

APPENDIX 1

DRAFT EARTHQUAKE-PRONE BUILDINGS POLICY

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EARTHQUAKE- PRONE BUILDINGS POLICY

DECEMBER 2005

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1 Introduction

Wellington City is located in one of the most seismically active parts of New Zealand. Earthquakes are unpredictable events that occur infrequently and they can have significant consequences.

Earthquakes cannot be prevented, but their impacts can be mitigated. The Building Act 2004 (the 'Act') expresses the government's objective for earthquake-prone buildings to be strengthened to the appropriate seismic standards, or be demolished. It has an underlying objective to reduce the risk of injury, death or damage to other property that may result from the effects of a moderate earthquake on buildings.

This Policy has been developed under the requirements set out in the Act. It outlines the Wellington City Council's approach to ensure earthquake-prone buildings are strengthened to the level required by the Act, or be demolished. This Policy replaces the Council's Building Safety Policy 1998.

2 Policy Objectives and Principles

2.1 Policy objectives

The objective of this Policy is to discharge the Council's responsibilities and obligations under the Building Act with respect to earthquake-prone buildings.

In doing so, strengthening work undertaken to comply with the Policy will reduce the potential for injury, loss of life and damage to other property in a moderate earthquake. It will also reduce the potential social disruption and loss of productivity that may result from an earthquake.

It is the responsibility of building owners to ensure that buildings comply with the requirements of the Act. The Council can give no assurance or guarantee that any building is not earthquake-prone at any time, until approved strengthening work has been completed.

2.2 Policy principles

This Policy has been developed considering the purpose and principles of the Act which seek to ensure that:

- people who use buildings can do so safely and without endangering their health
- buildings have attributes that contribute appropriately to the health, physical independence, and well-being of the people who use them
- buildings are designed, constructed, and able to be used in ways that promote sustainable development.

3 Key Policy components

3.1 Assessing Earthquake-Prone Buildings

Under Section 122 of the Building Act, the meaning of earthquake-prone building is

- (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.
- (2) Subsection (1) does not apply to a building that is used wholly or mainly for residential purposes unless the building –
 - (a) comprises 2 or more storeys; and
 - (b) contains 3 or more household units.

Moderate earthquake has the same meaning as section 7 in the Building Regulations 2005 where –

‘...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.’

Buildings will need to be assessed to determine whether they are earthquake-prone. As a general guidance, **an earthquake prone building will have strength that is 33% or less of the seismic loading standard NZS 1170.5: 2004.**

3.2 Standard of strengthening required

Once a building has been classified as earthquake prone, strengthening work to ensure the building is not longer earthquake prone will require a building consent. When a building consent is sought then the Council will assess whether the level of strengthening is to the greatest extent possible, particularly for buildings serving a specific post disaster function.

The benefits for the building owner of higher levels of strengthening include:

- improved levels of safety for occupants, tenants and the public
- allowance for a change of use to occur to potentially better meet owner or market demand and realise a better return
- insurance against future changes in either the legislation or structural codes which may require higher levels of strengthening to be achieved
- leverage for improved insurance
- reduced risk level of damage to the building, other properties in its proximity and lessen the impacts on business continuity.

There is also an advantage to the city in reducing the impacts for our community following an earthquake event by:

- preserving the fabric of our city, particularly heritage buildings
- lessening the economic impacts
- lessening the disruption of service.

3.3 Prioritisation to strengthen earthquake-prone buildings

Table 1 prioritises the order in which the buildings will be assessed and, if necessary, strengthened. The prioritisation seeks to balance the public risk associated with earthquake-prone buildings, the private cost of strengthening a building and the availability of people to undertake the strengthening work.

The prioritisation in Table 1 is determined by:





Importance Level – whether a building has a post-disaster function, serves a specific community purpose and is likely to causing injury or damage to other property. The complete list of Importance Levels, which is based on NZS 1170.0:2002, is included in Attachment 1.

Building Age and Condition – the likely structural performance of a building based on the structural code to which the building was designed or strengthened.

