



## **Determination 2015/022**

# **Regarding the authority's refusal to grant a modification of Clause 3.4(a) of the Building Code in respect of materials used for internal surface linings at a function centre at 75-79 Parker Avenue, New Lynn, Auckland**

### **1. The matter to be determined**

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004<sup>1</sup> ("the Act") made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment ("the Ministry"), for and on behalf of the Chief Executive of the Ministry.

1.2 The parties to the determination are:

- the Licensed Building Practitioner concerned with the relevant building work ("the LBP"), P Brinsden, acting through an agent ("the applicant")
- Auckland Council ("the authority"), carrying out its duties as a territorial authority or building consent authority

1.3 I have forwarded the determination to the New Zealand Fire Service ("the NZFS") by way of consultation under section 170 of the Act.

1.4 This determination arises from the decision of the authority to refuse to grant a modification of Clause C3.4(a) of the Building Code (First Schedule, Building Regulations 1992) for the construction of a new function centre.

1.5 The matter to be determined<sup>2</sup> is therefore the authority's exercise of its powers of decision in refusing to grant a modification of Clause 3.4(a) of the Building Code.

1.6 In making my decision, I have considered the submissions of the parties and the other evidence in this matter. I note that the recently issued Determination 2015/010<sup>3</sup> covers a similar matter to this determination.

1.7 Unless otherwise stated all references to sections are to sections of the Act and all references to clauses relate to clauses of the Building Code.

### **2. The building work**

2.1 The building work consists of the construction of a new function centre ("the function centre"). At the time of writing this determination the applicant has advised the building work has been completed and a 'final inspection carried out and passed even though the surface coating is material group 3'. However a code compliance

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<sup>1</sup> The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at [www.dbh.govt.nz](http://www.dbh.govt.nz) or by contacting the Ministry on 0800 242 243.

<sup>2</sup> Under sections 177(1)(b) and 177(3)(a).

<sup>3</sup> Determination 2015/010 Regarding the authority's refusal to grant a modification of Clause C3.4(a) of the Building Code in respect of materials used for internal surface linings at a new school hall (*Ministry of Business Innovation and Employment*) 31 March 2015.

certificate has not been issued. The applicant proposes to amend the building consent based on the outcome of this determination.

2.2 The function centre has the following rooms:

- a large community education room (“the main function room”)
- a small office, kitchen and storage room
- an information office and combined meeting room
- male and female toilets, an accessible toilet, changing room, mudroom and lobby area.

2.3 The function centre has a maximum occupancy of 80. The resource consent limits the numbers of occupants to 50 for a wedding and 30 for booked groups.

2.4 The main function room has two double French doors less than 8m apart and one double French door more than 8m apart from other doors. The doors are 810mm doors and fully comply with C/AS4. The meeting room has ‘two one exit doors’ 810mm. The maximum travel distance is less than 50m. A 40mm layer of pine is incorporated into the wall system.

2.5 The applicant has stated the ‘wall system is to be of 40mm wood and the sarked ceiling panel provides 35mm.’

2.6 It is assumed the modification application is for ceilings and walls. In a building not protected with an automatic fire sprinkler system the Material Group numbers are identical.

### 3. Background

3.1 The applicant’s fire engineer provided a fire report (“the fire report”) dated 26 March 2014. In summary:

- The new building is to be used for administration and meetings and is expected to fully comply with C/AS4<sup>4</sup>.
- The total occupancy is calculated to be 80 people according to Table 1.2 of C/AS4
- For a building designed for less than 100 people and with an escape height of less than 4m a Type 2 alarm system is required and a Type 18 building fire hydrant system.
- There is a single means of escape from the “info office and meeting room” as there will be less than 50 people in this area with a travel distance less than the allowed 40m. The community education room has two means of escape, more than 8m apart.
- In relation to width, the door from the info room is 810mm and the doors from the community education room are double 810mm doors with one leaf secured and one opened by the operation of a handle. This is in compliance with paragraph 3.3.2 of C/AS4.
- The means of escape are 20m for open path length and 50m for dead end open path length which are compliant with Table 3.2 of C/AS4.

