



## Determination 2009/71

### Refusal to issue a code compliance certificate for a nine year old addition to a house at 3A McKay Drive, Temple View, Hamilton



#### 1. The matters 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, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of that Department. The applicants are the owners, the Stoneley Family Trust (“the applicants”).
- 1.2 The other party is the Hamilton City Council (“the authority”), carrying out its duties as a territorial authority or building consent authority. The Waipa District Council (“the original territorial authority”) issued the building consents and carried out the majority of the inspections of the building work during construction. On 1 July 2004, the boundaries between the Hamilton City Council and Waipa District Council changed, and Temple View was incorporated into the Hamilton City Council area. This change occurred while building work for the addition was in progress and the consents were transferred to the administration of the Hamilton City Council.
- 1.3 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for nine year old addition to a house because it was not satisfied that the addition complied with Clauses B2 and E2 of the Building Code<sup>2</sup> (First Schedule, Building Regulations 1992).

<sup>1</sup> The Building Act 2004 is available from the Department’s website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

<sup>2</sup> The Building Code is available from the Department’s website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

1.4 In order to determine whether the decision of the authority to refuse to issue the code compliance certificate was correct, I consider the matters for determination, in terms of section 177(a) and 177(b) of the Act<sup>3</sup> are:

**1.4.1 Matter 1: The external envelope**

Whether the external envelope of the addition complies with Clauses B2 Durability and E2 External Moisture of the Building Code. The “external envelope” includes the cladding, its configuration and its components, junctions with other building elements, formed openings for windows, etc, penetrations, decks, parapets, and the proximity of building elements to the ground.

**1.4.2 Matter 2: Other code clauses**

Because additional matters of code compliance have been brought to my attention I have included reference to those in my decision.

**1.4.3 Matter 3: The durability considerations**

Whether the building elements to the addition comply with Clause B2 Durability of the Building Code, taking into account the age of the building work.

1.5 In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Department to advise on this dispute (“the expert”), and other evidence in this matter. With regard to the cladding, I have evaluated this information using a framework that I describe in paragraph 6.

## **2. The building work**

2.1 The house is a large two-storey house that is situated on a slightly sloping site in a medium wind zone for the purposes of NZS 3604<sup>4</sup>. The addition consists of a basement development under the existing house that was set on poles. The existing house is clad in PVC (polyvinyl chloride) weatherboards. The addition was constructed on a concrete floor and footings, with a concrete block foundation wall, light timber framing, and clad in fibre-cement feature board with aluminium windows and doors.

2.2 The expert engaged by me (refer to paragraph 1.5) noted that he was unable to inspect any of the concealed timber framing. Given the date of construction and the lack of other evidence, I consider the external wall framing is unlikely to be treated to a level that will provide resistance to fungal decay.

## **3. Background**

3.1 The original territorial authority issued a building consent for the addition to the house (No. 20456) on 16 August 2000. Other building work was undertaken under separate building consents over a similar time period and included further additions, and the construction of a carport and a swimming pool.

3.2 The original territorial authority carried out inspections for the building work, although I have not seen a copy of those records. As discussed in paragraph 1.2, the property became part of the authority’s area on 1 July 2004. On 29 August 2006, the

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<sup>3</sup> In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

<sup>4</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

authority wrote to the applicant requesting a final inspection and completed final inspections for each of the building consents.

3.3 The consents, the dates of final inspections and the dates code compliance certificates were issued are shown in the table below.

Consent Number	Project description	Consent issue date	Dates of final inspections	CCC issue date
20456	Addition	16/08/00	15/09/06 – failed 01/09/08 – passed	
33214	Further additions	14/04/03	15/09/06 - passed	22/09/08
36655	Swimming pool	18/12/03	15/09/06 – passed	11/02/08
37149	Carport	23/02/04 and amended 12/07/04	15/09/06 – failed 08/02/08 – passed	11/02/08

3.4 From the inspection records, it appears that the addition was re-inspected on 1 September 2008 and passed.

3.5 From the submission of the applicant, it appears that the authority refused to issue a code compliance certificate for the addition due to the age of the building work.

3.6 The Department received an application for a determination on 23 April 2009.

## 4. The submissions

4.1 In a letter to the Department the applicant explained the background in relation to the authority and the original territorial authority, and that the authority had advised they were unable to issue a code compliance certificate due to the age of the building work.

4.2 The applicant forwarded copies of:

- the drawings
- inspection records, from inspections completed by the authority and the original territorial authority
- copies of the code compliance certificates for the subsequent alterations.

4.3 A copy of the application was provided to the authority, which made no submission in response. The authority confirmed in an email dated 25 May 2009 in response to the Department that its concerns were centred on compliance with Clauses B2 and E2.

4.4 In response to the expert's report (refer paragraph 5), the applicant submitted that:

- timber treatment for all framing was H1
- the lower stair handrail was fitted as instructed by the authority and passed in the final inspection
- the smoke detectors were installed in accordance with the authority's instructions
- the fibre-cement feature board is no longer available.

