



The original North facade of the Zest apartments.



North Face after the redevelopment.

Steel puts Zest into a bold new face

CLIENT

Carrington Capital Pty Ltd

ENGINEER

Taylor Lauder Bersten Pty Ltd

ARCHITECT

Geoform Design Pty Ltd

CONTRACTOR

Paramount Constructions Pty Ltd

STEEL CONSTRUCTION

Austfab Pty Ltd

EXPERT ENGINEERING AND STEEL FABRICATION WORK COMBINE TO CREATE A SPARKLING STEEL EXPERIENCE.

The Zest Apartments in Darlinghurst started life as a hotel built in concrete with brick infill. The old All Seasons Hotel was approaching the limits of its economic design life when Carrington, one of the

newest players on the property development block, bought the property to refurbish and convert the building into apartments.

Located on the eastern side of Crown Street, south of Oxford Street, the conversion is part of a property trend to rejuvenate older inner city buildings into

residential apartments. The former 98 room hotel now has 66 studio and 16 one bedroom apartments and is now known as Zest.

Carrington Director Peter Navratil said that in converting the property to apartments the company was "looking for a structural solution which was both economical and light weight and would be fast to construct. This was our first experience with steel as a construction



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material and we didn't know what to expect. The engineers and fabricators were expert and very professional, pro-active in their interaction with us. They made this, our first steel experience, a very good one."

To counter the small room sizes the north face of the building underwent a metamorphosis. From level three to level eight the brick infill was taken out and replaced by glass doors opening onto new structural steel framed balconies which trap the northern winter sun and compensate for the relatively small room sizes. The wide balconies extend two metres off the north face and run the full 30 metre length of the building. The 1100mm balustrades are of toughened frameless glass with no railings, creating an illusion of even greater space. On the deck level of every balcony is an exposed steel channel defining the edge and creating a strong architectural effect

Mark Baker was the structural engineer from Taylor Lauder Bersten on the project. He said that "the balconies are entirely steel framed. Steel was chosen to minimise the additional load applied to the existing structure, as well as to minimise cost and construction time. The adequacy of the existing structure to support the additional load was proven by testing the concrete in the columns

and exposure and testing of the founding material under the pad footing.

"Light weight steel floor joists span between the existing slab edges and an expressed steel channel on the outer edge of the balconies. The steel channels are supported by inclined tension ties built into the balcony privacy screens and horizontal compression struts at floor level. These ties and struts connect into the existing concrete columns between adjacent apartments. This framed structure was selected instead of pure cantilevers at each floor to simplify connections to the existing structure. High strength bolt connections were used throughout and there was no site welding on the project."

Brookvale based steel construction company Austfab supplied and erected the various steel components. All the steelwork was prefabricated off site. In all some 28 tonnes of columns and beams were fabricated, hot dip galvanised and installed. The columns were 150UCs and the floor beams 180PFCs and 250PFCs. In addition DuraGal sections were used at every level for floor joists and wall girts. Geoff Blackburn, Managing Director of Austfab, said that DuraGal was selected because of its ease of handling and light weight. AustFab positioned a crane on the roof and the

steel was erected from there. The north face steel erection took about two weeks.

On the Crown Street facade is a decorative steel feature. Between levels four and eight the steel edge balcony channels have been wrapped around the Crown Street face of the building. Vertical steel angles were bolted to the steel channels creating architectural relief to a previously flat facade.

