

GUIDANCE

Guidance on the use of Certificates of Work, Producer Statements, and Design Features Reports by Chartered Professional Engineers under the new Restricted Building Work regime



MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI





**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
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Ministry of Business, Innovation and Employment (MBIE)

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This document is issued as guidance under section 175 of the Building Act 2004 to assist BCAs and building practitioners in complying with the Act. While the Ministry has taken care in preparing the document it should not be relied upon as establishing compliance with all relevant clauses of the Building Act or Building Code in all cases that may arise. The Document may be updated from time to time and the latest version is available from the Ministry's website at www.dbh.govt.nz

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Introduction

This guidance aims to clarify legislative requirements, encourage consistent processes and foster good-practice for practitioners who are involved in issuing and accepting certificates of design work (CoWs), producer statements and design features reports (DFRs) during the building consent process.

The guidance has a residential focus for properties located in the 'Canterbury Green Zone' recognising that there is a high volume of RBW that must be carried out to repair and rebuild houses affected by the Canterbury earthquakes¹. MBIE recently published guidance on repairing and rebuilding houses affected by the Canterbury earthquakes. However, there remains a need for further clarity around the proper use of CoWs, Producer Statements, and DFRs in order to provide a greater degree of certainty amongst CPEng, design LBP and BCAs. Canterbury specific examples are provided in the appendices.

This guidance also has national application. It supplements previous guidance on RBW² in order to clarify RBW engineering requirements, and offers recommendations to LBP designers (including CPEng) and BCAs so that they adopt consistent and legislatively accurate processes when compiling, lodging and assessing documents throughout the building consent process.

The following appendices are attached to this guidance:

- Appendix A: Recommended supporting documentation for building consent applications in TC1, TC2 and TC3 in Canterbury
- Appendix B: Guidance on Design Features Reports (DFRs) for residential dwellings in Canterbury
- Appendix C: Worked examples of certificates of design work for Canterbury
- Appendix D: Worked example of a certificate of design work NZ wide

The above-noted appendices are intended to promote consistent processes amongst practitioners and confirm requirements for certain supporting building consent documentation where RBW applies.

¹ The document, "Guidance: Repairing and rebuilding houses affected by the Canterbury earthquakes" (December 2012), is available at this link: www.dbh.govt.nz/guidance-on-repairs-after-earthquake

² For more information about the RBW regime, refer to MBIE's Build it Right pamphlet, "Architects | Designers | Engineers – What Restricted Building Work means for your business", at this link: www.dbh.govt.nz/UserFiles/File/Publications/Building/rbw/builditright-designers.pdf

Restricted Building Work (RBW)

About RBW

The RBW provisions came into force on 1 March 2012. The RBW regime only applies where³:

- the building is a house or small-to-medium apartment building; and
- the work is:
 - the construction or alteration of the primary structure and/or the external moisture management system; or
 - certain design work relating to the primary structure, external moisture management system, or fire-safety system⁴ (i.e. the preparation of any drawing, specification, or other document according to which the primary structure, external moisture management system, or fire-safety system is proposed to be constructed or altered); and
- the building work requires a building consent.

All RBW must be carried out or supervised by a Licensed Building Practitioner (LBP) who is licensed and competent to carry out or supervise the work. The design class for LBPs includes persons that have successfully applied under the Building Act 2004 (the Act) to be licensed, as well as CPEng (under the Chartered Professional Engineers of New Zealand Act 2002) and registered architects (under the Registered Architects Act 2005) that are automatically treated as LBPs licensed in the design class. CPEng are also automatically treated as LBPs licensed in the site class.

About CoWs

A CoW⁵ is a memorandum that is required by section 45(3) of the Act to be provided with a building consent application when design work that is RBW has been carried out.

When is a CoW required from engineers?

If a building consent application will include plans and specifications that contain design work that is RBW, a CoW must be provided by one or more LBPs (which include CPEng) who carried out or supervised that design work.

For CPEng, this will most commonly involve providing a CoW for specific structural design work (foundation and superstructure), but may also include some external moisture management system design (e.g. where this forms part of the primary structure).

³ All three conditions must be met for the building work to be RBW.

⁴ Fire-safety system design only relates to small-to-medium apartment buildings

⁵ CoW (Form 2A) is available at this link: www.dbh.govt.nz/builditright-designers-process#aid1

Where two or more LBPs (including CPEng) are involved in carrying out or supervising the design work for a building consent application involving RBW, there may be a choice about who provides the CoW(s). If a particular design is both carried out and supervised in the office by LBPs licensed in design, the CoW could be provided by either the LBP that carried out the design work or the one that supervised it. However, if two LBPs work on different aspects of the plans and specifications that are RBW (e.g. one designs the foundation and another designs elements of the superstructure), then each LBP would be expected to provide a CoW for their respective parts.

