

04 September 2025

Job No: 25-122

Helio Jacundino c/- Viking Builders
info@vikingsbuilders.co.nz

Dear Helio

**RE: STRUCTURAL REPAIR ASSESSMENT 25 FLEMINGTON AVENUE, NORTH
NEW BRIGHTON, CHRISTCHURCH.**

We confirm that structural repair assessments were carried out by Cephas Rock Limited through following construction monitoring schedule:

12/06/2025 - Internal pile jacking and packing details have been observed, the DPC, screws and straps connection have been observed as per CR design.

The over-pinning detail to the area have perimeter foundation has been observed, the steel bracket with spacing of 900mm, DPC, and proper timber packers have been observed.

The installation of the new steel beam B1 has not been carried out yet.

The cut inspection has been carried out for the pile replacement underneath. As the column is not sitting directly above, two piles with a double joist under one side of the column have been proposed. Pile hole dimensions of 500x500x500 mm with a 200 kPa UBC have been confirmed.

The bracing member A1 has been updated to BLG 3 m, and A2 has been updated to GS1-N 1.2 m. The same bracing capacity has been achieved and is considered sufficient.

Re-check is required.

17/07/2025 - A re-check has been carried out for the beam, column, and their connection details. Beam B1, sized 250 PFC, and column C1, comprising 3/90x45 SG8 members, were observed connected using a 200x75x6 mm MS cleat with 2 M12 bolts. CPC80 brackets fixing stud to the wall bottom plate have been observed.

Floor levelling compound has been applied to the Garage & Entry (concrete area).

The finished floor level survey has been carried out using ZIP level.

The internal lining has not been repaired yet.

The purpose of these assessments was to determine the structural integrity of the undertaken structural repairs for the dwelling, as recommended in Cephas Rock's structural damage assessment report dated 28 March 2025 (ref: 25-122 VO1) and our relevelling design dated 07 April 2025 (ref: 25-122). We note our assessments were visual only and did not carry out any intrusive works.

STRUCTURAL REPAIRS

The structural repairs recommended for the dwelling in our previous assessments were inspected and are as follows.

Perimeter foundation and timber floor re-level

The concrete perimeter foundations have been relevelled by over-pinning to the concrete foundation walls in accordance with manufacturer's specification and as per Cephas rock Relevelling design.

The timber floor has been relevelled by jacking and packing to internal piles. Adequate fixing of packing, installation of DPC, and pile-to-bearer connections has been observed to all affected piles as per MBIE guidelines. At the same time, some internal piles replacement has been carried out as per Cephas Rock Relevelling design.

Garage concrete floor re-level

The dwelling concrete floor was re-levelled by using Sika Floor levelling Compounds. The maximum thickness of the floor levelling compound layer was observed to be less than 50mm.

Final floor levels

We have undertaken a floor level survey of the remediated areas. The overall floor level variations after floor levelling repairs were undertaken were measured to be approximately 10mm (-6, +4) for the ground floor (timber area), 10mm (0, +10) for the garage & entry (concrete area), and 16mm (-4, +12) for the first floor with no apparent local steep slopes exceeding 1v:200H identified. Please refer to level survey plan attached.

CONCLUSIONS

Overall, we confirm that structural repairs to the dwelling were observed to have been carried out following our recommendations to the MBIE Guidance and consider that the current state of the dwelling is able to provide sufficient structural integrity for long-termed occupancy. The suitability for occupancy must be re-assessed by a structural engineer after any future moderate earthquakes.

Inspection and Report by,



Mingkeng Li
Structural Engineer
BEngTech(Civil)

Checked and verified by,



Joshua Wong
Structural Engineer / Director
BEng (Hons) CPEng (NZ and Aus) IntPE(Aus) NER
APEC Engineer

