



UNDER

THE COMMISSIONS OF INQUIRY ACT 1908

IN THE MATTER OF

**ROYAL COMMISSION OF INQUIRY INTO BUILDING
FAILURE CAUSED BY CANTERBURY EARTHQUAKES**

**KOMIHANA A TE KARAUNA HEI TIROTIRO I NGĀ
WHARE I HORO I NGĀ RŪWHENUA O WAITAHA**

**STATEMENT OF EVIDENCE OF RONALD JOHN BUCHAN RELATING TO THE
HISTORY OF EARTHQUAKE REMEDIATION REQUIREMENTS**

DATE OF HEARING: WEEK BEGINNING 30 JANUARY 2012

Legal Services Unit, c/o 28 Hereford Street, Christchurch 8013
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INTRODUCTION

1. My name is Ronald John Buchan. I held four different positions at the Christchurch City Council over 3 periods of time. I held the position of Engineering Services Manager from August 2010 to December 2010, Building Control Manager from September 1995 to August 2010, Business Liaison Manager from September 1992 until September 1994 and I worked as an Assistant Engineer from December 1969 to December 1971.
2. During my career, I have also held the position of Special Project Manager with the Carter Group, Construction Manager with Fletcher Development & Construction Limited, Manufacturing Manager for Gough Gough & Hamer Ltd, South Island Branch Manager for Ist Consolidated Limited, and Manager for Flewellen & Lipscombe Ltd.
3. Currently I am a casual employee of the Council, assisting with matters related to the Royal Commission hearings.
4. During the State of Emergency following the earthquake of 4 September 2010, I was one of the Council staff who worked in the role of rescue and building evaluation manager for the Civil Defence Emergency Management Group.
5. I have 19 years of experience working for local government, including 15 years in building control. I was a member of the New Zealand Society for Earthquake Engineering committee on post earthquake building safety evaluation. I am a Chartered Professional Engineer and I have a Bachelor of Engineering (Civil) from the University of Canterbury. I also have a Diploma in Management from Christchurch Polytechnic.
6. I have been asked to provide evidence to the Royal Commission relating to the Council's involvement with earthquake prone buildings from 1970 onwards.

HISTORY OF EARTHQUAKE REMEDIATION REQUIREMENTS

7. I have reviewed historical information found by other Council staff that provide an overview of the Council's involvement in requiring the earthquake remediation of buildings in its district. I was employed by the Council at some

but not all of the relevant times, so for periods when I was not employed by the Council I can only comment on what I have found in the historical information.

Order in Council under section 301A of the Municipal Corporations Act 1954 and Council's Policy

8. On 12 June 1969, the Christchurch City Council became a Council to which section 301A of the Municipal Corporations Act 1954 applied, under the Municipal Corporations (Earthquake Dangers) Order 1969. A copy of that order (now repealed) is attached (Annexure A).

9. On the 15 July 1969, the Council resolved in relation to the Municipal Corporations (Earthquake Dangers) Order 1969: *"to recommend that publicity be given to the fact that the Council has the power to require building owners to remove danger either by securing or taking down the building (or part thereof) and invite such owners to commission suitably qualified persons to report on the buildings and recommend action sufficient to comply with the provisions of the Act. Also that a suitably worded standard notice be drafted and served on building owners in those cases where buildings are considered to be an immediate potential danger."* I attach a copy of the resolution made by Council (Annexure B).

10. A policy for priority of application of Section 301A was set by the Council on 15 September 1970. I attach a copy of the report to the Council and the Council's resolution on that report (Annexure C). The priority determined by the Council was:

"1. Remove or strengthen parapets and appendages on buildings in designated shopping streets in the Central Business District, i.e. that area zoned C.4 and C.5 in the District Planning Scheme.

2. Remove or strengthen parapets and appendages on buildings in areas other than shopping streets in the C.B.D.

3. Remove or strengthen parapets and appendages on buildings in areas other than in the C.B.D.

4. Take down or strengthen buildings within the C.B.D.

5. Take down or strengthen buildings in areas other than the C.B.D."

11. In applying this policy, the following procedures were to be followed:-

"1. All buildings should be given a preliminary survey, external only, by an officer of the Council.

2. The owner should be advised that a preliminary survey has shown that the building may not comply with the requirements of the Municipal Corporations Act and suggest that the owner contact the Buildings Engineer and discuss the problem with him. This correspondence should be typed and signed as a personal letter and should clearly state that it is not a notice as required by the Municipal Corporations Act.

3. Explanatory information sheets should be prepared which can be given to owners when they come to discuss the problem of strengthening their building with the Buildings Engineer. Such information should:-

(a) Show the need for the strengthening requirement.

(b) Detail the rights of owners as stated in the M.C. Act.

(c) Advise the owner to engage a competent building consultant who can design the strengthening to meet the Council's and the owners requirements. Buildings which are to be used by Government Departments require a greater degree of strengthening than the minimum requirements of the M.C. Act."

Steps taken by the Council in relation to earthquake-prone buildings during the 1970s

12. More information as to how the Council applied the 1970 policy, can be found in a letter from the Council, dated 14 August 1975 to the City Engineer Whangarei City Corporation, about section 301A of the Municipal Corporations Act (Annexure D). The letter includes the following comments:

“...Most building owners have been co-operative and parapets are generally removed if the request for removal is made at the time other alterations are being made to the building. Formal notice has been served in only one case and this resulted in the immediate removal of the parapet.

On the basis of general visible conditions of buildings many owners were written to soon after the Act became effective. (Typical letter enclosed)....

Since that date the enclosed survey form has been used and in most cases buildings classified A or B have already been written to. The survey has not been completed but most owners are now aware of the requirements of the Act. Copies of the enclosed information sheet were sent to all 500 members of the Real Estate Institute and 300 members of the Institute of Valuers. These distributions were probably the most effective method of ensuring that owners were aware of the requirements of the Act....”

13. There was no “typical” letter attached to the copy of this 1975 letter, but I have found a copy of a building survey form and building assessment table (Annexure E). I am not certain whether these documents are the form referred to in the 1975 letter, but there is a reference on the building classification table to section 301A of the Municipal Corporations Act.
14. I also found an example of the letters sent to the real estate agents institute and the valuers institute. The letters I found are dated 21 November 1972. (Annexure F). The letter refers to an information sheet that summarises the requirements of the Municipal Corporations Act and the Council’s Bylaws. I also attach a sheet I found in the Council files, which appears to be the document referred to in those letters (Annexure G).
15. In a letter dated 26 April 1976 to Wargon, Chapman & Gurley Consulting Engineers Auckland, the Council’s City Engineer said: *“In the Christchurch City area parapets and immediate hazards are being removed at the rate of about 3 or 4 a month but only two buildings have been “strengthened” and in retrospect it would seem that the economics of “strengthening” are doubtful.”* (Annexure H).

16. In a memorandum to the Mayor dated 25 June 1976 (Annexure I) the City Engineer provided comments on the Council's current policy and practices relating to the strengthening of old buildings against earthquake hazards. The memorandum notes that in the years between 1968 and 1976 demolitions associated with the central city redevelopment had removed many buildings to which section 301A would have applied.
17. The memorandum also advised that the owners of many buildings had already removed parapets and hazards and three buildings had also been strengthened. It also notes that in the past two years parapets had been removed at the rate of three or four per month, and comments on the fact that all Estate Agents and Registered Valuers had been advised of the requirements of the Act. The City Engineer considered it likely that most owners would now be aware that certain buildings should be secured.
18. The memorandum also notes that in the latter part of 1975, a comprehensive survey of the central area was begun, with the aim of classifying each building in the area. As a result of the survey, several owners had been written to and advised that their buildings may not comply with the requirements of the Municipal Corporations Act. The owners were advised to obtain their own consultant's report.
19. In a letter dated 22 August 1978 to the City Engineer of Hamilton City Council (Annexure J), the Council's City Engineer commented that:

"Whilst progress had been steady over the last eight years, it has been slower than the somewhat optimistic assessment of expected progress originally made.

...

Our present policy is to write to all owners whose buildings are classified as "A" as a result of our visual survey. The letter usually states that we are of the opinion that the building may not comply with Section 301A of the Municipal Corporations Act . We enclose a copy of the information sheet (see enclosure) and suggest that they discuss the future of the building with us. We conclude the letter by stating that the letter is not a notice under the Act.

If no reply is made within a year we then send a further letter and in four cases we have subsequently served notice under the Act. In all four cases no further legal action has been undertaken because a strengthening programme has been agreed.

Only three buildings had been strengthened to the extent that we would be prepared to certify that the building will not collapse in a moderate earthquake. In most cases we prefer to persuade owners to remove immediate hazards and undertake to redevelop in about a ten year project. In many cases the permit issued to remove the immediate hazards is issued in terms of section 387A of the Municipal Corporation Act. An agreement to redevelop within a specified time is then registered as a caveat against the title....”

20. An example of a letter to a building owner that stated it was not a section 301A notice is attached: letter dated 13 October 1972 to the Manager M.L.C Assurance Co Ltd (Annexure K). The letter suggested that the building owner consider the structural stability of the building and its appendages while scaffolding was in place in relation to other work being carried out.
21. I also found an example of one of the notices the Council did issue under section 301A, in relation to the Masonic Hotel building in Gloucester St. Attached to this statement is a copy of the initial letter to the owner of the hotel, dated 8 October 1971, the notice dated 23 January 1973, and a letter from the owner dated 16 March 1973, advising they have arranged for the work to be carried out (Annexure L).

Steps taken by the Council in relation to earthquake-prone buildings during the 1980s

22. In a letter dated 26 March 1981 to Spencer Holmes Miller & Jackson, Consulting Engineers, Wellington, (Annexure M), the City Engineer explained the approach the Council had taken in relation to section 624 of the Local Government Act (which section replaced section 301A of the Municipal Corporations Act in 1979) and said: *“there had been a good response from building owners and in the last 15 years the percentage of office space in the central area which would be considered seismic risk has dropped from 80% of available floor space to 40% of available floor space. Redevelopment has played a large part in this*

improvement and we have found that most owners would rather remove immediate hazards now and redevelop in 5 to 10 years than strengthen or secure the building in a 2 to 3 year period."

23. The letter also notes the writer's view that: "*It is unlikely that the service of a large number of formal notices would have effected a greater reduction in the number of seismic risk buildings.*" The writer also commented that: "*The general policy applied by this Council to privately owned buildings is to require the removal of obvious hazards immediately (i.e. parapets and appendages) and to require that the building be redeveloped within a ten year period. In some cases a temporary building permit is issued and a caveat registered against the title to ensure that demolition or strengthening is undertaken in ten years time.*"
24. In a report of the Town Planning Committee (from its meeting dated 27 April 1989), to the Councils meeting on 15 May 1989, the conversion of existing buildings and the application of bylaw requirements was discussed. A set of criteria for the seismic upgrade of older buildings undergoing alteration or change of use was set out and criteria for making a dispensation application. The recommendations of the Town Planning Committee were adopted by Council. The report and its attachment, and the Council minutes showing the adoption of the report are attached (Annexure N).
25. In 1989, the Christchurch City Council amalgamated with a number of other councils as part of the local government reorganisation. As not all of the other Councils had applied under section 301A Municipal Corporations Act 1954 or section 624 Local Government Act 1974 to become approved Councils (only Waimairi District Council had), the Council made a resolution on 27 August 1990 to formally apply to the Minister of Local Government under section 624. I attach a copy of the Local Government (Earthquake Dangers) Order (no 3) 1990 (now repealed) (Annexure O).

Earthquake-prone buildings and the Building Act 1991

26. In a report to the Environmental Committee dated 13 February 1992 the Building Control Manager reported on Earthquake-prone buildings and the new Building Act 1991 (Annexure P).

27. The Building Control Manager reported that the new Act had “*radically altered*” how a Territorial Authority is to deal with earthquake-prone buildings. In a section of the report on the interpretation of the legislation, it stated that past policy had been to achieve seismic strengthening when building alterations were being undertaken. The view regarding the new Act was that the Council was purposefully not empowered to require owners to upgrade the earthquake resistance of their aging buildings when alterations, repairs, additions or refurbishment works are undertaken. Strengthening could only be required if there was a proposed change of use.
28. The report set out the powers available in section 66 of the Building Act 1991 regarding buildings which are deemed to be earthquake-prone. Another important difference in the wording of section 66, compared to the section 301A/section 624 wording, is the reference to a building only being earthquake-prone if it would “*have its ultimate load capacity exceeded in a moderate earthquake and thereby would be likely to suffer **catastrophic** collapse causing bodily injury or death to persons in the building or to persons on any other property or damage to any other property*”.
29. The wording in the earlier provisions only required that the building “*thereby **constitute a danger** to persons therein or in any adjoining building or on any adjoining land or to passers-by*”. The requirement for catastrophic collapse of a building appears to be a more strict test. I attach section 66 and its commentary from Brooker’s Building Law (last updated 30 April 2003) (Annexure Q). This was a regular reference source on the Building Act 1991 for myself and the Council building team. The commentary at D66.05 is particularly relevant in relation to the change in wording to “catastrophic collapse”.
30. Although the 1992 report to Council notes that section 66 “deems” when a building is earthquake-prone rather than a Council needing to be “satisfied” of the danger, as under the former section 624, a Council would still need to be satisfied of certain things in section 66, including whether there would be “catastrophic” collapse of a building, causing death or injury or damage to other property.
31. The report also tabled a Building Control Unit report on age, state and condition of earthquake risk buildings in central Christchurch. This report was the result of a visual survey. The report listed 81 class A and 63 class A/B earthquake risk

buildings. The report also notes that a current visual survey is being conducted, and a detailed earthquake engineering study on a specific building is to be undertaken. As the Building Act 1991 was still not yet in force in February 1992, any notices to be issued or action taken on the building would still have been under section 624 Local Government Act 1974, as noted in the report.

Steps taken by the Council in relation to earthquake-prone buildings during the 1990s/2000s under the Building Act 1991 and prior to the introduction of the Earthquake Prone Buildings Policy 2006

32. I worked at the Council as Building Control Manager from 1995. I am aware of the Council's processes around that time, under the Building Act 1991, in relation to dealing with potential earthquake-prone buildings.
33. When an enquiry about altering an unreinforced masonry building was received, or a building consent application for an unreinforced masonry building was received, the applicant would be advised that as part of the information to be supplied with the consent application an engineer's report on the earthquake strength and condition of the building, together with a proposed program or work to strengthen the building, would be required. The applicant would then either supply a report and negotiate a strengthening program or would withdraw the consent application.
34. I attach a letter from the Council dated 20 April 1994 about possible alterations to be carried out at 753 Colombo Street. The letter noted the requirement for an engineer's report if a building consent application was made and recommended that an experienced structural engineer be consulted. (Annexure R)
35. I am aware that at the Royal Commission's hearing on unreinforced masonry buildings the Royal Commission asked if the Council could provide further information on buildings that had been strengthened during the 1970s, 1980s and 1990s. I attach two maps that show the numbers of earthquake remediation works carried out on buildings in the Christchurch district from prior to 1968 through to 2006: one map shows the central city and the other map is of the wider city area (Annexure S).
36. The maps show the buildings at which works took place, but the numbers relate to the works carried out rather than the number of buildings. In total there were

349 earthquake remediation works carried out in the city, which is broken down into:

- (a) Earthquake remediation works carried out between 1993 – 2006 = 124
- (b) Earthquake remediation works carried out between 1981 – 1992 = 92
- (c) Earthquake remediation works carried out between 1968 – 1980 = 56
- (d) Earthquake remediation works carried out prior to 1968 = 12
- (e) Earthquake remediation works carried out on a date unknown = 65

37. I am aware that the Royal Commission was interested in whether information would be available regarding the type of work done on each building, and the reasons why the strengthening work was done (for example, whether it related to a change of use of the building, the owner voluntarily decided to strengthen the building, or whether the strengthening came about as a result of letters (or notices) sent by the Council to the owner).
38. The information compiled for the purposes of the maps is not in a form that enables me to answer these questions with any degree of certainty. The only way this could be done would be for each building file (approximately 246 files) to be comprehensively reviewed. This would be extremely time consuming.

