

# Harbouring Ambitions

How Thies brought the Harbour Lights Apartment Project to Cairns' CBD



**T**hies, one of Australasia's leading integrated engineering and services providers, is more widely known for its civil and mining capabilities; however the company is fast developing a strong presence in the building and construction industry.

Thies' revenue exceeds \$4B per annum and the company boasts building expertise across a broad range of areas including hospitals and health care, defence, correctional, commercial, residential, retail, manufacturing, tourism, leisure, port infrastructure, education, research and airport facilities.

With a client base consisting of more than 80% repeat customers, Thies delivers the complete project from site selection, design and construction through to finance and lifetime service. Thies focuses not only on the reduction of ownership costs, but on long term value to the client's operating business.

One of Thies' latest building projects, the prestigious Cairns Harbour Lights, demonstrates the company's diverse building capability.

Located in the Cairns central business district, the Harbour Lights project will establish a new benchmark in residential apartments in the region. The first development as part of the Cairns Port Authority's 'Cityport Master Plan', the 12-storey precinct features 101 residential apartments, 92 managed apartments, hotel facilities as well as restaurant and retail tenancies with magnificent views of the Trinity Inlet and Cairns foreshore.

John Sadler, Thies Project Manager, said that despite the panoramic benefits afforded by the project's location, there were a number of challenges for the Thies team in terms of design and construction.

"The compact nature of the site and the fact we had to manage construction within an existing operating tourist precinct meant we needed to look at different methods of construction. For example we used a centrally located 50 metre concrete placing boom to place 15 000m<sup>3</sup> of concrete from a pump located in the adjacent park. This proved a highly efficient method to place concrete in a constrained area rather than the traditional boom pump, and minimised the noise and vehicle congestion issues to the adjacent stakeholders.

"In terms of materials we used aerated concrete as opposed to core filled masonry concrete for lightweight party and boundary wall systems to minimise waste while still achieving fire and acoustic ratings.

"The location also posed challenges in terms of high exposure to wind, bad weather and soil type. We avoided the inclusion of a sub water table car park to avoid the acid sulphate marine soil and instead opted for a 300 car space above ground structure," John said.

An important aspect in the design of the precinct was a focus on mixed mode ventilation.

"We incorporated an atrium-like feature in the centre of the building to facilitate cross ventilation and ensure maximum airflow through the apartment complex. Manually operated pivot and sliding shutters are incorporated above balustrades of the residential apartments.

"Water-cooled packaged air conditioning units were installed rather than the traditional air-cooled split system, which have benefits not only in terms of energy efficiency, but also aesthetics and noise reduction," John said.

Environmental sustainability has been an important focus in the design of the facility, with energy efficiency promoted throughout the building. Extensive sun shading via operable screens to the balconies have been used to decrease the amount of heat and glare through windows, providing a more comfortable environment and reducing the extent of air conditioning required.

The prestigious nature of the development also guided the internal design of the precinct.

"The apartments have an upmarket feel, achieved through the layout design and use of high quality materials and finishes," John said.

Thies places a strong focus on safety across all projects and, according to John, the Harbour Lights project team has performed well.

"Safety standards on site are excellent, with the current workforce of ap-

proximately 200 achieving commendable safety results since the project began more than 18 months ago."

Thies has not only been recognised for excellence in construction, but also for its environmental and community initiatives. The company was awarded the Queensland Government's Year of the Built Environment Award in 2004 and has also been a recipient of the Queensland Premier's Award for Community Business Partnerships.

According to John, the Cairns Harbour Lights team has adopted a number of environmental and community initiatives of their own.

"The Cairns Harbour Lights project team has recycled 9m<sup>3</sup> of bottles and cans and has donated to proceeds to local charity Butterfly Appeal.

"Another initiative involves the recycling of bulk concrete waste into 1m<sup>3</sup> concrete blocks which are used by a local earthmoving company in retaining wall structures," John said.

Thies Pty Ltd (QLD)  
189 Grey Street  
South Bank QLD 4101

p. 07 3121 8600  
f. 07 3121 8610  
www.thies.com.au