

In the matter of the Commissions of Inquiry Act 1908

And

In the matter of the Canterbury Earthquakes Royal Commission

**Brief of evidence of Richard George Seville relating to 593 Colombo
Street for hearing week commencing 12 December 2011**

Date: 9 December 2011



209 Queen Street, Auckland 1010
PO Box 160, Auckland 1140
DX CP24027 Auckland
Tel +64 9 303 2019
Fax +64 9 303 2311

Solicitor on the record Grant Macdonald grant.macdonald@dlapf.com
Contact solicitor Neil Beadle neil.beadle@dlapf.com

Tel +64 9 300 3896
Tel +64 9 300 3865

- 1 My full name is Richard George Seville. I am a Consultant Engineer employed by Holmes Consulting Group (**HCG**) as Business Manager (Christchurch office) and Project Director.

Qualifications and Experience

- 2 I hold a Bachelor of Engineering (Civil) with Honours and a Master of Science Degree. I have over 16 years post graduate experience in engineering. Formal recognition as a Chartered Professional Engineer (CPEng) was required for entry into the 'Red Zone' in Christchurch CBD following the earthquake on 22 February 2011. In common with many other engineers of appropriate experience who had not previously sought that recognition, I applied for and was granted that status in July 2011.

Scope of Evidence

- 3 I, on behalf of HCG, provide this Brief of evidence in response to the Canterbury Earthquakes Royal Commission's letter dated 28 October 2011 in relation to the building at 593 Colombo Street.

Extent of Instructions received

- 4 I am asked how HCG became involved in the building at 593 Colombo Street and the nature of the instructions HCG received in relation to the building.

Response

- 5 NAI Harcourts, as the building owner representatives and building managers, instructed HCG to carry out a post-earthquake RAPID Structural Assessment of their portfolio of properties. A copy of the short form agreement dated 5 September 2010 is attached. The scope and nature of the services HCG was instructed to provide was to carry out an 'initial earthquake inspection' and 'securing measures as considered necessary'.

- 6 HCG were first requested to inspect 593 Colombo Street on or around the 24th of September.
- 7 HCG later (October 2010) received further instructions to design temporary securing work, liaise with the contractor carrying out the work, and provide a concept design for strengthening the building (engineering sketches for pricing only). This is further detailed below.

Details of inspections/assessments

- 8 I am asked to provide details of any inspection/assessment made of 593 Colombo Street, and to provide copies of any report/drawing/photographs (other than the sketch plans referred to in the Royal Commission's letter of 28 October 2011).

Response

Inspection: 24 September 2010

- 9 In accordance with the agreement with Harcourts of 5 September 2010, an inspection was carried out by Mr Alistair Boys of HCG at approximately 3pm on 24 September 2010. During Mr Boys' inspection of the building, he completed a site report and a RAPID Assessment Form - Level 2. His site report was subsequently typed up. Copies of his hand written site report, his typed up site report and the completed RAPID Assessment Form - Level 2 are attached.
- 10 Following HCG's initial inspection, NAI Harcourts requested HCG to undertake further investigation and to investigate options for temporary securing works.

Inspection: 4 October 2010

- 11 I attended site on 4 October 2010, together with Paul Roberts, another structural engineer from Holmes Cully, a structural engineering consultancy located in San Francisco, USA.

- 12 HCG's observations and suggested temporary strengthening schemes, were recorded in our site report dated 4 October 2010, a copy of which is attached. The site report incorporated photographs of the building and identified the areas requiring temporary strengthening works. The area in the building where there appeared to be the most movement was around the southern elevation and south-west corner, ie on St Asaph Street. HCG recommended further observation of the roof using a man lift from outside the building. HCG also suggested that removal of existing plaster would be required to determine the existing framing conditions and temporary strengthening connections details.
- 13 I reported back to NAI Harcourts by email dated 6 October 2010, enclosing the site report of 4 October 2010 and a draft short form agreement for signature by the client before HCG were able to continue. A copy of my email is attached. Under the new agreement, HCG were to be instructed to provide a design for temporary securing; to liaise with the contractor to be engaged in carrying out the works; and to provide a concept design for strengthening the building (engineering sketches for pricing only).
- 14 In my email I recommended that an inspection of the roof be carried out urgently to check the stability of the exterior walls and I asked whether NAI Harcourts were able to arrange for a cherry picker on site. I was aware that Harcourts had organised this type of equipment through Spotless on other buildings previously.
- 15 Photographs taken during the inspections of the building have been supplied to the Royal Commission.
- 16 The proposed short form agreement was signed by the client on 19 October 2010, a copy of which is attached. The signed agreement was returned to HCG by NAI Harcourts on the 10th November 2010.
- 17 I recall that, shortly thereafter, HCG were requested to place the concept design works relating to the strengthening on hold, pending confirmation of funding. I understood the owners were to assess whether it was better to repair or demolish the building from a financial perspective.

- 18 Paul Roberts attended a meeting with Harcourts and the building owner on the 24th of November. A brief synopsis of the position reached and a proposed plan of action was sent by NAI Harcourts to Paul Roberts by email on 24 November 2010, a copy of which is attached. A further inspection was arranged for 26 November 2010. Spotless confirmed they had arranged for a cherry picker to be on site on 26 November 2010 to enable the inspecting engineer to examine the roof.

Inspection: 26 November 2010

- 19 An inspection was carried out by Paul Roberts of HCG on 26 November 2010 (including an inspection of the roof). Minor cracking was noted at each end of the eastern parapet. This inspection included pushing on the parapet walls to determine if there was a significant loss of stability. This is a common test for an unreinforced masonry parapet to check for signs of instability. No specific instability was noted. Whilst on site, Paul Roberts observed additional damage to the interior brick walls at the ground floor level perpendicular to the South wall on St Asaph Street. Plaster was removed from the walls which revealed lateral displacement between the brickwork. Photographs of the damage were taken and forwarded on to NAI Harcourts by email on 29 November 2010.

