



Approved For Issue
27/02/2020

BUILDING CONSENT NUMBER
2019/1381

Building Code Clause(s) C2-C6, F8 as applicable

PRODUCER STATEMENT – PS1 – DESIGN

(Guidance on use of Producer Statements (formerly page 2) is available at www.engineeringnz.org)

ISSUED BY: Holmes Fire LP
(Design Firm)

TO: HWCP Management Limited
(Owner/Developer)

TO BE SUPPLIED TO: Invercargill City Council
(Building Consent Authority)

IN RESPECT OF: HWCP Zone 1 D.S Anchor and Childcare
(Description of Building Work)

AT:
(Address)

Town/City: Invercargill (Address) **LOT 2** **DP 540342 (RT905470)** **SO**

We have been engaged by the owner/developer referred to above to provide:

Fire Engineering Design Advice

(Extent of Engagement)

services in respect of the requirements of Clause(s) C2-C6, F8 as applicable of the Building Code for:

All or Part only (as specified in the attachment to this statement), of the proposed building work.

The design carried out by us has been prepared in accordance with:

Compliance Documents issued by the Ministry of Business, Innovation & Employment C/M2 or
(verification method/acceptable solution)

Alternative solution as per the attached schedule.....

The proposed building work covered by this producer statement is described on the drawings titled:

Refer attached and numbered Refer attached together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

- (i) Site verification of the following design assumptions
- (ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code and that b), the persons who have undertaken the design have the necessary competency to do so. I also recommend the following level of construction monitoring/observation:

CM1 CM2 CM3 CM4 CM5 (Engineering Categories) or as per agreement with owner/developer (Architectural)

I, Darin Millar am: CPEng 207954 # Reg Arch #
(Name of Design Professional)

I am a member of: Engineering New Zealand NZIA and hold the following qualifications:.....

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Design Firm is a member of ACENZ:

SIGNED BY Darin Millar (Signature)
(Name of Design Professional)

ON BEHALF OF Holmes Fire LP Date 24 October 2019
(Design Firm)

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design 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 \$200,000*.

Invercargill City Council
Building Consent Authority
Approved Site Copy

Form 2 of the Building (Forms) Regulations 2004 for the application of a Building Consent.
THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACENZ, ENGINEERING NEW ZEALAND AND NZIA

PS1 - Design - Supplementary information**1 DOCUMENT SCHEDULE**

The PS1 - Design covers the design documents as per the attached document schedule.

The Fire Engineering Verification justifies the occupation of the building after a complete building development. The building consent application has identified a pathway for final compliance - the pathway also forms the basis of this PS1. Reference to pathway will be necessary for the purposes of clarifying full compliance with the NZBC C Clauses.

2 NZBC PERFORMANCE REQUIREMENTS CLARIFICATIONS

The following provides clarification on the specific NZBC clauses to which "part only" of the building works are covered by the PS1 - Design.

NZBC Clause	Comment
C6.2	Defining the fire severity in consideration of 6.2 b, c and d is addressed by this PS1. Identification of the structural systems and its need for structural stability to achieve the performance requirements is to be provided by others. The methodology to achieve the performance is to be provided by others.
C6.3	Defining the period of fire resistance is addressed by this PS1. Identification of the structural systems and its need for structural stability to achieve the performance requirements is to be provided by others. The methodology to achieve the performance is to be provided by others.
C6.4	Consideration of the performance requirement is to be provided by others.
F8.3.3a	The identification of the escape routes has been determined by Holmes Fire. The implementation of the exit signage is addressed by others.

3 NZBC CLAUSES

Holmes Fire has been engaged to provide the Fire Engineering services in respect to the requirements of the following NZBC Clauses:

- As s17 applies:
 - C3: C3.4, C3.5, C3.6, C3.7, C3.8 & C3.9
 - C4: C4.3, C4.4 & C4.5
 - C5: C5.3, C5.4, C5.5, C5.6, C5.7 [(a) & (b)] & C5.8
 - C6: C6.2 & C6.3
 - F8: F8.3.3 (a)

17 Dec 2019

Building Division

Approved For Issue
27/02/2020

BUILDING CONSENT NUMBER

2019/1381

4 NZBC PERFORMANCE REQUIREMENTS ADDRESSED BY OTHER MEANS.

The following NZBC clauses are not included within the scope of this PS1.

NZBC Clause	Performance Requirement	Statement
C2.2	The maximum surface temperature of combustible building materials close to fixed appliances using controlled combustion and other fixed equipment when operating at their design level must not exceed 90°C.	Service consultants are responsible to action this performance requirement. Downlights can be considered to have achieved compliance with C2.2 if compliance is demonstrated using the Electrical (Safety) Regulations and subject to a condition of consent (see Section 4 below).
C2.3	Fixed appliances using controlled combustion and other fixed equipment must be designed, constructed and installed so that there is a low probability of explosive or hazardous conditions occurring within any spaces in or around the building that contains the appliances.	Service consultants are responsible to action this performance requirement.
C5.7c	Buildings must be provided with means of giving clear information to enable firefighters to: ... (c) establish the presence of hazardous substances or process in the building.	No statement will be provided. Signage for the presence of hazardous substances is integral to compliance with NZBC F3.3g and F8.3.2. The specific compliance of the signage relating to C5.7c will be demonstrated at the completion of the project and subject to a consent condition (see section below).

