



## Determination 2010/133

# The exercise of the powers of an authority to issue a notice under section 124 of the Act regarding a building considered to be earthquake prone at 73 Alfred Street, Blenheim

### 1. The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004<sup>1</sup> (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of that Department. The following are the parties to this determination:

- the applicant, Res Ispa Loquitur Limited (“the applicant”) which is the owner of the building
- the Marlborough District Council, carrying out its duties and functions as a territorial authority or building consent authority (“the authority”) represented by a legal advisor.

1.2 This determination arises from the decision of the authority to issue a notice under section 124<sup>2</sup> of the Act for a two storey office building (“the building”) because the authority was satisfied the building was earthquake prone as defined in section 122 of the Act.

1.3 The matter for determination<sup>3</sup> is whether the authority correctly exercised its powers under section 124 of the Act in issuing a notice under section 124(1)(c) for the building.

1.4 In making my decision I have considered the application and submissions of the parties, and the other evidence in this matter. I have not considered any other aspects of the Building Act or Building Code.

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<sup>1</sup> The Building Act, Building Code, Compliance documents, past determinations and guidance documents issued by the Department are all available at [www.dbh.govt.nz](http://www.dbh.govt.nz) or by contacting the Department on 0800 242 243

<sup>2</sup> In this determination, unless otherwise stated, references to ‘sections’ are to sections of the Act, and references to ‘clauses’ are to clauses of the Building Code.

<sup>3</sup> In terms of sections 177(e) of the Act (prior to 7 July 2010).

## 2. The building

- 2.1 The building is a two storey building constructed in 1969 and 1970. The building is constructed of partially reinforced concrete masonry walls on the lower floor and a perimeter reinforced concrete wall with brick masonry veneer to the upper floor. The building has a timber roof that is supported on a series of steel frames that spring from the first floor slab. The structure of the first floor overhangs the ground floor walls and is supported on reinforced concrete columns along one side of the building.

## 3. Background

- 3.1 The authority adopted its Earthquake Prone Buildings Policy (“the EQPB policy”) in August 2006.
- 3.2 In a desktop screening process to identify buildings that could be earthquake prone because of attributes such as age, the authority identified the building as requiring further assessment.
- 3.3 As the next step in implementing the EQPB policy, the authority commissioned a firm with structural engineering expertise (“the authority’s structural engineers”) to assess the building using an initial evaluation procedure (“IEP”) as recommended by the New Zealand Society for Earthquake Engineering (“the NZSEE”) in the NZSEE ‘Assessment and Improvement of the Structural Performance of Buildings in Earthquake’ recommendations<sup>4</sup> (“the NZSEE recommendations”).
- 3.4 The building was assessed by the authority’s structural engineers as having an IEP rating of 13% of the New Building Standard (“NBS”) and being less than the statutory (section 122) threshold of 33%, the building was considered as potentially earthquake prone. The first version of the IEP was issued by the authority on 25 September 2007. The owner raised the issue that the authority’s structural engineers had not seen the plans of the building, and, after those plans were provided, the IEP was subsequently revised. A revised IEP was issued by the authority on 6 November 2007. The revised IEP had a rating of 23% of NBS. Following discussions between the authority’s structural engineers and the engineers advising the applicant (“the applicant’s structural engineers”), the IEP rating was further revised to 19%.
- 3.5 The authority notified the applicant of the IEP assessment. In September 2008, on behalf of the applicant, the applicant’s structural engineers provided a letter that disputed the ‘earthquake proneness’ of the building. The applicant’s structural engineers noted that ‘The interpretations that [the authority’s structural engineers] make on several matters on this building are open to these sorts of variable interpretation, and are therefore questionable’ and concluded that ‘If [the authority] is not persuaded by the arguments advanced in this letter, a detailed assessment will be required. We are confident that a detailed assessment would confirm that your building is not earthquake prone by a large margin.’
- 3.6 The authority’s structural engineers reviewed this information and arguments made in the letter, however, did not revise the IEP conclusion as to the building’s earthquake proneness.