- 20 In light of the damage observed, a further site inspection was arranged for me to accompany Paul Roberts on site to inspect the additional damage. NAI Harcourts were invited to attend the inspection to observe the damage however, they emailed to say they could not attend. This inspection took place on 29 November 2010.

Inspection: 29 November 2010

- 21 Paul Roberts and I attended on site on 29 November 2010 to review the additional damage as previously observed by Paul Roberts on 26 November 2010.
- 22 The temporary securing works recommended by HCG took into account the additional damage observed.

- 23 I believe it was around the end of November that NAI Harcourts asked HCG to incorporate the recommended temporary securing works as part of the final strengthening works.

Structural Integrity/Re-occupation

- 24 I am asked for my view of the structural integrity of the building as a whole at that stage, and to describe the work that was required to the building to enable it to be re-occupied, in particular the work required in relation to the Colombo Street side of the building.

Response

- 25 Designs and concepts were sent to NAI Harcourts by email dated 11 February 2011, a copy of which is attached. NAI Harcourts were advised by HCG that the concepts were general concepts only for the client to gain an idea on budget prices.

- 26 The securing work recommended for occupancy included:

- The removal of two internal brick walls and replacing with a new block work wall (western end of the building);
- The replacement of some internal steel posts with new steel posts at ground floor level on the Colombo Street façade;
- Provision of new sections of ply ceiling diaphragm and ties into the external walls around three sides of the building - including Colombo Street; and
- Localised repair of two damaged sections of parapet, on St Asaph Street and Western elevations.

- 27 Following my inspections on 4 October 2010 and 29 November 2010, I was of the opinion that the St Asaph Street elevation (to the south) seemed to have suffered most damage. This side of the building should not, in my opinion, have been permanently occupied.

- 28 In my opinion, the north eastern section of the building appeared to have sustained relatively minor damage. I believe it to have been in a similar condition to the condition the building had been in prior to 4 September 2010 with no apparent significant structural damage.
- 29 HCG's last inspection of the building was on 29 November 2010. HCG was not requested to carry out a further inspection following the Boxing Day aftershock.
- 30 In my opinion, the damage to the southern elevation did not have a significant impact on the integrity of the north eastern section of the building.

Extent of Involvement post 11 February 2011

- 31 I am asked if I had any further involvement with the building after the completion of the sketch plans.

Response

- 32 HCG had no further involvement with the building following the issue of the sketches on 11 February 2011. HCG's last inspection of the building was carried out on 29 November 2010.

Date: 9 December 2011



.....
Richard George Seville



SHORT FORM AGREEMENT FOR CONSULTANT ENGAGEMENT (COMMERCIAL)

BETWEEN: *Nat Harcourt*
(Client)

AND: **HOLMES CONSULTING GROUP LTD**
(Consultant)

PROJECT: *Various buildings in Port-Holts*
(Description of Building Work)

LOCATION: *As list*
(Address)

SCOPE AND NATURE OF SERVICES:

- Initial earthquake inspection ✓
- Securing measures as considered necessary ✓
-
-

PROGRAMME FOR THE SERVICES:

FEES & TIMING OF PAYMENTS

All work will be conducted on a time basis.

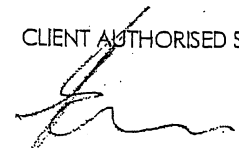
All fees and rates are exclusive of GST.

INFORMATION OR SERVICES TO BE PROVIDED BY THE CLIENT


The Client engages the Consultant to provide the services described above and the Consultant agrees to perform the services for the remuneration provided above. Both Parties agree to be bound by the provision of the Short Form Model Conditions of Engagement (overleaf), including clauses 1, 8 and 9, and any variations noted below. Once signed, this agreement, together with the conditions overleaf and any attachments, will replace all or any oral agreement previously reached between the Parties.

VARIATIONS TO THE SHORT FORM MODEL CONDITIONS OF ENGAGEMENT (OVERLEAF)

CLIENT AUTHORISED SIGNATORY (IES):


(Print Name) *Howard Buchanan*
(Date) *5/9/10*

CONSULTANTS AUTHORISED SIGNATORY (IES):


(Print Name) *Richard Seville*
(Date) *5/9/10*



SHORT FORM CONDITIONS OF ENGAGEMENT (COMMERCIAL)