17 Dec 2019

Building Division

**Approved For Issue
27/02/2020**

BUILDING CONSENT NUMBER

2019/1381

5 ASSOCIATED CONSENT CONDITIONS

The following consent conditions support demonstrate the methodology for compliance for the relevant NZBC requirements not subject to design within the Building Consent documentation.

NZBC Performance Clause	Consent Condition
C2.2	At the completion of the installation by a Declaration of Conformity by a Registered Electrician.
C5.7c	Wherever necessary, the applicant will employ a suitable consultant as the owners consultant responsible for the "Hazardous Substances (Clauses 1 to 5 Controls) Regulations 2001 to provide a "location Test Certificate" (as required by the regulations) and also confirm that the signage associated with any Hazardous Material complies with "HSNO CoP 2-1 09-04".

DOCUMENT TRANSMITTAL - FIRE ENGINEERING

Project Name: HWCP Invercargill Central Project: 136249
From: Darin Millar DT Number: 009
Date: 14 October 2019 Page: 1 of 3

Distribution	Copies Distributed											
BUCHAN					1		1	1	1			
MPM					1		1	1	1			
LEWIS BRADFORD					1		1	1	1			
WT PARTNERSHIP					1		1	1	1			
SELKIRK/COSGROVES					1		1	1	1			
BONISCH CONSULTING GROUP												
ICC	1	1	1	1								
FENZ	1	1	1	1								
MACDONALD BARNETT	1	1	1	1	1	1		1	1	1		

Issue Details												
Reason for Issue	A	A		A	B	B	I	B	B	A		
Distribution Type	E	E		E	D	D	D	D	D	E		
Date of Issue												
Day	17	14	24	18	14	28	12	25	26	14		
Month	05	06	06	07	08	08	09	09	09	10		
Year	19	19	19	19	19	19	19	19	19	19		

Documents	Ref No.	Revision										
Master - Fire Engineering Brief	136249FEB01	A										
Zone 1 - Fire Engineering brief	136249FEB03		A									
Zone 1 - Fire Engineering Strategy	136249FES01							B				
Zone 1 - Fire Engineering Verification	136249FEV01					A				B		
Zone 1 - Fire Engineering Sketches	-											
Zone 2 - Fire Engineering brief	136249FEB04											
Zone 2 - Fire Engineering Strategy	136249FES03											
Zone 2 - Fire Engineering Verification	136249FEV03											
Zone 2 - Fire Engineering Sketches	-											
Zone 3 - Fire Engineering brief	136249FEB02		A									
Zone 3 - Fire Engineering Strategy	136249FES02					C						
Zone 3 - Fire Engineering Verification	136249FEV02				A							
	-											
FENZ Firefighting facilities correspondence	-											
Fire Engineering Sketches												
Zone 0 Fire Alarm System Matrix	Z0 FS 100							A				
Zone 3 Legend Page	Z3 FS 100					B						
Zone 3 Ground Fire/Smoke separations & Means of Escape	Z3 FS 101					C						