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<sup>4</sup>The NZSEE ‘Assessment and Improvement of the Structural Performance of Buildings in Earthquake’ recommendations is available of the NZSEE website <http://www.nzsee.org.nz>

- 3.7 The authority issued a notice under section 124 of the Act dated 19 August 2009 for the building because it considered the building was earthquake prone. It appears this notice was subsequently withdrawn to allow further discussions between the authority and the applicant.
- 3.8 The applicant and the authority exchanged correspondence between October 2009 and January 2010. The main points raised in the correspondence between the parties have been presented by the parties in their submissions for this determination (refer to paragraph 4.1 and paragraph 4.3).
- 3.9 The authority issued another notice under section 124 of the Act dated 10 February 2010 for the building, which states ‘[the authority] is satisfied the building... is earthquake prone, as defined in section 122 of the [Act].’ The notice referred to the 25 September 2007 IEP.
- 3.10 An application for a determination was received by the Department on 1 March 2010.

#### **4. The submissions**

- 4.1 The applicant sought a determination under section 177(e) with respect to the exercise of the authority’s powers under section 124 and in a legal submission, noted the following key points:
- a previous court case<sup>5</sup> considered that exercising a power under section 65 of the Building Act 1991 (with respect to dangerous buildings) ‘constituted a serious invasion of the rights of a property owner and imposes what could be a substantial financial loss’
  - the meaning of an earthquake prone building under section 122 means there is a high standard required of an authority wishing to take action under section 124
  - an IEP is a coarse screening process, never intended to be a detailed analysis, with the objective of identifying buildings which are potentially earthquake prone and therefore cannot be the proper foundation for a notice to be issued to an owner under section 124 because the authority must, in such cases, be properly satisfied as to both requisite elements of section 122 being fulfilled before issuing the notice
  - a failure to comply with a section 124 notice creates a serious monetary penalty under the Building Act and therefore the authority requires a high degree of certainty to issue a 124 notice
  - this is not a situation where the authority can undertake a coarse screening process and pass the onus onto the building owner to show that the resulting IEP is flawed

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<sup>5</sup> (Marlborough DC v Chaytor 16/3/95, Judge Walker, DC Blenheim M76/94 [1995] DCR 382)

- the NZSEE recommendations state:
 

The initial evaluation procedures... provide an approximate assessment of the likely performance of the building in earthquake. While these are applied by a [territorial authority] or owner of the building, the approximate nature of the assessment will undoubtedly give rise to concerns regarding the credibility of the result. The detailed procedures for the assessment of structural performance... are intended to provide a means of more accurate assessment of performance.

and consequently there are limitations on the application on the IEP process

- the authority has adopted a position of intransigence, despite the various compromises suggested by the applicant
- section 124(c) clearly requires the notice to stipulate the work necessary to reduce or remove the danger, however the requirement in the notice issued by the authority is to 'strengthen the building in accordance with the [Act]' and the notice is therefore too vague to be enforceable.

#### 4.2 The application for determination consisted of:

- a copy of the section 124 notice dated 10 February 2010 and a copy of the IEP for the building dated 12 October 2007
- a legal submission prepared by the applicant (refer to paragraph 4.1)
- a letter summarising the advice provided by the applicant's structural engineers that was provided in response to the IEP dated 9 September 2008 and the undated response (that appears to be a file note) from the structural engineers in response to the letter from the applicant's structural engineers
- correspondence between the applicant and the authority dated September and October 2009 and January 2010.

