



New Zealand Historic Places Trust Pouhere Taonga

## **NZHPT Submission to the Canterbury Earthquakes Royal Commission**

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NZHPT File No.

14 October 2011

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### **Submission of New Zealand Historic Places Trust Pouhere Taonga to Canterbury Earthquakes Royal Commission**

1. Thank you for the opportunity to provide a submission to the Canterbury Earthquakes Royal Commission (the Royal Commission).
2. The New Zealand Historic Places Trust Pouhere Taonga (NZHPT) salutes all the communities of Christchurch whose lives have been affected by the earthquakes and we remember especially those who died or were injured. We hope that the report of the Royal Commission will help ensure improved earthquake risk reduction and readiness in the future.
3. The NZHPT's submission is informed by the experience of the Canterbury earthquakes in terms of earthquake risk response and recovery for heritage places.
4. The NZHPT is also providing separate information to the Canterbury Earthquakes Royal Commission about seismic retrofitting that has taken place involving heritage buildings and the current condition of these buildings following the Canterbury earthquakes, as requested by letter (dated 28 September 2011).
5. The NZHPT is available to meet with the Royal Commission to discuss this submission.
6. Mr Win Clark, Consultant Engineer and Executive Director of the New Zealand Society for Earthquake Engineering, has been working for the NZHPT in response to the Canterbury earthquakes. Considering the experience of Win Clark, we request that an opportunity be made available to meet with the Royal Commission on the return of Win Clark from overseas after the 29 November 2011.
7. The NZHPT suggests that a meeting could be arranged with the Royal Commission early December 2011 (between the 1-9 December 2011).
8. Please contact the NZHPT for any further information relating to earthquake risk and heritage places.

### **New Zealand Historic Places Trust Pouhere Taonga**

9. The NZHPT was established in 1954 and is an autonomous Crown Entity in terms of the Crown Entities Act 2004, governed by its Board established under the Historic Places

Act 1993. The NZHPT is New Zealand's leading national historic heritage agency. The NZHPT is a public membership organisation with, at the time of writing, some 22,700 subscribing members.

10. The NZHPT also includes a Māori Heritage Council whose functions include: the protection of Māori heritage; that NZHPT meets the needs of Māori in a culturally appropriate manner; to develop programmes for the identification and conservation of Māori heritage; and to assist the NZHPT to develop and reflect a bicultural view in the exercise of its powers and functions.
11. The NZHPT role in the identification, protection, preservation, and conservation of historical and cultural heritage is extensive and nationwide. This role includes:
  - Leadership on historic heritage issues important to New Zealand.
  - Assisting Māori communities to identify, protect and conserve wāhi tapu and to restore historic marae-related buildings and structures.
  - The management, administration, ownership and control of 48 nationally significant heritage properties. Many of these properties are open to the public as tourist and historic attractions.
  - The provision and distribution of advice and information for the protection and conservation of heritage places.
  - The identification of heritage through the registration of historic places, historic areas, wāhi tapu, and wāhi tapu areas.
  - The issuing of archaeological authorities under section 14 of the Historic Places Act with regard to activities that may modify, damage or destroy archaeological sites.
  - Statutory advocacy for the protection of historic and cultural heritage under the RMA, the Building Act 2004 and related resource management processes. This role includes negotiation and execution of heritage covenants.

### **Heritage Identification and Protection**

12. Heritage values are aspects or qualities of a place that are valued by communities. These values are identified and treasured to ensure survival for present and future generations. Ensuring that all the relevant threats and risks are identified is a core part of heritage planning. Heritage places and areas are often diverse and include buildings (including structures), historic gardens, historic sites having no physical buildings or structures, archaeological sites, and places and areas of significance to Māori.
13. The NZHPT maintains a national Register of historic places, historic areas, wāhi tapu and wāhi tapu areas under the Historic Places Act 1993. As at October 2011, there are 5,665 registered historic places, historic areas, wāhi tapu and wāhi tapu areas.
14. The purpose of the Register is to inform members of the public, notify owners of heritage properties and assist in the protection of historic places, historic areas, wāhi tapu and wāhi tapu areas under the RMA.
15. The Resource Management Act 1991 (RMA) provides for the protection of historic heritage from inappropriate subdivision, use and development, as a matter of national importance. The definition of historic heritage under the RMA is similar to the criteria