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<sup>4</sup> The current Acceptable Solution C/AS4 at the time of writing this determination

- The surface finish requirements for the interior surfaces are to meet the following requirements; for ceiling group 2S and for walls in all area's group 2S.
- 3.2 At some stage in 2014 the applicant wrote to the authority stating the following, in summary:
- The policy intent for the current C Clauses was not to increase the performance requirements but to make compliance easier to demonstrate.
  - If a system complied with the previous provisions of the C clauses, it followed that the system complied with the current provisions of the C Clauses.
  - The fire report is an 'inappropriate compliance pathway' as the interior of the wall system cannot be considered an internal lining and there is no coating available that would result in the wall system achieving a material group rating of 2S.
  - In relation to an 'alternative compliance pathway' using the performance criteria in the former C clauses the applicant notes:
    - There are multiple escape routes, particularly in the room where the potential number of occupants is greatest
    - Using the tables in C/AS4 the occupancy level is 68 (the fire report is incorrect)
    - The construction materials cannot be considered a fire hazard; wood is more likely to char than combust in the time taken for the occupants to escape
    - Type 2 fire alarm has been specified
  - The applicant concludes the interior face of the wall system will comply with C3.4(a) when coated.
- 3.3 On 29 August 2014 the applicant emailed the authority, stating the fire report included in the original consent application made a recommendation for the finishes required for interior walls, however the applicant 'does not believe the [walls] require any specialised fire proofing products as per the [fire report].
- 3.4 On 2 September 2014 an officer of the authority emailed the applicant, stating that the use of old Acceptable Solutions as an alternative means of compliance is not possible as they are superseded. The proposed new building must comply with the relevant Acceptable Solution or an alternative fire design with relevant documentation provided.
- 3.5 On 17 November 2014 the applicant applied for a modification of Clause C3.4(a) of the Building Code. The covering application letter stated, in summary:
- Clause C3.4(a) requires that materials used as internal surface linings in the function centre achieve a material group rating of 2S. The applicant seeks a modification so that a material group 3 will achieve compliance with C3.4(a).
  - The main function room has two double French doors less than 8m apart and one double French door more than 8m apart from other doors. The doors are 810mm doors and fully comply with C/AS4.
  - The meeting room has 'two one exit doors' 810mm. The maximum travel distance is less than 50m. A 40mm layer of pine is incorporated into the wall system.

- The maximum total occupancy is 80; the resource consent limits the number of occupants to 50 for a wedding and 30 for booked groups.
- In concluding that the proposed modification will not compromise compliance with C1, the applicant notes the previous C clauses are largely the same, however the new C Clause is prescriptive whereas the old C Clause is more performance based. An analysis of the old and new C Clauses is included in the modification application letter.
- The applicant notes a ‘paradox’ between Clause C3.4(a) and the relevant Acceptable Solutions and Verification Method.

3.6 On 28 November 2014 the authority wrote to the applicant stating that the modification request had been refused. The authority did not provide reasons for the refusal, however, advised a determination could be sought.

3.7 The Ministry received an application for determination on 3 December 2014.

## 4. The submissions

4.1 The applicant provided a written submission with their application for determination, dated 28 November 2014. In summary:

- The applicant is seeking a modification of C3.4(a) that the materials used in the internal surface linings achieve a material group number of 3. Without the modification the materials used as internal surface linings need to achieve a material group number of 2S.
- The applicant detailed why there is currently no product available in New Zealand that when applied to wooden substrates will achieve a material group rating of 2S or lower.
- The applicant detailed the regulatory context of C3.4(a), referencing sections 17 and 19 of the Act.
- According to table 1.1 of C/VM2, Clause 3.4(a) relates to Building Code objective C1(b), the applicant assumes this is an error and the performance clause relates to C1(a).
- The applicant provided a criteria for establishing ‘the impact when a higher material group number is achieved’ and assessed the following factors:
  - fire hazard
  - number of exit ways
  - maximum travel distance
  - number of occupants
  - presence of active fire safety systems
  - means of compliance with other clauses contributing to C1(a)
  - other considerations (such as fire rated walls and other mitigating features)
- Specific to the function centre, the following features were noted:
  - The maximum occupancy is 80 with a Type 2 manual alarm system