#### 4.3 The authority made a legal submission dated 30 March 2010 in response to the application for determination and noted the following key points:

- while the Act requires each authority to develop its own policy regarding earthquake prone buildings, the legislation does not prescribe any particular policy or approach, although the policy follows the Department guidance which provides an eight step process for dealing with earthquake prone buildings that includes the use of the IEP as assessment tool
- a survey conducted by the Department records that approximately 66 territorial authorities require building owners to pay for the cost of a detailed assessment, and only five territorial authorities pay for or share the cost of a detailed assessment
- the policy includes the opportunity for building owners to consider the results of the IEP and have the results of the IEP revisited and the only additional information that the applicant has been willing to provide the authority is a critique of the IEP by the applicant's structural engineers, and this information did not cause the IEP to be revised by the authority's structural engineers

- to require the work that is required to be done to be specified in a notice issued under section 124 would be considerably costly to ratepayers, would prove difficult where destructive or invasive tests are required and would be unnecessary where an owner decides to demolish the building and therefore it is incumbent on the applicant to undertake such work as is necessary to satisfy the authority

4.4 The documentation supporting the submission consisted of:

- a legal submission prepared on behalf of the authority (refer to paragraph 4.4)
- a copy of the section 124 notice dated 10 February 2010 and a copy of the IEP dated 12 October 2007
- a copy of the authority's earthquake prone building policy
- a copy of the results of the Department's survey comparing the approaches of territorial authority's in implementing their earthquake prone buildings policy.

4.5 A draft determination was issued to the parties for comment on 9 June 2010.

4.6 The authority accepted the draft determination in a response dated 16 June 2010, however, disagreed with the decision of the determination that the notice should be modified. The authority noted:

- simply repeating the words of the Act does little to clearly communicate to notice recipients exactly what must be done on their building to comply with the Act
- in terms of the spectrum of outcomes, if a notice recipient chooses to reduce or remove the danger by strengthening the building, this must be done to a sufficient level where the building is no longer earthquake prone, as defined by the Act, however, if the applicant took steps to reduce or remove the danger, but the building was still earthquake prone, then the notice would not have been satisfied
- the broad reference to strengthening the building 'in accordance with the [Act]' is correct, is an accurate reflection of the process, and is more accurate than a simple reference to the wording of section 124(1)(c)
- the proposed general reference to section 124(1)(c) will do little to assist the understanding of notice recipients as to what is required and the two options (viz upgrading or demolition) as currently outlined in the notice provide a much more useful description.

4.7 The applicant, in a response received 25 June 2010, did not accept the draft determination, and made the following points:

- the notice should detail the building work the applicant is required to undertake;
- the IEP does not provide a sufficient basis to conclude the building is earthquake-prone. The authority should be required to carry out a detailed analysis of whether the building is earthquake-prone, as the authority has already rejected the applicant's fair offer to share the cost of such an assessment;

- the way the authority's policy deals with heritage buildings is inconsistent with the requirements of the Act.

- 4.8 The applicant also identified a number of factual errors regarding how and when the IEP was carried out and these have been corrected in the determination. In respect of matter raised by the applicant about heritage buildings, I note that this determination concerns the authority's decision to issue a section 124 notice to the applicant. I have no power in this determination to consider whether the authority's policy in respect of heritage buildings complies with the requirements of the Act.
- 4.9 I have carefully taken account of the comments of the parties and amended the determination as I consider appropriate.

## 5. The issue of the section 124 notice

### Assessment of the process

#### *The implementation of the policy*

- 5.1 The objective of the Act in respect of earthquake-prone buildings is to reduce the level of earthquake risk to the public over time and target the most vulnerable buildings. Strengthening buildings to improve their ability to withstand earthquake shaking involves costs to territorial authorities, building owners and the community generally. One of the purposes of the Act's provisions requiring territorial authorities to have earthquake-prone building policies is to provide for local economic, social and other factors to be taken into account by territorial authorities when implementing the earthquake-prone building provisions in the Act.
- 5.2 The authority adopted its policy in August 2006 in accordance with the requirements of section 131 of the Act, which include the following:
- (2) The policy must state—
    - (a) the approach that the territorial authority will take in performing its functions under this Part; and
    - (b) the territorial authority's priorities in performing those functions; ...
- 5.3 Section 132(1) of the Act requires that 'a policy under section 131 must be adopted in accordance with the special consultative procedure in section 83 of the Local Government Act 2002' and a territorial authority must review its policy at least every 5 years using the special consultative procedure. The Act thus provides for territorial authorities to develop their own policies on how they will exercise their earthquake-prone building powers under the Act, and the consultation requirements ensure the policies are open, transparent and understood by the communities who will be affected by them.
- 5.4 The terms of the EQPB policy and the way in which the authority followed the steps of its EQPB policy is an important aspect in terms of whether the authority exercised its powers consistently with the requirements of section 124.