Earthquake-prone buildings and the Building Act 2004

39. I was still working for the Council as Building Control Manager when the Building Act 2004 came into force. That Act again changed the way Councils were to deal with earthquake-prone buildings, which definition now included all buildings not just unreinforced masonry buildings.
40. Other changes between the 1991 Act and the 2004 Act included the removal of the word "catastrophic" in relation to the collapse of a building in a moderate earthquake. The standard against which a building's strength was assessed changed from 50% of the 1965 Model bylaw to 33% of current code requirements.
41. The definition of a "building" also changed so that "part of a building" was no longer included within the definition. It is not clear, but enforcement action in respect of a part only of an earthquake-prone building might not be possible in light of the new definition. Other changes included the removal of the objections

process and the introduction of a requirement for a policy on dangerous, earthquake-prone and insanitary buildings.

42. All territorial authorities were required to adopt a policy on dangerous, earthquake-prone and insanitary buildings by 31 May 2006, using the special consultative procedure in the Local Government Act 2002. The Council worked on its first policy through seminars on the 14 June 2005 and the 5 October 2005. It then approved a draft policy for consultation at its meeting on 15 December 2005. The Council sought public submissions between 19 December 2005 and 24 February 2006.
43. The Council had made use of the Guidance material from the Department of Building and Housing on developing these new policies. The Council's draft policy was fairly similar to the model policy suggested by the Department. That policy included timeframes for strengthening of earthquake-prone buildings of between 15 and 30 years. The Council's draft policy included the same time frames, but the final policy adopted removed the timeframes, among other changes, as a result of submissions on the draft policy.
44. There were 50 submissions made on the draft policy and a hearing was held on 27 March 2006, at which there were 13 oral submissions made. Amendments to the policy were suggested by the Council Hearings Panel to the Council as a result of the submissions made on the policy. This demonstrates that the Council had properly consulted on the draft policy and considered the views of its community, as required by the special consultative procedure.
45. The same special consultative procedure was followed before the 2010 Policy was adopted by the Council. When the draft 2010 Policy was before Council for approval on 25 March 2010 it was stated that the report's recommendations for the Policy were in accord with *"the Council's previous resolution to take an active approach to seeking to reduce earthquake risk over time, in a way which is acceptable in both social and economic terms"*.
46. The major change recommended to the 2010 Policy from the 2006 Policy was to introduce timeframes for strengthening that would apply from 1 July 2012. A further amendment proposed was to grant an extension of the timeframes for up to three years for building owners who had made significant progress in preparing for strengthening works to commence. Heritage buildings were also

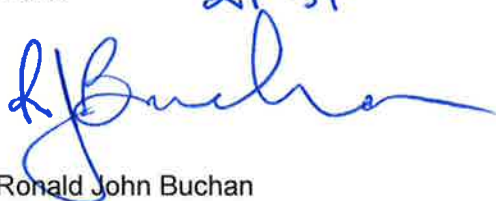
removed as a separate category and were to be treated the same as other buildings. A new provision was included requiring owners to take action if their building was damaged in an earthquake.

47. There were 26 submissions received by the closing date of 7 May 2010, and a hearing was called on 14 June to hear the oral submissions. The Panel reconvened on 22 June, 30 July and 5 August to consider the submissions and agree changes to the Policy. Further changes were discussed by the Council at its extraordinary meeting on 10 September 2010, following the 4 September earthquake.
48. The process followed by the Council for the 2010 Policy also demonstrates it properly consulted on the draft policy and considered the views of its community, as required by the special consultative procedure.

Dated

21ST

December 2011



Ronald John Buchan

"A"

ns 1960, 1969/102

SUBSIDIARY OR DIVISIONS OF TRUST BOARD

Specific Sections or Divisions Represented
Atiawa tribe.
Ngati Mutunga tribe.
Ngati Maru tribe.
Ngati Tama tribe.
Ngati Ruanui tribe.
Ngaruahine tribe.
Taranaki tribe.
Ngarauru tribe.

P. J. BROOKS, Clerk of the Executive Council.

ended to indicate their general

of members of the Taranaki members, with one member tribes. After the next election e represented by one member.

ct 1936.

and Island Affairs Department.

(95r) 1969 p. 493
MUNICIPAL CORPORATIONS (EARTHQUAKE DANGERS) ORDER 1969/103
 REPEALED (as from 1/7/92) BY s. 92(3) of Act 1991 No. 150
 (BUILDING ACT 1991)



THE MUNICIPAL CORPORATIONS (EARTHQUAKE DANGERS) ORDER 1969

ARTHUR PORRITT, Governor-General

ORDER IN COUNCIL

At the Government House at Wellington this 9th day of June 1969

Present:

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL

PURSUANT to the Municipal Corporations Act 1954, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, and on the application to the Minister of Internal Affairs by the Councils concerned, hereby makes the following order.

ORDER

1. Title—This order may be cited as the Municipal Corporations (Earthquake Dangers) Order 1969.

2. Councils authorised to exercise powers under section 301A of Act—The following Councils are hereby declared to be Councils to which section 301A of the Municipal Corporations Act 1954 (as inserted by section 22 of the Municipal Corporations Amendment Act 1968) applies, namely:

- The Christchurch City Council,
- The Nelson City Council,
- The Winton Borough Council.

P. J. BROOKS, Clerk of the Executive Council.

"A"

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Municipal Corporations (Earthquake Dangers) Order 1969

1969/103

EXPLANATORY NOTE

This note is not part of the order, but is intended to indicate its general effect.

The effect of this order is that the Christchurch and Nelson City Councils and the Winton Borough Council will be empowered to exercise the powers conferred by section 301A of the Municipal Corporations Act 1954 in relation to buildings likely to be dangerous in an earthquake.

Issued under the authority of the Regulations Act 1936.
Date of notification in *Gazette*: 12 June 1969.
This order is administered in the Department of Internal Affairs.

EXPLANATORY NOTE

1969/103

Christchurch and Nelson City Councils

Winton Borough Council

12 June 1969

The effect of this order is that the Christchurch and Nelson City Councils and the Winton Borough Council will be empowered to exercise the powers conferred by section 301A of the Municipal Corporations Act 1954 in relation to buildings likely to be dangerous in an earthquake.

Issued under the authority of the Regulations Act 1936. Date of notification in Gazette: 12 June 1969. This order is administered in the Department of Internal Affairs.

1969/103

" B "

15.7.69

CLAUSE 7. COMPREHENSIVE DEVELOPMENT -
URBAN RENOVATION - GRACEFIELD AVENUE -
MR P. BEAVER:

As a result of the discussion on this proposal, it was resolved that approval in outline only be given at this stage, such approval to hold good for three months on the understanding that the developer makes progress to the Council's satisfaction within this period.

BUILDING

CLAUSE 1. BUILDING WITHOUT A PERMIT -
168 HUXLEY STREET - J. BURFORD:

It was resolved that the application be approved in accordance with the siting mentioned in the Clause.

CLAUSE 2. REDUCED REAR YARDS -
614 HELEFORD STREET/613 CASHEL STREET:

It was resolved that the previous decision be adhered to and that the applicant be invited to disclose the location of the property which he referred to.

CLAUSE 3. REDUCED COURT -
49 FLEMING STREET:

It was resolved that the application be approved, as access to the rear is not available.

CLAUSE 4. REDUCED SIDE YARD -
82 GREENPARK STREET:

CLAUSE 5. GARAGE IN SIDE COURT -
WEST CHR MILTON STREET/
DOMINION AVENUE:

It was resolved that the previous decision be adhered to.

CLAUSE 6. THE MUNICIPAL CORPORATIONS
(EARTHQUAKE DANGERS) ORDER 1969:

It was resolved to recommend that publicity be given to the fact that the Council has the power to require building owners to remove danger either by securing or taking down the building (or part thereof) and invite such owners to commission suitably qualified persons to report on the buildings and recommend action sufficient to comply with the provisions of the Act. Also that a suitably worded standard notice be drafted and served on building owners in those cases where buildings are considered to be an immediate potential danger.

CLAUSE 7. CARPORT - 49 AORANGI ROAD:

It was resolved that if the owner submits proper plans in duplicate for permit purposes, that extra purlins be provided in the roof, that the rafters be adequately strengthened and that the roof water be discharged to the Aorangi Road side channel, a permit be granted.

It was further resolved that the owner be given eight weeks only to comply.

15.9.70

21
BuildingsEARTHQUAKE RESISTANCE OF BUILDINGS

An amendment to the Municipal Corporation in November 1968 gave Councils the power to require buildings which would be a danger in a moderate earthquake to be strengthened. Available information suggests that there are many buildings in the Central Business District which will require strengthening. It would be neither reasonable nor possible to expect building owners and the building industry to strengthen all buildings immediately.

A programme of priorities must therefore be developed which has due regard to the importance of public safety and yet is reasonable as far as the building owners are concerned.

The City Solicitor has commented on the various clauses of the By-law and the Municipal Corporations Act and in effect the law appears generally to declare:-

- (1) If an existing building will not withstand a moderate earthquake, the Council must use Section 301A of the Municipal Corporations Act and its appeal system to require the building to be secured against collapse in a moderate earthquake, or taken down.
- (2) If an existing building will withstand a moderate earthquake but not the design earthquake, Section 301 is no longer applicable. Where alterations are being made the Building By-Law No. 51 and Section 306 of the Act will apply and no alterations will be permitted which will reduce the building strength below that existing.
- (3) If a building has been built in such a way that it will withstand the Design Earthquake, then the requirement "complied with as far as is reasonably practicable" will in most cases mean that the strength of the altered building shall be such that it complies with full design requirements.

A suggested policy for priority of application of Section 301A of the Municipal Corporations Act would be:-

1. Remove or strengthen parapets and appendages on buildings in designated shopping streets in the Central Business District, i.e. that area zoned S.1 and C.5 in the District Planning Scheme.
2. Remove or strengthen parapets and appendages on buildings in areas other than shopping streets in the C.B.D.
3. Remove or strengthen parapets and appendages on buildings in areas other than in the C.B.D.
4. Take down or strengthen buildings within the C.B.D.
5. Take down or strengthen buildings in areas other than the C.B.D.

In the application of this policy the following should be followed:-

15.9.70

P2
Buildings

...CONTD.

1. All buildings should be given a preliminary survey, external only, by an officer of the Council.
2. The owner should be advised that a preliminary survey has shown that the building may not comply with the requirements of the Municipal Corporations Act and suggest that the owner contact the Buildings Engineer and discuss the problem with him. This correspondence should be typed and signed as a personal letter and should clearly state that it is not a notice as required by the Municipal Corporations Act.
3. Explanatory information sheets should be prepared which can be given to owners when they come to discuss the problem of strengthening their building with the Buildings Engineer. Such information should :-
 - (a) Show the need for the strengthening requirement.
 - (b) Detail the rights of owners as stated in the M.C. Act.
 - (c) Advise the owner to engage a competent building consultant who can design the strengthening to meet the Council's and the owners requirements. Buildings which are to be used by Government Departments require a greater degree of strengthening than the minimum requirements of the M.C. Act.

Attached, as Appendix I is a copy of the type of information which would be distributed to any owners affected.

Recommendation: That the Committee adopt the suggested policy and confirm the adequacy of the information to be distributed.

2. ADDITIONS TO SUBSTANDARD LIVING QUARTERS
272 Barbadoes Street

Owner: D.V. Syme

An application for permission to erect additions to an existing building at the rear of 272 Barbadoes Street was received on the 17th August, 1970. The purpose of the proposed work was to upgrade the building to comply with the minimum requirements of the Housing Improvement Act as habitable rooms. The applicant and the owner were advised that a building permit could not be issued as the occupation of the buildings for residential purposes was in contravention of the By-Law.

The buildings in question were erected for the present owner in 1953 and 1955 as outbuildings and it can be assumed that he was well aware, at that time, that it was unlawful to permit them to be used for living purposes. They have been occupied for some time as living rooms.

The owner has appealed against the refusal to issue a building permit and the property has since been viewed by two members of the Town Planning Inspection Committee.

The decision of the Committee is requested.

15.9.70

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CLAUSE 8. PROPOSED FLATS:

It was resolved that the application be declined on the grounds that the site fails to comply with the minimum frontage width of 30 feet for a building site laid down in Ordinance 10, Clause 6, of the Council's Operative District Scheme and Ordinance 4, Clause 1(f) of the Reviewed Scheme.

BUILDINGS SECTION

CLAUSE 1. EARTHQUAKE RESISTANCE OF BUILDINGS:

It was resolved to recommend the adoption of the suggested policy and confirmation of the adequacy of the information to be distributed.

CLAUSE 2. ADDITIONS TO SUB-STANDARD LIVING QUARTERS:

It was resolved that this Clause, together with the information that the application does not comply with the Building By-laws and Town Planning Ordinances, be referred to the Health and Clean Air Committee.

CLAUSE 3. DETACHED ROOM - 40 LYTTLETON STREET:

It was resolved that the bond be extended for a further three years.

CLAUSE 4. DETACHED ROOM - 53 MCLEAN STREET:

It was resolved that the application be approved for a period of three years, with the usual bond being entered into.

CLAUSE 5. DETACHED ROOM - 68 ROSE STREET:

It was resolved that the bond be extended for a further three years.

CLAUSE 6. DETACHED ROOM - 177 HALSWELL ROAD:

It was resolved that the application be approved subject to the usual conditions.

CLAUSE 7. INSPECTING SUB-COMMITTEE DECISIONS:

It was resolved that the decisions be confirmed.

(Or N. G. Pickering arrived)



CITY OF CHRISTCHURCH

CITY ENGINEER'S DEPARTMENT

P.O. BOX 237 CHRISTCHURCH NEW ZEALAND E2/3

IN REPLY PLEASE QUOTE: BU/5/2
IF CALLING PLEASE ASK FOR: Mr Bluck

14 August 1975

The City Engineer,
Whangarei City Corporation,
P.O. Box 42,
WHANGAREI.

Attention Mr Costello

Dear Sir,

SECTION 301A OF MUNICIPAL CORPORATIONS ACT

In reply to your letter of 6 August I confirm that since 12 June 1969 the Christchurch City Council has been a Council to which this Section of the Act applies. The general policy adopted by the Council at that time was that parapets and appendages should be dealt with first and the strengthening of buildings would be done at appropriate times.

Most building owners have been co-operative and parapets are generally removed if the request for removal is made at the time that other alterations are being made to the building. Formal notice has been served in only one case and this resulted in the immediate removal of the parapet.

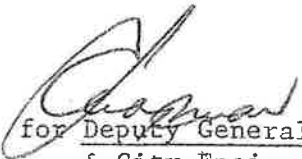
On the basis of the general visible condition of buildings many owners were written to soon after the Act became effective. (Typical letter enclosed). Since that date the enclosed survey form has been used and in most cases buildings classified A or B have already been written to. The survey has not been completed but most owners are now aware of the requirements of the Act. Copies of the enclosed information sheet were sent to all 500 members of the Real Estate Institute and 300 members of the Institute of Valuers. These distributions were probably the most effective method of ensuring that owners were aware of the requirements of the Act.

Only two buildings have been strengthened to comply with Section 301A and in retrospect it is doubtful whether many buildings are worth strengthening. For a 3 or 4 storey building, strengthening costs will be of the order of 30% to 40% of the current market value of the building and at the end of the operation the owner still has an old building which may be damaged in an earthquake, though hopefully it will not collapse. General policy is to encourage owners to remove appendages and think in terms of redevelopment in the 5 to 10 year period. In cases where a building is in poor state of repair a temporary building permit can be issued with a caveat registered against the title. This

D

... caveat will support an agreement to demolish the building in a specified time. (Section 387A of the Act - sample agreement enclosed).

Yours faithfully,


for Deputy General Manager
& City Engineer

Encl.

