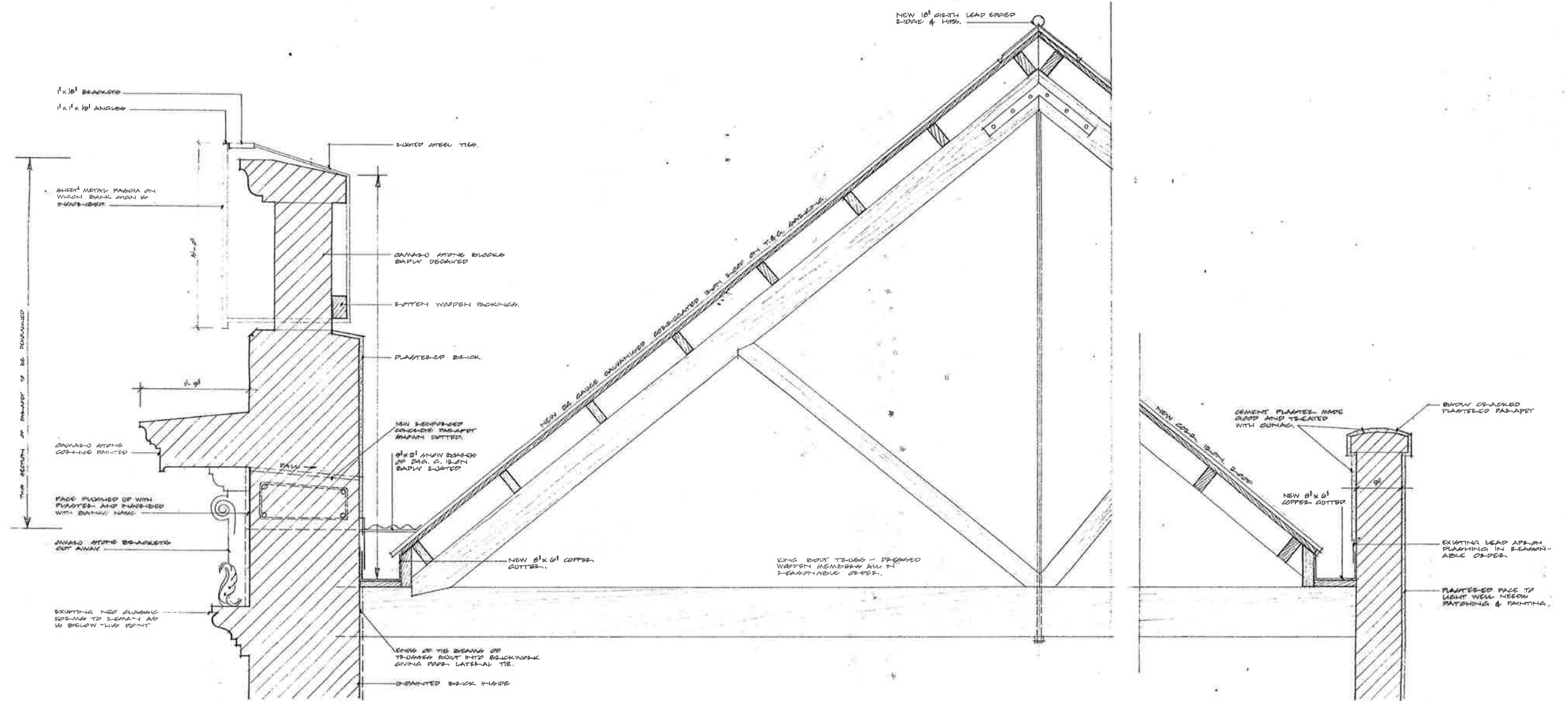
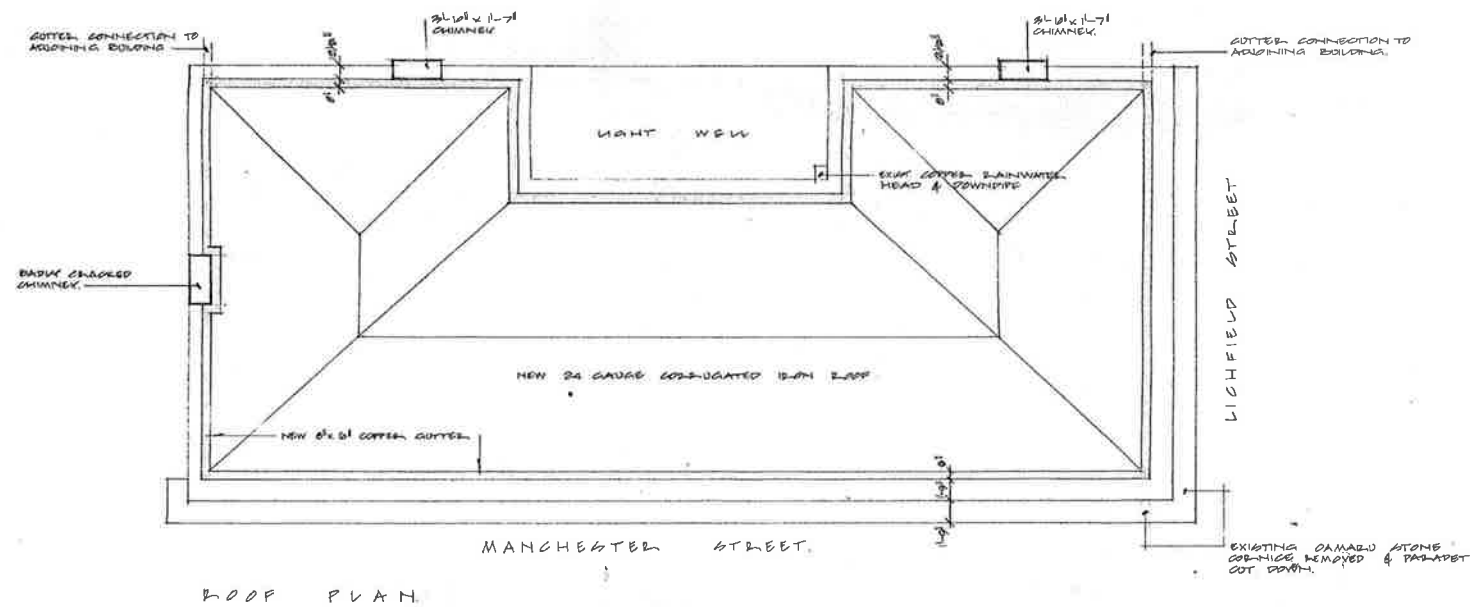


notes:
 • concrete to be 3000 p.s.i. at 28 days to NZS 3100
 • cover to be 2\"/>

For City Engineer
 [Signature]
 968



APPROXIMATE 1' TO 1'-0\"/>



SEISMIC RISK BUILDINGS - SURVEY

GENERAL

Date Inspected: 12/12/91 File No: B0/40/143/116
 Address of Building: 116 Litchfield St.
 Legal Description of Site: DP 2065 Lot 1
 Name of Owner: _____
 Address of Owner: _____
 Principal Tenants: John Bull Cycles / Rubber Blades
 Occupancy: (please tick) 8 hours ☒ 24 hours ☐ 5 days ☒ 7 days ☐
 Use (eg. Office, Workroom, Factory, Commercial, Storage, Other): _____

STRUCTURE

Date of Construction: 1904
 Building Dimensions: Width: _____ Length: _____ Height: _____

Number of Storeys: <u>3</u>	Foundation Type:	Structural System:	Building:
Mezzanine <input type="checkbox"/>	Strip Footing: <input checked="" type="checkbox"/>	Frame <input type="checkbox"/>	Original Form <input checked="" 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 checked="" type="checkbox"/>	Substantial Alterations <input type="checkbox"/>
Floor:	Roof Coverings:	Number of Stairs: <u>2</u>	Ground Conditions:
FC <input type="checkbox"/>	Concrete <input type="checkbox"/>	Type: <u>Interim</u>	Rock <input type="checkbox"/>
Wood <input checked="" type="checkbox"/>	Asphalt <input type="checkbox"/>	Wood <input checked="" 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 checked="" type="checkbox"/>	Corr Asbestos <input type="checkbox"/>	FC <input type="checkbox"/>	Clay <input checked="" type="checkbox"/>
	Tiles <input type="checkbox"/>		
Roof:	Chimneys: <u>?</u>	Roof Diaphragm:	Number of Lifts: <u>2</u>
Pitched <input checked="" 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 checked="" type="checkbox"/>	Enclosed <input type="checkbox"/>

Bearing Walls: Brick Wall Bands: Yes/No
 Street Walls: Brick. Ornamental columns, lintels, cornices Column Continuity: Yes/No
 Parapets: 1-2 m Brick / Plaster, no ornamental stonework
 Verandahs: Suspended
 Appendages: 3 major cornice bands at floor levels and roof level.
 Wheelchair Access: Yes

NON STRUCTURAL

Partitions: Inter bath
 Ceilings: _____

DAMAGE

Cracked Walls ☐ Lateral Displacement ☐ Settlement ☐
 Remarks: O.K.

STRUCTURAL

Poor ☐ Fair ☒ Good ☐

Hazards: Parapet / cornices / ornamental stonework

GENERAL 2 sheet elev. No apparent cracking but cornices are weathered and eroded.

NUMERICAL RATING

Maintenance	1
Storeys	1
Appendages	2
Public Access	2
Wall Continuity	1
Time Occupied	1
Internal Walls	2
Persons Occupied	2
Foundations	1
Date Built	2
Total	15 A-

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.



IntraRFS

Previous Results

[New Search](#) | [Event Information](#) | [Information Out Of Date!](#)

RFS Main Data

RFS Group	CDB	RFS Number	75000145	Receiving Officer	Civil Defence Rescue
RFS Type	EVA - Evaluation			Handling Officer	John Barry
RFS Sub-Type				Authorising Officer	Gary Lennan
Date Received	07/09/2010			Function Field	
RFS Status				External Reference	1:5
RFS Details	Building evaluationn - Ruben Blades				

Address Details

Location	116 LICHFIELD ST
Suburb	CITY
Location Description	116 Lichfield Street
Land Parcel(s)	LOT 1 DP 2065
Prupi	747590
Ward	Property located in Hagley-Ferrymead Ward
Location of Property Information	Property File off-site. Phone 941 8999 to request file (ex Civic)

First Contact Person Details

Name	
Person ID Number	
Phone (Hm)	
Phone (Mb)	
Phone(Wk)	
Mailing Address for this RFS	

RFS Event Details

Event Code	Stage No	Action Code	Event Status	Actual Officer	Planned Officer	Event Date/Time
COM CSR - Completed			C - Completed			22/05/2011-09:36
Event Details: Site Cleared as per RCP Spreadsheet 16/06/2011						
BDE			C - Completed			21/05/2011-09:35
Event Details: Fully Demolished as per RCP Spreadsheet 16/06/2011						
RIS			C - Completed			19/03/2011-11:24
Event Details: RISK ASSESSMENT - RAS 500 Full demo. Duplicate assessment. Signed report for d emo in TRIM. hard copy of this assessment is in duplicates box.						
DAC			C - Completed			19/03/2011-11:41
RIS			C - Completed			19/03/2011-10:39
Event Details: ***RED PLACARD BUILDINGS RISK ASSESSMENT*** GM, RISK#:RAS500. Assesso rs comments: This building is already on the ground.						
BRD			C - Completed	Civil Defence Emergency Engineers HQ		27/02/2011-14:05
Event Details: NMC- Level 1.						
BID			C - Completed	John Barry		26/01/2011-16:55

Event Details: Building red stickered during boxing day quake						
BAR			C - Completed	Earthquake Recovery Dangerous Building Programme		27/12/2010-00:00
Event Details: Originally entered as CSR91224928 ex TRIM ref 10/539063 as at 19/01/2011 0900 Copied from spreadsheet line: 97 Additional Info: Listed heritage building Enforcement Officer: Gray						
BGN			C - Completed			07/09/2010-08:13
Event Details: sjl Action 41						

[Top of Page](#)

All data displayed is a copy of the GEMS data at most 24 hours out of date unless specified below:
IMPORTANT - Analysis details last updated 14/02/2006

[Top of Page](#)**Version:** 1.0.0.4 **Release:** 11 Sep 2008

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R D SULLIVAN		
Consulting Engineer	Civil & structural	ACENZ
Level 1 64 Manchester St PO Box 21185 CHRISTCHURCH 8011		Ph 03 365 3644 Fax 03 365 5086 Email rdsull@xtra.co.nz

20 September 2010

Our Ref: 5120-019

Wiersma Family Trust
PO Box 5651
Papanui
CHRISTCHURCH 8542

Re: Damage Inspection for Occupancy

Inspection Request By: Wiersma Family Trust
Building Address: 116 Lichfield Street
Inspection Date: 7.09.10 / 14.09.10
Building Type: 3 storey brick building with timber floors

Findings and Recommendations:

Inspection of the building showed that parapets around the central lightwell were damaged and loose bricks precariously placed.

