

Determination 2025/002

An authority's proposed refusal to grant a building consent for two multi-unit buildings in relation to the application of C/AS1 Part 5

172 Blenheim Road, Riccarton, Christchurch

Summary

This determination considers an authority's proposed refusal to grant a building consent for two multi-unit buildings. The determination considers the application of Acceptable Solution C/AS1 paragraph 5.1.1 for the proposed external wall design in relation to control of external fire spread.



Figure 1: Rendering of the proposed buildings (facing north-west)

In this determination, unless otherwise stated, references to “sections” are to sections of the Building Act 2004 (“the Act”) and references to “clauses” are to clauses in Schedule 1 (“the Building Code”) of the Building Regulations 1992.

The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents (eg, Acceptable Solutions) and guidance issued by the Ministry, is available at www.building.govt.nz.

1. The matter to be determined

- 1.1. This is a determination made under due authorisation by me, Andrew Eames, Principal Advisor Determinations, for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment (“the Ministry”).¹
- 1.2. The parties to the determination are:
 - 1.2.1. Ideal Investments Ltd, the owner of the property and the applicant for this determination (“the owner”)
 - 1.2.2. Christchurch City Council, carrying out its duties as a territorial or building consent authority (“the authority”).
- 1.3. I have also consulted with Fire and Emergency New Zealand (FENZ) in making this determination, as required under section 170(a) of the Act.
- 1.4. The determination arises from the authority’s proposed decision to refuse to grant a building consent due to its interpretation of the application of paragraph 5.1.1 of Acceptable Solution C/AS1 (‘C/AS1’)² in relation to the external walls of 2 multi-unit buildings.
- 1.5. Therefore, the matter to be determined, under section 177(1)(b) and (2)(a) of the Act, is the authority’s proposed decision to refuse to grant building consent BCN/2022/7604 for two multi-unit building.
- 1.6. In deciding this matter, I must consider the application of paragraph 5.1.1, including sub-paragraphs 5.1.1(a) and 5.1.1(b) of C/AS1 in relation to the proposed design for the external walls of the buildings for compliance with Building Code clause C3.6.

Issues outside this determination

- 1.7. In deciding this matter, I have not considered:
 - 1.7.1. Building Code compliance outside of that specifically noted in paragraph 1.6.

¹ The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

² Acceptable Solution C/AS1 amendment 5, effective from 5 November 2020.

- 1.7.2. the construction or make-up of the fire rating, and whether it should provide one- or two-way protection.

2. The building work

- 2.1. The proposed building work is two new multi-unit buildings which together will contain seven household units. The buildings are separated from one another by more than 10m with a driveway and parking area between them.
- 2.2. The building in the southern area of the property will contain three household units: one two-storey unit on the west end (unit 2) and two single storey units (one up, one down) on the east end (units 1a and 1b).
- 2.3. The building in the northern area of the property will contain four household units: two two-storey units at either end of the building (units 3 and 5), and two single-storey units (one up, one down) in the middle (units 4a and 4b) (figure 2).
- 2.4. Regarding the buildings' external walls, units 1a, 1b, 4a and 4b are within 5.0m of relevant boundaries³ to the neighbouring properties beyond the development site, while units 2, 3, 5 are further than 1.0m from these relevant boundaries. Plans submitted with the consent application show two-way fire separation between the units is proposed to create separate fire cells.
- 2.5. The proposed design for the buildings utilised C/AS1.