11075

"E"

BUILDING SURVEY		Date	Ref	Legal		
NAME & ADDRESS	Name of Building					
	Street No.					
OWNER-SHIP	Owned Leased Area					
PLANS	Occupancy 8 hr. 24 hr. 5 days 7 days					
USE	Office, Workroom, Factory, Commercial, Storage, Other					
STRUCTURE	No. of Storeys Mezz. Basement					
	Building Dimensions: Width Length Height					
	Foundation Type: Strip Footing Raft Piles					
	Ground Conditions: Gravel Sand Silt Clay Fill					
	Structural System: Frame Shear Wall L.B.M, B & C					
	Bearing Walls: Wall Bands: Yes/No					
	Street Walls: Column Continuity: Yes/No					
	Building: Original Form Minor Alt. Substantial Alt.					
	Floor: R.C. Wood Eff.Diaph Non Eff.					
	Roof: Pitched Flat					
	Roof Diaphragm: Effective Non Effective					
	Roof Coverings: Concrete Asphalt Galv. Iron					
	Corr.Asbestos Tiles					
	Chimneys: Brick Other					
		Where	Material	Height	Length	Thickness
Parapets						
Verandahs						
Appendages						
Lifts: Number	Open		Enclosed			
Stairs: Number	Type	Wood	Steel	R.C.		
NON STRUCTURAL	Partitions: Brick Breeze Concrete Block					
	Wood Condition					
	Ceilings: Lath Wood Fib. Plaster					
	Condition					
DAMAGE	Cracked Walls Joints Displacement					
	Settlement Remarks					
GENERAL						
STRUCTURAL CONDITION	Poor Fair Good					
	Hazards					
NUMERICAL RATING	Maintenance	Storeys			Classification	
	Appendages	Public Access				
	Wall Continuity	Time Occupied				
	Internal Walls	Persons Occupied				
	Foundations	Date Built				
		Total				

TABLE 1 BUILDING ASSESSMENT

Numerical Rating			
	2	1	0
General Standard of Maintenance	Poor	Fair	Good
Appendages on Street Frontage	Significant amounts of masonry	Minor	Nil
Continuity of External Walls	No continuity	Reasonable continuity	Full Structural Continuity
Effectiveness of Internal Frames	Non-existent	Some Moment Resistance	Fully Effective
Foundation Conditions	Bearing Capacity less than $\frac{1}{2}$ T/ft ²	Gravels etc. Bearing $>\frac{1}{2}$ T/ft ²	Rock
Number of Storeys	More than 4	2 to 4	1
Public Assessability	Central City	Suburban Commercial /Industrial	Residential
Time Building Occupied	More than 50 hours/week	More than 8 less than 50 hours/week	Less than 8 hours/week
Persons in Building When Occupied	More than 4 persons per 1,000 sq. ft.	More than 2 less than 4 persons per 1,000 sq. ft.	Less than 2 persons per 1,000 sq. ft.
Date of Construction	Before 1920	Between 1920 and 1935	After 1935

TABLE 2 BUILDING CLASSIFICATION & REQUIRED ACTION

Total Numerical Rating	Building Classification	Recommended Action
15 and over	A	Immediate Action under Section 301A of Municipal Corporations Act.
12, 13, 14, 15	B	Remedial action within two years
9, 10, 11, 12	C	Remedial action within ten years.
9 and under	D	Probably adequate if building is well maintained.

Wit. P.H. 10
"F"



Corporation of the
City of Christchurch
New Zealand

P.O. BOX 237
CHRISTCHURCH
TELEPHONE 71-679

E2/2

City Engineer's Office
166 Gloucester Street
Christchurch, 1

Your Ref.

Our Ref. BU/5/2

If calling please ask for
Mr. B. Bluck

21st November, 1972.

CLAR B.E. (HONS.)
F.A.B.C.E., F.N.I.I.M.
Engineer

The Secretary,
The New Zealand Real Estate
Institute,
C/o Pickes, Perkins & Hadlee,
P.O. Box 274,
CHRISTCHURCH.

22 NOV 72 13800

Dear Sir,

EARTH UAKE RESISTANCE OF BUILDINGS.

An amendment to the Municipal Corporations Act in November, 1968, gave Council's the power to require buildings which would be a danger in a moderate earthquake to be strengthened. Available information suggests that there are many such buildings in Christchurch. As the cost of strengthening some buildings will be substantial it would be appreciated if you could advise your members of the requirements of the Act or alternatively advise me as to how best to inform Real Estate agents of possible requisitions on buildings.

Enclosed with this letter is an information sheet which gives a summary of the requirements of the Act and the City Council's By-Laws.

Yours faithfully,

[Signature]
for CITY ENGINEER.



ULAR B.E. (HONS.)
F.A.S.C.E., A.F.N.Z.I.M.
Engineer

Corporation of the "F"

City of Christchurch

New Zealand

City Engineers Office

166 Gloucester Street

Christchurch, 1

21st November, 1972.

P.O. BOX 237

CHRISTCHURCH

TELEPHONE 71-679

Your Ref.....

Our Ref. BU/5/2

E1/7

Mr. G.E. Whale,
The Secretary,
Canterbury Branch N.Z. Institute of Valuers,
C/- Baker Bros. Estate Agents Limited,
143 Hereford Street,
CHRISTCHURCH.

22 NOV 72 13823

Dear Sir,

EARTHQUAKE RESISTANCE TO BUILDINGS.

An amendment to the Municipal Corporations Act in November, 1968, gave Council the power to require buildings which would be a danger in a moderate earthquake to be strengthened.

Information available suggests that there are many such buildings in Christchurch. As the cost of strengthening some buildings will be substantial, it would be appreciated if you could advise members of your Institute of the requirements of the Act or alternatively advise me as to how best to inform members of possible requisitions on buildings.

Enclosed with this letter is an information sheet which gives a summary of the requirements of the Act and the City Council Bylaws.

Yours faithfully,

[Signature]
for CITY ENGINEER.

Please Address Correspondence on this matter to "The City Engineer" and quote reference number

Please Address Correspondence on this matter to "The City Engineer" and quote reference number

"G"

City Engineer's Office

166 Gloucester Street

Christchurch 1

EARTHQUAKE RESISTANCE OF BUILDINGS

An amendment to the Municipal Corporations Act in November 1968 gave Councils the power to require buildings which would be a danger in a moderate earthquake to be strengthened. Available information suggests that there are many buildings in Christchurch which will require strengthening. The various clauses of the Municipal Corporations Act and the Christchurch City Council Building By-Law generally declare that :-

- (a) There must be no reduction in the strength of existing buildings
- (b) If buildings are altered or repaired the alterations or repairs must comply with the By-Laws as far as is reasonably possible.
- (c) If buildings do not have moderate earthquake resistance and are a danger they must be secured or taken down under Section 301A of the Municipal Corporations Act.

Where the Council requires a building to be strengthened to resist seismic forces it must make such requirements within the legal framework of the Municipal Corporations Act and the Building By-Laws. In the case of the Christchurch City Council the following clauses are relevant :-

Municipal Corporations Act 1954

Amendment November 1968

Section 301A

- (1) "Moderate Earthquake" means an earthquake that would subject a building to seismic forces one half as great as those specified in the New Zealand Standard Model Building By-Law (N.Z.S. 1900 Chapter 8.)"
- (3) "Where the Council is satisfied that any building ... having regard to its condition ... will have its ultimate load capacity exceeded in a moderate earthquake and thereby constitute a danger ... the Council may ... require the owner ... to remove the danger ..."

Further sections of the amendment :-

- (a) Detail who shall be notified by the Council if the building is considered to be a danger
- (b) Allow the owner sixty days to appeal against the Council's requirements.
- (c) Require that the Council then investigate the owners objection in his presence.
- (d) Require that where the Council reaffirms its decision it shall apply to a Magistrate's Court for a confirming order.
- (e) Require that the Court hearing the application shall have the assistance of two assessors appointed by the Minister.

Section 386.1.14

"Provided that By-Laws regulating and controlling the alteration or repair of buildings in relation to their resistance to earthquake shocks shall have effect only with respect to such parts of buildings as are being directly altered or repaired or whose resistance to earthquake

Christchurch City By-Law (Building)Clause 2.9.2.

"It shall be lawful for the Engineer to refuse a permit ... if he is of the opinion that the age, state or general condition of the building is such that a permit should not be issued."

Clause 3.18.2

"Where the existing building does not possess resistance to seismic forces to the extent required by this By-Law then no alteration will be permitted which in the opinion of the Engineer will reduce its strength below that existing."

The general policy for the application of the requirements of the Act and the Act and the By-Law will be as follows :-

1. If an existing building will not withstand a moderate earthquake, the Council must use Section 310A of the Municipal Corporations Act and its appeal system to require the building to be secured against collapse in a moderate earthquake or taken down.
2. If an existing building will withstand a moderate earthquake but not design earthquake, Section 301A is no longer applicable. Where alterations are being made the Building By-Law and Section 381.1.14 of the will apply and no alterations will be permitted which will reduce the building strength below that existing. (See By-Law — Clause 3.18.
3. If a building has been built in such a way that it will withstand the Design earthquake, then the requirement "complied with as far as is reasonably possible" will in most cases mean that the strength of the altered building shall be such that it complies with full design requirements (See 3.18.1)

It should be noted that a programme of strengthening which complies with the requirements of the Council will not necessarily strengthen a building to the extent required by the Ministry of Works and Development if the building is used by a Government Department.

Apportionment for Tax Purposes

In certain circumstances the cost, or part thereof, of the structural alterations required to comply with the requirements of Section 301A of the Municipal Corporations Act can be considered as a revenue item for tax purposes. It is suggested, therefore, that the designer responsible for the strengthening should, through the client, discuss the matter with the Inland Revenue Department prior to the alterations being carried out.



CITY OF CHRISTCHURCH

CITY ENGINEER'S DEPARTMENT
P.O. BOX 237 CHRISTCHURCH NEW ZEALAND E2/3

IN REPLY PLEASE QUOTE: BU/5/2
IF CALLING PLEASE ASK FOR: Mr Bluck

26 April 1976

Messrs Wargon, Chapman & Gurley,
Consulting Engineers,
27 Symonds Street,
AUCKLAND.

ATTENTION : Mr Gurley

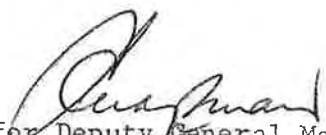
Dear Sir,

SECTION 301A : MUNICIPAL CORPORATIONS ACT

- ... In reply to your letter of 15 April I enclose a draft copy of a Code of Practice which was developed over two years ago and has not been reviewed since then. Also enclosed is a copy of a "survey form" which we are currently using in our block by block survey of the City.

In the Christchurch City area parapets and immediate hazards are being removed at the rate of about 3 or 4 a month but only two buildings have been "strengthened" and in retrospect it would seem that the economics of "strengthening" are doubtful. In certain cases there may be advantages (if considering Town Planning requirements) in retaining an existing building (i.e. a new building would require parking etc.) but our general attitude has been to persuade owners to remove immediate hazards and think about replacement in the five to ten year period. We would generally agree with the Holling's philosophy that to state that an old building has been "strengthened" to resist a specific earthquake is really playing with words. However, it is always possible to "secure" a building to the extent that it will not "collapse" and a careful reading of the Act would suggest that such an approach would comply with the requirements of the Act. As far as Historic buildings, or buildings of architectural merit, are concerned, it would seem logical to "secure" a building at this stage and consider the strengthening of the building after the building has been damaged by the earthquake. "Securing" the building will protect the lives of persons in and near the building. Strengthening the building is a method of protecting an asset and is a decision that must be made by the owner of the building.

Yours faithfully,


for Deputy General Manager
& City Engineer

4983

CHRISTCHURCH CITY COUNCIL

1/9
REF: BU/5/2

INTER-DEPARTMENTAL MEMORANDUM

25 June 1976

From DEPUTY GENERAL MANAGER
& CITY ENGINEERTo THE MAYORTHE EARTHQUAKE RESISTANCE OF OLD BUILDINGS

The General Manager & Town Clerk asked me to give you some comments on the Council's current policy and practices relating to strengthening of old buildings against earthquake hazards.


2 JUN 76 08145

In 1968 an amendment to Section 301 of the Municipal Corporations Act empowered Councils to require owners to secure buildings which are liable to be a hazard in the event of a moderate earthquake. In the intervening years demolitions associated with the redevelopment of the central area have removed many of the buildings to which this section of the Act would have applied. The buildings which are most likely to be a hazard in the event of a moderate earthquake are brick buildings built prior to 1935 - the first year in which by-laws requiring buildings to be designed to resist earthquakes were in force. The owners of many of these buildings have already removed parapets and immediate hazards and three buildings have been strengthened to comply with the requirements of the Act. In the last two years parapets have been removed or strengthened at the rate of three or four per month. Two years ago all real estate agents and all registered valuers were advised of the requirements of the Act and it is likely that most owners of buildings are now aware that buildings should be secured to the extent that they will not be a hazard in a moderate earthquake. Most owners who have been requested to remove parapets or secure buildings in association with other building alterations have agreed to do that work and as a result the formal provisions of the Act have only been used twice.

In the latter part of 1975 a comprehensive survey of the central area was begun and from this survey it is hoped to establish a classification for each building in the area. As a result of this survey several owners have been written to and advised that their buildings may not comply with the requirements of the Act. In most cases it is suggested that they engage their own consultant to obtain an independent opinion on the condition of the building. A survey form and a general information sheet are attached.

In all discussions with owners we emphasise that the requirements of the Act are that the building be secured so that risk to life is minimal. We are not empowered to secure buildings to the extent that property damage will not occur (which appears to be the attitude that the Ministry of Works & Development is taking when considering Government buildings and school buildings.) Unless there are historic or other reasons for retaining a particular building our attitude as officers has been to attempt to persuade owners to remove immediate hazards as soon as possible and consider redevelopment rather than strengthening as the long term solution. As regards the degree of strengthening required the current investigation organised by the Prime Ministers Department is quite irrelevant. The M.C. Act clearly defines the moderate earthquake as half the design earthquake of N.Z.S.1900

Chapter 8 1965. The design earthquake defined in N.Z.S. 4203 is not relevant to the strengthening of a building to comply with the requirements of the Act and the Christchurch City Council has already sponsored a remit to the Municipal Association Conference requesting that in the review of the M.C. Act the design earthquake be retained as that earthquake defined by N.Z.S. 1900 Chapter 8. As far as new building design is concerned it would be quite irresponsible not to use N.Z.S.4203.



Deputy General Manager
& City Engineer

...encls.



" J "

CITY OF CHRISTCHURCH

CITY ENGINEER'S DEPARTMENT

P.O. BOX 237 CHRISTCHURCH NEW ZEALAND E2/2

IN REPLY PLEASE QUOTE: BU/5/2
 IF CALLING PLEASE ASK FOR: Mr Bluck.

22 August 1978

The City Engineer,
 Hamilton City Council,
 P.O. Box 937,
HAMILTON.

For : Mr R. Grey.

Dear Sir,

SECTION 301A MUNICIPAL CORPORATIONS ACT.

Thank you for your letter of 14 August. In 1969 the Christchurch City Council was declared a Council to which Section 301A of the Municipal Corporations Act applied.

It was decided that priority be given to the removal of parapets and other hazardous appendages in the central business district, and that policy has been observed. Whilst progress has been steady over the last eight years, it has been slower than the somewhat optimistic assessment of expected progress originally made.

It should be noted that "The Council" must be satisfied that a building is a risk and even then, the Act says that "The Council may" serve notice in writing. Some Councillors were of the opinion that earthquakes were not a problem in Christchurch and it was agreed that administration of the requirements of the Act would be an additional duty of the existing staff and not the basis of employing more staff (i.e. a "low key" exercise).

The Assistant Chief Building Inspector is responsible for systematically surveying the Central City Area, block by block, using a standard form (see enclosure). Where necessary the building is further checked by an Engineer. As a general rule letters are not sent out until a block has been completed and the buildings have been photographed. It is our opinion that because we are undertaking a systematic survey of the central area we are unlikely to be guilty of negligence if an unsurveyed building is damaged.

Our present policy is to write to all owners whose buildings are classified as "A" as a result of our visual survey. The letter usually states that we are of the opinion that the building may not comply with Section 301A of the Municipal Corporations Act. We enclose a copy of an information sheet (see enclosure) and suggest that they discuss the future of the building with us.

186 GLOUCESTER STREET, CHRISTCHURCH 1 TELEPHONE 791-660
 DEPUTY GENERAL MANAGER AND CITY ENGINEER: P. G. SCOULAR

.../2

We conclude the letter by stating that the letter is not a notice under the Act.

If no reply is made within a year we then send a further letter and in four cases we have subsequently served notice under the Act. In all four cases no further legal action has been undertaken because a strengthening programme has been agreed.

Only three buildings have been strengthened to the extent that we would be prepared to certify that the building will not collapse in a moderate earthquake. In most cases we prefer to persuade owners to remove immediate hazards and undertake to redevelop in about a ten year project. In many cases the permit issued for the removal of the immediate hazards is issued in terms of Section 387 A of the Municipal Corporations Act. An agreement to re-develop in a specified time is then registered as a caveat against the title.

As you are aware the N.Z. National Society for Earthquake Engineering (P.O. Box 243, Wellington) has developed a code of practice for the Classification of High Earthquake Risk Buildings. We have developed our own variation of that code but I believe Blenheim Borough Council is using the code and you may obtain more information from them. I suspect that Blenheim feels that while the Code of Practice is appropriate to Wellington where there are many 3 and 4 storey masonry buildings it is less appropriate to a community with 1 and 2 storey buildings.