Table 1: Priority for assessing and strengthening earthquake-prone buildings

IMPORTANCE LEVEL	BUILDING AGE & CONDITION		
	A Pre NZS 1900 Chapter 8: 1965 Standard	B NZS 1900 Chapter 8: 1965 Standard	C Critical structural weakness
1: Low degree of hazard E.g. Farm buildings and isolated structures, fences, walls	Passive	Passive	Passive
2: Not in other levels E.g. Hotels, offices and apartments less than 15 storeys	Moderate	Low	Low
3: Contain crowds or high value to the community E.g. Schools, universities, structures over 15 storeys, medical centres	High	Moderate	Low
4: Highest with post-disaster functions E.g. Hospitals, civil defence centres, police, air traffic control, power, radio	High	High	High

Ranking:

 High priority	 Moderate priority	 Low priority	 Passive
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3.4 Maximum timeframe to strengthen a building

Using the prioritisation established in Table 1, the maximum timeframes for undertaking strengthening work for a building that has been determined as earthquake-prone, are:

High priority	5 years
Moderate priority	10 years
Low priority	15 years
Passive	No maximum.

Buildings with earthquake-prone building notices issued under Section 66 of the Building Act 1991 will be reissued a notice under Section 124 of the Building Act 2004 requiring strengthening. Building work must begin within two years of the notice being issued.

When applications for building consents received after 1 June 2006 have a cumulative project value greater than one-third of the building's ratable value, the building owner will be required to undertake the structural design for strengthening and either include the:

- complete strengthening work in the building consent, or
- strengthening work to the area otherwise affected by the building work, and agree with Council on a programme to complete the strengthening works within the maximum timeframe set out above.

3.5 Demolition of earthquake-prone buildings

Once a building is classified as earthquake-prone, the building owner may choose to strengthen it, or if appropriate, demolish all or part of the building. A demolition proposal may require a resource consent to be obtained from the Council.

3.6 Change of use

The Building Act 2004 provisions regarding change of use are separate from the Act's provisions relating to earthquake-prone buildings.

When a change of use for a building occurs, then an upgrade of the structure of the building is required "as nearly as is reasonably practicable" with the Building Code. At this level of upgrade, a building will no longer be earthquake-prone.

The change of use provisions includes the establishment of a household unit where there was none before, and wherever there is a change in the classified use as defined in Schedule 2 of the Building (Specified systems, change of use, and earthquake-prone buildings) Regulations 2005.

3.7 Heritage buildings

A heritage building includes all buildings listed as a heritage building in the Wellington City District Plan and/or those registered by the New Zealand Historic Places Trust.

The Building Act requires that Council *must* ensure all earthquake-prone buildings are strengthened to at least meet the minimum prescribed standard (or be demolished) to reduce the potential of injury, loss of life or damage to other property in the event of a moderate earthquake. This Policy's approach to heritage buildings is to reduce the impact of any strengthening work required on the heritage fabric of the building so that for earthquake-prone heritage buildings:

- strengthening is required so that it is no longer earthquake-prone
- the maximum timeframes will apply, just as it does to all buildings
- a management plan outlining how strengthening will preserve the heritage fabric of buildings is to be provided
- demolition is not encouraged.

In addition, a new heritage incentive fund of \$350,000 a year will be proposed as part of the Council's 2006/07 Long Term Council Community Plan for a range of heritage-related projects, including those that are required as a result of the adoption of the proposed Policy.

3.8 Council Infrastructure

The management of Council's infrastructure, including roads, tunnels and water reservoirs, is also relevant to this Policy. Currently, Asset Management Plans set out how Council will meet its obligations under the Civil Defence and Emergency Management Act 2002, which places a duty on a local authority to plan and provide for civil defence emergency management within its district. It must also ensure that it is able to function, even at a reduced level, after an emergency such as an earthquake.

In addition, all works carried on infrastructure comply with the risk analysis, best practice and relevant standards as set out in the Asset Management Plan.

4 Identification of Earthquake-Prone Buildings

The following sets out the procedure Council will use to establish the earthquake-prone status of all buildings.

Step 1. Desk top review

A desk top review of Council files will be undertaken by Council to assess which buildings could be earthquake-prone. Buildings that will *not* require further assessment include those:

- designed or strengthened to the 1976 NZS 4203 and subsequent codes, unless they have a critical structural weakness
- isolated structures unlikely to collapse causing injury, death or damage to other property (refer Section 122 (1)(b) of the Building Act 2004)
- used wholly or mainly for residential purposes, unless the building comprises 2 or more storeys and contains 3 or more household units (refer Section 122(2) of the Building Act 2004)
- Council and Transit New Zealand infrastructure covered by an Asset Management Plan.

From the information gathered in this review, a database of potentially earthquake prone buildings will be established.