Require the loose bricks and parapets to be removed around the lightwell and the stairs reinstated to provide egress if upper floors are to be used.

Use of ground floor can be commenced once parapets are removed and egress from ground floor reinstated.

A full and comprehensive inspection has not been undertaken at this stage.

Insurance Inspection 14.09.10:

At the time of inspection of the Manchester Street building it was noted that there were still loose bricks around the top of the stairwell for this building and the water tanks support area had been further cracked. The remaining parapets supporting the air conditioning units had also cracked more. The attached photos show the condition of brickwork at that stage.

As a matter of urgency I recommend that the water tanks be decommissioned and replaced with pressure reducing valves. The steel supporting beams removed and parapets removed down to the roof level and the top of the walls over-flashed to provide weather proofing to the gutter.

It can be expected that the top of the brickwork will require a concrete band. This work will however require detailing and be part of the upgrading of the building.

Until this work has been completed the stair egress should not be used and should be blocked off to prevent access into this area.

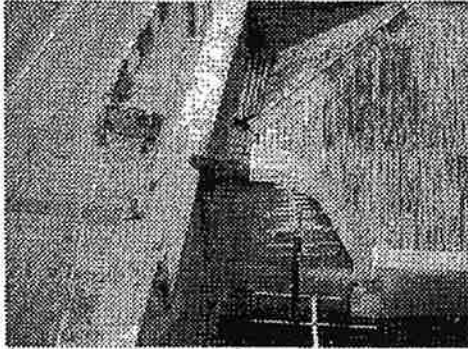
When Shane and I looked down on the roof of 149 Manchester Street from this building we noted that the Manchester Street parapet has been replaced with a concrete band and that there was a crack at the end of the concrete return.

A sketch of the proposed strengthening for this parapet will follow.

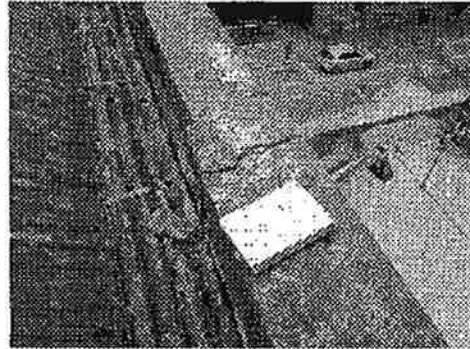
A handwritten signature in black ink, appearing to read 'R D Sullivan', is positioned above the printed name and title.

R D Sullivan
Structural Engineer
R D Sullivan & Associates Ltd

Selection of photos showing some of the earthquake damage noted during our inspection.



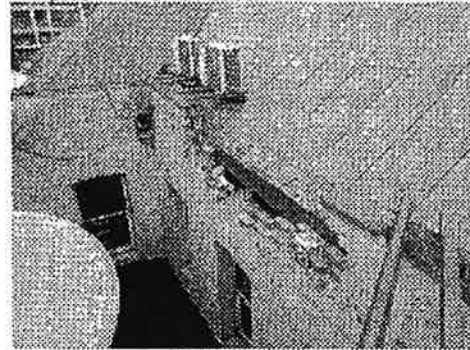
Parapet of 145 Manchester Street



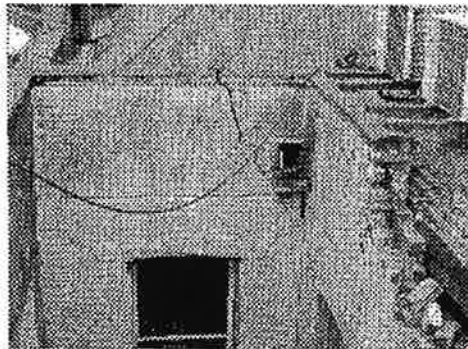
Parapet of 116 Lichfield Street



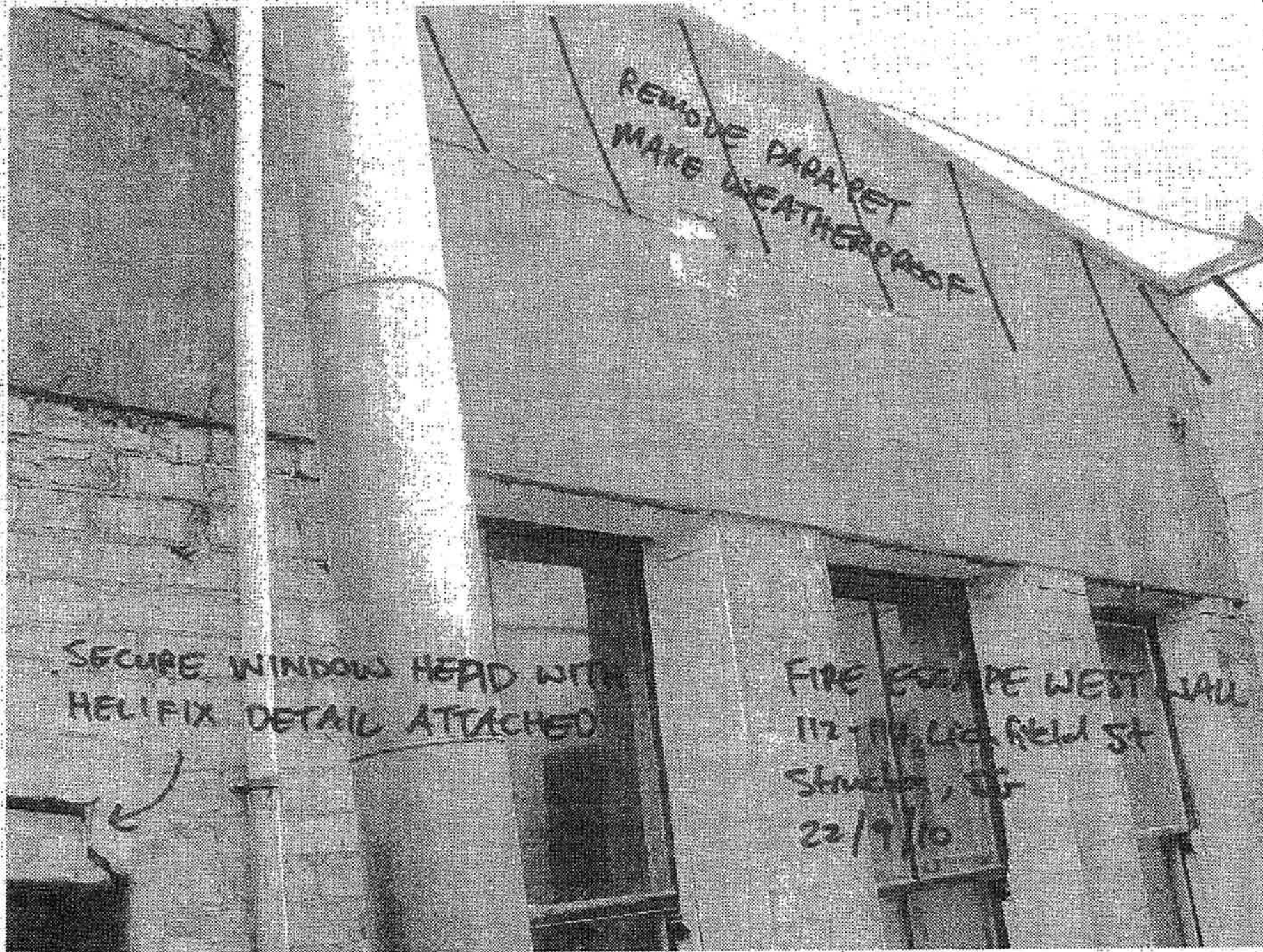
Parapet return of 116 Lichfield Street



Collapsed parapet of 116 Lichfield Street above egress stair.



Damaged parapet.

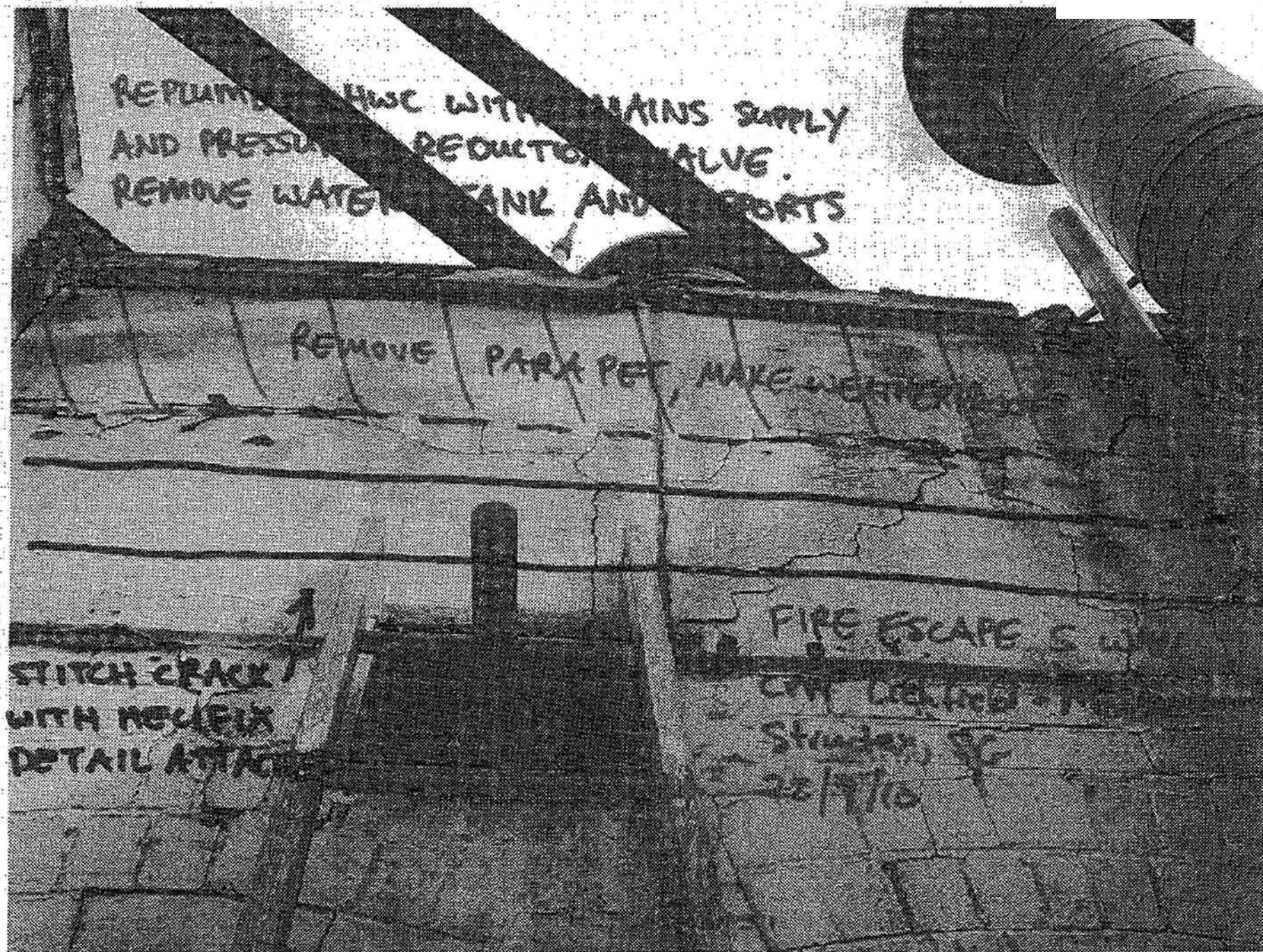


FIRE ESCAPE N & E walls
Cnr Lichfield & Manchester
Strader, EG
22/9/10

REMOVE PARAPET MAKE
WEATHERPROOF
→

FIX CRACK WITH
REPAIR DETAIL ATTACHED

REMOVE LOOSE BRICKS



REPAIR DETAIL BMA01

HELIFIX

Masonry arch pinning of separated brick rings, through brick faces, using CemTies