One advantage of being a Council to which the Act applies is that in conjunction with the powers of Clause 3.18 of N.Z.S. 1900 it has enabled us to develop a satisfactory policy towards the alteration of older buildings. In the past we have advocated the development of a code of practice giving detailed stress levels for strengthening buildings. If such a code existed there would be a temptation to believe that fancy arithmetic could prove that a building would not collapse in an earthquake. It may be helpful if there was a code which suggested design philosophies only. We have found that all older buildings must be treated on their merits, but until such time as we have had an earthquake we will not know whether we have made a correct assessment of "their merits."

I believe the foregoing answers most of your queries, except the question on unreinforced concrete. We have attempted to avoid strict definition and calculations and have preferred "agreed" solutions. We assist all consultants by discussing their design philosophies and by loaning them whatever plans we have. As a result, there is no conflict of professional opinion and few problems in the administration of the Act.

We have distributed copies of the information sheet to all Valuers and Real Estate Agents and feel that we have the confidence of the business community. Absentee owners and Trusts are probably the only owners who could be considered as difficult in some circumstances.

Yours faithfully,



for Deputy General Manager
and City Engineer.

Encl.

K



M.E. (HONS.)
M.E. A.P.N.Z.I.M.

Corporation of the
City of Christchurch

New Zealand

City Engineers Office

166 Gloucester Street

Christchurch, 1

13th October, 1972.

P.O. BOX 237
CHRISTCHURCH
TELEPHONE 71-679

Your Ref.....

Our Ref. W/5/2

If calling please ask for

Mr. B. Black

The Manager,
M.L.C. Assurance Co. Ltd.,
Cnr. Manchester & Hereford Sts.,
CHRISTCHURCH, 1.

13 OCT 1972 1216

Dear Sir,

A building permit has been issued recently giving approval for the erection of a sign on your building at the corner of Manchester Street and Hereford Street. The erection of this sign will involve a considerable amount of scaffolding and while the scaffold is in place it may be an appropriate time to consider the structural stability of the building and its appendages.

An amendment to the Municipal Corporations Act in November, 1968 gave the Council the power to require buildings which would be a danger in a moderate earthquake to be strengthened.

The building under consideration was built in approximately 1910 and the parapets especially could be liable to be damaged in a moderate earthquake. Enclosed with this letter is an information sheet which gives a general outline of the requirements of the Act and the City Council's Building By-Laws. As a large proportion of the cost of removing the parapet will be the cost of erecting a scaffold I would request that you give serious consideration to the removal of the parapet while the present scaffold is in place.

This letter is intended to draw your attention to the powers of the Act and is not a notice as required by Section 301A of the Act.

Yours faithfully,


for CITY ENGINEER

Please Address Correspondence on this matter to "The City Engineer" and quote reference number

Please Address Correspondence on this matter to "The City Engineer" and quote reference number

Associates J. M. Taylor BE(Hons) MNZIE MICE MStructE D. I. Woods BE MNZIE

Members of the Association of Consulting Engineers, New Zealand.

L

BU/5
BU/3
5/2

E2/1

8th October, 1971.

Trust Manager,
Church Property Trustees,
P.O. Box 995,
CHRISTCHURCH.

Dear Sir,

MASONIC HOTEL - GLOUCESTER STREET

An amendment to the Municipal Corporations Act in November 1968 gave the Council the power to require buildings which would be a danger in a moderate earthquake to be strengthened.

In its present state the Masonic Hotel could be such a building. Before any notice was issued under the authority of the Act I was attempting to determine whether or not you were planning any alterations which would remove the need for action by the Council. Enclosed with this letter is an information sheet which gives a general outline of the requirements of the Act and the City Council's Building By-Laws.

I would draw your attention to the fact that this letter is not a notice as required by the Act.

Yours faithfully,


for CITY ENGINEER

Encl.


CITY ENGINEER

Registered Mail

L

IN THE MATTER of the Municipal
Corporations Act,
1954 Section 301A

TO: The Church Property Trustees,
Church House,
84 Gloucester Street,
CHRISTCHURCH.

as owners of the Masonic Hotel - Qantas Building situated at
the south-east corner of Colombo-Gloucester Street inter-
section.

NOTICE TO REMOVE DANGER

WHEREAS the Christchurch City Council is a Council to which the
Governor-General by Order in Council made the 9th day of June,
1969, has declared Section 301A of such Act applies AND WHEREAS
the Council is satisfied that the above building in the district,
- being a building to which such section applies, having regard to
its condition, the ground on which it is built, its present and
likely future use and all other relevant matters - will have its
ultimate load exceeded in a moderate earthquake and thereby con-
stitute a danger to persons therein or in adjoining building or on
any adjoining land or to passers-by

NOW the Christchurch City Council HEREBY GIVES to you Notice
requiring you, as owner of such building, within the time spec-
ified in this Notice - namely by the 31st day of October, 1973
TO REMOVE THE DANGER either by securing the building to the
satisfaction of the Council or by taking down the building

DATED this 23rd day of January, 1973.

City Engineer

N.B: Your attention is drawn to Sec. 301A(4) as to right of
objection within 60 days after notice given.

VED

1973

DIOCESE OF CHRISTCHURCH

P.O. BOX 995

TELEPHONE 66-169

THE CHURCH PROPERTY TRUSTEES



"CHURCH HOUSE"
84 GLOUCESTER STREET,
CHRISTCHURCH.
NEW ZEALAND.

16th March, 1973

The Corporation of the City of Christchurch,
P.O. Box 237,
CHRISTCHURCH.

attention: Mr P.G. Scoular

re: Masonic Hotel - Gloucester Street

Dear Mr Scoular,

Referring to previous correspondence and recent "Notice to Remove Danger".

I advise that the Church Property Trustees have engaged Mr I.G.B. Wilson of Davie, Lovell-Smith & Partners to arrange for the necessary work to be carried out.

Yours faithfully,

A. Heald
A. Heald,
Trust Manager

Copy:
Mr I.G.B. Wilson

ACKNOWLEDGEMENT FORM A/B SENT			INT'L	DATE
MR	<i>CE.</i>		<input checked="" type="checkbox"/>	
MR	<i>S. Chapman</i>	A C T I O N	<input checked="" type="checkbox"/>	<i>23/3</i>
MR		R E P O R T		
MR		I N F O		
MR				
MR				
RETURN TO <i>CE.</i>		INT'L	DATE	FILE
		<input checked="" type="checkbox"/>	<i>73</i>	<i>Bu/S/2</i>



"M"

CHRISTCHURCH CITY COUNCIL

P.O. BOX 237 CHRISTCHURCH NEW ZEALAND E1/9

26 March 1981

IN REPLY PLEASE QUOTE BU/5/2

IF CALLING PLEASE ASK FOR Mr Bluck

Messrs Spencer Holmes Miller & Jackson,
 Consulting Engineers,
 P.O. Box 588
WELLINGTON.

For: Mr Spencer

Dear Sir,

SECTION 624 - LOCAL GOVERNMENT ACT

Thank you for your letter of 19 March 1981. In the early 1970's the Christchurch City Council did prepare a draft code in an attempt to promote the systematic structural analysis of old buildings. The number of assumptions that had to be made to develop that code far exceeded the number of assumptions required to consider each building on its merits and a "code" approach to the problem was abandoned.

It is quite clear that the major objective of Section 624 is to save lives - it is not to be used as a means of maintaining the value of the property.

Securing buildings to the extent that they will not collapse in a moderate earthquake does not mean the building has to be fit for anything other than demolition after a moderate earthquake. If it is a requirement that the property is to be strengthened to the extent that the building will be useable after a moderate earthquake the standards of Section 624 are not appropriate. The general policy applied by this Council to privately owned buildings is to require the removal of obvious hazards immediately (i.e. parapets and appendages) and to require that the building be redeveloped within a ten year period. In some cases a temporary building permit is issued and a caveat registered against the title to ensure that demolition or strengthening is undertaken in ten years time.

It would be prudent for any institution lending money on a property to ensure that the building would be useable after a moderate earthquake, and to that extent it is considered that the Ministry of Works & Development's requirement that current design codes shall be used is understandable. It will quite obviously be impossible to comply completely with the requirements of N.Z.S. 4203, and some compromise will have to be made on some details. The most rational approach to the problem of seismic design for existing buildings is undoubtedly that stated by Mr J. Hollings at the seminar on High Earthquake Risk Buildings in October 1973. We should be wary of using fancy figures too enthusiastically - the earthquake may not agree with our assumptions.

The City Council has applied to the Minister to be a Council to which the Act applies and over the last ten years we have been surveying the City, block by block. A copy of the survey form used is enclosed. The surveys are the responsibility of the Assistant Chief Building Inspector and where a building is described A or B the survey is checked by an Engineer prior to the preliminary letter being sent. (See enclosure).

- 2 -

There has been a good response from building owners and in the last 15 years the percentage of office space in the central area which could be considered a seismic risk has dropped from 80% of available floor space to 40% of available floor space. Redevelopment has played a large part in this improvement and we have found that most owners would rather remove immediate hazards now and redevelop in 5 to 10 years than strengthen or secure the building in a 2 to 3 year period.

The Council also advises owners when painters scaffolds are erected that it may be an appropriate time to remove parapets. A sample letter is enclosed and these letters are sent to owners outside the area currently being surveyed.

The general instructions from the Council was that this seismic strengthening exercise should be a "low key" service. Mr Faulkner probably spends less than 5% of his time on the work. Formal notice has been served on only four occasions and the steady reduction in the seismic risk has certainly justified the "low key" approach. It is unlikely that the service of a large number of formal notices would have effected a greater reduction in the number of seismic risk buildings.

Yours faithfully,



for Deputy General Manager
& City Engineer

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15. 5. 89

THE REPORT OF THE TOWN PLANNING COMMITTEE
MEETING OF 27.4.89

PRESENT: Councillor R.H. Arbuckle (Chairman),
His Worship the Mayor,
Crs C.G. Cotton, D.G. Cox, R. Fowler,
A.G. James, C.E. Manning, N.E. Massey
and R.E. Wilton.

APOLOGY: Cr D.G. Rich.

OFFICERS PRESENT: City Planner, Buildings Engineer,
Assistant City Planner,
Senior Planner (Ms D. Plesovs)
and City Secretary.

1. CONVERSION OF EXISTING BUILDINGS
APPLICATION OF BYLAW REQUIREMENTS:

A number of proposed conversions of older "heritage type" buildings in the control city area has highlighted the fact that the buildings need to comply with Bylaw requirements with respect to seismic resistance and fire resistant construction.

The City Plan encourages the retention of historic buildings, and the recently released Urban Design Report identifies both listed historic buildings and buildings within a new area called a "Heritage Area".

Regardless of our changing perception of the desirable architectural character of our City the primary reason for the Council to exercise control of buildings by the adoption and enforcement of Bylaws is to ensure that the City's building stock is well built, safe and has the durability to be able to resist the wind, earthquake and temperature induced loads that will be applied during the life of the building.

The level of Bylaw control has traditionally varied with the use of the building. Thus hospitals and public buildings have been built to higher standards. The standards appropriate for recycled buildings will have to take account of not only the use but the ability to actually rejuvenate the particular building. Is it appropriate to place an invaluable treasure, such as the "Buried Army Exhibition" in a building not capable of withstanding a reasonable earthquake?

The Building Bylaw and its associated means of compliance documents are a complex set of highly technical documents which deal with design criteria and the expectations of the materials to be used. Societies from biblical times have required buildings to be built to appropriate standards and the Fire of London saw the beginning of controls which defined an expectation to protect your neighbour from a fire in your premises. Control of standards of private building activity by the community is therefore not a recent development.

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Town Planning 27.4.89

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The question of design to resist earthquake has been a vexing one based on assessment of risk and the degree of acceptable damage for an event which may have a theoretical return period of hundreds to thousands of years. Mans understanding of the seismic response of buildings has only been developed as a result of scientific study during the last fifty years or so. The first requirement to design for a given level of earthquake came into effect in 1935 following a Commissioner's report on the Napier earthquake. Since then New Zealand has been amongst the worlds leaders in earthquake resistant design and construction and the Building Bylaws reflect this with their ever-increasing complex design standards.

Two significant matters of earthquake resistance of existing buildings have however, remained in the model building Bylaw without change since the early 1960's. These cover change of use of occupancy of existing buildings, alterations and additions and resistance to seismic forces (Clauses 3.15, 3.16 and 3.17 of Bylaw 105 are attached - white paper).

Redevelopment of at least two sites within the proposed Heritage area are currently being considered. One application is to convert an existing building into part ground floor shops and part carparking, with the first, second and older third storeys being fitted out as apartments. Matters of fire and egress can be catered for with dry wall construction and refurbishing of the existing sprinkler system.

The redevelopment however, involves both a change of use from factory to residential occupancy, and alteration and repair works to the existing buildings. The much more restrictive requirements of the change of use Clause 3.15 apply to this application and hence the requirements of Clause 3.15.1 (ii) must be met. If the change of use does not trigger this response, then the applicant would not need to do anything to strengthen the pre-earthquake resistant design type building. This latter path does not seem to satisfy either the intent or the spirit of the Bylaw.

In many cases the rigid application of the Bylaw will render redevelopment of buildings uneconomic. This however, is not a valid reason for abandoning the philosophies of the bylaw. The present Civic Offices building is an example of a building that has been strengthened and the Old Public Library and the Trinity Church are examples of buildings that have been strengthened to an extent appropriate to their use. The frontage to Clarendon Towers is strengthened to the extent that it has virtually the seismic resistance of the building which supports it. Each of the buildings mentioned above has been strengthened after specific consideration of the proposed use. With the Council encouraging the retention of "heritage" buildings, it would seem to be appropriate to define the expected standards in relation to the current seismic design standards.

As far as fire prevention standards are concerned there is no justification for lowering the current Bylaw standards. Amendment number 16 to NZS 1900 Chapter 5 halved the fire resistance ratings of plaster board for partitions in place of concrete or masonry walls. These light weight partitions and the use of sprinkler

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Town Planning 27.4.89

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systems mean that it is a relatively easy matter to upgrade the fire resistance of an existing building to the present Bylaw standard.

The Office Solicitor has advised that dispensations from Bylaw requirements must be properly considered and has required the following statement to be incorporated on the standard form used for applications for dispensations from the Bylaw:

Notes for Applicants

The grounds upon which the Council may consent to a dispensation are limited by the wording of the Bylaw:

"Where in the opinion of the Council a full compliance with any Bylaw or provisions of a Bylaw would needlessly or injuriously affect any person, or the course or operation of the business of, or be attended with loss or inconvenience to any person without any corresponding benefit to the community, then in any such case the Council may, on the special application of the person so affected and subject to a report thereon by the officer of the Council usually or for the time being charged with the control or administration of the particular Bylaw or provisions of the Bylaw affected, by resolution dispense with the observance or performance or relax the strict observance or performance or any such Bylaw or provision of a Bylaw or otherwise modify the same, provided that such other terms or conditions as the Council may impose shall be complied with by the person applying for the dispensation."

The prerequisite to the exercise of the power is the forming of an opinion by the Sub-Committee that full compliance with the particular Bylaw requirement from which dispensations is sought will have one or more of the affects in Clause 18, ie:

- (a) needlessly or injuriously affect any person; or
 - (b) needlessly or injuriously affect the course or operation of the business of any person; or
 - (c) be attended with loss or inconvenience to any person,
- without any corresponding benefit to the community.

If it forms such an opinion in a particular case then after a proper consideration of all the circumstances and the report of the appropriate officer charged with the control of the Building Bylaw then it may exercise its dispensing power."

A policy which can assist developers to assess the viability of any redevelopment proposal is suggested. The main consequence of the policy would be the requirement placed on the developer to assess the structural capability of the building and to then specify the reasons why consideration could be given to varying the standards. The Buildings Division does not have sufficient staff to be able to assist at design stage and it is probable that "advice" is not a proper function to be undertaken by an approving authority. Such advice is best sought from professional designers in the market place.

Recommendation:

That in considering what is compliance with the requirements of the Bylaw for refurbishing

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Town Planning 27.4.89

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ageing buildings which do not have the seismic strength of a modern building, the following criteria apply:

1. In all cases:

The applicant's consulting engineer shall be required to submit:

- (a) A structural analysis which expresses the strength of the structural system of the building in terms of the percentage of the design earthquake that the structure can withstand without the collapse of some members and,
- (b) A design features report which establishes that strict compliance with the requirements of the Bylaw with regard to fire prevention and means of egress will be achieved.