Step 2. Initial evaluation process

The Council will use the Initial Evaluation Process (IEP) set out in the New Zealand Society for Earthquake Engineering *Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in an Earthquake* to determine the structural performance score of potentially earthquake prone buildings in relation to NZS 1170.5: 2004. Buildings with a score of less than 34 are considered to fall within the definition of an earthquake-prone building.

Buildings classified as High Priority after Step 1 above will be evaluated first, followed by those classified as Moderate and then Low Priority.

Council will, at its own cost, use appropriately qualified engineers, to undertake the evaluations.

Step 3. Advisement of IEP Outcome

As the IEP evaluations are completed, the Council will write to owners of buildings with an IEP score of less than 34 advising that their building is potentially earthquake prone. Owners will then have six months to consider this advice and provide any additional information about factors that may affect the strength of the building or a detailed assessment of the structure. Relevant information could include:

- construction materials and detailing
- regularity of the building in both plan and elevation
- the type of soil the building is founded on.

Council will use appropriately qualified engineers to review this information. Where the Council is satisfied that the building is not earthquake prone, the recorded status of the building will be changed and the owner will be advised of the Council's decision.

Step 4. Issue notice to strengthen building

Where, after consideration of any further information provided in Stage 3 above, the Council is satisfied that the building is earthquake prone it will advise the owner of the classification 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.

Step 5. Dispute of earthquake-prone classification of building

Should an owner dispute the classification of their building as earthquake prone, application for a 'Determination' may be made to the Chief Executive of the Department of Building and Housing. As set out in the Building Act 2004, the determination of the Chief Executive is binding on the Council.

Step 6. Request by building owner for extension in timeframe to complete work

The Council may consider individual submissions from owners through a hearing process requesting a longer timeframe (than set out in section 3.4) to complete the strengthening work. This may be appropriate in special circumstances where the building owner is unable to comply with the requirement to strengthen the building within the maximum Policy timeframes.

The hearing process will take the purpose and the relevant principles of the Building Act into consideration. It will consider the appeal of the building owner against the Council's requirement to reduce the risk to the public in the event of an earthquake. Specific matters that may be considered are set out in Attachment 2. The hearings will be established by Council and administrative costs to the building owner may apply.

Should the building owner be permitted to have a longer timeframe to strengthen the building, the Council may take action to ensure the public is aware of the earthquake-prone status of the building and the risk associated with occupying the building. This may include placing a notice on the building or putting up a hoarding or fence around the building. Any notice will be reissued to reflect amended agreed timeframes.

Step 7. Updates

As building consents for structural strengthening are received and the strengthening work completed, the database will be updated to reflect the status of the building as *not* earthquake prone.

Step 8. Enforcement action

If structural upgrading work has not been undertaken in accordance with the notice issued at Step 4, the Council will consider enforcement actions under the Building Act.

5 Availability of Earthquake-Prone Building Information

The database of potentially earthquake prone buildings is publicly available upon request and includes information that is already provided in Land Information Memoranda. The database will provide a summary of the data and also the current status of the building as potentially earthquake prone or earthquake prone. It will note whether this information is pending an outcome of an assessment to determine its correct status.

The information will continue to be included in property reports and Land Information Memoranda.

Importance Levels for Building types – New Zealand Structures

IMPORTANCE LEVEL	COMMENT AND EXAMPLES
1 (lowest)	<p><i>Structures presenting a low degree of hazard to life and other property</i></p> <ul style="list-style-type: none"> • Farm buildings, isolated structures, towers in rural situations • Fences, masts, walls, in-ground swimming pools
2	<p><i>Normal structures and structures not in other importance levels</i></p> <ul style="list-style-type: none"> • Hotels, offices and apartment less than 15 storeys high • Car parking buildings • Shopping centre less than 10,000 m² gross area.
3	<p><i>Structures that as a whole may contain people in crowds or contents of high value to the community or pose risks to people in crowds</i></p> <ul style="list-style-type: none"> • Emergency medical and other emergency facilities not designated as post-disaster functions • Airport terminals, principal railway stations, correctional institutions • Schools, colleges and universities • Structures over 15 stories high of the following types: <ol style="list-style-type: none"> a) hotels and motels b) apartment buildings c) offices • Public assembly buildings of more than 1,000 m² • Public museums and art galleries of more than 1,000m² • Shopping centre with covered malls with over 10,000 m² gross area excluding parking • Grandstands for more than 10,000 people
4	<p><i>Structures with special post-disaster functions</i></p> <ul style="list-style-type: none"> • Major infrastructure facilities e.g. power stations, substations • Air traffic control installations • Designated civilian emergency centres, medical emergency facilities, emergency vehicle garages and their fuel supplies and ambulance, fire and police stations etc • Ancillary installations necessary for the operation of Importance level 4 structure (emergency power, phone or radio etc.)
5 (highest)	<p><i>Special structures</i> (outside the scope of the Standard)</p> <ul style="list-style-type: none"> • Structures that have special functions or whose failure poses catastrophic risk to a large area (e.g. 100km² or a large number of people (e.g.100,000) • Dams, extreme hazard facilities