1. The Consultant shall perform the Services as described in the attached documents. The Client and the Consultant agree and the Services are acquired for the purposes of a business and that the provisions of the Consumer Guarantees Act 1993 are excluded in relation to the Services.
2. In providing the Services the Consultant shall exercise the degree of skill, care and diligence normally expected of a competent professional.
3. The Client shall provide to the Consultant, free of cost, as soon as practicable following any request for information, all information in his or her power to obtain which may relate to the services. The Consultant shall not, without the Client's prior consent, use information provided by the Client for purposes unrelated to the Services. In providing the information to the Consultant, the Client shall ensure compliance with the Copyright Act 1994 and its amendments and shall identify any proprietary rights that any other person may have in any information provided.
4. The Client may order variations to the Services in writing or may request the Consultant to submit proposals for variations to the Services.
5. The Client shall pay the Consultant for the Services the amount of fees and expenses at the times and in the manner set out in the attached documents. Where this Agreement has been entered by an Agent (or person purporting to act as Agent) on behalf of the Client, the Agent and Client shall be jointly and severally liable for payment of all fees and expenses due to the Consultant under this Agreement.
6. All amounts payable by the Client shall be paid within twenty (20) working days of the relevant invoice being mailed to the Client. Late payment shall constitute a default, and the client shall pay default interest on overdue amounts from the date payment falls due to the date of payment at the rate of the Consultant's overdraft rate plus 2% and in addition the costs of any actions taken by the Consultant to recover the debt.
7. Where services are carried out on a time charge basis, the consultant may purchase such incidental goods and/or Services as are reasonably required for the consultant to perform the Services. The cost of obtaining such incidental goods and/or Services shall be payable by the Client. The Consultant shall maintain records which clearly identify time and expenses incurred.
8. The liability of the Consultant to the Client in respect of his or her Services for the project, whether in contract, tort or otherwise, shall be limited to the lesser of five times the value of the fees (exclusive GST and disbursements), or the sum of NZ\$250,000. The consultant shall only be liable to the Client for direct loss or damage suffered by the Client as the result of a breach by the Consultants of his or her obligations under this Agreement and shall not be liable for any loss of profits.
9. The Consultant acknowledges that the Consultant currently holds a policy of Professional Indemnity insurance for the lesser of NZ\$250,000 or five times the value of the fees (exclusive GST and disbursements). The Consultant undertakes to use all reasonable endeavours to maintain a similar policy of insurance for six years after the completion of the Services.
10. Neither the Client nor the Consultant shall be considered liable for any loss or damage resulting from any occurrence unless a claim is formally made on him or her within six years from completion of the Services.
11. If either Party is found liable to the other (whether in contract, tort or otherwise), and the claiming Party and/or a Third Party has contributed to the loss or damage, the liable Party shall only be liable to the proportional extent of its own contribution.
12. The Consultant shall retain intellectual property/copyright in all drawings, specifications and other documents prepared by the Consultant. The Client shall be entitled to use them or copy them only for the works and the purpose for which they are intended. The ownership of data and factual information collected by the Consultant and paid for by the Client shall, after payment by the Client, lie with the Client. The Client may reproduce drawings, specifications and other documents in which the consultant has copyright, as reasonably required in connection with the project but not otherwise. The client shall have no right to use any of these documents where any or all of the fees and expenses remain payable to the Consultant.
13. The consultant has not and will not assume any obligation as the Client's Agent or otherwise which may be imposed upon the Client from time to time pursuant to the Health and Safety in Employment Act 1992 (the "Act") arising out of this engagement. The Consultant and the Client agree that, in terms of the Act, the Consultant will not be the person who controls the place of work.
14. The Client may suspend all or part of the Services by notice to the Consultant who shall immediately make arrangements to stop the Services and minimise further expenditure. The Client and the Consultant may (in the event the other Party is in material default) terminate the Agreement by notice to the other Party. Suspension or termination shall not prejudice or affect the accrued rights or claims and liabilities of the Parties.
15. The Parties shall attempt in good faith to settle any dispute by mediation.
16. This Agreement is governed by the New Zealand law, the New Zealand courts have jurisdiction in respect of the Agreement, and all amounts are payable in New Zealand dollars.



Project Name: 575 Columbus St
 Project No: 105380-71
 S.R. No: _____
 Date: 24/9/10
 Reviewed By: ALB

SITE REPORT

Work Reviewed:

POST EQ INSPECTION

Observations & Comments:

* 2 Storey URM - Flats above
 - retail below

tie in

* WEST WALL - DAMAGE @ DOWNPIPE LOCATIONS @ TOP (FRONT CORNER PARAPET CORNER?)

* REAR WALL - NO SIGNIFICANT DAMAGE - PARAPET OK. * APPLICABLE STRIKE

* St Asaph facade Appears undamaged, Also Columbus facade

* minor cosmetic cracking to interior partitions (adam + Eve)
 @ 10 mls or less max @ 0.2m

* UPSTAIRS ROOMS: EVIDENCE THAT THE ST ASAPH FACADE SOUL MAY HAVE MOVED OUT BY 10mm
 HARD TO DETERMINE IF PRE-EXISTING

⇒ CHERRY PICKER & INSPECT FROM ROOF
 OR REMOVE LATH & PLASTER TO INSPECT
 TIES BETWEEN ROOF & WALL
 (POTENTIALLY L2 FLOOR TIES)



Project Name 593 Colombo St

Project No: 105380.71

S.R. No: 001

Date: 24 September 2010

Reviewed By: Alistair Boys

SITE REPORT

Work Reviewed:

- Post Earthquake L2 Assessment

Observations & Comments:

- 2 Storey URM Retail Building, currently YELLOW Tag
- Damaged masonry at the downpipe locations on the upper west wall.
 - Repairs required to ensure no falling hazard
- Externally no apparent damage evident to the facades on Colombo or St Asaph Streets.
- Internal inspection showed evidence that the St Asaph street facade may have moved out by 10mm at the centre of the wall. There is some evidence that this may have been pre-existing due to newspaper stuffed into the cracks between the external URM wall and the internal partitions (the upper residential tenancies look to have been unfit for tenants for some time).
 - Further structural investigation is required to ensure adequate connections between the level 2 floor and the URM walls, also the roof connection to the URM wall requires investigation.
- Not Safe to occupy (YELLOW Tag remains in place).

Report Prepared By:

Alistair Boys
STRUCTURAL ENGINEER

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Copies to:

Queenstown
 Telephone
 +64 3 441 3055
 Facsimile
 +64 3 441 3011
 holmesgroup.com
 Level 2
 41 Ballarat Street
 PO Box 1266
 Queenstown
 New Zealand
 Offices in
 Auckland
 Hamilton
 Wellington
 Christchurch
 San Francisco

Christchurch Eq RAPID Assessment Form - LEVEL 2

Inspector Initials: ALB
Territorial Authority: Christchurch City

Date: 24/9/10
Time: 3:00 pm

Final Posting (e.g. UNSAFE): YELLOW

Building Name

Short Name: _____

Address: 593 Colombo St.

