

Kaupapa-here | Seismic Policy

Mō wai me te whānuitanga | Audience and scope

This policy applies to:

- a) all employees of Te Pūkenga, including contracted staff, and secondees providing services for Te Pūkenga, and those on fixed-term contracts (collectively referred to as Kaimahi in this policy); and
- b) where appropriate, Ohu Kaitiaki, which extends to all those operating at a governance level, including Council members and members of Council’s advisory committees.

Mokamoka whakaaetanga | Approval details

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Policy sponsor (has authority to make minor amendments)	Chief Financial Officer	Policy owner	Chief Executive
Contact person	Property Director	Date of next review	3 May 2025

Ngā whakatikatika | Amendment history

Version	Effective date	Created/reviewed by	Reason for review/comment
1	22 February 2022		Initial version
2	2 May 2023	Dave Brunsdon, Kestrel Group, Seismic Engineer	Scheduled review and update
		Rachel Clarke, CAMS Lead	Property Review
		Jaala Jacobs, Interim Property Project Director	
		Kara Hiron, Legal Director	Legal review

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Kaupapa-here | Seismic Policy

1. Pūtake | Purpose

- 1.1. The purpose of this policy is to enable a more consistent and effective treatment of seismic risk across buildings that Te Pūkenga own and occupy or are responsible for.
- 1.2. This policy provides a basis for compliance with the Building Act 2004 (including the Earthquake Prone Buildings Amendments from 2016) and Health and Safety at Work Act 2015. This document establishes the requirements and expectations for the network in relation to seismic risk associated with built assets, and should be used by Te Pūkenga Business Divisions to understand the appropriate processes to follow in terms of:
 - a) Te Pūkenga Building Risk Classifications – Establishes how to categorise buildings by their typology and associated potential for seismic vulnerabilities
 - b) Seismic Assessments – Indicates the type of seismic assessment (if any) required for different types of buildings
 - c) Occupancy of Earthquake Prone Buildings – Provides a framework to determine whether a building rated less than 34%NBS can continue to be occupied.
 - d) Management of Seismic Risk – Outlines expectations for managing and strengthening buildings with identified seismic vulnerabilities (<34% NBS buildings or 33% < NBS < 67% buildings)
 - e) Future Property Requirements – Establishes seismic-related requirements when entering a new building acquisition or lease
- 1.3. The Seismic Policy does not review the current state of seismic risk or management practices across the network and does not set a strategic approach to meeting these requirements.
- 1.4. The Seismic Strategy document establishes a co-ordinated approach to seismic risk management, outlining short, medium, and long-term priorities for the network.

2. Ngā Mātāpono | Principles

Background

- 2.1. At the close of 31 December 2022, Te Pūkenga assumed all rights, assets and liabilities of 17 subsidiaries across the existing national network. As a result, Te Pūkenga owns or leases over 1000 buildings at 90+ locations throughout Aotearoa and is responsible for managing the risks related to these assets and their occupants.
- 2.2. Prior to the establishment of Te Pūkenga, responsibility for the assets and associated seismic risk across the network has been held at the individual subsidiary level. To support a coordinated approach to managing seismic risk, Te Pūkenga has developed a seismic policy that establishes consistent rules and expectations across the network.

Scope of the document

- 2.3. Includes all owned and leased buildings (as defined in section 12) across Te Pūkenga network (unless stated otherwise in the “Scope and Focus” of each section).
- 2.4. Excludes:
- a) Licence to occupy unless term is for a period greater than 3 years.
 - b) occupation of employers’ premises
 - c) Venue Hire

Legislative context of the document

- 2.5. This policy has been developed within the seismic legislative context of New Zealand. The relevant legislation to seismic risk management include:
- a) The Building Act 2004¹ (which incorporates the Building (Earthquake-prone Buildings) Amendment Act 2016²)
 - a) MBIE’s EPB methodology³
 - b) Health and Safety at Work Act 2015⁴
- 2.6. For the purposes of the Seismic Policy, a rating below 34%NBS is considered a proxy for an Earthquake Prone Building (EPB) (whether or not the territorial authority has formally issued an EPB notice).