CPEng may also encounter a mixture of these scenarios. For example, if a design LBP undertakes all the building's RBW, but sub-contracts the review of the design of the foundations to a CPEng, then either:

- (i) the design LBP can provide a CoW for all the RBW (as 'carried out'⁶), or
- (ii) the designer and CPEng can agree to each provide CoWs for their respective parts (i.e. a CoW from the designer for having 'carried out' the design work, and a CoW from the CPEng for having 'supervised' just the foundation design).⁷

Often a structural engineer will design foundations based on an investigation and a geotechnical report from geotechnical engineers. In this case, a CoW is not required from the geotechnical engineer as sub-surface investigation is not RBW – a CoW is only required for the primary structure (including foundation) design portion of the work.

Ground improvement work associated with foundation repairs or rebuilds in Canterbury should be considered as part of the foundation design and is therefore RBW. A CPEng geotechnical engineer will advise on the appropriate selection from the MBIE Guidance of ground improvement options. This can be included as part of the CoW submitted by the CPEng that addresses the total foundation design. If specific ground improvement design (differing from options included in the MBIE Guidance) is undertaken by a CPEng geotechnical engineer, it should be considered as specialist design input and can also be included as part of the CoW submitted by the CPEng that addresses the total foundation design.

⁶ Section 84 of the Building Act refers to RBW being either 'carried out' or supervised by LBPs. Refer BA s 7 for definition of supervise. Refer also Form 2A Memorandum from licensed building practitioner (certificate of design work) in Building (Forms) Regulation 2004

⁷ This example assumes that the review by the engineer meets the definition of 'supervise' in the Building Act 2004, by involving sufficient control or direction and oversight to ensure that the design work is performed competently.

Producer Statements

Background and status of Producer Statements

Producer Statements were developed by the engineering profession and provision was made for their use in the Building Act 1991. They have no legal status under the Building Act 2004. However, they are well-established and are a widely utilised method of assisting the BCA in determining Building Code compliance⁸. They should also form part of an engineer's scope when engaged to provide engineering consultancy services.

A Producer Statement for structural design is normally issued by a design professional to clarify how certain specified design requirements meet the Building Code. These design requirements or assumptions may also require verification during the construction phase. A well-developed Producer Statement system has been in place for some time and is widely used by BCAs and design professionals. The framework includes PS1 for design, PS2 for design peer review, PS3 for construction by a contractor/supplier, and PS4 for construction monitoring⁹.

Producer Statements are principally for use by CPEng as an 'engineering sign-off certificate' putting their name and firm's name to their work. Producer Statements also indicate that a prescribed minimum level of professional indemnity insurance is held by the design firm. However, a Producer Statement is not a product warranty or guarantee of compliance. It is a professional opinion based on sound engineering judgment.

When are Producer Statements useful?

Producer statements can assist in reducing some of the time and costs associated with processing building consent and code compliance applications. They can also reduce the number of inspections a BCA has to undertake during the construction phase of a project. A BCA will normally assess the credentials of the Producer Statement's author to ensure that person has the appropriate experience and competence in their particular field of expertise. The content and accuracy of a Producer Statement will determine how useful it is for the BCA.

BCAs may refer to Producer Statements when:

- granting a building consent under section 49 of the Act. Producer Statements may provide additional evidence for the BCA in deciding whether "it is satisfied on reasonable grounds that the provisions of the building code would be met if the building work were properly completed in accordance with the plans and specifications";
- issuing a code compliance certificate under section 94 of the Act. Producer Statements may provide additional evidence for the BCA in deciding "whether it is satisfied, on reasonable grounds, that the building work complies with the building consent."

⁸ Guidance to BCAs on the acceptance of producer statements is set out in Issue 24 of Codewords (December 2007), at this link: www.dbh.govt.nz/codewords-24-18

⁹ Refer to www.ipenz.org.nz for more information, including PS1, PS2, and PS4 templates.

What information should be included in a Producer Statement?

IPENZ Practice Note 01 (PN01) “Guidelines on Producer Statements” provides guidance on the information that should be contained in a producer statement. It is important that the producer statement for design, PS1, or design review, PS2, detail the specific clause(s) of the Building Code that the design complies with, and the means of compliance (e.g. Compliance Document, MBIE Guidance and/or specific engineered design).

How do CoWs and Producer Statements interface?

For residential work, a CoW is now legally required from LBPs (which include CPEng) for engineering design of primary structure (including foundations). It is good practice to ‘call-up’ relevant Producer Statements and append them to the CoW, and specifically reference other relevant reports (e.g. geotechnical reports and/or Design Features Reports).

Where a Producer Statement has been used to support the demonstration of Building Code compliance, it should be cited in the ‘reference column’ of the CoW. Other relevant specifications and reports (e.g. the latest version of the geotechnical engineer’s report) should also be referenced in this column.