17 Dec 2019

Building Division

**Approved For Issue
27/02/2020**

BUILDING CONSENT NUMBER

2019/1381

Distribution		Copies Distributed											
Zone 3 Level 1 Fire/Smoke separations & Means of Escape	Z3 FS 102						C						
Zone 3 Level 2 Fire/Smoke separations & Means of Escape	Z3 FS 103						C						
Zone 3 Level 3 Fire/Smoke separations & Means of Escape	Z3 FS 104						C						
Zone 3 Level 4 Fire/Smoke separations & Means of Escape	Z3 FS 105						C						
Zone 3 Level 5 Fire/Smoke separations & Means of Escape	Z3 FS 106						C						
Zone 3 Cross section Fire/Smoke separations	Z3 FS 201						C						
Zone 3 Cross section Fire/Smoke separations	Z3 FS 202						C						
<i>Work Transfer set</i>													
Zone 3 Legend Page	Z3 FS T100						A						
Zone 3 Ground Fire/Smoke separations & Means of Escape	Z3 FS T101						B						
Zone 3 Level 1 Fire/Smoke separations & Means of Escape	Z3 FS T102						B						
Zone 3 Level 2 Fire/Smoke separations & Means of Escape	Z3 FS T103						B						
Zone 3 Level 3 Fire/Smoke separations & Means of Escape	Z3 FS T104						B						
Zone 3 Level 4 Fire/Smoke separations & Means of Escape	Z3 FS T105						B						
Zone 3 Level 5 Fire/Smoke separations & Means of Escape	Z3 FS T106						B						
Zone 3 Cross section Fire/Smoke separations	Z3 FS T201						B						
Zone 3 Cross section Fire/Smoke separations	Z3 FS T202						B						
<i>Work Transfer set</i>													
Zone 1 Legend Page	Z1 FS 100							C		D			
Zone 1 Ground Fire/Smoke separations & Means of Escape	Z1 FS 101.1							C		D			
Zone 1 Ground Fire/Smoke separations & Means of Escape	Z1 FS 101.2							C		D			
Zone 1 Level 1 Fire/Smoke separations & Means of Escape	Z1 FS 102.1							C		D			
Zone 1 Level 1 Fire/Smoke separations & Means of Escape	Z1 FS 102.2							C		D			
Zone 1 L2 Cross Section	Z1 FS 201							C		D			
Zone 1 Fire/Smoke Separations Section 1	Z1 FS 202							A		B			
Zone 1 Fire/Smoke Separations Section 2	Z1 FS 203							A		B			
Zone 1 Fire/Smoke Separations Section 3	Z1 FS 204							A		B			
Zone 1 Fire/Smoke Separations Section 4	Z1 FS 205							A		B			
Zone 1 Fire/Smoke Separations Section 5	Z1 FS 206							A		B			
<i>Work Transfer set</i>													

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

17 Dec 2019

Building Division

**Approved For Issue
27/02/2020**

**BUILDING CONSENT NUMBER

2019/1381**

Distribution	Copies Distributed															
Zone 1 Legend Page	Z1 FS T100												A			
Zone 1 Ground Fire/Smoke separations & Means of Escape	Z1 FS T101.1												A			
Zone 1 Ground Fire/Smoke separations & Means of Escape	Z1 FS T101.2												A			
Zone 1 Level 1 Fire/Smoke separations & Means of Escape	Z1 FS T102.1												A			
Zone 1 Level 1 Fire/Smoke separations & Means of Escape	Z1 FS T102.2												A			
Zone 1 L2 Cross Section	Z1 FS T201												A			
Zone 1 Fire/Smoke Separations Section 1	Z1 FS T202												A			
Zone 1 Fire/Smoke Separations Section 2	Z1 FS T203												A			
Zone 1 Fire/Smoke Separations Section 3	Z1 FS T204												A			
Zone 1 Fire/Smoke Separations Section 4	Z1 FS T205												A			
Zone 1 Fire/Smoke Separations Section 5	Z1 FS T206												A			

REASON FOR ISSUE

- A Approval
- I Information

DISTRIBUTION TYPE

- P Post/Courier

- B Building Consent
- P Preliminary

- H Hand Delivered

- C Contract
- R Review

- E Email

- Cn Construction
- T Tender

- D Digital(CD/Portable Drive/Aconex)

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

Building Code Clause(s)...C2-C5, C6 part (Fire Resistance).....

PRODUCER STATEMENT – PS2 – DESIGN REVIEW

(Guidance notes on the use of this form are printed on page 2)

ISSUED BY:MacDonald Barnett Ltd.....
(Design Firm)

TO:HWCP Management Ltd.....
(Owner/Developer)

TO BE SUPPLIED TO:Invercargill City Council.....
(Building Consent Authority)

IN RESPECT OF:HWCP Zone 1 Anchor Tenant and Childcare.....
(Description of Building Work)

AT:
(Address)
...Invercargill LOT...2..... DP ...540342 (RT905470)..... SO

We... MacDonald Barnett Ltd have been engaged by ... HWCP Management Ltd...
(Design Review Firm)
to review the design documents for this project in respect of the requirements of Clause(s) C2-C5, C6 part (Fire resistance)
of the Building Code.
The Review is for All Part only of the design work prepared by ...Holmes Fire LP
(Design Firm)
as described in drawings titled Refer to attached schedule of documents prepared by Holmes Fire LP and numbered
..... the specification, and other documents set out in the
schedule attached to this statement according to which the building is proposed to be constructed.

The Review is in respect of ... Refer to attached schedule of documents prepared by Holmes Fire LP or per attached
schedule.
(aspects of design)

The Review confirms that these aspects of the design are in accordance with:
Compliance Documents issued by the Ministry of Business, Innovation & Employment ...C/VM2or
(verification method / acceptable solution)
Alternative Solution as per attached schedule.....

On behalf of the firm undertaking this review, on the basis of the review undertaken, and subject to:

- (i) site verification of the following design assumptions Structural Review by others
- (ii) all proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and
other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code,
and that b), the persons who have undertaken the review have the necessary competency to do so.

I, ...Michael Dunn..... am: CPEng No. ...141524.....
(Name of Design Professional) Reg Arch No.....

