



Determination 2010/135

Refusal of a code compliance certificate for a 6-year-old house completed under the supervision of a building certifier at 19 Conifer Lane, Kerikeri



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, M and A Birchall (“the applicants”)
- the Far North District Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.

¹ The Building Act 2004 is available from the Department’s website at www.dbh.govt.nz.

1.3 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for a house, because it is not satisfied that the building work complies with certain clauses² of the Building Code (First Schedule, Building Regulations 1992). The refusal arose because the building work had been undertaken under the supervision of Approved Building Certifiers Limited (“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.

1.4 The matter to be determined³ is therefore whether the authority was correct to refuse to issue a code compliance certificate for the house.

1.5 In deciding this matter, I must consider:

1.5.1 Matter 1: The external envelope

Whether the external claddings to the alterations (“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 metal wall cladding, the windows, the metal roof claddings and the flashings), as well as the way components have been installed and work together. (I consider this in paragraph 7.)

1.5.2 Matter 2: The remaining Building Code clauses

Whether the building work complies with the remaining clauses relevant to this house. (I consider this in paragraph 8.)

1.5.3 Matter 3: 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 10.)

1.6 The available evidence

1.6.1 Based on the information and records supplied, I consider there is sufficient evidence available to allow me to reach a conclusion on the code compliance of the house. This determination therefore considers whether it is reasonable to issue a code compliance certificate for the building work. In order to determine that, I have addressed the following questions:

- (a) Is there sufficient evidence to establish that the house complies with the Building Code? I address this in paragraph 5.
- (b) If not, are there sufficient grounds to conclude that, once any outstanding items are repaired and inspected, the building work will comply with the Building Code? I address this question in paragraph 9.

1.6.2 In making my decision, I have considered the applicants’ submission, the report of the expert commissioned by the Department to advise on this dispute (“the expert”) and the other evidence in this matter. With regard to weathertightness, I have evaluated this information using a framework outlined in paragraph 7.1.

² 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.

³ Under section 177(2)(d) of the Act

2. The building work

- 2.1 The building work consists of a single-storey house with an attached garage, which is situated on a gently sloping large rural site. The engineering calculations categorise the site as being in a high wind zone for the purposes of NZS 3604⁴. The garage is attached to the western end of the south wall of the house section to form a fairly simple L-shaped building with a low weathertightness risk (see paragraph 7.2).
- 2.2 The garage has a concrete floor slab and concrete block foundation walls, while the house has timber piles and a suspended floor. Construction is generally conventional light timber frame, with corrugated steel wall cladding, aluminium windows and corrugated steel roofing. A timber deck, with spaced timber slats and open glazed balustrades to the northwest end, extends the full length of the north elevation and around the west wall of the house to finish against the north wall of the garage.
- 2.3 The two 8° mono-pitched roofs intersect above the garage/house dividing wall, with a small membrane-lined internal gutter at the junction and a hip leading to the southeast internal corner. Eaves and verges are 600mm, except above the main entry and the garage doors where eaves projections are more than 1 metre deep.
- 2.4 The wall cladding is horizontal corrugated steel fixed through timber battens and the building wrap to the timber framing. The battens form a drained cavity behind the cladding. A timber facing overlaps the cladding at the tops of the walls, with compressible corrugated foam seals at the junction of the facing and the exposed roofing soffit above.
- 2.5 The expert was unable to sight evidence of timber treatment. The specification calls for the wall framing to be 'H1' and the deck and floor framing to be 'H3'. Given the lack of evidence and the date of framing erection in about April 2004, I am unable to determine the level of treatment, if any, in the wall framing.

3. Background

- 3.1 The authority issued a building consent (No. ABA 2004 1250) for the house on 22 January 2004 under the Building Act 1991, based on a building certificate issued by the building certifier on 22 December 2003.
- 3.2 The building certifier carried out the following inspections during construction:
- timber piles and slab/foundations on 20 February 2004 (which passed)
 - sub-floor framing on 4 March 2004 (which passed)
 - Drainage on 27 March 2004 (which passed, with an undated as-built drainage plan later provided).
 - Bracing and framing inspection on 27 May 2004 (which passed, noting 'batts' insulation had not yet been installed).

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 3.1 An 'Electrical Certificate of Compliance' was provided on 9 August 2004 and covered 'complete wiring of house', which indicates that the house was substantially completed by the end of August 2004.
- 3.2 In September 2004, the building certifier was deregistered and the property file was transferred to the authority for the completion of inspections. No further inspections or correspondence followed until the property was offered for sale in 2010 and the applicants apparently sought a code compliance certificate for the house.
- 3.3 I have seen no formal response from the authority or any record of a final inspection. However, according to the applicants, a code compliance certificate was not issued 'because they did not do any site inspection prior to code of compliance inspection'.
- 3.4 The Department received an application for a determination on 28 October 2010.