for registration under the Historic Places Act 1993.<sup>1</sup> Heritage places are listed in district plans under the RMA. Currently there are approximately 10,800 listed heritage items in district plan heritage schedules excluding listed archaeological sites. This number includes the majority of registered historic places, historic areas, wāhi tapu and wāhi tapu areas under the Historic Places Act 1993.

16. Within the Christchurch, Waimakariri and Selwyn districts there are 1,131 listed heritage places (excluding listed archaeological sites). It is estimated that about 40% of these listed heritage places have been demolished or severely damaged. Appendix Two of this submission provides an overview of loss of significant heritage from Central Christchurch as a result of the Canterbury earthquakes.
17. It is important to note, that any building that has been constructed before 1900 may be considered an archaeological site under the Historic Places Act 1993. Section 10 of the Historic Places Act 1993 directs that an authority (a type of consent) is required from the NZHPT if there is 'reasonable cause' to suspect an archaeological site (recorded or unrecorded), may be modified, damaged or destroyed in the course of any activity. An authority is required for such work whether or not the land on which an archaeological site may be present is designated, or a resource or building consent has been granted.
18. With regard to earthquake-prone policies, the term 'heritage buildings' is used under section 131 of the Building Act 2004. Territorial authorities must state how their policy will apply to heritage buildings. This term is also used in section 125 of the Building Act 2004 with regard to provision for copies of requirement notices to be provided to the NZHPT.
19. While the Building Act defines the meaning of the term 'building', it does not provide guidance on the meaning of a 'heritage building'. To capture the wide-ranging nature of the term 'heritage building', it is suggested that such buildings may include heritage places with statutory recognition under legislation including the Historic Places Act 1993 and RMA. It may also include other heritage places deemed to have heritage values using best practice criteria or research. This may include, for example, places recognised by iwi or hapū or by groups such as the Rail Heritage Trust of New Zealand, and the Institution of Professional Engineers New Zealand (IPENZ).

### **NZHPT and earthquake risks to historic heritage**

20. The NZHPT has for some years promoted earthquake strengthening of heritage buildings. The NZHPT's involvement dates from the mid-1970s when a large number of heritage buildings were demolished in Wellington because of the earthquake risk. The NZHPT was part of a community effort to save some of the most significant heritage buildings from demolition such as the St James Theatre and the Victoria University Hunter Building and to encourage earthquake strengthening.<sup>2</sup> From this period, the NZHPT supported the work of the New Zealand Society for Earthquake Engineering (NZSEE) in the development of standards and guidance for earthquake strengthening and the recommended NZSEE target of 67% of current building code strengthening

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<sup>1</sup> Historic heritage under the RMA means those natural and physical resources that contribute to a understanding and appreciation of New Zealand's history and cultures, deriving from any of the following qualities: archaeological; architectural; cultural; historic; scientific; technological; and includes historic sites, structures, places, and areas; and archaeological sites; and sites of significance to Maori, including wahi tapu; and surroundings associated with the natural and physical resources

<sup>2</sup> Robert McClean, 'Toward improved national and local action on earthquake-prone heritage buildings', Historic Heritage Research Paper No.1, NZHPT, 8 July 2010, p 27

level.

