

Kainga Ora- Building Momentum: Homeground Case Study

1.

Introduction



The McConnell Dowell Group

A long and proud history of growth and innovation



Commenced operating in South East Asia



1972

Established the Australian Division



1961

McConnell Dowell was established in New Zealand



1970

Commenced operating in Middle East



1970



Built Environs formed in SA

1987

2003

Aveng purchase of McConnell Dowell



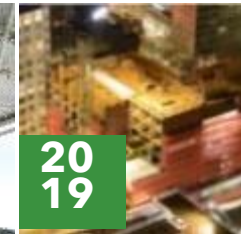
2020

McConnell Dowell – Built Environs enter Victorian market



2008

McConnell Dowell purchased Built Environs



2019

McConnell Dowell – Built Environs establish Auckland





Financial Security



The McConnell Dowell Group has an annual turnover of more than \$1.5 billion

\$160M

Cash balance

As at 30 June 2020

\$2.0B

Work in Hand

up 60% from 30 June 2019

\$560M

**Bank Guarantee &
Bonding Facility**

\$1.4B

Preferred status

Preferred contractor status on
AUD\$1.4 billion worth of prospects



Oval Hotel, Adelaide

Client: Stadium Management Authority

Contract Type: Design & Construct

Project Value: \$40M

Completion: September 2020

Key facts:

- 5 storey development built on two elevated pods
- Two hotel wings (North & South).
- 138 room boutique hotel
- Cross Laminated Timber structure
- Assisted in redesign to incorporate CLT
- Construction completed whilst Adelaide Oval remained operational and open to the public
- **32 separate mobilisations to accommodate live event schedule**
- Working within live environment
- Complex demolition of existing structure to tie in new
- 12-month construction timeframe
- Built over suspended structure



The first Stadium hotel in Australia



**Completed on time
with no impact on
operations**



BUILT McCONNELL
DOWELL
ENVIRONS
CREATIVE CONSTRUCTION™

2.

Homeground – Project Overview





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2. Engagement
3. Sharing Experiences – Mass Timber
4. Innovations

Project Overview – Auckland City Mission - Homeground

- Client: Auckland City Mission
- 12 Years in the making.
- Tendered: P&G and Margin basis
- BENZ Engaged for Early Contractor Involvement (ECI)
- Form of Contract : NZS 3910 with Special Conditions Construct Only Fixed Price Lump Sum
- Construction Commenced October 2018
- Multi Functional Facility with complex end user requirements
- Tallest Mass Timber Building in New Zealand



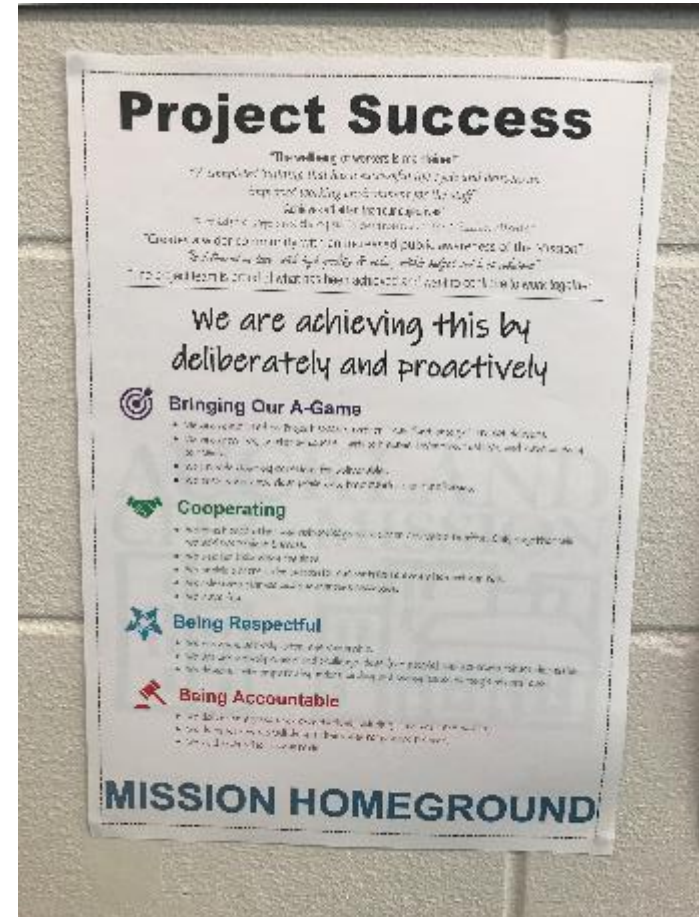
3.

Partnership



Partnership

- The Establishment of Trust
 - Define Common Goals and expectations
 - Creating a project team with every stakeholder engaged
 - Being transparent in dealing with issues
- Create an environment where everyone can succeed.
- Early Contractor Involvement (ECI)



4.

Mass Timber - Cross

Laminated Timber (CLT)



Mass Timber

Cross Laminated Timber (CLT)

- Offsite Fabrication – Driving the need for design up front
- Safety In Design
- Wellbeing of both of those on site and the end user



Mass Timber

Cross Laminated Timber (CLT)

- Clean
- Productive
- Safe



Mass Timber

Cross Laminated Timber (CLT)- Fun Facts

Sustainability:

Relative to the 2,358m³ of mass timber contained in Homeground -

The CLT sequesters circa 1,440t of CO₂, with the equivalent volume in concrete emitting circa 960t of CO₂ during its manufacture

It weighs circa 2,400t, that's about 4,480t lighter than the equivalent volume in concrete

It took a just under 3hrs to regrow based on growth rates of the New Zealand Radiata Pine Forestry Plantation

Data provided by Xlam – Supplier of CLT to BENZ for Homeground



5.

Innovations



Innovation

COORDINATION OF SERVICES

- Passive Fire
- Clash Detections (Navisworks)

DESIGNING FOR MANUFACTURING

- Construction Sequencing
- Detailing

VISUALISATION AND SPACIAL AWARENESS



Summary

- Homeground has shown New Zealand that the use of mass timber of a large scale is possible!
- Creating an environment where everyone is able to succeed leads to overall success
- Contractors and Supply chain are ready for the demand of Mass Timber buildings
- In many ways Homeground is a real life reflection of what Building Momentum seeks to achieve and a testament to what it can.

Nga mihi
Thank You

Questions?