

**PRODUCER STATEMENT – PS4 – CONSTRUCTION REVIEW**

(Guidance notes on the use of this form are printed on the reverse side)

ISSUED BY: Certa Engineering Ltd
TO: Woburn House Body Corporate
(Owner/Developer)
TO BE SUPPLIED TO: Lower Hutt City Council
(Building Consent Authority)
IN RESPECT OF: Seismic Upgarde
(Description of Building Work)
AT: 40-44 Bloomfield Terrace, Lower Hutt
(Address)
Lot: DP:

Certa Engineering Ltd has been engaged by **Woburn House Body Corporate**

to provide ☐ CM1 ☐ CM2 ☒ CM3 ☐ CM4 ☐ CM5 observation services
(Engineering Categories)

in respect of clause(s) B1, VM1 of the Building Code for the building work described in documents relating to Building Consent No # **160583**. We have sighted these Building Consents and the conditions of attached to them.

Authorised instructions / Site Inspection Reports **Numbered 1-8 & Contractors PS3** (copies attached) have been issued during the course of the works.

On the basis of ☒ this ☐ these review(s) and information supplied by the contractor during the course of the works

I believe on reasonable grounds that ☐ All ☒

Part only as specified of building work outside the scope of NZS3604:2011-

- Seismic Strengthening

Of the building works have been completed in accordance with the relevant requirements of the Building Consents and Building Consent Amendments identified above, with respect to Clause(s) B1, VM1 of the Building Regulations.

I, Stuart Preston am CPEng Registered No. 138744

I am a Member of IPENZ and hold the following qualifications: BE (Civil), MIPENZ, CPEng

The Construction Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$500,000*.

The Construction Review Firm is a member of ACENZ

SIGNED BY Stuart Preston **ON BEHALF OF** Certa Engineering Ltd.

Date: 10th February 2017

Signature



Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Construction Review Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$500,000*.

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

GUIDANCE ON USE OF PRODUCER STATEMENTS

Producer statements were first introduced with the Building Act 1992. The producer statements were developed by a combined task committee consisting of members of the New Zealand Institute of Architects, Institution of Professional Engineers New Zealand, Association of Consulting Engineers New Zealand in consultation with the Building Officials Institute of New Zealand. The original suite of producer statements has been revised as at the date of this form as a result of enactment of the Building Act (2004) by these organisations to ensure standard use within the industry.

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

- PS1 Design** Intended for the use by a suitably qualified independent 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 design 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 3910:20031 ; or Schedules E1/E2 of NZIA's SCC 2007 2
- PS4 Construction Review** Intended for use by a suitably qualified independent design professional who undertakes 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 ACENZ, IPENZ and NZIA to interpret the Producer Statement.

Competence of Design Professional

This statement is made by a Design 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 designers.

A competent design professional will have a professional qualification and proven current competence through registration on a national competence-based register, either as a Chartered Professional Engineer (CPEng) or a Registered Architect.

Membership of a professional body, such as the Institution of Professional Engineers New Zealand (IPENZ) or the New Zealand Institute of Architects (NZIA) provides additional assurance of the designer's standing within the profession. If the design firm is a member of the Association of Consulting Engineers New Zealand (ACENZ), this provides additional assurance about the standing of the firm.

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

Professional Indemnity Insurance

As part of membership requirements, ACENZ 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, small projects. If the parties deem this inappropriate for large projects the minimum may be up to \$500,000.

Professional Services during Construction Phase

There are several levels of service which a Design Firm may provide during the construction phase of a project (CM1-5)³ (OL1-OL4)². The Building Consent Authority is encouraged to require that the service to be provided by the Design 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.

Attached Particulars

Attached particulars referred to in this producer statement refer to supplementary information appended to the producer statement.

Refer Also:

- 1 Conditions of Contract for Building & Civil Engineering Construction NZS 3910: 2003
- 2 NZIA Standard Conditions of Contract SCC 2007 (1st edition)
- 3 Guideline on the Briefing & Engagement for Consulting Engineering Services (ACENZ/IPENZ 2004)

www.acenz.org.nz
www.ipenz.org.nz
www.nzia.co.nz

SITE INSPECTION REPORT

Date: 27/10/15	Report No: SR01	Job No: 40166
Inspected By: Gareth Langdon		
Contractors Representative: Paul and Graham (Armstrong Downes)		
Project: Woburn House, 44 Bloomfield Terrace	Area Inspected: Building Walkover	
Inspection time: 3pm		
Weather: Overcast, Dry		
Stage: Building Walkover		

Observations:

The purpose of the site visit was to familiarise with the building layout in light of the suggested seismic upgrading proposed with specific attention paid to the constructability of some of the items and locations to reduce disruption to the tenants.