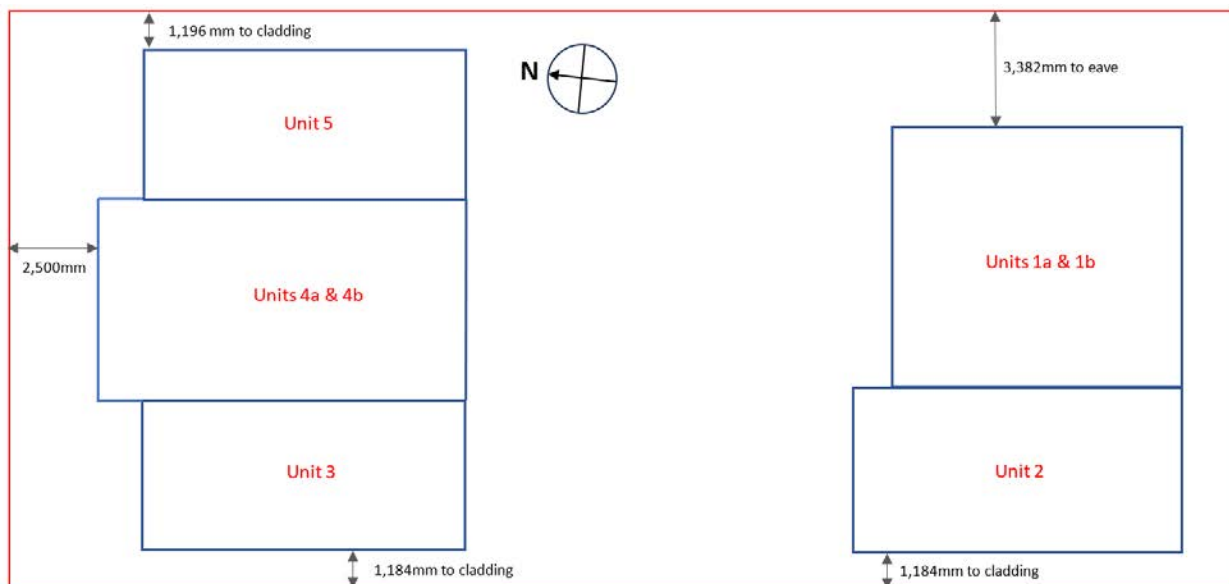


Figure 2: Site plan, including distances to the relevant boundaries (not to scale)

³ The term 'relevant boundary' is discussed in paragraph 5.7.

3. Background

- 3.1. The owner submitted an application for building consent BCN/2022/7604 to undertake the proposed building work and on 25 May 2024 the authority issued a request for further information which related to the interpretation of paragraph 5.1.1 of C/AS1. The request for information ('RFI') stated:

[The authority] interprets that clause 5.1.1 of C/AS1 applies to the whole building and not just individual household firecells. Please revisit the design to provide the necessary 30 minutes fire resistance rating where the external walls of these buildings (x2) are less [than] 5.0m from the relevant boundary.

- 3.2. The parties corresponded about the matter via email and at a meeting on 20 June 2024.
- 3.3. On 12 July 2024, the owner's fire engineer issued revision D of a fire report to "address the minimum fire safety requirements of the Building Code for this project". I do not know if this report was provided to the authority. The report stated (in summary):
- 3.3.1. That the fire safety assessment was based on C/AS1, with the assessment of external fire spread based on the requirements of Part 5 *Control of External Fire Spread*.
- 3.3.2. That "the external walls where multi-unit dwellings [are] located one above the other and is [sic] less than 5m from the relevant boundary structures shall achieve FRR... The windows are permitted to be non-fire rated".
- 3.4. As an addendum to the report, plans were provided confirming the location of the required fire rating, based on the findings of the report. These show FRR on the external walls of units 1a, 1b, 4a and 4b and no FRR on units 2, 3 and 5 in relation to the relevant boundaries.
- 3.5. In an email to the owner dated 15 July 2024, the authority confirmed its proposed refusal of the building consent and revised the wording for the RFI as follows:

Both proposed buildings appear to contain units stacked one above the other. As such, C/AS1 5.1.1(b) shall be applied to the buildings. Since the buildings are shown to be less than 5.0 meters [sic] from the relevant boundaries and not all external walls within 5.0 meters of the boundaries are fire-rated, the proposal does not comply with C/AS1 5.1.1(b). Please revise the design to show compliance with C/AS1 5.1.1(b) or justify compliance with the [Building Code] following an appropriate methodology.

