

Masonry buildings

Jason Ingham, with credit to many others

Field testing opportunities...

- NZ has one of the least restrictive legal frameworks for liability, ACC etc worldwide
- Field testing opportunities routinely get overlooked, not pursued
- Jason's past experience has been that demo companies are prepared to at least listen to your request



Building demo about to kick-off,
100m from Jason's office on UOA campus



Past LIPM field testing



Birdcage



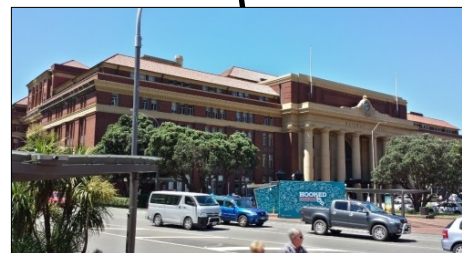
Wintec Block F



Weir House



Fort Jervois



Wellington Railway Station



Mechanics Garage



Allen's Complex



ACC Office



Avon House



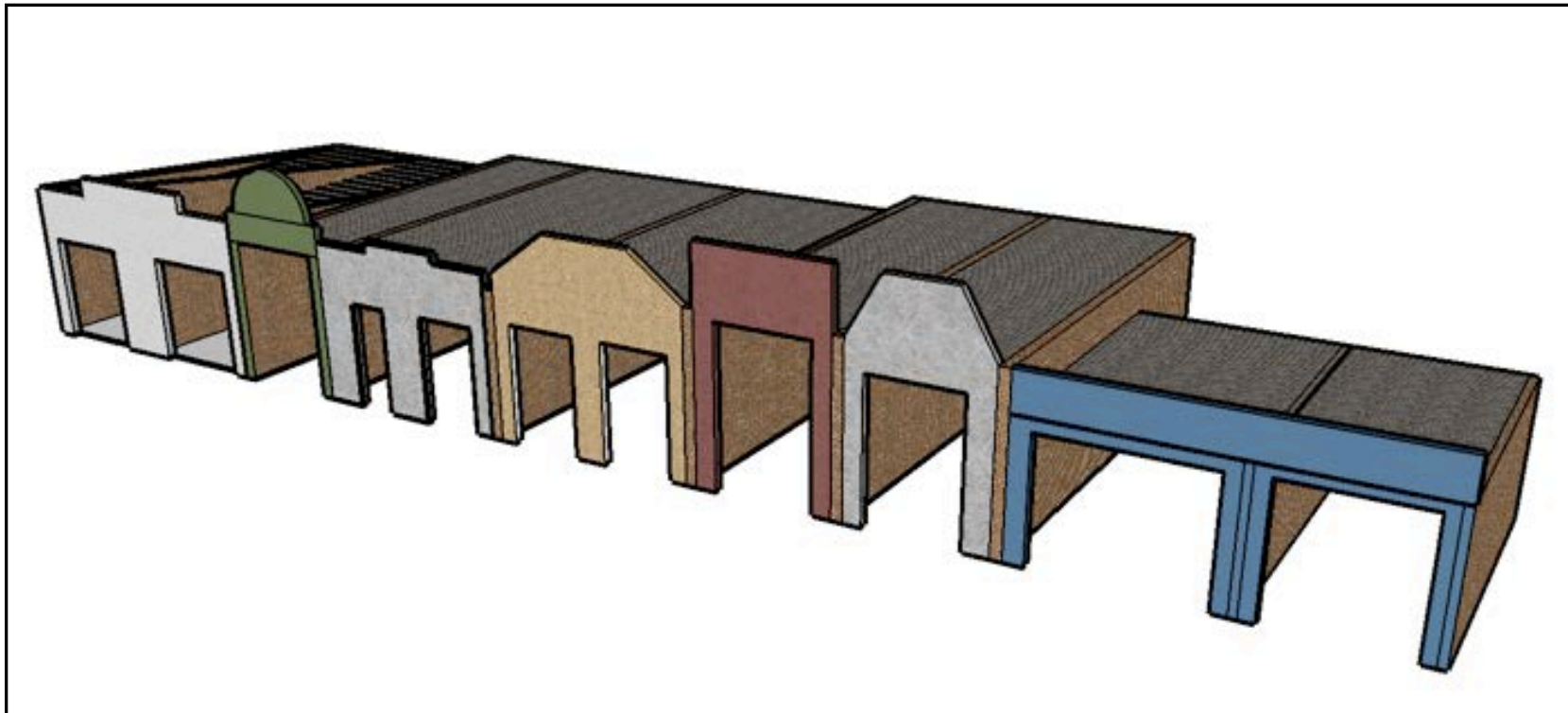
World-first testing

- Real materials, real deterioration, real stiffness and strengths
- Calibration/validation of numerical models