- In relation to fire exits, C/AS4 requires two directions of escape be provided. Two directions are provided and in one direction there are double doors providing egress. The three exit ways from the education room complies with the wharenui exemption (60mm/person in the horizontal direction).
- The applicant notes there is a single means of escape from the office and meeting room, however the use of this area falls into WL category and therefore the surface lining is only required to meet material group 3.
- The wall system has a 40mm wood substrate and the ceiling panel 35mm compared to 9mm ply as specified in the fire testing methodology.
- The total open path length is 24m. This meets the wharenui exemption.

4.2 The applicant provided the following documentation with their application:

- A refusal letter from the authority regarding the modification application dated 28 November 2014.
- The modification application and associated documents dated 17 November 2014.
- Building plans for the function centre.
- A fire report from the applicant's fire engineer dated 26 March 2014.
- Email correspondence between the applicant and the authority dated 2 September 2014 – 21 August 2014.
- The written submission dated 28 November 2014, as detailed in paragraph 4.1.

4.3 The authority provided a written submission on 16 February 2015. In summary:

- The surface finish requirement in the Acceptable Solutions matches the requirements from the Building Code Performance Clause C3.4(a).
- The justification provided by the applicant to use Group3 is based upon former Building Code Clause 3.3.1 and identifying how this fire report complies with the now superseded performance criteria of the Building Code. This approach is not accepted by the authority.
- The authority acknowledges the test method referenced in C3.4(a) does not include the additional test method in C/VM2. The design basis for the fire report is C/AS4 and it references the test method as described in C/VM2 Appendix A. The option to use either test method is available.
- The applicant's fire report states the new building must comply fully with C/AS4 and all ceilings and walls are group 2S.

4.4 I issued a draft determination to the parties on 7 April 2015, granting a modification of Clause 3.4(a) of the Building Code to permit Material Group 3 for the internal surface linings of the function centre.

## 5. The further submissions

5.1 On 22 April 2015 the authority and the applicant responded accepting the draft determination without comment.

5.2 On 24 April 2015 the NZFS provided comments on the draft determination through its lawyer, noting the extent and nature of the modification were a concern and it did not support the conclusion reached. In summary:

- The applicant relied on a comparison to the exemption for a wharenui. The NZFS supports the comments that a comparison should not go so far as to extend an existing exemption beyond its intended purpose and notes a wharenui is a different type of building with different types of users. The NZFS notes ‘significant caution needs to be taken before relying on a comparison with a different type of building which is exempt when dealing with a proposal that is clearly not exempt’.
- The draft determination concluded the provision of more means of escape offsets the risk of rapid surface fire spread. The NZFS is concerned with this subjective assessment and would prefer a robust analysis of required time to egress from the building compared with the available safe egress time; this would provide a suitable basis to grant an exemption. The NZFS also notes possible future changes like additional coats of paint should be anticipated.

5.3 I have taken account of the comments from the NZFS where appropriate (refer paragraph 6.3.6). In respect of the additional coats of paint, Material Group 3 ensures a time to flashover is greater than 120 seconds. The relevant Verification Method for the function centre is C/VM2 which describes various typical wall materials and states that solid wood with coating of 0.4mm thickness waterborne or solvent borne paint coatings, varnish, or stain is deemed to continue to achieve Group 3. Therefore I consider the function centre, even with additional coats of paint, would still achieve a Material Group 3.

## 6. Discussion

### 6.1 General

6.1.1 The C Clauses of the Building Code relating to protection from fire were amended by the Building (Building Code: Fire Safety and Signs) Amendment Regulations 2012, taking effect on 10 April 2012. Among the changes was the inclusion of Clause 3.4(a) which states:

Materials used as internal surface linings in the following areas of buildings must meet the performance criteria specified below

[refer Appendix A2 for Material Group Number table]

6.1.2 The Material Group Number table works by classifying interior surface finishes from Group 1 (best) to Group 4 (worst) based on their measured time to flashover in the ISO 9705 fire test. BRANZ<sup>5</sup> have provided the following summary:

- Group 1 materials include non-combustible materials or materials with limited combustibility such as plasterboard and similar materials (low hazard).
- Group 2 materials typically include many fire-retardant treated timbers and similar materials.
- Group 3 materials typically include ordinary timber products and similar materials.
- Group 4 materials typically include exposed polyurethane foams and similar materials. These are hazardous when installed as room linings and are not permitted in occupied spaces.

