



## Determination 2010/005

### Refusal to issue a code compliance certificate for a 10-year-old house at 40A Golf Road, Mount 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, Kevin and Merelita Family Trust (“the applicant”), and the other party is the Tauranga City Council (“the authority”), carrying out its duties 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 for a 10-year-old house because it was not satisfied that it complied with certain clauses<sup>2</sup> of the Building Code (First Schedule, Building Regulations 1992).

<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.

<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.

1.3 The matter to be determined, under section 177(b) of the Act is therefore whether the authority was correct to refuse to issue a code compliance certificate. In making this decision, I must consider:

**1.3.1 Matter 1: The external envelope**

Whether the external claddings to the house (“the claddings”) comply with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The claddings include the components of the systems (such as the monolithic wall cladding, the concrete block, the windows, the roof cladding and the flashings), as well as the way the components have been installed and work together. (I consider this matter in paragraph 6.)

**1.3.2 Matter 2: The durability considerations**

Whether the elements that make up the building work comply with Building Code Clause B2 Durability, taking into account the age of the house. (I consider this matter in paragraph 7.)

1.4 I note that a building certifier inspected the building work on the authority’s behalf during construction. In the case of this house, the building certifier was acting as the authority’s agent; and when the company ceased operating as a certifier in 2005, it continued operating under a different name to provide inspection services for the authority. In this determination, the building certifier and subsequent inspection company is therefore referred to as “the authority’s contractor”.

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”)
- the report of the property inspection company commissioned by the applicant to assess the building (“the inspection company”)
- the other evidence in this matter.

I have evaluated this information using a framework that I describe more fully in paragraph 6.1.

## **2. The building work**

2.1 The building work consists of a detached house, which is two-storeys high in part and is situated on an excavated gently sloping site in a medium wind zone for the purposes of NZS 3604<sup>3</sup>. Construction is generally conventional light timber frame, with concrete slabs, concrete block foundations, concrete masonry veneer and monolithic claddings, aluminium windows and concrete tile roofing. The ground floor slab steps down by about 350 mm to provide a lowered living area to the north.

2.2 The house is a fairly complex form, with a two-storey high central section and single-storey extensions around the northern elevations. The 27° pitch concrete tile roofs have hips and gables, with eaves of about 600 mm overall and verges of

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<sup>3</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

300mm, except for the upper southeast wall where there are no eaves. The house is assessed as having a moderate to high weathertightness risk (refer paragraph 6.2).

- 2.3 An enclosed deck, with a membrane floor and monolithic-clad balustrades, is set within the northwest slope of the roof and extends partly over the entrance area. A timber pergola extends from under the eaves as a gable above the deck.

## **2.4 The wall claddings**

- 2.4.1 The cladding to ground floor walls is concrete block veneer, installed over a 40mm cavity and plastered to match the upper walls. The plaster treatment consists of a reinforced levelling plaster overlaid with a finishing plaster and finished with acrylic paint. The walls do not have drainage perpend, which are not required as they have effectively converted into solid plaster finished walls.
- 2.4.2 The cladding system to the upper walls is a form of monolithic cladding system known as EIFS<sup>4</sup>. In this instance, the proprietary cladding system consists of 40mm polystyrene backing sheets fixed directly to the framing over the building wrap, to which a mesh-reinforced plaster system has been applied. The system includes purpose-made flashings to windows, edges and other junctions.
- 2.4.3 The cladding supplier provided a 15-year 'Materials Components Guarantee' and a 5-year 'Workmanship Guarantee', both dated September 1999, relating to the cladding and plaster systems. Both guarantees carried an exclusion clause, whereby the supplier did not accept responsibility for consequential damage of any kind to any building component that has occurred as a result of the use of untreated timber.
- 2.5 The expert noted no evidence as to timber treatment. Given the date of construction in 1999 and the lack of other evidence, I consider that the wall framing is not treated.