21. In 2000, the NZHPT published guidance for earthquake strengthening which highlighted the need for earthquake strengthening of heritage buildings and provided examples of strengthening projects. While supporting the NZSEE's guidance for strengthening targets, the NZHPT also noted that 'consideration should be given to higher threshold and strengthening levels for buildings containing crowds, or of prime importance to the community in terms of heritage value of the building or contents.'<sup>3</sup>
22. Gaps in earthquake risk preparedness and response for heritage were exposed during the Gisborne earthquake of 20 December 2007 when the NZHPT was not formally contacted by the local authority or civil defence authorities despite substantial damage to heritage buildings.
23. As a consequence of this experience, the NZHPT and the Wanganui District Council organised a national heritage conference in Whanganui on 13-14 March 2008. The conference focused on the seismic risk to heritage buildings in New Zealand and explored techniques for strengthening and incentives.
24. Following the 2008 conference, the NZHPT has worked with Win Clark, Structural Engineer and Executive Director of the NZSEE, to review and update the NZHPT's guidance for improving the structural performance of heritage buildings. Updated draft guidance was posted on the NZHPT's website during 2010.<sup>4</sup> Finalisation of this guidance was delayed due to the Canterbury earthquakes.
25. In addition to guidance for earthquake strengthening, the NZHPT has developed guidance for earthquake-prone policies prepared under the Building Act 2004. This guidance was published as part of the Sustainable Management of Historic Heritage Guidance Series in August 2007.<sup>5</sup> The NZHPT's guidance and submissions to individual territorial authority earthquake-prone policies have advocated for the following policies for heritage buildings:
  - That an active approach is adopted to ensure heritage buildings at risk are identified.
  - Ensuring that heritage buildings are identified early in the process as part of the building stock appraisal and there is a robust policy framework to understand the nature of the earthquake risk, numbers and type of potentially earthquake-prone heritage buildings and an assessment of the costs and benefits and policy options and implications for regulatory intervention.
  - Promoting earthquake strengthening of heritage buildings to at least 67% of the New Building Standard (NBS).
  - Ensuring that section 124 notices are informed by detailed engineering assessments preferably by a Chartered Professional Structural Engineer with experience in heritage buildings and that the demolition option is a 'last

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<sup>3</sup> Lou Robinson and Ian Bowman, *Guidelines for Earthquake Strengthening*, NZHPT, 2000

<sup>4</sup> Robert McClean, 'Earthquake Strengthening – Improving the Structural Performance of Heritage Buildings', Draft NZHPT guidance, June 2010

<sup>5</sup> NZHPT, Sustainable Management of Historic Heritage Guidance Series:  
<http://www.historic.org.nz/Publications/SustainMgtSeries.aspx>

<sup>6</sup> Robert McClean, 'Incentives for Historic Heritage Toolkit' (draft for consultation), NZHPT, 13 August 2010

resort’.

- Ensuring that territorial authorities consult owners of heritage buildings, facilitate the engagement of appropriate engineering advice from Chartered Professional Structural Engineers.
- Promote the provision of adequate incentives for owners of heritage buildings to provide financial support for strengthening.
- Promote the project management for strengthening of groups of heritage buildings (i.e. historic row buildings) to facilitate more efficient approaches to identification and strengthening.

26. Further, the NZHPT has worked to promote improved incentives generally for heritage places in recognition of the costs involved in works such as repair, fire safety and earthquake strengthening. In 2009, the NZHPT held a National Workshop for Heritage Incentives in Auckland which explored the range of incentives that can be provided by central and local governments. This workshop was followed by a new heritage incentives toolkit which provides a summary of regulatory and non-regulatory incentives available in New Zealand such as transferable development rights, flexible zoning, consent fee waivers, heritage grants and loans.<sup>6</sup> In addition, the NZHPT assisted for Mr Donovan Rypkema, an international expert in the economics of heritage buildings, to conduct a series of lectures around the country to promote improved incentives for heritage buildings in November 2010. These lectures provided international examples of success for heritage building retention and adaptive reuse.

