



Determination 2011/066

The refusal to issue code compliance certificates for a 17-year-old house and an 11-year-old extension at 9 Main Street, Otautau



1. The matters to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“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 to the determination are:

- the owners, A Rattray and E Rabbitt (“the applicants”)
- the Southland District Council (“the authority”), carrying out its duties and functions as a territorial authority or building consent authority.

1.3 The matter arises from the authority’s decision to refuse to issue code compliance certificates for a 17-year old house and an 11-year old extension because it was not satisfied that they complied with certain clauses² of the Building Code (First

¹ The Building Act, Building Code, Compliance documents, past determinations and guidance documents issued by the Department are all available at www.dbh.govt.nz or by contacting the Department on 0800 242 243

² In this determination, unless stated otherwise, references to the sections are sections of the Act and references to clauses are to clauses of the Building Code

Schedule, Building Regulations 1992). The authority's primary concerns about the compliance of the building relate to the weathertightness of the cladding.

1.4 I take the view that the matter to be determined³ is whether the authority's decision to refuse to issue the code compliance certificates was correct. In deciding this, I must consider:

1.4.1 **Matter 1: the external envelope**

Whether the external envelope to the dwelling and extension 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 plaster and fibre-cement sheet cladding, the windows, the metal roofing and the flashings), as well as the way the components have been installed and work together. I consider this matter in paragraph 6.

1.4.2 **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. I consider this matter in paragraph 7.

1.5 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 the matters described above.

1.6 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 work

2.1 The house has been constructed on a terrace at the top of a medium to steeply sloping north-west facing section in a medium wind zone in terms of NZS3604⁴.

2.2 The original house

2.2.1 The original house was a single level, rectangular shaped building that is simple in design. It is constructed with light weight timber framing, founded on timber pile piles and concrete ribbon foundations.

2.2.2 The cladding to the original house is face-fixed monolithic style fibre-cement sheet cladding with a textured paint finish.

2.2.3 The roof structure is a low pitch in a gable configuration with profiled metal cladding and 450mm eaves over all walls except for the dining room bay window.

³ Under sections 177(1)(b) and 177(2)(d)

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

2.3 The extension

2.3.1 The extension comprises a rectangular addition attached to the north elevation and is constructed with similar design features and materials as the original house.

2.4 The expert removed a timber sample from the bottom plate of the dining room corner (part of the original house) and forwarded it to a testing laboratory for analysis. The biodeterioration consultant's analysis confirmed that the sample was 'almost certainly' treated with boron to the equivalent of H1.2. Given this information I consider that the wall framing to the original house was treated to a level that would resist decay. I have received no information regarding the level of timber treatment to the wall framing of the extension.

3. Background

3.1 On 12 January 1994 the authority issued a building consent (BLD/1993/1374/1) for the original house, and in January 2000 the authority issued a building consent (BLD/2000/21/1) for the extension. Both consents were issued under the Building Act 1991.

3.2 I have seen no inspection records with respect to either building consent, although from the authority's correspondence it would appear that inspections were undertaken.

3.3 It seems that in the process of selling the house the former owner wished to obtain a code compliance certificate and discussed the process with the authority. The authority issued two notices to fix to the former owners; the first dated 13 October 2010 for the original house and the second dated 14 October in respect of the extension. I note that in the covering letter to the former owner, dated 15 October 2010, the authority states that the notices to fix must be issued to 'enable the determination process to progress'.

3.4 On 26 October 2010, the authority wrote an email which stated:

From the outset [the authority] have suggested to [the former owner] that he should get an expert in weathertightness to check his cladding system. [The authority] suggest the most cost effective method of achieving this is to seek a determination from the [Department]. [The author's] experience to date is that these reports are very detailed and indicate clearly the extent of the problem.

3.5 I consider this advice is inappropriate. A determination issued under the Act is a statutory mechanism intended to resolve disputes about compliance and regulatory process. It is not intended as a 'cost effective' means by which a building owner can obtain a detailed technical report about their house. Further, the extent of an investigation required to support a determination is unlikely to be sufficient for a contractor to carry out remedial work (refer paragraph 8.2). Investigations into the extent of work required to achieve compliance will still be required. I ask that the authority refrain from making such suggestions to owners.

3.6 The authority reissued the notices to fix on 5 November 2010 to the former owner, taking into account work that was undertaken to address some of the areas of non-compliance. The outstanding areas of non-compliance related to:

For both the original house and the extension

- lack of a capillary gap at the base of the cladding
- ground clearance not as per manufacturer's specifications
- uncontrolled cracks to the cladding indicating a lack of expansion control joints.