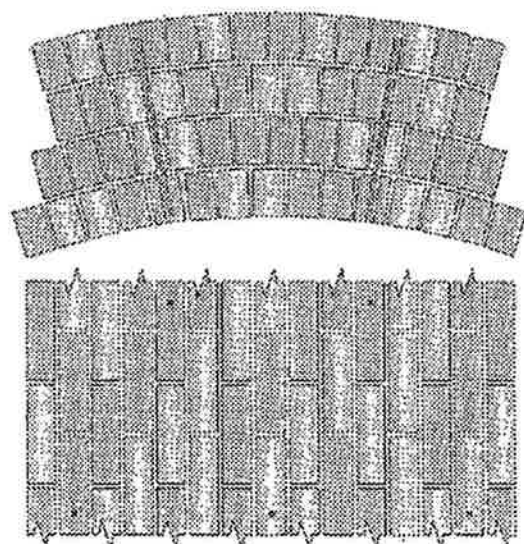
Product	Description	Finish
CemTie	Grade 316 stainless steel structural pin	HOT
Helibond	Injectable cementitious grout	HLB
Heliprimer	Water-based primer for porous substrates	HWB

METHOD STATEMENT

1. Mark the locations for the pins onto the underside of the arch at the required spacing.
2. Drill the clearance holes at the required locations to the specified depth. The holes should measure 14-16mm Ø if installing 8mm Ø CemTies. Drill 16-18mm Ø clearance holes if installing 10mm Ø CemTies.
3. Clean out all dust from the holes and thoroughly flush with water. Where the substrate is very porous or flashing with water is inappropriate, use Heliprimer WB. Ensure the hole is damp or primed prior to commencing step 8.
4. Attach the required length of CemTie Pinning Nozzle to the Helifix Pinning Gun.
5. Mix Helibond cementitious grout thoroughly using a drill and mixing paddle and load into the gun.
6. Pump grout to fill the nozzle.
7. Wind the CemTie into the nozzle and ensure that it is fully covered in grout. (Alternatively, fill the hole with grout and wind the CemTie into the grout-filled hole.)
8. Insert the nozzle to the full depth of the drilled hole and pump the grout. Slowly withdraw the nozzle while pumping. The CemTie will be carried out with the Helibond grout as it is forced through the nozzle. Back pressure will help to push the nozzle back out of the hole.
9. Make good all holes at the surface using either a mixture of sand, cement and oxide colouring to match the original surrounding brick surfaces or a silicone sealant coated with brick dust or chippings.
10. Clean tools with clean, fresh water.

NOTE: If there is a lot of movement in the arch then the ties will have to be installed in phases. After each phase the ties should be left for 24 hours for the grout to achieve initial set. After 24 hours continue with the next phase.

CATION: Always locate, identify and isolate any electrical, water or gas services which may be present in the wall or the wall cavities and can pose a safety risk before drilling or cutting. Always take the necessary safety precautions. Use electrical safety gloves and wear appropriate footwear and eyewear.



RECOMMENDED TOOLING

For drilling SDS rotary hammer drill 650/850w
 For mixing Helibond Drill with mixing paddle
 For insertion of the CemTies Helifix Pinning Gun with CemTie Pinning Nozzle

SPECIFICATION NOTES

The following criteria are to be used unless specified otherwise:

- A. Place CemTies on a suggested 450mm x 450mm grid. Any loose bricks should also be pinned. Refer to Repair Details BMA06 and BMA07.
- B. CemTie length to be sufficient to penetrate at least 25mm into sound brickwork.
- C. Depth of hole to be CemTie length + 25mm.
- D. Where arch rings are badly delaminated and/or brickwork is very loose, the CemTies will have to be installed in phases. In this case consideration should be given to using extra ties to help stabilise the brickwork prior to installing the first phase of CemTies. Depending on the condition of the brickwork, it may be possible to use Helifix Dryfix tie for this purpose.
- E. In hot conditions ensure the masonry is well wetted or primed to prevent premature drying of the Helibond due to rapid desiccation. Ideally, additional wetting of the hole or priming with Heliprimer WB should be carried out just prior to inserting the CemTie.

The above specification notes are for general guidance only and Helifix reserves the right to amend details/notes as necessary.

GENERAL NOTES

- Helifix product details available at www.helifix.com.au.
- If your application differs from this specification or you require specific technical information, call Helifix on 1300 66 70 71.

HELIFIX

HELIFIX (AUSTRALIA) PTY LTD

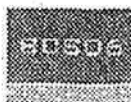
Unit 24, 34-36 Ralph Street • Alexandria • NSW • 2015

TEL. 1 300 66 70 71

Copyright © Helifix Limited 2010

REPAIR DETAIL BCS06

HELIFIX



Crack stitching a solid wall using HeliBars

Product	Description	Code
HeliBar	Grade 316 stainless steel reinforcement	HBR
HeliBond	Injectable cementitious grout	HLB
HeliPrimer	Water-based primer for porous substrates	HWB
CrackBond	Epoxy resin for filling cracks	HCB

DETAIL STATEMENT

- Using an appropriate power cutting tool with vacuum attachment, cut slots into the brick or horizontal mortar joints, to the specified depth and at the required vertical spacing.* Ensure that as much mortar is removed as possible from the exposed brick surfaces in order to provide a good masonry/grout bond.
- Clean out all dust and loose mortar from the slots and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use a suitable primer. Ensure the slots are damp or primed prior to commencing step 5.
- Mix HeliBond cementitious grout thoroughly using a drill and mixing paddle and load into the HeliFix Pointing Gun.
- Fit the mortar nozzle to the pointing gun.
- Inject a bead of HeliBond grout, 10-15mm deep, into the back of the slot.
- Push the Green HeliBar into the grout to obtain good coverage.
- Repeat steps 5 and 6 as required to install all specified HeliBar into the slot.
- Inject a final bead of HeliBond grout over the exposed HeliBar and iron it into the slot using a finger trowel. Inject additional HeliBond as necessary, leaving 10-15mm for new pointing.
- Point up the remaining slot with a suitable matching mortar and make good the crack using an appropriate HeliFix bonding agent or filler, e.g. CrackBond, depending on the width of the crack.
- Clean tools with clean, fresh water.

NOTE: Pointing may be carried out as soon as is convenient after the HeliBond has started to set. Ensure that pointing does not disturb the masonry/HeliBond connection.

CAUTION: Always locate, identify and isolate any electrical, water or gas services which may be present in the wall or the wall cavity and can pose a safety risk before drilling or cutting. Always take the necessary safety precautions. Use electrical safety gloves and wear appropriate footwear and eye wear.



RECOMMENDED TOOLING

- For cutting slots: Chisel, mortar saw (e.g. Arbortech All Saw) or angle grinder with dust guard (e.g. C-Test) and vacuum
- For mixing HeliBond: Drill with mixing paddle
- For injection of HeliBond into slots: HeliFix Pointing Gun with mortar nozzle
- For smoothing pointing: Standard finger trowel

Specification notes

The following criteria are to be used unless specified otherwise:

- Allow for the installation of one HeliBar for each skin of brickwork (i.e. each side) i.e. for example, a common 230mm solid wall construction (equivalent to two skins of brick backing) will require the installation of two HeliBars per slot. A solid wall equivalent in depth to three skins of bonded masonry will require three HeliBars per slot.
- Depth of slot into the masonry to be 35mm to 40mm, assuming a 230mm solid wall. Add 10mm for each additional skin of brickwork.
- Height of slot to equal full mortar joint height, with a minimum of 8mm.
- HeliBar to be long enough to extend a minimum of 500mm either side of the crack or 500mm beyond the outer cracks if two or more adjacent cracks are being stitched using one rod.
- Normal vertical spacing is 140mm (4 brick courses).
- Where a crack is less than 300mm from the end of a wall or an opening the HeliBar is to be continued for at least 100mm around the corner and bonded into the adjoining wall or bent back, and fixed in this reveal, avoiding any DPC.
- In hot conditions ensure the masonry is well watered or primed to prevent premature drying of the HeliBond due to rapid re-watering. Ideally additional wetting of the slot, or priming with HeliPrimer VS, should be carried out just prior to injecting the HeliBond grout.

The above specification notes are for general guidance only and HeliFix reserves the right to amend details/notes as necessary.

GENERAL NOTES

- * HeliFix product details available at www.helifix.com.au.
- * If your specification differs from this repair detail or you require specific technical information, call HeliFix on 1300 66 70 71.

Subject: Fw: Cnr Lichfield and Manchester
From: Richard Sullivan <rdnull@xtra.co.nz>
Date: 24/09/2010 1:29 p.m.
To: eelco Wiersma <eelco@rubenblades.co.nz>

Eelco

As discussed earlier. The building owner of 114 Lichfield Street has engaged Structex to assess his building. Structex have made some temporary repair recommendations to make the external egress stairs safe for use by the tenants of 114 Lichfield St. I understand that some of the stair treads have also been damaged by the parapet debris. We suggest these treads are repaired at the same time as the "make safe" works to the parapet are carried out. Can you please pass this information on to your insurer for their assessment. Structex have advised they have a contractor available to carry out the work.

You mentioned that you had some concerns as to whether anyone was using the top floor of 114 Lichfield Street. I am not sure if this floor is being used or what type use but I will pass on your concerns to Structex to discuss with the building owner.

Regards

Peter Sullivan
RD Sullivan and Associates Ltd

03 3653 644.

--- On **Wed, 22/9/10**, **Sean Gardiner** <SGardiner@structex.co.nz> wrote:

From: Sean Gardiner <SGardiner@structex.co.nz>
Subject: Cnr Lichfield and Manchester
To: rdnull@xtra.co.nz
Cc: mike.frost@leighsconstruction.com, "Ernest Duval" <etp@etp.co.nz>, "Suzie Rees" <suzie@etp.co.nz>
Date: Wednesday, 22, September, 2010, 11:48 AM

Dick,

Please find attached proposed make safe works for the fire escape at the cnr Lichfield and Manchester Streets.

We have Leighs Construction available to undertake the works.

Can you please gain your client's/his insurers approval to undertake the works on their building?

Regards,
Sean

Sean Gardiner
sgardiner@structex.co.nz
structex
Studio2 Limited
219 Main South Road
Christchurch, New Zealand
Tel: +64 3 341 8952, Mob: 021 462 723

-----Original Message-----

From: harvard_copier@structex.co.nz [mailto:harvard_copier@structex.co.nz]

Sent: Wednesday, 22 September 2010 11:54 a.m.

To: Sean Gardiner

Subject: Scanned image from Structex

Reply to: harvard_copier@structex.co.nz <harvard_copier@structex.co.nz> Device

Name: Structex Harvard Ltd Device Model: MX-2600N

Location: 219 Main North Rd, Sockburn, Christchurch.

File Format: PDF (High)

Resolution: 200dpi x 200dpi

Attached file is scanned image in PDF format.

Use Acrobat(R)Reader(R) or Adobe(R)Reader(R) of Adobe Systems Incorporated to view the document.

Adobe(R)Reader(R) can be downloaded from the following URL:

Adobe, the Adobe logo, Acrobat, the Adobe PDF logo, and Reader are registered trademarks or trademarks of Adobe Systems Incorporated in the United States and other countries.

<http://www.adobe.com/>

Attachments:

harvard_copier@structex.co.nz_20100922_115356.pdf

1.6 MB

earthquake damage report**structex**

project	116 Lichfield Street	project no	5708
date	20th December 2010	from	Sean Gardiner
client	Cunningham Lindsey NZ Ltd (Ref: 423107 JVL)	owner	Weirsmas Family Trust

1 Scope of this Report

This report covers our assessment of the structural condition of the building located at 116 Lichfield Street, Christchurch on the morning of 7th December 2010 based on a visual inspection inside and out.

Our earlier initial inspection by RD Sullivan dated 14th September 2010 mainly addressed initial safety matters relating to the building. This subsequent inspection and this report describes the damage observed in more detail, and comments on remedial work options for both temporary securing of the building, and long term repair where appropriate.

This report does not cover a detailed structural strength assessment or strengthening options, which may be required by the client following consideration of this report.

2 Scope of Investigation

On the morning of 7th December 2010, we visually inspected the building with the owner including:

- The exterior from ground level and the fire escape
- The interior throughout

The roof was not inspected; however the RD Sullivan inspection included the roof and identified damage principally to the fire escape parapets, which could be seen.

This report is based on our assessment of the building at the time stated. Photos that are attached are indicative of the damage. Any subsequent loading by aftershocks, or high winds, may initiate further damage.

3 Building Description

The building is three storeys, constructed with an unreinforced masonry (URM) exterior, and with timber framed roof and floors. The building is almost rectangular in shape approximately 27m long and 10m wide and would have been built with the property directly to the west at 112-114 Lichfield Street.