Disclaimer

1. This report has been prepared on behalf of and for the exclusive use of Viking Builders Limited and is subject to and issued in accordance with the provisions of the contract between Cephas Rock Limited and Viking Builders Limited. Cephas Rock accepts no liability or responsibility, whatsoever, for or in respect of any use or reliance upon this report by any third party.
2. This report is the copyright of Cephas Rock Limited. Except for the use of Viking Builders Limited and subject to the conditions in the agreement, no part of this publication may be copied without the express permission in writing from Cephas Rock Limited.
3. A floor level survey using Zip-Level Pro-2000 instrument of a typical accuracy of $\pm 3\text{mm}$ was carried out during the inspection and is presented in the Floor Level Plan attached in this report. It should be noted that the purpose of the floor level survey is to provide assistance in determining possible structural damage of the building and therefore should be treated as indicative only. Where a high-level dependence and an accurate and credible presentation of the survey information are required, a registered professional surveyor should be engaged to carry out the survey.
4. The above report does not constitute our confirmation that the building is “safe”, “earthquake resistant” or similar. We have not checked the level of actual structural compliance with the current Building Code, nor assessed the level of actual past seismic activity at the particular site on which the building is situated. We have carried out visual non-destructive inspection of readily accessible areas and have used our professional judgement to assess the repair works and ensure they are in accordance to our repair methodologies. We are unable to predict the severity of any future seismic activity on your site, and how the building and site may perform in such an event, or series of events. If engaged to do so, we can carry out further structural investigation (which may include invasive methods) and desktop analysis work to ascertain level of structural compliance of the building in its current state and identify structural vulnerabilities (if any) that may compromise the building’s structural performance in the future.
5. The scope of any foundation re-levelling is to return the building foundations to as close to as reasonably practicable to its structural pre-earthquake condition (i.e. NZBC Section 112 repair). This clause states that the repair strategy does not have to improve the overall performance of the structure; rather it cannot be made any worse than it was prior to the earthquake sequence. The re-levelling of the foundations will not lead to any “betterment” of the existing foundation structure. Similar performance is likely to be observed, should we experience a further significant seismic event.

Reference

- Cephas Rock Limited (2025). Structural Damage Assessment – 25 Flemington Avenue, North New Brighton, Christchurch. (Ref: 25-122 VO1, 28/03/2025).
- Cephas Rock Limited. (2025). Relevelling Design – 25 Flemington Avenue, North New Brighton, Christchurch. (Ref: 25-122, 07/04/2025).
- Ministry of Business, Innovation and Employment (MBIE). (2012). Repairing and rebuilding of houses affected by the Canterbury earthquakes – Technical Guidance (Part A). <http://www.dbh.govt.nz/guidance-on-repairs-after-earthquake> Wellington, New Zealand.
- Ministry of Business, Innovation and Employment (MBIE). (2015). Earthquake Repairs to Canterbury Homes – Home Inspection Survey Report. <http://www.mbie.govt.nz/about/whats-happening/news/2015/report-into-canterbury-residential-repairs-released>

Appendix



Photo 1. Over-pinning connection detail observed.



Photo 2. Over-pinning connection detail observed.



Photo 3. Internal pile packing detail observed.



Photo 4. Internal pile packing detail observed.



Photo 5. Steel bracket observed for the over-pinning connection detail.



Photo 6. Over-pinning packer observed.



Photo 7. Internal pile packing detail observed.



Photo 8. Pile hole for new timber pile observed.



Photo 9. Pile hole for new timber pile observed.



Photo 10. Beam and column connection details.



Photo 11. Beam and column connection details.



Photo 12. Bottom connection details for C1 observed.



Photo 13. Hold down bracket for bracing.



Photo 14. Sika Floor Levelling Compounds applied.

