



## Determination 2019/068

# Regarding the issue of an earthquake-prone building notice for a multi-unit, multi-storey apartment building at 21 Maunganui Road, Mount Maunganui

### Summary

This determination considers the issue of an earthquake-prone building notice for a six storey reinforced concrete residential building. The determination considers the process followed by the authority in issuing the notice, and the process as prescribed in the legislation and the earthquake-prone building methodology.

## 1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004 (“the Act”) made under due authorisation by me, Katie Gordon, Manager Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry<sup>1</sup>.
- 1.2 The parties to the determination are:
  - one of the owners of apartment 3A of a multi-unit building, D Corney (“the applicant”), represented by an agent, which is a structural engineering firm (“the current structural engineer”) advising Body Corporate 42330 (“the body corporate”). The applicant is also the current Chairperson of the body corporate
  - the other owners of the 12 units in the building
  - Tauranga City Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.
- 1.3 I consider the body corporate to be a person with an interest in this determination.
- 1.4 This determination arises because the authority determined a multi-unit apartment building to be earthquake prone and subsequently issued an earthquake-prone building notice (known as an EPB notice<sup>2</sup>) to the building’s owners.
- 1.5 The applicant and the body corporate are of the view that the authority has not followed the correct process for determining the building to be earthquake prone, and they consider that the EPB notice should be withdrawn.

<sup>1</sup> The Building Act and Building Code are available at [www.legislation.govt.nz](http://www.legislation.govt.nz). The Building Code is contained in Schedule 1 of the Building Regulations 1992. Compliance and guidance documents issued by the Ministry, as well as past determinations, are available at [www.building.govt.nz](http://www.building.govt.nz)

<sup>2</sup> Under section 7 of the Act an EPB notice means an earthquake-prone building notice issued under section 133AL.

- 1.6 The matter to be determined<sup>3</sup> is therefore whether the authority correctly exercised its powers of decision in determining the building to be earthquake prone and in issuing an EPB notice.
- 1.7 In making my decision, I have considered the submissions of the parties and the other evidence in this matter. Appendix A contains relevant extracts from the Act and the EPB methodology<sup>4</sup>.

## 2. The building

- 2.1 The building is a residential building constructed on a podium, with six storeys above the podium level. The building was constructed in 1985. The building contains 12 apartments: two on each level, either side of a central core. Each apartment has a floor area of approximately 150m<sup>2</sup>.
- 2.2 The building is of reinforced concrete construction and has a central core structure that contains the stairwell and the service areas for each apartment. The side and end walls of each apartment have large windows and wrap-around balconies. I have been provided with limited additional information about the building's structure.

## 3. The background

- 3.1 On 1 August 2012, the authority contacted the body corporate about the Ministry's review to identify buildings with non-ductile concrete gravity columns<sup>5</sup>. The authority recommended that the owners engage a structural engineer to assess the building and advise the authority of the results of the assessment, as the building was identified as having non-ductile gravity columns or requiring review. Follow-up correspondence was sent to the body corporate on 30 November 2012.
- 3.2 A seismic assessment was carried out in 2013 ("the first seismic assessment") by a structural engineering firm engaged by the body corporate ("the first structural engineer"). The first structural engineer commissioned another structural engineering firm ("the second structural engineer") to carry out a modal response spectrum analysis and modelling of the building.
- 3.3 On 18 November 2013, the first structural engineer wrote to the authority on behalf of the body corporate explaining the results of its assessment, and noting that at the 34% NBS<sup>6</sup> level:
- the shear walls have capacity that exceeds demand and the drift is less than 2.5% of inter-storey height
  - columns, when considering the elastic response, have sufficient capacity.

I have seen a copy of the letter dated 18 November 2013 and extracts of the modelling carried out by the second structural engineer; however, I have not seen a copy of the first structural engineer's assessment material supporting the letter.

<sup>3</sup> Under sections 177(1)(b) and 177(3)(fa) of the Act.

<sup>4</sup> A document called 'EPB methodology The methodology to identify earthquake-prone buildings' (3 July 2017), and set by the Chief Executive of the Ministry under section 133AV of the Act

<sup>5</sup> The Ministry's review began in 2012 to establish whether there were any buildings with similar design flaws to the Canterbury Television Building (which collapsed in the February 22 2011 earthquake).

<sup>6</sup> The percent NBS is the rating given to a building as a whole expressed as a percent of new building standard achieved, based on an assessment of the expected seismic performance of an existing building relative to the minimum that would apply under the Building Code to a new building on the same site with respect to life safety.

