



## Determination 2011/057

### Regarding the refusal to issue a code compliance certificate for five units in a 10-year-old development completed under the supervision of a building certifier at 200 Papamoa Beach Road, Papamoa.



#### 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, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of that Department.

#### 1.2 The parties

1.2.1 The applicants are the owners of five units (“the units”) in the development, acting via the manager of the units (“the agent”):

- Mr and Mrs Cooper (“Unit 7”)
- Mr and Mrs Fowke (“Unit 8”)
- Mr and Mrs Knight (“Unit 19”)
- Mr and Mrs Iles (“Unit 34”)
- Mr and Mrs Murray (“Unit 35”).

<sup>1</sup> The Building Act 2004, the Building Code the Compliance Documents, past determinations, and guidance documents issued by the Department are available from the Department’s website at [www.dbh.govt.nz](http://www.dbh.govt.nz) or by contacting the Department on 0888 242 243.

- 1.2.2 The other party is Tauranga City Council (“the authority”), carrying out its duties and functions as a territorial authority or building consent authority.
- 1.3 This determination arises from the authority’s decision to refuse to issue a code compliance certificate for five, 10-year-old residential units because it was not satisfied that the buildings complied with certain clauses<sup>2</sup> of the Building Code (First Schedule, Building Regulations 1992). The authority’s primary concerns about compliance of the building relate to the weathertightness of the cladding.
- 1.4 The building work had been undertaken under the supervision of Bay Building Certifiers (“the building certifier”), which was duly registered as a building certifier under the former Building Act 1991 but which ceased operating as a certifier before it had issued a code compliance certificate for the work.
- 1.5 I take the view that the matter to be determined<sup>3</sup> is whether the authority’s decision to refuse to issue the code compliance certificate was correct. In deciding this matter I must consider:

**1.5.1 Matter 1: The external envelope**

Whether the external envelope of the units (“the external envelope”) complies with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The external envelope includes the components of the systems (such as the claddings, the windows, the roof tiles and the flashings), as well as the way the components have been installed and work together. I consider this matter in paragraph 6.

**1.5.2 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 dwellings. I consider this matter in paragraph 7.

- 1.6 I note that the parties have not raised any matters relating to other clauses of the Building Code and this determination is therefore restricted to whether the units comply with Clauses B2 durability and E2 external moisture of the NZ Building Code (Schedule 1 of the Building Regulations 1992).
- 1.7 In making this decision I have considered the applicants’ submission, the report of the expert commissioned by the Department to advise on this matter (“the expert”) and the other evidence.

**2. The building work**

- 2.1 The units are all single storey conventional timber framed buildings, founded on a combined concrete foundation and floor slab. The units are located on a large level site in a medium wind zone in terms of NZS3604<sup>4</sup>. The site is exposed to sea spray. Unit 19 is a stand alone unit while units 7 & 8 and 34 & 35 are semi-detached.
- 2.2 The roofs are 30° pitch truss construction covered with pressed colour steel roof tiles and have an externally fitted colour steel fascia/gutter system which discharges to PVC down pipes. The dwellings are protected by soffit overhangs of 600mm. Small wall areas above the kitchen/dining areas have no soffit overhang.

<sup>2</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>3</sup> In terms of sections 177(1)(b) and 177(2)(d) of the Act.

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

- 2.3 The exterior walls are clad in a form of monolithic cladding system known as EIFS<sup>5</sup>. The proprietary EIFS system consists of polystyrene backing sheets fixed directly to the framing over the building wrap and finished with a painted textured coating system. The joinery is aluminium recessed into the EIFS cladding system.
- 2.4 The expert was unable to establish whether or not the timber framing in the walls was treated. Given the date of construction of the units in 2000 and the other evidence, I consider the wall framing is likely to be untreated.