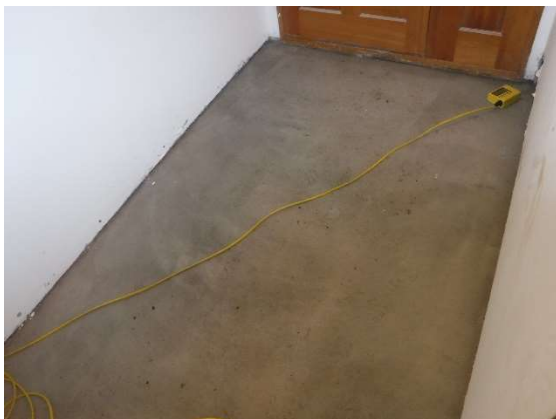
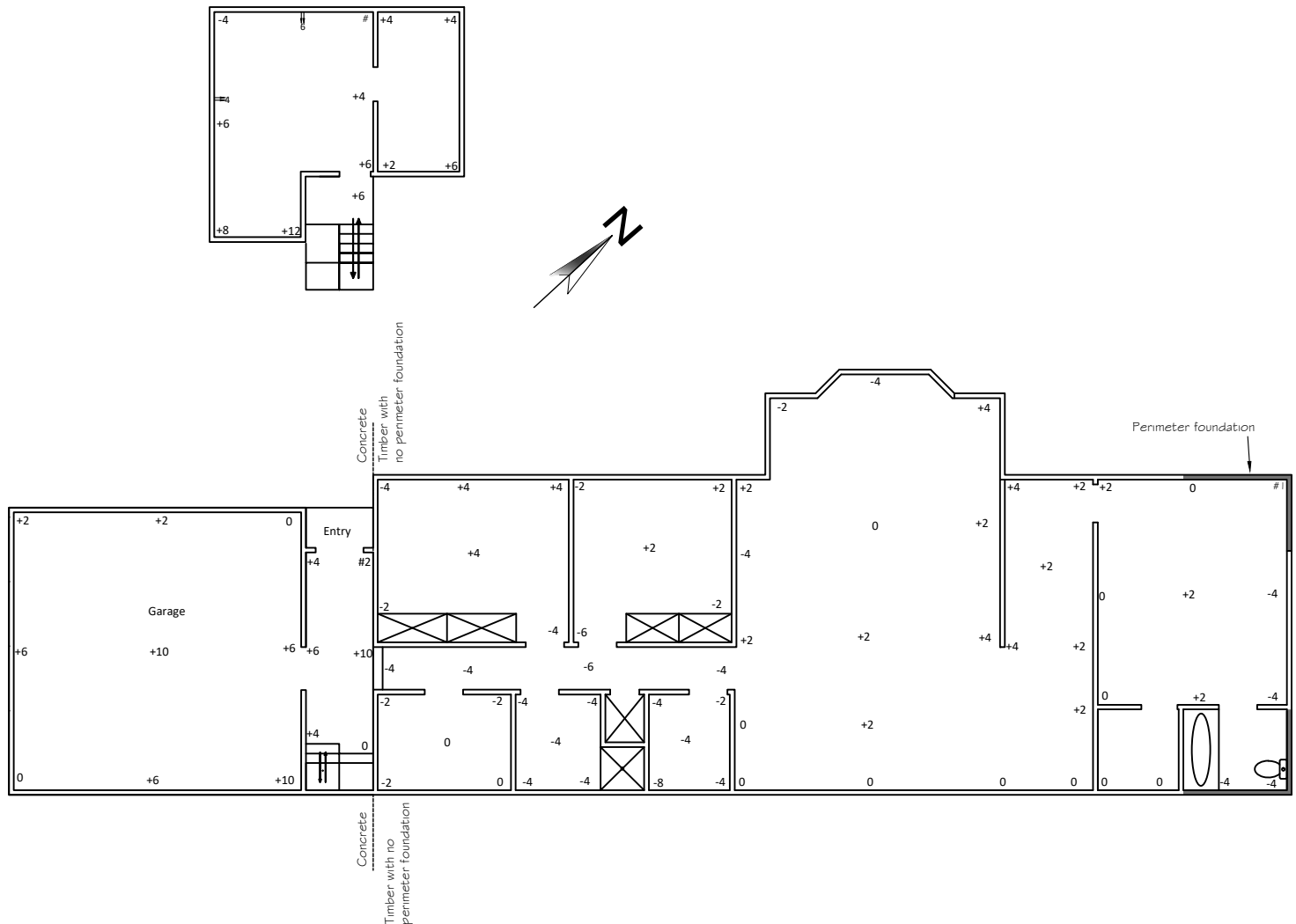


Photo 15. Sika Floor Levelling Compounds applied.



FLOOR LEVEL SURVEY PLAN (NTS)

Note :

- 1) Measurements location are approximate and indicative only and not to scale.
- 2) Levels indicated are in millimeters.
- 3) Instrument used for measurement has a rated accuracy of +/- 3.0mm (ZIP level Pro 2000). Other sources of variation to the measurements can include construction tolerances, carpet, wear, and atmospheric temperature changes.
- 4) All measurements have been adjusted to the floor covering type at the datum.
- 5) Reference point zero millimeter denoted as "#".
- 6) Wall horizontal verticality displacements (mm/m) denoted as "≡" (indicative only)

The relative floor level differences between the highest and lowest points are:

Ground floor (timber area): 10(-6, +4). First floor: 16(-4, +12).

Garage & Entry (concrete area): 10(0, +10).