2. In buildings where significant change of use or occupancy is not involved:

- (a) Where the present structure can generally resist an earthquake induced force of 0.10 g without collapse, then the building shall be deemed to have achieved reasonable compliance with the Bylaw provided that the risk of collapse of any secondary appendages such as parapets and chimneys has been removed.
- (b) Where the present structure cannot withstand 50% of the design earthquake then a secondary structural system capable of preventing collapse in the design earthquake must be installed and the risk of collapse in an earthquake of any secondary appendages such as parapets and chimneys must be removed.
- (c) Where the present structure has the ability to withstand between 50% and 70% of the design earthquake then a secondary structural system capable of preventing collapse in an earthquake which is 70% of the design earthquake must be installed and the risk of collapse in an earthquake of any secondary appendages such as parapets and chimneys must be removed.

3. In buildings where a change of use is involved:

Where the refurbishing involves a change of use or occupancy the applicant shall be required to comply with the current standards for earthquake resistant construction defined in Part II of Bylaw 105. Where the applicant considers that

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Town Planning 27.4.89

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full compliance is unreasonable and that the Council should use its Bylaw 101 Clause 18, Dispensing Powers, then he shall submit a detailed report setting out the grounds for support of an application for a dispensation.

2. MERIVALE NEIGHBOURHOOD PLAN:

Councillors will recall past reports and meetings dealing with planning issues in Merivale. These led to the preparation in October 1987 of the "Merivale Neighbourhood Study, a Planning Discussion Document" briefing the issues identified in that study which can be summarised as follows:

- The visual character of the area
- The greater density of new housing development
- The growth of non-residential uses such as schools and motels
- Growth of the Merivale Shopping Centre and related carparking
- Traffic management
- Lack of public open spaces and community facilities
- Retention of more trees and historic buildings

The following actions have been taken to address these issues:

- A traffic management plan was prepared and a number of works such as threshold treatments in Webb Street, Rugby Street, Merivale Lane, Rastrick Street and Derby Street have been carried out. Further threshold work is proposed in Aikmans and Office Road in 1989/90. The road widening designations in Merivale Lane have been uplifted.
- A new local reserve has been created in Papanui Road between the Church and the Merivale shops and development is planned in 1989/90.
- A review of suburban shopping policies has been carried out but further work on this matter will be carried out on a metropolitan wide basis.
- A land use study of all the older suburbs making up the Inner Residential district has been carried out to establish what areas have the greatest concentration of non residential uses.

It is now proposed that further progress be made in dealing with the issue of the growth of non-residential uses such as motels and schools in Merivale.

For the period 1962-1988, Merivale had a nett loss of 112 houses, but there has been a substantial nett gain of 1,035 apartments in that time.

Merivale has considerably more land in non residential uses than the average for the Inner City Residential District. As expected motels and schools are more prevalent in Merivale; two and a half and three times higher than the average respectively.

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ATTACHMENT TO CLAUSE 1 TOWN PLANNING COMMITTEE 15. 5. 89

EXTRACT FROM BYLAW 105

3.15 Change of Use or Occupancy of Existing Buildings

3.15.1 No person shall without the approval of the Council, use or permit to be used any building hereafter erected, or change or permit to be changed the use of any building heretofore erected, for any purpose of occupancy for which such building or part thereof fails to comply with the requirements of this Bylaw in any of the following:

- (i) Where the floors have not been designed for or are not, in the opinion of the Engineer, capable of safety supporting the loadings prescribed by Part 11 of this Bylaw:

Provided that the Engineer may, if satisfied by tests carried out by and at the expense of the applicant that the floor or floors will carry with an approved factor of safety the required loading, permit the proposed use subject to such conditions as he thinks fit to impose.

- (ii) Where the change of use would require an increase in the seismic coefficient to meet the requirements of Part 11 of this Bylaw.
- (iii) Where the change of use would require additional measures in regard to fire protection and means of egress in order to comply with Part 5 of this Bylaw.
- (iv) Where the change of use to a residential occupancy or from one class to another class of residential occupancy would require additional measures in order to comply with Part 4 of this Bylaw or with the Housing Improvement Regulations 1947, relating in particular to open space, materials or construction, accommodation and facility requirements.
- (v) Where the change of use would require additional measures in order to comply with the licensing requirements of an Act, regulation or Bylaw relation to the proposed use.

3.15.2 The Council in granting any approval under this Clause may:

- (i) Impose such conditions as it thinks fit, including the limitation of the period of approval, and may require such bond or deposit as it considers advisable to ensure compliance therewith.
- (ii) In the cas of premises required to be licensed under any Act, Regulation or Bylaw, refer the application to the Licensing Authority concerned and be guided by any recommendation or information received from such authority.

3.16 Alterations and Additions

Before issuing a permit for any alteration or addition to or reinstatement of any existing building the Engineer shall be satisfied that the proposal complies with the requirements of this Bylaw and any other relevant Acts, Regulations or Bylaws for the use or purpose for which it is intended.

3.17 Resistance to Seismic Forces

3.17.1 In the case of alterations or repair to existing buildings it shall be sufficient compliance with this Bylaw if the requirements, regarding resistance to seismic forces are observed and complied with so far as is reasonably possible, having regard to the design, construction and materials of the building, and the purpose for which it is used or intended to be used.

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ATTACHMENT TO CLAUSE 1 TOWN PLANNING COMMITTEE 15. 5. 89

- 3.17.2 Where the existing building does not possess resistance to seismic forces of the extent required by this Bylaw then no alteration will be permitted which in the opinion of the Engineer will reduce its strength below that existing.
- 3.17.3 The applicant shall provide and submit to the Engineer full and as far as possible detailed plans and other data in support of any claim that the building has sufficient resistance to seismic forces to comply with the requirements of this Bylaw or that the resistance will not be reduced below that existing at that time.
- 3.17.4 The Engineer shall issue the required permit if he is satisfied, after checking the plans and other data submitted with the application and such other plans and data previously lodged in connection with such building, that the proposal meets the requirements of this Bylaw.
- 3.17.5 Where in the opinion of the Engineer the plans and other data submitted fail to establish that the proposal will comply with the requirements of this Bylaw he may refuse the application or he may, under Clause 3.17.1, approve the proposal subject to such conditions as he thinks fit to impose."

*NZS 1900
Chapter 5:1984

Model Building Bylaw -
Fire Resisting Construction and Means of Egress

5.55 Existing Buildings

5.55.1 The owner of any existing building which does not comply with any or all of the relevant requirements of this Bylaw for:

- (i) The separation of tenancies by fire partitions as set out in Clause 5.21;
- (ii) Fire partitions enclosing vertical openings as set out in Clause 5.22;
- (iii) Surface finish of walls and ceilings (early fire hazard indices or flamability index as appropriate) as set out in Clause 5.25 and 5.25.2;
- (iv) Means of egress as set out in clauses 5.27-5.54 inclusive;- shall, upon receipt of a written notice from the Engineer and within the period stipulated therein, cause the building to be brought to that degree of conformity with the requirements of this Bylaw as may be stated in such notice, and until he has done so to the satisfaction of the Engineer shall comply with any requirements as to the use of the building (including limitations on the numbers of persons to be permitted in the building at any time, limitations on type and amount of goods and chattels to be permitted in the building, and other relevant limitations) that the Engineer shall include in such notice.

Provide that no existing building need comply with the requirements as in (i) and (iii) above if it is protected by Class A, Class B and Class C sprinkler system complying with requirements of NZS 4541:*

- 5.55.2 When formulating such notice the Engineer shall give prime consideration to safety of life, and subject to that consideration shall have the due regard to all matters peculiar to the building, such as structural limitations, economic factors, and functional requirements.
- 5.55.3 The requirements of Clause 5.56 shall be regarded as the minimum for any external or internal escapeway required by the Engineer.
- 5.55.4 Any owner who is aggrieved by such notice may within one calendar month appeal in writing addressed to the Town Clerk, who shall arrange for the appeal to be heard by the appropriate committee of the Council."

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Minutes

11TH ORDER OF THE DAY Cont'd

PAGE REF.

- Clause 3. North Hagley Park - Eastern Sector. Cr Burn moved, by way of amendment: "That Stages 4 and 5 of the proposed development be brought forward to the 1989/90 financial year". The amendment was seconded by Cr Cox and when put to the meeting was declared carried. The clause, as amended, was then put to the meeting and declared carried.
- Clause 4. Lease of English Park - Canterbury Football Association.)
- Clause 5. Bungy Jumping - Queen Elizabeth II Park.) Adopted.
- Clause 6. Summit Road (Canterbury) Protection Bill. This clause was referred back to the Committee.
- Clause 7. Redevelopment of Victoria Square - Bridge Alterations.)
- Clause 8. Christchurch Drainage Board - Tuam Street Depot and Workshop Site.) Adopted.
- Clause 9. Held over to be dealt with in the Public Excluded Section.

12TH ORDER OF THE DAY - REPORT OF THE TOWN PLANNING COMMITTEE:

86475/86485

Moved by Cr Arbuckle
Seconded by Cr Massey

That the Report of the Town Planning Committee be adopted.

- Clause 1. Conversion of Existing Buildings - Application of Bylaw Requirements.)
 - Clause 2. Merivale Neighbourhood Plan.)
 - Clause 3. Development in the City 1988/89.) Adopted.
 - Clause 4. Report on Subdivisions.)
 - Clause 5. Provision of Service Centres.)
 - Clause 6. Video Games Club - 250 Stanmore Road.)
- Clauses adopted. Report adopted.

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1990/346



**THE LOCAL GOVERNMENT (EARTHQUAKE DANGERS) ORDER
(NO. 3) 1990**

THOMAS EICHELBAUM,
Administrator of the Government

ORDER IN COUNCIL

At Wellington this 10th day of December 1990

Present:

HIS EXCELLENCY THE ADMINISTRATOR OF THE GOVERNMENT IN COUNCIL

PURSUANT to section 624 (2) of the Local Government Act 1974, His Excellency the Administrator of the Government, acting by and with the advice and consent of the Executive Council, hereby makes the following order.

ORDER

1. Title and commencement—(1) This order may be cited as the Local Government (Earthquake Dangers) Order (No. 3) 1990.

(2) This order shall come into force on the 28th day after the date of its notification in the *Gazette*.

2. Christchurch City Council authorised to exercise powers under section 624 of Local Government Act 1974—The Christchurch City Council is hereby declared to be a Council to which section 624 of the Local Government Act 1974 applies.

MARIE SHROFF,
Clerk of the Executive Council.

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1990/346

*Local Government (Earthquake Dangers) Order
(No. 3) 1990*

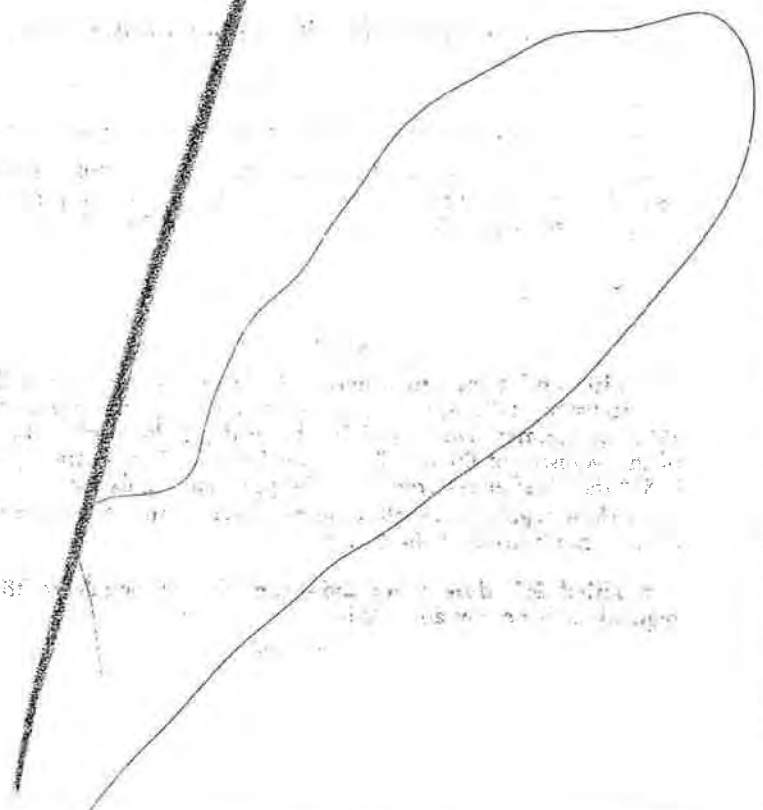
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EXPLANATORY NOTE

This note is not part of the order, but is intended to indicate its general effect.

This order empowers the Christchurch City Council to exercise the powers conferred by section 624 of the Local Government Act 1974 in relation to buildings likely to be dangerous in a moderate earthquake.

Issued under the authority of the Acts and Regulations Publication Act 1989.
Date of notification in Gazette: 13 December 1990.
This order is administered in the Department of Internal Affairs.



INTERNAL AFFAIRS
ORDER
1990 (No. 3)
(No. 3)

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Local Government (Earthquake Dangers) Order 1990

**LOCAL GOVERNMENT (EARTHQUAKE DANGERS)
ORDER (No. 3) 1990/346
REPEALED (as from 1/7/92) BY s. 92(3) of Act
1991 No. 150
(BUILDING ACT 1991)**

Issued under the authority of the Acts and Regulations Publication Act 1989.
Date of notification in *Gazette*: 13 December 1990.
This order is administered in the Department of Internal Affairs.

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inspections. The costs of each team would have to be clearly identified and the "inspection/certification" teams would provide proper formal reports and would charge appropriate fees for what they produced.

One of the original reasons for promoting the changes to the legislation was that "costs" of permits were seen to be too high. In the intervening years it has been established that in most local authorities inspectorial activities have been subsidised by the ratepayer. In time those subsidies will be removed and developers will have to pay the true cost of "quality control" if they are going to engage certifiers who will be guaranteeing work for a ten year period. Ensuring that we do not lower our inspection standards to the extent that we make ourselves more liable for the shoddy work of others will be one of the more difficult aspects of the required re-organisation. There will be a temptation to lower standards to contain present costs. When most claims will be in the order of \$100,000 or more the consequences of those claims must be accepted now.

Recommendation: That the information be received."

Chairman's Recommendation: That the foregoing recommendation be adopted.

5. EARTHQUAKE PRONE BUILDINGS AND THE BUILDING ACT 1991

The Building Control Manager reports:

"The Building Act 1991 has radically altered the ways by which a territorial authority is to deal with earthquake prone buildings (EPBs). This Act, which comes into force in part on 15 February 1992 and completely on 1 July 1992, has specific direction on matters which affect the territorial authorities' vis-a-vis EPBs.

Relevant Legislation

The Council's powers are clearly restricted by S7 (2), S8, S38, S64 and the Fourth Schedule of the Local Government Act S684A.

"7. All building work to comply with building code -

- (1) All building work shall comply with the building code to the extent required by this Act, whether or not a building consent is required in respect of that building work.
- (2) Except as specifically provided to the contrary in any Act, no person, in undertaking any building work, shall be required to achieve performance criteria additional to or more restrictive in relation to that building work than the performance criteria specified in the building code.

8. Existing buildings not required to be upgraded -

Except as specifically provided to the contrary in this Act, nothing in this Act shall be read as requiring any building, the construction of which was completed or commenced before the coming into force of Part VI of this Act, to meet the requirements of the building code.

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38. Alterations to existing buildings -

No building consent shall be granted for the alteration of an existing building unless the territorial authority is satisfied that after the alteration the building will -

- (a) Comply with the provisions of the building code for means of escape from fire, and for access and facilities for use by people with disabilities (where this is a requirement in terms of Section 25 of the Disabled Persons Community Welfare Act 1975), as nearly as is reasonably practicable, to the same extent as if it were a new building; and
- (b) Continue to comply with the other provisions of the building code to at least the same extent as before the alteration.

64. Buildings which are deemed to be dangerous or insanitary -

(1) A building shall be deemed to be dangerous for the purposes of this Act if it is -

- (a) A building which, in the ordinary course of events (excluding earthquakes), is likely to cause injury or death (whether by collapse or otherwise) to any persons in it or to persons on other property or damage to any other property; or
- (b) A building which, by reason of fire hazard and occupancy of the building, would be likely to give rise to an almost certain loss of life in a fire.