6.1.3 The function centre is designed to the Acceptable Solution C/AS4 with a risk group of CA as a community education facility and venue. The performance criteria for internal surface finishes assesses the contribution that surface finishes make to rapid

<sup>5</sup> Branz.co.nz, (2015). *New requirements for interior surface finishes (July 2011)*. [online] Available at: [http://www.branz.co.nz/cms\\_display.php?sn=144&st=1&pg=9622](http://www.branz.co.nz/cms_display.php?sn=144&st=1&pg=9622) [Accessed 26 Mar. 2015].

spread of fire that may hinder the occupants' means of escape. The performance criterion for Clause 3.4(a) for the function centre requires a material group rating of 2S (the function centre is not protected by an automatic sprinkler system) also specified in paragraph 4.17.1 of C/AS4 Table 4.1 (refer Appendix A3).

- 6.1.4 The material group numbers contained in Clause 3.4(a) specify the performance determined under conditions described in ISO 9705:1993, being a full scale room test for surface products. Under paragraph 4.17.1 of C/AS4 it is noted the method for assigning the group number to a material and for establishing the smoke production rate is specified in Verification Method C/VM2 at Appendix A. Paragraph A1.1 of C/VM2 states materials shall be assigned a material group number when tested to *either* ISO 9705 fire tests, or ISO 5660 Part 1 (heat release rate) or Part 2 (smoke production rate).
- 6.1.5 The applicant notes an apparent conflict between Clause 3.4(a) of the Building Code and the established means of compliance being the Acceptable Solution and Verification Method in this circumstance. As stated in Determination 2015/010:
- It remains that under section 17 of the Act all building work must comply with the Building Code. It also remains under section 19 of the Act an authority must accept compliance with an Acceptable Solution or Verification Method as establishing compliance with the Building Code. However I note Clause 3.4(a) does not specify a product needs to be tested to ISO 9705:1993 but that performance is determined under conditions described in this test.
- 6.1.6 It is accepted by the parties the proposed internal surface finish for the walls and ceilings surface achieves a material group number of 3 (not 2S) when tested on 9mm thick plywood to ISO 5660.1-2002. The applicant has applied for a modification of Clause 3.4(a) such that a material group number 3 is permitted for the function centre.

## 6.2 Modifications or waivers: the general framework

- 6.2.1 A waiver or modification is granted as part of the building consent process. Under section 67 of the Act an authority has the power to grant a modification (or waiver) of the Building Code; however the grant of such a modification must be reasonable taking account of the circumstances of the particular case.
- 6.2.2 Previous determinations have established that a waiver or modification may be granted only when it is 'explicitly or implied necessary for the granting of a building consent in respect of the building work concerned'<sup>6</sup> and that 'compelling reasons must exist that support the view that a waiver is appropriate'.<sup>7</sup> Determination 2006/085<sup>8</sup> clearly states that a territorial authority may grant such a waiver or modification under section 67 only when it is reasonable to do so in the circumstances.
- 6.2.3 The following factors should be taken into account when an authority considers a modification ("the framework") applied to the specific circumstances of an individual case. I note there are a number of factors within the framework an authority should balance when considering whether it is reasonable to grant a

<sup>6</sup> Determination 2007/110 Building consent for a house on land subject to coastal hazards at 35 Clifton Road, Haumoana, Hawkes Bay (*Department of Building and Housing*) 17 September 2007

<sup>7</sup> Determination 2012/049 Regarding the refusal to issue a code compliance certificate for a 16-year-old house with monolithic cladding at 33 Bishopsworth Street, Hillsborough, Christchurch (*Ministry of Business, Innovation and Employment*) 12 July 2012

