

**WHERE ARE OUR URM BUILDINGS AND WHAT LEVEL OF SHAKING IS
LIKELY TO INITIATE DAMAGE?**

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ABSTRACT: The observed performance of unreinforced masonry (URM) buildings in the Canterbury earthquakes taught us very little that was new, but instead brought to the attention of a new generation of both professionals and the general public the lessons that have been learned previously – that URM buildings are badly damaged in large earthquakes. However, these events have led to some very simple questions being asked, such as:

- How many URM buildings do we have in NZ?
- Where are they located?
- How big does an earthquake have to be before we see damage to URM buildings?
- Will these buildings survive a 500 year design level event if located in a low seismic zone?
- What is the most effective, affordable way to increase their strength?

This presentation will attempt to tackle these questions, reporting on recent findings from projects funded by the Natural Hazards Research Platform, BRANZ Research Levy and EQC and undertaken in collaboration with Auckland Council, GNS, the University of Canterbury and the Historic Places Trust.