

Following the successful completion of the steel-designed Toyota Commercial Showroom and Financial Services Building on time and ahead of budget in 2003, Toyota Motor Corporation recognised the need for a steel solution for this project – and in doing so has established a new standard for quality design and engineering.

Composite steel construction was chosen for this project because of its lighter weight and ease of construction. Light weight steel construction and ground improvement facilitated pad footing construction in the traditional deep pile Port Melbourne sands. Most of the steelwork could be fabricated off-site, allowing site work to go ahead concurrently with the off-site fabrication. This not only saved time but also reduced on-site congestion, and reduced occupational health and safety issues.

The slab and steel framing were designed as composite structures, where steel and

concrete acted integrally to minimise structural depth and deflections and maximise structural efficiency.

New design technologies were used to great success in this project to ensure world best practice design and efficiency. The primary beams were designed with relatively new technology as continuous composite beams to keep their depth to a minimum. This reduced structural floor depth with major cost savings on steel and translates to a reduction in building height, weight and cladding costs.

Steel provided a cost effective solution for the design of the building. A conventional concrete design would have been considerably more expensive, taken a lot longer to construct, and would not have provided the flexibility and creativity that is employed by the steel industry. A close relationship between the detailers and rigging crew was a key to ensuring the efficient management of this project within the limited timeframe.

Toyota's new headquarters demonstrates the quality design and functionality that can be achieved when steel is integrated into the building project solution.

For full project article please refer to:
steel Australia
Volume 17 Number 1, March 2004
Also available at: www.beyond2.com.au



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