3. Ō Te Pūkenga whakarite tūraru ā-whare | Te Pūkenga building risk classifications

Building class definitions

- 3.1. A set of risk-based classifications have been established to categorise all buildings across Te Pūkenga network based on the potential seismic vulnerabilities. The classifications have been developed to reflect the risks associated with different building typologies.
- 3.2. The first three risk classes are consistent with the MBIE EPB profile categories (detailed in section 1.2 of the MBIE EPB Methodology). These have been identified by MBIE due to materials and building forms that are can be vulnerable to seismic activity.
- 3.3. The table below details Te Pūkenga Building Risk Classifications, including the key seismic risks associated with each class.

Te Pūkenga Building Risk Classes
 categorise buildings by typology and their associated seismic risks.

The Seismic Policy uses each class to indicate the rules and requirements for different types of buildings.

Class	Typology	Key seismic risks
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¹ <https://www.legislation.govt.nz/act/public/2004/0072/latest/DLM306036.html>

² <https://www.legislation.govt.nz/act/public/2016/0022/22.0/DLM5616102.html>

³ <https://www.building.govt.nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/epb-methodology.pdf>

⁴ <https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html>

MBIE EPB profiles (Potentially EPB)	A	Unreinforced masonry buildings (URM)	URM buildings present an inherent seismic risk. This category includes previously strengthened URM buildings.
	B	Pre-1976, 3 or more storeys	Class B buildings pose a risk due to heavy and non-ductile construction types.
	C	Pre-1935 1 or 2 storeys (Non URM)	Buildings designed prior to the 1935 Building Regulations were not subject to any seismic design.
Other categories	D	1936 to 1975 1 or 2 storeys	Class D buildings can contain some potentially vulnerable elements such as weak columns, infill masonry and pre-cast concrete wall panels.
	E	Post-1976 Three or more storeys	Class E focuses on identifying buildings with pre-cast concrete suspended floor systems and heavy precast panels.
	F	Post-1976 One and two storeys	Class F focuses on identifying low-rise buildings with precast concrete cladding panel; precast floor systems; tall/ inadequately restrained concrete block walls.
Lower risk	Timber	1 or 2 storeys timber frame	Timber-framed buildings typically perform well in seismic events, due to low seismic mass and flexibility of the structure.
	Ancillary	Ancillary buildings	Ancillary structures are typically of lighter weight construction, and also feature low occupancy.

4. Aromatawai rū whenua | Seismic assessments

Scope and focus of this section

- 4.1. Existing owned or leased buildings across the network.
- 4.2. This section outlines the requirements for seismic assessments across Te Pūkenga Building Risk Classifications. The objective is to improve the understanding of the seismic risk profile of the network by developing a more complete and reliable set of assessment data.

Legal context of this section

- 4.3. Seismic assessments for EPB purposes are governed by the Engineering Assessment Guidelines.
- 4.4. These provide a common technical basis for engineers to undertake assessments of existing buildings within New Zealand.
 - a) An Initial Seismic Assessment (ISA) is a high-level qualitative assessment of potential seismic vulnerabilities of a building, providing an indication of its likely seismic performance.
 - b) A Detailed Seismic Assessment (DSA) is a comprehensive quantitative assessment of the strength and deformation capability of a building.
- 4.5. For concrete buildings, DSAs should be conducted in accordance with the 2018 version of Section C5 of the Engineering Assessment Guidelines, which incorporates the latest engineering knowledge on the seismic vulnerabilities possessed by concrete buildings.