- 3.4 In 2014 the first seismic assessment was updated (this is according to a letter from the current structural engineer, i.e. the agent for the applicant, to the body corporate dated 28 May 2019 and which was provided with the application for determination).
- 3.5 On 30 June 2015, the authority engaged a structural engineer (“the authority’s structural engineer”) to review the first structural engineer’s assessment. The authority’s structural engineer recommended that the authority request further information as the assessment did not include commentary on a number of critical structural elements.
- 3.6 In 2015, the body corporate engaged the second structural engineer to carry out a further seismic assessment of the building (“the second seismic assessment”). Based on the information provided in the application for determination, it appears the second seismic assessment comprised modal response spectrum analysis and other seismic analysis. Design of structural strengthening work for the building was also carried out. A peer review of the seismic strengthening design by a further engineering firm was initiated. The strengthening work did not go ahead.
- 3.7 On 17 May 2018, the then owner of apartment 3A (represented by an agent) applied to the authority for a building consent for proposed building work to their apartment, comprising the refurbishment of the interior and retiling of the external balcony (BC181002). The proposed building work included the removal of external concrete walls (within the conservatory), with the existing walls of the conservatory to become the main external walls.
- 3.8 On 8 June 2018, the authority wrote to the owner of apartment 3A requesting further information. The authority sought the details of ‘the earthquake-prone building assessment work required and carried out if any’ as well as a section showing the level that apartment 3A was on.
- 3.9 On 25 June 2018, 3 July 2018, 2 October 2018, and 1 November 2018 the authority requested further information about the Building Code compliance of the proposed building work.
- 3.10 The authority’s 2 October 2018 request for further information also referenced section 112<sup>7</sup>, and stated with respect to seismic performance and the information provided:
- Please supply the engineering assessment of the building to address the removal of the walls, this should address the gravity loads and seismic loads.
- The [first seismic assessment] supplied is close to the 34%NBS. We understand this [assessment] has been superseded. Please supply the current earthquake prone building assessment report.
- 3.11 The 1 November 2018 request for information also referenced section 112 and, in addition to the 2 October 2018 request, stated:
- ... on review of the [first seismic assessment] the [authority’s] structural engineer has noted the incorrect site subsoil class has been used in the calculations, please supply the revised calculations for the correct subsoil class.
- As the plans detail some of the external concrete walls are to be removed, i.e the walls on grid one and five [sic]. Please have an engineer access [sic] the structural implications as we have no evidence that these are non-load bearing and they may contribute to the bracing seismic strength of the building.

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<sup>7</sup> Section 122 of the Act: Alterations to existing buildings

- 3.12 I have not seen copies of the responses provided to the authority's requests. However, the correspondence from the authority indicates the agent for the owner of apartment 3A responded to each request.
- 3.13 On 28 November 2018, the authority sent a further request for information; this time concerning the seismic strength of the building. The authority said the first seismic assessment provided was not sufficient for the authority to make a decision on reasonable grounds about the building's seismic strength due to the scale of the work to be carried out with the refurbishment of all the apartments. The authority also noted the first seismic assessment, which reported a percent NBS close to 34% NBS, had been superseded, and that an incorrect site subsoil class had been used in the calculations. The authority therefore sought a detailed seismic assessment of the building.
- 3.14 On 17 December 2018, the current structural engineer, who was engaged by the body corporate to prepare a detailed seismic assessment, wrote to the body corporate recommending that it ask the authority to clarify the premise on which the request for further information was based (i.e. the relevant section of the Act) and also whether a detailed seismic assessment was classified as seismic work under section 133AT<sup>8</sup> of the Act.
- 3.15 On 17 January 2019, based on the advice from the current structural engineer, the agent for the owner of apartment 3A wrote to the authority requesting clarification of the authority's requests for further information.
- 3.16 On 11 February 2019, the authority wrote to the body corporate in response to a meeting between the body corporate and the authority on 5 February 2019 and a follow-up email of the same date. The authority stated:
- To meet the [purpose and principles of the Act] when a building consent application is submitted, as it was in this case the main three areas of the Building Code that must always be assessed are:
- 1) Structure - B1.
  - 2) Fire Safety - C.
  - 3) Accessibility - D.
- To help in guiding the body corporate in assessing the necessary building safety upgrades, and to facilitate any individual apartment Building Consent refurbishments in the future[,] Councils (*sic*) building services department recommends that a project plan is put together for any possible safety upgrades to the building for fire, structure, and accessibility. ...
- As discussed in the meeting on 5 February 2019, a starting point is to get your Engineer to carry out a detailed seismic assessment to ascertain the structural strength of the building.
- 3.17 On 25 February 2019 the body corporate wrote to the authority with a set of questions about the building consent application and earthquake-prone building processes.
- 3.18 On 4 March 2019, the authority wrote to the body corporate responding to queries from the body corporate. In this letter, the authority stated:
- [The authority is] of the understanding only that a Detailed Seismic Assessment (DSA) has been carried out on the building although [the authority] has never been given a copy and as a starting point that is what we have been continually asking for.