## **NZHPT and Canterbury earthquakes, 2010-2011**

### **Darfield earthquake 4 September 2010**

27. The Canterbury earthquakes began with the Darfield earthquake of 4 September 2010 and continue to the present day. Following the Darfield earthquake, a civil defence emergency was declared and Urban Search and Research (USAR) teams were deployed to carry out initial structural assessments and carry out emergency protective works. In Christchurch, despite NZHPT not having a formal role under Civil Defence, its staff joined Christchurch City Council heritage staff at the civil defence headquarters within hours of the earthquake and joined USAR personnel in carrying out the initial inspections. The NZHPT’s response was enhanced by the engagement of additional heritage architectural personnel and an engineer (Win Clark). The NZHPT aimed to ensure best practice procedures were developed for emergency building safety evaluation for heritage buildings involving:

- Early identification of damaged heritage buildings.
- Inclusion of NZHPT and heritage professionals in building safety evaluation teams.
- Ensuring all decisions regarding demolition, partial demolition or repair methods resulting in significant loss to heritage values should be subject to a qualified second opinion.
- Ensuring historic fabric is salvaged and stored.
- That ideally heritage buildings be subject to Level 2 Rapid Assessments.
- As part of Level 2 Rapid Assessments, that a separate heritage building report is prepared outlining the heritage status of the building, damage and recommendations to mitigate and remedy risks.
- The preparation of detailed engineering assessments to inform decisions regarding

demolition and repair.

- Providing advice that where possible damaged buildings should be stabilised to allow further evaluations before any decision on the building's future was taken.
28. As part of this response, damaged buildings were closed and shoring and props were erected by USAR. Some shoring and propping, however, was not possible due to the impact of the structures on public footpaths and streets.
  29. The NZHPT also made contact with as many owners of registered heritage buildings as possible to check on damage following the earthquake. NZHPT staff also carried out site visits to evaluate damage first hand and to inform the NZHPT's advice, recommendations and assessment reports.
  30. In terms of costs of repair and strengthening, the NZHPT, local governments and the Ministry of Culture and Heritage collaborated to establish the Canterbury Heritage Buildings Earthquake Fund to raise money to assist funding the repairs of heritage buildings. A trust was established to administer the Fund with NZHPT representation.
  31. As a result of the Darfield earthquake, an estimated 290 heritage buildings sustained structural damage, with 84 buildings being assessed to be structurally unsound. The impact of the earthquake on historic Māori marae, being largely timber framed buildings was largely minor and a large number of historic sites (such as Māori rock art) escaped damage.
  32. The Darfield earthquake resulted in the demolition of eight listed heritage buildings. Of the eight, four were registered under the Historic Places Act 1993. The most prominent of these were Homebush Homestead (Register No.7102) and Manchester Courts Building (Register No.5307). The proposed demolition of the Manchester Courts Building, in particular, was opposed by some members of the public, including a street protest. On the basis of the engineering advice, risk to public safety and the damage sustained to the building from the Darfield earthquake, the NZHPT did not oppose the demolition of the Homebush Homestead and the Manchester Courts Building.
  33. In terms of NZHPT's properties, the registered Category II historic place, Coton's cottage (Register No.3071) at Hororata was severely damaged. This cottage is a replica reconstruction dating from the mid-1970s. Since September 2010, planning has been underway to dismantle and rebuild the cottage. Damage also occurred at the registered Category I historic place Timeball Station (Register No.43) at Lyttelton. Both properties were closed to visitors.
  34. In terms of archaeological authority processes, a new fast track system was developed in September 2010 to enable the large number of anticipated archaeological authorities to be issued without undue delay. This system was implemented under the Canterbury Earthquake (Historic Places Act 1993) Order in Council, dated 23 September 2010 and subsequent orders.
  35. Initial research following the Darfield earthquake indicated that buildings that had been seismically retrofitted performed well in addition to those buildings that were well maintained.<sup>7</sup>

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<sup>7</sup> Jason Ingham & Mike Griffith, 'Performance of unreinforced masonry buildings during the 2010 Darfield (Christchurch, NZ) earthquake': <http://db.nzsee.org.nz:8080/en/web/lfe-darfield-2010/structural/-/blogs/initial-assessment-of-unreinforced-masonry-building-performance-in-the-2010-darfield-earthquake->