Appendix A contains a table summarising the recommended supporting documentation to be provided by a designer or CPEng that is using MBIE’s guidance or alternative methods for repairing and rebuilding houses affected by the Canterbury earthquakes.

Appendix C contains three worked examples of completed CoWs in relation to the Canterbury rebuild. These examples show recommended practice for referencing Producer Statements and other supporting documentation. Appendix D of this guidance provides a worked example of a completed CoW that is applicable to RBW that is design work and undertaken in any region.

On-site monitoring

On-site monitoring by CPEng is not RBW. Although the RBW regime does not expressly require construction monitoring, in practice some BCAs may rely on inspections by CPEng to establish Building Code compliance. BCAs may make it a condition in the building consent that a CPEng monitors elements of the construction work and provides a PS4. Often the best person to undertake the construction monitoring is the design CPEng because he/she would be in the best position to understand and verify any design assumptions.

MBIE encourages appropriate engineering involvement in the entire building process from concept, detailed design, design review, and construction monitoring. The degree of involvement in all aspects will vary depending on the complexity of the building work. MBIE also recommends the Producer Statement being used (when applicable) as a sign-off statement from the engineer at each stage in the building process (i.e. design, review, and construction monitoring).

Design Features Reports

What are 'Design Features Reports', and how are they best utilised?

Design Features Reports are concise reports prepared by design CPEng that summarise the key considerations and design methodology to achieve Building Code compliance. Although traditionally used in a commercial context, Design Features Reports are now encouraged to be used by CPEng in relation to repairing and rebuilding houses affected by the Canterbury earthquakes.

Design Features Reports currently have no formal status under the Building Act. However, like Producer Statements, a Design Features Report can be very useful for BCAs and other reviewers when assessing Building Code compliance. It provides design reviewers an explanation of geotechnical conditions and requirements, structural systems and load paths, design standards used, and key design parameters and assumptions. MBIE encourages the use of a Design Features Report at the design stage to clarify design methodology and indicate where critical inspections are needed.

Appendix B provides an overview of what should be included in a Design Features Report for a residential dwelling.

Key messages

- MBIE encourages appropriate engineering involvement in the entire building process from concept, detailed design, design review, and construction monitoring. The degree of involvement in all aspects will vary depending on the complexity of the building work.
- For residential work, a CoW is now legally required to be produced by one or more licensed building practitioners (which include CPEng who carried out or supervised engineering design of primary structure, including foundations). It is good practice to 'call-up' relevant Producer Statements and append them to the CoW, and specifically reference other relevant reports (e.g. geotechnical reports and/or Design Features Reports).
- MBIE encourages Producer Statements being used by CPEng engineers as a means of demonstrating that the design, design review, and construction monitoring stages of the building process have been performed by a competent practitioner and that they will comply with the Building Code (for design and design review) and building consent (for construction monitoring).
- A Producer Statement is not a product warranty or guarantee of compliance. It is a professional opinion based on sound engineering judgment.
- In relation to applications to repair or rebuild houses affected by the Canterbury earthquakes, MBIE encourages the use of a Design Features Report at the design stage to clarify design assumptions and indicate where critical inspections are needed.

Appendix A

Recommended supporting documentation for building consent applications in TC1, TC2 and TC3 in Canterbury

(Certificates of Design Work and Producer Statements by Technical Category and type of repair/rebuild in Canterbury)

Tech Cat	Building Work	Scope of Engineering Input	CoW (Form 2A) by ¹⁰	Producer Statement (PS1)	Engineer's Sign-off Wording in Producer Statements and Shallow Geotech Investigation Reports
TC1	Repairs	No specific engineering input	LBP - Designer	N/A	N/A
		Specific engineering input	LBP - CPEng	Yes	Normal wording for an Alternative Solution, making specific reference to the MBIE Guidance if used, or other documents if not
	Rebuilds	No specific eng. input (as per NZS3604)	LBP - Designer	N/A	N/A
		Specific engineering input (can be in the form of sketches incorporated within design documentation)	LBP - CPEng	Yes	Wording that either points to Verification Methods or Acceptable Solutions, or other documents such as the MBIE Guidance if it is an Alternative Solution
TC2	Repairs	No specific engineering input (i.e. minor/clear cut repairs from Tables 2.2 and 2.3 and appendices in the MBIE guidance)	LBP - CPEng and/or LBP - Designer	Optional*	CPEng signing Shallow Geotech Investigation Report confirming the technician's work and that TC2 foundation repair option is appropriate
		Specific engineering input	LBP - CPEng	Yes	Normal wording for an Alternative Solution, making specific reference to the MBIE Guidance (relevant pages)
	Rebuilds	Straightforward/ non-specific design - CPEng oversight of at least the selection of TC2 foundation type	LBP - CPEng and/or LBP - Designer	Optional*	CPEng signing Shallow Geotech Investigation Report confirming the technician's work and that TC2 foundations are appropriate
		Specific engineering design following MBIE Guidance	LBP - CPEng	Yes	Normal wording for an Alternative Solution, making specific reference to the MBIE Guidance (relevant pages)
		Specific engineering design outside scope of MBIE Guidance	LBP - CPEng	Yes	Wording that either points to Verification Methods or Acceptable Solutions, or other documents if it is an Alternative Solution. Need to highlight where the departure from the MBIE Guidance occurs