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<sup>8</sup> Section 133AT of the Act: Alterations to buildings subject to EPB notice

3.19 The authority also stated that:

We have been talking about two different parts of the Building Act 2004.

1) You have been asking questions about whether the building is deemed earthquake prone.

2) The [authority] has been asking you for further information to enable the [authority] to make a building consent assessment decision on reasonable grounds to able grant/issue the building consent or not?

In processing your building consent application all the Building Code clauses that apply to your application, need to be assessed.

The [authority] cannot make a decision if the building is deemed earthquake prone and seismic work is required or not until the [authority] receives a structural assessment of the building. It is normal practice to provide a structural assessment by way of a [detailed seismic assessment].

3.20 The authority referred to sections 45, 48, 49, 94 and 133AQ as examples of some of the sections of the Act that it had to take into account when processing the building consent application.

3.21 On 14 March 2019, a body corporate meeting was held. Representatives of the authority attended the meeting to answer the body corporate's questions about the relevant processes.

3.22 On 15 March 2019, the authority was provided a copy of a seismic assessment by the body corporate, which I have assumed to be the second seismic assessment.

3.23 On 27 March 2019, the authority emailed the second structural engineer, noting the authority was in the process of determining the current capacity of the building, and sought confirmation from the second structural engineer of the percent NBS of the building.

3.24 On 2 April 2019, the second structural engineer responded to the authority with respect to the second seismic assessment and noted that its concerns with the building related to the shear walls with large openings at each end of the building, the diaphragms, and the core walls and columns, and also noting agreement with a percent NBS rating of less than 20% NBS.

3.25 On 9 April 2019, the authority wrote to all the owners of the building advising them that the authority had determined the building was earthquake prone, and issuing an EPB notice for the building. The authority stated:

... [the authority] accepts the engineering assessment in accordance with the [EPB methodology] and using this information has determined the building earthquake prone under section 133AB and 133AK of the [Act]. ...

3.26 On 29 April 2019, the body corporate wrote to the authority noting concerns about the process the authority had followed to issue an EPB notice for the building. The body corporate noted it had engaged the current structural engineer to prepare a plan for the seismic work required.

3.27 On 28 May 2019, the current structural engineer wrote to the body corporate having completed the review of the previous assessments that the body corporate had engaged it to carry out. The current structural engineer identified a number of issues with respect to the second seismic assessment carried out by the second structural engineer (refer to paragraph 3.6) including with the seismic weight of the building that was used, the use of probable material strengths, the selection of the subsoil class, and the methodology used to assess the shear walls. The current structural

engineer also noted that the seismic assessment did not meet the requirements of the EPB methodology.

3.28 During June and July 2019, there was further correspondence between the agent for the owner of apartment 3A and the authority about the application of section 133AT of the Act and whether the proposed building work was a substantial alteration as defined in the Regulations<sup>9</sup>.

3.29 The Ministry received an application for a determination on 16 July 2019.

## **4. The submissions and the draft determination**

### **4.1 The initial submissions**

4.1.1 The current structural engineer provided a submission explaining the background to the dispute and a summary of events. The current structural engineer submitted that the authority did not follow the correct procedure in determining that the building was earthquake prone because the authority relied on the detailed seismic assessment and:

- that assessment does not meet the requirements for a seismic assessment under the current ‘guidelines’
- the authority did not ask the body corporate to provide additional information when it was required. Instead, the authority directly approached the second structural engineer and relied on correspondence that the body corporate was not privy to
- the authority did not ask the body corporate if it would prefer to rely on the detailed seismic assessment or whether it would prefer to obtain another seismic assessment that was in accordance with current guidelines.

4.1.2 The submission included the 28 May 2019 letter to the body corporate (refer to paragraph 3.26), copies of correspondence between the second structural engineer and the authority (refer to paragraphs 3.23, 3.24 and 3.27), and the second seismic assessment (refer to paragraph 3.6).

4.1.3 On 24 July 2019, the current structural engineer provided the Ministry with a copy of the EPB notice (refer to paragraph 3.25).

4.1.4 On 29 July 2019 the Ministry asked the authority for relevant correspondence and for copies of the information that formed the basis of the authority’s decision that the building was earthquake prone.