## **Christchurch earthquake 22 February 2011 and associated aftershocks**

36. The outcomes for heritage buildings deteriorated with the continuing aftershocks following the Darfield earthquakes. The situation, however, changed dramatically following the Christchurch earthquake of 22 February 2011.
37. The NZHPT and Christchurch City Council heritage staff were again deployed in response to the 22 February 2011 earthquake as part of the civil defence emergency response. This involvement has continued with the establishment of the Canterbury Earthquake Recovery Authority (CERA). The NZHPT has worked closely with Christchurch City Council during the response and recovery process and the NZHPT's role has involved the provision of advice and information to owners and to the Christchurch City Council.<sup>8</sup> This advice has fed into the decision-making process as governed by the Ministry of Civil Defence and Emergency Management (MCDEM) and CERA.
38. The NZHPT's building assessments firstly involved the preparation of a heritage damage assessment form. This form included the following information:
- Property name and location
  - Emergency sticker colour
  - Safety considerations
  - % of building damaged
  - Damage description
  - Action required
39. The heritage damage assessment forms were followed by NZHPT's input into heritage building reports for Christchurch City Council. This work provided a peer review and assessment of engineering reports, recommendations and proposed amendments to Council's draft reports. Above all, the NZHPT has worked to ensure that 'safety comes first' in terms of making safe, repair and strengthening works.
40. Between September 2010 and June 2011, the NZHPT's work involved additional conservation advice involving 410 site visits, 208 reports prepared for Christchurch City Council and another 115 instances of advice to owners of heritage buildings. Other work has included:
- Input into the draft Recovery Strategy for Greater Christchurch and draft Central City Plan for Christchurch.
  - Provision of advice and information to the Ministry for Culture and Heritage, Christchurch City Council and CERA on planning and recovery matters.

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1? 33 [redirect=http%3A%2F%2Fdb.nzsee.org.nz%3A8080%2Fen%2Fweb%2Fife-darfield-2010%2Fstructural%2F-%2Fblogs](http://www.nzsee.org.nz/3A8080%2Fen%2Fweb%2Fife-darfield-2010%2Fstructural%2F-%2Fblogs)

<sup>8</sup> NZHPT architectural staff have been co-located with Christchurch City Council heritage staff and now CERA since the Christchurch earthquake of 22 February 2011

<sup>9</sup> <http://www.preventionweb.net/english/professional/publications/v.php?id=1037&pid:22>

<sup>10</sup> [http://www.preventionweb.net/files/13541\\_13541ARES64200Resolutionontheimplem.pdf](http://www.preventionweb.net/files/13541_13541ARES64200Resolutionontheimplem.pdf)

- Dissemination of information and advice for the public on the NZHPT's website, including information sheets for repairing historic brick, masonry and chimneys.
- The issuing of archaeological authorities under the revised Canterbury Earthquakes (Historic Places Act 1993) Order in Council, July 2011 (over 330 archaeological authorities have been issued by the NZHPT since September 2010 under this process).
- Providing advice and information to insurance companies and organisations involved in infrastructure damage repairs – SCIRT (Stronger Christchurch Infrastructure Rebuild) an alliance between Christchurch City Council, CERA, NZTA, City Care, Downer, Fletcher Construction, Fulton Hogan and McConnell Dowell.
- Providing advice to owners and assisting with applications to the Canterbury Heritage Earthquake Buildings Fund Trust Board and advising the Fund Trust Board.
- Maintaining the accuracy of the national NZHPT Register of historic places by removing places demolished while continuing to provide information on those places for the public.
- Providing expert heritage conservation and engineering advice to landmark heritage buildings under the ownership of organisations such as the Christchurch Arts Centre Trust, Christchurch City Council and Church property groups.
- Collaboration with Ngāi Tahu on matters of significance to Māori and repair of historic marae.
- Participation with the cultural sector, Canterbury University and the Ministry for Culture and Heritage on the retrieval and storage of artefacts and information for the future use on the subject of 'memory'.
- Participation in Christchurch City Council 'Design by Inquiry' workshops for Lyttelton and Sydenham.