LGA 684A Effect of Building Act 1991 on bylaws -

- (1) A council may not make any bylaw under this Act that purports to have the effect of requiring any building to achieve performance criteria additional to or more restrictive than those specified in the Building Act 1991 or the building code.
- (2) For the purpose of this section the terms 'building', 'building code', and 'performance criteria' have the meaning ascribed to them by the Building Act 1991."

Interpretation of Legislation

Past policy based on the bylaw and Section 624 of the Local Government Act has been to achieve seismic strengthening when building alterations are being undertaken.

S38 "Alterations to Existing Buildings" makes no mention of earthquake strength and in S64 the danger from earthquakes is specifically excluded.

From all of the above we must take the view that the Council is purposefully not empowered to require owners to upgrade the earthquake resistance of their buildings when alterations, repairs, additions or refurbishment works are undertaken.

All the Council powers to deal with EPBs (excepting the immediate danger to people out in S70) are expressed by S66.

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"66. Buildings which are deemed to be earthquake prone -

- (1) *Subject to subsection (2) of this section, a building shall be deemed to be earthquake prone for the purposes of this Part of the Act if, having regard to its condition and to the ground on which it is built and because of its construction being either wholly or substantially of unreinforced concrete or unreinforced masonry, the building will have its ultimate load capacity exceeded in a moderate earthquake and thereby would be likely to suffer catastrophic collapse causing bodily injury or death to persons in the building or to persons on any other property or damage to any other property.*
- (2) *Subsection (1) of this section shall not apply to any building which is used wholly or principally for residential purposes, unless the building is of 2 or more storeys and contains 3 or more household units.*
- (3) *Without limiting its powers under Part III of this Act, a territorial authority, on being satisfied that any building is a building deemed to be earthquake prone, may -*
- (a) *Put up a hoarding or fence so as to prevent persons approaching nearer than is safe; and*
- (b) *Except as provided in Section 74 (1) (b) of this Act, give notice in accordance with Section 71 of this Act requiring work to be done on the building to reduce or remove any danger within a time specified in the notice, being not less than 10 days.*
- (4) *For the purposes of this section, in relation to any building that is deemed to be earthquake prone, -*

"Masonry" means any building work in units of burnt clay, concrete, or stone laid to a bond in and joined together with mortar;

"Moderate earthquake" means an earthquake that would subject a building to seismic forces one-half as great as those specified in New Zealand Standard Model Building Bylaw NZS 1900, Chapter 8: 1965 (notwithstanding its revocation) for the zone (as described in that New Zealand Standard) in which the building is situated;

"Unreinforced masonry" means masonry classified as unreinforced by New Zealand Standard Model Building Bylaw NZS 1900, Chapter 9.2: 1964 (notwithstanding its revocation)."

The Building Act 1991 has used less ambiguous language to deal with earthquake risk buildings. It deems a building to be earthquake prone because of its condition, the state of the ground on which it is built and the materials of its construction. The process of "deeming" does not require significant value judgements to be made by Council or staff but merely that matters of material facts be assembled. By comparison the Local Government Act 1974, S624 required the Council to be satisfied that a building constituted a danger.

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Similarly the Local Government Act 1974 described buildings as "being a danger to persons therein or in any adjoining building or to adjoining land ..." The Building Act 1991 uses "catastrophic collapse causing bodily injury or death to persons in the building ..." as a means of emphasising the importance of the problem.

Current Activities

A report was compiled by the Building Control Unit in January 1992 titled "Age State and Condition of Earthquake Risk Buildings in Central Christchurch." (Earthquake Risk Buildings being what the new Act refers to as EPBs.) This report lists 81 Class A and 63 Class A/B ERBs. By presenting this list to the Council we are complying with S26 of the 1991 Building Act. (See attached white paper.)

"26 Duty to gather information and monitor -

Every territorial authority shall gather such information, and undertake or commission such research, as is necessary to carry out effectively its functions under this Act."

The Building Control Unit is currently conducting a visual survey of earthquake prone parts of buildings. It is anticipated that notice to reduce or remove the danger of these appendages, parapets, chimneys, cornices and the like will be served in accordance with the Local Government Act 1974, S624 (Building Act 1991, S66). Conflicts between Council notice to remove danger and Council policy of Change 29 to retain existing buildings or at least their streetscape will have to be dealt with on a one-by-one basis when they arise. Of the 144 buildings in the current list 23 are considered to have heritage significance in terms of the present District Scheme.

The Building Control Unit has commissioned a detailed earthquake engineering study of an aging three storey building with load bearing party walls and in multiple ownership. This study is being undertaken by the Christchurch City Council Design Services Unit at an estimated cost of \$10,000.

The object of the study is to ascertain whether the buildings will have their ultimate load capacity exceeded in a moderate earthquake, and thereby constitute a danger. It is expected that this matter will be dealt with in accordance with the Local Government Act 1974, S624 but a secondary benefit will be that it will establish what the likely costs of administering this section of the Act will be.

Recommendation: That the tabled report on 'Age State and Condition of Earthquake Risk Buildings in Central Christchurch' be accepted as being the Council obligation to comply with Section 26 of the Building Act 1991."

Chairman's

Recommendation: That the foregoing recommendation be adopted.

6. BYLAW COMPLIANCE DOCUMENT N.Z.S. 3604:1990 LIGHT TIMBER FRAME CONSTRUCTION

The Building Control Manager reports:

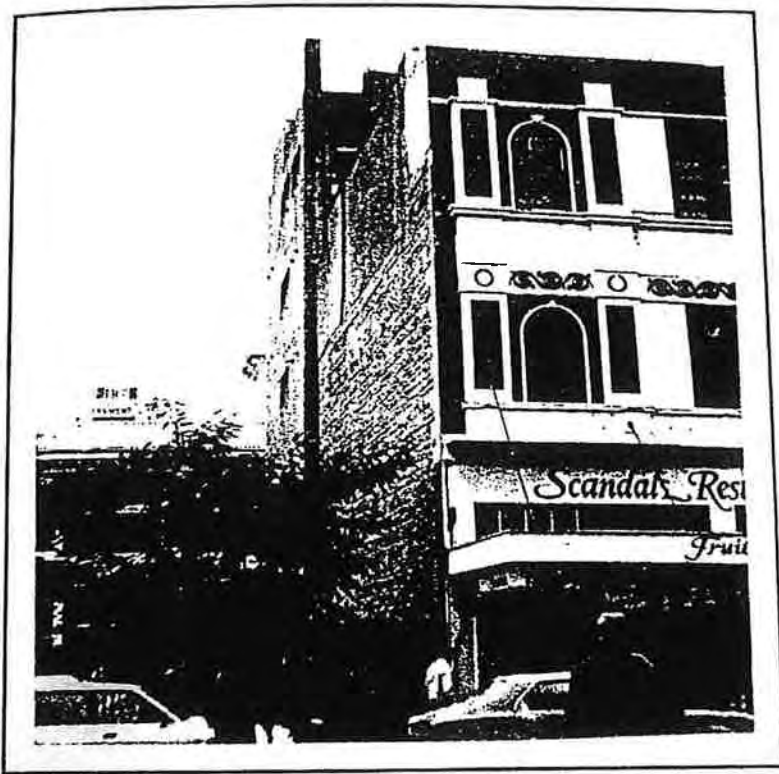
"The original editions of this document produced by SANZ contained so many errors that it was not suitable as a bylaw compliance document.

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ATTACHMENT TO CLAUSE 5 ENVIRONMENTAL COMMITTEE REPORT 13.2.92

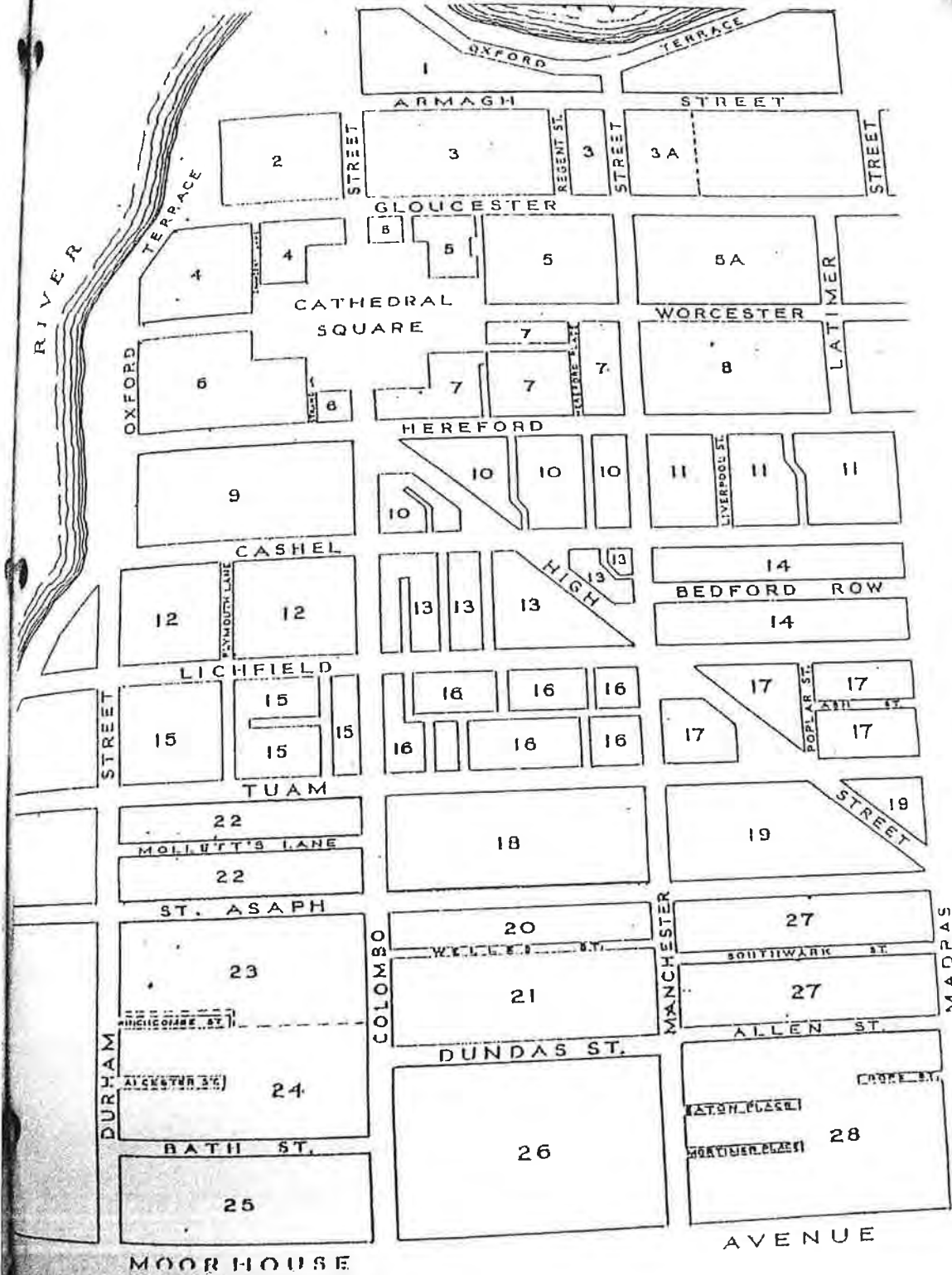
Age State and Condition of Earthquake Risk Buildings in Central Christchurch



The 1991 Visual Survey of Buildings Class A & A/B Lists

Compiled by the Building Control Unit
Christchurch City Council
January 1992

AREA OF SURVEY.
CENTRAL CHRISTCHURCH.



1. ABSTRACT.

The following is a list of Class A and Class A/B Earthquake Risk Buildings (ERBs). This list has been compiled from the results of visual surveys of all pre-1935 unreinforced load bearing masonry buildings in central Christchurch. The surveys were conducted by two undergraduate students of Civil Engineering during the University of Canterbury summer vacation period. They were B Bisley in 1990-91 and P A Enright in 1991-92. This report has been prepared by Mr Enright under the supervision of Mr Graeme Tapper, Development Control Engineer (Structural).

2. CLASSIFICATION OF ERBs.

The visual building survey check-list used by the Christchurch City Council (CCC) is based on a New Zealand Society for Earthquake Engineering bulletin, first published in 1972¹. This form of survey with minor modifications and an extended penalty points system was promulgated by the NZSEE in the 1985 *Red Book*².

The CCC system of points of demerit is shorter than the Red Book's numerical penalty rating. The CCC rates a building to be a Class A earthquake risk building if it attracts 15 or more demerit points, whilst the Red Book system rates a building as a Class I earthquake risk building if it attracts 24 or more penalty points.

Class A and Class I ratings are virtually identical. They both categorise the building as requiring immediate action under s624 of the Local Govt. Act, (to be superseded by s66 of the Building Act, 1991).

3. NOTES ON LISTS.

1. Addresses of owners are in Christchurch unless otherwise stated.
2. The list of owners was compiled in December 1991 and is subject to changes.
3. ERBs suffixed with (IS) are buildings to which some interim securing work has been done. This interim securing is usually the strengthening/removal of parapets, and the specifics are included on the survey check-lists. Interim securing notwithstanding these buildings are still classified as ERBs in their respective categories.
4. ERBs asterisked are listed as buildings of architectural, historical, scientific or other interest under the Christchurch City Council District Scheme.
- 5 Class A/B buildings are Risk Class B but would degrade to Risk Class A if their occupancy was increased.

¹ The New Zealand Society of Earthquake Engineering. *The Bulletin of the New Zealand Society of Earthquake Engineering*. Vol 5, No 2, June 1972.

² The New Zealand Society of Earthquake Engineering. *Earthquake Risk Buildings, Recommendations and Guidelines for Classifying, Interim Securing and Strengthening*. December 1985.

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CLASS A.

Address of ERB, Class A.		Address of owner.
132-138	Armagh St (IS)	Greenwood, G. D. & H. C. P O Box 13250
182	Armagh St	Gee, Wong Yak Lan (Mrs) 182 Armagh St
14	Bedford Row	Riverside Est Ltd P O Box 13012
16	Bedford Row	Park Lane Handbags Ltd P O Box 13012
82	Cashel St	Bishop, F. J. & M P O Box 9
114-116	Cashel St	Tien, Mai Geon 17 Bickerton St
181-183	Cashel St	Du Val, W. M. I. & L. P. P O Box 13413
214-234	Cashel St	Cashel Holdings P O Box 13250
578	Colombo St	McKenzie and Willis Ltd 120 Hereford St
590	Colombo St	Photo Optics c/o P O Box 13055
592	Colombo St	Tupara, Karen P O Box 21255
594	Colombo St	Oxley Prams Ltd 594 Colombo St
595-597	Colombo St	Wong, F. Y. & T. L (Mrs) 123 Memorial Ave
599	Colombo St	Gin, K. F. & H. K. 22 Mays Rd

Address of ERB, Class A.

601-603 Colombo St

617 Colombo St

618 Colombo St

620 Colombo St

628 Colombo St (IS)

630-632 Colombo St (IS)

633-635 Colombo St

634 Colombo St (IS)

636 Colombo St (IS)

637 Colombo St

638 Colombo St (IS)

639 Colombo St

640 Colombo St (IS)

641 Colombo St

642 Colombo St (IS)

644 Colombo St

Address of owner.