<sup>8</sup> Determination 2006/085 Refusal of a code compliance certificate for a building with a plywood cladding system at a house (*Department of Building and Housing*) 4 October 2006

modification; no single factor should be isolated. This framework can be used as a methodology for deciding whether it is 'reasonable' to grant a modification:

- The extent and possible consequence of the non-compliance with the specific performance clause.
- The availability of other reasonably practicable solutions that would result in the building work fully complying with the Building Code, and associated costs.
- Any special and unique circumstances of the building work subject to the waiver of modification.
- The extent to which the modification will still be consistent with the purposes and principles of the Act.
- The modification complying with the relevant objective and functional requirement of the specific clause(s) of the Building Code.

6.2.4 In granting a waiver or modification factors such as location, use of a building and design features make the modification specific to the building and not appropriate to be applied to other buildings with a different set of features.

### **6.3 Modification of C3.4(a) for the interior surface linings of the function centre**

*The extent and possible consequence of the non-compliance with the specific performance clause*

6.3.1 The Material Group Numbers are based on a time to flashover for fire under conditions specified in ISO9705. Material Group Number 3 has two minutes to flashover, whereas Group Number 2S (for crowd and sleeping activities) has at least 10 minutes. There is a significant difference between the two Group Numbers in relation to flashover time. In my view the applicant did not provide sufficient justification to the authority to demonstrate the function centre could be evacuated within performance conditions of Material Group Number 3 in order to show the wall linings will not contribute to growth of a fire and inhibit the escape of the occupants.

6.3.2 The performance Clause C3.4(a) covers a broad spectrum of buildings with crowd and sleeping uses. This means that it covers people who are unfamiliar with the building and its escape routes or, due to being asleep, are slow to respond to an alarm. The phrases 'crowd activity' and 'sleeping activity' are not defined under the Act. However, the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005 under Schedule two describes uses of all or parts of building and describes categories and examples for crowd and sleeping activities.

6.3.3 It is acknowledged that smaller premises such as this function centre may have shorter travel distances, a lower occupancy load and awake and familiar occupants. In the current situation I accept the function centre, as was the school hall in 2015/010, is on the lower end of the crowd and sleeping criteria as a low risk building.

6.3.4 I consider the following features of the function centre provide justification for the modification:

- A small occupant load of 80. I note this is smaller than the occupant load in Determination 2015/010.



- The users of the building will be awake and as the function centre is not generally used for sleeping.
- Increased door width.
- Shortened pathways which contribute to the short evacuation time.
- Three exit doors from the main function room allow occupants to move to a place of safety in the event of fire. The applicant notes the office and meeting rooms in the function centre only have a single means of escape, however these areas fall within the WL category and therefore only require the surface lining to meet material group 3.

6.3.5 In relation to the marae building exception<sup>9</sup> used by the applicant as an analogous example to assist in providing a justification of a modification for the function centre. The applicant's submission was that if the function centre was a marae building it would fall within the exception. A marae building is exempt from the surface finish requirements under C/AS4. The function centre will meet the marae building exception as it has three exit ways from the education room, compliant exit widths (1620mm for the purposes of paragraph 3.3.2(j) of C/AS4) and a maximum travel distance of 24m (refer paragraph 3.4.2(e) of C/AS4).

6.3.6 I acknowledge the function centre is similar in nature to a marae building as it is a single level space with combustible wall linings and high ceilings with direct access to outside. The marae building exception was based on a study conducted by BRANZ<sup>10</sup> with testing of traditional materials varying between Material Groups 3 and 4 with an available safe time to escape of between 113-302 seconds. An analysis of C/VM2 for the function centre calculates for three exit doors and a maximum occupancy of 80 people the required time to escape is 112 seconds with a maximum Group 3 number. Therefore, although not a marae building, the function centre has a lower fire growth rate and the exit widths allow sufficient time to escape the building.

