



# Climate Safe Housing Action on Adaptation

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# Context: Increased frequency and intensity of adverse events

We need to adapt now

Flooding in Waitati:

- 2006
- 2015
- 2017
- 2018...



# 8 Killarney Street, Waitati

- A strange request
- City wide problems
- Cushla's story
- Stakeholder workshop 2016





# Getting started

- Otago Polytechnic design students 2016 & 2017
- Community exhibition and feedback on design
- Evaluation of community perspectives
- 'Our City, Our Climate' workshops 2018 (DSSC)
- Search for resourcing
- Formance (sponsor) and \$14,000 DCC grant for project management

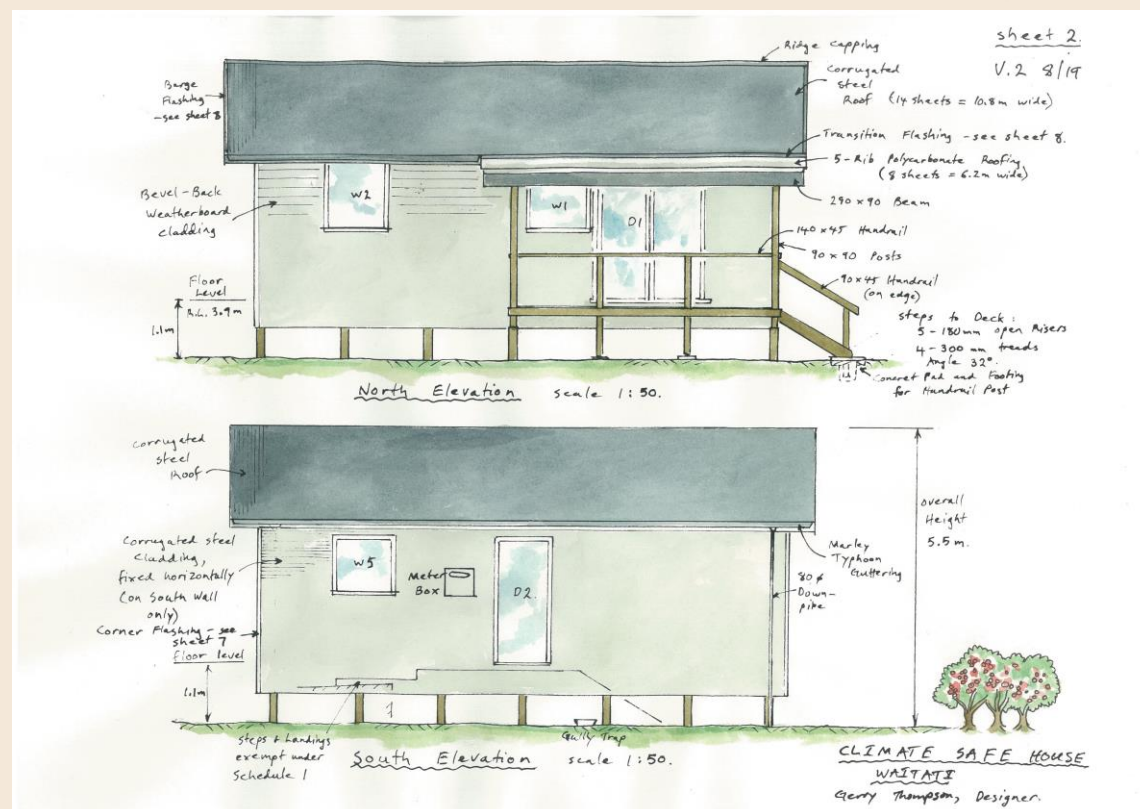


# A Pathway Project

**June 2019:** Agreement signed with Otago Polytechnic to build climate safe house at the Home & Living Show in November

**October 2019:** Over 40 sponsors secured to provide materials and services. \$200,000 + + +

Construction underway  
\$28,000 still needed.