I am a Member of: IPENZ NZIA and hold the following qualifications:ME Fire CPENG.....
The Design Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than
\$200,000*.
The Design Review Firm is a member of ACENZ:

SIGNED BY ...Michael Dunn..... ON BEHALF OF ... MacDonald Barnett Ltd
(Name of Design Review Firm)

Date: ...4-11-19..... (signature).....
Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design
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 \$200,000*.

Invercargill City
Council
Building Consent
Authority
Approved Site Copy

17 Dec 2019

GUIDANCE ON USE OF PRODUCER STATEMENTS

2019/1381

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, Institution of Professional Engineers New Zealand, Association of Consulting Engineers New Zealand in consultation with the Building Officials Institute of New Zealand. The original suit of producer statements has been revised 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 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 3910:2013 or Schedules E1/E2 of NZIA's SCC 2011²

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-CM5 for Engineers³). 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: 2013
- 2 NZIA Standard Conditions of Contract SCC 2011
- 3 Guideline on the Briefing & Engagement for Consulting Engineering Services (ACENZ/IPENZ 2004)
- 4 PN Guidelines on Producer Statements

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



17 Dec 2019

Building Division

**Approved For Issue
27/02/2020**

BUILDING CONSENT NUMBER

2019/1381



4 November 2019

Darin Millar
Holmes Fire LP
Level 2, 254 Montreal Street
Christchurch 8442

MacDonald Barnett Ltd
Professional Fire Engineers

M +64 21 97 6410
E miked@macbar.co.nz

Christchurch Office
Unit 9, 31 Tyne Street
Addington
New Zealand

Ref: 19-201

HWCP Invercargill Zone 1 (Anchor Tenant) – PS2: Review of Fire Report

Dear Darin,

Our PS2 dated 4-11-2019 covers the review of the following fire report and related fire drawings to ascertain compliance with C/VM2 amendment 5.

- Fire Engineering Brief (FEB) 136249FEB01a dated 24 June 2019 prepared by Holmes Fire LP.
- Fire Engineering Strategy (FES) 136249FESF01b dated 25 September 2019 prepared by Holmes Fire LP.
- Fire Engineering Verification (FEV) 136249FEV01b dated 14 October 2019 prepared by Holmes Fire LP.
- Fire Drawings for Zone 1 prepared by Holmes Fire LP for project number 136249 as per the attached document transfer DT 009 dated 14-10-2019.

A co-ordination check to ascertain that the fire engineer has co-ordinated under Practise Note 22 is provided under separate cover and not included under the scope of this PS2.

Clause C1 is for objectives is not applicable to this project.

Clause C2 for prevention of fire occurring C2.2, C2.3 is not assessed under this PS2 . Other service consultants are responsible to action this performance requirement.

Consideration of hazardous substances under F3 of the NZBC are excluded from this review.

In respect to Clause C6 for structural stability we have limited our review to the revision of the fire resistance ratings stated in the fire report.

Feel free to contact me if you have any queries

Yours sincerely,

Mike Dunn
Chartered Fire Engineer MIPENZ
MacDonald Barnett Ltd

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

DOCUMENT TRANSMITTAL - FIRE ENGINEERING

Project Name: HWCP Invercargill Central Project: 136249
From: Darin Millar DT Number: 009
Date: 14 October 2019 Page: 1 of 3

Distribution	Copies Distributed										
BUCHAN					1		1	1	1		
MPM					1		1	1	1		
LEWIS BRADFORD					1		1	1	1		
WT PARTNERSHIP					1		1	1	1		
SELKIRK/COSGROVES					1		1	1	1		
BONISCH CONSULTING GROUP											
ICC	1	1	1	1							
FENZ	1	1	1	1							
MACDONALD BARNETT	1	1	1	1	1	1		1	1	1	

Issue Details											
Reason for Issue	A	A		A	B	B	I	B	B	A	
Distribution Type	E	E		E	D	D	D	D	D	E	
Date of Issue											
Day	17	14	24	18	14	28	12	25	26	14	
Month	05	06	06	07	08	08	09	09	09	10	
Year	19	19	19	19	19	19	19	19	19	19	

Documents	Ref No.	Revision									
Master - Fire Engineering Brief	136249FEB01	A									
Zone 1 - Fire Engineering brief	136249FEB03		A								
Zone 1 - Fire Engineering Strategy	136249FES01						B				
Zone 1 - Fire Engineering Verification	136249FEV01					A			B		
Zone 1 - Fire Engineering Sketches	-										
Zone 2 - Fire Engineering brief	136249FEB04										
Zone 2 - Fire Engineering Strategy	136249FES03										
Zone 2 - Fire Engineering Verification	136249FEV03										
Zone 2 - Fire Engineering Sketches	-										
Zone 3 - Fire Engineering brief	136249FEB02		A								
Zone 3 - Fire Engineering Strategy	136249FES02					C					
Zone 3 - Fire Engineering Verification	136249FEV02				A						
	-										
FENZ Firefighting facilities correspondence	-										
Fire Engineering Sketches											
Zone 0 Fire Alarm System Matrix	Z0 FS 100							A			
Zone 3 Legend Page	Z3 FS 100					B					
Zone 3 Ground Fire/Smoke separations & Means of Escape	Z3 FS 101					C					