It shares a common fire escape stairwell and party wall with that property and a common party wall to the south with 149 Manchester Street. A concrete safe was constructed at the ground floor level, at the base of the fire escape. The front facade parapet has been previously lowered, as we understand has a chimney to the rear of the building.

The City Plan notes the building was constructed c1900 and has it listed as a category 4 heritage building. Its legal description is Pt Lot 1 and 2 DP2065.



4 Damage Description

The building has suffered moderate damage as noted below.

Fire Escape:

- Steel ladder treads and sections of handrail have been damaged/removed by falling parapet bricks.
- Vertical crack to bricks at NW junction with adjacent building.
- Diagonal cracks to north wall between and at windows and the bricks forming the upper window head have moved outwards.
- South wall parapet is still in place supporting roof water tank. This parapet is severely cracked and remains a fall hazard to the fire escape below. There are also cracks to the window arches below.
- The parapet has been partially lowered by the contractor working on 114 Lichfield Street to allow safe removal of the parapet at that address.
- The east wall of the fire escape has diagonal cracks above the upper level windows as well as horizontal cracks closer to the floor levels.

Level 2:

- A vertical crack to the south wall parapet was identified in the RD Sullivan report.
- Numerous cracks to plaster boards throughout, including at stairwell.
- NW corner of the building has pulled away from the party wall towards the street (also noted in the inspection of 114 Lichfield Street).
- Interior wood panelling has pulled away from the walls in places. The wood panelling restricted access for inspection of the inside face of some areas of the brick walls, however there were no obvious signs of significant damage observed from the exterior of the building.
- There were numerous minor cracks to the mortar around the stone blocks at the windows.
- The ceiling was bowed and cracked and the wall plaster cracked in the toilet area.
- The timber-to-brick wall interface plaster was cracked and had popped.
- Diagonal and vertical cracks at corners of intersecting walls at the SE and SW corners of the building.
- Debris was noted the chimney, suggesting possible damage to the chimney stub in the roof space.

Level 1:

- Cracked plaster to underside of stairs.
- Minor wall plaster cracking noted throughout, particularly at vertical wall junctions.
- The lath and plaster ceiling was cracked throughout.

Ground Floor Level:

- Some stone facing panels appeared to have popped off ground floor perimeter columns (mortar cracked).
- Vertical and diagonal cracks to bricks each side of alleyway at SE corner of the building.
- Minor plaster board wall/ceiling cracks.



- Minor cracking to plaster board bulkhead.
- Hairline cracks to concrete safe.

5 Structural Safety Evaluation of Building

The parapets to the fire escape remain a fall hazard to the area below and are preventing access to the upper levels of both 114 and 116 Lichfield Street. A roof water tank is also supported on these unsecure parapets.

There are no apparent structural hazards to the remaining areas of the building.

6 Temporary Securing of the Building

The roof water tank should be re-plumbed with a pressure reducing valve and removed to allow the removal of the remaining parapet around the fire escape. The rooftop AC units near the fire escape should have diagonal braces installed to the supporting timber framing.

The fire escape stair treads and handrails should be repaired.

7 Long Term Repair

It is likely the following will require both Building and Resource Consent; however this specification could be taken to the Council for confirmation if desired.

The following repair work should be undertaken:

- Once the fire escape parapets have been removed, the damaged brickwork directly under should be repaired. The sections of wall with loose and/or dislodged bricks, particularly above the windows, should be carefully lowered and rebuilt. A new reinforced concrete capping beam should be formed over tying the walls together. A new parapet can be constructed over, either from reinforced concrete or from lightweight materials. The roof structure should then be tied into the concrete beam.
- Vertical and diagonal cracks and cracked archways in the URM walls should be stitched with Helifix ties (refer www.helifix.com.au). The mortar joints should then be repointed.
- Stitch upper level north facade to western party wall with Helifix as above.
- The minor cracks to the mortar around the stones blocks at the window frames should be repaired by being ground out and repointed inside and out. Any dislodged blocks should be stitched in place with Helifix ties, as above.
- The level 1 ceilings are extensively damaged and will likely require replacement or repair with a Gib overlay ceiling throughout.
- Repair cracked wall and ceiling plasterboard linings in accordance with Gib recommendations (www.gib.co.nz/earthquakebulletin).
- Remove any cracked and popped plaster from inside face of exterior walls and replaster.
- Cracks greater than 0.2mm in the concrete safe could be injected with an epoxy such as Sika Injectokit. Any concrete cracks greater than 1.0mm should be referred to the engineer for review.

The following further investigations should be undertaken:

- Investigate condition of upper level chimney stub in roof space.



- Where the ground floor stone facing panels appear to have moved or partially popped off, these should be carefully removed to allow inspection of the column behind; this should include the two NE corner entrance columns.

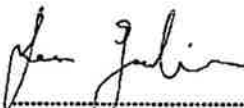
8 Strengthening

It is possible the building is earthquake-prone (i.e. has a strength less than 33% current Code), as defined by the Building Act 2004, and the Council will likely require a strength assessment of the building as part of any Consent. If requested we can complete a detailed engineering strength assessment to determine the building's strength relative to current Code and identify strengthening options sufficient for cost estimates to be made. Please also refer to our letter of 17 November, 2010.

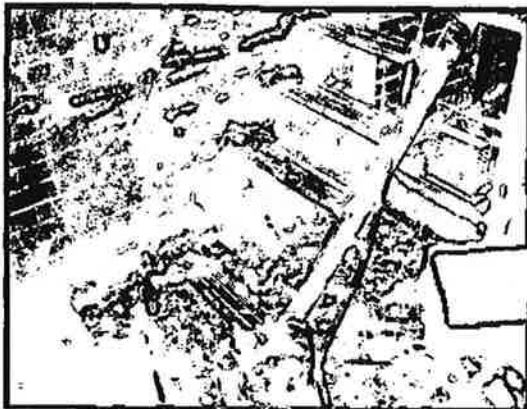
9 Limitations

Findings presented as part of this report are for the sole use of the client. The findings are not intended for use by other parties, and may not contain sufficient information for the purposes of other parties or other uses. Our professional services are performed using a degree of care and skill normally exercised, under similar circumstances, by reputable consultants practicing in this field at this time. No other warranty, expressed or implied, is made as to the professional advice presented in this report.

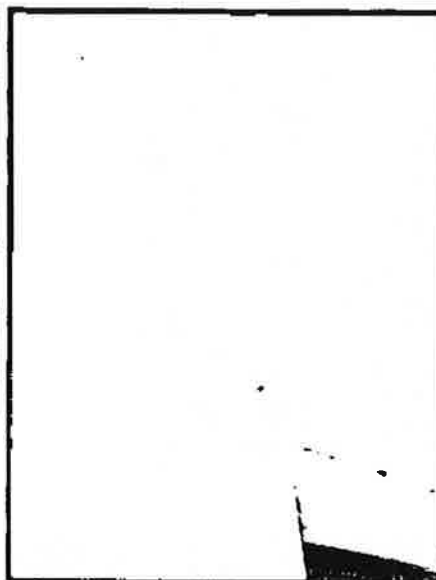
Report by:



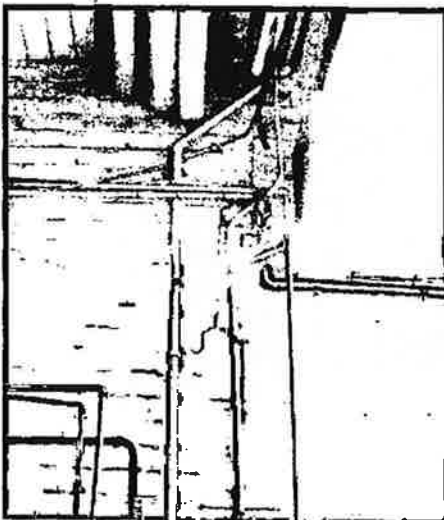
Sean Gardiner
B.E.(hons), MIPENZ, CPeng (#242020)
Structural Engineer
Studio2 Limited

Appendix: Photos of Damage

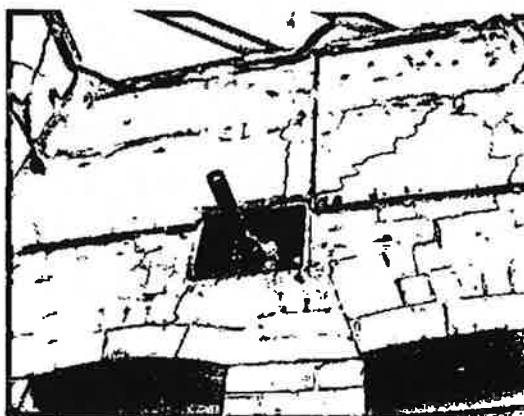
Damaged stairwell stair tread and handrail



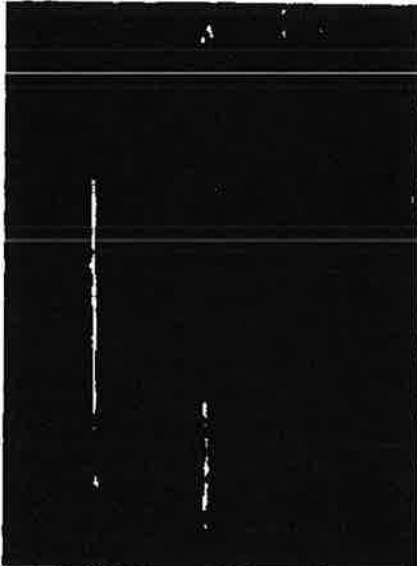
Plasterboard crack



Alleyway wall crack



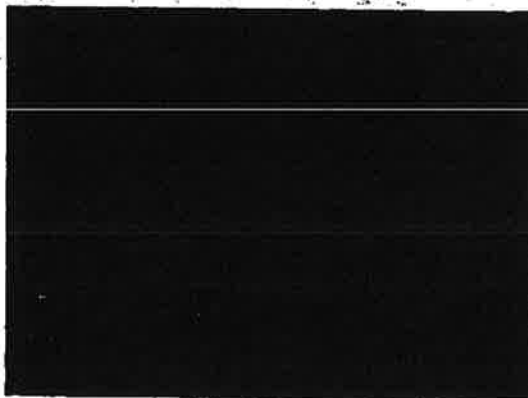
Severe cracking to south wall and parapet of fire escape



Cracking and popping of plaster at timber-to-brick wall interface.



Dislodged bricks to north end of fire escape



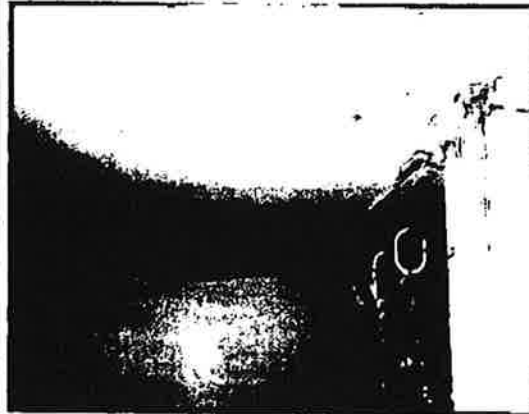
Cracked lath and plaster ceiling



Popped column stone facing.