6.3.7 Although the principle behind the marae building exception relates to cultural and traditional significance, the objectives of Clause 3 in maintaining life safety and evacuation in the event of a fire must still apply to marae buildings even though the surface finish requirements do not apply. Therefore, I consider it appropriate when providing evidence to justify a modification to look at and compare exceptions within an Acceptable Solution. However, as stated in Determination 2015/010, I do not consider this comparison should go so far as to extending an existing exception beyond its intended purpose.

***The availability of other reasonably practicable solutions that would result in the building work fully complying with the Building Code and associated costs***

6.3.8 I accept the submission from the applicant that the alternative product that would comply with Clause 3.4(a) is not considered suitable by the applicant due to insufficient technical information provided with respect of the product coating compliance with F2.3.1 and B2.3.1(c).

6.3.9 The lack of appropriate alternative solutions supports the applicant's justification for a modification in this case; however, I consider that work should continue by providers of these types of solutions to produce products and systems that allow full

<sup>9</sup> I note here that the word 'exemption' has been used in submissions to this determination. I will refer to the marae building 'exception' as C/AS4 at paragraph 4.17.6 states "exceptions to surface finish requirements"

<sup>10</sup> BRANZ Study Report SR 128 Fire Protection of New Zealand Traditional Marae Buildings, 2004.

compliance with Clause 3.4(a) and other relevant code clauses, as a modification in other situations may not be granted. Once an appropriate product has been developed and its compliance proved, a modification may be less likely to be granted.

***Any special and unique circumstances of the building work subject to the waiver of modification.***

- 6.3.10 I am not aware of any special or unique circumstances of the building work subject to the modification in this case. I consider such circumstances could include (but not be limited to) factors such as location, users and use of a building.

***The purposes and principles of the Act***

- 6.3.11 The extent to which the modification will still be consistent with the purposes and principles of the Act needs to be evaluated. If a primary purpose of the Act, for example life safety, will potentially be reduced as a result of a modification, a modification should only be granted if this reduction is minimal. I also note a modification relating to life safety will require more justification than a modification relating to amenity values.
- 6.3.12 In this case I consider a modification of Clause C3.4(a) relates to one of the primary purposes of the Act under section 3, to ensure that people who use buildings can do so safely and without endangering their health, and by being able to escape from the building if it is on fire.
- 6.3.13 In considering section 4 of the Act and the principles to be applied in performing functions or duties or exercising powers under the Act, the following principles would apply:
- Section 4(2)(b), which requires ‘the need to ensure that any harmful effect on human health resulting from the use of particular building methods or products of a particular building design, or from building work, is prevented or minimised’
  - Section 4(2)(f), which requires consideration of ‘the importance of standards of building design and construction in achieving compliance with the building code’.
  - Section 4(2)(i) the need to provide protection to limit the extent and effects of the spread of fire.
- 6.3.14 I consider the applicant did not provide the authority sufficient justification regarding the effect of a modification of Clause C3.4 (a) on the purposes and principles of the Act when applying for the building consent.
- 6.3.15 However, I consider the applicant’s submission to this determination has provided sufficient information that any possible reduction in a people’s life safety in the function centre or their chances of escaping in the event of a fire are minor and largely compensated for by the three exits, the shorter escape pathways, the reduced escape time and a small occupant load. I consider a modification of Clause 3.4(a) for the function centre remains consistent with the relevant purposes and principles of the Act.

***The objective and functional requirements of the specific clause of the Building Code***

- 6.3.16 As with the purposes and principles of the Act, the extent to which the modification results in a reduced level of compliance to the specific objectives of the particular Building Code clause needs to be analysed.
- 6.3.17 Looking specifically at the functional requirement of Clause C3.4(a):  
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
- 6.3.18 The objective of Clause C3 is derived from Clause C1(a) to safeguard people from an unacceptable risk of injury or illness caused by fire. The relevant objective and functional requirements echo the purposes and principles of the Act: that is to prevent injury or harmful effects of a fire and allow the occupants time to exit a building to a place of safety.
- 6.3.19 I consider the applicant has provided sufficient justification that a modification of C3.4 (a) complies with the objective and functional requirement of Clause C3. I am satisfied that the function centre has a low probability of injury to persons not in close proximity to a fire source. I consider the evacuation time remains short and the occupants will be able to move to a place of safety quickly in the event of a fire. The probability of a modification to Material Group 3 adversely affecting the occupants' ability to escape is low. In addition a small occupant load and the use of three exit ways will reduce the evacuation time to escape. I do not consider the modification will reduce compliance with the objectives of Clause C3.