Tech Cat	Building Work	Scope of Engineering Input	CoW (Form 2A) by ¹⁰	Producer Statement (PS1)	Engineer's Sign-off Wording in Producer Statements and Shallow Geotech Investigation Reports
TC3	Repairs	Case 1 – local repairs	LBP - CPEng	Yes	Normal wording for an Alternative Solution, making specific reference to the MBIE Guidance
		Case 2 – re-level	LBP - CPEng	Yes	
	Rebuilds	Surface Structures Type 1 or 2	LBP - CPEng	Yes	Normal wording for an Alternative Solution, making specific reference to the MBIE Guidance as appropriate
		Ground improvement	LBP - CPEng	Yes	
		Specific engineering design using MBIE Guidance (e.g. Deep piles or S/S Type 3)	LBP - CPEng	Yes	
		Specific engineering design outside MBIE Guidance	LBP - CPEng	Yes	Wording that either points to Verification Methods or Acceptable Solutions, or other means of compliance for Alternative Solution

¹⁰ Section 45 of the Building Act 2004 requires the CoW to be provided by one or more LBPs who carried out or supervised the design work, and were licensed to do so (rather than specifying whether the LBP doing the design work should be a designer or engineer). However, pursuant to section 314B of the Act, an LBP may only carry out or supervise work within his/her competence. The CoW column in this table is the recommended level of competency/qualification of LBP in each particular case for persons using the MBIE Guidance, 'Repairing and rebuilding houses affected by the Canterbury earthquakes'.

* Producer statement to be provided with consent when it forms part of an engineer's conditions of engagement.

Appendix B

Guidance on Design Features Reports (DFRs) for residential dwellings in Canterbury

Summary of key elements for residential Design Features Reports	
Objective of DFR:	<p>A brief description that summarises the composition of the dwelling, key assumptions associated with the design and the basis for structural Building Code compliance. The purpose of the DFR is to facilitate the consenting process by providing a concise overview of the structural make-up of the building, its design criteria and construction monitoring requirements.</p> <p>A DFR also offers future owners and engineers working on the building a reference-point to enable a clear understanding of structural design parameters of the building.</p>
1. Description	<ul style="list-style-type: none"> No. of storeys; area; roof and wall cladding weights; floor construction; foundation system and structural system (e.g. timber frame, masonry block, tilt slab etc) Basis of design and compliance – the Verification Methods, Acceptable Solutions and MBIE Guidance followed (including any areas of departure from MBIE Guidance) Ground floor level (incl. flood risk requirements, where applicable) Technical Category (designated and confirmed)
2. Geotechnical Investigation and Results	<ul style="list-style-type: none"> Investigation methods and depths, and other data drawn upon Soil profile, including basic foundation bearing capacities, groundwater levels and subsoil class Global Lateral Movement and/ or Stretch at SLS and ULS (where applicable) Vertical Land Settlements at SLS and ULS (where applicable) Stability issues (where applicable)
3. Structural Design	<ul style="list-style-type: none"> Key loadings: seismic, wind, snow, floor loadings Lateral resistance Other design assumptions
4. Recommended Construction Monitoring	<ul style="list-style-type: none"> Critical elements and stages to be inspected during construction (provide reference to relevant CoW if information in this form)

Comment: A similar framework can be used for cases of repairs and/ or partial replacement, using those sub-headings that are relevant, and including a summary of damage.

Appendix C

Worked examples of certificates of design work for Canterbury

Summary of key elements for residential Design Features Reports		Content of Form 2A- CoW
Example 1	Repair of a TC1 foundation	Form completed by designer-(LBP) in the example provided
Example 2	New TC2 foundation and significant replacement of structural wall linings to existing dwelling	Form completed by CPEng design engineer-(LBP) in the examples provided
Example 3	New TC3 foundation for new dwelling	

Note: above-noted CoW examples appended overleaf

Example 1: TC1 foundation EQ repair in Canterbury

Memorandum from licensed building practitioner: Certificate of design work

Section 45 and section 30C, 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: 27 Rangers Way	
Suburb: Burnside	
Town/City: Christchurch	Postcode: 8062

THE OWNER	
Name(s): Rex Smith	
Mailing address: 32 Lighthouse Avenue	
Suburb: Cashmere	PO Box/Private Bag:
Town/City: Christchurch	Postcode: 6023
Phone number: 03 213 7777	Email: rex1@that.com