GPS Co-ordinates: S^o _____ E^o _____

Contact Name: _____

Contact Phone: _____

Stores at and above ground level: 2

Total gross floor area (m²): ~200

No of residential Units: -

Photo Taken: Yes No

Type of Construction

Timber frame

Steel frame

Fill-up concrete

Concrete frame

RC frame with masonry infill

Concrete shear wall

Unreinforced masonry

Reinforced masonry

Confined masonry

Other: _____

Primary Occupancy

Dwelling

Other residential

Public assembly

School

Religious

Commercial/ Offices

Industrial

Government

Heritage-Listed

Other

Investigate the building for the conditions listed on page 1 and 2, and check the appropriate column. A sketch may be added on page 3

Overall Hazards / Damage

Minor/None

Moderate

Severe

Comments

Collapse, partial collapse, off foundation

Building or storey leaning

Wall or other structural damage

Overhead falling hazard

Ground movement, settlement, slips

Neighbouring building hazard

Electrical, gas, sewerage, water, hazmats:

Damaged masonry & damage locations e top of west wall.

Apparent separation of L2 floor & URM walls (& internal partitions) possibly pre-existing => further assessment req'd.

Record any existing placard on this building:

Existing Placard Type (e.g. UNSAFE): YELLOW

Choose a new posting based on the new evaluation and team judgement. Severe conditions affecting the whole building are grounds for an UNSAFE posting. Localised Severe and overall Moderate conditions may require a RESTRICTED USE. Place INSPECTED placard at main entrance. Post all other placards at every significant entrance. Transfer the chosen posting to the top of this page.

INSPECTED

GREEN

G1

G2

RESTRICTED USE

YELLOW

Y1

Y2

UNSAFE

RED

R1

R2

R3

Record any restriction on use or entry:

Further Action Recommended:

Tick the boxes below only if further actions are recommended

Barricades are needed (state location):

Detailed engineering evaluation recommended

Structural

Geotechnical

Other:

Other recommendations:

Estimated Overall Building Damage (Exclude Contents)

None

0-1 %

2-10 %

11-30 %

31-60 %

61-99 %

100 %

Sign here on completion

ALB

Date & Time ID

24/9/10

Inspection ID: _____ (Office Use Only)

Structural Hazards/ Damage	Minor/None	Moderate	Severe	Comments
Foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Roofs, floors (vertical load)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Columns, pilasters, corbels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Diaphragms, horizontal bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pre-cast connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Non-structural Hazards / Damage				
Parapets, ornamentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	minor cracking to West end of St Asaph St parapet.
Cladding, glazing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ceilings, light fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Interior walls, partitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Stairs/ Exits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Utilities (eg. gas, electricity, water)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Geotechnical Hazards / Damage				
Slope failure, debris	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ground movement, fissures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Soil bulging, liquefaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
General Comment				

Usability Category

Damage Intensity	Posting	Usability Category	Remarks
Light damage	Inspected (Green)	G1. Occupiable, no immediate further investigation required	
Low risk		G2. Occupiable, repairs required	
Medium damage	Restricted Use (Yellow)	Y1. Short term entry	
Medium risk		Y2. No entry to parts until repaired or demolished	
Heavy damage	Unsafe (Red)	R1. Significant damage; repairs, strengthening possible	
High risk		R2. Severe damage; demolition likely	
		R3. At risk from adjacent premises or from ground failure	



Project Name 593 Colombo Street
 Project No: 105380.71
 S.R. No: I
 Date: 4 October 2010
 Reviewed By: Paul Roberts

SITE REPORT

Work Reviewed:

On Monday 4 of October 2010, Richard Seville and Paul Roberts of Holmes Consulting Group (HCG) made a site visit to 593 Colombo Street. The purpose of the visit was to observe the condition of the structure after the September 4 and subsequent earthquakes. The following observations and temporary strengthening schemes are suggested.

Observations & Comments:

1. On the east wall, HCG observed a 10-20mm gap between the timber framed floor and brick façade. This displacement was also observed from outside. See Figure 1 for a suggested temporary strengthening scheme.
2. At the south wall, a 10-20mm gap was observed between the timber framed floor and brick façade. See Figure 2 for a suggested temporary strengthening scheme.
3. At the West wall, above the 1st floor ceiling, the brick wall appears to be leaning outwards. See Figure 3 for a suggested temporary strengthening scheme. The top of this wall may require removal depending on further investigation.
4. At the North side, no gaps between the floors and brick walls was observed. The façade appears to be in good condition.

HCG suggests further observation of the roof using a man lift from outside the building. Removal of existing plaster will be required to determine existing framing conditions and temporary strengthening connections details.