# Lessons from our experience so far

1. Technical/Design
2. The social and legal elements
3. Financing and insurance
4. Compliance



# 1. Technical/Design

Design Brief: Small, transportable, energy efficient, low carbon, modular, simple

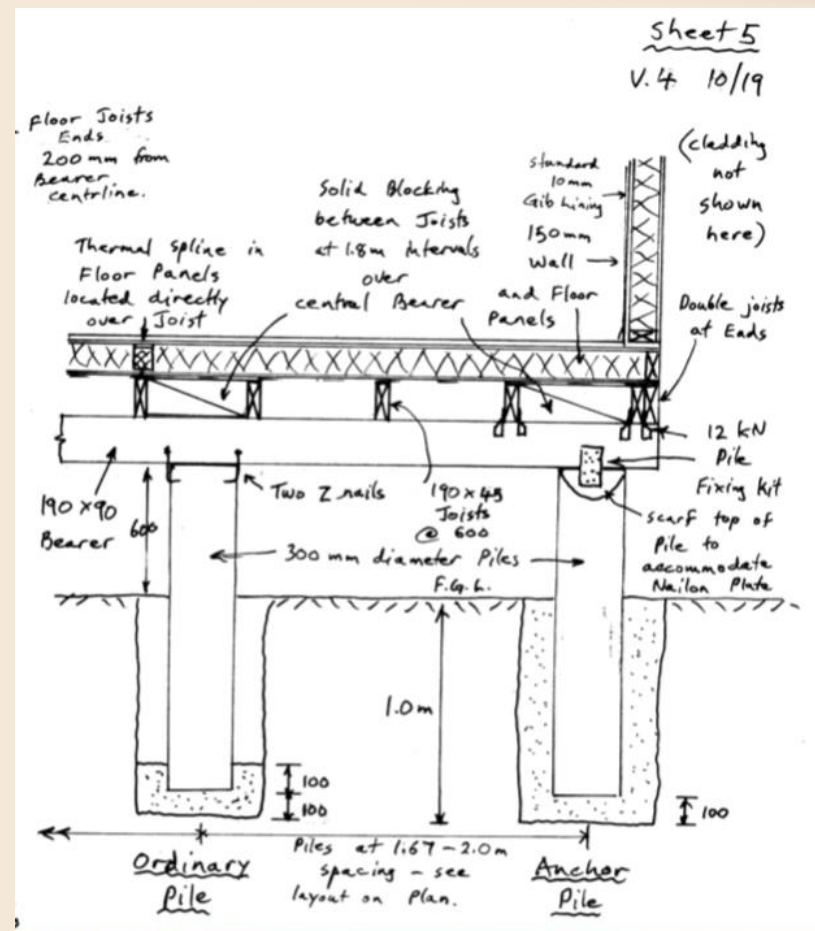
Eclectic Home Design (60m<sup>2</sup>)

SIPS (Formance Ready system)

Carbon assessment

Energy system and smart grid

**Lessons:** builder-designer combo;  
small and simple is better; life-cycle carbon in buildings;  
adaptability



## 2. The social and legal elements

Template for legal framework

- Lease
- Deed of residence

The human factor

- Real people's lives, hopes and fears
- Community development approach





### 3. Financing and insurance

A Pathway Project

Insurance still hasn't turned up

Finance still not thinking about  
our new environment – that we  
know about...



## 4. Compliance

- Constrained by the code
- Significant detail required
- New technologies not in code

Lessons: Overhaul of the code;  
Prefabricated components;  
pattern books for standardised  
planning





# Clearing the site





# Piles





# Installing services

- Fixing a shitty situation
- Better environmental management
- Preparing connection to local smart grid
- Ready now for the climate safe house!



# Panel pre-assembly



- Formance Ready design
- Pre-assembled this week
- Construction Management: Naylor Love
- Sub-floor by Otago Polytechnic
- Assembly begins on 29<sup>th</sup> October
- Home & Living Show 2<sup>nd</sup> – 3<sup>rd</sup> November – open to public
- Delivered to Waitati **4<sup>th</sup> Nov.**



# Climate safe house: a pathway to...

- Urban renewal
- Affordable adaptable quality housing
- Shelter for the vulnerable.

## The Pathway Project

<https://www.pledgeme.co.nz/projects/6305-nz-s-first-climate-safe-house>

**Transportable eco-homes : accommodation for the Dunedin hospital build : redistributed for social housing.**

# Links

Background to the project

<https://www.youtube.com/watch?v=YkXHhSM8XNs&t=13s>

Our PledgeMe campaign for final funding

<https://www.pledgeme.co.nz/projects/6305-nz-s-first-climate-safe-house>

# Climate justice through climate safe housing