4. The submissions

- 4.1 The applicants provided copies of:
- the consent documentation
 - the drawings and specification
 - the building certifier's inspection records
 - the as-built drainage plan
 - the electrical certificate of compliance dated 9 August 2004
 - various other items of information.
- 4.2 The authority made no submission.
- 4.3 In making no submission for this determination, the authority has not provided me with any evidence of why it considers the house is not code compliant. I do not believe that this is acceptable. It is important that, should an owner be declined a code compliance certificate or a certificate of acceptance, they be given clear reasons why. The owners can either then act on those reasons or apply for a determination if they dispute them.
- 4.4 Copies of the owners' submission and other evidence were provided to the authority.
- 4.5 A determination was issued to the parties on 2 December 2010. The draft was issued for comment and for the parties to agree a date when the house, with the exception of the matters that are to be rectified, complied with Building Code Clause B2 Durability.
- 4.6 The parties accepted the draft without comment. The parties also agreed that compliance with B2 was achieved on 1 September 2004.

5. Grounds for the establishment of code compliance

- 5.1 In order for me to form a view as to the code compliance of the building work, I established what evidence was available and what could be obtained considering that the building work is completed and some of the elements were 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 inspection records, but I consider it important to look for evidence that corroborates these records and can be used to verify that the building certifier's inspections were properly conducted.
- 5.4 In summary, I find that the following evidence allows me to form a view as to the code compliance of the building work as a whole:
- The inspections carried out by the building certifier, indicating satisfactory inspections of the inaccessible components (see paragraph 3.2).
 - The expert's report below.

6. The expert's report

- 6.1 As mentioned in paragraph 1.6.2, 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 8 November 2010 and provided a report that was completed on 20 November 2010. The expert noted that there had been 'little rainfall in the weeks preceding' his inspection.

6.2 General

- 6.2.1 The expert considered that the overall standard of workmanship was 'satisfactory'. The wall cladding had a 'uniform appearance' and was generally in good condition, with no signs of 'undue movement'.
- 6.2.2 The house generally appeared to accord with the consent drawings, except that:
- the metal wall cladding was fixed over a cavity in lieu of being direct-fixed
 - the internal gutter was lined with membrane in lieu of metal.
- 6.2.3 The expert inspected the interior of the house, taking non-invasive moisture readings internally, and noted no evidence of moisture. In view of the lack of any apparent problems, the expert did not consider it necessary to carry out invasive testing.

6.3 The windows

- 6.3.1 The expert noted that windows and door installation generally appeared satisfactory, with metal head flashings to all windows and no signs of moisture penetration. The head flashing extends over metal facings at the jambs, which overlap and are riveted to a metal sill facing. Corrugated foam seals are inserted under the jamb facings.
- 6.3.2 The windows are face-fixed against the metal facings, with seals under the jamb flanges and no sill flashings. The expert removed an internal architrave and was able to observe foam air seals installed and no signs of moisture penetration.

6.4 The corrugated steel wall cladding

- 6.4.1 The expert noted that cladding had been installed with very few vertical joints and satisfactory fixings. The expert removed a section of cladding from a garage wall and was able to observe the H3.2 treated vertical cavity battens.
- 6.4.2 The expert noted that the timber deck was separated from the wall cladding with spacing blocks providing a drainage gap at the deck to wall junctions.

6.5 The roof

- 6.5.1 The expert noted that the underside of the roofing and the rafters were exposed at the eaves. A timber facing was installed to the top of the walls, with the rafters penetrating this. At the north oblique eaves, a corrugated foam seal had been pushed into the underside of the roofing to seal the junction with the facing.
- 6.5.2 The expert inspected the small internal gutter between the garage and house roof, noting that an overflow was fitted and that the gutter appeared to be satisfactorily draining water.

6.6 Commenting specifically on the external envelope, the expert noted that:

- the penetrations of the exposed timber rafters with the facings are unsealed
- the foam seals to exposed eaves are missing in some areas
- some corrugated foam seals are missing at other cladding junctions
- clearances below the wall cladding are insufficient at the southeast corner
- the base closures to some drained cavities are missing
- the bottom mitre joints of the ranchslider need checking and resealing.