### **Heritage outcomes**

41. Within the Christchurch, Waimakariri and Selwyn districts there were 571 registered historic places, historic areas, wāhi tapu and wāhi tapu areas at 4 September 2010. This number has now been reduced to 509. This number is expected to decline further as more heritage buildings are demolished.
42. Appendices One and Two of this submission provide a general overview in terms of the damage to and outcomes for heritage buildings as a consequence of the Canterbury earthquakes and the response and recovery procedures.
43. The NZHPT will also be providing further information to the Royal Commission with regard to seismic retrofitting that has taken place involving heritage buildings and the current condition of these buildings following the Canterbury earthquakes.
44. Generally, the information shows that timber-framed buildings generally performed well as has been the experience of earthquakes in New Zealand and overseas. A dramatic example is the Canterbury Provincial Chambers Building where the timber-part of the building remains while the masonry-part of the building collapsed. Many historic marae, houses and churches are among many of the timber-framed buildings that survived well.



45. Some historic timber-framed buildings such as St Michaels and All Angels (Register No. 294), Riccarton House (Register No.1868), St Saviours Chapel (Register No.1929 and Antigua Boatsheds (Register No.1825) were also in good condition after the earthquakes as a result of a programme of on-going repair, maintenance and strengthening.
46. Many timber-framed heritage buildings were damaged, however, by falling chimneys. This damage was widespread and not limited to historic buildings.
47. Some owners were very proactive to remove, repair and replace chimneys following the Darfield earthquake. An example is Otahuna Homestead (Register No. 5327) which lost many of its chimneys following the Darfield earthquake. The owners moved quickly to repair and replace the chimneys, with the use of lightweight replica material and design. This work has minimised damage by subsequent earthquakes and aftershocks.
48. Heritage buildings with improved structural performance resulting from earthquake strengthening work have generally survived the earthquakes. Some of the most prominent examples in Christchurch are parts of the Arts Centre (Register No.7301), Canterbury Museum (Register No.290) and some buildings within New Regent Street (Register Nos. 4385 & 7075).
49. Mt Peel Homestead (Register No.313) at the Rangitata Gorge is an excellent example of the success of earthquake strengthening . The homestead is constructed of double-brick walls in the Gothic revival style. The strengthening work was completed only just prior to 4 September 2010. As a result, the building was undamaged from the earthquake. The owner of the homestead also had plans to strengthen the chapel associated with the property. Unfortunately the Darfield earthquake struck before this work could take place and the historic Mt Peel Chapel was severely damaged.
50. Other heritage buildings were also damaged and lost because earthquake strengthening work had either not yet started or was uncompleted. This was the case for buildings such as the Church of the Good Shepherd in Philipstown (Register No.1855), Repertory Theatre (Register No.1919), St Pauls Trinity-Pacific Church (formerly Register No.305), Holy Trinity Church at Avonside (Register No.3113) and the Provincial Hotel on Cashel Street.
51. Many unreinforced masonry heritage buildings have been destroyed or damaged by the earthquakes. In addition to Appendix 2 of this submission, examples of heritage loss can be found on the NZHPT's website 'heritage lost':  
<http://www.historic.org.nz/en/TheRegister/Heritage%20Lost.aspx>
52. One example of heritage loss is the NZHPT's property at Timeball Station which was severely damaged with partial collapse and severe cracking following the Christchurch earthquake of 22 February 2011. Timeball Station was further damaged in subsequent aftershocks and the NZHPT Board made a decision to deconstruct the remaining fabric in April 2011.

### **Heritage Learnings from the Canterbury earthquakes**

53. New Zealand is not alone in its experience of dealing with cultural heritage values and disasters. For this reason, there is a developing international framework for managing disaster risk reduction and cultural heritage. In terms of overall disaster risk reduction, this framework is referred to as the Global Platform for Disaster Reduction (GP). The primary international document for the GP is the Hyogo Framework for Action 2005-2015 (the Kyogo Framework).<sup>9</sup> The Kyogo Framework aims to achieve 'substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of

communities and countries.’ The Kyogo Framework has been adopted by the Sixty-fourth session of the UN General Assembly (21 December 2009).<sup>10</sup> Article 4(ii)(f) states that culturally important lands and structures should be protected from disasters ‘through proper design, retrofitting and re-building, in order to render them adequately resilient to hazards.’