- 4.5 A draft determination was issued to the parties on 24 July 2009. The draft was issued for comment and for the parties to agree a date when the building elements of the addition complied with Building Code Clause B2 Durability.
- 4.6 The parties accepted the draft without comment, and agreed that compliance with Clause B2 was achieved on 1 July 2003.

## 5. The expert's report

- 5.1 As mentioned in paragraph 1.5, I engaged an independent expert to provide an assessment of the condition of those building elements subject to the determination. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the house on 12 June 2009 and furnished a report that was completed on 19 June 2009.
- 5.2 The expert noted that all work is of good quality and the flashings are tidy and effective.
- 5.3 The expert observed cracking to the fibre-cement sheet around the window heads and jambs on the east elevation. The west elevation is sheltered by the roof.
- 5.4 The expert carried out non invasive moisture readings internally and externally, and no elevated readings were recorded. No invasive readings were taken as both elevations were considered low risk.
- 5.5 Commenting on compliance with Building Code clauses, other than E2 and B2, the expert noted:

Building Code Clause	Observation
B1	Provisions adequate - block work at limit of basement is well constructed
E1	Provisions adequate - all paved areas fall away from house
E3	Vanity top not sealed to wall surface
F4	Balustrade to lower flight of stairs have handrail only with no balusters or wall to prevent falling.
F7	Smoke detectors not fitted adjacent to sleeping area
G1, G2, G3	Provisions adequate
G4, G7, G8	Provisions adequate
G12, G13	Provisions adequate
H	Provisions adequate - insulation checked off at pre-line inspection

- 5.6 A copy of the expert's report was provided to the parties on 22 June 2009.

## 6. Evaluation for code compliance

### Evaluation framework

- 6.1 In evaluating the design of a building and its construction, it is useful to make some comparisons with the relevant Acceptable Solutions<sup>5</sup>, which will assist in determining whether the features of this house are code compliant. However, in making this comparison, the following general observations are valid:
- Some Acceptable Solutions cover the worst case, so that they may be modified in less extreme cases and the resulting alternative solution will still comply with the Building Code.
  - Usually, when there is non-compliance with one provision of an Acceptable Solution, it will be necessary to one or more other provisions to compensate for that in order to comply with the Building Code.

### Matter 1: The external envelope

## 7. Weathertightness

- 7.1 The approach in determining whether building work is weathertight and durable and is likely to remain so, is to apply the principles of weathertightness. This involves the examination of the design of the building, the surrounding environment, the design features that are intended to prevent the penetration of water, the cladding system, its installation, and the moisture tolerance of the external framing. The Department and its antecedent, the Building Industry Authority, have also described weathertightness risk factors in previous determinations<sup>6</sup> (for example, Determination 2004/1) relating to cladding and these factors are also used in the evaluation process.
- 7.2 The consequences of a building demonstrating a high weathertightness risk is that building solutions that comply with the Building Code will need to be more robust. Conversely, where there is a low weathertightness risk, the solutions may be less robust. In any event, there is a need for both the design of the cladding system and its installation to be carefully carried out.

### 7.3 Weathertightness risk

- 7.3.1 This house has the following environmental and design features which influence its weathertightness risk profile:

#### Increasing risk

- the house is two-storey

#### Decreasing risk

- the house is fairly simple in plan and form
- the house is in a medium wind zone
- the house is well protected by eaves and roof overhangs
- the roof to wall intersections are fully protected
- there are no decks

<sup>5</sup> An Acceptable Solution is a prescriptive design solution approved by the Department that provides one way (but not the only way) of complying with the Building Code. The Acceptable Solutions are available from The Department's Website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

<sup>6</sup> Copies of all determinations issued by the Department can be obtained from the Department's website.

- 7.3.2 The house has been evaluated using the E2/AS1 risk matrix. The risk matrix allows the summing of a range of design and location factors applying to a specific building design. The resulting level of risk can range from “low” to “very high”. The risk level is applied to determine what claddings can be used on a building in order to comply with E2/AS1. Higher levels of risk will require more rigorous weatherproof detailing; for example, a high risk level is likely to require a particular type of cladding to be installed over a drained cavity.
- 7.3.3 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 7.3.1 show that all elevations demonstrate a low weathertightness risk rating. I note that, if the details shown in E2/AS1 were adopted to show code compliance, the cladding would not require a drained cavity.

#### **7.4 Weathertightness performance**

- 7.4.1 Taking into account the expert’s report and comments as outlined in 5.3, I note that the cracking to the fibre-cement sheet around the window heads and jambs on the east elevation requires rectification.