6.7 The expert made the following additional comments:

- Although the head flashings lack stop ends, the ends have been sealed with sealant to limit the amount of water likely to drain off the ends into the cavity.
- Although the upper cladding at several windows touches the head flashing, the expert considered that this 'minor defect is unlikely to cause problems' due to the added protection of the cavity.

6.8 Compliance with the relevant code clauses

6.8.1 The expert assessed the house for compliance with the other relevant clauses of the Building Code. (I have added comments where I consider appropriate).

6.8.2 B1 Structure

- There is no evidence of structural stress or excessive movement.
- The subfloor framing and bracing is visible and appears satisfactory.
- Ply bracing was observed where cladding was removed from the garage wall
- I also note that:
 - structural elements appear to be unchanged, so the design engineer's calculations remain relevant to the completed structure
 - the certifier's inspection records note satisfactory inspections of foundations, floor slab, bracing, fixings and lintels.

6.8.3 C Fire safety

- Ceiling insulation has laid over the recessed downlights.

6.8.4 E1 Surface water

- There are no hard paving areas, with the driveway surfaced with gravel.
- There are no apparent problems relating to surface water drainage.
- I also note that:
 - the site drainage plan in the consent drawings show a water tank to the southwest and notes that the 'overflow from water tank to be taken to an open water course'
 - the certifier has recorded a satisfactory drainage inspection
 - the as-built drainage plan shows downpipes discharging into a 90mm stormwater pipe which drains into the water tank
 - the site slopes to the northwest, with a well-ventilated subfloor area that would allow any sub-floor surface water to drain with the slope.

6.8.5 E3 Internal Moisture

- The expert was informed that the ensuite shower screen had leaked soon after installation but was currently dry
- There were no other aspects considered to be non-compliant.

6.8.6 F2 Hazardous building materials

- The deck balustrades incorporate safety glass infills
- I also note that the use of safety glass should be confirmed for the glazed doors and shower screens where needed.

6.8.7 F4 Safety from falling

- The deck balustrades are at an appropriate height and design.

6.8.8 F7 Warning systems

- Smoke alarms have not been installed

6.8.9 G1 to G8 (Personal hygiene, Laundering, Food preparation, Ventilation Interior environment, Natural light, Electricity and Artificial light

- The expert noted that all facilities are ‘in good working order’.
- I also note that:
 - the drawings show adequate provision to comply with the requirements.
 - The electrician has provided an electrical compliance certificate.

6.8.10 G12 Water Supplies and G13 Foul Water

- The water supply is provided by a 5000 gallon concrete tank.
- The plumbing fixtures appear to be operating satisfactorily.
- I also note that:
 - the consent documents include a specifically designed on-site waste water system, with a septic tank and soakage trenches
 - the certifier has recorded a satisfactory drainage inspection, which included a pressure test of the water supply pipes
 - the as-built drainage plan shows the water tank and the effluent system installed as per the consent drawings and specifications.

6.8.11 H1 Energy Efficiency

- Insulation was observed in the roof space.
- Under-floor foil is visible in the subfloor
- Installation appears satisfactory, except for downlights (see paragraph 6.8.3).
- I also note that:
 - fibreglass wall insulation is shown in the consent drawings.
 - the certifier’s pre-line inspection recorded that ‘batts’ were on-site, although not been installed at the time of inspection.

6.9 A copy of the expert’s report was provided to the parties on 25 November 2010.

Matter 1: The external envelope**7. Weathertightness**

7.1 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).

7.2 Weathertightness risk

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

Increasing risk

- the house is in a high wind zone
- although simple in plan and form, the monopitched roofs include a complex junction and some oblique eaves that reduce the shelter afforded to the walls
- the external wall framing may not be treated to a level that provides sufficient resistance to decay if it absorbs and retains moisture

Decreasing risk

- the house is single-storey and simple in plan and form
- the free-draining deck is attached to the house at ground level
- the walls have metal cladding fixed over a drained cavity
- there are verges and acute eaves projections to shelter most of the walls.

7.2.2 When evaluated using the E2/AS1 risk matrix, these features show that all elevations of the house demonstrate a low weathertightness risk rating. I note that, if the details shown in the current E2/AS1 were adopted to show code compliance, the horizontal profiled metal cladding would require a drained cavity, which has been provided for the cladding to this house.

7.3 The oblique eaves

7.3.1 This building incorporates oblique eaves above the north wall of the house and the west wall of the garage. The eaves and verge soffits are unlined, with the underside of the corrugated steel roofing and the timber rafters exposed. At the tops of the walls, timber facings overlap the corrugated wall cladding and compressible corrugated foam seals are inserted at the junction of the facings with the roofing.