Christchurch

Telephone

64 3 366 3366

Facsimile

64 3 379 2169

Internet

www.holmesgroup.com

Level 5

123 Victoria Street

PO Box 25355

Christchurch 8144

New Zealand

Offices in:

Auckland

Hamilton

Wellington

Queenstown

San Francisco

Copies to:

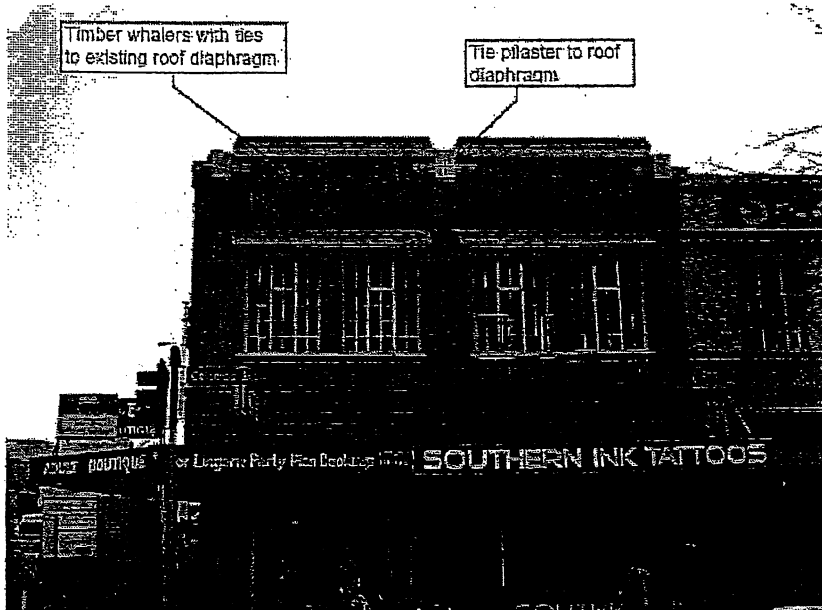


Figure 1

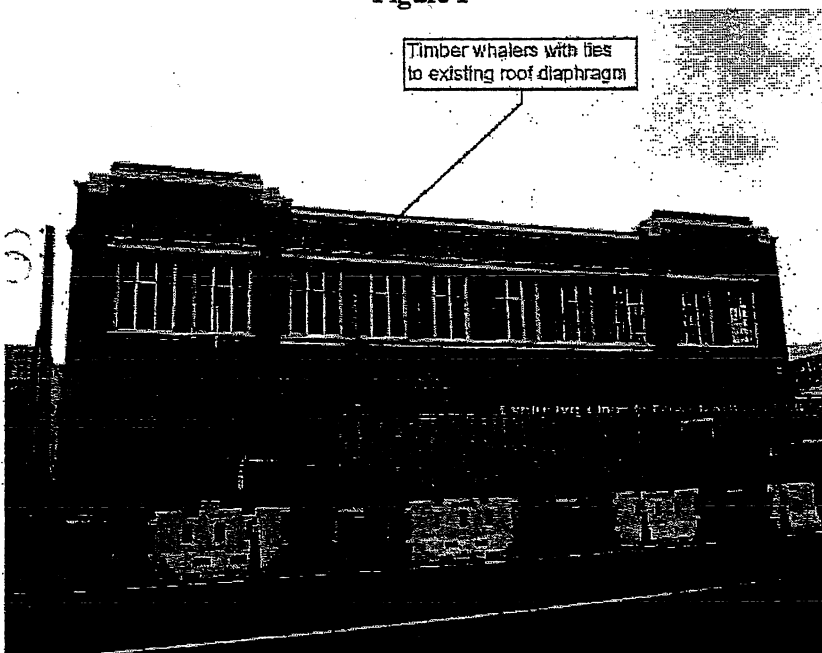


Figure 2

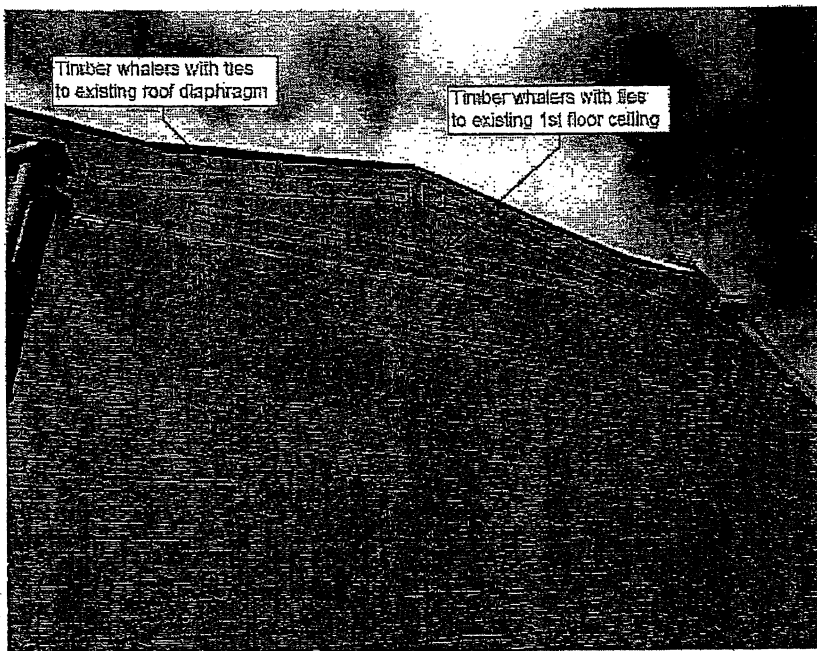


Figure 3

Report Prepared By:

A handwritten signature in cursive script, appearing to read "Paul Roberts".

Paul Roberts
PROJECT ENGINEER

105380.71SR0510.001.doc

Heather Devlin

From: Richard Seville
Sent: Wednesday, 6 October 2010 9:54 a.m.
To: chris.chapman@naiharcourts.co.nz
Cc: Paul Roberts
Subject: 593 Colombo St

Attachments: 105380.71 SR1 4Oct10.pdf; 105380.71 SFA 5Oct10.pdf
File Status: Filed
Job Number: 105380.71

Hi Chris,
Paul and I had a look at this on Monday. The external walls appear to be moving out from the building on three elevations. We need to get on to the roof to check the stability of these walls - this needs to be done urgently. Are you able to organise Spotless of Contract to get a cherry picker on site?

