



ANDREW WAITE
SENIOR STRUCTURAL ENGINEER
CURRICULUM VITAE

ANDREW WAITE CV



PROFILE

Andrew has over nine years experience as a consulting engineer. His experience has seen him being involved in many structurally challenging projects and his ability to understand client requirements, lead engineering teams, attention to detail and sound technical knowledge ensures that each project is a success.

Andrew has worked in Australia and New Zealand and has been exposed to many different building types across the commercial, industrial, community, civic and residential sectors. He has vast experience with structural steel, reinforced concrete, post tensioned concrete, precast concrete, masonry, timber and composite structures.

He has completed many projects under a design and build contract with builders. This experience ensures that buildability and cost efficiency is at the forefront of each design. He has vast on-site supervision experience and his openness to provide alternative designs due to unforeseen site circumstances ensures projects are delivered without delays.

QUALIFICATIONS

BE (Hons) – Bachelor of Engineering,
University of Canterbury 2007

Chartered Professional Engineer (Australia)
(CPEng) 2014

Member of the Institution of Engineers
Australia (MIEAust)

New Plymouth Boys High School, 2003

CAREER HISTORY

2017 – Present, Senior Structural Engineer –
Structus Consulting Limited

2015 – 2016, Senior Structural Engineer –
Meinhardt, Sydney, Australia

2008 – 2015, Structural Engineer – Northrop,
Sydney, Australia

2010, 2011, 2012 (2 months per year)
Structural Engineer – Holmes Consulting
Group, Christchurch, New Zealand

MANAGEMENT SKILLS

- Leadership of small and large design teams on single discipline and multi discipline projects.
- Client side thinking to ensure that engineering decisions are made in the best interest of the client and ensuring important deliverables are met at each stage of the project.
- Clear and concise communication throughout the design and construction phases of projects, to keep all stakeholders up to date and informed.

- Involvement in detailed design throughout each stage of projects to ensure each project is a success.

TECHNICAL SKILLS

- Detailed knowledge of in situ post tensioned and reinforced concrete, precast concrete, steel, masonry, composite and timber structures.
- Detailed knowledge of many design and analysis computer softwares and local and international codes and standards.
- Ability to apply engineering knowledge to complex problems and provide practical solutions.
- On site experience and ability and willingness to provide alternative solutions to complex on site issues.

PROJECT EXPERIENCE

COMMUNITY PROJECTS

Mounties Community Facility, Mount Pritchard, Australia, 2014-2015, \$30m

Various stages of an overall masterplan. The first stage included a new 3 storey underground carpark, 3 storey building on top of the carpark with interface to the existing club, and new back of house renovations. This project involved basement shoring wall design, suspended post tensioned concrete slabs and beams and steel framed walls and roof including 45m spanning steel trusses over a new amphitheatre. Andrew was the lead structural engineer who was heavily involved in the design and with liaison with the client and architect. He provided solutions which allowed for construction to continue while the club remained operational.

Liverpool Catholic Club, Liverpool, Australia, 2013-2014, \$15m

This development consisted of a new 3 storey carpark building, adjacent foyer buildings, pedestrian bridge for access to the existing club and alterations to the existing club. Andrew was the lead structural engineer in the project, designing the post tensioned suspended slabs, movement joints, steel trussed pedestrian bridge, reinforced concrete ramps and membrane roof structures. The façade system was a feature of the carpark, and his in-depth analysis and detailing ensured that the façade could also act as the carpark barrier system.

St Johns Park Bowling Club carpark, St Johns, Australia, 2015-2016, \$15m

This project consisted of two new additional levels to an existing three storey carpark. It was imperative that the carpark remained operational during the construction of the additional levels. Strengthening of the lateral load resisting system was necessary and was provided by new concrete shear walls and new lift and stair cores. Composite floors were the preferred option for the suspended slabs, meaning construction could proceed without the need for propping, allowing lower floors of the carpark remained operational.

Drummoyne Oval Spectator Facility, Drummoyne, Australia. 2010, \$5m

This development consisted of a new spectator facility adjacent a cricket oval of loadbearing block walls, in situ concrete terraced seating, reinforced concrete suspended slabs and steel framed walls and roof with significant cantilevers for aesthetics. Andrew was the design engineer on the project and provided the detailed design on all aspects of the building.

INDUSTRIAL PROJECTS

Plasser Australia, St Marys, Australia, 2013-2014, \$10m

New industrial facility for the manufacture of new trains. The project consisted of heavy slabs and beams on grade to support 80 tonne moving trains, undercarriage underground pits, steel portal frames to support two off 50 tonne gantry cranes as well as office buildings within the warehouse. Andrew was integral into the success of the project, using detailed structural analysis to analyse the moving loads from the gantry cranes along the structure, which included long spanning transfer trusses. A high level of coordination with the train consultant was imperative to ensure the project was a success.

