Planning to Stay:
Temporary Housing Solutions after the Earthquake
Current capacity challenges for housing in Wellington City

- As of May 2019, deficit of 3,800 houses...
- It's estimated Wellington's population could grow by up to 80,000 people by 2043, meaning the city would need 30,000 new homes...
- Similar challenges across the entire region...
Existing structural challenges of housing in Wellington City

Percentage of homes with structure issues- *Estimates*

- 25% with boer in foundations
- 35% with boer in roofs
- 25% of sites had retaining walls that ‘could create issues for the houses in an earthquake’.
- 86% of houses have foundation issues rated as ‘needing attention in the next two years’
Estimate Costs of Renovation

- $8,000
- $14,000
- $5,000
- $35,000
- $10,000
- $10,000

$ ??????
Estimates of Lifeline Restoration Times after Hikurangi Earthquake and Tsunami (70% accurate)

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<th>WELLINGTON CITY</th>
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<th>MEDIUM</th>
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**Key:***
- MINIMAL
- USABLE
- RESTORED

PROJECTIONS UNAVAILABLE AT THIS TIME
If we want a positive economic recovery, first we have to enable safe shelter.
Planning to Stay:
Temporary Housing Solutions after the Earthquake

Understand the constraints and opportunities for providing housing after a large earthquake and keeping people as close to home as possible.
• Emergency and transitional shelter options,

• Temporary housing options,

• Live-in-place and repair options,

• Alternative uses for existing open spaces,

• Potential finance assistance models for housing resilience and recovery.
How might we safely enable people to reside in their damaged home?

• Permitting temporary repairs?
• Requirements?
  - Sanitation in apartments
  - Import building supplies
If people can’t stay in their home, how might we safely enable them to reside on their property?

- Living on the driveway or backyard?
- Adjust District Plan policy to permit new activities?
7 months after Hurricane Harvey
If people can’t stay on their property, how might we safely enable them to reside on a residential street?

- Blocked off street or one-way access?
- Requirements?
- Bylaws?
1906 San Francisco
If people can’t stay in their street, how might we safely enable people to reside in their suburb?

- Rethink what is allowed in public & green spaces?
- LGA and Reserve Mgt Plans under the 1977 Reserves Act allow for communal purposes following a disaster
If people can’t stay in their suburb, how might we enable them to reside in their city?

- How might we repurpose open spaces within the city?
Breakdown of spaces by dwelling selection colour

41608 m²
562 dwellings

38295 m²
517 dwellings

5147.5 m²
69 dwellings

29519 m²
308 dwellings

18075.4 m²
244 dwellings

50934.8 m²
688 dwellings

12144 m²
164 dwellings

14648 m²
197 dwellings

30086.7 m²
406 dwellings

21197 m²
286 dwellings

19488 m²
263 dwellings

23611 m²
319 dwellings

7161.7 m²
82 dwellings

19955.4 m²
220 dwellings

40331.2 m²
393 dwellings
These areas are all within the Te Aro neighbourhood and are more densely populated with residents. It would be important to set up smaller food stalls and retail for everyday necessities. This should happen within 50 m of the new residential spaces. Ideally schooling would be set up near the outer perimeters of these areas because parents would want to keep their children out of the more physically dangerous CBD.
2009 L'Aquila earthquake
What can we do now to enable people to make their homes more resilient?
Home Foundation Kits – Timber & Concrete

**Timber Pile Securing Kits** = Retail $500
Negotiated to $259

**Concrete Pile Securing Kits** = Retail $600
Negotiated to $359

Provide grants to drop the price further?
- $59 timber and $99 concrete

Work with installers to do a whole package?
- $3000?

Put this on rates to spread the payment over a period of time?
Complete Household Resilience Package

PREPAREDNESS ENABLERS -

• Home Foundation Kit – $259 ($500)
• Water Tank – $110 ($180)
• Grab&Go Emergency Kit – $75 ($130)
• Emergency Toilet – $60 ($110)

Cost to homeowners - $500
(Total retail value – $920)

TOTAL RESILIENCE PACKAGE

Installation
Strike a deal with installers for $3000 and councils split the total with households for a total cost of $1750.

Allow people spread it over their rates for two years for a total of $72 a month.
What is the return on this $200 or $1750 investment for local or central government if it can avoid displacing people and maintain some continuity post-EQ?
Questions, comments, concerns & philosophical rebuttals welcomed.

Thank you

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