



## Determination 2010/012

### Refusal to issue a code compliance certificate for eight year-old extensions to a house at 196b Valley Rd, Mt Maunganui



#### 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 applicant is the owner, Mrs J Dickson (the applicant), and the other party is the Tauranga City Council (the authority), carrying out its duties and functions as a territorial authority or building consent authority.
- 1.2 This determination arises from the decision of the authority to refuse to issue a code compliance certificate because the building work had been undertaken under the supervision of a building certifier, which was duly registered as a building certifier under the Building Act 1991, but which ceased operating as a certifier before it had issued a code compliance certificate for the building work.

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

1.3 The matter for determination<sup>2</sup> is whether the authority was correct in its decision to refuse to issue a code compliance certificate for the reasons set out in paragraph 4.2. In making that decision I have considered:

1.3.1 **Matter 1: the external envelope**

Whether the external envelope to the extensions, as installed on the building, complies with Building Code Clauses B2 Durability and E2 External Moisture (First Schedule, Building Regulations 1992). The 'external envelope' includes the cladding, its configuration and components, junctions with other building elements, formed openings and penetrations, and the proximity of those building elements to the ground.

1.3.2 **Matter 2: the durability considerations**

Whether the elements that make up the building work comply with Clause B2 Durability of the Building Code, taking into account the age of the building work.

1.4 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 the other evidence in this matter.

## 2. The building

2.1 Built in the 1950s/60s, the building is a relatively simple, single-storey, detached house. It is situated on a sheltered, level section in a low wind zone for the purposes of NZS 3604<sup>3</sup>. The house is also located in the sea-spray corrosion zone. The building work consists of an extension to the living room and a new garage.

2.2 The living room extension sits on timber piles and the garage sits on concrete foundations and a concrete floor. The house, including the garage, has monolithic fibre-cement sheet cladding directly fixed to untreated timber framing. Two walls of the garage are clad with vertical profiled metal sheets. The roof to the house is corrugated steel; the roof cladding to the garage is profiled steel. The house has aluminium window and door joinery.

## 3. Background

3.1 The building consent was issued on 30 May 2001 under the Building Act 1991 supported by a building certificate issued by the building certifier. The building consent was for a living room extension, a solid fuel heater, a garage, and a bedroom extension. The bedroom extension was not built.

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<sup>2</sup> In terms of sections 177(b) of the Act. 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>3</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

3.2 The building certifier made the following inspections during construction:

Inspection	Date	Status
Pile foundations	11 June 2001	Passed
Preline building to lounge extension	27 June 2001	Passed
Final building to lounge extension	30 November 2001	Passed
Final solid fuel heater	11 December 2001	Passed
Garage slab and footings	28 April 2003	Passed
Garage firewall	6 May 2003	Passed

3.3 The building certifier issued the following certificates:

Certificate	Building work included	Date
Interim code compliance certificate	Living room extension (excluded garage, bedroom addition solid fuel heater)	30 November 2001
Interim code compliance certificate	Living room extension and solid fuel heater (excluded garage, bedroom addition)	11 December 2001
Building certificate	Living room extension, solid fuel heater and garage (excluded energy works)	1 September 2004

3.4 The building certificate issued on 1 September 2004 was for the consented work completed up until that time. The authority did not issue a code compliance certificate on the basis of that building certificate at that time, as it was entitled to do. The building certifier ceased to operate as a building certifier in January 2005.

3.5 The authority declined to issue a code compliance certificate. I have seen no correspondence from the authority to the applicant explaining the grounds for that refusal.

3.6 The applicant applied for a determination which was received by the Department on 21 September 2009.

## 4. The submissions

4.1 The applicant forwarded copies of the building certifier's inspection summary and certificates.

- 4.2 The authority acknowledged the application but made no submission in response. On 28 September 2009, the Department sought clarification from the authority on the reasons for the refusal of the code compliance certificate. The authority noted in an email of 23 October 2009 that ‘...it is not in a position to issue a [code compliance certificate] or [certificate of acceptance] as it is unable to establish compliance with E2 or B2’. I have taken the authority’s advice as confirmation that it is satisfied that the building work complies with all the relevant clauses of the Building Code except Clause B2 Durability and Clause E2 External Moisture with respect to the walls clad with fibre-cement sheet.
- 4.3 The draft determination was sent to the parties on 18 January 2010. The draft was issued comment and for the parties to agree a date when the extensions complied with Clause B2 Durability.
- 4.4 The parties accepted the draft without comment and agreed that compliance with Clause B2 was achieved on 6 May 2003.