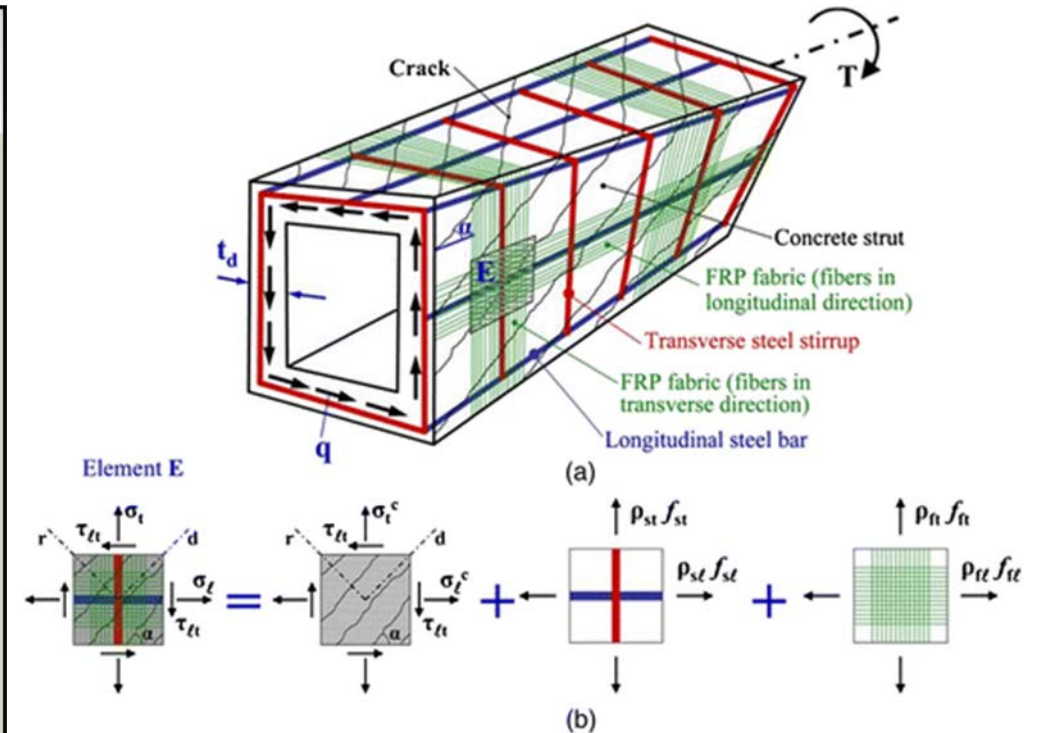
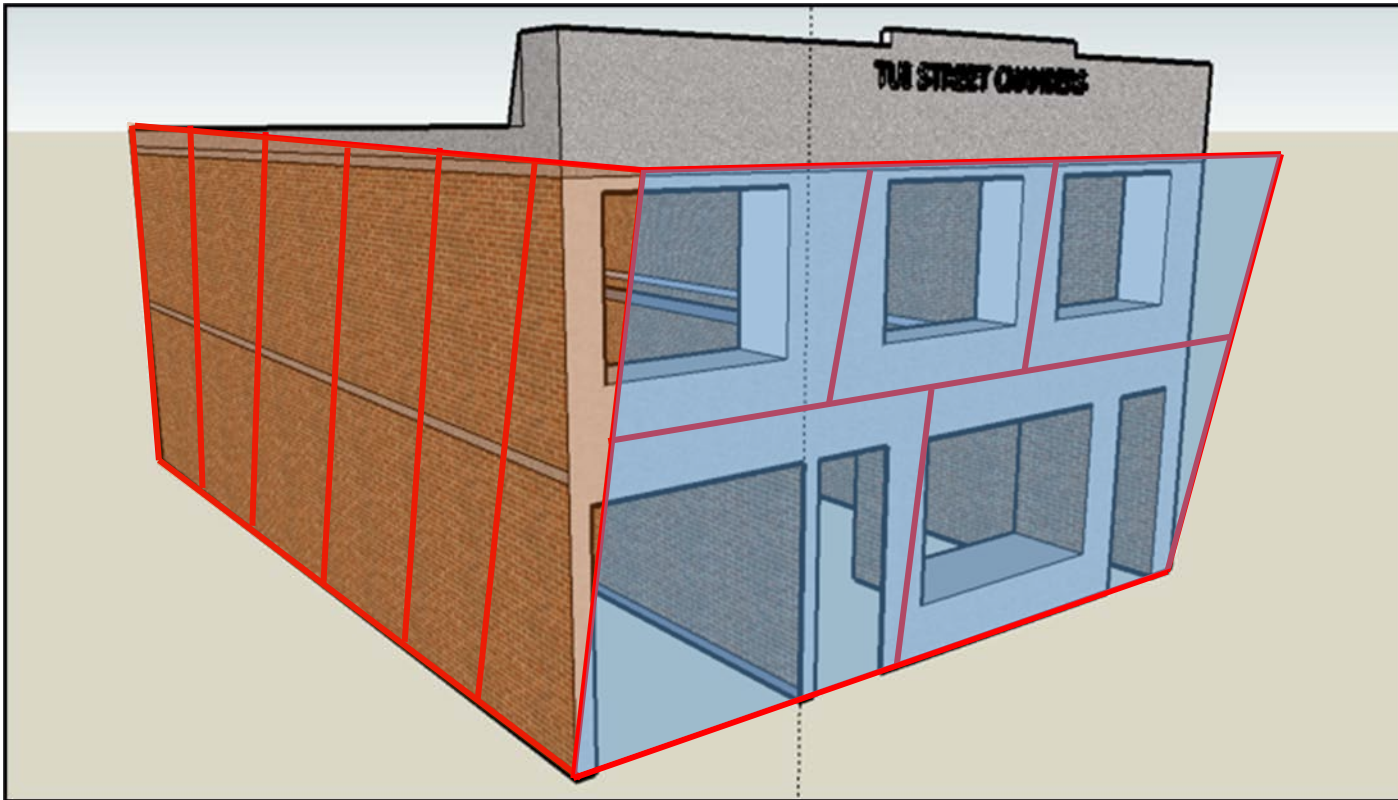
Mainstreet small town NZ

- URM buildings characterized by having little or no front walls
- Current C8 methodology is to sub-structure. So in-plane %NBS score usually dictated by street-front façade



Need to consider 3D problem

- Flexure/torsional rigidity of a hollow URM box?
- System-level response – a new analysis methodology?



The laundry list that Rick did not want to see

- 1850-1930 URM
 - More work on cavity walls
 - Effect of concrete ring beams
 - Experimental verification of macroblock failure mechanisms
- 1930-1960 Concrete frame with masonry infill (CFWMI)
 - A significant amount of work done in Europe, but they have different typology
 - Growing number of enquiries coming from industry regarding C7
- 1950-1970 Early RCM
 - Unfilled
 - Lightly reinforced

} Some sort of hybrid between URM and code-compliant RCM

Thank you!

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