Minor cracks around window stone blocks



Bowed and cracked ceiling to upper level toilet



Vertical crack to upper level SE corner of building

USAR Damaged Building Reconnaissance Report

Name Rowan Buxton Time 13:10 Date 27 Dec 2010

Building Description	Address <u>116-114-112 Lichtfield</u>	Construction (tick more than 1 if required) <input type="checkbox"/> Timber frame <input type="checkbox"/> Steel frame <input type="checkbox"/> Concrete frame <input type="checkbox"/> RC frame / masonry infill <input type="checkbox"/> Concrete shear wall <input checked="" type="checkbox"/> Unreinforced masonry <input type="checkbox"/> Confined masonry <input type="checkbox"/> Other _____	Use (tick more than 1 if required) <input type="checkbox"/> Dwelling <input type="checkbox"/> Multi Residential (No. _____) <input type="checkbox"/> Public assembly <input type="checkbox"/> School <input type="checkbox"/> Religious <input checked="" type="checkbox"/> Commercial retail <input type="checkbox"/> Commercial offices <input type="checkbox"/> Industrial <input type="checkbox"/> Government <input checked="" type="checkbox"/> Heritage <input type="checkbox"/> Other _____																																																			
	Building Name <u>Honey Pot</u> GPS Coordinates (if available) _____ No. of stories at and above ground <u>3</u> No. of stories below ground _____ Approx year of construction _____ <u>Bell's 1898</u>																																																					
Damage / Hazards	Damage / Hazards			Estimated Overall Building Damage																																																		
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Actions	Cordon / Public Safety Temporary hazard tape applied Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Additional cordon / fencing required Y <input checked="" type="checkbox"/> (Pink / Red) N <input type="checkbox"/> Urgent <input checked="" type="checkbox"/> Non-urgent <input type="checkbox"/> Imminent danger to public reported to USAR command for action Y <input type="checkbox"/> N <input type="checkbox"/> Comments... <u>Rear of 114 also sustained damage</u> *(colours noted are to be marked on maps)			Engineering assessment required Y <input checked="" type="checkbox"/> (Blue) N <input type="checkbox"/> Call me to discuss <input type="checkbox"/> Urgent <input type="checkbox"/> Non-urgent <input type="checkbox"/> My contact phone _____ *(Lime Green)																																																		

(CCC Office Use) - ☐ Entered into CCC Database ☐ Cordon requested ☐ Rapid eng assessment requested

CSR 91225542

Christchurch Eq. RAPID Assessment Form - LEVEL 1

Inspector Initials
Territorial AuthorityRAB
Christchurch CityDate of Inspection
Time27/12/10
4pmExterior Only
Exterior and Interior
☒
☐

Building Name

HONEY POT

Short Name

Address

110-116 LICHFIELD ST

GPS Co-ordinates

S°

E°

Contact Name

Contact Phone

Storeys at and above
ground levelBelow ground
levelTotal gross floor area
(m²)Year
built

No of residential Units

Photo Taken

Yes

No

Type of Construction

- ☐ Timber frame
☐ Steel frame
☐ Tilt-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 below:

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

☒☐☐

Other

☒☐☐

rear parapet wall
 damage to 110 Lichfield

Choose a posting based on the 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.

INSPECTED
GREEN
☒
RESTRICTED USE
YELLOW
☐
UNSAFE
RED
☐

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):☒ Level 2 or detailed engineering evaluation recommended☒ Structural☐ Geotechnical☐ Other:☐ Other recommendations:

Estimated Overall Building Damage (Exclude Contents)

None

☐

0-1 %

☒

31-60 %

☐

2-10 %

☐

61-99 %

☐

11-30 %

☐

100 %

☐

Sign here on completion

[Signature]

Date & Time
ID

Inspection ID _____ (Office Use Only)

29 December 2010

Eelco Wiersma
 PO Box 5651
 Papanui
 Christchurch 8542

Dear Sir/Madam

Notices under the Building Act 2004 not to use or occupy your building and to repair your building
116 Lichfield Street

The earthquake that struck Christchurch and the subsequent aftershocks have damaged many buildings in the City, including your property. We recognise that this is an extremely difficult time for you and we want to work with you to create a safe city.

Christchurch City Council staff are working hard to assess the buildings throughout the city to determine whether or not they are dangerous buildings.

Your building has been identified as one that was damaged by the earthquake and is considered dangerous. You need to be aware of the special government legislation that relates to your property.

Special legislation for Council to use for dangerous buildings

To assist the Council with its efforts following the earthquake special legislation has been enacted, which has enhanced Council powers under the Building Act 2004 to deal with dangerous buildings.

The primary aim of those powers is to keep people safe.

Steps the Council can take to achieve this aim include issuing notices to prevent people from using or occupying a building or to allow restricted entry to a building. A notice can also require that repairs must be carried out on a dangerous building within a certain time. This is extremely important if a building is to be made safe, and to minimise the impact on other businesses close to the affected property.

The Dangerous Building Notice issued for your building

The Council considers that your building is a dangerous building as defined in the Building Act, and that it is necessary for notices to be issued to:

- Prevent use or occupation of your building (a section 124(1)(b) notice)
- Require you to reduce and remedy the danger to your building (a section 124(1)(c) notice)

These notices are enclosed and have also been placed on your building to warn of the danger, as required by the Building Act. Please do not remove these notices as it is important the public and building users know about the danger to help safeguard them.

The Council's Building Recovery Office can help you

We recommend that you contact the Christchurch City Council Building Recovery Office (details below) to discuss your building assessment or if the particulars on the notices need clarification.

We also recommend that you talk to the Building Recovery Office before taking any steps to remedy the danger, and to discuss any building consents or resource consents that may be required for the work.

We realise the timeframes specified in the section 124(1)(c) notice may not be long enough to carry out the repair work, and we are keen to work with you to identify if a longer period is required.

If you have not already done so, we recommend that you contact your insurers. You should also seek structural engineering advice from a qualified structural engineer on how to remove the danger.

We appreciate your understanding in this matter.

CONTACT:

CCC Building Recovery Office

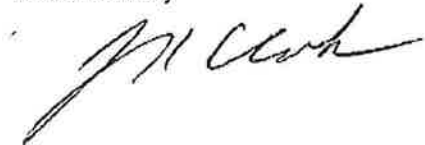
Ground floor Civic Offices

53 Hereford Street

Tel: 03 941 8999

Email: Buildingrecoveryoffice@ccc.govt.nz

Yours faithfully




James Clark

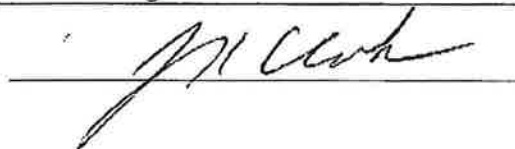
Team Leader Enforcement

Inspections and Enforcement Unit

Encl

 <p>CHRISTCHURCH CITY COUNCIL • YOUR PEOPLE • YOUR CITY</p>	<p>CHRISTCHURCH CITY COUNCIL</p> <p>NOTICE</p> <p>UNDER SECTION 124(1)(c), BUILDING ACT 2004 (as modified by the Canterbury Earthquake (Building Act) Order 2010)</p>			
<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> TO: BARBARA DIANE WIERSMA PO BOX 5651 PAPANUI CHRISTCHURCH 8542 </td> <td style="width: 50%; vertical-align: top;"> EELCO WIERSMA PO BOX 5651 PAPANUI CHRISTCHURCH 8542 </td> </tr> </table>			TO: BARBARA DIANE WIERSMA PO BOX 5651 PAPANUI CHRISTCHURCH 8542	EELCO WIERSMA PO BOX 5651 PAPANUI CHRISTCHURCH 8542
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<p>THE BUILDING</p>				
<p>Street Address: 116 LICHFIELD STREET</p>				
<p>Legal Description: Lot 1, Deposited Plan 2065</p>				
<p>PARTICULARS</p>				
<p>In accordance with s121(1)(a) or (c) of the Building Act 2004, this building is dangerous as a result of an earthquake which occurred at the property on Saturday 4th September 2010, or as a result of aftershocks following that earthquake.</p> <ol style="list-style-type: none"> 1. The building has been damaged, and there are structural defects to the building. 2. Councils records show – Damage to parapets, and/or chimneys, and/or ornamental features that may pose a risk to the public and/or adjacent property. Loose or insecure parapets, and/or chimneys, and/or ornamental features. Loose or insecure debris (bricks, glass etc). Debris from the property are impeding public right of ways and/or traffic flows. 				
<p>TO REDUCE OR REMOVE THE DANGER YOU MUST:</p>				
<ol style="list-style-type: none"> A. Comply with any notice attached to the building prohibiting the use or occupation of the building, or restricting entry to the building. B. Keep persons away from the danger/risk in the building. C. Carry out work on the building to remove the danger . D. You must obtain a building consent to carry out any demolition, repairs or other work to remove the danger. Please contact the Christchurch City Council Building Recovery Office by telephone on 941-8999, or by email at buildingrecoveryoffice@ccc.govt.nz, or in person at the Ground Floor, Civic Offices, 53 Hereford Street, before making your building consent application. E. If urgent building work is necessary to save or protect life or health or prevent serious damage to property then you may be able to carry out that work without a building consent (see s41(1)(c) of the Building Act 2004). If, in reliance on s41(1)(c), building work is carried out without a building consent having been obtained, the owner must, as soon as practicable after completion of the building work, apply for a certificate of acceptance under s96 of the Building Act 2004. F. If the building is a listed heritage building then council approval must be obtained for the work, whether or not a building consent is required. 				
<p>Work required by this notice must be carried out by 31 JANUARY 2011. If you believe you are unable to carry out the work by that date please contact the Council's Building Recovery Office who will work with you on a solution that may include agreeing on a new timeframe.</p>				
<p>If the work is NOT carried out before 31 January 2011, or such other date agreed by the Council in writing, the Council may carry out the work required and you will be liable for the costs of the work unless you apply within 5 days of the work being carried out to a District Court for relief from this obligation.</p>				

Signed for & on behalf of the Christchurch City Council:



Name: James Clark

Position: Team Leader Enforcement

Date of issue: 29 December 2010





116

DO NOT APPROACH OR ENTER THIS BUILDING

6

engineer's instruction

date 18/1/11

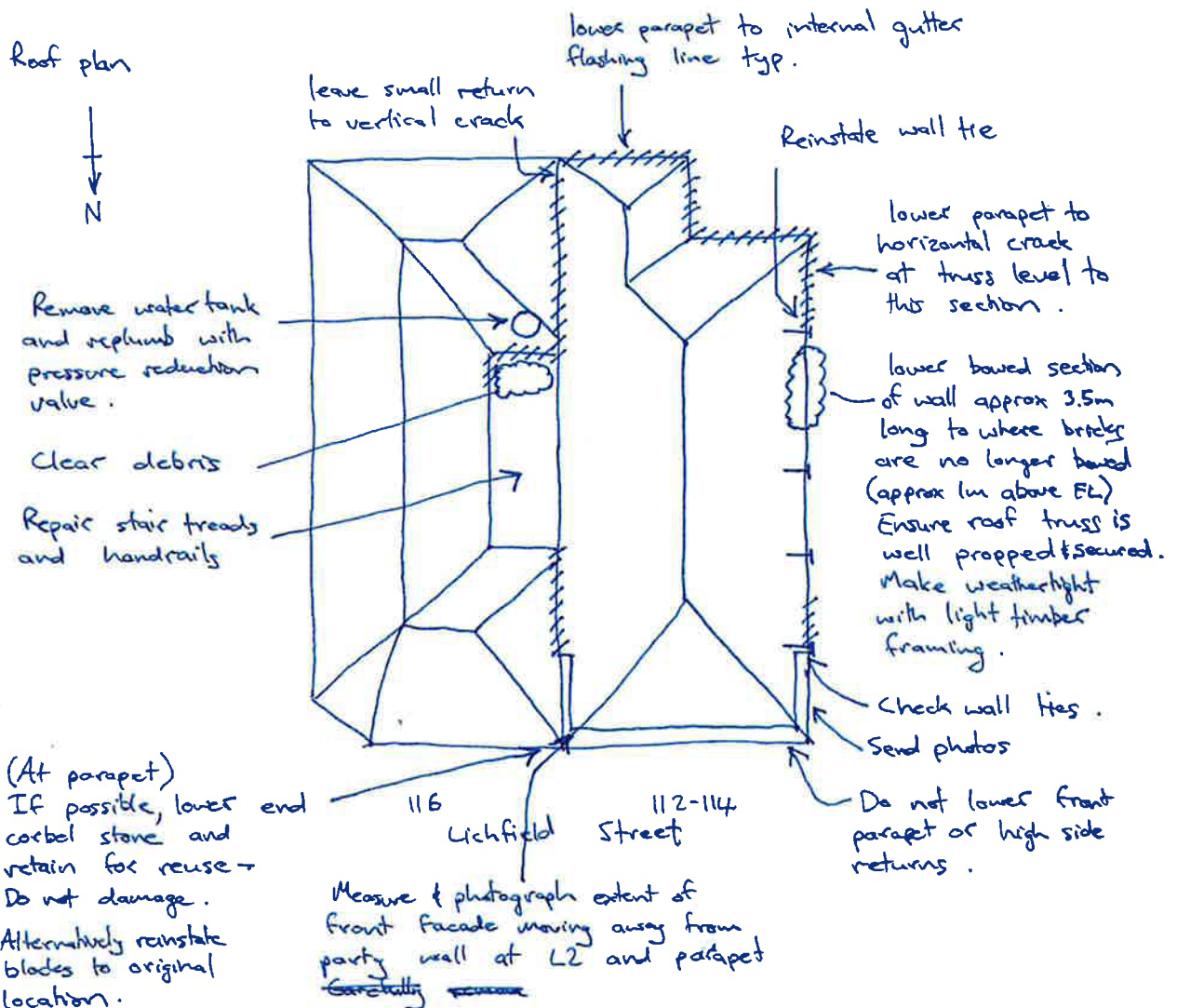
structex

project 112-114 and 116 Lichfield Street by SG

ref 5624 & 5708

distribution ☒ Fortis Construction ☒ ETP☒ Cunningham Lindsey ☐

Further to damage observations noted following the Boxing Day earthquake (copy attached), please complete the following securing and make-safe works.