I've attached a site report and a shortform agreement which we will need signed by the client before we continue. We have shown some indicative photo mark-ups of where we think temporary ties are required.

In terms of final strengthening we completed a design (pre EQ) for a similar 2 storey brick building. The construction cost came in at approx \$1300/m2 however, this included some architectural work, new plumbing cutting some new openings in walls etc. For strengthening only the figure might be closer to somewhere between \$800 - \$1000/m2.

Regards,

Richard Seville
PROJECT DIRECTOR

Holmes Consulting Group
PO Box 25355 | Christchurch 8144 | New Zealand
Phone: +643 366 3366 | DDI: +643 363 2174 | Fax: +643 379 2169



105380.71 SR1 105380.71 SFA
4Oct10.pdf (694 ...5Oct10.pdf (1,00...

Email: RichardS@Holmesgroup.com

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BETWEEN:

(Client)

AND:

HOLMES CONSULTING GROUP LTD

(Consultant)

PROJECT:

2 STOREY BRICKWORK RETAIL & APARTMENT BUILDING

(Description of Building Work)

LOCATION:

593 COLOMBO STREET

(Address)

SCOPE AND NATURE OF SERVICES:

- Temporary shoring design
- Liaise with contractor carrying out work
- Concept design for strengthening (Engineering sketches for pricing only)

PROGRAMME FOR THE SERVICES:

FEES & TIMING OF PAYMENTS

All work will be conducted on a time basis at the following rates:

Project Director \$195 per hour
 Senior Design Engineer \$175 per hour
 Project Engineer \$150 per hour

All fees and rates are exclusive of GST.

Estimate fee range \$7,000-511,000. We will contact you if upon further investigation of the building it looks like this will be exceeded.

INFORMATION OR SERVICES TO BE PROVIDED BY THE CLIENT

The Client engages the Consultant to provide the services described above and the Consultant agrees to perform the services for the remuneration provided above. Both Parties agree to be bound by the provision of the Short Form Model Conditions of Engagement (overleaf), including clauses 1, 8 and 9, and any variations noted below. Once signed, this agreement, together with the conditions overleaf and any attachments, will replace all or any oral agreement previously reached between the Parties.

VARIATIONS TO THE SHORT FORM MODEL CONDITIONS OF ENGAGEMENT (OVERLEAF)

CLIENT AUTHORISED SIGNATORY (IES):

(Print Name) Yi-Hua CHANG

(Date) 19/10/10

CONSULTANTS AUTHORISED SIGNATORY (IES):

Richard Seville

3 October 2010

From: Chris Chapman [mailto:chris.chapman@naiharcourts.co.nz]
Sent: Wednesday, November 24, 2010 1:30 PM
To: Thompson, Scott; Paul Roberts
Subject: 593 Colombo Street

Gentlemen

Thanks for your time this morning

From our discussions the following is a brief synopsis of where to from here / plan of action

Paul – engagement form previously sent to Richard attached

Stage 1

Spotless and Holmes Consulting to

- finalise design of temporary structural repairs (Spotless arranging scissor lift and builder to be on site Friday 26th so Paul can examine the roof etc)
- cost the repair works – *expected delivery of this info for sending to owners*
- undertake the repair works - *time frame to undertake once approved by owners*
- obtain City Council sign off

Stage 2

Spotless to provide

- Refurbishment discussion document and budget for the refurbishment of vacant ground floor tenancies - *expected delivery of this info for sending to owners*

Stage 3

Spotless / Holmes Consulting

- design specific strengthening requirements for 67% compliance
- budget cost for strengthening - *expected delivery of this info for sending to owners*
- budget cost for refurbishment of 1st floor – mainly demolition and make presentable
- budget cost for consent application - *expected delivery of this info for sending to owners*

Stage 4

- undertake strengthening - *time frame to undertake once approved by owners*
- undertake redevelopment of 1st floor - *time frame to undertake once approved by owners*

If you can provide me with some likely timeframe for completing the various aspects that I can give to the owners that would be appreciated (*I've made some comments where I believe timeframes will be asked of us by the owners*)

Any queries please contact me

Regards

Chris

Chris Chapman
Commercial Property Manager

Grenadier Real Estate Ltd, MREINZ, Licensed Agent REAA 2008
271 Madras Street, PO Box 1625, Christchurch 8140, New Zealand
P +64 3 371 9126 M +64 274 715 619 F +64 3 371 9189
E chris.chapman@naiharcourts.co.nz www.naiharcourts.co.nz



Chris Chapman

From: Richard Seville [RichardS@holmesgroup.com]
Sent: Friday, 11 February 2011 10:59 a.m.
To: Chris Chapman
Subject: 593 Colombo
Attachments: 593 Colombo St SK1.pdf; 593 Colombo St SK2.pdf; 593 Colombo St SK3.pdf; 593 Colombo St SK4.pdf

Hi Chris,

I've attached mark-ups showing the general concept for strengthening of this building. It has been split into what is required to be done now (for occupancy) and what is required to aim for 67%.

Please note that it is a general concept only to give an idea on budget prices.

Give me a call if you would like to run through it.

