



1 Completed Aurora Centre at night. 2 Exterior facade showing mixed use space. 3 Interior foyer and cafe area.

THE AURORA CENTRE

Holmes Consulting for Kiwi Property Group

Project Location: Wellington



The Aurora Centre project in central Wellington involved the redevelopment and structural strengthening of Unisys House, the demolition and rebuild of the adjacent Aurora Chambers and a new five storey addition over the existing Aurora Terrace carpark. The project has provided a structurally robust, functional and compelling new home for the Ministry of Social Development. The redevelopment of the buildings redefines their profile and purpose, including seamless connections between the structurally separate components, creating a cohesive and integrated complex.

The development has showcased technical expertise and innovation in engineering design elements. Most notably, the Aurora Centre demonstrates the first use of Fluid Viscous Dampers as part of the seismic strengthening of an existing building in New Zealand. These were used as the primary strengthening mechanism for the 18-storey tower building, and act like shock absorbers to dramatically decrease earthquake-induced motion. Retrofitting the dampers into the existing tower structure brought it to 90% of the New Building Standard (an A+ seismic grade).

In addition to the Fluid Viscous Dampers, Holmes Consulting developed a new concrete encased steel (CES) column assessment methodology in order to better understand and assess the seismic performance of the existing structure and its interaction with the proposed damper strengthening proposal. Whilst this submission focuses on the seismic refurbishment and strengthening of the existing Tower structure, Holmes Consulting also carried out structural design and documentation of the Aurora East building and Aurora West superstructure. Strengthening of the Aurora West sub structure was undertaken as an alternate design by Dunning Thornton Consultants and does not form part of this submission.

This technically challenging project has resulted in very significantly improved buildings, not only in terms of appearance and functionality, but also in regard to seismic resilience.

Judging & Copyright Statement

This project is an entrant in the 2016 INNOVATE NZ Awards of Excellence competition. The winners will be celebrated at our Awards Gala Dinner on Saturday, 12th August 2017 in Taupo.

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