BASIS FOR PROVIDING THIS MEMORANDUM	
I am providing this memorandum in my role as the: Please tick the option that applies (✓)	
<input type="checkbox"/>	sole designer of all of the RBW design outlined in this memorandum – I carried out all of the RBW design myself – no other person will be providing any additional memoranda for the project
<input type="checkbox"/>	lead designer who carried out some of the RBW design myself but also supervised other designers – this memorandum covers their RBW design work as well as mine, and no other person will be providing any additional memoranda for the project
<input checked="" type="checkbox"/>	lead designer for all but specific elements of RBW – this memorandum only covers the RBW design work that I carried out or supervised and the other designers will provide their own memoranda relating to their specific RBW design
<input type="checkbox"/>	specialist designer who carried out specific elements of RBW design work as outlined in this memorandum – other designers will be providing a memorandum covering the remaining RBW design work

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

I **Patrick Firth** carried out / ~~supervised~~ the following design work that is restricted building work.

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

Design work that is restricted building work	Description	Carried out/ supervised	Reference to plans and specifications
Tick(✓)if included	If appropriate, provide details of the RBW	Specify whether you carried out this design work or supervised someone else carrying out this design work	If appropriate, specify references
PRIMARY STRUCTURE: B1			
All RBW design work relating to B1	()	() Carried out () Supervised	
Foundations and subfloor framing	(✓) Repair of perimeter ring foundation, sub-floor framing and piles.	(✓) Carried out () Supervised	Refer to sketches titled foundation repair (sheets A001-A003). Repair method in accordance with sec 4 & (Fig 4.2a) of MBIE's Dec 2012 guidance for type B foundation (as documented in scope of works and shallow investigation report for TC1 site).
Walls	()	() 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: E2

All RBW design work relating to E2	()	() Carried out () Supervised	
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	

FIRE SAFETY SYSTEMS:C1-C6

Emergency warning systems, evacuation and fire service operation systems, suppression or control systems, or other	()	() Carried out () Supervised	
Note: The design of fire safety systems is only restricted building work when it involves small-to-medium apartment buildings as defined by the Building (Definition of Restricted Building Work) Order 2011.			

WAIVERS AND MODIFICATIONS

Waivers or modifications of the building code are required: () Yes (✓) No	
If Yes, provide details of the waivers or modifications below:	
Clause (List relevant clause numbers of building code)	Waiver/modification required (Specify nature of waiver or modification of building code)

ISSUED BY

Name: Patrick Firth	LBP or Registration number: BP 001223
The practitioner is a: <input checked="" type="checkbox"/> Design LBP <input type="checkbox"/> Registered architect <input type="checkbox"/> Chartered professional engineer	
Design Entity or Company (optional): Upright Design Ltd	
Mailing address (if different from below):	
Street address/Registered office:	
Suburb: Christchurch Central	Town/City: Christchurch
PO Box/Private Bag: PO Box 73015	Postcode: 8154
Phone number: 03 222 1122	Mobile:
After hours:	Fax:
Email: patf@upright.co.nz	Website: www.upright.com

DECLARATION

I **Patrick Firth** LBP, state that I have applied the skill and care reasonably required of a competent design professional in carrying out or supervising the Restricted Building Work (RBW) described in this form, and that based on this, I also state that the RBW:

- Complies with the building code, or
- ~~Complies with the building code subject to any waiver or modification of the building code recorded on this form~~

Signature: Patrick Firth

Date: 12.02.2013

ATTACHMENTS

Shallow subsurface investigation report
 Structural Calculations
 Drawings
 Specification

Example 2: New TC2 foundation in Canterbury

Memorandum from licensed building practitioner: Certificate of design work

Section 45 and section 30C, 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: 43 Monkhouse Road	
Suburb: Kaiapoi	
Town/City: Waimakariri	Postcode: 7475

THE OWNER	
Name(s): Mark and Ronda Logan	
Mailing address: 6 Stains Lane	
Suburb: Belfast	PO Box/Private Bag:
Town/City: Waimakariri	Postcode: 7472
Phone number: 03 244 2444	Email: mlogan@tech.co.nz

BASIS FOR PROVIDING THIS MEMORANDUM	
I am providing this memorandum in my role as the: Please tick the option that applies (✓)	
<input type="checkbox"/>	sole designer of all of the RBW design outlined in this memorandum – I carried out all of the RBW design myself – no other person will be providing any additional memoranda for the project
<input type="checkbox"/>	lead designer who carried out some of the RBW design myself but also supervised other designers – this memorandum covers their RBW design work as well as mine, and no other person will be providing any additional memoranda for the project
<input checked="" type="checkbox"/>	lead designer for all but specific elements of RBW – this memorandum only covers the RBW design work that I carried out or supervised and the other designers will provide their own memoranda relating to their specific RBW design
<input type="checkbox"/>	specialist designer who carried out specific elements of RBW design work as outlined in this memorandum – other designers will be providing a memorandum covering the remaining RBW design work

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

I **Lenard Henry** carried out / ~~supervised~~ the following design work that is restricted building work.