Keep costs separate for each property and pro-rata common costs.

John John

19th January 2011

James Clark
Team Leader Enforcement
Christchurch City Council
P O Box 73 013
Christchurch 8154

Re.: 116 Lichfield Street – Lot 1, Deposited Plan 2065

Thank you for your letter of 29th December 2010.

The Boxing Day quake caused further damage to already damage created by the 4th September 2010 quake and your Council has subsequently attached a red sticker on the door of 116A Lichfield Street.

The matter is in the hands of Sean Gardner of Tructex who is awaiting for the Engineer to inspect the premises anytime this week. After that has been done he will again inspect the premises and assess the additional damage (if any) and hopes to get a clearance from the Insurance Assessors to commence the repair.

However, this may still take a while as consent may have to be obtained from your Council in order to progress with the repairs.

In no way can the repairs be completed by the 31st January 2011 and an extension of time to 31st May 2011 would be a more realistic target.

Sean Gardner is also involved with the Property next door (114 Lichfield Street, occupied by the Coffee Pot) which also had additional damaged inflicted by the Boxing Day quake.

Hope this will give you a clearer picture of where we are at with the reconstruction of 116 Lichfield Street.

Yours faithfully,

Eelco Wiersma

c.c. Barbara Diane Wiersma & Evan James Taylor

Property Manager:
Contacts:
Layout:
Current situation:
Notes Received:
Property Contact connected to other:
Photos:
Date:
10/01/2011
19/01/2011
26/01/2011
3/02/2002

3/02/2011
3/02/2011

7/02/2011

9/02/2011

116 Lichfield Street
Engineer Sean Gardiner Strutex, owner Eelco Wiersma 354-8144
Ruben Blades
Red sticker as per walk about on 10/01/11
2297 + 2298 + 2299 (26/01/11)
Details:
On a walk around prescint noticed that this building had a red sticker , hadn't one previously so from boxing day quake. Cordon at front of 116 and 114
received an email from a Eelco wiersma saying that unlikely repair work will be done by 31/01/11, saved into
Cordon on Lichfield side affecting turning lane and pedestrians . No barrier on Manchester street side
Sign off received form Sean gardiner of Strutex in reference to these cordons, Neville to have a look at it.
Met Sean gardiner of Strutex on site today. He advised (and submitted a report saying the same) that the
cordons on Lichfield street can be removed, that there is limited access to some upstairs of some areas.
Also nevil advised I contact the building owner and advise it is his responsibility to make sure that entry
Emailed ciara that cordons can be removed here.
Ron from honey pot café rang (027-2222424) wanting some information on this site. I advised him that as
per Sean gardeners update that the bottom floor is occupiable and the upper floors are not. He was
mentioning that he thinks he will move premises as he had concerns about the building if there was another
Email from Sean saying owner received letter ref S124. advised it was standard letter delivered to all with
S124 notice. He also attached the latest reports in regards to securing works, added to file

2nd February 2011

BARBARA DIANE WIERSMA
PO BOX 5651
PAPANUI
CHRISTCHURCH 8542

Dear Sir / Madam

RE: Section 124 Notice on 116 Lichfield property

I am writing to you regarding your building (above), which was identified by the Council as dangerous. You were served a Section 124 Building Act 2004 notice requiring you to address the danger. Your outstanding s124 notices expired on 31 January 2011 and we want to ensure that work is progressing on removing the dangerous aspects of your building to protect public safety. We would like to work with you to establish the current status of your building and discuss how we can help resolve any issues you may have in making progress towards removing the danger your building poses to neighbouring properties and the public.

The Council has commenced the reassessment of all dangerous buildings with outstanding s124 notices. Our structural engineers are doing safety assessments over the next few weeks to determine if your building still poses a danger to people or other buildings. You do not need to be present for that assessment, but if you wish to be, you can make an appointment to meet the structural engineer onsite. To make an appointment, please call the Council on Ph 941 8350. Please bear in mind this is not a comprehensive engineering assessment of the damage to your building, it is a Council assessment/determination of the danger your building poses to people or other property. You are still required to provide your own engineering assessment of the property to determine repair work required to address the dangerous aspects, so your building can be declared safe.

We are working with individual building owners to assist in making their buildings safe and may already have been in contact with you. If not, one of our case managers will contact you within a few weeks of the reassessment to ascertain the status of your property.

Where building owners have taken some action but are unable to completely resolve the issues that make their buildings dangerous, a new s124 notice will be issued. This new notice requires a mutually agreed completion date - by which time work will be complete on making the building safe and mitigating the impact on surrounding businesses or properties. To determine the completion date for the new s124 notice, you are required to provide us with:

- A post Boxing Day structural engineer's assessment of the building
- A proposed timeline and schedule of works that addresses the dangerous building aspects
- A letter clarifying actions taken to date to address the building issue and updating the Council on progress made to date, including details of any barriers encountered or mitigating factors beyond your control (for instance, issues with insurance claims or obtaining quotes for works)

- If your property is a listed or protected building under either the Christchurch City Plan or the Banks Peninsula District Plan you will need to consider the heritage values of the property in determining your scope of works and should contact the Council's Heritage Planners on Ph 941 8156 to discuss.

Please send this information to BuildingRecoveryOffice@ccc.govt.nz

There is a small minority of building owners who have taken no action to address their dangerous buildings. The Council will look at enforcement measures rather than reissuing s124 notices in these cases.

Public safety is our priority and we are steadily working towards getting Christchurch city back to business as usual – which includes reducing cordons around dangerous buildings, improving traffic flow and enabling pedestrian and vehicular access to all of our city's business and public spaces. Building owners who do not meet their obligations under the Building Act 2004 will be managed using enforcement measures available to the Council (including infringement notices with instant fines and/or prosecution for failing to comply with a s124 notice).

To avoid these measures, we encourage all building owners to send us the documentation outlined above so our files are kept up to date. If you have difficulties obtaining the required information, please either phone us on 941-8350 or email us at BuildingRecoveryOffice@ccc.govt.nz to discuss your situation with a case manager. Thank you for helping us make Christchurch safe during these extraordinary circumstances and we look forward to the time when all buildings affected by the earthquakes are made safe.

If you have any queries resulting from this letter, please call us on Ph 941 8350 and we will endeavour to address your questions or put you in contact with a case manager who will be able to help you.

Yours sincerely,

Vincie Billante
Building recovery Programme Team Leader

earthquake damage report**structex**

project	116 Lichfield Street	project no	5708
date	26 th January 2011	from	Sean Gardiner
client	Cunningham Lindsey NZ Ltd (Ref: 423107 JVL)	owner	Weirsma Family Trust

1 Scope of this Report

This report covers our assessment of the structural condition of the building located at 116 Lichfield Street, Christchurch on the morning of 21st January 2011 based on a visual inspection inside and out with Eelco Weirsma (owner) and Andrew Bell (Cunningham Lindsey).

This report follows on from previous reports and covers the additional damage sustained as a result of the Boxing Day and subsequent earthquakes. The building has also now been "Red Stickered" by the Christchurch City Council, stating the building is likely unsafe to occupy.

This report does not cover a detailed structural strength assessment or strengthening options, which may be required by the client following consideration of this report.

2 Scope of Investigation

On the morning of 21st January 2011, we visually inspected the building including:

- The exterior from ground level and the fire escape
- The interior throughout

The roof was not inspected; however previous inspections have revealed there is no obvious structural damage to the roof. The internal gutters to the perimeter of the roof may require replacement.

This report is based on our assessment of the building at the time stated. Photos that are attached are indicative of the damage. Any subsequent loading by aftershocks, or high winds, may initiate further damage.

3 Building Description

The building is three storeys, constructed with an unreinforced masonry (URM) exterior, and with timber framed roof and floors. The building is almost rectangular in shape approximately 27m long and 10m wide and would have been built with the property directly to the west at 112-114 Lichfield Street.

It shares a common fire escape stairwell and party wall with that property and a common party wall to the south with 149 Manchester Street. A concrete safe was constructed at the ground floor level, at the base of the fire escape. The front facade parapet has been previously lowered, as we understand has a chimney to the rear of the building.

The City Plan notes the building was constructed c1900 and has it listed as a category 4 heritage building. Its legal description is Pt Lot 1 and 2 DP2065.



4 Damage Description

The building has suffered moderate damage as noted in previous reports. The parapet around the stairwell and the roof water tank has been lowered as previously instructed.

Below is the additional damage noted from the latest series of earthquakes.

Fire Escape:

- There is further significant cracking to the fire escape at level 2, particularly above and around the windows. Some bricks at the top of the wall on the eastern side of the fire escape have dislodged and are a fall hazard.

Level 2:

- Bricks from the top of the walls on the eastern facade and eastern wall of the fire escape have dislodged and fallen through the suspended ceilings on to the level 2 floor.
- The suspended ceiling and tiles appear to have suffered warping and bowing.
- The NW corner of the building has pulled further away from the party wall towards the street (also noted in the inspection of 114 Lichfield Street).
- The crack at the SE corner of the building has increased in size and inspection above the ceiling has revealed the crack extends up towards the parapet. The crack also extends down through L1.
- The eastern facade may have moved away from the L2 ceiling and floor slightly (up to 10mm?) in the middle of the building.
- A section of Gib ceiling had collapsed in the toilet area.
- The ceiling tiles adjacent to the chimney were lifted and revealed the chimney stub had suffered little damage.
- Further cracking to exterior facades, particularly around windows.

Level 1:

- Further wall plaster cracking noted throughout.
- Further significant cracking to the lath and plaster ceiling throughout.

Ground Floor Level:

- Further plaster cracking to plaster board walls, ceilings and bulkheads.
- There was no further apparent movement or damage to the stone clad GF columns.

5 Structural Safety Evaluation of Building

The fire escape parapets and water tank have been removed, however the walls around the fire escape remain a fall hazard to the area below. The fire escape should not be used.

There are areas of loose bricks to the perimeter of the L2 ceiling. L2 should not be used.

There are no apparent structural hazards to the remaining areas of the building.

6 Temporary Securing of the Building

If access is desired to the fire escape or level 2 the hazardous walls/bricks could be lowered, propped or re-fixed in place.



The debris on the fire escape landings should be removed and the landings repaired. The fire escape stair treads and handrails have been instructed to be repaired.

7 Long Term Repair

Further to our previous reports the following additional repair work will likely be required:

- Prop roof and lower brick walls around the fire escape to L2 floor level. Pour a concrete ring beam and reconstruct walls. The walls could be constructed from lightweight materials with steel braces, with or without a brick veneer; or from reinforced masonry or precast concrete.
- Replace ceilings at L1 and L2. Tie exterior wall facades into floors/roof.
- Stitch NW and SE wall corners with Helifix ties.
- Refix and/or stitch loose bricks at the top of the L2 walls. The perimeter of the L2 ceiling should be secured with a concrete ring beam, steel channels, plywood ceiling diaphragm or similar.
- Repair cracked wall and ceiling plasterboard linings in accordance with Gib recommendations (www.gib.co.nz/earthquakebulletin).

The following further investigations should be undertaken:

- Where the ground floor stone facing panels appear to have moved or partially popped off, these should be carefully removed to allow inspection of the column behind; this should include the two NE corner entrance columns.

8 Strengthening

It is possible the building is earthquake-prone (i.e. has a strength less than 33% current Code), as defined by the Building Act 2004, and the Council will likely require a strength assessment of the building as part of any Consent. If requested we can complete a detailed engineering strength assessment to determine the building's strength relative to current Code and identify strengthening options sufficient for cost estimates to be made. Please also refer to our previous reports and letter of 17 November, 2010.

We suggest that we undertake this report now to progress the reinstatement of the building.

9 Limitations

Findings presented as part of this report are for the sole use of the client. The findings are not intended for use by other parties, and may not contain sufficient information for the purposes of other parties or other uses. Our professional services are performed using a degree of care and skill normally exercised, under similar circumstances, by reputable consultants practicing in this field at this time. No other warranty, expressed or implied, is made as to the professional advice presented in this report.

Report by:



Sean Gardiner
B.E.(hons), MIPENZ, CPEng (#242020)
Structural Engineer
Studio2 Limited



project 116 Lichfield St.