54. The post-earthquake situation in Canterbury highlights the need to reassess all aspects of civil defence, building safety and emergency management with regard to heritage. This will involve all the four R’s of risk reduction, readiness, response and recovery.

## **Risk reduction**

### **National Co-ordination**

55. With regard to risk reduction, there is need for closer integration between emergency management, building safety and cultural heritage institutions and corresponding need for enhanced research, data management, policy and guidance, especially in links between the National Civil Defence Emergency Management Strategy and earthquake-prone policy under the Building Act 2004. Formal linkages or procedures in New Zealand between the heritage agencies and the disaster management agencies such as the Ministry for Civil Defence and Emergency Management are lacking.

### **Research**

56. There appears to be no specific funding allocated in New Zealand for research into disaster management and cultural heritage by agencies such as Geological and Nuclear Sciences (GNS) and the Ministry for Research, Science and Technology (MORST).

### **National policy for earthquake-prone buildings**

57. NZHPT considers greater attention is required to develop a nationally directed and locally coordinated earthquake strengthening programme. This issue was raised by the NZHPT in its submission on the Building Bill in 2003. While the NZHPT supported earthquake-prone policies to be prepared by territorial authorities, the NZHPT advocated for greater national guidance in terms of building safety processes; procedures for informing and consulting owners and affected parties; procedures for heritage buildings; assistance criteria and policy and other legal obligations.
58. Considering the range of existing earthquake-prone policy approaches prepared by territorial authorities since 2004, the NZHPT continues to advocate for greater national guidance, especially to ensure a consistent and active approach is taken in high earthquake hazard areas of New Zealand. Improved national guidance should support and enhance the implementation of earthquake-prone policy at the territorial authority level.

### **Building Act 2004 and NZ Building Code**

59. Changes to the Building Act 2004 should be investigated to ensure:

- Adequate national guidance for active identification of earthquake-prone buildings.
- Guidance for managing earthquake-prone buildings and the issuing of section 124 notices.
- Explicit strengthening and timeframe targets for alterations, change of use and

earthquake-prone provisions.

- Statutory recognition of processes such as building safety evaluation.
60. There is existing uncertainty about the legality of strengthening targets under the Building Act 2004 beyond 34% of the NBS. For example, Christchurch City Council has established a target of 67% of the NBS within their earthquake-prone policy. This objective, however, has been challenged by some groups who have questioned the legal requirement to strengthen of 67% of NBS. Earthquake-prone policies would be enhanced by providing legislative clarification with regard to matters such as strengthening targets and timeframes.
61. Shoring and earthquake strengthening is often treated as an ‘alteration’ under the Building Act 2004. This work may trigger other NZ Building Code requirements under section 112 of the Act which may be an obstacle for building owners. In a post-disaster situation, there should be provision for shoring and earthquake-strengthening to take place without regulatory delay.
62. New Zealand’s Building Code (or new building standard, NBS) system remains designed for ‘new buildings’ and building regulation has not followed overseas trends in the development of building codes for existing buildings as led by the International Code Council (ICC). This issue was raised by the NZHPT’s submission to the building code review in 2006 which also highlighted the value of a building code designed for heritage buildings such as the California State Historic Building Code (CBSC). The NZHPT considers that the value of an existing building code should be explored for New Zealand. This code could also govern repairs and strengthening standards of damaged buildings.

### **Resource Management Act 1991 (RMA)**

63. In a post-disaster situation (including following the lifting of a state of an emergency) owners of buildings should be able to undertake works such as temporary shoring, repair and strengthening with the minimum of regulatory hurdles and costs. There should be minimal barriers, for example, to the erection of temporary props to secure facades and parapets.
64. The NZHPT considers that district plan heritage rules prepared under the RMA should facilitate earthquake strengthening and other alterations to improve fire safety and access. These safety-related alterations should be encouraged by robust controlled activity rules. There should also be flexibility to undertake shoring repairs and safety-related alterations under the RMA in a post-disaster situation.
65. Further, more streamlined systems could be developed to integrate Building Act 2004 and RMA consent processes with regard to proposed work involving earthquake-prone buildings.
66. The RMA can also facilitate adaptive reuse of heritage buildings by ensuring that a permissive approach is taken to change of use and adaptive reuse.