Yee, S (& Ors)
c/o P O Box 2255Turners Ltd
c/o 617 Colombo StSue, N. & D.
8 Longhurst TceFalconer, J. & C. & Florence, M.
c/o 620 Colombo StColombus, J. R. & E. A.
c/o 650 Colombo StYee, R. W. & S.
632 Colombo StGin, N. Y.
51 Karnack CresYee, R. W. & S.
632 Colombo StTaylor W. T. & L. T. Ltd
636 Colombo StBell, I. D.
c/o P O Box 231Moreton's Quality Menswear Ltd
638 Colombo StWong, F. Y. & T. L.
123 Memorial AveChandler Properties Ltd
640 Colombo StBeeston, L.
c/o 14 Heathfield AveRand, J. M. & Smith, J. A.
642 Colombo StColombus & Co Holdings Ltd
644 Colombo St

Address of ERB, Class A.		Address of owner.
646	Colombo St	Colombus, E. A. (Mrs) P O Box 270
753-759	Colombo St	Richards, H (decd) & 3 Ors c/o P O Box 112
773	Colombo St	Beeston, L. M. & Stewart, R. G. c/o 14 Heathfield Ave
97-107	Gloucester St	Richards, H (decd) & 3 Ors c/o P O Box 112
143-147	Gloucester St (IS)*	Theatre Royal Ltd c/o P O Box 11345
144	Gloucester St*	Bellis, B. W. Ltd 144 Gloucester St
130	Hereford St (IS)	Dobson, J. P O Box 16242
134-136	Hereford St (IS)	Richards, H (decd) & 3 Ors c/o P O Box 112
132-136	High St	Hurst & Drake Co Ltd c/o P O Box 22305
167-173	High St	Yee, K. S. (& Ors) c/o Yee, S. P O Box 2255
170	High St	Anderson, D. A. P O Box 8393
184	High St*	Oakley, P. J. 76 Dyers Pass Rd
198	High St	Gin, K. W. c/o P O Box 13166
200-202	High St	Yee, Nam c/o P O Box 13166
225-227	High St	Yee, A. & A. 11 Bedford St Oamaru

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Address of ERB, Class A.		Address of owner.
239-241	High St	Colombus, R. J. & Rand, J. 650 Colombo St
70-72	Lichfield St	Gough, T. O. P O Box 2810
74	Lichfield St	Pants Trading Co Ltd c/o P O Box 750
76	Lichfield St	Gough, T. O. P O Box 2810
82	Lichfield St	Bain, J. E (Est.) 82 Lichfield St
84	Lichfield St	Bain Holdings Ltd P O Box 22267
108-110	Lichfield St	Landed Investments Ltd P O Box 814 Papakura
112-114	Lichfield St (IS)	Yani Development Ltd c/o Landed Investments Ltd P O Box 814 Papakura
115-117	Lichfield St	Medley, J. W. & Shinton, W. A. c/o P O Box 13576
116	Lichfield St	Hanni, W. c/o Whittle Knight & Boatwood Ltd P O Box 8030
141	Lichfield St	O'Shannessy, T. J. P O Box 1381
162	Lichfield St	Market Gardeners Ltd P O Box 9083
202	Madras St	Perry's Buildings Ltd 202 Madras St
212-214	Madras St	Bain, K. N. 212 Madras St

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Address of ERB, Class A.		Address of owner.
216	Madras St	Neeson, A. 10 Gainford St
68	Manchester St	Chin, L. S. c/o P O Box 13166
70-72	Manchester St	Whiting Motorcycles Ltd 72-76 Manchester St
83	Manchester St	Wheelans, J. W. & Cook, P. J. P O Box 10024
85	Manchester St	Wilton, J. H. Ltd 85 Manchester St
108	Manchester St	Universal Realty Ltd P O Box 13413
120	Manchester St (IS)*	Lion Corp. Ltd c/o Properties Dept. P O Box 22499
127	Manchester St	Carey, A. J. & J. 51 Plynlimon Rd
129	Manchester St	Portelet Holdings Ltd c/o P O Box 13143
133	Manchester St	Oberg, M. O. 133 Manchester St
135-139	Manchester St	Lee A. & S. 15 O R D
160	Manchester St	Harlequin Properties Ltd P O Box 4323
178	Manchester St	Hillary, N. G. c/o P O Box 552
226-230	Manchester St	Archerfield & Holdings Ltd P O Box 205
194	Oxford Tce	Richards, H (decd) & 3 Ors c/o P O Box 112

Address of ERB, Class A.

255-259 St Asaph St
180 Tuam St*
214 Tuam St*
223 Tuam St
224 Tuam St
232 Tuam St
236 Tuam St*

Address of owner.

McKenzie & Willis Ltd
P O Box 22047
Tuam Investments Ltd
P O Box 22093
Assembly of God Trust Board
214 Tuam St
Knowles, M. J.
P O Box 22672
Eliza White Board of Management
c/o Ainger, W. J.
P O Box 8237
Hugh B Bower & Co
232 Tuam St
Willis, P. H.
P O Box 661

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CLASS A/B.

Address of ERB, Class A/B.		Address of owner.
88	Cashel St	Yee, Nam c/o P O Box 13166
150	Cashel St	DIC Ltd c/o Arthur Barnett Ltd Private Bag Dunedin
207	Cashel St	Harvie, J D M 17 Fernbrook Pl
593	Colombo St	Evergreen Photo Design Ltd 11 Harakeke St
596	Colombo St (IS)	Lion Corp Ltd P O Box 888, Auckland
605-613	Colombo St	Hubber, L G & M L 611 Colombo St
625	Colombo St	Turners Ltd 617 Colombo St
626	Colombo St	Yee, Simon c/o P O Box 2255
627	Colombo St	Suckling, L. C. H. & D. C. 23 Crichton Tce
629	Colombo St	Lawrence, E. & Mahar, E. (Trust) c/o P O Box 1202
654-656	Colombo St	Yee, Nam c/o P O Box 13166
658 (& 66	Colombo St Lichfield St)	Yee, Nam 775 Colombo St
659-661	Colombo St (IS)	Yee, J. 775 Colombo St
663	Colombo St (IS)	Riordan, S. C. & C. M. c/o 22 Circuit St

D

Address of ERB, Class A/B.		Address of owner.
672-674	Colombo St (IS)	Nicholas, C. A. 1 Chancery Lane
750	Colombo St	Hannah, R. & CO Private Bag
777	Colombo St	Yee, Nam 775 Colombo St
176	Gloucester St	Manchester Gloucester Invst. P O Box 2599
202	Gloucester St	Gloman Hldgs Ltd P O Box 487
120	Hereford St	Hays Timaru Ltd c/o BC Properties P O Box 680 Wellington
141	Hereford St	Westpac Banking Corp P O Box 2545
198	Hereford St	Ookita Investments Ltd P O Box 5018
120-124	High St	MCKie, W. J. & Fox, J. R. 120 High St
135	High St*	Bailey, A. N. & P. M. P O Box 25041
137-139	High St*	Arts, A. E. J. & C. L. P O Box 22288
141	High St*	Yee, Bo Kem 3/185 Ensors Rd
143	High St*	Joe, A. 143 High St
145-151	High St*	Blakely, S P O Box 7, Lyttleton
153	High St (IS)*	Secker, D. K. 153 High St

Address of ERB, Class A/B.		Address of owner.
155	High St (IS)*	Windsor Gallery Ltd 153 High St
157	High St (IS)*	Secker, D. K. & H. K. 153 High St
159	High St*	Yee, Bo Man & Bo Kem 3/185 Ensors Rd
161	High St*	Yee, Bo Kem & Yee, Robin Bo Ming 3/185 Ensors Rd
163	High St*	Hong Kong Holdings Ltd P O Box 8213
165	High St*	Gin, Fong Jan & Kwong, Mei Ching 165 High St
219	High St*	Sheffield, R. D. P O Box 5464 Auckland
242	High St	National Mutual Life Assoc. P O Box 344
66	Lichfield St	(See 658 Colombo St)
80	Lichfield St*	Harolds Group Hldgs Ltd 80 Lichfield St
92	Lichfield St	Brown, K. S. & Dickey, J. G. c/o P O Box 270
111-113	Lichfield St (IS)	Medley, J. W. & Shinton, W. A. c/o P O Box 13576
125	Lichfield St	Christchurch City Council c/o P O Box 237
208 (also 241 Tuam St and 170 Lichfield St)	Madras St	Market Gardeners Ltd P O Box 9083
22-24	Manchester St	Hillview Investments Ltd P O Box 10024

Address of ERB, Class A/B.	Address of owner.
26 Manchester St	Eaton Pl Properties Ltd P O Box 10024
79-81 Manchester St	Wheelans, W. J. & Cook, P. J. P O Box 10024
94 Manchester St	Eliza White Board of Management c/o Ainger, W. J. P O Box 8237
105 Manchester St (IS)	Evans, J. T. & B. I. P O Box 25007
107 Manchester St	Ng, Tak Won & Mee Ha 107 Manchester St
109-111 Manchester St	Darby Properties Ltd 109-111 Manchester St
130 Manchester St	Hampton, R. E. 35 Helmores Ln
178 Manchester St	Hillary, N. G. c/o P O Box 552
225 Manchester St	Lallu, G. & T. c/o P O Box 13341
227 Manchester St	United Ancient Order of Druids Grand Lodge of Canterbury 227 Manchester St
287-293 Manchester St	Wendy Sisson Charitable Trust 124 Fendalton Rd
200-202 St Asaph St	Kutwell Garments Manufacturing C ^o Ltd 200 St Asaph St
204 St Asaph St*	Te Wharau Investments Ltd 110 Bealey Ave
270 St Asaph St	Millcox Enterprises 270 St Asaph St
133-135 Tuam St	Jones Metal Co Ltd P O Box 346

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Address of ERB, Class A/B.		Address of owner.
219	Tuam St	Velvin & Henderson Ltd P O Box 22087
230	Tuam St	Chemists Suppliers Co Ltd 230 Tuam St
98	Worcester St	3PS Cathedral Sq Ltd c/o P O Box 1690
135-137	Worcester St	Lallu, G. & T. c/o P O Box 13341

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SEISMIC RISK BUILDINGS - SURVEY

GENERAL

Date Inspected: File No:

Address of Building:

Legal Description of Site:

Name of Owner:

Address of Owner:

Principal Tenants:

Occupancy: (please tick) 8 hours 24 hours 5 days 7 days

Use (eg. Office, Workroom, Factory, Commercial, Storage, Other):

STRUCTURE

Date of Construction:

Building Dimensions: Width: Length: Height:

Number of Storeys:	Foundation Type:	Structural System:	Building:
Mazzanine <input type="checkbox"/>	Strip Footing: <input type="checkbox"/>	Frame <input type="checkbox"/>	Original Form <input type="checkbox"/>
Basement <input type="checkbox"/>	Raft <input type="checkbox"/>	Shear Wall <input type="checkbox"/>	Minor Alterations <input type="checkbox"/>
	Piles <input type="checkbox"/>	LBM B&C <input type="checkbox"/>	Substantial Alterations <input type="checkbox"/>
Floor:	Roof Coverings:	Number of Stairs:	Ground Conditions:
FC <input type="checkbox"/>	Concrete <input type="checkbox"/>	Type:	Rock <input type="checkbox"/>
Wood <input type="checkbox"/>	Asphalt <input type="checkbox"/>	Wood <input type="checkbox"/>	Gravel <input type="checkbox"/>
Eff Diaph <input type="checkbox"/>	Galv Iron <input type="checkbox"/>	Steel <input type="checkbox"/>	Sand <input type="checkbox"/>
Non Eff <input type="checkbox"/>	Corr Asbestos <input type="checkbox"/>	FC <input type="checkbox"/>	Clay <input type="checkbox"/>
	Tiles <input type="checkbox"/>		Fill <input type="checkbox"/>
Roof:	Chimneys:	Roof, Diaphragm:	Number of Lifts:
Pitched <input type="checkbox"/>	Brick <input type="checkbox"/>	Effective <input type="checkbox"/>	Open <input type="checkbox"/>
Flat <input type="checkbox"/>	Other <input type="checkbox"/>	Non Effective <input type="checkbox"/>	Enclosed <input type="checkbox"/>

Bearing Walls:

Street Walls: Wall Bands: Yes

Parapets: Column Continuity: Yes

Verandahs:

Appendages:

Wheelchair Access:

NON STRUCTURAL

Partitions:

Ceilings:

DAMAGE

Cracked Walls Lateral Displacement Settlement

Remarks:

STRUCTURAL

Poor Fair Good

Hazards:

GENERAL

NUMERICAL RATING

Maintenance	
Storeys	
Appendages	
Public Access	
Wall Continuity	
Time Occupied	
Internal Walls	
Persons Occupied	
Foundations	
Date Built	
Total	

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TABLE 1 BUILDING ASSESSMENT

	Numerical Rating		
	2	1	0
General Standard of Maintenance	Poor	Fair	Good
Overhangs on Street	Significant amounts of masonry	Minor	Nil
Continuity of External Walls	No continuity	Reasonable continuity	Full Structural Continuity
Effectiveness of External Frames	Non-existent	Some Moment Resistance	Fully Effective
Foundation Conditions	Bearing Capacity less than $\frac{1}{2}$ T/ft ²	Gravels etc. Bearing $> \frac{1}{2}$ T/ft ²	Rock
Number of Storeys	More than 4	2 to 4	1
Public Accessibility	Central City	Suburban Commercial /Industrial	Residential
Time Building Occupied	More than 50 hours/week	More than 8 less than 50 hours/week	Less than 8 hours/week
Persons in Building when Occupied	More than 4 persons per 1,000 sq. ft.	More than 2 less than 4 persons per 1,000 sq. ft.	Less than 2 persons per 1,000 sq. ft.
Date of Construction	Before 1920	Between 1920 and 1935	After 1935

TABLE 2 BUILDING CLASSIFICATION & REQUIRED ACTION

Total Numerical Rating	Building Classification	Recommended Action
15 and over	A	Immediate Action under Section 301A of Municipal Corporations Act.
14, 13, 14, 15	B	Remedial action within two years
12, 10, 11, 12	C	Remedial action within ten years.
11 and under	D	Probably adequate if building is well maintained.

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5. **EARTHQUAKE PRONE BUILDINGS
AND THE BUILDING ACT 1991**

The Building Control Manager is to arrange a tour for Committee members of some of the buildings mentioned in the report "Age, state and condition of earthquake risk buildings in central Christchurch".

It was resolved that the information used to prepare the attached report on "Age, state and condition of earthquake risk buildings in central Christchurch" be accepted as being part of the Council's obligations to comply with Section 26 of the Buildings Act 1991 after it becomes operative on 1 July 1992.

7. **SPECIAL DEVELOPMENT ZONE 8 - RICCARTON ROAD
CHANGE NO. 4
RICCARTON DISTRICT SCHEME**

It was resolved to recommend that Change No. 4 to the Riccarton District Scheme be approved in accordance with Section 52 of the Town and Country Planning Act 1977, and Regulation 32 of the Town and Country Planning Regulations 1978, and that the Change become operative on 3 March 1992.

8. **RESIDENTIAL G ZONE
ALPINE VIEW LANE**

It was resolved to recommend that Change No. 14 to the Waimairi District Scheme be approved in accordance with Section 52 of the Town and Country Planning Act 1977, and Regulation 32 of the Town and Country Planning Regulations 1978, and that the Change become operative on 3 March 1992.

9. **PROPOSED PLAN CHANGE NO. 5 - CHRISTCHURCH SECTION
CHRISTCHURCH CITY TRANSITIONAL PLAN
NOTABLE TREES**

It was resolved to recommend that the Council resolve pursuant to clause 5 of the First Schedule to the Resource Management Act to initiate Plan Change No. 5 to the Christchurch City Transitional Plan (Christchurch Section) as set out in the attachment (green paper).

10. **RESOURCE MANAGEMENT SEMINARS
FOR RESIDENTS' GROUPS**

It was resolved that the information be received and the report referred to Community Boards.

11. **DELEGATIONS
ALTERATIONS OF DESIGNATIONS**

It was resolved to recommend that the following delegation be added to the list of delegations to the Resource Management Hearings Panel:

"19 To agree to an alteration to an existing designation pursuant to Section 181 (3) of the Resource Management Act 1991."

12. **UPLIFTING OF RAILWAY DESIGNATIONS**

It was resolved that the information be received.

28 (30/4/03)

Building Act 1991

decided cases to the contrary, it is also suggested that a notice under s 65 need not specify what work is required to be done to reduce or remove the danger or to prevent the building from remaining insanitary. Such work is not exempted from the need for building consent under s 32, and therefore will have to be specified in an application for building consent under s 33. It is only if the territorial authority doubts the sufficiency of the specified work that it will need to take account of s 47.

D65.05 Liability for costs of repair

For a discussion on the interpretation of the "repair and maintenance" provisions of a lease, as it affects the question (between lessor and lessee) of who is to pay for work required under s 65 or s 66, see *Weatherhead v Deka NZ Ltd (No 2)* [1998] 7 NZLR 710/98, Baragwanath J, HC Auckland CP8/97.