Assessment requirements

- 4.6. The seismic assessment requirements for each building class are not prescribed and depend on the characteristics of each building. It is important that seismic assessments (both new assessments and updates of previous assessments, where considered necessary) target the structural vulnerabilities that are present. The building classes provide an indication of the eras of buildings with different levels of original seismic design input and the likely form of seismic assessment required.
- a) Class A, Class B, and Class C buildings generally require a Detailed Seismic Assessment.
 - b) Class B buildings with seismic assessments undertaken prior to 2018 must be reviewed to determine whether they require an updated assessment.
 - c) Class D and Class E buildings require screening by a designated seismic specialist to determine whether they possess heavy concrete elements.
 - d) Class D and Class E buildings with these elements may require an updated assessment or targeted seismic assessment if they possess these elements.
 - e) Low Risk Class: Timber framed buildings and Ancillary buildings pose a low threat to life. As such there are no network-wide requirements for the buildings within the Low Risk class.

5. Te Nōhanga o ngā whare | Occupancy of buildings

Scope and focus of this section

- 5.1. Owned and leased buildings rating less than 34%NBS (irrespective of whether or not they have been determined by the TA to be earthquake-prone).
- 5.2. The focus is to provide a framework for considering and deciding on the continued occupancy of buildings rating less than 34%NBS (or where other structural shortcomings have been identified).

6. Horopaki ā-ture | Regulatory and legal context

Building Act

- 6.1. The Building Act 2004 requires Territorial Authorities (TAs) to determine which buildings in their district are Earthquake Prone. The earthquake prone buildings provisions of the Building Act do not preclude the continued use and occupancy of buildings designated as being earthquake prone until the expiry of the date on the EPB notice.
- 6.2. If the local TA has not deemed a building uninhabitable in terms of the dangerous and insanitary provisions of the Building Act (which do not apply to earthquake prone buildings), then a building may be occupied by all users.

Health and Safety at Work Act

- 6.3. WorkSafe will not enforce a higher standard of health and safety under the Health and Safety at Work Act 2015 for a Person Conducting Business or Undertaking (PCBU) that owns or occupies an earthquake-prone building and is meeting the earthquake performance requirements of the Building Act 2004.
- 6.4. The 2018 WorkSafe Position Statement outlines the requirement for the owners of an EPB to:

- a) Comply with the Building Act 2004.
- b) Monitor new or emerging information.
- c) Actively manage work related health and safety risks, in accordance with the HSWA.

6.5. As of 2021, the WorkSafe position statement is:

- a) “Regardless of whether you’re a building occupier or a building owner, you need to take practicable steps to identify and manage any parts of buildings which could cause serious harm to occupants in case of an earthquake, and to take practicable steps to eliminate them; or if that’s not practicable, to isolate them from people; or if that’s not practicable to minimise the hazard.
- b) Owners and employers need to continually analyse any risks in respect of each building they own or occupy to determine what practicable steps can be taken to manage hazards. What is practicable in any given case will depend on the circumstances. However, in undertaking such analyses, you will need to consider matters such as the extent of the risk; the nature, severity and probability of any injury or harm that may occur; the practicality of eliminating, isolating, or minimising the hazard; and the availability and cost of safeguards. If you’re an employer and you have a concern about a building component which you cannot deal with, you will need to involve the building owner. If you’re a building owner and a problem has been raised about a building component, then you will need to take all reasonably practicable steps to manage the hazard.”

6.6. As outlined in the July 2022 MBIE Seismic Risk Guidance, the underlying premise is that very few buildings rating less than 34%NBS are not able to continue to be occupied. The nature of the risk relates to the likelihood of a significant earthquake occurring, with the associated low probability of occurrence in any given year.

Process

6.7. The expectation is that the data collected through seismic assessments will be held locally by the Business Division in the short term and be readily available to Te Pūkenga. The governance process will be through the Finance and Capital Investment Committee.

Identify specific vulnerabilities and risks

6.8. Upon receipt of an assessment rating less than 34%NBS (preferably in draft form for new assessments), or receipt of an earthquake prone building notice from the Territorial Authority, Te Pūkenga seismic specialist will review the seismic assessment and the building to verify the nature of the key vulnerabilities identified, and potential impacts on occupants.