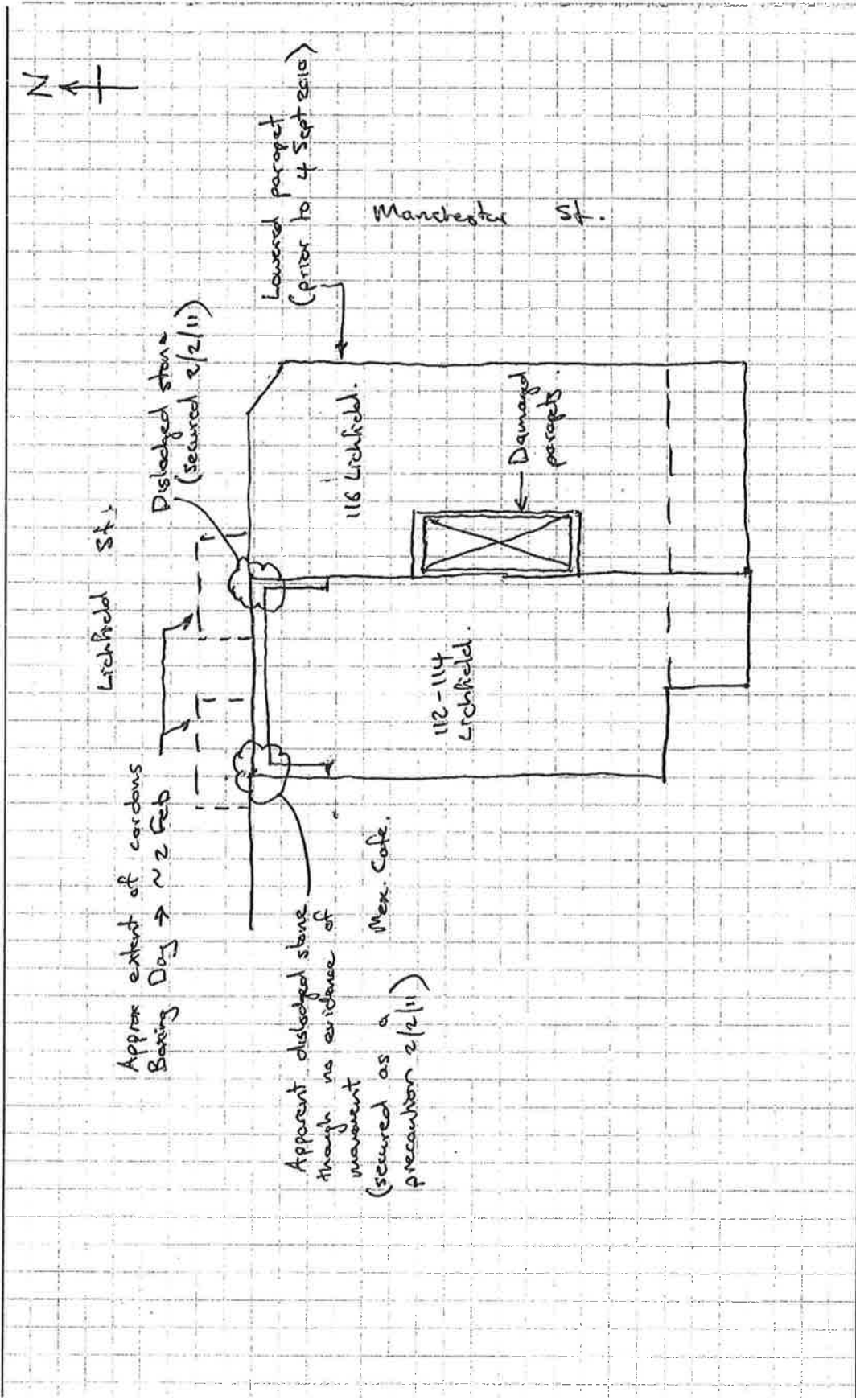
date 19 SEPT 2011

file

by

SG.

ref



Mark Zarifeh

From: Glen McConnell [gmc64nz@hotmail.co.nz]
Sent: Thursday, 3 February 2011 2:34 p.m.
To: Sean Gardiner
Subject: Re: Cordon at 112-116 Lichfield St

By the way Vincie ph'd & has ordered the cordon removed.

However . . .

On inspection of 116 it should have a cordon on Manchester St. The parapet & corbel are dislodged, the south east corner on Manchester St is fractured from the floor to ceiling in multiple case on the top floor. The parapet over the south wall is cracked, broken & dislodged. This would fall on the building next door from 2 storeys above.

Did you get the pics I linked to you?

Regards, Glen

From: Sean Gardiner
Sent: Wednesday, February 02, 2011 11:01 PM
To: Glen McConnell ; Vincie Billante
Cc: CDRescue ; john c1 construction ; Ernest Duval
Subject: RE: Cordon at 112-116 Lichfield St

Glen/Vincie,
 Please find attached certification and photos of parapet securing to allow removal of cordon at Lichfield St.
 Thanks and regards,
 Sean

Sean Gardiner
sean.gardiner@structex.co.nz

structex

Studio2 Limited
 6 Norwich Quay
 Lyttelton, New Zealand
 Tel: 021 462 723 Fax: 03 968 4927

From: Glen McConnell [mailto:gmc64nz@hotmail.co.nz]
Sent: Wednesday, 2 February 2011 8:12 a.m.
To: Vincie Billante; Sean Gardiner
Subject: Cordon at 112-116 Lichfield St
Importance: High

Hi Vincie, I hope you are getting a chance to enjoy this mild weather & are not just stuck in the office!

As I write this the Parapet at 112 Lichfield St is being pinned in it's current position by means of a welded angle iron bracing structure in both front corners.

The work is being carried out by Mach 3 Engineering on the instructions of Sean Gardiner from Structex.

It is anticipated they will have completed the work by 10am today 2/2/11.

Part of this work requires threaded rods to be bolted through from the outside face of the building & as we were unable to obtain a traffic management permit to enable us to put a crane in the parking lane on Lichfield St we have gone for plan B which entails Fred dangling over the face of the building in a Harness.

I think that should be worth a photo!

The usual processes will followed in which Sean will sign off the building & advise you that the cordon can be removed.

As you are aware there is the meeting (regarding among other things the cordon) with Bob Parker tomorrow & it would be advantageous for us if the cordon had been removed by the start of this meeting at 10am.

I will have Sean on standby today to send his advice to you as soon as the work is completed.

If your cordon removal people are unable to attend to the cordon by 10am tomorrow would it be possible for you to instruct us to move the cordon for you?

If you need anything else from us regarding these buildings please let me know asap on 021945800. (I am in a meeting for a while with Canterbury University from 11am to look at completing all their exterior repair work)

Once again, many thanks, Glen McConnell

Fortis Construction

Shop 1 Cathedral Junction
166 Gloucester St
Christchurch
021 945 800
(03) 374 2286

Justin Davies

From: Sean Gardiner
Sent: 9 February 2011 11:05 a.m.
To: Barry, John
Subject: FW: 116 Lichfield Street
Attachments: page-0001.tif; page-0001.tif; img-209095755-0001.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi John,
 The building owner has received the attached S124 notice for 116 Lichfield.
 I trust our involvement in assessment and securing work is sufficient to satisfy the Council that work is progressing?
 I have also attached our latest report and securing work proposal (which is in the process of getting insurance authorization to proceed).

Regards,
 Sean

Sean Gardiner
sgardiner@structex.co.nz
 structex
 Studio2 Limited
 6 Norwich Quay
 Lyttelton, New Zealand
 Tel: 021 462 723 Fax: 03 968 4927

-----Original Message-----

From: Eelco Wiersma [mailto:eelco.wiersma@extra.co.nz]
Sent: Tuesday, 8 February 2011 6:13 p.m.
To: Sean Gardiner
Subject: 116 Lichfield Street

Hi Sean,

Attached is the letter from the CCC.
 Sorry it took so long.

Kind regards
 Eelco Wiersma

2nd February 2011

BARBARA DIANE WIERSMA
 PO BOX 5651
 PAPANUI
 CHRISTCHURCH 8542.

Dear Sir / Madam

RE: Section 124 Notice on 116 Lichfield property

I am writing to you regarding your building (above), which was identified by the Council as dangerous. You were served a Section 124 Building Act 2004 notice requiring you to address the danger. Your outstanding s124 notices expired on 31 January 2011 and we want to ensure that work is progressing on removing the dangerous aspects of your building to protect public safety. We would like to work with you to establish the current status of your building and discuss how we can help resolve any issues you may have in making progress towards removing the danger your building poses to neighbouring properties and the public.

The Council has commenced the reassessment of all dangerous buildings with outstanding s124 notices. Our structural engineers are doing safety assessments over the next few weeks to determine if your building still poses a danger to people or other buildings. You do not need to be present for that assessment, but if you wish to be, you can make an appointment to meet the structural engineer onsite. To make an appointment, please call the Council on Ph 941 8350. Please bear in mind this is not a comprehensive engineering assessment of the damage to your building, it is a Council assessment/determination of the danger your building poses to people or other property. You are still required to provide your own engineering assessment of the property to determine repair work required to address the dangerous aspects, so your building can be declared safe.

We are working with individual building owners to assist in making their buildings safe and may already have been in contact with you. If not, one of our case managers will contact you within a few weeks of the reassessment to ascertain the status of your property.

Where building owners have taken some action but are unable to completely resolve the issues that make their buildings dangerous, a new s124 notice will be issued. This new notice requires a mutually agreed completion date - by which time work will be complete on making the building safe and mitigating the impact on surrounding businesses or properties. To determine the completion date for the new s124 notice, you are required to provide us with:

- A post Boxing Day structural engineer's assessment of the building
- A proposed timeline and schedule of works that addresses the dangerous building aspects
- A letter clarifying actions taken to date to address the building issue and updating the Council on progress made to date, including details of any barriers encountered or mitigating factors beyond your control (for instance, issues with insurance claims or obtaining quotes for works)

- If your property is a listed or protected building under either the Christchurch City Plan or the Banks Peninsula District Plan you will need to consider the heritage values of the property in determining your scope of works and should contact the Council's Heritage Planners on Ph 941 8156 to discuss.

Please send this information to BuildingRecoveryOffice@ccc.govt.nz

There is a small minority of building owners who have taken no action to address their dangerous buildings. The Council will look at enforcement measures rather than reissuing s124 notices in these cases.

Public safety is our priority and we are steadily working towards getting Christchurch city back to business as usual – which includes reducing cordons around dangerous buildings, improving traffic flow and enabling pedestrian and vehicular access to all of our city's business and public spaces. Building owners who do not meet their obligations under the Building Act 2004 will be managed using enforcement measures available to the Council (including infringement notices with instant fines and/or prosecution for failing to comply with a s124 notice).

To avoid these measures, we encourage all building owners to send us the documentation outlined above so our files are kept up to date. If you have difficulties obtaining the required information, please either phone us on 941-8350 or email us at BuildingRecoveryOffice@ccc.govt.nz to discuss your situation with a case manager. Thank you for helping us make Christchurch safe during these extraordinary circumstances and we look forward to the time when all buildings affected by the earthquakes are made safe.

If you have any queries resulting from this letter, please call us on Ph 941 8350 and we will endeavour to address your questions or put you in contact with a case manager who will be able to help you.

Yours sincerely,

Vincie Billante
Building recovery Programme Team Leader

engineer's instruction

date 4/2/11

structex

project 116 Lichfield St.