Current strengthening scheme consists of a number of isolated systems in specific locations, namely:

1. Fibre-wrapping of a number of internal, gravity only concrete columns on floors
2. Tying perimeter frames together using Reid-brace type systems at high level on all floors
3. Cutting and supporting the egress stairs to allow MCE movements
4. Installing additional columns on the front, corner elevation to support the floor beams in even of the columns yielding.
5. Cutting the sides of the block-work infill panels on the rear elevation to allow the seismic frame to deflect as it should rather than jamming on the block-work.

Split to address each of the above items

Item	Comments	Result
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1	Armstrong Downes (AD) queried the location and extent of the wrapping required. Which columns (<i>thought to be the internal, gravity columns only</i>)? DO the columns around the lift/ stair core require wrapping also? What height of wrapping is required at the top and bottom of each column? Can services be fixed back onto the column through the wrapping or will they require relocating outside the wrapping zone.	
2	Location the Reid-brace will most probably need to be below current ceiling levels. Connectors to the columns will be under the main support beams (pre-cast "top-hat" profile beams) which support the double-T flooring units (N.B. double-t are not supported at flange level, therefore only approximately 70 – 100 mm of seating for the ribs.) There are services locations close to, or on the columns in just about every location requiring a Reid-brace. The ceiling is only 70 80 mm below the underside of the main support beams, meaning any Reid-brace would have to be located under the ceiling. AD asked if there was any possibility of raising the connection of the Reid-brace to within the depth of the double –T sections. This would not be a workable solution as the main supporting beams also appear to be pre-cast and the joins are on AD asked if there was a possibility of using just one, larger Reid-brace per line to allow the relocation of services to be kept to a minimum.	



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3	AD were advised the required gap at one end of each flight of stairs is going to be in the order of 125 mm (for Maximum Considered Earthquake (MCE) effects). Given the construction of the stairs and surrounding structure this should be achievable. Headroom will not be an issue for any support brackets to be installed. Supporting beams at top and bottom of flights are 550 – 600 mm deep. Supporting brackets will be designed to remain within this depth. Support brackets to top of flights will need special consideration regarding the location of any anchors due to the stairs impeding the drilling required. AD were advised that the plan was to design a bracket that can be used at both the top and bottom of the stairs with minimal adjustment required.	
4	Assuming the columns can be located under the existing beam, apart from a small amount of service relocation the installation of these columns should be relatively simple. Location of the additional columns with respect to the existing columns and beams	
5	AD had already raised the question regarding the method of cutting and the ability to cut the full height on either side of the block-work panels. Upon inspection, some of the gaps between column and block-work are already nearly at 50 mm; clearing of the fill material will still be required. There is a good area of access on the adjoining property. AD think they should be able to cut almost completely from the outside meaning minimal disruption to the inside services along the back wall, especially in the telecom room (ground floor) where there are fibre-optic cables in the area of cut. The third floor appears to have lightweight infill panels. The concrete columns do, however appear to continue to the roof level.	



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SITE INSPECTION REPORT

Date: 09/09/16	Report No: SR02	Job No: 40166
Inspected By: Gareth Langdon		
Contractors Representative: Kevin Hawthorn (Armstrong Downes)		
Project: Woburn House, 44 Bloomfield Terrace	Area Inspected: Ground floor on column C 26.	
Inspection time: 4:00pm		
Weather: N/A		
Stage: Ground floor on column C 26.		

Observations:

1. Existing cables are located against the column, in the location of the proposed bracket.

Instructions Given:

1. Due to the requirement for FRP wrapping of the column the cables will require moving to facilitate this; we may be able to keep the cables out of the way long enough to install the bracket at the same time.