4.1.5 The authority acknowledged the application for determination on 6 August 2019 and on 13 August 2019 it provided documents to address the Ministry’s request for further material; namely, copies of:

- correspondence about the non-ductile columns building review (refer to paragraph 3.1)
- the 18 November 2013 letter from the first structural engineer
- the 30 June 2015 letter from the authority’s structural engineer

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<sup>9</sup> Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005

- correspondence about building consent BC181002, and the earthquake-prone building process
- the EPB notice.

4.1.6 On 15 August 2019, Ministry sought further information from the authority about the decision process the authority used that culminated in the issue of the EPB notice. The authority responded to this request on 20 August 2019, and stated:

The decision process used by [the authority] to determine if the building was earthquake prone;

- [The authority] received an assessment from the engineer that was completed over a number of years which indicated the building %NBS was <20%
- The [authority] contacted the original engineer ... to validate the %NBS and earthquake prone status.
- Thereafter, a senior member of staff sought legal counsel and the [authority] decided that the earthquake prone notice should be issued.
- The earthquake prone notice was issued to the body corporate chairman and the building owners.

4.1.7 Between 22 August 2019 and 15 September 2019, the Ministry, the current structural engineer and the authority corresponded about the matter to be determined, the application of 133AT of the Act to the building consent application and the value of the building. The latter issue resulted in advice from the authority on 13 September 2019 that a further valuation was not required.

## 4.2 The draft determination and responses received

4.2.1 A draft determination was issued to the parties for comment on 13 November 2019.

4.2.2 The authority responded on 27 November 2019 and the applicant responded on 28 November 2019, both accepting the draft determination without comment.

## 5. Discussion

### 5.1 Overview of the relevant sections of the Act

5.1.1 In order to determine whether the authority correctly exercised its powers of decision in determining the building to be earthquake prone (and accordingly to issue an EPB notice for the building) I must consider the relevant provisions of the Act and its Regulations<sup>10</sup>, which contain the core framework for managing earthquake-prone buildings, and the EPB methodology set under section 133AV of the Act for the identification of earthquake-prone buildings.

5.1.2 Subpart 6A of Part 2 of the Act came into force on 1 July 2017 and changed the way earthquake-prone buildings are identified and managed under the Act. Under the Act it is the role of an authority to manage earthquake-prone buildings in its district. It must:

- identify potentially earthquake-prone buildings
- notify the building owners and request engineering assessments

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<sup>10</sup> Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005

- consider engineering assessments provided by building owners, determine if a building is earthquake prone and, if it is, assign an earthquake rating
- issue notices to owners of earthquake-prone buildings and publish information about earthquake-prone buildings on the register.

5.1.3 The body corporate is of the view that the authority has not followed the correct process for determining the building to be earthquake prone and has relied upon a previous assessment that does not meet the requirements of the EPB methodology.

5.1.4 The authority has stated that it received an assessment, which indicated the building had a percent NBS rating of less than 20% NBS; it validated the assessment result with the second structural engineer, which carried out the assessment; and it decided that an EPB notice should be issued.

## **5.2 Requesting an engineering assessment for the building**

5.2.1 In order to determine whether the authority correctly exercised its powers of decision in determining the building to be earthquake prone, I must first consider the authority's request for an engineering assessment.

5.2.2 Section 133AG of the Act sets the requirements for the authority to identify potentially earthquake-prone buildings within its district. Under section 133AG(1)(a), the authority is required to identify potentially earthquake-prone buildings that fall within the categories of buildings (known as profile categories) that are specified in the EPB methodology, and to do so within the time frames specified in the Act<sup>11</sup>.

5.2.3 Under section 133AG(1)(b) the authority may also identify a potentially earthquake-prone building that is not within the profile categories if the authority has reason to suspect the building may be earthquake prone. Reasons that may cause an authority to suspect a building may be earthquake prone are set out in section 1.3 of the EPB methodology.

5.2.4 Under section 133AH(1) of the Act, if an authority identifies a building or part of a building as potentially earthquake prone, the authority must ask the owner of the building or part to provide an engineering assessment<sup>12</sup> of the building or part. Section 133AH(2) specifies various requirements for this request, including that it must be in writing and must state the due date for the engineering assessment, which must be 12 months after the date of the request.

5.2.5 In this case, the authority did not follow the process set out in sections 133AG and 133AH for identifying the building as potentially earthquake prone and requesting an engineering assessment. Rather, upon receiving a building consent application for an alteration to the building, the authority sought information relating to the seismic performance of the building.