### ***The policy details***

5.5 The policy states:

#### **Step 2. Initial Evaluation Process**

The Council will use the Initial Evaluation Process (IEP) set out in the New Zealand Society for Earthquake Engineering's "Assessment and Improvement of the Structural Performance of Buildings in an Earthquake" to determine the structural performance of potentially earthquake-prone buildings in relation to NZS 4203:1992 as well as NZS 1170.5:2004.

The cost of the initial procedures, including employing independent and appropriately qualified engineers to undertake the evaluations, will be borne by Council.

#### **Step 3. Advice of IEP Outcome**

As the IEP evaluations are completed they will be supplied to building owners by the investigator. Building owners will then have six months to consider the conclusions of the evaluation and if so desired have any reasonable matter revisited by the investigator. Owners may have informal discussions with the Council on any aspect of the report(s) in that time.

...

#### **Step 4. Issue of Notice to Strengthen Building**

Where, after consideration of any further information provided in Step 3 above, the Council is satisfied that the building is earthquake-prone it will advise the owner of the building and issue a written notice under Section 124 of the Building Act 2004, requiring a building consent to be obtained and the structural strengthening work to be undertaken. ...

5.6 The applicant has submitted that the EQPB policy '... skips the requisite detailed analysis provided for in the [NZSEE recommendations]. ... It appears to be based on an IEP followed by a notice, followed by a determination. The [EQPB policy] chose not to follow the path of [the NZSEE recommendations]. It cannot be read as though it did.' The applicant is of the view that consequently, the responsibility for obtaining a detailed assessment lies with the authority.

5.7 It is my view the authority's policy makes it clear the authority has decided to undertake IEPs for building owners but not to commission detailed assessments. Although the policy does not specifically mention detailed assessments, it provides a timeframe of six months for the owner to consider the conclusions of the IEP, have any reasonable matter revisited by the authority's engineers and discuss any aspects of the report with the authority.

5.8 I note the applicant's reference to a court case<sup>6</sup> under the previous Act that considered the exercise of powers in respect of a dangerous building 'constituted a serious invasion of the rights of a property owner and imposes what could be a substantial financial loss'. However, that case concerned the exercise of quite different powers as the territorial authority in that case was seeking an order authorising it to demolish a building. In this case the consequences of the section 124 notice are substantially different in nature and potentially spread over a much longer timeframe. While I accept that the consequences of a finding that a building is earthquake-prone are significant in themselves, the applicant has been given 10 years in which to carry out the necessary remedial work, and my understanding is that there is no reason to expect the work will involve demolition of the building.

<sup>6</sup> (Malborough DC v Chaytor 16/3/95, Judge Walker, DC Blenheim M76/94 [1995] DCR 382)

