## DID EQC FIX YOUR HOME?

# WAS YOUR HOME BUILT BEFORE 1970?

YOU MAY HAVE A BIG PROBLEM
WITH YOUR FOUNDATIONS



A rubble foundation is made from three main products; rubble, cement and plaster. When constructing pre-1970 Canterbury foundations builders used material like old bricks, quarry rocks, and stone. Placed inside boxing. This is rubble.

Cement was used to hold the rubble together. However, the cement used pre-1970 was not the same quality that is used today. Best to think of pre-1970 cement as a low grade and inconsistent product.

A plaster finish was applied to the exterior foundation. This made the foundation look nice. The plaster also permeated the rubble. So the plaster added strength to the overall foundation. A bit like an egg shell.

Due to the way a rubble foundation is constructed it is considered to be low tensile (perhaps even no tensile) –it doesn't bend that much (or not at all) – no good in earthquakes.

### This may effect an estimated 65% of Canterbury homes

Canterbury appears to have a higher percentage of homes with rubble foundations compared to other New Zealand cities/towns. This is understood to have come about because Canterbury did not cease approving rubble foundations in new builds until around 1968.

<sup>1</sup> Rubble foundations are no longer an approved building method in New Zealand.

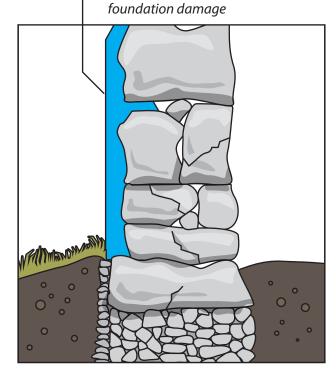


#### THE EARTHQUAKE EFFECT

#### Know the true extent of damage

When an earthquake happens the bricks, quarry rocks, and stones inside the rubble foundation can spall – break into chips, fragments, or become powder like. Spalling weakens the foundation. Plaster can experience breaking and cracking. It can delaminate – separate from the foundation. More often than not the only sign of damage, from the outside of the foundation, is the damage done to the plaster finish. This is likely not telling of the true extent of the earthquake damage.

Earthquake damage, to a rubble foundation, is most often going to need to be identified from thorough and rigorous underfloor inspections. Inspections made by people who are well trained, who know what to look for, who have access to, and know how to use, the right equipment.



Plaster finish may hide serious

Example of a pre-70's plaster finish rubble foundation

#### DAMAGED FOUNDATIONS REDUCE HOME LIFESPAN

#### Reduced lifespan of your home may reduce its resale value

A home with a pre-1970's rubble foundation, that "rides" a significant earthquake, may no longer have the strength to do its job. What owners might experience is floors that sag, drop, bow and more. It is equally possible a home will degrade more quickly than one that did not endure an earthquake.

It is possible pre-1970's homes, over time, will be worth less than other homes. Especially as buyers learn about the issues with this type of home. It is understood there is an added risk that private insurers will presume that future earthquake damage was pre-existing.

#### WHAT CAN I DO?

#### Visit the website www.EQCfix.nz for the following information:

- 1. The EQC approach to assessment and repair
- 2. Can rubble foundation be repaired to meet the standard of the Earthquake Commission Act 1993?
- 3. Worried about your repair? We want to help. We explain options for you to consider.