5.2.6 Under section 49 of the Act, an authority must grant a building consent if it is satisfied on reasonable grounds that the provisions of the Building Code would be met if the building work were properly completed in accordance with the plans and specifications that accompanied the application.

<sup>11</sup> For areas of medium seismic risk (refer section 133AD of the Act), such as Mount Maunganui, the time frame is ten years from commencement of the Building (Earthquake-prone Buildings) Amendment Act 2016.

<sup>12</sup> An engineering assessment is defined in section 7 of the Act as 'in relation to a building or a part of a building, means an engineering assessment of the building or part that complies with the requirements of the EPB methodology'.

- 5.2.7 As the proposed building work is an alteration to an existing building, section 112 of the Act also applied. With respect to the structure of the building, section 112(1)(b) states that an authority must not grant a building consent for the alteration of an existing building, or part of an existing building, unless the authority is satisfied that, after the alteration, the building will comply with the Building Code to the same extent as before the alteration.
- 5.2.8 Section 48 provides for the authority to request further reasonable information it deems necessary to establish Building Code compliance once an application has been accepted.
- 5.2.9 In this case, the proposed building work that was the subject of the building consent was the refurbishment of the interior and retiling of the external balcony, including the removal of external concrete walls (within the conservatory) and with the existing walls of the conservatory to become the main external walls.
- 5.2.10 Initially, the authority sought the details of the ‘earthquake-prone building assessment work’ that was required and carried out, if any, (refer to paragraph 3.8). After receiving an assessment, the authority noted that this assessment had been superseded and asked for the current assessment (refer to paragraph 3.10).
- 5.2.11 I am of the view that the authority has incorrectly combined the process for identifying whether the building may be earthquake prone with the process for considering the building consent application. Therefore, the authority was incorrect to request the ‘earthquake-prone building assessment work’ or a seismic assessment for the purpose of determining whether or not the building was earthquake prone as a request for further information about the building consent application, as this does not fall within the ambit of sections 49 or 112(1)(b) of the Act.
- 5.2.12 The authority also sought ‘the engineering assessment of the building to address the removal of the walls’ (refer to paragraph 3.10) and, in a later request, asked that a structural engineer assess the structural implications of the changes. I consider this to be reasonable as this information was needed to establish that the tests under section 49 and section 112(1)(b) were met by the proposed building work with respect to compliance with Clause B1 of the Building Code.
- 5.2.13 I note that I have assumed these requests from the authority were for an evaluation of the changes by a structural engineer without specifying the form such an evaluation should take, rather than specifically requesting that evaluation be in the form of a seismic assessment. One of the uses of a seismic assessment is as an evaluative tool to demonstrate that the test under section 112(1)(b) is met in terms of the building’s seismic performance. However, there is no requirement under the Act that a seismic assessment be provided for this purpose; rather, the requirement is that the test under section 112(1)(b) is met.
- 5.2.14 Whether it is reasonable for an authority to ask for a seismic assessment of a building for a proposed alteration will depend on the particular circumstances of the case and nature of alterations, as there are other means of analysis a structural engineer could apply to demonstrate section 112(1)(b) is met for seismic performance. In this case, I am of the view a seismic assessment would not necessarily be needed for an engineer to consider the effect of the removal of the walls.
- 5.2.15 Although I am of the view that the authority has incorrectly sought information through the building consent process for the purpose of determining whether or not the building was earthquake prone, I note there are powers in the earthquake-prone building provisions of the Act for the authority to act on information received

through other processes such as the building consent process. For example, section 133AG(1)(b) provides for the authority to identify a building as potentially earthquake prone if the authority has a reason to suspect the building may be earthquake prone; for example, if information received through the building consent process indicates the building may be earthquake prone, or leads to the authority becoming aware of issues that could affect a building's seismic performance at moderate levels of earthquake shaking.

- 5.2.16 In this case, if the authority had concerns about the building because of the nature of the construction or other reasons, and it considered the building might be earthquake prone, the authority should have applied the process set out under section 133AG to identify the building as potentially earthquake prone and request an engineering assessment in accordance with section 133AH.

