

8 March 2013

Ministry of Business, Innovation & Employment
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New Zealand
email: epbreview@dbh.govt.nz

Re: Building Seismic Performance consultation document

This submission is from the Architectural Centre, an incorporated society dating from 1946, which represents both professionals and non-professionals interested in the promotion of good design.

Our answers to the following questions are as follows:

1: Should local authorities be required to assess the seismic capacity of all buildings covered by the earthquake-prone building system in their areas, and to issue seismic capacity ratings to owners?

Yes. In addition we do not believe there is a need for a new rating system, and that the IEP is adequate as an initial filter.

2: Do you think five years is a reasonable and practical time to require local authorities to carry out assessments in their districts?

The time period needs to be set relative to the size of the district. To meet a five year deadline local authorities will likely need additional support. We recommend 10 years for districts the size of Wellington.

3. Should unreinforced masonry buildings be assessed faster than other buildings?

Yes URM buildings and other high risk buildings should be assessed faster.

4. What costs and other implications do you see with these proposals to assess the seismic capacity of buildings?

The insufficient number of engineers to complete such a large number of assessments. A better identification of seismic risk would assist in the identification of buildings that are genuinely at risk.

5. Do you agree that local authorities should be required to enter information on the seismic capacity of buildings into a publicly accessible, central register to be managed by MBIE?

Yes, but the building owner must have a reasonable time to provide a more detailed assessment which might challenge the earthquake-prone status. We recommend a year for this to ensure that information entered into a publicly accessible, central register are final assessments as agreed by owners and local authorities.

6. Should information other than a building's seismic capacity rating be entered into the register for example, agreed strengthening actions or information from an agreed building ratings system?



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Yes, but processes to inform owners and enable them sufficient time to contest information proposed to be entered into any register, as well as efficient mechanisms to correct errors, will be needed.

7. Rather than a central register, should local authorities be responsible for both collecting and publishing this information?

We do not have a strong opinion regarding this.

8. Should there be any other information disclosure requirements for example, should building owners be legally required to display information on the building itself about the building's seismic capacity?

This appears to be a sensible proposal. This could be part of the current building warrant of fitness system. Priority should be given to public buildings, especially those with high occupancy. We would especially support a positive rating system. Prior to any requirement owners will need sufficient time to investigate and possibility contest information required to be displayed.

9. What costs and other implications do you see resulting from the proposal to put seismic capacity information in a register?

Maintaining a register should not be significantly expensive. There may be initial setup costs. Costs required to finalise a building's earthquake-prone status will need to occur regardless.

10. Does the current earthquake-prone building threshold (33 per cent of the requirement for new buildings) strike a reasonable balance between protecting people from harm and the costs of upgrading or removing the estimated 15,000-25,000 buildings likely to be below this line?

No. A mechanism needs to be developed to move the minimum to 67%. Possibilities might include:

- (a) buildings less than 34% must be strengthened to 67% or as near as practically possible (with discretion given to the local authority).
- (b) buildings of higher importance levels should be strengthened to 67% or change their use.
- (c) buildings which are likely to compromise neighbouring buildings in an earthquake should be strengthened to 67% or as near as practically possible (with discretion given to the local authority).
- (d) buildings of 34%-67% having restricted uses (e.g. low occupancy, or infrequent occupancy).

11. Should the requirement for earthquake-prone buildings to be strengthened or demolished take precedence over all other legal, regulatory and planning requirements, such as those designed to protect buildings of heritage or local character?

Yes and No.

Yes heritage buildings should be strengthened.

No due to the complexity of the issue in terms of private cost and public good. The cost of strengthening heritage buildings does not make economic sense for a private building owner because the economic benefit accrues to local and central government. A larger public debate is needed and time taken to properly understand the issues and prevent rash decision-making which is regretted in the long term.

12. Should local authorities have the power to require higher levels of strengthening than the earthquake-prone building threshold, or strengthening within shorter timeframes than the legally defined period?

No. The regulations should be set to an appropriate level and be consistent.

13. Should certain features of unreinforced masonry buildings, such as chimneys and parapets, be required to be strengthened to a higher level?

Yes.

14. Is it reasonable and practical for owners of earthquake-prone buildings to meet the following timeframes:

- (a) 12 months to submit plans for either strengthening or demolishing the building?**
- (b) 10 years from the date of the seismic capacity rating to strengthen or demolish?**

- (a) we suggest 24 months as 12 months would be very difficult to achieve
- (b) we suggest 12 years

We also suggest that whatever timeframes are established that the plausibility of these is monitored to take into account the increasing needs of Christchurch with respect to builders, architects, engineers and other building professionals which may make it difficult for other regions to resource these timeframes.

15. What additional powers would local authorities require to enforce the proposed requirements?

Legislative changes to support local authorities needing to enforce timeframes.

16. Should local authorities be able to require faster action on buildings of strategic importance, such as those:

- (a) located on transport routes identified as critical in an emergency**
- (b) with important public, social and economic functions, such as schools and police stations**
- (c) with post-earthquake recovery functions, such as civil defence centres and hospitals.**

Yes, though many of these building may be large and/or complex and so it may not be practical to achieve significantly faster action.

17. Should all unreinforced masonry buildings require strengthening more quickly than other earthquake-prone buildings?

URM buildings, non-ductile buildings or buildings with critical structural weaknesses or life hazards should be required to be strengthened more quickly. Other construction types with high levels of occupancy might also represent a similar level of risk and so should similarly be identified for priority strengthening.

18. Should the owners of certain specified types of earthquake-prone buildings be able to apply to local authorities for exemptions or time extensions to the requirement to strengthen or demolish?