### The NZSEE recommendations

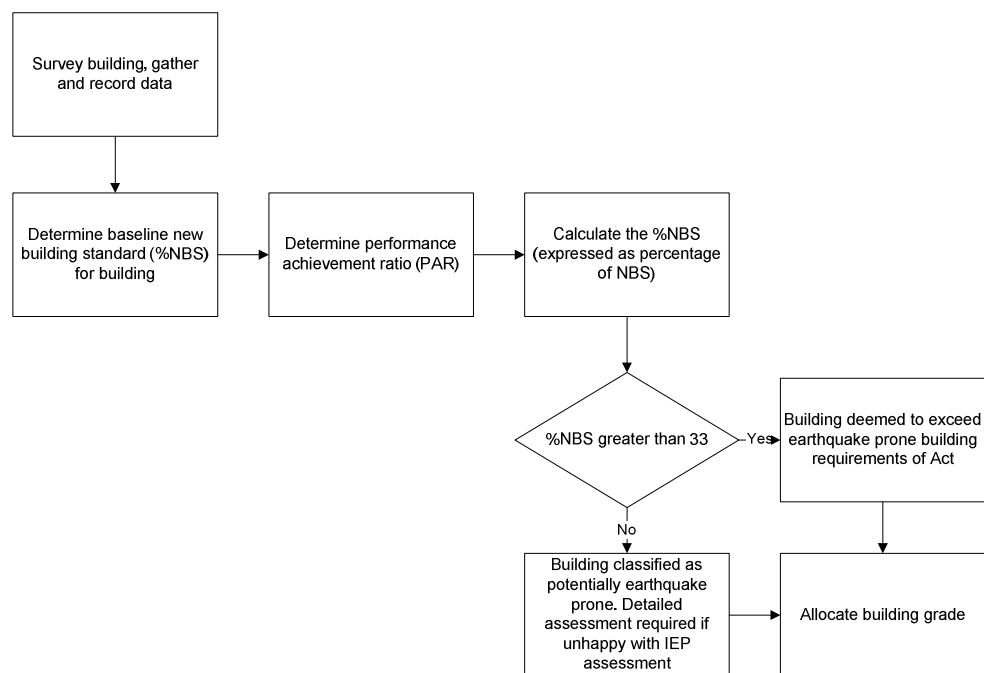
5.9 I note the NZSEE recommendations refer to:

#### 2.7.2 Detailed Assessment of Earthquake Performance

Where an initial evaluation indicates that the building is likely to be high risk (Earthquake Prone) it is desirable that a detailed assessment is carried out as set out in Section 4 of these Guidelines. This will provide a more specific and convincing evaluation on which a final decision can be made on whether or not the building is to be classified as high risk.

The building owner will generally be responsible for submitting the detailed assessment, at the request of the TA. The assessment must be carried out by an engineering consultant suitably experienced in earthquake design.

5.10 With respect to the IEP process, the NZSEE recommendations (section 3.2) uses the following process diagram to explain the required steps:



**Figure 1: Diagrammatic representation of IEP based on Figure 3.1 'Diagrammatic representation of Initial Evaluation Procedure' of the NZSEE recommendations.**

5.11 With respect to this process diagram, the NZSEE recommendations (section 3.2) note the following:

A %NBS of 33 or less means that the building is assessed as potentially Earthquake Prone in terms of the Building Act and a more detailed evaluation of it will typically be required.

The IEP is designed as a largely qualitative process involving considerable knowledge of earthquake behaviour of buildings and judgement as to key attributes and their effect on performance.

Due to the qualitative nature of the assessment it should not come as a surprise that in some circumstances assessments of the same building by two or more experienced engineers will differ. This is to be expected, as the evaluation of seismic performance is not an exact science. However, it is also expected that experienced engineers will be able to identify the critical issues that are likely to effect seismic performance and that, through discussion, a consensus position will be able to be agreed. For the same reason, and IEP assessment that has been independently reviewed is likely to be more robust than one based solely on the judgement of one engineer.



- 5.12 While the EQPB policy does not explicitly refer building owners to obtain detailed assessment, the EQPB policy provides for building owners to consider the conclusions of the IEP and have any reasonable matter revisited by the investigator. This could include providing further information for the IEP to be reconsidered, or providing a detailed assessment, which would then form the basis of any decision to issue, or not to issue, a notice under section 124 of the Act.

### **Consideration of further information provided by the owner**

- 5.13 Following the completion of the IEP, the owner was invited to respond to the authority on the matter by undertaking a detailed assessment, providing additional information about the building, or discussing the assessment with the authority, or to accept the authority's assessment.
- 5.14 I note that the applicant has chosen not to carry out a detailed assessment, however:
- 1) the applicant provided plans of the building and further information about the building (refer to paragraph 3.4), and this led to the IEP being revised
  - 2) the applicant's structural engineers reviewed the IEP and discussed the result and assessment with the authority's structural engineers, and this led to the IEP being revised for a second time
  - 3) the applicant's structural engineers provided information contesting the result of the IEP including the assessment of the building's vertical irregularity, which was reviewed by the authority's structural engineers, but did not result in the IEP being revised.
- 5.15 I have therefore considered this matter of the assessment of the building's vertical irregularity raised by the applicant's structural engineers and whether the authority appropriately considered this information.
- 5.16 The following comments were presented with respect to the assessment of the building's vertical irregularity:

<b>Assessment</b>	<b>Description and justification</b>
IEP (October 2007, refer to paragraph 3.4)	Vertical irregularity factor assigned as 0.7 because this factor has a significant effect on structural performance (0.4 is assigned where there is a severe effect on structural performance and 1.0 would be assigned where there is an insignificant effect on structural performance).
Applicant's structural engineers (September 2008, refer to paragraph 3.5)	The matter of vertical irregularity is not supposed to be applied to a two storey building. It is inappropriate because there is nothing automatically bad about, for example, a stiff ground floor consisting of substantial shear walls, a concrete floor, and a lightweight flexible upper storey with steel frames. However, this example shows a significant change in lateral stiffness between storeys, a significant change in mass between first floor and roof and there is vertical discontinuity where the shear walls stop. If the factor for vertical irregularity was taken as 1.0, the IEP would give a rating of 33% NBS.
Authority's structural engineers (refer to paragraph 3.6)	A factor of 0.7 was used for vertical irregularity because it was considered the layout of the building with a perimeter concrete and brick masonry wall at the first floor level overhanging the ground floor structure presented a significant mass variation. We acknowledge the factor of 0.7 could be too severe for this building, but this was accounted for in the IEP by allowing a factor of 1.5 for compensating features (other factors), where it was noted that 1.5 was used (0 to 2.5 are the possible values) due to the ground floor layout being extensive.

5.17 The NZSEE recommendations description of significant vertical irregularity with respect to the effect on the structural performance of the building is ‘mass varies 100-150% between adjacent floors’.

5.18 The NZSEE recommendations explain the use of a compensating factor as

It may be that apparent critical structural weaknesses have been compensated for in design. This can be established by viewing building design/construction documentation as part of a simple detailed assessment. Note that even where compensating design has been carried out, a building with discontinuities, such as those nominated as critical structural weaknesses, will still suffer more damage than would a regular geometric/structure building.

Reasons for adopting a compensating factor include:

- more than minimum shear walls
- design for significantly higher gravity loading than current use requires
- need to compensate for otherwise severe effect of combinations of CSW that are not mutually exclusive
- any other known factor.

5.19 I consider it reasonable that the authority’s structural engineers have assessed the building as having a significant mass/stiffness variation between ground floor and first floor level. It is appropriate that the vertical irregularity factor take account of this. I consider that the authority’s structural engineers have appropriately accounted for the vertical irregularity factor of 0.7 being too severe in this case by allowing a compensating factor of 1.5. The applicant’s structural engineers suggested the IEP figure would be higher if a compensating factor of 1.5 and a lower factor for vertical irregularity was used. However, it would not be appropriate to use a compensating factor of 1.5 if a lower factor for vertical irregularity was used.

5.20 I therefore consider that the authority’s structural engineers’ considered this matter appropriately.

### **Conclusions**

5.21 I am therefore of the view that, in accordance with its EQPB policy, which was adopted after a public consultation process, the IEP for this particular building was undertaken by the authority using the methodology for IEPs from the NZSEE recommendations.

5.22 Taking into account the information available to the authority I consider the authority has exercised its powers in accordance with the requirements of section 124 as there is sufficient evidence for the territorial authority to be satisfied that the building is earthquake-prone under section 122 and that accordingly the authority had the power to issue the section 124(1)(c) notice to the applicant. I have drawn these conclusions for the following reasons:

- The IEP is robust because as a part of the process, discussions amounting to a peer review of the IEP, were held between the authority’s structural engineers and the applicant’s structural engineers.
- This IEP and peer review was undertaken by Chartered Professional Engineers with recognized specialist expertise in earthquake engineering, from reputable, competent firms.