For the extension only

- a lack of head flashing and sealant strips to the laundry window.

3.7 The applicants purchased the property from the former owner and subsequently applied for a determination which was received by the Department on 14 February 2011.

4. The submissions

4.1 The applicants submitted:

- a covering letter
- detailed photographs
- copies of building consent documentation for both consents
- copies of the original and reissued notices to fix
- correspondence between the former owners and the authority.

4.2 The authority acknowledged the application and advised the Department that they did not wish to make a submission.

4.3 The draft determination was sent to the parties on 31 May 2011. The draft was issued for comment, and for the parties to agree on a date when the building work, with the exception of the items to be fixed, complied with Clause B2 Durability.

4.4 The applicants accepted the draft without comment. The authority accepted the draft subject to comments made to the Department in an email dated 15 June 2011. In the email the authority submitted that:

As the cladding is less than 15 years old this will require an additional building consent as the system has failed within the 15 year durability requirement timeframe. The original cladding system is believed to be a [named] system. For consideration of repair, the completed remedial work must [be] based on one complete system for a PS3 to able to be provided for reasonable grounds to issue the consent or CCC?

Because of this compatibility issue of the repair with the original system, [the authority's] view is that it would have difficulty determining compliance for anything other [than] a total reclad.

4.5 In response to the authority I note the following:

- The building has a low weathertightness risk profile, is single storey and simple in design with most the walls protected by eaves. I have found that the correction of the discrete defects in the cladding will bring the building into compliance with the Building Code (refer paragraph 6.3.3).

- I do not accept the authority's position that a new consent is necessary because the cladding has failed to meet the requirements of Clause B2. There would appear to be no reason why the necessary repairs cannot be carried out as amendments to the original consents.
- An authority cannot demand that a PS3⁵ be provided: it has the ability to accept a PS3 if one is offered, but only if it believes it is reasonable to do so.
- In my view it is not necessary that the repaired cladding 'must be based on one complete system' for it to be considered code-compliant. The two parts of the building were built at different times, and are likely to have used slightly different construction methods. However, from the expert's report it appears the cladding has come from the same manufacturer. The agreed repair work should take this into account.

4.6 Both parties agreed that the building elements, with the exception of the items to be fixed, achieved compliance with Clause B2 on 1 January 2000 in respect of the original dwelling, and 1 July 2003 in respect of the extension.

5. The expert's report

5.1 As mentioned in paragraph 1.6, I engaged an independent expert to advise me. The expert is a member of the New Zealand Institute of Building Surveyors. He visited the house on 24 March 2011 and furnished a report that was completed on 5 May 2011. A copy of this report was provided to the parties on 5 May 2011.

5.2 General

5.2.1 The expert concluded that both the original dwelling and the extension appeared to have been constructed in accordance with the respective building consent plans although he noted that the cladding material was nominated but no further details were provided. The expert assumed that the intention was to comply with the manufacturer's recommendations and specifications.

5.2.2 The expert noted that the overall appearance of the cladding was an even true finish and line. Attention to maintenance was evident, and he concluded that this had helped to prevent moisture ingress. He also noted that the interior and exterior finish and workmanship appeared to meet an acceptable industry standard.

5.2.3 All joinery appeared to have been generally installed as per the manufacturer's specifications, and evidence indicated it had been successful in maintaining a weathertight barrier.

5.2.4 A timber sample was taken from the bottom plate of the dining room (part of the original house) and sent for laboratory testing. Laboratory analysis confirmed the wood was treated with boron according to hazard class 1 of NZS 3640:1992.

⁵ Producer Statement - Construction

5.3 Moisture levels

- 5.3.1 The expert undertook non-invasive moisture readings on all external elevations.
- 5.3.2 Elevated moisture readings (26%) were recorded within the perimeter floor joists at bedrooms 1 and 2, resulting from capillary attraction between the wall and foundation cladding materials. There was no evidence of widespread damage, but isolated decay was evident and the rear face of the foundation cladding was damp in the overlap area. The cladding below the window of bedroom two was visibly damp and the paint was spalling from the substrate.
- 5.3.3 Internal linings were removed from behind the seating area in the dining room. Moisture readings in both the bottom plate and the wall framing indicated no evidence of moisture ingress.
- 5.3.4 The subfloor space was accessed and found to be dry and sound.
- 5.3.5 The expert also noted that a number of the sheet joints had been repaired though no evidence of moisture ingress was found.

