

POLICY: **SEISMIC STRENGTHENING POLICY FOR COUNCIL-OWNED BUILDINGS**

GROUP RESPONSIBLE: Services and Assets

DATE APPROVED: 31 January 2007

DATE AMENDED:

FILE NO: 140/20/1/5, 300/40/4/1, 340/15

POLICY DETAIL:

SCOPE

This policy applies to all Council buildings except residential buildings.

OBJECTIVES

The objectives of this policy are to ensure that:

- Public and staff safety are supported by agreed levels of earthquake capacity in buildings.
- Funding is strategically focused to address safety issues.
- Council buildings are managed in a sustainable way and unsustainable buildings are disposed of or demolished.

BACKGROUND

Modern buildings in New Zealand are required to be designed to withstand shaking arising from a 1 in 500 year earthquake. In Southland such an earthquake on the southern alpine fault is estimated to result in shaking of between MM 6 (knocking objects off shelves) in Tokanui and MM9 (collapse of poorly constructed buildings and serious damage to others) in Milford Sound. The largest earthquake in Southland in recorded history has only been about 1/30th as large as the design earthquake.

On 1 July 2006 Council's Earthquake Prone Building Policy 2006 came into effect. This defines an earthquake prone building as one having less than 34% of the strength required by the Building Code and requires all such buildings to be strengthened to at least 34% capacity or demolished. Although the policy is actively enforced only where a building owner applies for a change of use or where a building is suspected to be dangerous, Council needs to demonstrate leadership by adopting appropriate standards for Council-owned public buildings. This is particularly applicable for buildings that are required to have post-disaster functions such as emergency shelters and emergency operation centres.

POLICY

Council will:

1. By 2010 establish a database of known and potentially earthquake-prone buildings as part of its overall review of all Council buildings, giving consideration to building form, construction type, age and likely seismic performance.
2. By 2012 carry out an Initial Evaluation Procedure (IEP) in accordance with the document *“Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes”* published by the New Zealand Society for Earthquake Engineers (NZSEE) for all buildings listed as being potentially earthquake prone.
3. Advise affected Community Boards, Community Development Area Committees and other affected parties of the results of the building review and IEP assessments.
4. As part of the IEP, categorise building importance at levels 1 - 4 in accordance with the definitions given in NZS 1170.0: *Structural Design Actions - General Principles* AND require Council buildings to have at least the following seismic capacities within the timeframes below:

Importance Level	Description	Minimum Strength	Maximum Years to strengthen
1	Minor structures for which failure is not likely to endanger human life	34%	30
2	Normal structures	34%	25
3	Major structures affecting crowds > 300 people	67%	20
4	Structures having post-disaster functions	67%	15

Table 1: Minimum strengths and maximum times to strengthen

5. If not already complete at the time, require an IEP to be undertaken by project sponsors for all Council buildings for which significant refurbishment or upgrading is planned AND require strengthening at least to the above standards as part of any refurbishment or upgrading project.
6. For all buildings not complying with the above minimum capacities based on the IEP analysis, consider and address at the same time the impact of all other hazards, business continuity considerations, strategic importance to communities and building sustainability.
7. Consult with affected communities as to their preferred solutions for at-risk buildings.
8. By 2017 complete detailed assessments and strengthening designs for those buildings which have inadequate seismic strength but are considered to be sustainable.
9. By 2017 make provision in the 2018 LTCCP to implement agreed seismic and other hazard mitigation measures and require strengthening within the timeframes above.

10. Place a notice on a building preventing occupation where agreement can not be reached as to remedial works.
11. Require buildings which have inadequate strengths in terms of the policy to be disposed of or demolished if viable funding mechanisms can not be arranged.
12. Require an IEP to be carried out before purchasing any existing building for Council purposes to ensure that its capacity in terms of Table 1 is appropriate for use to which it is being put.
13. Require an IEP demonstrating an appropriate seismic capacity in terms of Table 1 before agreeing to any long-term lease exceeding five years for a building that will be used to deliver Council functions.
14. Acknowledge that the requirements of this policy are more proactive than those of the Earthquake Prone Building Policy 2006 but nevertheless apply them to its own building stock.