Source: Standards NZ, Structural design actions Part 0: General principles, AS/NZS 1170.0:2002, Table 3.1

Note: There are no importance Level 5 buildings in the Wellington City area.

Hearings Process

Specific matters that may be considered for an extension in timeframe to complete strengthening work

- whether people who use the building can do so safely
- importance of ensuring that each building is durable for its intended use
- importance of recognising any special traditional and cultural aspects of the intended use of the building
- costs of the building (including maintenance) over its whole life
- importance of standards of building design and construction in compliance with the building code
- need to provide for the protection of other property from the risk of physical damage
- need to facilitate the preservation of buildings of significant cultural, historical, or heritage value
- importance level of the building
- building structure and strength i.e. the code that was used to design and construct the building
- special characteristics of the building e.g. heritage or historic
- whether the building has already been strengthened along with the level it was strengthened to and when the work was done
- financial implications e.g. viability
- ramifications if the building were to be demolished rather than strengthened e.g. loss of heritage for future generations
- availability of the appropriate people to do the work.

APPENDIX 2 SUMMARY OF INFORMATION

SUMMARY OF INFORMATION IN THE STATEMENT OF PROPOSAL

The Building Act 2004 requires Council to adopt an earthquake-prone buildings policy to ensure all earthquake-prone buildings are strengthened to at least meet the minimum prescribed standard (or be demolished) to reduce the potential of injury, loss of life or damage to other property in the event of a moderate earthquake. This policy will have to be reviewed every five years.

Wellington City is located in one of the most seismically active parts of New Zealand and accordingly the draft Policy proposes a largely active approach to ensure buildings are appropriately strengthened, or if appropriate, demolished.

This Policy applies to all the buildings in Wellington City, except those used wholly or mainly for residential purposes unless they are comprised of two or more storeys *and* contain three or more household units.

The proposed Policy sets out

- the priorities for assessing and strengthening earthquake-prone buildings, which is based on their building type and use (for example, whether they serve a post-disaster function) and the building's age and condition
- the maximum timeframes required to undertake the upgrading work
- that owners of earthquake-prone listed heritage buildings must provide a management plan outlining how upgrading work will preserve the building's heritage fabric
- the procedure Council will undertake to determine the earthquake-prone status of buildings.

In addition, a new heritage incentive fund of \$350,000 a year will be proposed as part of the Council's 2006/07 Long Term Council Community Plan for a range of heritage-related projects, including those that are required as a result of the adoption of the proposed Policy.

The Council is keen to know what ratepayers and stakeholders think about the proposed Policy. The full Statement of Proposal to make the Policy is attached to this Summary of Information along with a submission form. It is also available online at www.wellington.govt.nz

Submissions open 1 February 2006 and close at 4pm 3 March 2006.

**APPENDIX 3
STATEMENT OF PROPOSAL**

**STATEMENT OF PROPOSAL
TO MAKE THE
EARTHQUAKE-PRONE BUILDING POLICY**

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1. Introduction

The Building Act 2004 ('the Act') requires Council to adopt an earthquake-prone buildings policy to ensure all earthquake-prone buildings are strengthened to at least meet the minimum prescribed standard (or be demolished) to reduce the potential of injury, loss of life or damage to other property in the event of a moderate earthquake. This policy will have to be reviewed every five years.

This policy outlines the approach Wellington City Council ('the Council') will take to require the owners of earthquake-prone buildings to have them strengthened, or if appropriate, have them demolished. A separate policy deals with dangerous and insanitary buildings.

2. Background

Earthquakes are unpredictable events that occur infrequently and they can have significant consequences. Wellington City is located in one of the most seismically active parts of New Zealand and accordingly the draft Policy proposes a largely active approach to ensure buildings are appropriately strengthened (or be demolished).

The draft Earthquake-Prone Building Policy will replace the Council's Building Safety Policy 1998.