#### **7.5 Weathertightness conclusion**

- 7.5.1 I consider the expert’s report establishes that the current performance of the external envelope is adequate as it is currently preventing water penetrating into the building. Consequently I am satisfied that the house complies with Clause E2 of the Building Code.
- 7.5.2 However, the building work is also required to comply with the durability requirements of Clause B2. Clause B2 requires that a building continues to satisfy all the objectives of the Building Code throughout its effective life, and that includes the requirement for the house to remain weathertight. Because the faults to the fibre-cement cladding may allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.
- 7.5.3 Because the faults identified with the cladding occur in discrete areas, I am able to conclude that satisfactory rectification of the items outlined in paragraph 7.4.1 will result in the external envelope being brought into compliance with Clause B2.
- 7.5.4 Effective maintenance of claddings is important to ensure ongoing compliance with Clauses B2 and E2 of the Building Code and is the responsibility of the building owner. The Department has previously described these maintenance requirements (for example, Determination 2007/60).

### **Matter 2: The other code clauses**

#### **8. Discussion**

- 8.1 It is clear from the expert’s report that there are several contraventions of the Building Code, notwithstanding compliance with Clause B2, including:
- the vanity top is not sealed to the wall surface and does not comply with Clause E3
  - the balustrade to the lower flight of stairs has a handrail only with no balusters or wall to prevent falling and does not comply with Clause F4

- 8.2 I acknowledge the applicant's comments that these items were signed off in inspections completed by the authority, however, I consider that these items are not in compliance with the Building Code and require remedial work.
- 8.3 I note that the provision of domestic smoke detectors in the Acceptable Solution (F7/AS1) for Building Code Clause F7 "Warning Systems" did not come into effect until April 2003. The consent for the addition was issued in August 2000 and subsequent changes to the Building Code (and any associated changes to the relevant Acceptable Solutions) cannot be enforced retrospectively. However, irrespective of this I strongly recommend that the smoke detectors be installed adjacent to the sleeping areas.

### **Matter 3: The durability considerations**

#### **9. Discussion**

- 9.1 The relevant provision of Clause B2 of the Building Code requires that building elements must, with only normal maintenance, continue to satisfy the performance requirements of the Building Code for certain periods ("durability periods") 'from the time of issue of the applicable code compliance certificate' (Clause B2.3.1).
- 9.2 These durability periods are:
- 5 years if the building elements are easy to access and replace, and failure of those elements would be easily detected during the normal use of the building
  - 15 years if building elements are moderately difficult to access or replace, or failure of those elements would go undetected during normal use of the building, but would be easily detected during normal maintenance
  - the life of the building, being not less than 50 years, if the building elements provide structural stability to the building, or are difficult to access or replace, or failure of those elements would go undetected during both normal use and maintenance.
- 9.3 The nine year delay between the substantial completion of the building work consented in 2000 and the application for determination raises the matter of when the elements of the building complied with Clause B2.
- 9.4 It is not disputed, and I am therefore satisfied, that all the building elements complied with Clause B2 on 1 July 2003. This date has been agreed between the parties, refer paragraph 4.6.
- 9.5 In order to address these durability issues when they were raised in previous determinations, I sought and received clarification of general legal advice about waivers and modifications. That clarification, and the legal framework and procedures based on the clarification, is described in previous determinations (for example, Determination 2006/85). I have used that advice to evaluate the durability issues raised in this determination.
- 9.6 I continue to hold that view, and therefore conclude that:
- a) the authority has the power to grant an appropriate modification of Clause B2 in respect of all the building elements.
  - b) it is reasonable to grant such a modification, with appropriate notification, because in practical terms the building is no different from what it would have

been if a code compliance certificate for the building work had been issued in 2003.

- 9.7 I strongly recommend that the authority record this determination and any modifications resulting from it, on the property file, and also on any LIM issued concerning this property.

## **10. What is to be done now?**

- 10.1 A notice to fix should be issued that requires the owners to bring the building work into compliance with the Building Code, identifying the items listed in paragraph 7.4.1 and 8.1 referring to any further defects that might be discovered in the course of investigation and rectification, but not specifying how those defects are to be fixed. It is not for the notice to fix to stipulate directly how the defects are to be remedied and the house brought to compliance with the Building Code. That is a matter for the owner to propose and for the authority to accept or reject. Any outstanding items of disagreement can be referred to the Chief Executive for a further binding determination.
- 10.2 The authority may issue a code compliance certificate in respect of the building consent as amended once the matters set out in 7.4.1 and 8.1 have been remedied to its satisfaction.

## **11. The decision**

- 11.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:

- the external envelope of the addition does not comply with Clause B2 insofar as it relates to Clause E2
- the addition does not comply with Clauses E3, and F4.

and accordingly I confirm the authority's decision to refuse to issue a code compliance certificate.

- 11.2 I also determine that:

- a) all the building elements installed in the building, excepting those items that are to be rectified, complied with Clause B2 on 1 July 2003.
- b) the building consent is hereby modified as follows:

The building consent is subject to a modification to the Building Code to the effect that, Clause B2.3.1 applies from 1 July 2003 instead of from the time of issue of the code compliance certificate for all the building elements, except those items that are to be rectified as described in paragraphs 7.4.1 and 8.1 of Determination 2009/71.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 3 September 2009.

John Gardiner  
**Manager Determinations**