7.3.2 In regard to the particular weathertightness risks of the oblique eaves junctions to this house, I make the following observations:

- The eaves projections are more than 600mm deep, which limits the likelihood of wind-blown rain hitting the roof to wall junction.
- The 8° roof pitch is fairly low, which limits the likelihood of wind-blown rain tracking down the slope of the underside of the roofing to reach the junction.
- The roof to wall junction is protected by the compressible foam seals, which are visible and able to be regularly monitored and maintained.
- Any moisture penetrating the junction should be drained by the cavity behind the cladding to the outside, without penetrating into the wall or roof framing.

7.3.3 Taking the above into account, I have reasonable grounds to conclude that the junctions at the oblique eaves will be adequate in these particular circumstances, providing the seals are monitored and well maintained (see paragraph 7.5.4).

7.4 Weathertightness performance

- 7.4.1 Taking account of the expert's report, although the claddings generally appear to have been installed in accordance with good trade practice, I conclude that minor remedial work is necessary to the areas outlined in paragraph 6.6.
- 7.4.2 I also note the expert's comments in paragraph 6.7 and I accept that these areas are adequate in the circumstances.

7.5 Weathertightness conclusion

- 7.5.1 I consider the expert's report establishes that the current performance of the building envelope is adequate because it is preventing moisture penetration at present. Consequently, I am satisfied that the building complies with Clause E2 of the Building Code
- 7.5.2 In addition, the building is 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 minor faults on the building are likely to 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 claddings occur in discrete areas, I am able to conclude that satisfactory rectification of the items outlined in paragraph 6.6 will result in the house being brought into compliance with Clauses B2 and E2 of the Building Code.
- 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, 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 remaining Building Code clauses

8. Discussion

- 8.1 Taking account of the expert's report, together with my added observations, I conclude that I conclude that the following items require addressing (the relevant code clauses are shown in brackets):
- the lack of smoke alarms (F7)
 - the ceiling insulation over the recessed downlights (C)
 - the leak to the ensuite shower screen (E3)
 - confirmation of safety glass in the glazed doors and shower screens (F2)

8.2 I consider that the expert's report, the building certifier's inspection records and the other documentation, allow me to conclude that the building work is likely to comply with the remaining relevant clauses of the Building Code.

9. The appropriate certificate to be issued

9.1 Having found that the building work can be brought into compliance with the Building Code, I must now determine whether the authority can issue either a certificate of acceptance or a code compliance certificate.

9.2 Section 437 of the Act provides for the issue of a certificate of acceptance where a building certifier is unable or refuses to issue either a building certificate under section 56 of the former Act, or a code compliance certificate under section 95 of the current Act. In such a situation, a building consent authority may, on application issue a certificate of acceptance. In the case of this building, the owners are seeking a code compliance certificate.

9.3 In this situation, where I have reasonable grounds to conclude that the building work can be brought into compliance with the Building Code, I take the view that a code compliance certificate is the appropriate certificate to be issued in due course.

Matter 3: The durability considerations

10. Discussion

10.1 There are concerns regarding the durability, and hence the compliance with the building code, of certain elements of the building taking into consideration the age of the building work completed in 2004.

10.2 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).

10.3 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.

- 10.4 In this case the delay between the completion of the building work in 2004 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 2004.
- 10.5 It is not disputed, and I am therefore satisfied, that all the building elements, with the exception of the matters that are to be rectified, complied with Clause B2 on 1 September 2004. This date has been agreed between the parties, refer paragraph 4.6).
- 10.6 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.
- 10.7 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 2004.
- 10.8 I strongly suggest 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.

11. What is to be done now?

- 11.1 The authority should now inspect the building work and 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 6.6 and paragraph 8.1 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.
- 11.2 Once the matters set out in paragraphs 6.6 and 8.1 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 10. I also note the variations from the consent drawings identified by the expert (see paragraph 6.2.2), and I leave these to the parties to resolve.

12. The decision

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

- the building envelope does not comply with Building Code Clauses B2 and E2
- the ceiling insulation does not comply with Building Code Clause C
- the ensuite shower screen does not comply with Building Code Clause E3
- no evidence has been provided to confirm the presence of safety glass in the glazed doors and shower screens (F2)
- no smoke alarms are installed to comply with Building Code Clause F7

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

12.2 I also determine that:

- (a) all the building elements installed in the building, apart from the items that are to be rectified as described in this determination, complied with Clause B2 on 1 September 2004.
- (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 September 2004 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 paragraphs 6.6 and paragraph 8.1 of Determination 2010/135.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 21 December 2010.

John Gardiner
Manager Determinations