## **3. Background**

- 3.1 The authority issued a building consent (No. 99/0852) on 10 May 1999 under the Building Act 1991, with construction generally taking place during 1999.
- 3.2 The authority's contractor carried out inspections during construction including pre-line inspections on 28 June 1999. Although construction was apparently completed during 1999, final inspections were not carried until 2002.
- 3.3 The authority's contractor carried out final plumbing and building inspections on 26 April 2002, and the inspection summary records a number of minor outstanding items. The only item related to the claddings was a requirement for a producer statement.
- 3.4 The applicant did not apply to the authority for a code compliance certificate until 15 October 2009. In a series of emails, the authority referred to a certificate of acceptance rather than the code compliance certificate requested by the applicant. On 15 October 2009 the authority stated that it was:

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<sup>4</sup> Exterior Insulation and Finish System

...not in a position to grant a certificate of acceptance for the BC990852. The Building Act 2004 does not allow Territorial Authorities to grant a COA on a building consent that was issued by that authority. Your options to get the building signed off are as follows.

Apply for a new consent to bring the building up to code and receive a code of compliance certificate for that consent.

Employ an independent Building surveyor to complete a final inspection and report on the building. TCC will place the report on the property [file] free of charge.

3.5 The authority did not issue a notice to fix as required under section 164(2) of the Building Act 2004, and I have seen no correspondence to the applicant regarding the authority's reasons for its refusal of the code compliance certificate requested by the applicant. The applicant had not applied for a certificate of acceptance; and I consider that the reasons provided for the refusal were therefore not relevant to the applicant's request.

3.5 I do not believe that this is acceptable. It is important that should an owner be declined a code compliance certificate, they be given clear reasons why, either through a letter or the issuing of a notice to fix. This requirement is set out in section 95a of the Act. The owners can either then act on those reasons or apply for a determination if they dispute them.

### **3.6 The inspection company's report**

3.6.1 The applicant commissioned a property inspection company to provide an assessment of the building's condition. The inspection company visited the site on 29 October 2009.

3.6.2 The inspection company described the construction of the building, assessing the condition of materials and services throughout the interior and exterior of the house. Non-invasive moisture readings were taken and no evidence of moisture penetration was noted, with the EIFS cladding described as generally 'good for its age'.

3.6.3 The report described various maintenance tasks required and identified cladding areas considered to be at risk, including:

- minor cracks in the cladding
- the need for repainting the cladding
- the end of the apron flashing and gutter
- a lack of sufficient ground clearance in some areas.

3.6.4 The report stated that the house was 'structurally sound and in good condition for its age', concluding:

There are no visual signs of premature deterioration or structural deficiencies at present. Furthermore, subject to the comments and recommendations made [within the report] and the dwelling being adequately maintained no accelerated deterioration is expected to take place in the foreseeable future.

3.6.5 The inspection company advised the applicant to carry out the recommended repairs prior to applying for a determination regarding the lack of a code compliance certificate.

3.7 The Department received an application for a determination on 4 November 2009 and sought further information from the parties regarding the matters in dispute. Following a series of emails, the authority confirmed that matters to be determined:

...are now limited to compliance with E2 and B2, plus a modification of the commencement of the B2 durability period.

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

4.1 In its submission dated 30 October 2009, the applicant outlined the background to the current situation and referred to the report by the inspection company, noting:

This report identifies several minor items that require rectification in order for the building to meet the current building code. All identified items are currently being rectified.

4.2 The applicant forwarded copies of:

- the drawings and specification
- the consent documentation
- the inspection summary
- some of the correspondence with the authority
- various other guarantees, certificates, statements and information.

4.3 The authority acknowledged the applicant's submission, but made no submission in response.

4.4 In an email submitted on 10 December 2009, the applicant submitted that as the building had performed well for 10 years and there is no evidence of water ingress the installation of weep-holes and ventilation holes should not be required.