PRODUCER STATEMENT – PS4

CONSTRUCTION REVIEW

BUILDING CODE CLAUSE(S): B1

JOB NUMBER: 25-122

ISSUED BY: Cephas Rock Limited

(Construction Monitoring Firm)

TO: Helio Jacundino c/- Viking Builders

(Owner/Developer)

TO BE SUPPLIED TO: Christchurch City Council

(Building Consent Authority)

IN RESPECT OF: Foundation releveling and structural repair and renovation designs to residential building

(Description of Building Work)

AT: 25 Flemington Avenue, North New Brighton, Christchurch

(Address, Town/City)

LEGAL DESCRIPTION: Lot 79 DP 3484

N/A ☐

We have been engaged by the owner/developer referred to above to provide CM 3 **level of construction monitoring** relating to the Clause(s) named above of the Building Code for the building work which is covered by PS1(s) issued by Cephas Rock Limited (Engineering Design Firm) and which is described in the documents relating to the Building Consent No. and those relating to Building Consent Amendment(s) No. issued during the course of the works, .

We have sighted these Building Consents and the conditions attached to them.

If any of the fields above are too small, please write "refer the Schedule".

Authorised instructions/variation(s) detailed/listed in the Schedule have been issued during the course of the works.

On the basis of these review(s) and information supplied by the contractor during the course of the works and **on behalf of the engineering firm** undertaking this Construction Monitoring, **I believe on reasonable grounds** that the building works covered by the above-mentioned PS1(s) have been completed in accordance with the relevant requirements of the Building Consent and Building Consent Amendments identified above or in the Schedule on page 2, with respect to Clause(s) B1/VM1, B1/AS1, B1/VM4 of the Building Code. I also believe on reasonable grounds that the persons who have undertaken this construction review have the necessary competency to do so.

I, (Name of Construction Monitoring Professional) Joshua Wong, am:

- CPEng number 1007291
- I hold the following qualifications BEng(Hons) CPEng IntPE(Aus)

The Construction Monitoring Firm holds a current policy of Professional Indemnity Insurance no less than \$200,000 The Construction Monitoring Firm Is not ☒ a member of ACE New Zealand.

SIGNED BY (Name of Construction Monitoring Professional): Joshua Wong

(Signature below):



ON BEHALF OF (Construction Monitoring Firm): Cephas Rock Limited

Date: 04/09/25

Note: This statement has been prepared solely for the Building Consent Authority named above and shall not be relied upon by any other person or entity. Any liability in relation to this statement accrues to the Construction Monitoring Firm only. As a condition of reliance on this statement, the Building Consent Authority accepts that the total maximum amount of liability of any kind arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in tort or otherwise, is limited to the sum of \$200,000.

This form is to accompany **Forms 6 or 8 of the Building (Forms) Regulations 2004** for the issue of a Code Compliance Certificate.

THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACE NEW ZEALAND AND ENGINEERING NEW ZEALAND

SCHEDULE to PS4

Please include an itemised list of all referenced documents, drawings, or other supporting materials in relation to this producer statement below: |

Structural Assessment from Cephas Rock Limited, job ref: 25-122, date: 28/03/2025

Relevelling and Renovation design from Cephar Rock Limited, job ref: 25-122, Dated 07/04/2025

GUIDANCE ON USE OF PRODUCER STATEMENTS

Information on the use of Producer Statements and Construction Monitoring Guidelines can be found on the Engineering New Zealand website

<https://www.engineeringnz.org/engineer-tools/engineering-documents/producer-statements/>

Producer statements were first introduced with the Building Act 1991. The producer statements were developed by a combined task committee consisting of members of the New Zealand Institute of Architects (NZIA), Institution of Professional Engineers New Zealand (now Engineering New Zealand), Association of Consulting and Engineering New Zealand (ACE NZ) in consultation with the Building Officials Institute of New Zealand (BOINZ). The original suite of producer statements has been revised at the date of this form to ensure standard use within the industry.

The producer statement system is intended to provide Building Consent Authorities (BCAs) with part of the reasonable grounds necessary for the issue of a Building Consent or a Code Compliance Certificate, without necessarily having to duplicate review of design or construction monitoring undertaken by others.