A number of other statutes effect the assessment and management of earthquake-prone buildings. Relevant agencies can therefore take action under their own legislation but this does not effect the assessment of a building in terms of the Building Act.

3. Key Policy Components

3.1 Assessing earthquake-prone buildings and standard of strengthening required

The Building Act 2004 and Building Regulations 2005 define the meaning of an 'earthquake-prone building'. As a general guidance, **an earthquake prone building will have strength that is 33% or less of the seismic loading standard NZS 1170.5: 2004**. The standard has been published and is expected to be cited in the Compliance Documents for the New Zealand Building Code before the adoption of this Policy.

Once a building is classified as earthquake-prone, it will need to be strengthened, or if appropriate, demolished. Council will, however, encourage owners of earthquake-prone buildings to strengthen them to the greatest extent possible, particularly for buildings serving a specific post-disaster function.

3.2 Prioritisation to strengthen earthquake-prone buildings

Table 1 of the draft Policy prioritises the order in which the buildings will be assessed and, if necessary, strengthened. The prioritisation seeks to balance the public risk associated with earthquake-prone buildings, the private cost of strengthening a building and the availability of people to undertake the strengthening work.

The prioritisation in Table 1 is determined by:

Importance Level – whether a building has a post-disaster function, serves a specific community purpose and is likely to cause injury or damage to other property, based on NZS 1170.0:2002.

Building Age and Condition – the likely structural performance of a building based on the structural code to which the building was designed or strengthened.

Comparative studies of historical structural design standards to NZS 1170.5:2004 have shown that buildings originally designed or strengthened to the:

- *pre-1965 codes* are likely to be earthquake-prone unless there are mitigating circumstances
- *2/3 NZS 1900 Chapter 8:1965 standard* are likely to be earthquake-prone unless there is a mitigating circumstance. This is the level to which most of the non-heritage buildings in Wellington City have been seismically strengthened
- *NZS 1900 Chapter 8:1965 standard* (1965 code) may meet the required strength criteria and will probably not be earthquake-prone
- *1976 NZS 4203 and subsequent structural codes* are not expected to be earthquake-prone, unless they have an identified critical structural weakness.

In terms of the prioritisation of buildings, they differ in their importance to the community, numbers of occupants and potential risk of structural damage and collapse in an earthquake. Earthquake-prone buildings could therefore be prioritised for strengthening on a number of bases, including by:

- location, for example, giving priority to the Central Business District or buildings located near a faultline
- use, for example, giving priority to buildings attracting large crowds, then retail, commercial, industrial and finally residential
- size of building, and therefore likely size of occupant loading
- structural code a building was designed or strengthened to, or
- engineering or risk basis, combining as assessment of the building's strength and the consequences of an earthquake.

The engineering evaluation has been chosen as the basis for prioritisation because it takes into account the importance of buildings to the community because of their post-disaster function, special purpose/use and the numbers of occupants. It also assesses the likely performance of buildings in earthquake events.

3.3 *Timeframe to strengthen a building*

Staggered timeframes to strengthen earthquake-prone buildings have been allowed for a number of reasons. They help ensure that there is sufficient resource accessible to do the investigation, design and construction work. For large buildings, long lead times may be required to re-negotiate leases to manage the vacating of areas necessary to undertake the work.

Strengthening a building can be expensive and building owners will have to determine if the strengthening is viable. This will include consideration of the benefits of upgrading a building rather than demolition. On the other hand, a strengthened building may include an increase in

market value of the building, increased demand in the rental market and more favourable insurance options.

The setting of maximum timeframes sets reasonable and transparent expectations and helps ensure that strengthening work will be undertaken without delay that might unreasonably compromise public safety. Using the prioritisation methodology outlined above, the maximum timeframes for undertaking strengthening work will be:

High priority	5 years
Moderate priority	10 years
Low priority	15 years
Passive	No maximum.

Buildings with earthquake-prone building notices issued under Section 66 of the Building Act 1991 will be reissued a notice under Section 124 of the Building Act 2004 requiring strengthening. Building work must begin within two years of the notice being issued.

When applications for building consents received after 1 June 2006 have a cumulative project value greater than one-third of the building's ratable value, the building owner will be required to undertake the structural design for strengthening and either include the:

- complete strengthening work in the building consent, or
- strengthening work to the area otherwise affected by the building work, and agree with Council on a programme to complete the strengthening works within the maximum timeframe set out above.