17 Dec 2019

Building Division

**Approved For Issue
27/02/2020**

BUILDING CONSENT NUMBER

2019/1381

Distribution		Copies Distributed											
Zone 3 Level 1 Fire/Smoke separations & Means of Escape	Z3 FS 102					C							
Zone 3 Level 2 Fire/Smoke separations & Means of Escape	Z3 FS 103					C							
Zone 3 Level 3 Fire/Smoke separations & Means of Escape	Z3 FS 104					C							
Zone 3 Level 4 Fire/Smoke separations & Means of Escape	Z3 FS 105					C							
Zone 3 Level 5 Fire/Smoke separations & Means of Escape	Z3 FS 106					C							
Zone 3 Cross section Fire/Smoke separations	Z3 FS 201					C							
Zone 3 Cross section Fire/Smoke separations	Z3 FS 202					C							
<i>Work Transfer set</i>													
Zone 3 Legend Page	Z3 FS T100					A							
Zone 3 Ground Fire/Smoke separations & Means of Escape	Z3 FS T101					B							
Zone 3 Level 1 Fire/Smoke separations & Means of Escape	Z3 FS T102					B							
Zone 3 Level 2 Fire/Smoke separations & Means of Escape	Z3 FS T103					B							
Zone 3 Level 3 Fire/Smoke separations & Means of Escape	Z3 FS T104					B							
Zone 3 Level 4 Fire/Smoke separations & Means of Escape	Z3 FS T105					B							
Zone 3 Level 5 Fire/Smoke separations & Means of Escape	Z3 FS T106					B							
Zone 3 Cross section Fire/Smoke separations	Z3 FS T201					B							
Zone 3 Cross section Fire/Smoke separations	Z3 FS T202					B							
<i>Work Transfer set</i>													
Zone 1 Legend Page	Z1 FS 100							C		D			
Zone 1 Ground Fire/Smoke separations & Means of Escape	Z1 FS 101.1							C		D			
Zone 1 Ground Fire/Smoke separations & Means of Escape	Z1 FS 101.2							C		D			
Zone 1 Level 1 Fire/Smoke separations & Means of Escape	Z1 FS 102.1							C		D			
Zone 1 Level 1 Fire/Smoke separations & Means of Escape	Z1 FS 102.2							C		D			
Zone 1 L2 Cross Section	Z1 FS 201							C		D			
Zone 1 Fire/Smoke Separations Section 1	Z1 FS 202							A		B			
Zone 1 Fire/Smoke Separations Section 2	Z1 FS 203							A		B			
Zone 1 Fire/Smoke Separations Section 3	Z1 FS 204							A		B			
Zone 1 Fire/Smoke Separations Section 4	Z1 FS 205							A		B			
Zone 1 Fire/Smoke Separations Section 5	Z1 FS 206							A		B			
<i>Work Transfer set</i>													

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

17 Dec 2019

Building Division

**Approved For Issue
27/02/2020**

**BUILDING CONSENT NUMBER

2019/1381**

Distribution	Copies Distributed															
Zone 1 Legend Page	Z1 FS T100												A			
Zone 1 Ground Fire/Smoke separations & Means of Escape	Z1 FS T101.1												A			
Zone 1 Ground Fire/Smoke separations & Means of Escape	Z1 FS T101.2												A			
Zone 1 Level 1 Fire/Smoke separations & Means of Escape	Z1 FS T102.1												A			
Zone 1 Level 1 Fire/Smoke separations & Means of Escape	Z1 FS T102.2												A			
Zone 1 L2 Cross Section	Z1 FS T201												A			
Zone 1 Fire/Smoke Separations Section 1	Z1 FS T202												A			
Zone 1 Fire/Smoke Separations Section 2	Z1 FS T203												A			
Zone 1 Fire/Smoke Separations Section 3	Z1 FS T204												A			
Zone 1 Fire/Smoke Separations Section 4	Z1 FS T205												A			
Zone 1 Fire/Smoke Separations Section 5	Z1 FS T206												A			

REASON FOR ISSUE

- A Approval
- I Information

DISTRIBUTION TYPE

- P Post/Courier

- B Building Consent
- P Preliminary

- H Hand Delivered

- C Contract
- R Review

- E Email

- Cn Construction
- T Tender

- D Digital(CD/Portable Drive/Aconex)