PS1 DESIGN Intended for use by a suitably qualified independent engineering design professional in circumstances where the BCA accepts a producer statement for establishing reasonable grounds to issue a Building Consent;

PS2 DESIGN REVIEW Intended for use by a suitably qualified independent engineering design review professional where the BCA accepts an independent design professional's review as the basis for establishing reasonable grounds to issue a Building Consent;

PS3 CONSTRUCTION Forms commonly used as a certificate of completion of building work are Schedule 6 of NZS 3910:2013 or Schedules E1/E2 of NZIA's SCC 2011²

PS4 CONSTRUCTION REVIEW Intended for use by a suitably qualified independent engineering construction monitoring professional who either undertakes or supervises construction monitoring of the building works where the BCA requests a producer statement prior to issuing a Code Compliance Certificate.

This must be accompanied by a statement of completion of building work (Schedule 6).

The following guidelines are provided by ACE New Zealand and Engineering New Zealand to interpret the Producer Statement.

Competence of Engineering Professional

This statement is made by an engineering firm that has undertaken a contract of services for the services named, and is signed by a person authorised by that firm to verify the processes within the firm and competence of its personnel.

The person signing the Producer Statement on behalf of the engineering firm will have a professional qualification and proven current competence through registration on a national competence-based register such as a Chartered Professional Engineer (CPEng).

Membership of a professional body, such as Engineering New Zealand provides additional assurance of the designer's standing within the profession. If the engineering firm is a member of ACE New Zealand, this provides additional assurance about the standing of the firm.

Persons or firms meeting these criteria satisfy the term "suitably qualified independent engineering professional".

Professional Indemnity Insurance

As part of membership requirements, ACE New Zealand requires all member firms to hold Professional Indemnity Insurance to a minimum level.

The PI Insurance minimum stated on the front of this form reflects standard practice for the relationship between the BCA and the engineering firm.

Professional Services during Construction Phase

There are several levels of service that an engineering firm may provide during the construction phase of a project (CM1-CM5 for engineers³). The building Consent Authority is encouraged to require that the service to be provided by the engineering firm is appropriate for the project concerned.

Requirement to provide Producer Statement PS4

Building Consent Authorities should ensure that the applicant is aware of any requirement for producer statements for the construction phase of building work at the time the building consent is issued as no design professional should be expected to provide a producer statement unless such a requirement forms part of the Design Firm's engagement.

Refer Also:

- ¹ Conditions of Contract for Building & Civil Engineering Construction NZS 3910: 2013
- ² NZIA Standard Conditions of Contract SCC 2011
- ³ Guideline on the Briefing & Engagement for Consulting Engineering Services (ACE New Zealand/Engineering New Zealand 2004)
- ⁴ PN01 Guidelines on Producer Statements

www.acenz.org.nz

www.engineeringnz.org

SITE INSTRUCTION and INSPECTION

Our job ref: 25-122

Cephas Rock Limited
1B/1 Stark Drive, Wigram
P.O.Box 37174
Christchurch 8425
Ph 3385387

To:	Helio c/o - Viking Builders	Page:	1/1
Project:	25 Flemington Avenue	Consent no:	
	North New Brighton		

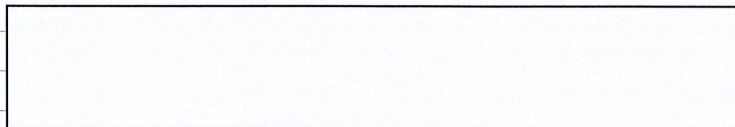
Relevelling Inspection.

(1) The perimeter foundation location updated, as the cover has been removed, see final level survey plan.

(2) over pinning connection detail observed to perimeter foundation, ripped timber packer, H3.2 treated with depth less than 100mm.

(3) Jacking and packing to internal and external concrete pile observed ✓
Packer with DPC and steel wire observed ✓

Meanwhile, preline inspection carried out for proposed renovation work.



Engineer		Date:	12/06/25 -
Signature			
Received by:		Date:	
Signature			

SITE INSTRUCTION and INSPECTION

Our job ref:

Cephas Rock Limited
1B/1 Stark Drive, Wigram
P.O.Box 37174
Christchurch 8425
Ph 3385387

To:		Page:	1/1
Project:		Consent no:	

(4)	The beam not done yet .	
(5)	But inspection carried out for piles replacement underneath, as the column not sitting directly, two piles with double joist under one side column has been proposed, pile hole with 200UBC confirmed	
(6)	Bracing member A1 updated to BLC 3.0m.	
	Bracing member A2: updated to 1.2m ASI-N.	
	Same bracing capacity achieved, it is considered as okay.	
	See (4) -	

Engineer	D. Y.	Date:	12/06/2021
Signature			
Received by:		Date:	
Signature			

SITE INSTRUCTION and INSPECTION

Our job ref: 25-122

Cephas Rock Limited
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P.O.Box 37174
Christchurch 8425
Ph 3385387

To:	Helio c/o - Viking Builders	Page:	1/1
Project:	25 Flemington Avenue. North New Brighton	Consent no:	

Final Inspection.