6.9. This review will generate a specific risk assessment which identifies short-term risk mitigation measures and makes recommendations about continued occupancy, and key communications.

Evaluate occupancy decision

6.10. On review of the recommendation by a designated seismic specialist the decision to continue to occupy (or not) is made by Te Pūkenga Finance and Capital Investment Committee after consultation with all affected PCBUs.

- 6.11. A key factor in the decision will be the anticipated time frame before strengthening is undertaken or relocation occurs.

Annual monitoring and review

- 6.12. An annual review of the buildings rating less than 34%NBS is to be undertaken by Te Pūkenga to identify whether changes have occurred to either the occupancy of the building or time frames for remediation or decanting, or to the understanding of the key vulnerabilities.

7. Whakahaerenga Tūraru Rū | Seismic Risk Management

Scope and focus of this section

- 7.1. Owned buildings across the network. This section excludes leased buildings or buildings where a license to occupy is held.
- 7.2. Establishes Te Pūkenga expectations for managing seismic vulnerabilities identified in owned buildings.

Addressing Earthquake Prone Buildings (<34% NBS)

- 7.3. Upon receiving a seismic assessment rating less than 34%NBS an appropriate course of action must be determined (in addition to the decision on occupancy outlined in points 6.10 to 6.11).
- 7.4. The options for addressing Earthquake Prone Buildings should be considered on a case-by-case basis. Potential courses of actions include:
- a) Targeted reassessment: For buildings that received seismic assessments prior to 2018, a revisit of assessment should be considered (depending on building type).
 - i) 2017 MBIE assessment guideline changes recognised that pre-2017 assessments may have overstated risk for certain building types (including timber frame). Therefore, a targeted reassessment may result in an NBS% score above 33%.
 - b) Seismic Strengthening: Remediation of structural vulnerabilities through seismic strengthening works should be considered where economically and commercially viable.
 - i) This action is appropriate for buildings that are included in subsidiaries' the long-term capital asset management plans.
 - c) Disposal or demolition: If remediation works are not economically viable or a building is not within long term asset management plans, disposal or demolition should be considered.
 - i) Disposals and demolitions can be complex processes, particularly for buildings with Historic status (which is particularly common among Class A and C buildings).

Strengthening of buildings (34%NBS – 66%NBS)

- 7.5. Te Pūkenga has not set a rule on the minimum %NBS rating for existing buildings (owned and leased) or the strengthening for buildings that score above 33%NBS, but below 67%NBS.

- a) Instead, Te Pūkenga has a long-term strategic objective* to strengthen buildings to a standard of at least 67%NBS, where economically and commercially practical.
- b) Seismic strengthening works should be considered in the context of long-term capital asset management plans to avoid expending resources on buildings.
- c) If strengthening works are deemed economically and commercially viable, an investment case should be submitted through the Investment Governance Framework.

* This objective is an aspirational goal for Te Pūkenga (as outlined in the Seismic Strategy), it is not a minimum requirement or expectation for the network.

8. Ngā Hiahiatanga rauhanga anamata | Future property requirements

Scope and focus of this section

- 8.1. Buildings which are being considered for acquisition or lease agreements of more than 36 months.
- 8.2. Outline the requirements when entering a building acquisition or lease decision. The requirements are stipulated to ensure Te Pūkenga is satisfied that the property is safe to occupy.