3.4 Demolition of earthquake-prone buildings

Once a building is classified as earthquake-prone, the building owner may choose to strengthen it, or if appropriate, demolish all or part of the building. A demolition proposal may require a resource consent to be obtained from the Council.

3.5 Change of use

When a change of use for a building occurs, then the structural upgrade of the building is required "as nearly as is reasonably practicable" with the Building Code. At this level of upgrade, a building will no longer be earthquake-prone.

3.6 Heritage buildings

A heritage building includes all buildings listed as a heritage building in the Wellington City District Plan and/or those registered by the New Zealand Historic Places Trust.

Section 4(2)(1) of the Building Act recognises the "need to facilitate the preservation of buildings of significant cultural, historical, or heritage value" and Council's Built Heritage Policy 2005 contains objectives that recognise and protect the city's built heritage. The Wellington City District Plan also requires a resource consent to alter or demolish a listed heritage building.

These factors need to be considered against the Building Act’s requirement that Council *must* ensure all earthquake-prone buildings are strengthened to at least meet the minimum prescribed standard (or be demolished) to reduce the potential of injury, loss of life or damage to other property in the event of a moderate earthquake.

It is likely that some heritage buildings will be classified as earthquake prone under the Act. The impact on heritage buildings in the city could be significant if it is not financially viable to strengthen the building and demolition is favoured by the building owners.

The proposed approach in this Policy to heritage buildings is to reduce the impact of any strengthening work required on the heritage fabric of the building. Council can either adopt an approach that:

- treats heritage buildings the same as all others – this could result in a greater degree of proposed demolition to heritage buildings or
- proactively seek to protect heritage buildings – this would provide greater opportunities for their preservation.

A summary of the two options is outlined below:

	Treat Equally	Proactive
Specific requirements for heritage work to be completed	None above meeting minimum strengthening requirements.	In addition to meeting minimum strengthening requirements, require that upgrading preserves heritage fabric (possibly in the form of a management plan).
Timing to strengthen building	Maximum timeframes (section 3.4 of Policy) applies. Building owner can apply for extension in timeframe.	Provide for longer timeframe to upgrade building in Policy.
Funding	None.	Provide funds or a loan for detailed assessment, management plan and/or strengthening work.
Demolition	Demolition is an option for an owner, though is discouraged by the Council. Resource consent is required to alter or demolish.	Demolition is an option for an owner, though is discouraged by the Council. Resource consent is required to alter or demolish.

Under *Option 1* (Treat Equally), the maximum timeframes ensure public risk is minimised and with no specific heritage requirements to be met, allows the building owner to determine the best viable option for the building. Under *Option 2* (Proactive), while the risk to the public is increased, there are greater opportunities to ensure that heritage buildings are preserved. Option 2 places greater weight on Section (4)(2)(1) of the Building Act than Option 1.

The draft Policy recommends that a proactive policy apply, balanced against the fact that public risk also needs to be minimised. Therefore, the draft Policy sets out that for earthquake-prone heritage buildings:

- strengthening is required so that it is no longer earthquake-prone
- the maximum timeframes will apply, just as it does to all buildings
- a management plan outlining how strengthening will preserve the heritage fabric of buildings is to be provided
- demolition is not encouraged.

In addition, a new heritage incentive fund of \$350,000 a year is being proposed as part of the Council's 2006/07 Long Term Council Community Plan (subject to the new initiatives process). The fund will be available for a range of heritage-related projects, in accordance with the Built Heritage Policy, and *not* specifically for earthquake-strengthening related work. Building owners will be able to apply for funding for obtaining detailed assessments, completing management plans and a small amount may be available for any required strengthening work. However, the fund is not sufficient to make a significant impact on all earthquake-strengthening related work on heritage buildings expected throughout the city.

Council could fund all detailed assessments of heritage buildings, as it did under the Building Safety Policy 1998. However, that applied to a relatively small number of buildings and at an estimated cost of approximately \$750,000, contributing even a significant proportion of this is high.

3.7 Council Infrastructure

Asset Management Plans set out how Council will meet its infrastructural obligations under the Civil Defence and Emergency Management Act 2002, which places a duty on a local authority to plan and provide for civil defence emergency management within its district. It must also ensure that it is able to function, even at a reduced level, after an emergency such as an earthquake.