4.5 A determination was issued to the parties on 21 December 2009. The draft was issued for comment and for the parties to agree a date when the house complied with Building Code Clause B2 Durability.

4.6 Both parties accepted the draft determination and agreed that the house complied with Clause B2 on 28 June 1999.

4.7 The applicant made a further submission in an email dated 9 January 2010, noting that the remedial work listed in the draft determination had been undertaken and attaching a copy of a producer statement for repairing cracks to the cladding and repainting. The applicant stated that the authority 'is happy therefore not to issue a notice to fix but to proceed directly to inspect the work upon receiving the determination' (refer paragraph 8). No further submission has been received from the authority regarding the remedial work.

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

5.1 As mentioned in paragraph 1.5, I engaged an independent expert to assist me. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the house on 25 and 30 November 2009 and provided a report that was completed on 2 December 2009. The expert's company incorporates the inspection company that had previously been engaged by the owner (refer to paragraph 3.6) and this was noted in the draft determination. The authority raised no concerns about a conflict of interest in this matter.

### **5.2 General**

5.2.1 The expert noted that the house generally appeared to accord with the consent drawings and specifications.

5.2.2 The expert noted that the overall standard of workmanship appeared to be generally good, except for items outlined in paragraph 5.5, with the cladding 'well fixed and aligned' and the roof flashings 'tidy and effective'.

5.2.3 The expert considered that control joints were not required for the dimensions of EIFS cladding used on this house and the hairline cracks would be 'easily fixed with silicone and paint'. The cladding finish appeared satisfactory, although the expert considered the house was overdue for repainting.

### **5.3 Windows**

5.3.1 The windows in the EIFS cladding are recessed, with metal head flashings and appeared to have been installed in accordance with the manufacturer's instructions at the time, with uPVC jamb, sill flashings and a drainage gap under the sill flange. The expert saw no sign of moisture penetration and considered that the flashings were performing adequately.

5.3.2 The windows in the concrete block veneer are face fixed over rebated jamb blocks, with sill flashings over sloping sill blocks.

5.4 The expert inspected the interior of the house, taking non-invasive moisture readings internally, and noted no evidence of moisture. The expert also took 19 invasive moisture readings through the cladding at areas considered at risk, and moisture levels between 8% and 13% confirmed that no moisture was penetrating into the wall framing.

5.5 Commenting specifically on the claddings, the expert noted that:

- there are no weep holes in the block veneer to provide ventilation of the cavity in accordance with NZS3604 however there is no evidence that ingress of exterior moisture is/has taken place
- there is insufficient clearance of the block veneer cladding above the ground where the floor slab steps down at the walls around the north corner
- there are minor cracks in the EIFS cladding, including at window reveals and the junction of the balustrades with the upper walls

- there are hairline cracks in the plastered concrete veneer cladding
- the claddings require repainting.

5.6 The expert also made the following comments:

- Although there is no evidence of a saddle flashing at the junction between the deck balustrade capping and the wall, with the junction reliant on sealant for weathertightness, there is no evidence of moisture penetration into the junction.
- Although the clearance from the deck floor to the inside floor level is only 40mm, the deck is well-drained towards satisfactory outlets and there is no evidence of associated moisture penetration.
- Although the concrete block veneer appears to lack control joints in the walls longer than 6m, resulting in hairline cracks in the plaster over some mortar joints, the cracks are cosmetic and not considered to be of structural concern.

5.7 The expert also noted that other items identified in the past appeared to have been satisfactorily attended to.

5.8 A copy of the expert's report was provided to the parties on 2 December 2009.

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

### **6. Weathertightness**

6.1 The approach in determining whether building work is weathertight and durable and is likely to remain so, is to examine 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.

#### **6.2 Weathertightness risk**

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

##### **Increasing risk**

- the house is two storeys high in part
- although fairly simple in plan, the house has some complex junctions
- the upper walls have monolithic cladding fixed directly to the framing
- there is an deck, with monolithic clad balustrades, set into the roof slope
- the external wall framing is not treated to a level that provides resistance to decay if it absorbs and retains moisture

##### **Decreasing risk**

- the house is in a medium wind zone
- there are eaves and verge projections to shelter most of the walls.

