

Q&A: Earthquake-prone Buildings

What is an earthquake-prone building?

A new national system for managing earthquake-prone buildings came into effect on 1 July 2017.

In practice, an earthquake-prone building is often referred to as one that meets less than 34 per cent of the new building standard. Essentially, an earthquake-prone building is more likely to sustain damage in the event of a moderate earthquake.

Legislation classifies an earthquake-prone building as: *“A building, or part of a building, is earthquake prone if it will have its ultimate capacity exceeded in a moderate earthquake, and if it were to collapse, would do so in a way that is likely to cause injury or death to persons in or near the building or on any other property, or damage to any other property.”*

The legislation also classifies a moderate earthquake as: *“one that would generate shaking at the site of the building that is of the same duration as, but that is one-third as strong as, the earthquake shaking that would be used to design a new building at that site if it were designed on the date of the commencement of the new legislation.”*

How does this impact me?

Masterton District Council’s priority is on ensuring members of the public have factual information about buildings that are open to the public. We do this by placing notices on buildings that have been identified as earthquake-prone. It is important you are aware that means these buildings are more likely to sustain damage in a moderate earthquake.

Am I unsafe if I enter a building classified as earthquake prone?

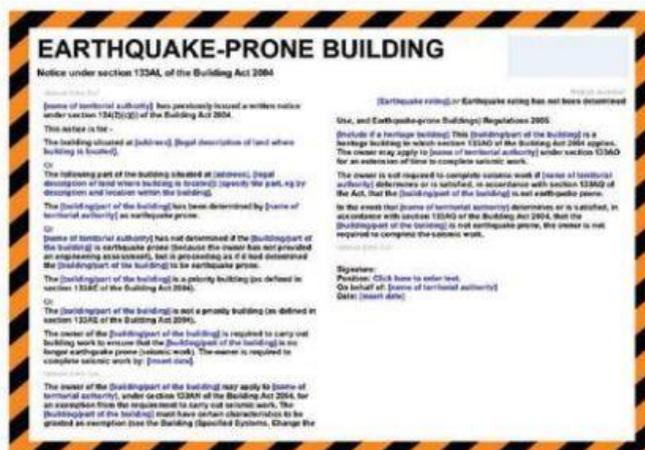
If a building has been classified as earthquake-prone it will have a public notice clearly placed at the entrance. It means the building is more likely to sustain damage in a moderate earthquake and, as a result, there would be a higher risk to public safety during a moderate earthquake.

It is important to note that the buildings themselves have not changed – they are still the same buildings that have been standing 10 or 20 years ago.

What has changed is the legislation used to identify any buildings that need improvements and the way we notify members of the public. Ultimately, it is up to members of the public to decide whether to continue using buildings that are classified as earthquake-prone.

How will I know which buildings are earthquake prone?

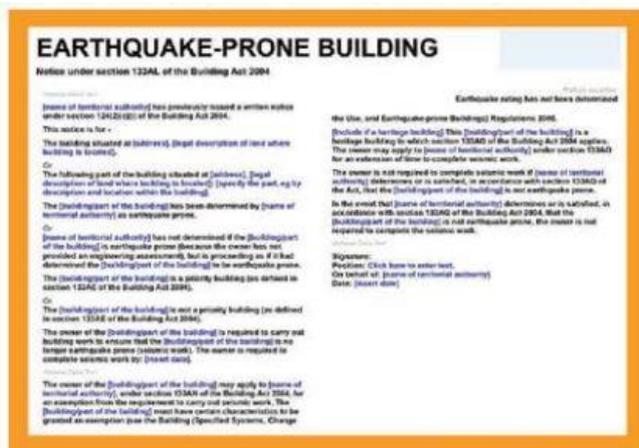
Masterton District Council will be placing public notices at the entrances of any buildings that are classified as earthquake-prone, or, that we haven't yet received information for. Examples of these are below.



(left) EPB notice, orange and black border. Earthquake rating 0% to less than 20% or where no engineering assessment is provided. If the building has an earthquake rating of less than 20% the risk of failure under seismic load is approximately more than 25 times the risk of failure for buildings that are 100%NBS.



(left) EPB notice, black and white border. Earthquake rating 20% to less than 34%. The risk of failure under seismic load is approximately 10-25 times the risk of failure for buildings that are 100%NBS.



(left) EPB notice, orange border. Buildings given a section 124 notice before 1 July 2017 where the earthquake rating is not known.



(left) Exemption notice. Buildings or parts assessed as earthquake prone but owners exempted from carrying out seismic work. Exemption notices must be attached in a prominent place on or adjacent to the building.

More information on the different earthquake-prone status is available at: <https://www.building.govt.nz/assets/Uploads/managing-buildings/earthquake-prone-buildings/epb-notices.pdf>

Earthquake-prone buildings are also added to a public register available online at <https://epbr.building.govt.nz/>.

It's important to note that in some instances we haven't received information determining the earthquake status of buildings. These buildings will also have notices placed at the entrances stating an engineering assessment hasn't been received. In this case the buildings are automatically classified as earthquake-prone.

Why is it that these buildings are only now being classified as earthquake prone? They've been around for decades.

National legislation came into effect on 1 July 2017 that changed the way earthquake-prone buildings are identified and dealt with. It sets out a specific methodology for territorial authorities, such as Masterton District Council, to identify buildings.

A result of the new legislation is that more buildings may be considered earthquake prone. It's important to note that nothing has changed with the buildings themselves – they are still the same buildings that have been there for decades. However, the legislation has changed meaning the earthquake risk status of some buildings may have changed.

I'm the owner of an earthquake-prone building, should I close it to the public?

As a building owner, you will have been contacted by Masterton District Council as the building has been identified as potentially earthquake prone. It was then your responsibility to carry out an engineering assessment of the building to determine its earthquake risk status. This assessment will have given you valuable information as to how the building is likely to perform in a moderate earthquake.

If the assessment identified your building as earthquake-prone (less than 34 per cent of the new building standard) it is more likely to sustain damage in a moderate earthquake.

Whether the building is closed to the public is up to building owners themselves. However, it is important members of the public or those using the building are aware of the building's status.

What is going to happen to the buildings?

Building owners are given certain time periods in which to carry out strengthening work on buildings to improve their integrity during an earthquake. For some buildings the period of time set is 7.5 years. For other buildings, owners have 15 years in which to carry out the strengthening work.

If we haven't yet received reports these buildings are automatically classified as earthquake-prone. Building owners are required to either carry out assessments to confirm they are not earthquake-prone, or carrying out work to bring them up to building standards.