5.4 The cladding

- 5.4.1 Commenting specifically on the external envelope, the expert observed:
- insufficient clearance between the north facing patio deck and the living room floor level; though the expert noted that this area is well protected by very wide eave projections and that the patio cobble stones has adequate fall away from the building
 - no capillary gap at the base of the cladding between the wall and foundation cladding (which closes off the subfloor space) and the junction has not been installed as per manufacturer's specifications
 - the majority of the cladding sheet joints have hairline cracks
 - evidence that the required control joints had not been installed as per the manufacturer's specifications
 - no head flashing installed above the east facing dining room window, but the expert believes that there are no issues arising from this situation
 - no head flashing is installed above the laundry window. However the expert noted the window has been installed with a sealant joint at the junction of the window and cladding, and the window is in a sheltered location and is expected to perform with the exception of hosing directly at the window head.
 - an area of under floor foil insulation blanket draped on the ground in the vicinity of the junction between the addition and the original dwelling.

5.5 Summary

- 5.5.1 The expert concluded that the following remedial work was required in order to achieve compliance with the building code:
- repair all cladding joints in accordance with the manufacturer's recommendations
 - install vertical control joints (in accord with the manufacturer's specifications) to ensure movement release across the face of the cladding
 - remedy the lack of a capillary break between the base of the wall and the foundation cladding
 - re-fitting of the under floor insulation in the vicinity of the junction between the addition and the original dwelling.

Matter 1: The external envelope

6. Weathertightness

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

Increasing risk

- the walls have monolithic cladding fixed directly to the framing
- the external wall framing to the extension may not be treated to a level that provides resistance to decay if it absorbs and retains moisture

Decreasing risk

- the house is single level and simple in design
- it is sited in a medium wind zone
- the house is protected with 450mm eaves in most areas.

- 6.2.2 When evaluated using the E2/AS1 risk matrix, these features show the house has 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.

6.3 Weathertightness conclusion

- 6.3.1 I consider the expert's report establishes that the current performance of the building envelope is not adequate because it is allowing water ingress around the lower edge of the cladding (refer to paragraph 5.3.2). Consequently, I am satisfied that the house does not comply with Clause E2 of the Building Code.
- 6.3.2 The building work is also required to comply with the durability requirements of 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 is currently allowing the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.
- 6.3.3 The faults identified in the cladding are discreet in nature and in my view have not led to a systemic failure of the cladding. I am of the view that satisfactory rectification of the items outlined in paragraphs 5.5.1 will result in the cladding being brought into compliance with Clauses E2 and B2.
- 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 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).
- 7.2 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.

- 7.3 In this case the delay between the completion of the building work 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 the time work was completed and the house occupied.
- 7.4 It is not disputed, and I am therefore satisfied that all the building elements, apart from the items to be rectified, complied with Clause B2 on 1 January 2000 in respect of the original dwelling, and 1 July 2003 in respect of the extension. This date has been agreed between the parties (refer paragraph 4.6).
- 7.5 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.
- 7.6 I continue to hold the view, and therefore conclude that:
- the authority has the power to grant an appropriate modification of Clause B2 in respect of the building elements, on application by the owner
 - 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.
- 7.7 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.

8. What is to be done?

- 8.1 The authority should issue a notice to fix requiring the owners to bring the building into compliance with the Building Code. The notice should identify the defects listed in paragraph 5.5.1 and refer to any further defects that might be discovered in the course of investigation and rectification. The notice should not specify how the defects are to be fixed and the building brought into compliance with the Building Code, as that is a matter for the owners to propose and the authority to accept or reject.
- 8.2 In response to the notice to fix, the owners should engage a suitably qualified person to undertake a thorough investigation of the external envelope to determine the extent of the defects and produce a detailed proposal describing how the defects are to be remedied. In my view the sheet joints in particular will need thorough investigation to determine how these were installed in order to determine an appropriate method of repair. The proposal should be submitted to the authority for

approval. 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 paragraph 5.5.1, including any further defects discovered during investigations, 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 determine that the external envelope does not comply with Clause E2, Clause B2 and Clause H1 of the Building Code, and accordingly I confirm the authority's decision to refuse to issue code compliance certificates.

- 9.2 I also determine that:

- a) apart from the items that are to be rectified as described in Determination 2011/066, all the building elements in the original house complied with Clause B2 on 1 January 2000, and the building elements in the extension complied with Clause B2 on 1 July 2003.

- b) Building Consent 93/1374 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 January 2000 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 2011/066.

- c) Building Consent 00/0021 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 of the building elements, except for the items to be rectified as set out in Determination 2011/066.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing
on 30 June 2011

John Gardiner
Manager Determinations