## **7. Conclusion**

- 7.1 In my view, in order that the authority could have considered granting the building consent with a modification of Clause C3.4(a) the applicant would have needed to provide further justification, based on the framework in paragraph 6.2.3 of this determination, that established that such a modification of Clause C3.4(a) would not endanger the ability of the occupants to escape the function centre in the event of a fire.
- 7.2 However in conclusion, and having evaluated the further information and analysis that has been provided by the applicant for this determination, I am satisfied sufficient justification for a modification of C3.4(a) has been established. I do not consider this conclusion has been reached on a purely subjective analysis; to the contrary I have carried out a careful consideration of the factors in the framework based on the evidence provided.

## **8. What happens next**

- 8.1 The function centre has been built at the time of writing this determination (refer paragraph 2.1) however, a code compliance certificate has not been issued for the building. I consider in this case the applicant would need to apply for an amendment to the building consent so the as-built work reflects the building consent documents.

## **9. The decision**

9.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the proposed modification of C3.4 (a) complies with the objective and functional requirement of Clause C3 and I reverse authority's exercise of its powers of decision in refusing to grant a modification of Clause 3.4(a) of the Building Code.

9.2 In addition, I determine that the building consent is hereby modified as follows:

The building consent is subject to a modification to Clause 3.4(a) of the Building Code that Material Group 3 is permitted for the internal surface linings of the function centre.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 14 May 2015.

John Gardiner  
**Manager Determinations and Assurance**

## Appendix A

### A1 The relevant sections of the Act

#### 3 Purposes

This Act has the following purposes:

(a) to provide for the regulation of building work, the establishment of a licensing regime for building practitioners, and the setting of performance standards for buildings to ensure that—

(i) people who use buildings can do so safely and without endangering their health; and

...

(iii) people who use a building can escape from the building if it is on fire; and

#### 4 Principles to be applied in performing functions or duties, or exercising powers, under this Act

(2) In achieving the purpose of this Act, a person to whom this section applies must take into account the following principles that are relevant to the performance of functions or duties imposed, or the exercise of powers conferred, on that person by this Act:

...

(b) the need to ensure that any harmful effect on human health resulting from the use of particular building methods or products or of a particular building design, or from building work, is prevented or minimised:

(f) the importance of standards of building design and construction in achieving compliance with the building code:

...

#### 17 All building work must comply with building code

All building work must comply with the building code to the extent required by this Act, whether or not a building consent is required in respect of that building work.

#### 19 How compliance with building code is established

(1) A building consent authority must accept any or all of the following as establishing compliance with the building code:

(a) compliance with regulations referred to in section 20:

(b) compliance with an acceptable solution:

(ba) compliance with a verification method:

...

#### 67 Territorial authority may grant building consent subject to waivers or modifications of building code

(1) A building consent authority that is a territorial authority may grant an application for a building consent subject to a waiver or modification of the building code.

(2) A waiver or modification of the building code under subsection (1) may be subject to any conditions that the territorial authority considers appropriate.

- (3) The territorial authority cannot grant an application for a building consent subject to a waiver or modification of the building code relating to access and facilities for people with disabilities.

## A2 The relevant clause of the Building Code

### Clause C3—Fire affecting areas beyond the fire source

#### *Provisions*

#### *Functional requirement*

**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.

**C3.2** Buildings with a building height greater than 10 m where upper floors contain sleeping uses or other property must be designed and constructed so that there is a low probability of external vertical fire spread to upper floors in the building. (*Limit on application* C3.2 does not apply to importance level 1 buildings.)

**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.

#### *Performance*

**C3.4(a)** materials used as internal surface linings in the following areas of buildings must meet the performance criteria specified below: (*Limit on application* Clause C3.4 does not apply to detached dwellings, within household units, in multi-unit dwellings, or outbuildings and ancillary buildings.)

