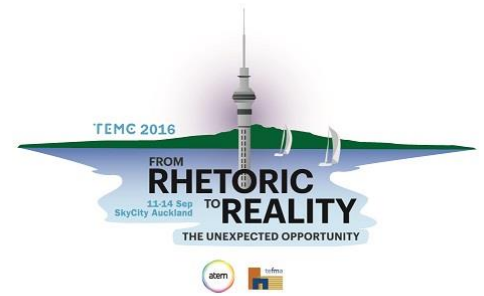


Concurrent Session D
Monday 12 September 2016
2:25pm – 3:15pm



Session 1
Use of Early Contractor Engagement Procurement in a University Rebuild

Alex Hanlon

University of Canterbury

Alex is the Director of Learning Resources at the University of Canterbury where she holds responsibility for construction and property; information technology and the University libraries. Charged with leading the re-energising of learning spaces and digital learning delivery, Alex is in the middle of rebuilding the University as it recovers from the 2010 and 2011 earthquakes.

Her career has spanned a variety of roles in the higher education, public and private sectors.

She has drafted legislation, coordinated political campaigns, managed financial reform, developed and delivered shared corporate services in Universities, designed and implemented business marketing and communication strategies for new businesses, delivered master plans, worked as a business coach and political lobbyist, delivered business improvement initiatives in the public and private sector, designed software products, managed large scale field logistics for an American Presidential primary, advised a Minister and moderated a United Nations Youth Conference.

The University of Canterbury is location in Christchurch a town of 360,000 people in the middle of the Canterbury plains on the South Island of the Aotera, New Zealand.

In 2010 the University had finalised a Campus Master Plan, an Asset Management Plan and approved a \$50m refurbishment for its internationally recognised Engineering College.

And then everything was literally turned on its head.

On 4 September 2010 at 4:30am in the morning a 7.1 magnitude earthquake struck the South Island of New Zealand, just outside the town of Darfield. Darfield is located to the south west of the city of Christchurch. By the time the tremors reached the University they had reduced in size and created only moderate to low damage to the University.

A further earthquake hit Christchurch on 23rd February at 12:34pm. It was the second day of Week One in the University calendar. This earthquake was closer to the surface and closer to the University. It created much more damage. The first insurers forecast for the earthquake was \$40m. Three years later the University settled for \$550million.

Prior to the earthquakes \$50m of capital funding had been allocated to modernise the engineering buildings. This funding was diverted in the immediate aftermath of the earthquake to repair and strengthening damaged buildings. Once the University had completed its initial business planning the Engineering project was re-prioritised and green lit in October 2013.

Early contractor engagement (ECI)

ECI procurement brings the Contractor and / or other key sub-contractors into the Consultant Team during the early design and planning stages to add buildability expertise into the design. ECI Contracts attempt to reduce the cost and duration of a project by drawing upon a Contractor's and/or sub-contractors specialist knowledge of construction processes early in the design process.

Forecast benefits of ECI for the CETF Project

Insurer approval of builder

This project initiated while the UC insurance claim was still under negotiation. The brownfields site which was the subject of the refurbishment had sustained a wide range of earthquake damage and in order to ensure that there was minimal insurer resistance to proceeding with project works.

Subcontractor market

One particular issue which will impact upon the University project is the labour and resource shortage at the sub-contract level. In 2012 MBIE research identified that 43.8% of firms that tried to recruit experienced difficulty. MBIE forecasts that the Canterbury rebuild and other significant construction project will drive NZ employment growth over the next five years .

Market familiarity with delivery methods (contractors need to understand what is proposed)

The local contracting market has historically lacked sophistication so traditional delivery methods have been the norm. While there is an increasing level of sophistication and understanding of the varying procurement methods available, particularly among primary or first tier contractors, that level of sophistication does not exist to the same extent at the sub-contractor (second tier) level.

Contractor's appetite for risk/aggressive contracts

In the past owners may have been prepared to pay a premium in order to achieve cost certainty. This requires contractors who are prepared take on risk. This is easy for owners to achieve in a competitive market however in a rebuild market, sub-contractors can afford to be more selective of the work and risk they take on. Pricing the risk can often be arbitrary and put significant stress on a contractor who gets it wrong. It can also put stress on the owner—if the contractor is not making money the project invariably runs into to problems.

Sub-Contractor Insolvency

Contractor and sub-contractor insolvency is an on-going concern when work levels fluctuate and the forward pipeline of large projects is uncertain, as is the case in the Christchurch context. Earlier in 2013 the construction company Mainzeal collapsed owing approximately \$70M to sub-contractors around NZ.

How UC did ECI for CETF

UC selected and appointed a primary contractor when design documentation for the first of five separate buildings was at 40% design completion. Using a pre-agreement contract the builder was involved in a complex negotiation that resulted in an early start to the project.

How successful were we?

Current status of project and short discussion of key points:

- Insurer funded works
- Budget complexity and control – what gain share?
- Securing quality sub-contractor resource
- Market maturity with method
- Builder appetite for risk

- Mitigation measures can you take when your contractor is overly optimistic about their own ability to deliver.