4. Submissions

The owner

- 4.1. The owner's view is that the design of the proposed building work meets the requirements of C/AS1 paragraph 5.1.1, using both 5.1.1(a) and 5.1.1(b) for the buildings. Their submission (in summary) is:
 - 4.1.1. "The proposed work will fire rate all external walls in accordance with Part 5 of C/AS1 and therefore is deemed to comply with C3 of the Building Code".
 - 4.1.2. Part 5 of C/AS1 is to prevent the spread of fire to other properties "from the source", in some cases by fire rating portions of external walls. "The source is clearly the household unit or fire cell that the fire rated external wall is part of".
 - 4.1.3. "Units 2, 3 and 5 meet the first criteria of [paragraph] 5.1.1(a) because they are attached "side by side multi-unit dwellings"." The external walls on these units are more than 1.0m from the relevant boundary and so they do not need to be fire rated as per clause 5.1.1(a).
 - 4.1.4. Units 2, 3 and 5 do not meet the criteria in paragraph 5.1.1(b) because they are not configured one above the other and therefore do not need to be fire rated as per 5.1.1(b).
 - 4.1.5. "[Paragraph] 5.1.1(b) only requires the multi-unit dwellings located one above the other to be fire rated per that [paragraph]" and that they interpret "that the words of [paragraph] 5.1.1(b), '*multi-unit dwellings located one above the other*' [my emphasis], can refer to a part or 'subset' of a multi-unit dwelling". When this is then applied to the proposed building work, it "means that units 2, 3 and 5... cannot belong to that subset".
 - 4.1.6. Units 1a, 1b, 4a and 4b are adequately protected for the control of external fire spread in accordance with clause 5.1.1(b) because the building work proposes fire rating the eastern external wall of units 1a and 1b, and the northern external wall of units 4a and 4b.
- 4.2. In addition to the fire report, the owner has also provided additional comments from their fire engineer to support their submission.
 - 4.2.1. "C/AS1 paragraph 5.1.1(b) does not explicitly mention that this requirement refers to the entire building, but it does mention it relates to multi-unit dwellings 'located one above the other' [(not side by side)]".

- 4.2.2. In considering the proposed building work, the proposed north building is configured as three side by side units, with the central section configured as two single-level units 'one above the other'. The central townhouses, being units 4a and 4b, is fully fire separated from the ground to roofline from the adjacent side by side units (3 and 5), hence the performance requirement under C/AS1 paragraph 5.1.1(b) is considered met in a similar way to normal side by side townhouses.
- 4.2.3. "If the fire requirements of 5.1.1(b) are applied to the external walls of the side by side two-level units located within 5m of the boundaries, they could be 100% unprotected by having large opening windows. In that case, the background reason for having the walls being fire rated appear to be unjustified if it relation to horizontal fire spread to boundaries".
- 4.2.4. Configuring units one above another creates "a better situation in terms of external fire spread as the fire cell height is reduced in half (comparing to normal two-level single household unit)".

The authority

- 4.3. The authority has not provided a submission, but in correspondence with the owner in June 2024 stated that it does not accept that C/AS1 paragraph 5.1.1(a) and paragraph 5.1.1(b) can be applied to different parts of the same building as "C/AS1 5.1.1 does not include wording referring to how different uses or parts of the building could have different requirements".

Fire and Emergency NZ

- 4.4. As per section 170(a) of the Act, I have consulted with FENZ. In response to this consultation, it has confirmed it "support[s] the interpretation adopted by [the authority]".

5. Discussion

- 5.1. The matter for determination is the authority's proposed refusal to grant a building consent for the proposed building work, stemming from a differing interpretation of paragraph 5.1.1 of C/AS1.

Establishing Building Code Compliance

- 5.2. Section 49 states:

49 Grant of building consent

A building consent authority must grant a building consent if 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 that accompanied the application.

- 5.3. Section 17 requires that all building work must comply with the Building Code, and the Code sets out the performance criteria for the assessment of building work. The performance criteria are the qualitative and quantitative requirements that are to be satisfied in performing the functional requirements of a Building Code clause. If the performance criteria are not satisfied, the building work will be non-compliant with that Building Code clause.
- 5.4. Section 19 sets out how compliance with the Building Code is established. It gives various methods that can be used for establishing compliance, such as Acceptable Solutions, Verification Methods. These means of compliance must be accepted by the building consent authority if they are being used as the compliance pathway. C/AS1 is therefore 'deemed to comply' with the performance criteria of the relevant Building Code clauses, and specifically in this case, Clause C3.6.
- 5.5. In this instance, paragraph 5.1.1 of C/AS1 relates to performance criteria C3.6:

C3.6 Buildings must be designed and constructed so that in the event of fire in the building the received radiation at the relevant boundary of the property does not exceed 30 kW/m² and at a distance of 1 m beyond the relevant boundary of the property does not exceed 16 kW/m².

- 5.6. The relevant functional requirements in clause C3 that relate to fire affecting areas beyond a fire source's state:

C3.1 Buildings must be designed and constructed so that there is a low probability of injury or illness to persons not in close proximity to a fire source.

...

- C3.3 Buildings must be designed and constructed so that there is a low probability of fire spread to other property vertically or horizontally across a relevant boundary.