- The process invited the applicant to dispute the conclusion of the IEP by providing further information or a detailed assessment. The applicant has chosen not to provide a detailed assessment prepared in accordance with the NZSEE recommendations.
  - The further information provided by the applicant was adequately considered by the authority in accordance with the EQPB policy. The vertical irregularity appears properly considered in the context of the IEP.
- 5.23 It is my view that it is entirely appropriate for the authority to decide, if it is satisfied based on the result of the IEP that the building is earthquake prone, to issue a notice under section 124(1)(c), provided that any additional information provided by the owner is considered appropriately.
- 5.24 The applicant has been provided with the opportunity to contest the authority's conclusion by undertaking a detailed assessment of the earthquake-proneness of the building but has chosen not to do so.
- 5.25 The authority has considered further information provided by the applicant following review and discussions but this has not altered its conclusion regarding the result of the IEP. I have reviewed the way in which the authority considered the further information from the applicant and I concur with the authority's decision not to alter its decision that the building is earthquake-prone.

## 6. The particulars of the notice

- 6.1 I have also considered whether the notice was issued correctly, in view of the applicant's submission that the notice issued is not sufficiently prescriptive, is 'too vague to be enforceable bearing in mind that it creates a substantial penalty', and 'is insufficient to properly inform the recipient of the work that needs to be done in order to avoid being prosecuted'. The applicant referred to a publication by the Department 'Earthquake-Prone Building Provisions of the Building Act 2004: Policy Guidance for Territorial Authorities' and the authority's policy presumably prepared in accordance with that document and submitted that the notice should 'specify' the work to be carried out and prescribe the 'structural strengthening work to be undertaken'.
- 6.2 The relevant part of the notice requiring the applicant to carry out building work states:
- You have two options
- EITHER**
- Demolish the building by **31 March 2020**
- OR**
- Strengthen the building in accordance with the Building Act 2004 by **31 March 2020**
- 6.3 The Building (Forms) Regulations 2004 do not prescribe a form for issuing a notice under section 124(1)(c) of the Act. Therefore the notice must be issued in accordance with the requirements of section 124 and section 125. Section 124(1)(c)(i) requires the authority to 'give written notice requiring work to be carried out on the building, within a time stated in the notice..., to reduce or remove the danger.'

- 6.4 I am of the view that the notice issued by the authority does not sufficiently reflect the requirements of section 124. While the notice refers generally to section 124 of the Act there is no reference to the particular paragraph of section 124 pursuant to which the notice is issued, nor any reference to the specific wording of that provision that requires building work to 'reduce or remove the danger'. The notice refers to the nature of building work required using the words 'strengthen the building in accordance with the Building Act 2004'.
- 6.5 While the use of those words is not necessarily incorrect as any strengthening building work must of course be in accordance with the Building Act, in my view, the words are unhelpful in conveying to the applicant the nature and extent of the building work required under section 124(1)(c). In fact, the words may result in misunderstandings as the most likely interpretation of those words is that the building must be strengthened so it complies with current the Building Code requirements, however, this is not a specific requirement of section 124.
- 6.6 I acknowledge that the notice refers the applicant to the authority's policy, and that the policy contains a brief reference to the strengthening work building owners may be required to carry out under a section 124 notice. However, the authority's policy sheds no further light on the exact meaning of the words 'strengthen the building in accordance with the Building Act 2004' and the extent of the building work required by the notice. The relevant part of the policy states on page 7:
- There is no specific provision in the Building Act 2004 or related regulations that the Council can rely on to insist that a particular capacity be attained. The legislation has not addressed the upgrading process in a definitive way. The Council will, however, encourage owners of earthquake-prone buildings to strengthen them to the greatest extent possible.
- 6.7 I do not agree with the statement in the authority's policy that 'the legislation has not addressed the upgrading process in a definitive way'.
- 6.8 Section 124 of the Act allows a territorial authority to require building work on an earthquake-prone building to reduce or remove the danger so the building is no longer earthquake-prone. The building work an owner could undertake in response to a section 124 notice could comprise any one or more of the following types of building work:
- reduce the danger by strengthening the building or part of the building so that it is no longer earthquake-prone;
  - a combination of removing some of the offending part(s) of the building and strengthening the remainder of the building so that it is no longer earthquake-prone;
  - remove the danger by removing the offending part(s) of the building so that it is no longer earthquake-prone; or
  - remove the danger by demolishing the building.
- 6.9 At a minimum, a section 124(1)(c) notice should make some reference to the need to meet the requirements of 'reduce or remove the danger' and include the building work options listed in the paragraph above that are relevant to the particular building to help communicate to the owner the nature and extent of building work contemplated by the words in section 124(1)(c).