D65.06 Notices

A notice under subs (1)(b) is required to be "given in accordance with section 71". There is also a general provision for service of documents in s 87, supplemented by s 88 in respect of Maori land. A notice under subs (1)(b) may be followed by a notice under subs (4), which does not refer to s 71. The procedural requirements for those notices were discussed in *New Plymouth DC v Amor* [1999] DCR 818. That judgment concerned an interlocutory application where a territorial authority was seeking an order to demolish a building alleged to be offensive in terms of s 64(4)(a). The decision was set aside on appeal in *Amor v New Plymouth DC* 18/8/00, Williams J, HC New Plymouth AP3/00 (see D65.04(1)), because the pleadings did not establish that decisions had been made by the council itself or its duly delegated agent. Leave to appeal to the Court of Appeal was granted in *Amor v New Plymouth DC* [2001] NZRMA 221, noted [2000] BRM Gazette 137, and in *New Plymouth DC v Amor* 15/8/01, CA9/01, the Court of Appeal remitted the case to the District Court to give the territorial authority an opportunity to bring evidence that the necessary procedural steps had been taken. See D65.04(2).

D65.07 Relationship with s 74

In the absence of decided cases, it is suggested that a notice under s 65 is not a "notice requiring . . . work to be done" for the purposes of s 74, which authorises the territorial authority to do such work in certain circumstances but without the approval of the District Court required under s 65(4). If s 74 applied, that would deprive the owner of the protection against interference with property rights discussed in *Marlborough DC v Chaytor* [1995] DCR 382. See also D65.04 and D74.05.

D65.08 Repair or demolition?

In *Marlborough DC v Chaytor* [1995] DCR 382, discussing whether it was reasonable for the territorial authority to demolish a building, the Court noted that the owner had given evidence of being ready to repair the building. Even if the Court had been satisfied that the building was offensive or likely to be injurious to health, it would not have considered demolition to be reasonable without affording the owner an opportunity to make those repairs.

In *Amor v New Plymouth DC* 18/8/00, Williams J, HC New Plymouth AP3/00, the Court observed that:

"if the building is in such a state of disrepair as to be offensive and if the offensiveness is of such degree as to warrant demolition, then the statute envisages that result and there is no obligation on the Territorial Authority to impose a requirement that specifies the least work necessary. Authorities can impose any requirement they wish, including demolition, to overcome the offensive state of disrepair and s 47(i) dealing with the reasonable practicalities of the work required do not limit that power."

66. Buildings which are deemed to be earthquake prone—(1) Subject to subsection (2) of this section, a building shall be deemed to be earthquake

Legal Proceedings and Miscellaneous Provisions (30/4/03) D1—228(a)
D66.03

prone for the purposes of this Part of the Act if, having regard to its condition and to the ground on which it is built and because of its construction being either wholly or substantially of unreinforced concrete or unreinforced masonry, the building will have its ultimate load capacity exceeded in a moderate earthquake and thereby would be likely to suffer catastrophic collapse causing bodily injury or death to persons in the building or to persons on any other property or damage to any other property.

(2) Subsection (1) of this section shall not apply to any building which is used wholly or principally for residential purposes, unless the building is of 2 or more storeys and contains 3 or more household units.

(3) Without limiting its powers under [Part V] of this Act, a territorial authority, on being satisfied that any building is a building deemed to be earthquake prone, may—

- (a) Put up a hoarding or fence so as to prevent persons approaching nearer than is safe; and
- (b) Except as provided in section 74(1)(b) of this Act, give notice in accordance with section 71 of this Act, requiring work to be done on the building to reduce or remove any danger within a time specified in the notice, being not less than 10 days.

(4) For the purposes of this section, in relation to any building that is deemed to be earthquake prone,—

“Masonry” means any building work in units of burnt clay, concrete, or stone laid to a bond in and joined together with mortar:

“Moderate earthquake” means an earthquake that would subject a building to seismic forces one-half as great as those specified in New Zealand Standard Model Building Bylaw NZS 1900, Chapter 8: 1965 (notwithstanding its revocation) for the zone (as described in that New Zealand Standard) in which the building is situated:

“Unreinforced masonry” means masonry classified as unreinforced by New Zealand Standard Model Building Bylaw NZS 1900, Chapter 9.2: 1964 (notwithstanding its revocation).

D66.01 History

This section was based on s 624(1) Local Government Act 1974 (1974 No 66) (RS 25).

Subsection (3) was amended, as from 18 December 1992, by s 10 Building Amendment Act 1992 (1992 No 126) by substituting the expression “Part V” for the expression “Part III”.

D66.02 Synopsis

This section establishes the criteria by which a territorial authority may deem a building to be earthquake prone. The territorial authority may fence off such a building.

D66.03 Cross references

- s 2 “building work”, “construct”, “household unit”, “person”, “property”, “territorial authority”
- s 3 “building”
- s 24 functions and duties of territorial authorities
- s 25 transfer of powers
- s 26 duty to gather information and monitor
- s 47 matters for consideration by territorial authorities in relation to exercise of powers

D1—228(b) (30/4/03)
D66.03

Building Act 1991

s 67 objections on earthquake prone buildings
 s 70 measures to avert immediate danger or rectify insanitary conditions
 s 71 notices in respect of dangerous or insanitary buildings
 s 73 buildings to which ss 64 to 71 apply
 s 74 work may be done by territorial authority
 s 75 recovery of costs when territorial authority does work on default
 s 76 inspection by territorial authority
 s 80 offences
 s 87 service of documents

D66.04 “Ultimate load capacity” — subs (1)

The words “ultimate load capacity” have been accepted to mean the limit of the ability to withstand load or stress without breaking: *Wellington CC v Poys Buildings Ltd* [1989] DCR 229.

D66.05 “Catastrophic collapse” — subs (1)

In *Prime Investments Ltd v Gisborne DC* W121/95 (PT), noted [1995] BRM Gazette 146, it was said that:

“On the face of it [the BA91], which requires a building to be classed as earthquake prone only if a ‘moderate earthquake’ would be likely to cause ‘catastrophic collapse causing bodily injury or death’ to occupants, is downgrading the risk from [the LGA74] where a similar earthquake would only need to ‘constitute a danger’ to occupants.”

However, in that case it was held that the building concerned was not an earthquake prone building under the BA91 and would not have been an earthquake risk building under the LGA74.

D66.06 Liability for costs of repair

For a discussion on the interpretation of the “repair and maintenance” provisions of a lease, as it affects the question (between lessor and lessee) of who is to pay for work required under s 65 or s 66, see *Weatherhead v Deka NZ Ltd (No 2)* 7/10/98, Baragwanath J, HC Auckland CP8/97.

D66.07 Notices

It is suggested that *New Plymouth DC v Amor* [1999] DCR 818 (see D65.06 for commentary) applies also to notices under s 66.

D66.08 Relationship with s 74

In the absence of decided cases, it is suggested that a notice under s 66 is not a “notice requiring . . . work to be done” for the purposes of s 74, which authorises the territorial authority to do such work in certain circumstances but without the approval of the District Court required under s 65(4). See also D65.07 and D74.05.

R



CHRISTCHURCH CITY COUNCIL

20 April 1994

Mr M Hayward
RMS Shopfitters
PO Box 22-225
CHRISTCHURCH

Dear Sir

753 COLOMBO STREET

Further to your query regarding alterations to the above building.

1. Council understands this building is earthquake prone in terms of Section 66 of the Building Act 1991.

This means that as part of any consent application we would require the owner to submit an age, state and condition report from a registered engineer. This report should quantify the buildings current earthquake 'resistance' and subject to the findings outline a suitable strengthening programme.

2. When a change of use is involved, such as may be the case in the future, Section 46 of the Building Act requires substantial upgrading to be undertaken. The requirements specify various aspects which are to comply "... as near as is reasonably practicable ... as if it were a new building".

Particularly relevant to this case are:

- (i) the building's structural and fire rating behaviour and;
- (ii) access and facilities for the disabled.

If you intend to pursue this matter further, we suggest you consult with an experienced structural engineer.

Yours faithfully



John M Taylor
SENIOR ENGINEER

JT:JMC

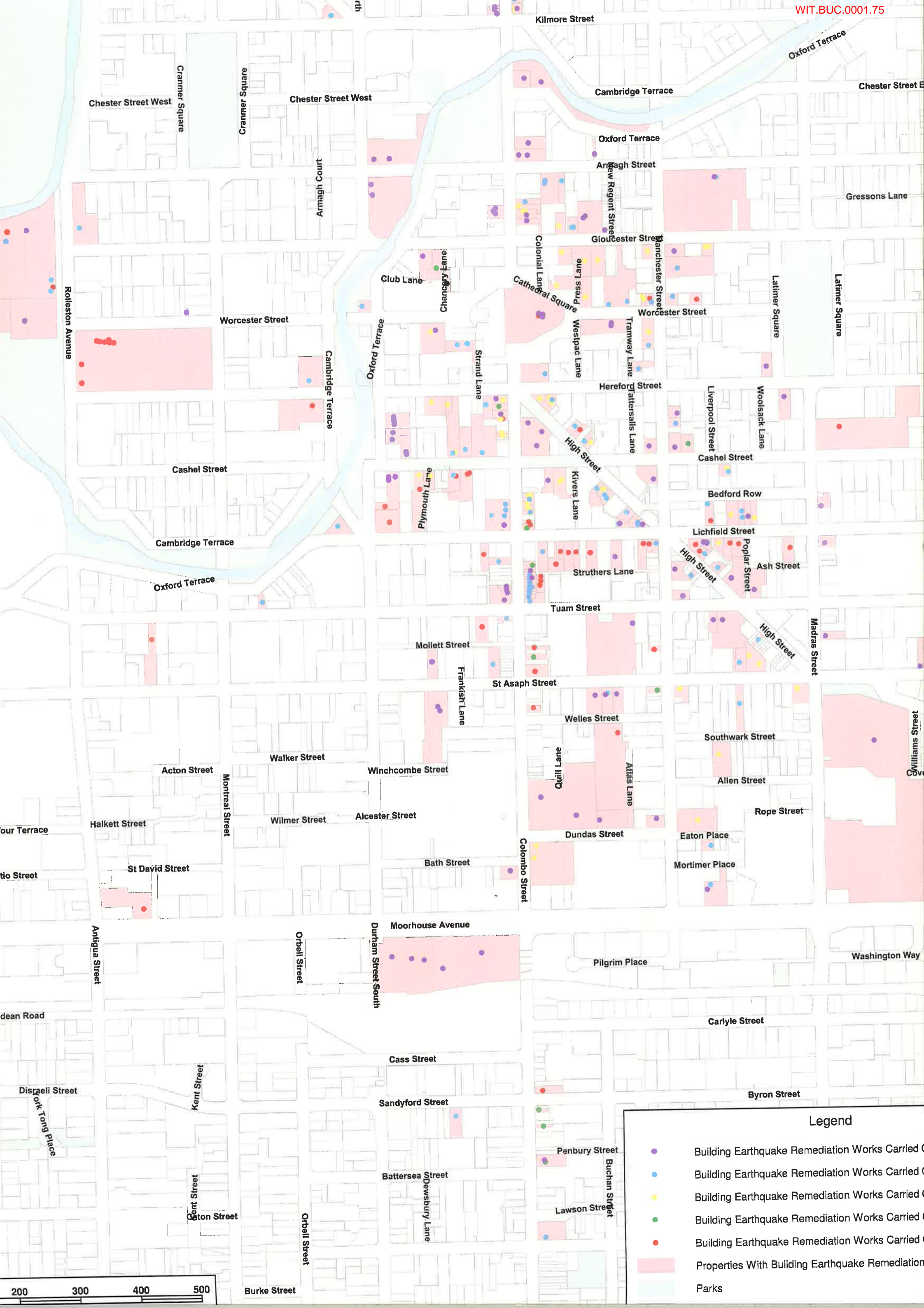


CONTACT John Taylor

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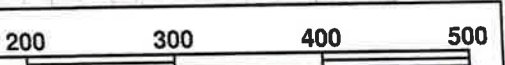
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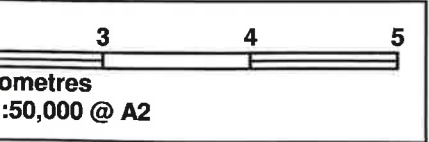
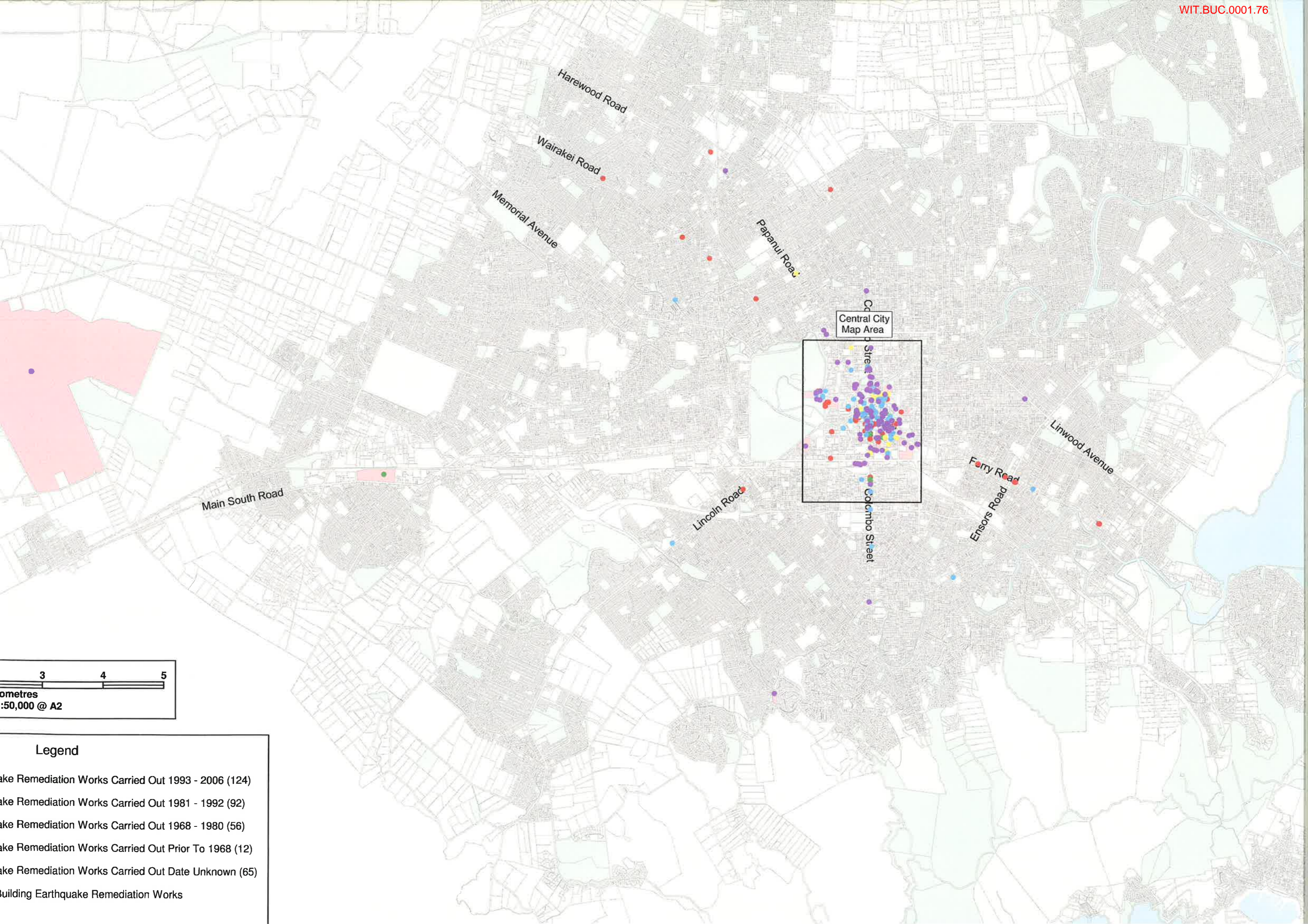
CIVIC OFFICES • 163-173 TUAM STREET • P O BOX 237 • CHRISTCHURCH 1
NEW ZEALAND • TELEPHONE (03) 379-1660 • FAX (03) 379-7786



Legend

- Building Earthquake Remediation Works Carried Out
- Building Earthquake Remediation Works Carried Out
- Building Earthquake Remediation Works Carried Out
- Building Earthquake Remediation Works Carried Out
- Building Earthquake Remediation Works Carried Out
- Properties With Building Earthquake Remediation Works Carried Out
- Parks





- Legend**
- Water Remediation Works Carried Out 1993 - 2006 (124)
 - Water Remediation Works Carried Out 1981 - 1992 (92)
 - Water Remediation Works Carried Out 1968 - 1980 (56)
 - Water Remediation Works Carried Out Prior To 1968 (12)
 - Water Remediation Works Carried Out Date Unknown (65)
 - Building Earthquake Remediation Works