5.7. Clause A2 defines 'relevant boundary' as

... the boundary of an allotment that is the other property in relation to the building in question and from which is measured the separation between the building and that other property, and for the external wall of any building, the relevant boundary is the nearest of –

- (a) a boundary of a freehold allotment ...
- (b) a boundary of a cross-lease or a company lease or licence ...
- (c) a boundary shown on a unit plan (but excluding a boundary between a principal unit and its accessory unit) ...

5.8. Protection of other property from external horizontal fire spread can be provided in a number of ways in order to comply with the Building Code by way of C/AS1.

5.9. The applicable paragraph of C/AS1 provides:

5.1 Fire resistance ratings

5.1.1 Where the building is protected with a sprinkler system, external walls do not need an FRR.

Where the building is not protected with a sprinkler system, external walls shall have an FRR of no less than 30/30/30 in the following circumstances:

- a) Outbuildings, single household units and attached side by side multi-unit dwellings where part of the external wall is less than 1.0 m and less than 90° from the relevant boundary. See Figure 5.1. The wall shall be fire rated to protect from both directions, and
- b) Multi-unit dwellings located one above the other where the external wall is less than 5.0 m from the relevant boundary. If there are windows more than 1.0 m from the relevant boundary in a household unit wall requiring a FRR, the windows do not need to be fire rated.

5.10. In this case, the relevant boundaries are the western, northern, and eastern boundaries of the overall development site, and it is not proposed for the buildings to be protected by a sprinkler system.

5.11. The proposed building work takes a combination approach for compliance:

- *Distance* for the two-storey units which are further than 1m from the relevant boundary.
- *FRR* for the stacked single-level units where they are within 5m of the relevant boundary.

5.12. From clause A2, 'external wall' is defined as:

any exterior face of a building within 30° of vertical, consisting of primary and /or secondary elements intended to provide protection against the outdoor environment, but which may also contain unprotected areas

5.13. Paragraph 5.1.1 of C/AS1 states "where a **building** is not protected by a sprinkler system, **external walls** shall have an FRR... in the following circumstances". [emphasis added]

5.14. The description of the "following circumstances" includes the term *multi-unit dwellings*, albeit whether they are units attached side by side, stacked one above another, or a combination of both configurations. Clause A2 does not provide a definition of *multi-unit dwellings*, but it is defined in the acceptable solution as:

Multi-unit dwelling Applies to a building or use which contains more than one separate household or family.

5.15. This then links with the definition in clause A2 of *household unit*, being that a *multi-unit dwelling* is made up of two or more *household units*:

Household unit means any building or group of buildings, or part of any building or group of buildings, used or intended to be used solely or principally for residential purposes and occupied or intended to be occupied exclusively as the home or residence of not more than one household; but does not include a hostel or boarding house or other specialised accommodation.

5.16. I consider the provisions described in 5.1.1(a) and (b) require an *external wall* to be fire rated depending on the location of the relevant *household unit*, be it next to or above another, and this in turn contributes to compliance of the overall building. It is likely that a configuration of both side by side and one above another will occur in the same building, so one elevation could be made up of multiple *external walls* depending on the configuration of units. Different elevations can then be assessed.

5.17. The use of the word 'and' between the sub-paragraphs of 5.1.1 is also supportive of this approach. The 'and' implies that the sub-paragraphs are to be taken and used jointly, with either sub-paragraph (a) or (b) being used depending on the configuration or layout of the household units. If this were not the case, it would be expected that the inclusion of a stipulation that the more onerous requirement, being (b), should be used.

- 5.18. Based on the above, I consider the provisions under both 5.1.1(a) and (b) can apply to one *building*, with an assessment made on each *household unit* within a *multi-unit dwelling*.
- 5.19. Units 2, 3 and 5 are proposed two-storey units which are side by side with other units. The proposed plans show these as being more than 1.0m from the relevant boundary. I consider this meets the requirements of C/AS1 paragraph 5.1.1(a).
- 5.20. Units 1a and 1b, and 4a and 4b are proposed single storey, single household units one above another. The plans show these as being within 5.0m of the relevant boundary to the neighbouring property and proposed to have FRR external walls. I consider this meets the requirement of C/AS1 paragraph 5.1.1(b).

6. Decision

- 6.1. In accordance with section 188 of the Building Act 2004, I reverse the authority's proposed decision to refuse building consent BCN/2022/7604 based on the interpretation of paragraph 5.1.1 of Acceptable Solution C/AS1.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 27 January 2025.

Andrew Eames

Principal Advisor Determinations