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

Design work that is restricted building work	Description	Carried out/ supervised	Reference to plans and specifications
Tick(✓)if included	If appropriate, provide details of the RBW	Specify whether you carried out this design work or supervised someone else carrying out this design work	If appropriate, specify references
PRIMARY STRUCTURE: B1			
All RBW design work relating to B1	()	() Carried out () Supervised	
Foundations and subfloor framing	(✓)	(✓) Carried out () Supervised	Refer to foundation plan and sheets numbered S01-S05. New foundation in accordance with MBIE's Dec 2012 guidance section 5 (Option 2: enhanced foundation slab) Design features report PC-187/13 Engineer's PS1-design, results of subsurface investigation and inspection schedule appended to this form.
Walls	()	() Carried out () Supervised	
Roof	()	() Carried out () Supervised	
Columns and beams	()	() Carried out () Supervised	
Bracing	(✓)	(✓) Carried out () Supervised	Refer to bracing calculations and sheets S06-S08.
Other	()	() Carried out () Supervised	

EXTERNAL MOISTURE MANAGEMENT SYSTEMS: E2

All RBW design work relating to E2	()	() Carried out () Supervised	
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	

FIRE SAFETY SYSTEMS:C1-C6

Emergency warning systems, evacuation and fire service operation systems, suppression or control systems, or other	()	() Carried out () Supervised	
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Note: The design of fire safety systems is only restricted building work when it involves small-to-medium apartment buildings as defined by the Building (Definition of Restricted Building Work) Order 2011.

WAIVERS AND MODIFICATIONS

Waivers or modifications of the building code are required: () Yes (✓) No

If Yes, provide details of the waivers or modifications below:

Clause (List relevant clause numbers of building code)	Waiver/modification required (Specify nature of waiver or modification of building code)

ISSUED BY

Name: Lenard Henry		LBP or Registration number: CPEng 01335	
The practitioner is a: <input type="checkbox"/> Design LBP <input type="checkbox"/> Registered architect <input checked="" type="checkbox"/> Chartered professional engineer			
Design Entity or Company (optional): Sterling Consultants Ltd			
Mailing address (if different from below):			
Street address/Registered office:			
Suburb: Auckland CBD		Town/City: Auckland	
PO Box/Private Bag: PO Box 92307		Postcode: 1142	
Phone number: 09 301 0000		Mobile:	
After hours:		Fax:	
Email: lhen@sterling.co.nz		Website: sterlingconsultants.com	

DECLARATION

I **Lenard Henry** LBP, state that I have applied the skill and care reasonably required of a competent design professional in carrying out or supervising the Restricted Building Work (RBW) described in this form, and that based on this, I also state that the RBW:

- Complies with the building code, or
- ~~Complies with the building code subject to any waiver or modification of the building code recorded on this form~~

Signature: **Lenard Henry**

Date: **11.01.2013**

ATTACHMENTS

Proposed inspection/monitoring schedule (refer over)
Design Features Report (187/13)
PS1-Producer Statement Design
Shallow subsurface investigation report
Structural calculations
Drawings
Specification

PROPOSED INSPECTION / MONITORING SCHEDULE

Note: This section is optional and may be covered in the Design Features Report. Elements for inspection will be included at the discretion of the CPEng depending on the complexity of the job and the confidence in the contractors and sub-contractors carrying out the work.

Element	Inspection particulars	No. of inspections
Sub-grade	Inspection of excavation for enhanced foundation slab	1
Foundation	Pre-pour inspection of reinforcing	1
Superstructure	Inspection of new structural connections (by design firm CPEng)	1

Note: Monitoring statement (PS4) to be provided for building elements inspected by engineer.

TC2 NEW FOUNDATION EXAMPLE

Example 3: New TC3 foundation in Canterbury

Memorandum from licensed building practitioner: Certificate of design work

Section 45 and section 30C, 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: 177 Mordrian Close

Suburb: Fendalton

Town/City: Christchurch

Postcode: 8060

THE OWNER

Name(s): Brent Boya

Mailing address: 14 Main Road

Suburb: Middleton

PO Box/Private Bag:

Town/City: Christchurch

Postcode: 8055

Phone number: 03 444 4545

Email:

BASIS FOR PROVIDING THIS MEMORANDUM

I am providing this memorandum in my role as the: Please tick the option that applies (✓)

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | sole designer of all of the RBW design outlined in this memorandum – I carried out all of the RBW design myself – no other person will be providing any additional memoranda for the project |
| <input checked="" type="checkbox"/> | lead designer who carried out some of the RBW design myself but also supervised other designers – this memorandum covers their RBW design work as well as mine, and no other person will be providing any additional memoranda for the project |
| <input type="checkbox"/> | lead designer for all but specific elements of RBW – this memorandum only covers the RBW design work that I carried out or supervised and the other designers will provide their own memoranda relating to their specific RBW design |
| <input type="checkbox"/> | specialist designer who carried out specific elements of RBW design work as outlined in this memorandum – other designers will be providing a memorandum covering the remaining RBW design work |

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

I **Derek Christian** carried out / supervised the following design work that is restricted building work.