4. Identification of Earthquake-Prone Buildings

The draft Policy sets out the procedure Council will use to establish the earthquake-prone status of buildings. Sections 124 to 128 of the Building Act give the Council recourse to a number of remedies if a building is classified as earthquake-prone. The process is as follows:

Step 1. Desk top review

A desk top review of Council files will be undertaken by Council to assess which buildings could be earthquake-prone. Buildings that will not require further assessment include those that are excluded by the definition of an earthquake-prone building in the Building Act 2004 and buildings built or strengthened to 1976 and subsequent structural code standards.

From the information gathered in this review, a database of these potentially earthquake prone buildings will be established.

Step 2. Initial evaluation process

The Council will use the Initial Evaluation Process (IEP) set out in the New Zealand Society for Earthquake Engineering *Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in an Earthquake* to determine the structural performance score of potentially earthquake prone buildings in relation to NZS 1170.5: 2004. Buildings with a score of less than 34 are considered to fall within the definition of earthquake-prone.

Buildings classified as High Priority after Step 1 above will be evaluated first, followed by those classified as Moderate and then Low Priority.

Council will, at its own cost, use appropriately qualified engineers to undertake the evaluations. This ensures that all IEPs are carried out, they carry out the evaluations consistently and they set the timeframe within which they are to be completed.

Step 3. Advisement of IEP Outcome

As the IEP evaluations are completed, the Council will write to owners of buildings with an IEP score of less than 34 advising that their building is potentially earthquake prone. Owners will then have six months to consider this advice and provide any additional information about factors that may affect the strength of the building or a detailed assessment of the structure. Council will use appropriately qualified engineers to review this information.

Where the Council is satisfied that the building is not earthquake prone, the recorded status of the building will be changed and the owner will be advised of the Council's decision.

Step 4. Issue of notice to strengthen building

Where, after consideration of any further information provided in Stage 3 above, the Council is satisfied that the building is earthquake prone it will advise the owner of the classification of their 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.

Council can adopt an approach that requires voluntary compliance on behalf of building owners with notices only being issued when it considers upgrading will not be undertaken. This approach is not recommended because:

- enforcement of the earthquake-prone building provisions in the Building Act 1991 resulted in most building owners with buildings identified as being earthquake-prone not undertaking the strengthening work. Notices were subsequently issued and the original agreed timeframes needed to be extended
- it provides no incentive to building owners to undertake strengthening (or demolish the building) as no action is required to be taken until a notice is served
- it provides no clarity about Council's requirements are to existing and future building owners
- Council has a potential civil liability once it has identified earthquake-prone buildings, yet has taken no statutory steps to address that.

Step 5. Dispute of earthquake-prone classification of building

The Council has decided not to establish an appeals process against the classification of a building as earthquake-prone as the Building Act sets out whether a building is or is not earthquake-prone. However, should an owner dispute the classification, an application for a

'Determination' may be made to the Chief Executive of the Department of Building and Housing. As set out in the Building Act 2004, the determination of the Chief Executive is binding on the Council.

6. Request by building owner for extension in timeframe to complete work

The Council will establish a hearings process to consider individual submissions from owners requesting a longer timeframe than it has decided upon in the Policy (and section 3.3 above) to complete the strengthening work. This may be appropriate in special circumstances where the building owner is unable to comply with the requirement to strengthen the building within the timeframes set out.

The hearing process will take the purpose and the relevant principles of the Building Act into consideration. The hearings will be established by Council and administrative costs to the building owner may apply.

Should the building owner be permitted to have a longer timeframe to strengthen the building, the Council may take action to ensure the public is aware of the earthquake-prone status of the building and the risk associated with occupying the building. This may include placing a notice on the building or putting up a hoarding or fence around the building. Any notice will be reissued to reflect amended agreed timeframes.

Step 7. Updates

As building consents for structural strengthening are received and the strengthening work completed, the database will be updated to reflect the status of the building as *not* earthquake prone.

Step 8. Enforcement action

If structural upgrading work has not been undertaken in accordance with the notice issued at Step 4, the Council will consider taking enforcement actions under the Building Act.

5. Availability of Earthquake-Prone Building Information

The database of potentially earthquake prone buildings is publicly available upon request and includes information that is already provided in Land Information Memoranda. The database will provide a summary of the data and also the current status of the building as potentially earthquake prone or earthquake prone. It will note whether this information is pending an outcome or an assessment to determine its correct status. The information will continue to be included in property reports and Land Information Memoranda.