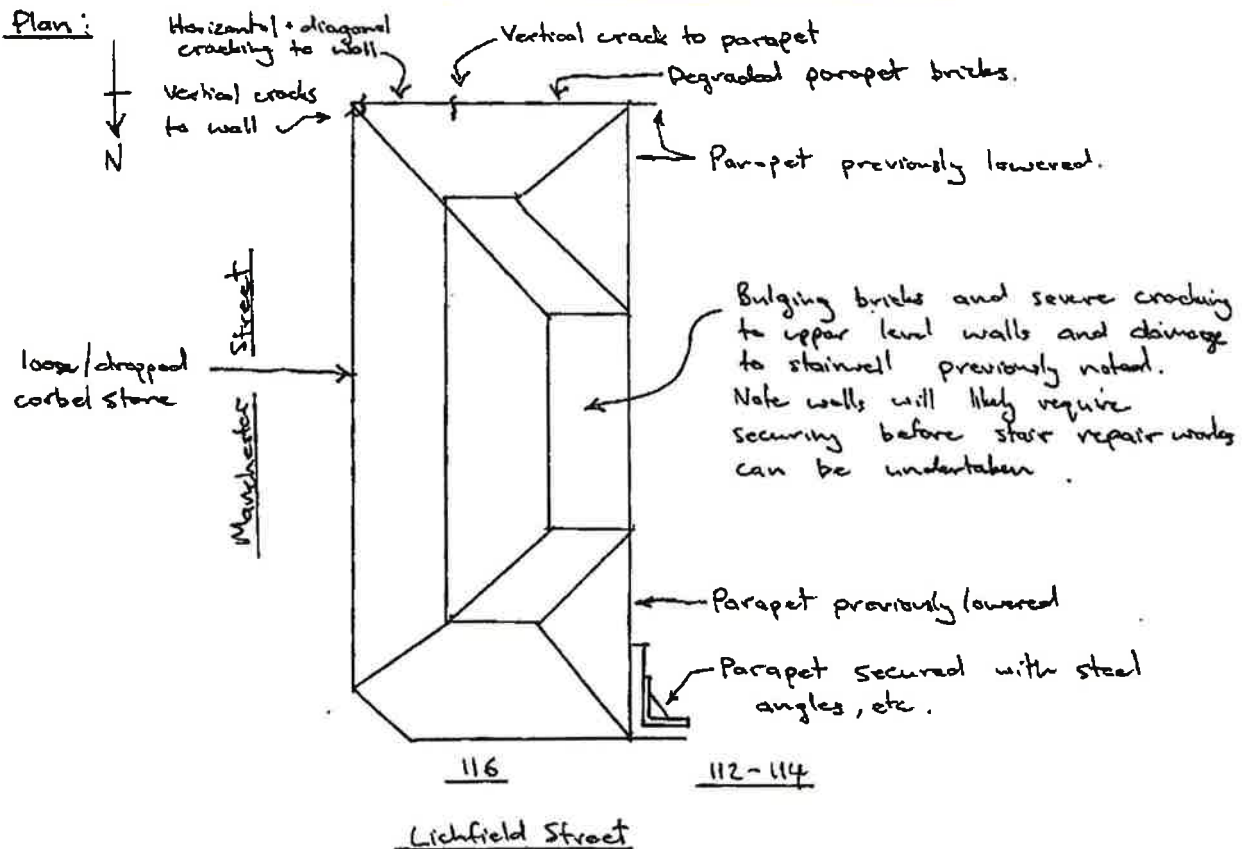
by SG

ref 5708

distribution

☒ Jason - Cunningham
Cinsey☒ Ecleo - Owner☒ Glen - Fortis
Construction☒ Andrew Bell - Sergeant

Following advice from contractor we have revisited the property to view further damage from recent earthquakes.



These high level bricks and stone blocks are potential fall hazards to the areas directly adjacent and should be secured as soon as possible, (or the fall areas cordoned off).

We suggest securing works be undertaken as per attached (contractor to wait for insurer approval).

project 116 (rel field)

date 9/2/11

structex

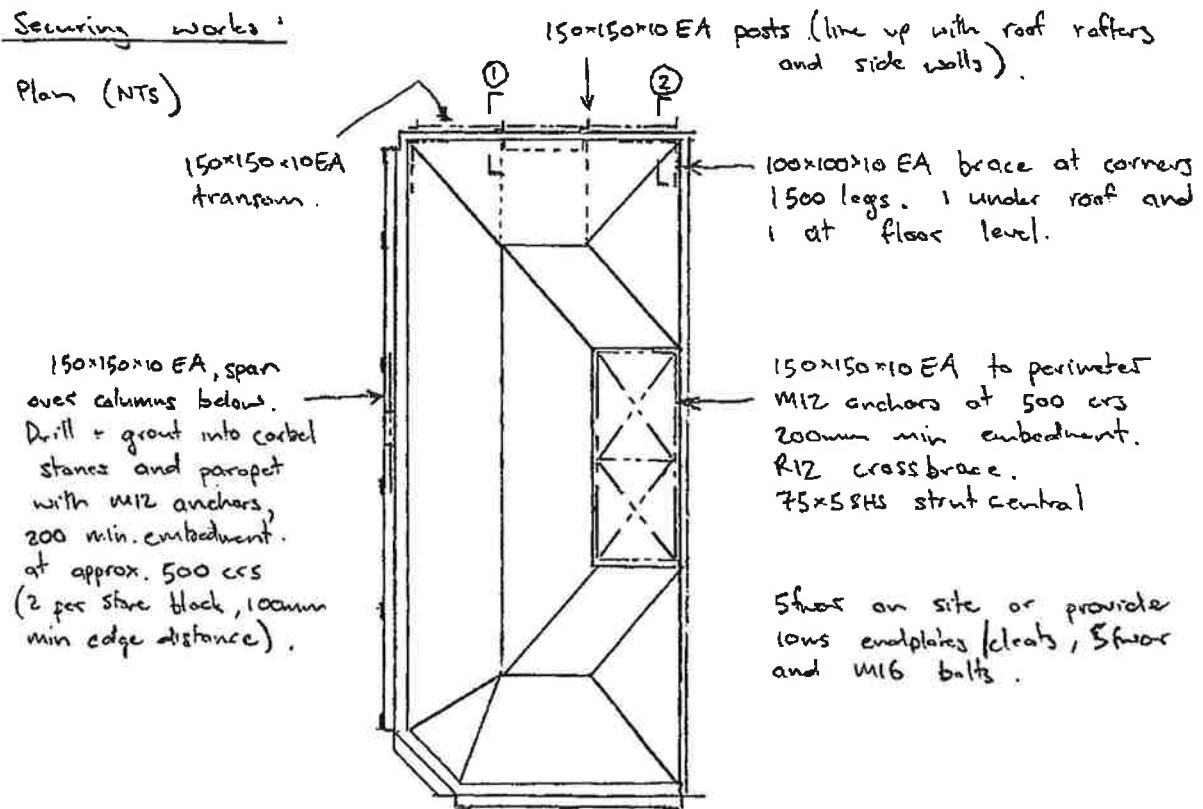
file

by SR

ref

Securing works:

Plan (NTS)



150x150x10 EA transom
fix to parapet
with M12 @
500 c/s.

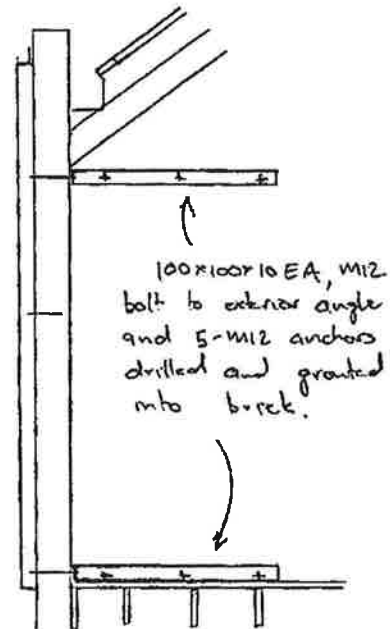
150x150x10 EA

M12 threaded rod.
(G4.6), 6ms endplate
4 - M12 bolts + 15x35x3
ms washers to rafter.

M12 anchor drill + grout
200 mm embed.

100x100x10 EA, 1500 long
10ms endplate M12 bolt to
exterior angle. M10 coach screws
to joists

① At rafters.



② At corners.

Refer also to marked up photos

ENGINEERS RE INSPECTION OF DAMAGED BUILDINGS
 Resulting from Christchurch EARTH QUAKES

Address 116 Lichfield St

Inspection Engineers Name Paul Campbell

Mobile Phone Number 027 221 2990

Date / / 2011

Comments

Structural Hazards / Damage

	Minor / None	Mod	Severe
Foundations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ground Movement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roofs, floors (vertical load) ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Columns, plasters, corbels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diaphragms, horizontal bracing ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pre-cast connections N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beam ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neighbouring Property Hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Non- structural Hazards / Damage

Parapets, ornamentation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cladding, glazing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

General Comments

looks like turning pot parapet/fall hazard fixed - require CP flag sign off.
 Not sure which number building rear damage applies to!

fences can be moved once honey pot sign off - it looks like
 the work is done - case manager to chase!

Usability Category	Posting	Usability Category	Comment
Light damage Low risk	Inspected (Green)	Ga Occupiable, no immediate further	<input type="checkbox"/>
Demolished		Gb Occupiable, repairs required	<input type="checkbox"/>
		Gc Demolished	<input type="checkbox"/>
Medium damage Medium risk	Restricted Use (Yellow)	Ya Short term entry	<input type="checkbox"/>
		Yb No entry to parts until repaired, risk from adjacent premises or ground failure removed	<input type="checkbox"/>
Heavy damage High Risk	Unsafe (Red)	Ra Significant damage, 'do not enter'	<input checked="" type="checkbox"/>
		Rb At risk from adjacent premises or from ground failure 'do not enter'	<input type="checkbox"/>

Protection fencing required Yes / No

Details See above comments

CCCreinspectionreport

DETAILS OF BUILDING DAMAGE

Resulting from Christchurch EARTH QUAKES

1 Type of Damage

Tick Boxes

Note

Choose one of the following (structural damage takes priority over other types of damage):

- | | | |
|-----|---|-------------------------------------|
| 1.1 | The building has been damaged, and there are structural defects to the building:
or | <input checked="" type="checkbox"/> |
| 1.2 | Damage to parapets, and / or chimneys, and / or ornamental features that may pose a risk to the public and / or adjacent property
or | <input type="checkbox"/> |
| 1.3 | The building has been damaged resulting in potential ingress of water (insanitary building, refer Environmental Health). | <input type="checkbox"/> |
| 1.4 | There is a risk that other property could collapse resulting in injury or death to any persons in the building or to persons on other properties. | <input type="checkbox"/> |

2 Characteristics of Damage

- | | | |
|-----|--|-------------------------------------|
| 2.1 | Significant damage to structural walls, party walls, fire walls and / for structural frame (cracking, bowing, failed connections, spalling). | <input type="checkbox"/> |
| 2.2 | Significant damage to foundations (cracking, significant settlement). | <input type="checkbox"/> |
| 2.3 | Significant damage to roof structure. | <input type="checkbox"/> |
| 2.4 | Significant damage / instability of stairwells or egress ways | <input checked="" type="checkbox"/> |
| 2.5 | Loose or insecure parapets, and / or chimneys, and / or ornamental features. | <input checked="" type="checkbox"/> |
| 2.6 | Loose or insecure debris (bricks, glass etc) | <input type="checkbox"/> |
| 2.7 | Cladding damaged or veneer dislodged
(Insanitary Building, refer Environmental Health) | <input type="checkbox"/> |

3 Consequences of Damage

- | | | |
|-----|--|-------------------------------------|
| 3.1 | Protection measures (cordons & barriers) in place around the building post earthquake is impeding public right of ways and / or traffic flows. | <input checked="" type="checkbox"/> |
| 3.2 | Debris from the property are impeding public right of ways and / or traffic flows. | <input type="checkbox"/> |
| 3.3 | Condition of building is posing a risk to other buildings | <input type="checkbox"/> |

RECOMMENDED FOR WORK TO BE COMPLETED BY / / 2011

Minimum 5 working days from date of this inspection

Maximum of 60 days

CCCEngineers Inspection Process.xlsm

DONE -03 3668800

Christchurch Eq. RAPID Assessment Form - LEVEL 1

Inspector Initials
Territorial Authority

Paul Campbell
Christchurch City

Date of Inspection
Time

26/2/11

Exterior Only
Exterior and Interior

☒

Building Name

Ruben Blades

Short Name

Address

Corner Manchester &
116 Litchfield

GPS Co-ordinates

S° E°

Contact Name

Contact Phone

Storeys at and above
ground level

3

Below ground
level

0

Total gross floor area
(m²)

Year
built

No of residential Units

Photo Taken

Yes

No

Type of Construction

- ☐ Timber frame
☐ Steel frame
☐ Tilt-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 below:

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

☐

☐

☒

Other

☐

☐

☐

Manchester street facade
gone - Litchfield facade
badly damaged to honey
pot
Recommend demolition of
at least 2 bays asap

Choose a posting based on the 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.

INSPECTED

GREEN

☐

RESTRICTED USE

YELLOW

☐

UNSAFE

RED

☒

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):
☐ Level 2 or detailed engineering evaluation recommended
☐ Structural ☐ Geotechnical
☐ Other recommendations:

☐ Other:

AT LEAST PARTIAL DEMOLITION
ASAP FROM MANCHESTER ST

PAUL CAMPBELL CPENG

197688

Estimated Overall Building Damage (Exclude Contents)

None

☐

0-1 %

☐

31-60 %

☐

2-10 %

☐

61-99 %

☒

11-30 %

☐

100 %

☐

Sign here on completion

Paul A. Campbell 2:30

Date & Time
ID

26/2/11

Inspection ID _____ (Office Use Only)