### 3. The background

- 3.1 On 13 November 2000 the authority issued a building consent (4281) under the Building Act 1991 for the five units in the development, based on a building certificate issued by the building certifier. I have not seen the certificate issued by the building certifier.
- 3.2 The building work commenced for the original consent and the building certifier undertook inspections during 2000 and 2001:

		Pass (P) Fail (F)				
Inspection	Date	Unit 7	Unit 8	Unit 19	Unit 34	Unit 35
Footing	9 Nov 2000	P	P	P	P	P
Drainage	10 Nov 2000	P	P	P	P	P
	27 Nov 2000					
Pre-line Building	29 Nov 2000	F*	F*	P	P	P
	20 Dec 2000					
	26 Jan 2001					
Pre-line Plumbing	29 Nov 2000	P	P	P		
	14 Dec 2000					
Pre-plaster	6 Jan 2001			P		
Final Plumbing	20 Feb 2001	P	F*	P	P	P
	21 Mar 2001					
	7 Apr 2001					
	9 Apr 2001					
Final Building	20 Feb 2001	F	F*	F	P	P
	28 Feb 2001					
	21 Mar 2001					
	7 Apr 2001					
	9 Apr 2001					
	9 Apr 2001					
18 Apr 2001	P					

\* I have not seen inspection records identifying the reasons for these failed inspections

- 3.3 Interim code compliance certificates were issued by the certifier for all five units between March and September 2001. The interim certificates were referenced to the deposited plan number only. The consented plans do not indicate which deposited plan relates to which residential home unit, but I accept that each unit was issued with an interim code compliance certificate.

<sup>5</sup> Exterior Insulation and Finish System

- 3.4 A further consent (23017) was issued in 2006 to construct a conservatory to unit 8 and a code compliance certificate was issued for this consent.
- 3.5 On 22 February 2011 the authority wrote to the agent refusing to issue a code compliance certificate for building consent number 4281 because it considered that it could not confirm that the building work complied with Clauses E2 External moisture and B2 Durability of the Building Code. I note that the authority has not provided information on the specifics of non-compliance or issued a notice to fix.
- 3.6 An application for a determination was received by the Department on 21 March 2011.

#### **4. The submissions**

- 4.1 The agent forwarded copies of:
- correspondence from the authority dated 22 February 2011
  - copies of the interim code compliance certificates
  - consented plans
  - a summary of the inspections
  - a copy of the property file issued by the authority.
- 4.2 The authority acknowledged the application but did not provide a submission.
- 4.3 A draft determination was issued to the parties for comment on 23 May 2011. The draft was issued for comment and for the parties to agree a date when the units complied with Building Code Clause B2 Durability.
- 4.4 Both parties accepted the draft and agreed that compliance with Clause B2 was achieved on 9 April 2011.

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

- 5.1 As mentioned in paragraph 1.7, I engaged an independent expert to assist me. The expert is a member of the New Zealand Institute of Building Surveyors. The expert visited the buildings on 11 and 13 April 2011 and furnished a report dated 21 April 2011. A copy of the report was provided to the parties on 21 April 2011.

##### **5.2 General**

- 5.2.1 The expert noted that the consented external cladding system had been substituted with a face fixed EIFS system. Otherwise the units had been constructed in accordance with the consented plans and specifications.
- 5.2.2 The expert considered the quality of materials and workmanship were of a high standard and found that the cladding system had been well fixed and aligned. The roof flashings were effective and well fitted and all penetrations were well sealed.
- 5.2.3 The expert also noted that the units had been repainted about 12 months ago with a proprietary paint system and that the cladding was in excellent condition.

##### **5.3 Moisture levels**

- 5.3.1 The expert took non-invasive moisture content readings in a number of interior locations of all units and found no evidence of moisture ingress.

5.3.2 The expert took invasive moisture content readings in locations considered high risk. These locations (in all units) included:

- bottom plates
- below window openings
- bottom edge of ranchsliders
- bottom edge of garage door openings
- below laundry and garage windows.

No evidence was found of water ingress and therefore the expert did not consider it necessary to carry out further invasive testing.

## 5.4 Weathertightness

The expert inspected the external envelope and interior of the units and made the following comments:

### Ground clearance

- The bottom edge of the EIFS terminates at the bottom of the rebate in the concrete floor slab which was an approved manufacturer's detail at the time of construction.
- The units were constructed on sandy, well drained ground. There was no evidence of excessive dampness.

### Window and door flashings

- All joinery was recessed into the cladding. Window aluminum head flashings, PVC jamb and sill flashings were visible. The junction between the sill and the jamb flashing were well sealed.

### Roof/wall flashings

- All apron flashings were fitted with "kick outs" that diverted water into the gutters. However, the apron flashing/wall junction to unit 8 requires additional work.

### Cladding system

- Minor cracking to the EIFS cladding system was only identified below bedroom 2 window, in unit 8. Other than that there was no evidence of premature deterioration.
- Control joints were not required since no wall length exceeded 2m.