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

Design work that is restricted building work	Description	Carried out/ supervised	Reference to plans and specifications
Tick(✓)if included	If appropriate, provide details of the RBW	Specify whether you carried out this design work or supervised someone else carrying out this design work	If appropriate, specify references
PRIMARY STRUCTURE: B1			
All RBW design work relating to B1 ()	Particulars detailed below	(✓) Carried out () Supervised	
Foundations and subfloor framing (✓)	New waffle slab on deep pre-cast concrete piles.	(✓) Carried out () Supervised	REFER TO: <ul style="list-style-type: none"> • Project specification and foundation plan on sheets numbered SK01-SK07. • Design in accordance with MBIE's Dec 2012 guidance section 15.2 (waffle slab on deep pile concept) • Engineer's PS1-design and site verification/ inspection schedule appended to this form • Design features report PC1120/13 • Geotechnical report ref-C1345 dated 08.08.12.
Walls ()		() 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: E2

All RBW design work relating to E2	()	() Carried out () Supervised	
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	

FIRE SAFETY SYSTEMS:C1-C6

Emergency warning systems, evacuation and fire service operation systems, suppression or control systems, or other	()	() Carried out () Supervised	
Note: The design of fire safety systems is only restricted building work when it involves small-to-medium apartment buildings as defined by the Building (Definition of Restricted Building Work) Order 2011.			

WAIVERS AND MODIFICATIONS

Waivers or modifications of the building code are required: () Yes (✓) No	
If Yes, provide details of the waivers or modifications below:	
Clause (List relevant clause numbers of building code)	Waiver/modification required (Specify nature of waiver or modification of building code)

ISSUED BYName: **Derek Christian** LBP or Registration number: **CPEng 12345**The practitioner is a:
() Design LBP () Registered architect (✓) Chartered professional engineerDesign Entity or Company (optional): **Christian Design Ltd**

Mailing address (if different from below):

Street address/Registered office:

Suburb: **Riccarton**Town/City: **Christchurch**PO Box/Private Bag: **PO BOX 98980**Postcode: **1144**Phone number: **03 303 3030**Mobile: **027 777 4444**

After hours:

Fax:

Email: **dc@cdesign.co.nz**

Website:

DECLARATION

I **Derek Christian** LBP, state that I have applied the skill and care reasonably required of a competent design professional in carrying out or supervising the Restricted Building Work (RBW) described in this form, and that based on this, I also state that the RBW:

- Complies with the building code, or
- ~~Complies with the building code subject to any waiver or modification of the building code recorded on this form~~

Signature: **D Christian**Date: **12.12.2012****ATTACHMENTS**

Proposed inspection/monitoring schedule (refer over)
 Design Features Report (199/13)
 PS1-Producer Statement Design
 Deep Geotechnical investigation report (Ref-C1345)
 Structural calculations
 Drawings
 Specification

PROPOSED INSPECTION / MONITORING SCHEDULE

Note: This section is optional and may be covered in the Design Features Report. Elements for inspection will be included at the discretion of the CPEng depending on the complexity of the job and the confidence in the contractors and sub-contractors carrying out the work.

Element	Inspection particulars	No. of inspections
Piles	Inspection of concrete pile installation (by design firm)s	1*
Foundation	Pre-pour inspection of reinforcing, pile heads and ground beams	1*

*** Further inspection(s) may be required where soft ground is encountered and additional foundation or ground preparation is deemed necessary**

Note: Monitoring statement (PS4) to be provided for building elements inspected by engineer.