<b>Area of building</b>	<b>Performance determined under conditions described in ISO 9705: 1993</b>	
	<b><i>Buildings not protected with an automatic fire sprinkler system</i></b>	<b><i>Buildings protected with an automatic fire sprinkler system</i></b>
Wall/ceiling materials in sleeping areas where care or detention is provided	Material Group Number 1-S	Material Group Number 1 or 2
Wall/ceiling materials in exitways	Material Group Number 1-S	Material Group Number 1 or 2
Wall/ceiling materials in all <i>occupied spaces</i> in importance level 4 <i>buildings</i>	Material Group Number 1-S	Material Group Number 1 or 2
Internal surfaces of ducts for <i>HVAC systems</i>	Material Group Number 1-S	Material Group Number 1 or 2
Ceiling materials in crowd and sleeping uses except <i>household units</i> and where care or detention is provided	Material Group Number 1-S or 2-S	Material Group Number 1 or 2
Wall materials in crowd and sleeping uses except <i>household units</i> and where care or detention is provided	Material Group Number 1-S or 2-S	Material Group Number 1, 2, or 3
Wall/ceiling materials in occupied spaces in all other locations in <i>buildings</i> , including <i>household units</i>	Material Group Number 1, 2, or 3	Material Group Number 1, 2, or 3
External surfaces of ducts for <i>HVAC systems</i>	Material Group Number 1, 2, or 3	Material Group Number 1, 2, or 3
Acoustic treatment and pipe insulation within airhandling plenums in sleeping uses	Material Group Number 1, 2, or 3	Material Group Number 1, 2, or 3

...

### A3 The relevant clauses from C/AS4

#### Surface finish requirements for walls, ceilings, ducts and insulation

4.17.1 *Surface finish* requirements shall be as specified in Table 4.1.

Table 4.1 Surface finishes						
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	<i>Exitways</i> All <i>occupied spaces</i> in importance level 4 <i>buildings</i>	Crowd spaces: wall linings	Crowd spaces: ceiling linings	All other <i>occupied spaces</i> : wall and ceiling linings	Ducts for <i>HVAC</i> systems – internal surfaces	Ducts for <i>HVAC</i> systems – external surfaces Acoustic treatment and pipe insulation within air handling plenum
Maximum permitted <i>Group Number</i>						
Unsprinklered	1S	2S	2S <sup>1</sup>	3	1S	3
Sprinklered	2	3	2	3	2	3
Note 1: Refer to exceptions in Paragraph 4.17.6.						

#### Exceptions to surface finish requirements

4.17.6 *Surface finish* requirements do not apply to:

- i) *Marae buildings* using traditional Maori *construction* materials (eg, tukutuku and toetoe panels),

Comment:

Note that if this exception is applied, exit widths and *travel distances* for *marae buildings* as in i) must comply with the requirements of Paragraphs 3.3.2 j) and 3.4.2 e) respectively.

### A4 The superseded clause of the Building Code

#### Clause C3–SPREAD OF FIRE

##### Objective

C3.1 The objective of this provision is to:

- Safeguard people from injury or illness when evacuating a building during fire.
- Provide protection to fire service personnel during firefighting operations.
- Protect adjacent household units, other residential units, and other property from the effects of fire.
- Safeguard the environment from adverse effects of fire.

##### Functional Requirement

C3.2 Buildings shall be provided with safeguards against fire spread so that:

- Occupants have time to escape to a safe place without being overcome by the effects of fire,
- Firefighters may undertake rescue operations and protect property,
- Adjacent household units, other residential units, and other property are protected from damage, and
- Significant quantities of hazardous substances are not released into the environment during fire.



**Performance**

C3.3.1 Interior surface finishes on walls, floors, ceilings and suspended building elements, shall resist the spread of fire and limit the generation of toxic gases, smoke and heat, to a degree appropriate to:

- (a) The travel distance,
- (b) The number of occupants,
- (c) The fire hazard, and
- (d) The active fire safety systems installed in the building.