### **5.3 Determining whether the building was earthquake prone**

- 5.3.1 Having considered the process the authority used to request an engineering assessment for the building, I must now consider the authority's decisions to determine the building was earthquake prone and to issue an EPB notice. The authority appears to have relied on section 133AK (refer to paragraph 3.25) and section 133AQ (refer to paragraph 3.19) in making these decisions.
- 5.3.2 Section 3 of the EPB methodology sets out the process for determining whether a building is earthquake prone, with the first step of this process being the acceptance or otherwise of an engineering assessment or previous assessment.
- 5.3.3 The second seismic assessment, which was provided to the authority by the body corporate (refer to paragraph 3.22), was carried out in 2015 (refer to paragraph 3.6). This is a 'previous assessment' as defined in the EPB methodology, which is an assessment carried out by an engineer prior to the commencement of Subpart 6A of Part 2 of the Act.
- 5.3.4 Section 3.3 of the EPB methodology sets out the criteria that must be met by a previous assessment. It states:

A territorial authority may accept a previous assessment if either:

i. the previous assessment:

- was undertaken by a suitably qualified engineer with relevant skills in structural and earthquake engineering and assessments of existing buildings. As a minimum requirement, the engineer is expected to be a structural engineer who is chartered under the Chartered Professional Engineers of New Zealand Act 2002, or equivalent (for example a Registered Engineer prior to 2002), and who held that status at the time the assessment was undertaken, and
- contains evidence that an external and internal inspection was carried out as part of the assessment, or appropriate commentary where an internal inspection was not completed. Where no internal inspection has been carried out or appropriate commentary provided, the existing assessment report may be submitted with supplementary evidence from a suitably qualified engineer to confirm that an internal inspection has been completed retrospectively and the results of the previous assessment have not altered as a consequence of that inspection, and
- references the relevant standard or guidelines for acceptable engineering methods in effect at the time, for example the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes guidelines produced in June 2006 by the New Zealand Society for Earthquake Engineering, or a draft version of the

Engineering Assessment Guidelines released for use in June or August 2016, and

- clearly states the assessment outcome, reported as a %NBS, however

if a territorial authority has concerns about whether the previous assessment meets the requirements set out above, the territorial authority may request further substantiation from the owner

or,

ii. there is evidence that the previous assessment has undergone an independent review by a Chartered Professional Engineer

or,

iii. the previous assessment was undertaken as part of a programme of assessments (by either the territorial authority or the owner) that was subject to a moderation process with appropriate technical input and programme oversight from a suitably qualified engineer or engineers with relevant skills in structural and earthquake engineering and in assessments of existing buildings.

5.3.5 I have evaluated the second seismic assessment against the requirements in section 3.3 of the EPB methodology. This evaluation is based on the information provided in the application for determination (refer to paragraph 4.1.2), although it is not clear from the information I have been provided with if this is the same set of information provided to the authority by the body corporate (refer to paragraph 3.22).

5.3.6 I have concluded the following about the second seismic assessment:

- There is no information provided that the second seismic assessment was carried out or overseen and signed off by a suitably qualified engineer, although I note based on supplementary correspondence that it is likely that this was the case.
- The second seismic assessment does not contain evidence that an external and internal inspection was carried out as part of the assessment, or appropriate commentary where an internal inspection was not completed.
- Although part of the second seismic assessment references NZS 1170.5<sup>13</sup>, the assessment does not reference the relevant guidelines for acceptable engineering methods in effect at the time.
- The second seismic assessment does not clearly state the outcome, reported as a percent NBS.
- A peer review has not been carried out. The second structural engineer noted that a peer review had been initiated; however, did not believe this work was completed.
- The assessment was not part of a programme of assessments.

5.3.7 Therefore, the second seismic assessment does not meet parts i, ii, or iii of section 3.3 of the EPB methodology.

5.3.8 Under section 2 of the EPB methodology, it is the responsibility of the building owner to provide an engineering assessment or previous assessment that meets the requirements of the EPB methodology.

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<sup>13</sup> NZS 1170.5:2004 Structural Design Actions - Part 5: Earthquake design actions - New Zealand

### 5.3.9 Section 3.1 of the EPB methodology states:

If an engineering assessment or previous assessment is not accepted by the territorial authority, the territorial authority should advise the owner why it was not accepted.

If an owner has a previous assessment that does not meet the criteria set out in section 3.3 of this methodology, an owner may commission a suitably qualified engineer ... to revisit this previous assessment and address the missing criteria retrospectively. If the owner can provide supplementary evidence from a suitably qualified engineer that addresses the outstanding criteria, the territorial authority can accept the previous assessment.