Rand, Erskine Park, Australia 2013 - 2015, \$38m

20,000sqm refrigerated warehouse for Rand transport. The project consisted of jointless fibre slabs on grade, long spanning steel portal frames 22m in height, and two storey offices. Andrew was the lead structural engineer, working with the project manager and builder, client, refrigeration consultants and other consultants to provide the structural engineering design, documentation and construction phase services. -25 degree and -2 degree temperatures meant special structural and non-structural detailing requirements to provide the necessary insulation.

Toll Priority, Port Botany, Australia 2013 - 2014, \$26m

Two large 20,000sqm warehouses consisting of large spanning steel portal frames and jointless fibre slab on grade. Highly detailed BIM models were created to coordinate with all disciplines and to incorporate the complex

equipment used in this warehouse and avoid clashes. Andrew provided the most competitive structural design to help his client win the tender for this project. Following this he carried out the detailed design and documentation while collaborating with the client, architect and other engineering disciplines.

DHL warehouse, Matraville, Australia, 2012, \$13m

DHL expanded their operations to provide a new warehouse space, administration building and two multi-level car parks. Andrew was the lead structural engineer, working closely with the client, architect, builder and other engineering disciplines from conceptual design through to detailed design and then construction phase of the project.

The car parks involved post tensioned slab design and reinforced concrete ramps and shear walls. Modifications to the existing warehouse required significant exposure of the existing structure to understand its form, and changes of the structural design to ensure a sound and buildable engineering solution.

Viridian Glass Facility, Erskine Park, Australia, 2010, \$10m

New industrial facility for the manufacture of glass. Andrew was involved in the detailed design of the slab on grade, jointing, portal frame design and runway beam design for overhead gantry cranes.

CIVIC PROJECTS

South Coast Correctional Centre, Australia, 2016, \$60m

Prison expansion project consisting of 15 new buildings including accommodation blocks,

industries and administrations buildings plus renovations of 4 existing buildings.

Andrew provided the conceptual design of all the buildings then led a team of engineers throughout the detailed design stages of the project. Working closely with the Department of Justice and the architects, he provided structural design to suit the unique requirements of this type of project.

Cessnock Correctional Centre, Cessnock, Australia, 2016, \$50m

Prison expansion project consisting of 8 new buildings including accommodation blocks, industries and administrations buildings plus renovations of 3 existing buildings.

Andrew was involved during the tender stages of this project, providing the structural design of all buildings within tight timeframes for the Department of Justice.

Earthquake Assessments and Strengthening, Christchurch, 2010, 2011, 2012

Andrew worked for Holmes Consulting Group following the series of earthquakes in the Canterbury region. The work involved on site building damage assessment, report writing, analysis of building capacity and strengthening works.

RESIDENTIAL PROJECTS

Howard St. Warners Bay, Australia, 2015-2016, \$20m

Seven storey apartment block plus two levels of basement carparking. Design considering mine subsidence and associated future potential movements of the structure, working with the Mine Subsidence Board NSW and other sub-consultants. Drained shoring wall design for the basement. Suspended post

tensioned slabs. Proprietary product implementation for column formwork and stair/lift core formwork. Andrew worked closely with the developer/builder throughout all stages of the project to provide the most cost effective structural designs.

3-9 Eve St, Erskineville, Australia, 2015-2016, \$20m

New development of two 7 storey apartments off a ground level transfer podium level, plus one level of basement below the water table. Andrew worked closely with the developer/builder to provide an efficient and easy to construct structure. Post tensioned slab design plus transfer beams to allow for architectural intent. Design of secant pile basement which also supported vertical loading from the superstructure.

Indigo Slam, Chippendale, Australia, 2013-2015, \$20m

Three storey house with curved white concrete façades supported off steel window mullions and 300 thick in situ suspended slabs. Andrew performed in-depth Space Gass and Strand analysis to understand how such a unique structure would perform. The project won many architectural design awards.

1190 Pacific Highway, Pymble, Australia, 2016, \$15m

Nine storey residential building constructed into the side of a hill. Heavy landscape loads, high floor to floor dimensions and minimal slab thicknesses challenged the structural design of the suspended slabs. Andrew provided the structural design for tender, designing the slabs typically as reinforced, however introducing post tensioning where necessary, to ensure structural slab thicknesses were kept to acceptable limit.