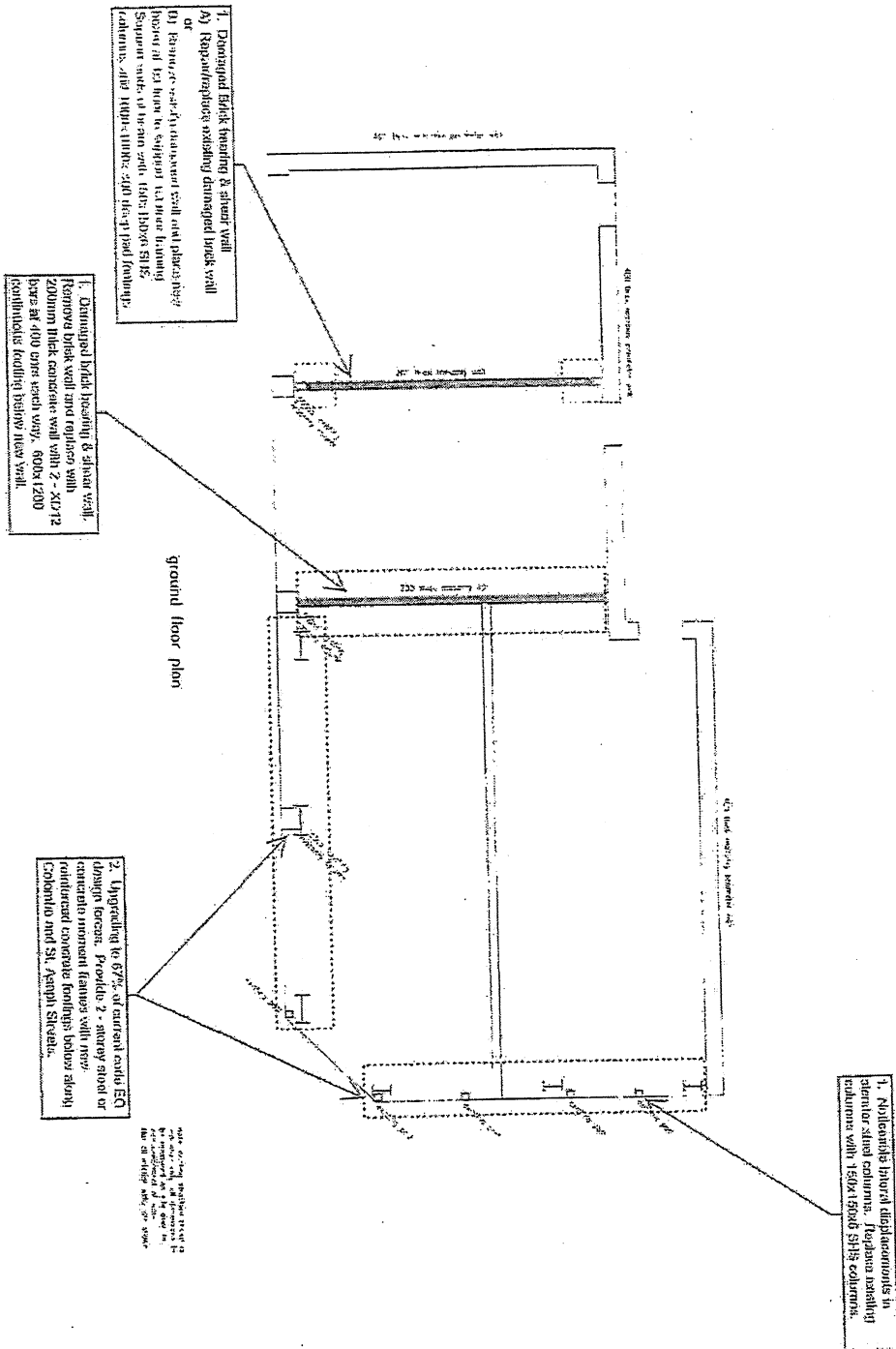
Regards,

Richard Seville
PROJECT DIRECTOR

Holmes Consulting Group
PO Box 25355 | Christchurch 8144
Phone: +643 366 3366
Email: richards@holmesgroup.com

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593 COLOMBO ST
 CHRISTCHURCH