## **5. Grounds for the establishment of code compliance**

- 5.1 In order for me to form a view as to code compliance, I need to establish what evidence is available and what can be obtained, given that the building work is completed and some elements are not able to be cost-effectively inspected.
- 5.2 The authority believes that any decision it makes with respect to compliance of the house is limited by what items it is able to inspect. I therefore needed to decide if I could rely on the inspections that were undertaken by the building certifier, particularly in regard to inaccessible building components.
- 5.3 In the absence of any evidence to the contrary, I take the view that I am entitled to rely on the inspections undertaken by the building certifier, but I consider it important to look for evidence that corroborates or contradicts these records and can be used to verify whether the inspections were properly conducted. In this particular case, corroboration comes from the visual inspection of the accessible components by the expert.
- 5.4 In summary, I find that the following allows me to form a view as to the code compliance of the building work as a whole:
- The record of the building certifier’s inspection.
  - The interim code compliance certificates and the building certificate issued by the building certifier.
  - The independent expert’s report as outlined below.

## **6. The expert's report**

- 6.1 As mentioned in paragraph 1.4, on 27 October 2009 I contracted an independent expert to verify:
- that the garage and living room extensions were built generally in accordance with the consent documents.
  - the performance and condition of the external wall cladding on the two extensions.
- 6.2 The expert is a member of the New Zealand Institute of Building Surveyors. He visited the building on 3 November 2009 and furnished a report that was completed on 11 November 2009.
- 6.3 The expert observed no evidence of moisture penetration of the exterior cladding. He took four invasive moisture readings in the garage and six readings in the living room extension at areas considered to be at risk. All readings were less than 17%.
- 6.4 The expert noted that the cladding is well aligned and the finish is good, the head and roof flashings are tidy and effective, and the overall standard of workmanship is good.
- 6.5 A copy of the expert's report was provided to the parties on 11 November 2009.

## **Matter 1: The external envelope**

### **7. Discussion**

- 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, and 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.
- 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.

#### **Weathertightness risk**

- 7.3 The extensions to the house have 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.

7.4 The extensions have the following environmental and design features which influence its weathertightness risk profile:

**Increasing risk**

- some of the walls have no eaves
- some of the roof to wall intersections are exposed and includes parapets.

**Decreasing risk**

- the building is single storey
- the building is sheltered and located in a low wind zone
- the building is fairly simple in shape and form
- there are no decks.

7.5 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 7.4 show the extensions have a low weathertightness risk rating. I note that, if the details shown in the current E2/AS1 were adopted to show code compliance, the cladding would not require a drained cavity.

**Weathertightness conclusion**

7.6 I consider that the expert's report establishes that the current performance of the external envelope is adequate because it is currently preventing water penetrating into the building. I note:

- there are no cracks in the cladding, it is well aligned with a good finish, and the workmanship is good
- there is no evidence of current moisture penetration
- the dwelling is low risk and the weatherboards can be directly fixed onto the framing.

Consequently, I am satisfied that the house complies with Clause E2 of the Building Code.

7.7 In addition, the building work is also required to comply with the durability requirements of Clause B2 of the Building Code. 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 of the building to remain weathertight. I am satisfied that the building work complies with the durability requirements of Clause B2.

7.8 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, including examples where the external wall framing of the building may not be treated to a level that will resist the onset of decay if it gets wet (for example, Determination 2007/60).

## Matter 2: the durability considerations

### 8. Discussion

- 8.1 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).
- 8.2 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.
- 8.3 The delay since the substantial completion of the extensions raises the issue of when the elements in the alterations and extensions complied with Clause B2, given that various elements of the alterations and extensions are now well through their required durability periods and would consequently no longer comply with Clause B2 if a code compliance certificate were to be issued effective from today’s date.
- 8.4 It is not disputed, and I am therefore satisfied that all the building elements installed in the alterations and additions complied with Clause B2 on 6 May 2003. This date has been agreed between the parties, refer paragraph 4.4.
- 8.5 I note that:
- The authority has the power to grant an appropriate modification of Clause B2 in respect of the building elements.
  - It is reasonable to grant such a modification because in practical terms, the building is no different from what it would have been if a code compliance certificate had been issued when the building work was completed in 2003.
- 8.6 I strongly suggest that the authority record this determination, and any modification resulting from it, on the property file and also on any LIM issued concerning this property.

## **9. What is to be done?**

- 9.1 I note the variation between the consent drawings and the building work completed. The applicant should apply to the authority for an amendment to the building consent deleting the bedroom extension. I leave this matter to the authority to resolve with the owner as it considers appropriate.

## **10. The decision**

- 10.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the external envelope to the extensions complies with Clauses E2 and B2 of the Building Code. Accordingly I reverse the authority's decision not to issue a code compliance certificate.
- 10.2 I also determine that:
- (a) all the building elements installed to the extensions complied with Clause B2 on 6 May 2003.
  - (b) the building consent is 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 6 May 2003 instead of from the time of issue of the code compliance certificate, for all building elements of the extensions.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 16 February 2010.

John Gardiner  
**Manager Determinations**