The process should reflect the level of risk, which is a result of several factors, including: building structure, isolation from other buildings, and occupancy levels. It seems reasonable that low occupancy buildings could qualify for exemptions or time extensions.

19. If yes, what are your views on the following possible criteria:

- (a) the building is used only by the owner, or by persons directly employed by the owner, on an occasional or infrequent basis**
- (b) the building is used only occasionally (less than eight hours per week), and**

by less than 50 people at any one time
AND in each circumstance above:
(c) all users are notified that the building is likely to collapse in a moderate earthquake
(d) the building is not a dwelling
(e) the building is not a school or hospital and does not have a post-disaster recovery function
(f) there is no risk of the building partially or fully collapsing onto a public walkway, transport route or a neighbouring building or public amenity
(g) effective mitigation measures have been put in place to protect building users from the risk of collapse in a moderate earthquake?

We consider that these appear reasonable criteria.

20. Are the advice, information and education activities proposed for central and local government agencies sufficient to help ensure effective implementation of the new earthquake-prone building system?

We believe that more detail is needed to answer this question. The proposed "standard methodology" for local authority assessments will be critical.

21. Are current requirements to upgrade buildings to "as nearly as reasonably practicable" to Building Code fire and disabled access requirements a disincentive or barrier to owners planning to earthquake-strengthen existing buildings?

Yes. They are currently a disincentive and barrier.

22. Should local authorities be able to grant building consents for earthquake strengthening without triggering the requirement to upgrade the building towards Building Code fire escape and disabled access and facilities requirements?

Yes, as long as the strengthening does not make fire and accessibility conditions worse.

23. Should any change apply to both fire escape and disabled access and facilities requirements, or to disabled access and facilities requirements only, i.e., retain the current fire escape upgrade requirements?

If local authorities are not able to grant building consents for earthquake strengthening without triggering the fire and accessibility requirements, further clarification regarding the interpretation of "as nearly as reasonably practicable" is needed to encourage earthquake strengthening and to ensure consistency of interpretation, and to consider the relative importance of requirements to specific building types and uses.

24. What would be the costs and other implications of delinking earthquake strengthening from current Building Code fire and disabled access requirements?

We are not sure of other implications.

25. When considering listing heritage buildings on district plans, what factors should local authorities consider when balancing heritage values with safety concerns?

Heritage value is distinct from seismic safety issues and are not relevant to listing. There is however a need to provide better mechanisms to ensure the funding of heritage buildings. Enabling earthquake strengthening to qualify as building maintenance in terms of tax regulations, or having some kind of rates rebate or rates loan, allowing depreciation to be claimed back etc., would assist building owners with funding building strengthening. Ensuring regular building maintenance would also

improve the seismic performance of heritage (and other buildings). Research into plausible and aesthetically acceptable temporary seismic solutions, precinct strengthening, and external/exoskeletal structure may also be productive.

26. What assistance or guidance will be required for owners, local authorities and communities to make informed decisions on strengthening heritage buildings in their districts?

Funding assistance including tax breaks similar to those in other countries (e.g. America). These should be informed by research indicating that the economic benefit of heritage buildings accrues to local and central government. It has been calculated that the payback period for central and local government revenue is less than two years. In 2007 the Spargo report estimated the benefit of historic property to Wellington was \$39 million.

27. What barriers deter heritage building owners from strengthening their buildings?

The cost of strengthening.

28. Do heritage rules (for example, those in district plans) deter owners from strengthening heritage buildings?

Yes.

29. What are the costs and benefits of setting consistent rules across the country for strengthening heritage buildings?

Certainty

30. Should local authorities have the power, following consultation with their communities, to adopt and enforce policies to require specific hazardous elements on residential buildings to be dealt with within a specified timeframe?

Yes - with qualifications. The degree of risk to members of the public and adjacent houses should be taken into account in terms of degree of consultation and compulsion.

31. What would the proposed changes mean for you?

The Architectural Centre membership consists of practising architects, academics, university students, architectural firms, members of the general public interested in design, retired designers and other members of the building professions. The impact of changes will vary across our membership.

32. Are you aware of any problems with current policy and practice around earthquake-prone buildings, other than those identified in this document?

The stipulation of either strengthen or demolish appears to many to be limiting. Temporary provisional options could be encouraged, including temporary solutions which can stabilise a building. An example where this has occurred is the Napier ASB building.

We understand that building maintenance was a significant factor in the fate of a number of URM buildings in Christchurch and consider that this may be an important aspect to identify.

33. Do you agree with the following objectives for changes to the existing earthquake-prone buildings system:

- (a) reduce the risk – to an acceptable level of people dying and being injured in or by buildings that are likely to collapse in moderate to large earthquakes.

(b) ensure that building owners and users have access to good information on the strength of buildings they own and use, to help them make good decisions about building resilience and their use of the building?

Wider public debate is needed regarding the level of risk. There has been some thought that economic resilience is increasingly important which would require a higher level of building capacity. The Architectural Centre supports a balanced approach to risk, prioritising prevention of death balanced with the cost of building to a higher level of earthquake capacity, and we think that current regulation is not too far off being pitched at the right level. Access to information is a nice idea, but it must be remembered that seismic engineering is complex and unlikely to be fully understood by non-engineers. Misinterpretation of information may lead to bad decision-making. We consider that well-designed regulations, investment in both the training of local authority staff and seismic engineering research, will likely achieve the greatest gains.

We appreciate this opportunity to make a submission on the Building Seismic Performance consultation document.

Yours faithfully

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