6.2.2 When evaluated using the E2/AS1 risk matrix, these features show that two elevations of the house demonstrate a moderate weathertightness risk rating and two a high risk rating. While not a requirement when this house was constructed, a drained cavity is now required by E2/AS1 for the EIFS cladding to this building.

### **6.3 Weathertightness performance**

6.3.1 Generally the claddings appear to have been installed in accordance with the manufacturer's instructions and good trade practice. However, taking account of the expert's comments in paragraph 5.5, I conclude that remedial work is necessary in respect of the following:

- the lack of clearance of the block veneer cladding above the ground
- the minor cracks in the EIFS cladding
- the hairline cracks in the plastered concrete block veneer cladding
- the deteriorating paint coatings.

6.3.2 I also note the expert's comments in paragraph 5.6, and accept that these areas are adequate in the particular circumstances.

6.3.3 Notwithstanding the fact that the EIFS backing sheets are fixed directly to the timber framing, thus inhibiting drainage and ventilation behind the cladding sheets, I have noted certain compensating factors that assist the performance of the cladding in this particular case:

- The EIFS cladding is generally installed according to good trade practice and to the manufacturer's instructions.
- There is no evidence of moisture penetration over the past 10 years.

6.4 These factors can assist the building to comply with the weathertightness and durability provisions of the Building Code.

### **6.5 Weathertightness conclusion**

6.5.1 I consider the inspection company's and the expert's report establishes that the current performance of the building envelope is adequate because it is preventing water penetration through the claddings at present. Consequently, I am satisfied that the house complies with Clause E2 of the Building Code.

6.5.2 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 cladding faults on the house are likely to allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.

6.5.3 Because the faults identified with the claddings occur in discrete areas, I am able to conclude that satisfactory rectification of the items outlined in paragraph 6.3.1 will result in the house being brought into compliance with Clauses B2 and E2

- 6.6 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 The authority has concerns regarding the durability, and hence the compliance with the building code, of certain elements of the house taking into consideration the age of the building work completed in 1999.
- 7.2 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).
- 7.3 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.
- 7.4 In this case the delay between the completion of the building work in 1999 and the applicant’ 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 1999.
- 7.5 It is not disputed, and I am therefore satisfied that all the building elements installed in the house, with the exception of the items that are to be rectified, complied with Clause B2 Durability on 28 June 1999. This date has been agreed between the parties (refer paragraph 4.6).
- 7.6 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.

7.7 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, as 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 1999.

7.8 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.

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

8.1 A notice to fix should be issued that requires the owners to bring the house into compliance with the Building Code, identifying the defects listed in paragraph 6.3.1 and 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 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 I suggest that the parties adopt the following process to meet the requirements of paragraph 8.1. Initially, the authority should issue the notice to fix. The applicant should then produce a response to this in the form of a detailed proposal, produced in conjunction with a competent and suitably qualified person, as to the rectification or otherwise of the specified matters. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding determination.

8.3 Once the matters set out in in paragraph 6.3.1 have been rectified to its satisfaction, the authority may issue a code compliance certificate in respect of the building consent amended as outlined in paragraph 7.

## **9. The decision**

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

- the external envelope does not comply with Clause B2 of the Building Code, insofar as it relates to Clause E2

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

9.2 I also determine that:

- (a) all the building elements installed in the house, apart from the items that are to be rectified as described in Determination 2010/005, complied with Clause B2 on 28 June 1999.
- (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 28 June 1999 instead of from the time of issue of the code compliance certificate for all the building elements, except the items to be rectified as set out in paragraph 6.3.1 in Determination 2010/005.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 22 January 2010.

John Gardiner  
**Manager Determinations**