

## Lex Apartments



### Location

Australia

### Client

Beacon Builders

### Project Value

AUD\$11.0 Million

### Office Responsible

Cardno Grogan Richards

### Responsibilities

Structural, Civil & Traffic Engineering

### Project Scope

A six storey, 56 Apartment building with underground car parking and storage areas. The development incorporated high technology and energy efficient solutions to produce a state of the art residential and retail development.

Cardno Grogan Richards provided structural and civil engineering throughout the design and construction phases of this project. During the early concept design phase, Cardno Grogan Richards combined it's structural, civil and traffic engineering skills to rework the basement car park, removing a complete level, whilst maintaining car park numbers and generating an immediate saving.

An anchored, bored pier retention system was adopted for the full site perimeter, to maximise the foot print of the car park and storage areas. The ground floor consisted of a post tensioned transfer structure, to allow for the required shift in structural grid, through the first floor retail and upper residential levels.

The residential levels consisted of a reinforced concrete frame, with post tensioned band beams. The upper most floor was constructed from light weight steel and timber framing, to minimise overall building loads.

Civil works consisted of conventional stormwater drainage to the ground level, where it connected to the street drain. The basement drainage was collected through a series of sumps and pumped to street level.

The development was completed in December 2003, by Buxton Constructions and boasts a 5-star energy rating to much of the building.

### Contact

[structures@cardno.com](mailto:structures@cardno.com)

1300 782 171 (in Australia) or your local office

+61 7 3369 9822 internationally

[www.cardno.com](http://www.cardno.com)