### **Readiness and response**

67. Improved readiness processes are required to ensure there are operational systems and capabilities for heritage that are ‘ready to go’. These processes should enable an effective response – being able to respond to a civil defence emergency affecting heritage in an integrated manner. While the NZHPT was able to respond promptly in Christchurch, despite not having a formal and agreed role, there were substantial delays in Gisborne

which exposes the risk of disasters in more isolated and rural cities and districts.

68. In terms of response, the NZHPT considers that the building safety evaluation process during a state of emergency is of fundamental importance. While the NZSEE's building safety evaluation guidance is supported by the Department of Building and Housing and the MCDEM, it lacks legislative status. Further issues require consideration such as when building safety evaluation should take place in the absence of a civil defence emergency, as was the case following the earthquake of 26 December 2010.
69. Response and recovery guidance and procedures for heritage places are necessary. This guidance should be informed by international best practice and cover the range of actions required including building safety evaluation, making safe, shoring, repairs and strengthening. This should also address any regulatory barriers noted above, such as the need for resource consents for repairs and earthquake strengthening in a post-disaster situation.

### **Costs and incentives**

70. As indicated above, the NZHPT has provided advice to Christchurch City Council and CERA about the demolition and repair of heritage buildings. The NZHPT's approach has been to promote best practice for earthquake response including advice for making safe and shoring up in the first instance and then advice for repairs and strengthening. The NZHPT's advice and recommendations, however, have often been 'overruled' by economic or other considerations. While many owners are unable to meet the costs of repair and strengthening of damaged buildings, there can be also other matters that hamper process such as the inability to allow shoring and props that restrict pedestrian or traffic flow.
71. Fundamentally, community resilience is enhanced by risk reduction programmes that involve on-going maintenance, repair strengthening and retrofit before disasters happen. It is more cost effective to take a proactive approach to strengthening buildings than trying to prop-up and repair and strengthen damaged buildings.
72. There is a need to develop a national programme for earthquake strengthening with funding available at both national and local levels as an incentive for owners of earthquake-prone buildings. This incentive could be in the form of a tax credit, loans or grants. An effective approach will aim to share the costs of earthquake strengthening among owners, territorial authorities and central government as a collaborative approach. While heritage is a public good, it is often under private ownership.

### **Insurance**

73. As outlined in the National Civil Defence Emergency Management Strategy, recovery is about 'coordinated efforts and processes to bring about the immediate medium-term and long-term holistic regeneration of a community following a civil defence emergency.' This is achieved by implementing 'effective recovery planning and activities in communities and across the social, economic, natural and built environments.'
74. Recovery, however, has been hampered by a diverse variety of insurance arrangements with many instances of inadequate insurance. This means that there is often a gap between what insurance or the property owner can pay and what repair and strengthening work is required to achieve public goals of safety, recovery and heritage.
75. The Canterbury earthquakes have illustrated that current private insurance of heritage buildings arrangements are often inadequate. The NZHPT considers that the insurance

coverage provided by Earthquake Commission (EQC) could be expanded to include commercial and public heritage buildings. Such a levy arrangement could have a discount for heritage buildings that have been earthquake strengthened as an incentive.

**Conclusion**

76. The Canterbury earthquakes have resulted in loss of human life, infrastructure and buildings. Many heritage buildings have been damaged and destroyed and this loss has had an adverse effect on the identity and character of Christchurch.

77. The NZHPT can provide further information to the Royal Commission on matters relating to earthquakes and heritage places.

Signed

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**Attachments:**

Appendix One: Maps of Damage to Registered Buildings in Central Christchurch  
Appendix Two: Damage to Significant Heritage Buildings in Central Christchurch