Next Inspection Required: Ongoing Construction

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SITE INSPECTION REPORT

Date: 03/10/16	Report No: SR03	Job No: 40166
Inspected By: Gareth Langdon		
Contractors Representative: Kevin Hawthorn (Armstrong Downes)		
Project: Woburn House, 44 Bloomfield Terrace	Area Inspected: Column wrapping progress	
Inspection time: 3:30pm		
Weather: N/A		
Stage: Column wrapping progress		

Observations:

1. Five columns on ground floor and three columns on first floor have been completed.
2. Brackets have been concrete screwed in place, ready for drilling of the anchors tonight, reinforcing has been scanned and marked to avoid clashes.
3. Core drilling for the external column connections has been started

Points to note:

1. Wrapped columns look to be to specifications.
2. Not sighted, evidence of core drilling was heard.

Next Inspection Required: Ongoing construction

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SITE INSPECTION REPORT

Date: 05/10/16	Report No: SR04	Job No: 40166
Inspected By: Gareth Langdon		
Contractors Representative: Kevin Hawthorn (Armstrong Downes)		
Project: Woburn House, 44 Bloomfield Terrace	Area Inspected: External column coring	
Inspection time: 3:30pm		
Weather: N/A		
Stage: External column coring		

Observations:

1. One external column has been fully cored, six penetrations to external face
2. Column ready for plate to be fitted (custom drilled holes maybe required)
3. Two columns (one front, one back) are experiencing issues penetrating the core of the column without encountering reinforcing steel. Vertical bars have been marked out, most of the collisions appear to be into horizontal link bar.
4. A number of plates have been fixed and Chemset in place, some Reidbrace bars have also been connected.

Instructions Given:

1. Scan and mark out horizontal bars going through joint from beam by scanning and marking beam either side of joint and lining through. Other than that, continue with attempts, fill any part holes once penetrations have been achieved.

Next Inspection Required: Ongoing construction

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SITE INSPECTION REPORT

Date: 26/10/2016	Report No: SR05	Job No: 40166
Inspected By: Gareth Langdon		
Contractors Representative: Kevin Hawthorn (Armstrong Downes)		
Project:	Woburn House, 40-44 Bloomfield Terrace	Area Inspected: Stair connections
Inspection time:	2:20pm	
Weather:	N/A	
Stage:	Existing stair connections	

Observations:

1. Opening up works have commenced to the underside of the concrete stairs, in the area required to be supported by the steel brackets.
2. Detail supporting stairs is not as per existing drawings. There is a significant, homogenous ledge which supports the base of the stairs, two locations have been opened so far.
3. Stairs are in two sections, split along the length.
4. Ground floor connection appears to be bearing only.
5. Custom Reid-brace on column (C 22) has been installed.

Instructions Given:

1. From site observation, it would appear that the designed steel brackets are not required in the exact location designed for. Due to the concrete ledge providing adequate seating for the bottom of the stairs.
2. Due to the unknown detailing of the reinforcing contained within the ledge it would be prudent to install a smaller bracket under the ledge whilst reducing the size of the overall bracket to support the ledge.
3. Assuming the ledge detail is the same up the building, the top bracket detail will no longer be required.
4. Subsequently, the revised, smaller, bracket at the bottom of each flight will be required at all levels.
5. Due to unknown nature of the connection between the ground floor slab and bottom of the lowest flights of stairs, it is still recommended to install the slip joint as previously shown.

Next Inspection Required:

Send To:

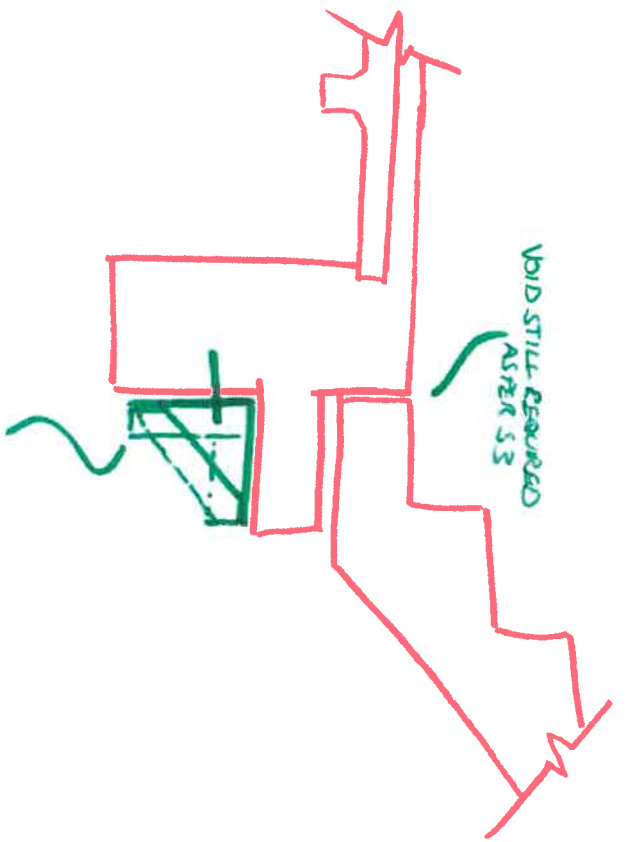


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REDUCED SIZE BRACKETS
LOCATED UNDER EXISTING
LEDGE. 1-M20 CHEMSET
ANCHOR.
INTUMESCENT COATING AS
PER S3.

SITE INSPECTION REPORT

Date: 28/10/2016	Report No: SR06	Job No: 40166
Inspected By: Gareth Langdon		
Contractors Representative: Kevin Hawthorn (Armstrong Downes)		
Project: Woburn House, 40-44 Bloomfield Terrace	Area Inspected: Corner Columns	
Inspection time: 9:20am		
Weather: N/A		
Stage: Corner Strengthening Columns		

Observations:

1. Ground floor columns are on site and being installed, adjacent to C 1 and C 19.
2. Due to cladding clashes the location of the columns cannot be precisely where shown on the drawings
3. First floor columns location will clash with existing canopy steel support brackets
4. Second floor column locations appear to be clashing with block-work, opening up is still required to confirm this.
5. Internal columns have been prepared or have been wrapped in FRP.
6. Reid-brace brackets being installed after column wrapping has been completed.

Instructions Given:

1. On the ground floor, the location of the columns near to C 1 and C 19 are not critical, relocation for installation purposes is acceptable ensuring the beam above is supported in the columns relocated position.
2. On the first floor, the columns will require relocating away from the existing concrete columns to avoid clashing with the existing steel canopy support brackets, this will require them moving into the window area, every effort should be made to line up the column with the existing window mullions to lessen the effect.
3. On the second floor, the columns may well clash with block-work or window framing opening up is required before any issues can be addressed fully.
4. On the second floor there may be a step out between the floor and ceiling beams, this may require a step out or a custom plate being fitted, again opening up is required before addressing this possible issue.

Next Inspection Required:

Send To:



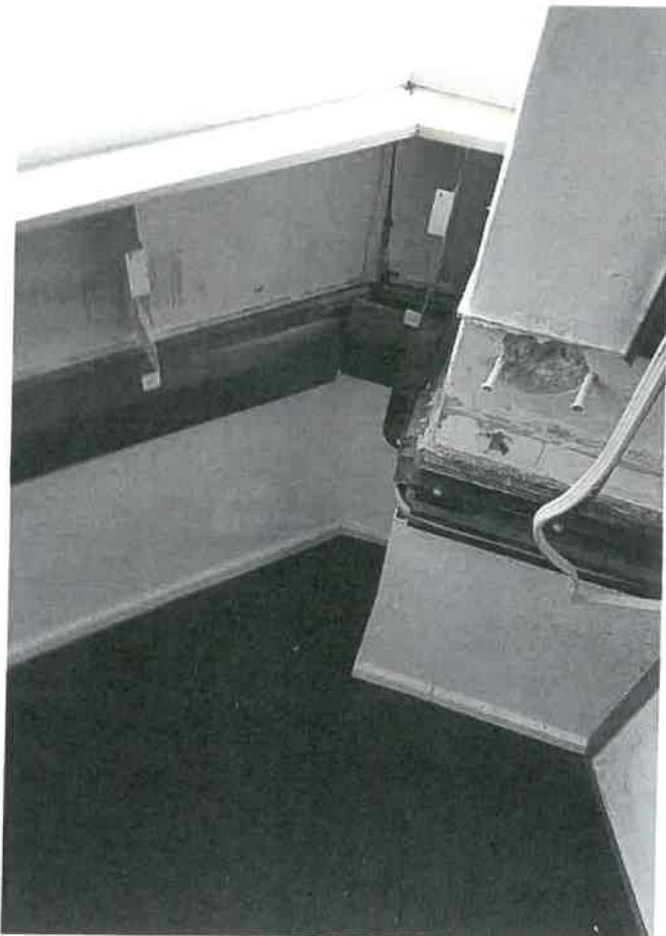
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SITE INSPECTION REPORT