105380.71 SK1

1

ground floor plan

593 COLOMBO ST
 CHRISTCHURCH

105380.71 SK1

1

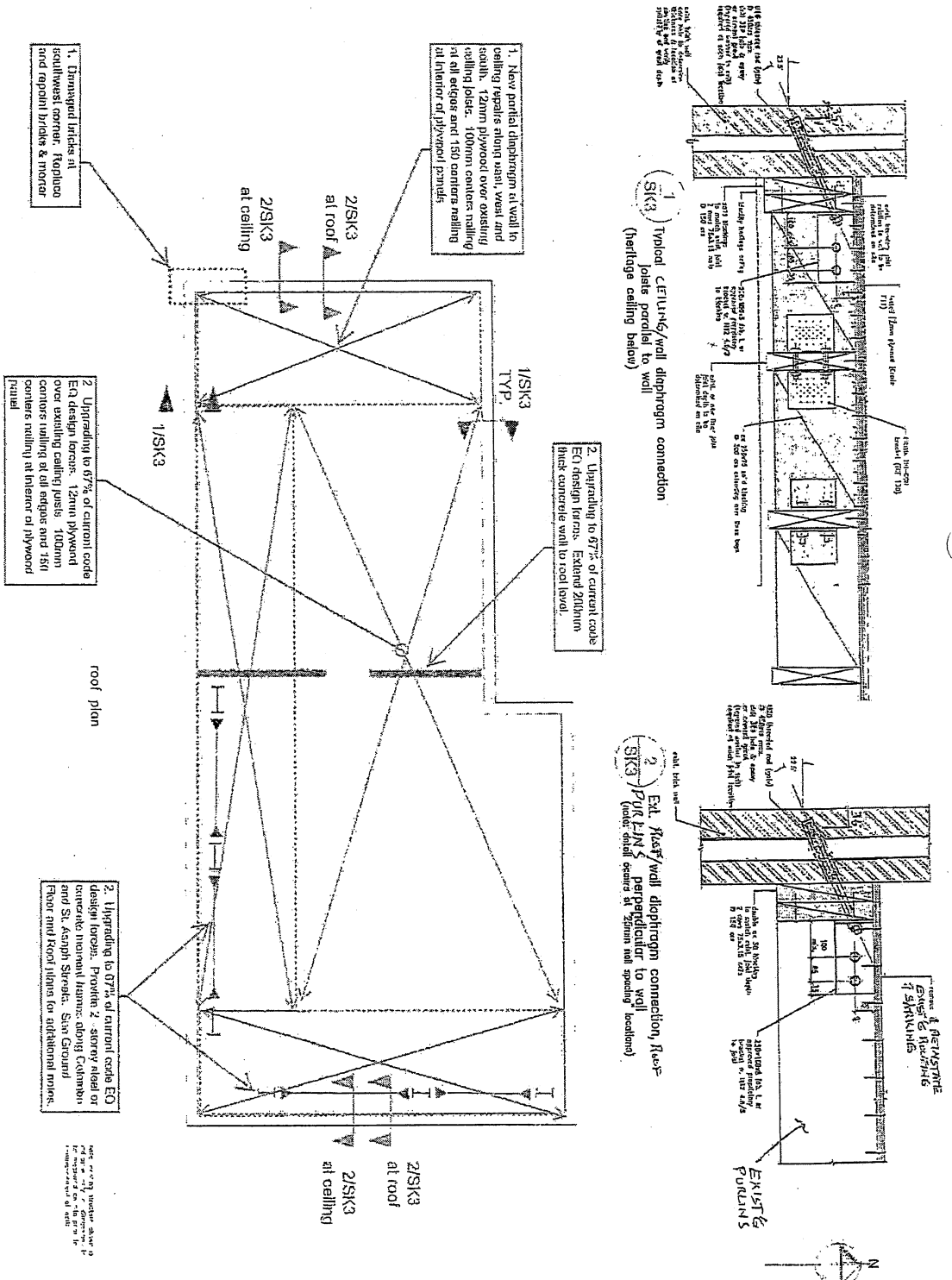
ground floor plan

593 COLOMBO ST
 CHRISTCHURCH

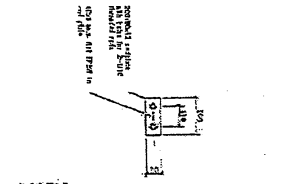
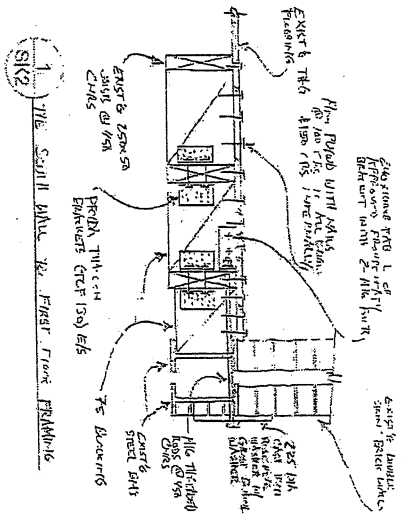
105380.71 SK1

1

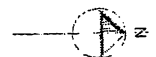
ground floor plan



<p>Concept Design for E.O. repairs and required structural work</p> <ol style="list-style-type: none"> 1. Required repair: prior to reconstruction of deck/wall. Damaged structure must be returned to its original strength. Damaged non-structural portions shall be removed or replaced. 2. Required repairs are marked in RED. 3. Alternate options for these items are marked in GREEN. 4. Required seismic upgrade to 67% of the existing jurisdictional code, by September 2013. These items are marked as BLUE on the plans. 	
<p>693 COLUMBO ST CHRISTCHURCH</p>	
<p>22/211 PAR Council for Planning 105380.71 SK3</p>	



2. Typical ext. floor/wall diaphragm connection
SK2 / Floor joists parallel to wall

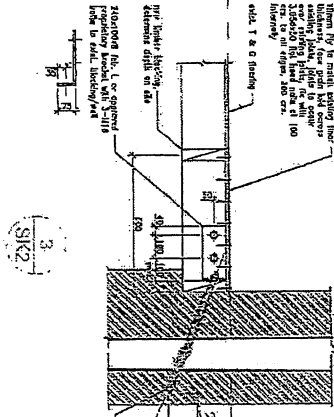


1. Damaged Brick bearing wall below, see ground floor plan for additional notes.
A) See ground floor plan notes
B) 40x100x7 1/2 inch form to support existing masonry above.
C) 18x18x18 inch column below to support earth load.

7. Upgrading to 67% of current code EQ design forces. Extend 200mm thick concrete wall to roof level.

2. Upgrading to 67% of current code EQ design forces. 12mm plywood over existing 7/8\"/>

2. Upgrading to 67% of current code EQ design forces. Provide 2 - storey steel or concrete moment frames along Columbus and St. Asaph Streets. See Ground Floor and Roof plans for additional notes.



first floor plan

SK2

Checklist:

- 1. Retained for repair or replacement of occupancy. Damaged structure must be restored to its original strength. Damaged non-structural portions shall be removed or replaced.
- A) These items are marked in RED.
- B) Alternate options for these items are marked in GREEN.
- 2. Required seismic upgrade to 67% or as nearly practicable to 67% by September 2013. These items are marked as BLUE on the plans.

Christchurch Consulting Group

2/2/14 PAIR Concept for Piliam

Helmesc Consulting Group

593 COLOMBO ST
CHRISTCHURCH

Project No: 105380.71 SK2

Sheet No: 1