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

17 Dec 2019

Building Division

**Approved For Issue
27/02/2020**

BUILDING CONSENT NUMBER

2019/1381



14 November 2019

Darin Millar
Principal
Holmes Fire LP
Level 2, 254 Montreal Street
Christchurch

MacDonald Barnett Ltd
Professional Fire Engineers

M +64 21 97 6410
E miked@macbar.co.nz

Christchurch Office
Unit 9, 31 Tyne Street
Addington
New Zealand

Ref: 19-201

HWCP – Zone 1 HWCP Anchor Tenant and Childcare Facility, Invercargill

Dear Darin,

The co-ordination check for the planned construction of the HWCP Anchor Tenant and Childcare Facility (Zone 1) of the HWCP development is based on the Peer reviewed Fire Engineering Design Report Rev 2 and other documents outlined in the document register dated 5 November 2019 appended to the Holmes Fire PS1. These documents have been reviewed as a check merely to ascertain that the fire engineer has undertaken a co-ordination review under the NZBC clauses relating to fire safety as required under IPENZ Practise Note 22. This check does not relieve the other designers of their responsibilities for correctly interpreting the fire design or from ensuring the fire safety requirements in their documents are correct and complete.

- Buchan Group DN.004 dated 25 October 2019 “Fire Safety Design Co-ordination Statement” which includes the attached drawing register dated 24 October 2019.
- Cosgroves “Statement of Co-ordination” dated 22 October 2019. Drawings covered include Cosgroves drawings M-0001 - M1401 and H-0001-H1401 with revision numbers as per the document transfer dated 23 October 2019. Fire Services smoke extract and Control Systems Diagram CS18007-1 F-0001. Specification Documentation Mechanical and Hydraulic Services Rev C.
- Cosgroves “Fire Design Co-ordination Statement for Electrical Services” dated 28 October 2019. Emergency lighting drawings as per document transfer dated 24 October 2019. Electrical Services Specification Issue D. Our review is limited to check that the emergency lighting coverage and Exit signage has been co-ordinated with the Holmes Fire report.
- Lewis Bradford “Fire Design Coordination Statement” dated 25 October 2019. Structural drawings as per the Lewis and Bradford Document transfer dated 25 October 2019. Our review is limited to ascertain that primary steelwork will be treated to provide a 30/60/120 minute rating as well as limiting temperature being provided.
- HWCP NZBC Consent strategy dated 13 September 2019 prepared by Holmes Fire LP. This covers what works needs to be completed in Zones 1 and 2 before the car park building (Zone 3) can be occupied.
- Holmes Fire LP DVR ----- Generic Treatment of Penetrations
- Holmes Fire “Design Solutions for Passive Fire rated Systems for Services” version B and dated 22 October 2019.
- Holmes Fire “Compliance Design Features Report” version B and dated 24 October 2019.

The fire report for this project (Zone 1) was carried out under the C/VM2 process. The co-ordination review check was conducted to verify compliance with the minimum requirements of the Building Code which does not require property protection of the project building to be addressed.

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

**Approved For Issue
27/02/2020**

BUILDING CONSENT NUMBER

2019/1381

17 Dec 2019

Building Division

MacDonald Barnett Ltd consider that the fire design is in line with the FEB agreed to by all the stakeholders. We believe that under our cursory check that the fire engineer has co-ordinated with the design team to the extent required under IPENZ Practise Note 22.

The structural design is being reviewed by others. Our review only determined that the structural documentation includes fire treatment for primary steelwork and the steel limiting temperatures as nominated by the structural engineer.

A copy of the peer reviewer recommended conditions and advice notes relating to fire safety is attached.

Feel free to contact me if you have any queries

Yours sincerely,



Mike Dunn
Director

Miked@macbar.co.nz

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

Approved For Issue
27/02/2020

HWCP Zone 3 FEB Fire Peer Review Queries Response

BUILDING CONSENT NUMBER
2019/1381

HolmesFire Q&A LOG

Project:	HWCP Invercargill CBD Development	Design Stage:	FEB Peer Review
Document:	Zone 1 (Anchor) Fire Engineering Brief	Rev A dated 24 June 2019	
Company:		Reviewer (s):	MacDonald Barnett / Michael Dunn

No.	Item	Review Comments	Date: 26/06/2019	Response Comments	Date: 04/07/2019
1)	BOH Areas Anchor tenant	<ul style="list-style-type: none"> The fire design is based on a Class A sprinkler water supply and on this basis there is no requirement for HS fire spread to neighbouring property to be considered. Under C/VM2 this imposes a storage height limit of 3 metres. How is storage to be managed in the BOH areas of the anchor tenant, or is a fire separation between BOH and retail areas to be provided? 		<p>The design for the BOH areas is still under discussion with the proposed tenant. If the storage height exceeds the 3 m limit, fire separation will be provided between the BOH and retail areas. Any such firewall will be 60 min rated.</p> <p>Date 1-8-2019 MacDonald Barnett Peer review FEB query closed out</p>	
2)	Fire Resistance	<ul style="list-style-type: none"> Confirm that Clause 2.5 will be addressed in respect to evaluating fire resistance of the enclosed egress stairs and fire separation between the childcare centre and the remainder of the development. 		<p>The fire resistance rating for the anchor stairwells will be assessed either by using burnout calculation or 3 times the RSET as per Clause 2.5.</p> <p>Date 1-8-2019 MacDonald Barnett Peer review FEB query closed out</p>	