- 6.10 The building work options that are included in a section 124(1)(c) notice will depend on the particular circumstances of the building, its location, and the nature and extent of the engineering solutions that might be available to reduce the earthquake-proneness of the building.
- 6.11 The applicant has submitted that the authority's policy requires the necessary building work to be specified in the notice. However, it is not for the authority to prescribe how the applicant is to reduce or remove the danger of the earthquake-prone building. The building work to ensure the building is no longer earthquake-prone will involve many choices and these can only be made by the applicant. For example, the applicant will have to decide when in the next 10 years to undertake the work, the nature and extent of the work, whether the work will involve strengthening and if so what level of strengthening will be undertaken, whether the work will involve demolition, and choices as to how the work that is undertaken will comply with the building code. The section 124(1)(c) notice should simply identify possible relevant building work options available to the applicant as described above in paragraphs 6.8 and 6.9. It is for the applicant to propose a particular solution that will reduce or remove the danger so that the building is no longer earthquake-prone.
- 6.12 In respect of the notice issued by the authority, while demolition of the building will remove the danger, and this appropriately informs the applicant of the nature and extent of the building work required, the nature and extent of the building work required by the words 'strengthen the building in accordance with the Building Act 2004' is unclear.
- 6.13 It is my view that the notice should clearly set out the outcome that section 124 seeks, which is building work to reduce or remove the danger so that the building is no longer earthquake-prone. It is for the authority to consider the appropriate wording and relevant options to include in the notice as described above in paragraphs 6.8 and 6.9 and to amend the notice accordingly.

## **7. Decision**

- 7.1 In accordance with section 188 of the Act, I hereby determine that the authority correctly exercised its powers under section 124 of the Act in issuing a notice under section 124(1)(c) for the building. However, in terms of the content of the notice, the notice should be modified to take account of the findings of the determination, in paragraphs 6.8 and 6.9 of Determination 2010/133.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 20 December 2010.

John Gardiner  
**Manager Determinations**

## Appendix A

A1 The relevant provisions of the Act are:

### **122 Meaning of earthquake-prone building**

- (1) A building is earthquake prone for the purposes of this Act if, having regard to its condition and to the ground on which it is built, and because of its construction, the building—
- (a) will have its ultimate capacity exceeded in a moderate earthquake (as defined in the regulations); and
  - (b) would be likely to collapse causing—
    - (i) injury or death to persons in the building or to persons on any other property; or
    - (ii) damage to any other property.

...

### **124 Powers of territorial authorities in respect of dangerous, earthquake-prone, or insanitary buildings**

- (1) If a territorial authority is satisfied that a building is dangerous, earthquake prone, or insanitary, the territorial authority may—
- (a) put up a hoarding or fence to prevent people from approaching the building nearer than is safe;
  - (b) attach in a prominent place on, or adjacent to, the building a notice that warns people not to approach the building;
  - (c) give written notice requiring work to be carried out on the building, within a time stated in the notice (which must not be less than 10 days after the notice is given under section 125), to—
    - (i) reduce or remove the danger; or
    - (ii) prevent the building from remaining insanitary.

...

A2 The relevant provisions of the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations are:

### **(7) Earthquake-prone building: moderate earthquake defined**

For the purposes of section 122 (meaning of earthquake-prone building) of the Act, moderate earthquake means, in relation to a building, an earthquake 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 (determined by normal measures of acceleration, velocity, and displacement) that would be used to design a new building at that site.