APPENDIX 4

BUILDING ACT 2004 – KEY SECTIONS

The Building Act 2004 Key sections relating to earthquake-prone buildings

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 –
 - (iii) injury or death to persons in the building or to persons on any other property; or
 - (iv) damage to any other property.
- (2) Subsection (1) does not apply to a building that is used wholly or mainly for residential purposes unless the building –
 - (a) comprises 2 or more storeys; and
 - (b) contains 3 or more household units.

Moderate earthquake has the same meaning as section 7 in the Building Regulations 2005 where –

‘...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.’

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 move the danger; or
 - (ii) prevent the building from remaining insanitary.
- (2) This section does not limit the powers of a territorial authority under this Part.
- (3) A person commits an offence if the person fails to comply with a notice given under subsection (1).

- (4) A person who commits an offence under this section is liable to a fine not exceeding \$200,000.

131 Territorial authority must adopt policy on dangerous, earthquake-prone, and insanitary buildings

- (1) A territorial authority must, within 18 months after the commencement of this section, adopt a policy on dangerous, earthquake-prone, and insanitary buildings within its district.
- (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; and
 - (c) how the policy will apply to heritage buildings.

133 Adoption and review of policy

- (1) A policy under section 131 must be adopted in accordance with the special consultative procedure in section 83 of the Local Government Act 2002.
- (2) A policy may be amended or replaced only in accordance with the special consultative procedure, and this section applies to that amendment or replacement.
- (3) A territorial authority must, as soon as practicable after adopting or amending a policy, provide a copy of the policy to the chief executive.
- (4) A territorial authority must complete a review of a policy within 5 years after the policy is adopted and then at intervals of not more than 5 years.
- (5) A policy does not cease to have effect because it is due for review or being reviewed.

APPENDIX 5 CONSULTATION PLAN

1. Consultation Focus

The consultation is focusing on obtaining views on the Council's draft policy for the management of earthquake-prone buildings.

2. Objectives

The objectives of the consultation are to:

- obtain feedback from a representative cross-section of building owners and members of the community

3. Key Issues And Messages

Before the Council makes any decisions on adopting the policy, it wants to know what the public and building stakeholder groups think.

Key Messages are:

- earthquake-prone buildings need to be strengthened, or demolished, to reduce the potential for injury, loss of life or damage to other property in the event of a moderate earthquake
- strengthening will need to take place on a priority basis determined by building type, use, age and condition
- the draft Policy is required by the Building Act 2004.

4. Target Audience

The consultation process is intended to encourage responses from both the general community and stakeholders identified as having a particular interest in this issue. The identified stakeholders are:

- Federation of Residents' and Progressive Associations
- Residents' and Progressive Associations
- Property Council of New Zealand
- Insurance Council of New Zealand

5. Consultation Techniques

Formal public consultation on the draft policy for the management of earthquake-prone buildings will be based around documents prepared for the consultation, which include:

- the proposed aims and objectives of the policy and how they meet legislative requirements
- the process Council will use to identify earthquake-prone buildings
- details of the procedures Council will use when buildings are found to be earthquake-prone
- a freepost submission form that sets out questions about people's views of the aims and objectives of the policy, and how they would like to see the policy implemented.

The consultation document (including submission form) will be:

- publicly notified in the Dominion Post
- provided directly to all of the identified stakeholders
- posted on Council's "Have Your Say" section of the website, which will include the ability for people to submit their views online
- available at Council's libraries and service centres.

The consultation will be publicised via:

- a media release
- an article in "Our Wellington"
- advertisements in the community newspapers

Written comments on the proposal will be invited and submitters will also be given the opportunity to make an oral submission. Submitters will receive advice that their written submission has been received.

6. Consultation Evaluation

Written and oral submissions will be summarised and analysed. The result of the consultation will be reported back to the Strategy and Policy Committee in March/April 2006.

All submission writers will be notified of the results of consultation.

7. Consultation Programme

DATE	TASK/TIME/PEOPLE
8 December 2005	Strategy and Policy Committee considers the consultation document.
1 February 2006	Special Consultative Procedure begins
1 February 2006	- Consultation document and submission form on the Council's website - Information on the consultation published in the "Our Wellington" page - Document sent to stakeholders, libraries, and service centres.
3 March 2006	Special Consultative Procedure ends
March 2006	Strategy and Policy Committee hears oral submissions
April 2006	Submissions analysed and summarised into a report for the Strategy and Policy Committee to consider.
April 2006	Draft policy is amended if necessary.
30 May 2006	If the draft policy is adopted, the policy can be supplied to the Chief Executive, Department of Building and Housing.