Invercargill City Council
Building Consent Authority
Approved Site Copy

17 Dec 2019

Building Division

Approved For Issue
27/02/2020

HWCP Zone 3 FEB Fire Peer Review Queries Response

BUILDING CONSENT NUMBER
2019/1381

HolmesFire Q&A LOG

No.	Item	Review Comments	Date: 26/06/2019	Response Comments	Date: 04/07/2019
3)	Challenging Fire 3	<ul style="list-style-type: none"> We consider that the zone model with fire modelled in the kitchen should have the adjacent area being modelled as an equivalent area of the adjoining corridor / linkway and not half the entire floor area. Given the building is sprinkler protected it is reasonable to assume that the partitions will remain in place. Under C/VM2 we believe it is reasonable to model adjacent room /s with the doors open as per C/VM2 2.2.1e. 		<p>Noted. The zone model for the childcare will include the kitchen (room of fire origin), central corridor and potentially one more room with tenability measured in the central corridor. Doors connecting these rooms will be modelled as open.</p> <p>We do not fundamentally agree this is necessary under C/VM2 as they will be unrated barriers and therefore no criteria apply to their performance. We are modelling as requested simply to enable us to progress.</p> <p>Date 1-8-2019 MacDonald Barnett Peer review FEB query closed out</p>	

Invercargill City Council
Building Consent Authority
Approved Site Copy

17 Dec 2019

Building Division

**Approved For Issue
27/02/2020**

HWCP Zone 3 FEB Fire Peer Review Queries Response

**BUILDING CONSENT NUMBER
2019/1381**

HolmesFire Q&A LOG

END OF REVIEW COMMENTS

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

17 Dec 2019
26th September 2019

Building Division

Approved For Issue
27/02/2020

BUILDING CONSENT NUMBER

2019/1381



Darin Millar
Principal
Holmes Fire LP
Level 2, 254 Montreal Street
Christchurch

MacDonald Barnett Limited
Professional Fire Engineers

Project No. 19-201

Dear Darin,

Re: Fire Peer Review of FEB Zone 3 (Carpark) – HWCP Invercargill CBD Development,

Thank you for forwarding the Carpark (Zone 3) fire engineering report and verification documentation in respect to the new proposed HWCP development project. The documents reviewed to date consists of the following;

- Zone 1 – D.S. Anchor and Childcare Centre HWCP Invercargill CBD Development – HWCP Management Ltd” Fire Engineering Verification Vesrion A dated 28 August 2019.

The Zone 1 anchor tenant and childcare centre Fire Engineering strategy and verification documentation has been prepared under the C/VM2 process (Amendment 5). This is to be a large commercial development carried out in 3 separate stages. The Stages consist firstly of the construction of a five level car park building on top of a mall complex (Stage 3) that was reviewed previously. To the East will be the building developed for an anchor tenant and on level 2 a childcare centre will be constructed. The final stage 2 consists of the mall areas. This peer review covers Stage 1, which includes a non-base case that includes merging flow from the other future stages including the previously reviewed Stage 3 car park building.

Project Description

This is to be a large development consisting of a multi-level carpark building on top of a ground floor mall. The mall will have mezzanine floors located on the Northern and Western elevations. The building for the anchor tenant (Zone 1) which this review covers is located to the East. The anchor tenant will consist of two levels within Level 1 open to the ground floor via a central escalator void. On the Northern elevation a childcare centre is to be constructed on level 2.

The primary structure of the anchor tenant and childcare centre which is adjacent to the Stage 3 car park building is to be concrete floors supported by concrete columns and concrete beam primary structure. The anchor tenant and childcare centre will be fully sprinkler protected as will the remainder of the development. A Class A sprinkler water supply is being provided.

The location of the challenging fires are CF1 (atrium of the anchor tenant), CF2 (ground floor of the anchor tenant) and CF3 (kitchen of the childcare centre). The robustness check has been undertaken with the anchor tenant smoke extract system failed. The infrastructure such as central sprinkler water supply and fire alarm system will be constructed in the

Invercargill City

Council

Building Consent

Authority

Approved Site Copy

MacDonald Barnett Limited
Christchurch Office

Unit 9, 31-33 Tyne Street, Addington, Christchurch

17 Dec 2019

subsequent final Stage 2, but it is intended that before the anchor tenant and the Zone 3 car building is occupied, the Safe Path Exitways, sprinkler and fire alarm systems will be fully commissioned.

Zone 3 Carpark FES Queries

We have reviewed the provided FDS modelling input and output files and previously raised one query that was previously covered off via an emailed reply from Holmes Fire.