- 5.3.10 I note that under section 133AK(4) of the Act, and as set out in section 3.1 of the EPB methodology, if the territorial authority does not receive an engineering assessment within the time frame required or is notified that the owner does not intend to provide an engineering assessment within the time frame required, the territorial authority must proceed as if it had determined the building to be earthquake prone.
- 5.3.11 This provision means that an authority can determine a building earthquake prone if an engineering assessment, or a previous assessment that meets the requirements of the EPB methodology, is not forthcoming from a building owner in the time frame required. However, this provision does not provide the authority with the means to determine a building earthquake prone without following due process, and without giving the building owner the opportunity to provide supplementary evidence in respect of a previous assessment or engineering assessment.
- 5.3.12 I note that the authority sought the opinion of the previous engineer, specifically requesting confirmation of the percent NBS of the building as well as clarification of some technical aspects of the second seismic assessment. However, the authority does not appear to have sought supplementary evidence from the owners or body corporate to address the outstanding criteria, which is the process set out in the EPB methodology.
- 5.3.13 Therefore, I am of the view that the authority incorrectly based its decisions to determine the building was earthquake prone and issue an EPB notice on a seismic assessment that did not meet the requirements of the EPB methodology, and that the authority did not follow the process set out in the Act.

## 6. The decision

- 6.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the authority incorrectly exercised its powers of decision in determining the building was earthquake prone and issuing an EPB notice for this building on 9 April 2019, as it incorrectly based these decisions on a seismic assessment that did not meet the requirements of the EPB methodology and it did not follow the process set out in the Act. I therefore reverse the authority's decisions to determine the building earthquake prone and to issue an EPB notice.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 20 December 2019.

Katie Gordon  
**Manager Determinations**

## Appendix A

A1. The relevant provisions of the Building Act 2004 include:

### 48 Processing application for building consent

- (1) A building consent authority may, within the period specified in subsection (1A), require further reasonable information in respect of the application, and, if it does so, the period is suspended until it receives that information.

### 49 Grant of building consent

- (2) A building consent authority must grant a building consent if it is satisfied on reasonable grounds that the provisions of the building code would be met if the building work were properly completed in accordance with the plans and specifications that accompanied the application. ...

### 112 Alterations to existing buildings

- (3) A building consent authority must not grant a building consent for the alteration of an existing building, or part of an existing building, unless the building consent authority is satisfied that, after the alteration,—

...

(b) the building will,—

- (i) if it complied with the other provisions of the building code immediately before the building work began, continue to comply with those provisions; or
- (ii) if it did not comply with the other provisions of the building code immediately before the building work began, continue to comply at least to the same extent as it did then comply.

...

### 133AG Territorial authority must identify potentially earthquake-prone buildings

- (1) Within the applicable time frame under subsection (4), a territorial authority—
- (a) must apply the EPB methodology to buildings in its district to identify buildings or parts of buildings that are potentially earthquake prone; and
- (b) may, if it has reason to suspect that a building or a part of a building in its district may be earthquake prone, identify the building or part as potentially earthquake prone, whether or not by reference to any aspect of the EPB methodology.

### 133AH Territorial authority must request engineering assessment of potentially earthquake-prone buildings

- (1) If a territorial authority identifies a building or a part of a building as potentially earthquake prone, the territorial authority must ask the owner of the building or part to provide an engineering assessment of the building or part.
- (2) The request must—
- (a) be in writing; and
- (b) be dated; and
- (c) identify the building or the part of a building that the territorial authority has identified as potentially earthquake prone; and
- (d) explain the basis on which the territorial authority has identified the building or the part of the building as potentially earthquake prone; and
- (e) explain the owner's obligations under section 133AI; and

- (f) state whether the building is a priority building; and
- (g) state the due date for the engineering assessment, which must be 12 months after the date of the request; and
- (h) explain that if the owner is not reasonably able to provide an engineering assessment by the due date (for example, because of a shortage of people qualified to conduct engineering assessments), the owner may apply under section 133AJ for an extension of up to 12 months; and
- (i) explain the consequences of the owner failing to provide the engineering assessment by the due date; and
- (j) explain what will happen if the territorial authority determines that the building or the part of the building is earthquake prone.

### **133AK Territorial authority must determine whether building is earthquake prone**

- (1) If a territorial authority receives an engineering assessment of a building or a part of a building in response to a request made under section 133AH, the territorial authority must determine, in accordance with the EPB methodology,—
  - (a) whether the building or part is earthquake prone; and
  - (b) if the building or part is earthquake prone, its earthquake rating.
- (2) If the territorial authority determines that the building or part is not earthquake prone, the territorial authority must promptly notify the owner in writing of its decision.
- (3) If the territorial authority determines that the building or part is earthquake prone, the territorial authority must promptly—
  - (a) issue an EPB notice for the building or part under section 133AL; and
  - (b) record the details of the decision in the EPB register and update other information in the EPB register as necessary.
- (4) If a territorial authority asks the owner of a building or a part of a building to provide an engineering assessment of the building or part under section 133AH, and either does not receive it by the due date or is notified that the owner does not intend to provide it by the due date,—
  - (a) the territorial authority—
    - (i) must proceed as if it had determined the building or part to be earthquake prone; and
    - (ii) need not determine the earthquake rating of the building or part; and
  - (b) this Act applies as if the territorial authority had determined the building or part to be earthquake prone.