Due diligence requirements

- 8.3. Independent and reliable technical due diligence information is required to make informed decisions on the acquisition or lease of a property.
 - a) Prior to entering a new lease or acquisition of a building, an engineering review of the risk profile is required by a designated seismic specialist. This review may identify that further and/or more specific engineering assessment is required (e.g. Detailed Seismic Assessment, Targeted Seismic Assessment).
- 8.4. Assessment reports provided by a lessor or vendor are to be reviewed by a designated seismic specialist to ensure the assessment:
 - a) Has been carried out by a suitably qualified and experienced engineer.
 - b) Is consistent with the latest industry guidelines (e.g. MBIE 2017 Engineering Assessment Guidelines and any subsequent amendments).
 - c) Provides a sufficient level of detail and confidence in the resultant %NBS score.
 - d) It is generally expected that an engineering review or further assessment will not be required for buildings within Te Pūkenga Building Risk Class “Low Risk”.

9. Whakataunga rū itinga rawa | Minimum seismic rating

Minimum %NBS score – acquisitions and leases

- 9.1. For new acquisitions or leases, buildings must have a %NBS score of 67% or above.
- 9.2. The %NBS score must have been obtained in an independent assessment that has been reviewed by a designated seismic specialist as stipulated in point 8.4.

Minimum %NBS score – exception for acquisitions

- 9.3. A building may only be acquired with a %NBS score below 67% if seismic strengthening works are planned. The building must remain unoccupied until strengthened to 67% NBS or above.
- 9.4. For proposed acquisitions meeting the above condition, approval documentation (the investment case) must include an estimate of cost and time requirements for seismic strengthening works.

10. Rīhi whare – tikanga kirimana | Building leases - contract provisions

- 10.1. In addition to the minimum %NBS score for new leases, the following provisions should be included in new lease agreements:
- A clearly defined and agreed-upon process to follow if the seismic rating of a leased building falls below 67%NBS (either due to a change in seismic assessment guidelines or because of damage caused by a future earthquake).
 - Determine whether the lessee has the right to terminate a lease in a building if a seismic assessment finds the leased building to have a %NBS score below that when the lease agreement was signed.
 - Determine the time frame for seismic strengthening works if they are required to meet the minimum %NBS score outlined in the lease agreement, and arrangements to cover the costs for temporary relocation.
 - A clearly defined and agreed-upon requirement for the lessor to commission a review of the leased building's risk profile, following a change in seismic assessment guidelines.

11. Ngā Haepapa | Responsibilities

Role	Responsibilities
Chief Financial Officer	Policy Sponsor
Chief Executive	Policy Owner
Property Directors and Property Regional Leads	Supporting and actioning Policy processes as and when appropriate.

12. Ngā Tikanga | Definitions

Term	Definition
% New Building Standard (NBS)	A rating determined from a seismic assessment to indicate the expected performance of the building compared to an equivalent new building. The rating relates to the minimum life safety performance requirements of Clause B1 of the Building Code.
Earthquake Prone Building (EPB)	For the purposes of this document, buildings scoring below 34%NBS are considered to be EPBs, whether or not they have been formally determined to be earthquake prone by the territorial authority.
Earthquake Risk Building (ERB)	For the purposes of this document, buildings scoring between 34%NBS and 67%NBS are considered to be ERBs.

Initial Seismic Assessment (ISA)	A qualitative assessment of the potential seismic vulnerabilities of a building.
Detailed Seismic Assessment (DSA)	A comprehensive quantitative assessment of the strength and deformation capability of a building.
Targeted Seismic Assessment (TSA)	An assessment which focuses on particular aspects of a building with potential structural vulnerabilities. A TSA will typically involve specific calculations that may require different levels of overall analysis of the building structure.
Leased Buildings	<p>A leased building is a property that a business division (tenant) has rented for a specific period of time, usually for a year or more. The tenant pays rent to the landlord in exchange for the right to use the property for the operation of their business. The lease agreement typically specifies the terms of the rental arrangement, including the amount of rent, the length of the lease term, and any other terms and conditions that apply.</p> <p>Excludes Licence to occupy unless term is for a period greater than 3 years.</p>

13. Ngā hononga ki tuhinga kē | Links to other documents

Ture whai take | Relevant legislation

[The Building Act 2004](#)

[Amendment Act 2016](#)

[Health and Safety at Work Act 2015](#)