TC3 NEW FOUNDATION EXAMPLE

Appendix D

Worked example of certificates of design work across NZ

Memorandum from licensed building practitioner: Certificate of design work

Section 45 and section 30C, 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: 77 Elm Park	
Suburb: Brooklyn	
Town/City: Wellington	Postcode: 6021

THE OWNER	
Name(s): Lesley Craig	
Mailing address: 39 Montreal Grove	
Suburb: Scorching Bay	PO Box/Private Bag:
Town/City: Wellington	Postcode: 6023
Phone number: 04 222 7777	Email: les.c@leftside.com

BASIS FOR PROVIDING THIS MEMORANDUM	
I am providing this memorandum in my role as the: Please tick the option that applies (✓)	
<input type="checkbox"/>	sole designer of all of the RBW design outlined in this memorandum – I carried out all of the RBW design myself – no other person will be providing any additional memoranda for the project
<input type="checkbox"/>	lead designer who carried out some of the RBW design myself but also supervised other designers – this memorandum covers their RBW design work as well as mine, and no other person will be providing any additional memoranda for the project
<input checked="" type="checkbox"/>	lead designer for all but specific elements of RBW – this memorandum only covers the RBW design work that I carried out or supervised and the other designers will provide their own memoranda relating to their specific RBW design
<input type="checkbox"/>	specialist designer who carried out specific elements of RBW design work as outlined in this memorandum – other designers will be providing a memorandum covering the remaining RBW design work

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

I **Tony Heaney** carried out / ~~supervised~~ the following design work that is restricted building work.

IDENTIFICATION OF DESIGN WORK THAT IS RESTRICTED BUILDING WORK (RBW)

Design work that is restricted building work	Description	Carried out/ supervised	Reference to plans and specifications
Tick(✓)if included	If appropriate, provide details of the RBW	Specify whether you carried out this design work or supervised someone else carrying out this design work	If appropriate, specify references
PRIMARY STRUCTURE: B1			
All RBW design work relating to B1	()	() Carried out () Supervised	
Foundations and subfloor framing	(✓) NZS3604:2011 concrete slab on grade	(✓) Carried out () Supervised	Refer to drawings titled foundation layout and details (sheets A03-A06).
Walls	(✓) Timber framed walls to NZS 3604:2011	(✓) Carried out () Supervised	Refer to drawings titled wall layout and details (sheets A08-A09).
Roof	(✓) Truss layout and roof layout	(✓) Carried out () Supervised	Refer to drawings titled roof details (sheets A10-A12). Truss manufactures statement and layout/fixing details appended to this form
Columns and beams	()	() Carried out () Supervised	
Bracing	(✓) Plasterboard sheet bracing to NZS3604:2011	(✓) Carried out () Supervised	Refer to bracing schedule and (sheet A07)
Other	()	() Carried out () Supervised	

EXTERNAL MOISTURE MANAGEMENT SYSTEMS: E2

All RBW design work relating to E2	()		() Carried out () Supervised	
Damp proofing	(✓)	Membrane to underside of slab	(✓) Carried out () Supervised	Refer to foundation detail (sheet A04)
Roof cladding or roof cladding system	(✓)	Long-run metal sheet cladding and roof underlay	(✓) Carried out () Supervised	Refer to roof layout and details (sheets A10-12)
Ventilation system (for example, subfloor or cavity)	()		() Carried out () Supervised	
Wall cladding or wall cladding system	(✓)	Bevelback weatherboards and profiled metal sheet	(✓) Carried out () Supervised	Refer to drawings and details (sheets A13-A16).
Waterproofing	()		() Carried out () Supervised	
Other	()		() Carried out () Supervised	

FIRE SAFETY SYSTEMS:C1-C6

Emergency warning systems, evacuation and fire service operation systems, suppression or control systems, or other	()		() Carried out () Supervised	
Note: The design of fire safety systems is only restricted building work when it involves small-to-medium apartment buildings as defined by the Building (Definition of Restricted Building Work) Order 2011.				

WAIVERS AND MODIFICATIONS

Waivers or modifications of the building code are required: () Yes (✓) No

If Yes, provide details of the waivers or modifications below:

Clause (List relevant clause numbers of building code)	Waiver/modification required (Specify nature of waiver or modification of building code)

ISSUED BY

Name: Tony Heaney		LBP or Registration number: BP 03333	
The practitioner is a: <input checked="" type="checkbox"/> Design LBP <input type="checkbox"/> Registered architect <input type="checkbox"/> Chartered professional engineer			
Design Entity or Company (optional): Urban Homes Ltd			
Mailing address (if different from below):			
Street address/Registered office:			
Suburb: Petone		Town/City: Wellington	
PO Box/Private Bag: PO Box 4509		Postcode: 6022	
Phone number: 04 222 1122		Mobile: 027 777 4444	
After hours:		Fax:	
Email: th@urbanhomes.co.nz		Website: www.urbanhomes.com	

DECLARATION

I **Tony Heaney** LBP, state that I have applied the skill and care reasonably required of a competent design professional in carrying out or supervising the Restricted Building Work (RBW) described in this form, and that based on this, I also state that the RBW:

- Complies with the building code, or
- ~~Complies with the building code subject to any waiver or modification of the building code recorded on this form~~

Signature: **Tony Heaney**

Date: **12.03.2013**

ATTACHMENTS

Truss manufacturer's statement
Structural Calculations
Drawings
Specification