### **133AQ Territorial authority may assess information relating to earthquake-prone building status at any time**

- (1) This section applies if, at any time,—
  - (a) the owner of a building or a part of a building sends to the territorial authority an engineering assessment of the building or part (whether or not the building or part is already subject to an EPB notice); or
  - (b) a territorial authority is satisfied, on the basis of evidence other than an engineering assessment, that a building or a part of a building that is subject to an EPB notice is not earthquake prone.
- (2) As soon as practicable after receiving an engineering assessment under this section for a building or a part of a building, the territorial authority must determine, in accordance with the EPB methodology,—
  - (a) whether the building or part is earthquake prone; and

- (b) if the building or part is earthquake prone, its earthquake rating.
- ...
- (4) If the territorial authority determines that the building or part is earthquake prone, the territorial authority must promptly—
- (a) notify the owner in writing of its decision; and
- (b) if the building or part is not already subject to an EPB notice, issue an EPB notice for the building or part under section 133AL; and
- (c) if the building or part is already subject to an EPB notice,—
- (i) if the earthquake rating has changed, reissue an EPB notice under section 133AL for the building or part; and
- (ii) if the earthquake rating has not changed, notify the owner in writing of that fact; and
- (d) record the details of the decision in the EPB register and update other information in the EPB register as necessary.

A2. The relevant provisions of the EPB methodology include:

### 1.3 How to identify at any time

A territorial authority may identify a building as potentially earthquake prone at any time under section 133AG(3) of the Building Act, if a territorial authority has reason to suspect the building may be earthquake prone.

Reasons that may cause a territorial authority to suspect a building may be earthquake prone include:

- (i) if a territorial authority receives an assessment or other material (whether undertaken for the purposes of considering whether a building could be earthquake prone or for any other purpose) that contains information about a building's seismic performance and that indicates the building may be earthquake prone
- (ii) if a territorial authority becomes aware of issues (by way of information provided to the territorial authority or other means) that could affect or impact on a building's seismic performance at moderate levels of earthquake shaking, such as:
- particular construction types, where the construction type is not included in the profile categories but is expected to contain some earthquake-prone buildings (eg a timber frame building of two or more storeys on a significant slope), or
  - complex design or construction with known conditions that require further engineering analysis. This could include a building with non-ductile columns, a building with no effective connection between primary seismic structural elements and diaphragms, or a building with seismically separated stairs with ledge and gap supports, or
  - ...

### 3.3 Criteria for recognising a previous assessment

A previous assessment may be in the form of an Initial Evaluation Procedure, an Initial Seismic Assessment, a Detailed Engineering Evaluation, or a Detailed Seismic Assessment. It may be held on record by a territorial authority before commencement or provided by an owner any time after commencement.

A territorial authority may accept a previous assessment if either:

- i. the previous assessment:
- was undertaken by a suitably qualified engineer with relevant skills in structural and earthquake engineering and assessments of existing buildings. As a minimum requirement, the engineer is expected to be a

structural engineer who is chartered under the Chartered Professional Engineers of New Zealand Act 2002, or equivalent (for example a Registered Engineer prior to 2002), and who held that status at the time the assessment was undertaken, and

- contains evidence that an external and internal inspection was carried out as part of the assessment, or appropriate commentary where an internal inspection was not completed. Where no internal inspection has been carried out or appropriate commentary provided, the existing assessment report may be submitted with supplementary evidence from a suitably qualified engineer to confirm that an internal inspection has been completed retrospectively and the results of the previous assessment have not altered as a consequence of that inspection, and
- references the relevant standard or guidelines for acceptable engineering methods in effect at the time, for example the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes guidelines produced in June 2006 by the New Zealand Society for Earthquake Engineering, or a draft version of the Engineering Assessment Guidelines released for use in June or August 2016, and
- clearly states the assessment outcome, reported as a %NBS, however
- if a territorial authority has concerns about whether the previous assessment meets the requirements set out above, the territorial authority may request further substantiation from the owner

or,

- ii. there is evidence that the previous assessment has undergone an independent review by a Chartered Professional Engineer

or,

- iii. the previous assessment was undertaken as part of a programme of assessments (by either the territorial authority or the owner) that was subject to a moderation process with appropriate technical input and programme oversight from a suitably qualified engineer or engineers with relevant skills in structural and earthquake engineering and in assessments of existing buildings.