- (1) Beam B₁ (size 250 PFC) has been observed.
C₁: (3/90 x 45) have been observed.
B₁ to C₁ connection has been observed as per plan.
(200 x 75 x 6) MS cleat with 2/M12 bolts
has been observed.
CPC 80 bracket for bottom connection have
been observed.
- (2) Floor level survey has been checked.
The final floor level survey has been carried out using zip level.
(Please refer to final floor level plan)

OK to proceed.

Engineer	Ming	Date:	11/07/25
Signature			
Received by:		Date:	
Signature			



**LICENSED
BUILDING
PRACTITIONERS**
Building confidence

MEMORANDUM FROM LICENSED BUILDING PRACTITIONER: RECORD OF BUILDING WORK

Section 88, Building Act 2004

Please fill in the form as fully and correctly as possible.

If there is insufficient room on the form for requested details, please continue on another sheet and attach the additional sheet(s) to this form.

THE BUILDING

Street address: 25 Flemington Avenuen

Suburb: New Brighton

Town/city: Christchurch

Postcode:

THE PROJECT

Building consent number:

THE OWNERS

Name(s): HRX Group Limeted

Mailing address: 4b Expo Place

Suburb: Bromley

PO Box/Private Bag:

Town/City: Christchurch

Postcode:

Phone:

Email address: info@vikingsbuilders.co.nz



MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Te Kāwanatanga o Aotearoa
New Zealand Government

RECORD OF WORK THAT IS RESTRICTED BUILDING WORK

PRIMARY STRUCTURE:

Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick	If necessary, describe the restricted building work	Tick whether you carried out the restricted building work or supervised someone else carrying out the restricted building work
☒ Foundations and subfloor framing	Jack and packing/Steel beam installation	☐ Carried out ☒ Supervised
☒ Walls	Bracing Wall	☐ Carried out ☒ Supervised
☐ Roof		☐ Carried out ☐ Supervised
☐ Columns and beams		☐ Carried out ☐ Supervised
☐ Bracing		☐ Carried out ☐ Supervised
☐ Other		☐ Carried out ☐ Supervised

EXTERNAL MOISTURE MANAGEMENT SYSTEMS:

Work that is restricted building work	Description of restricted building work	Carried out or supervised
Tick	If necessary, describe the restricted building work	Tick whether you carried out the restricted building work or supervised someone else carrying out the restricted building work
☐ Damp proofing		☐ Carried out ☐ Supervised
☐ Roof cladding or roof cladding system		☐ Carried out ☐ Supervised
☐ Ventilation system (for example, subfloor or cavity)		☐ Carried out ☐ Supervised
☐ Wall cladding or wall cladding system		☐ Carried out ☐ Supervised
☐ Waterproofing		☐ Carried out ☐ Supervised
☐ Other		☐ Carried out ☐ Supervised

ISSUED BY

I am providing my contact details as a licensed building practitioner who is licensed to carry out or supervise work that is restricted building work.

Name: **Helio Jacundino**

LBP or Registration number: **BP133469**

Class(es) licensed in:

Plumbers, Gasfitters and Drainlayers registration number (if applicable):

Mailing address (if different from below):

Street address/Registered office: **4b Expo Place**

Suburb: **Bromley**

Town/City: **Christchurch**

PO Box/Private Bag:

Postcode: **02102279077**

Phone:

Mobile:

After hours:

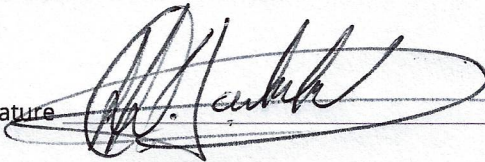
Fax:

Email address: **helio@vikingsbuilders.co.nz** Website:

DECLARATION

I, **Helio Jacundino**, carried out or supervised the restricted building work recorded on this form.

Applicant's signature



Date

03 / 09 / 25
day month year