We have also reviewed the verification document and have the following queries;

No.	Item	Comment
1	Anchor Tenant Occupancy	<ul style="list-style-type: none">Note only. 3.33 m²/person proposed in G and L1 anchor tenant retail areas. On the basis this is more conservative than the C/VM2 tabulated 3.5 m²/person we consider this is reasonable without further substantiation.
2	BE Scenario	<ul style="list-style-type: none">Include assesment for G and L1 areas where there are more than 250 occupants and how the design complies.
3	Section 4.1	<ul style="list-style-type: none">HS scenario. The development including Stage 1 has a Class A sprinkler water supply. In respect to the BOH area if the storage height is to be greater than 3 metres horizontal fire spread to neighbouring property needs to assessed. Please review if BOH storage to exceed 3.0 metres.
4	RSET analysis	<ul style="list-style-type: none">Based on table 10 Page 19 it appears that RSET calculated for L1 anchor does not equal the td plus clearance time. For CF1 our hand check indicates 282 seconds 241 + 41 s = 282 s when 235 s is tabulated. This also applies to L1 anchor calc for CF2, CF3 and CF4. Please review.Item above also impact on Table 4 in section 4.3 RSET for "base" case, also potentially Table 17 C1.2, and Table 20, 22 plus potentially others. Please review.
5	Zone 1 Fire Strategy and finalised fire drawings	<ul style="list-style-type: none">Submit these for review once finalised. A meeting was carried out today with Holmes Fire and MacDonald Barnett to discuss contents. It is intened that some of the Zone 1 works will be carried out under a separate fitout consent and site infrastructure works.

Feel free to contact me if you have any queries.

Yours sincerely



Invercargill City
Michael Dunn
Council
Building Consent
Authority
Approved Site Copy

17 Dec 2019

Director

Building Division

MacDonald Barnett Ltd

Email: miked@macbar.co.nz

**Approved For Issue
27/02/2020**

BUILDING CONSENT NUMBER

2019/1381

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**

17 Dec 2019
Darin Millar

Building Division

From: Mike Dunn <MikeD@macbar.co.nz>
Sent: Wednesday, 9 October 2019 5:01 PM
To: Darin Millar
Cc: Amy Chao
Subject: RE: HWCP - Fire Engineering Strategy

Hi Darin,

Thank you for resending through the finalised fire reporting documentation.

Documentation provided closes out our peer review in respect to FEV, FES and associated drawings.

Once the co-ordination is complete can you send through the co-ordinated documentation in respect to mechanical, electrical (emergency lighting), structural (our review limited to ascertaining that steel members needing intumescent coating and limiting temperatures are documented) architectural.

Regards

Mike Dunn
MacDonald Barnett Ltd

From: Darin Millar <Darin.Millar@holmesfire.com>
Sent: Wednesday, 9 October 2019 2:26 PM
To: Mike Dunn <MikeD@macbar.co.nz>
Subject: FW: HWCP - Fire Engineering Strategy

DARIN MILLAR
Principal
Holmes Fire LP



Level 2, 254 Montreal Street | Christchurch
PO Box 6718 | Upper Riccarton | Christchurch 8442
New Zealand
T: +64 3 365 8855 | D: +64 3 345 9160 | M: +64 21365882
holmesfire.com



From: Darin Millar
Sent: Wednesday, 25 September 2019 11:51 a.m.
To: 'Mike Dunn' <MikeD@macbar.co.nz>
Cc: Amy Chao <amy.chao@holmesfire.com>
Subject: RE: HWCP - Fire Engineering Strategy

Invercargill City
Council
Building Consent
Authority
Approved Site Copy

17 Dec 2019 attached for your review/acceptance.

**Approved For Issue
27/02/2020**

**BUILDING CONSENT NUMBER
2019/1381**

Building Division

We will be updating the drawings to reflect the following:

- Clean backgrounds – no Architectural title blocks.
- Adding manual call points
- Adding some more escape route arrows for clarity
- Adding notes about work that is getting transferred
- Adding external marking to “keep clear”

If you wanted to hold off that’s fine, the drawings should be ready tomorrow morning.

DARIN MILLAR

Principal

Holmes Fire LP



Level 2, 254 Montreal Street | Christchurch
PO Box 6718 | Upper Riccarton | Christchurch 8442
New Zealand
T: +64 3 365 8855 | D: +64 3 345 9160 | M: +64 21365882
holmesfire.com



DISCLAIMER | This message and accompanying data may contain information that is confidential and subject to legal privilege. If you are not the intended recipient you are notified that any use, dissemination, distribution or copying of this message or data is prohibited. If you have received this email message in error, please notify us immediately and erase all copies of the message and attachments. The Company takes no responsibility for any unauthorized attachments, or unintentionally transmitted material (including viruses) sent by this email.

**Invercargill City
Council
Building Consent
Authority
Approved Site Copy**