Date: 13/01/2017	Report No: SR07	Job No: 40166
Inspected By: Gareth Langdon		
Contractors Representative: Kevin Hawthorn (Armstrong Downes)		
Project: Woburn House, 40-44 Bloomfield Terrace	Area Inspected: Stairs	
Inspection time: 2:30 pm		
Weather: N/A		
Stage: Stair Connections		

Observations:

1. Contractor requested a site visit to discuss and resolve concerns over the stairs.
2. Installation of the slip plate, under the bottom step was underway. Concern was raised that once the bottom of the flight was able to slip that the top may not be connected and unable to stop the stairs from moving and falling.

Instructions Given:

1. Upon inspection of the existing drawings, careful inspection of the stairs and scanning of the landings it has been confirmed that there are reinforcing bars tying the top of the stair to the first floor structure.
2. Separation of the bottom of the stair from the ground floor slab is to continue.

Next Inspection Required: **Final Inspection**

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SITE INSPECTION REPORT

Date: 10/02/2017	Report No: SR08	Job No: 40166
Inspected By: Gareth Langdon		
Contractors Representative: Kevin Hawthorn (Armstrong Downes)		
Project:	Woburn House, 40-44 Bloomfield Terrace	Area Inspected: Final Inspection
Inspection time: 2:30pm		
Weather: N/A		
Stage: Final Inspection		

Observations:

Final inspection to sign off all structural items.

1. All required columns have been TYFO wrapped and are covered.
2. All Reid-braces and brackets are installed including connections in perimeter columns.
3. Additional support columns are installed and either painted or covered.
4. Stair support brackets are installed and covered.
5. Slip joint at base of stairs has been installed on both flights.
6. Increased cuts have been made to the sides of each block-work infill panels on the rear elevation. The gaps have been filled.

Instructions Given:

1. No further instructions required.

Next Inspection Required: No further Inspections Required. OK to issue PS4.

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FORM OF PRODUCER STATEMENT PS3 – CONSTRUCTION

At project completion, this form shall be completed by the building contractor and supplied to the Engineer.

ISSUED BY: Betteridge Engineering Ltd
(Building Contractor)

TO: Armstrong Downes / Body Corporate 341454
(Owner/Principal)

IN RESPECT OF: Seismic work
(Description of Contract Works)

AT: 1-3/40 Bloomfield Ice Hall/Gold 5010
(Address)

T/A: BUILDING CONSENT No: 160583
(Territorial Authority / Building Consent Authority)

The above Building Contractor has contracted to the above Owner/Principal to carry out and complete certain building works in accordance with the contract, titled

Woburn House Seismic work
(Title of building contract) ("the contract")

I Ran Betteridge
(Builder's Authorised Agent) a duly authorised representative of the

above building contractor, believe on reasonable grounds that the above building contractor has carried out and completed

☐ All

☒ Part only as specified in the attached particulars Steel only

of the building works in accordance with the contract.

[Signature]
(Signature of Authorised Agent on behalf of the Building Contractor)

8/02/2017
(Date)

16-18 Petone Ave
Petone
(Address)

This producer statement is confirmation by the builder(s) that they have carried out the building work in accordance with the drawings, specifications (and site amendments) that are part of the contract / building consent documents.

Work covered by this statement should have been supervised and checked by suitably qualified tradespersons.

The Engineer requires this producer statement and a copy of the T/A's building consent conditions, to confirm that items of the contract that he has not personally examined, have in fact been built according to the documents, so that the Engineer may issue appropriate documents to the T/A for it to release the Code Compliance Certificate.



DISCLOSURE STATEMENT

1. The following information has been supplied to Capital Commercial (2013) Limited ("Bayleys") to be made available for distribution on the vendor's behalf to potential purchasers to assist purchasers with their due diligence and to use at the purchaser's discretion.
2. Bayleys and the Vendor do not warrant the accuracy or completeness of the information and recommends that all recipients undertake their own due diligence, obtain their own reports to their satisfaction and seek independent advice prior to committing to purchaser.