### Penetration sealing

- Roof and wall penetrations were well sealed and maintained. Spouting/wall junctions had been silicone sealed and painted. The expert noted that while this is contradictory with the current E2/AS1 requirements, there is no evidence of elevated moisture readings in this instance.
- No flashings were visible around the electrical meter boxes, however no evidence of failure was identified.
- There had been excessive use of silicone sealant at the junction of the pergola roof and the building roof to unit 8 (work from consent 23107), and that this may indicate a location of water ingress previously.

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

### **6. Discussion**

#### **6.1 The external envelope**

6.1.1 The evaluation of building work for compliance with the Building Code and the risk factors considered in regards to weathertightness have been described in numerous previous determinations (for example, Determination 2004/1).

#### **6.2 Weathertightness risk**

6.2.1 The units have the following environmental and design features which influence their weathertightness risk profile:

##### *Increasing risk*

- the units are situated in a sea spray zone
- there are small areas with no eaves
- the EIFS cladding is fixed directly to the cladding
- the external wall framing is not treated to a level that provides resistance to decay if it absorbs and retains moisture.

##### *Decreasing risk*

- the units are situated in a medium wind zone
- there are 600mm eaves to most walls providing shelter to the cladding
- the building is single storey with a low to medium envelope complexity.

6.2.2 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 6.2.1 show the units have a low weathertightness risk rating.

#### **6.3 Weathertightness conclusion**

6.3.1 I consider the expert's report establishes that the current performance of the external envelope is adequate. Consequently, I am satisfied that the external envelope complies with Clause E2 of the Building Code.

6.3.2 The external envelope 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 units to remain weathertight.

6.3.3 While there is no evidence of moisture ingress; however I note that the expert identified a number of areas where work was required to ensure ongoing compliance with the building code. This work included:

- ensuring that ground clearance remains adequate
- the lack of flashings to the meter boxes
- improving the apron flashing/wall junction to unit 8 to ensure that water is effectively diverted into the gutter

- on-going maintenance, with particular attention to areas where weathertightness relies on silicone sealant.

I therefore conclude that although these are minor items and the buildings have performed to date the external envelope does not comply with Clause B2. Some minor cracking of the plaster should be repaired as part of normal maintenance.

- 6.3.4 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, 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**

### **7. Discussion**

- 7.1.1 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).
- 7.1.2 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.
- 7.1.3 In this case the delay between the completion of the building work in 2001 and the applicants’ request for a code compliance certificate has raised concerns that various elements of the building are now well through or beyond 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. I have not been provided with any evidence that the authority did not accept that those elements complied with Clause B2 at a date in 2001.
- 7.1.4 It is not disputed, and I am therefore satisfied that all the building elements installed in the five units, apart from the items to be rectified, complied with clause B2 on 9 April 2001. This date has been agreed between the parties (refer paragraph 4.4).
- 7.1.5 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.

7.1.6 I continue to hold the view, and therefore conclude that:

- The authority has the power, on application of the owner, 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 2001.

7.2 I 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.

## **8 What is to be done?**

8.1 The authority should now issue a notice to fix that requires the owners to bring the building work into compliance with the Building Code. That notice to fix should identify the areas listed in paragraph 6.3.3 and refer to any further defects that might be discovered in the course of investigation and rectification, but should not specify how those defects are to be fixed. It is not for the notice to fix to specify how the defects are to be remedied and the building brought to compliance with the Building Code. That is a matter for the owners to propose and for the authority to accept or reject.

8.2 Once the outstanding matters have been rectified to the authority's satisfaction, the authority may issue a code compliance certificate in respect of the building consent amended as described in paragraph 7. I also note the variation from the building consent documentation identified by the expert (see paragraph 5.2.1), and I leave this to the parties to resolve.

## **9 The decision**

9.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the units;

- comply with Clause E2 External Moisture of the Building Code
- do not comply with Clause B2 Durability of the Building Code insofar as it relates to Clause E2 External moisture

and accordingly, I confirm the decision of the authority to refuse to issue a code compliance certificate.

9.2 I also determine that:

- a) all the building elements installed in Units 7, 8, 19, 34 and 35, apart from the items that are to be rectified as described in Determination 2011/057 complied with Clause B2 on 1 April 2001.
- 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 April 2011 instead of from the time of issue of the code compliance certificate for all of the building elements, except for the items to be rectified as set out in Determination 2011/057.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing  
on 9 June 2011.

John Gardiner  
**Manager Determinations**