



Determination 2010/108

Refusal to issue a code compliance certificate for a 6-year old building at 790A Hot Water Beach Road, Whitianga



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. The applicants are the owners G and S Webster (“the applicants”), and the other party is the Thames-Coromandel District Council (“the authority”) carrying out its duties as a territorial authority or building consent authority. I consider the former owner to be a person with an interest in this determination.
- 1.2 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for a 6-year-old building because the building work had been undertaken under the supervision of Nationwide 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 building certifier before it had issued a code compliance certificate for the building. The authority stated it could not be satisfied that the building work complies with certain clauses² of the Building Code (First Schedule, Building Regulations 1992).

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 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 determined³ is therefore whether the authority was correct to refuse to issue a code compliance certificate. In deciding this, I must consider:

1.3.1 Matter 1: The external envelope

Whether the external envelope of the building complies with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The external envelope includes the cladding, its configuration and components, junctions with other building elements, formed openings and penetrations, and the proximity of those building elements to the ground. I consider this matter in paragraph 7.

1.3.2 Matter 2: The remaining Building Code clauses

Whether the elements that make up the building work comply with the Building Code clauses relevant to this building. I consider this matter in paragraph 8.

1.3.3 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 building. I consider this matter in paragraph 9.

1.4 I note that the building is connected by a new covered walkway to an existing office building. This determination considers the walkway structure and where wall and roof areas form junctions with the office building, but does not consider the existing office building itself.

1.5 This determination considers whether there is sufficient evidence available to provide reasonable grounds for me to reach a conclusion as to whether this building will comply with the Building Code and it is therefore reasonable to issue a code compliance certificate. In order to determine that, I have addressed the following questions:

- (a) Is there sufficient evidence to establish that the building work complies with the Building Code? (refer paragraph 5)
- (b) If not, are there sufficient grounds to conclude that, once any additional investigation is carried out and outstanding items are resolved, the building work as referred to in paragraphs 1.3.1 to 1.3.3 will comply with the Building Code?

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 building work consists of a simple, single storey house constructed on a flat section in a location considered to be outside of the sea spray zone (as it was more than 500 metres from the sea). Although the authority has identified the location as being a high wind zone, the expert’s view is that the site is a medium wind zone due to the established shrubs and trees located around the perimeter of the site. I am

³ Under section 177(b)(i) of the Act (prior to 7 July 2010)

therefore satisfied that the building is situated within a medium wind zone for the purposes of NZS 3604⁴.

- 2.2 The building is light timber framed and sits on timber foundations.
- 2.3 Timber decks extend along two sides of the building. The deck on the north elevation is partially covered by a portion of the covered walkway which connects the new building with an existing building located on an adjacent site. The walkway roof is supported by timber posts and is also attached to the wall of the new building above its main entrance.
- 2.4 The exterior joinery is aluminium, and has been installed with aluminium head flashings and vertical timber battens along the side flanges. Where the curved roof of the covered walkway to the office building has been attached to the north elevation of the new building, the curved apron flashing has been bent at the ends to deflect water away from the exterior wall.
- 2.5 The building's roof has a single pitch, clad with trapezoidal profiled steel. Metal caps have been fitted along the top and sides of the bargeboards. The building has adequately-sized overhanging eaves on all elevations.
- 2.6 The new building has been connected to a potable water supply, and drainage is to an existing septic tank located in the garden area.

The cladding

- 2.7 The walls are timber framed with a 12mm plywood and vertical batten exterior wall cladding. The battens used are grooved, and each plywood sheet join has, in addition, been fitted with a galvanised horizontal flashing. The cladding is face fixed to the timber framing over a synthetic building wrap.
- 2.8 The expert was unable to establish whether the timber framing in the walls, roof and flooring of the building had been treated. Given the date of construction in 2003, I consider that it is likely that the wall framing is untreated.

3. Background

- 3.1 The authority issued a building consent (No. ABA/2003/2107), which I have not seen, for the building on 28 November 2003, under the Building Act 1991.
- 3.2 The following inspections were carried out by the building certifier during construction, including:
 - a framing and sub-floor inspection on 3 March 2004 which show no matters of non-compliance
 - a 'preline/bracing' inspection on 25 March 2004 (noting that moisture content readings were all below 18% apart from one location, which was being left to dry)

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 3.3 The building certifier carried out an inspection on 23 September 2004. Several non-compliant items were identified, including:
- sealing around various fittings to achieve compliance with Clause E3
 - the fascias and soffits needed to be painted
 - exterior brace sheets need to be ‘coated with an approved paint/stain system for 50 year durability’.
- 3.4 There is no apparent record of correspondence between the former owner and the authority concerning the issuing of a code compliance certificate; although the applicant, who purchased the property in April 2008, was given to understand that a code compliance certificate had been issued.
- 3.5 The authority declined to issue a code compliance certificate on 18 May 2010 due to the absence and reliability of inspection records, and the lapse of time since the work was completed, and noted that:
1. A number of inspections, which were identified by the [building certifier], have either not been undertaken or records have not been made available.
 2. Records reviewed for the inspections which were undertaken do not demonstrate compliance ...
- 3.6 The authority noted its particular concerns related to:
- the Clause ‘E2 exclusion claddings and code compliance certificate...’ contained within the building certifier’s certificate
 - the requirement by the building certifier that the building be painted and/or sealed to satisfy durability requirements
 - the placement or fixings of the external wall cladding elements, which were not inspected
 - the wood burner, which the building certifier stated was incorrectly installed, and which the authority states was not shown on the building consent application.
- 3.7 The Department received an application for a determination on 14 June 2010. Although further information was sought from the applicant, this material was not received.

4. The submissions

- 4.1 The applicant forwarded a copy of the letter from the authority to the applicant dated 18 May 2010 in which the authority details its refusal to issue a code compliance certificate.
- 4.2 The draft determination was issued to the parties on 7 September 2010. The draft was issued for comment and for the parties to agree a date when the building work could have complied with Building Code Clause B2 Durability.

- 4.3 The authority accepted the draft determination noting a typographical error. The applicant did not accept the draft determination. In a letter to the Department received on 8 October 2010 the applicant stated that ‘identified outstanding building requirements were completed immediately after the inspection [by the Department’s expert]’ and provided photos as verification. The photos showed that the holes to the exterior light fittings have been rectified, and the TPS main power cable to the subfloor area was fixed to the floor framing.
- 4.4 The authority proposed a B2 completion date of 31 October 2004. The applicant accepted this date in an email to the Department on 14 October 2010.

5. 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 the building work is completed. In this case, being that the house is on timber piles, most elements can be cost-effectively inspected.
- 5.2 In this case the evidence consists of:
- the building certifier’s inspection records
 - the expert’s report as outlined in paragraph 6
 - the proven performance of the building elements over six years.
- 5.3 The authority’s decision is based on the reliability and availability of the inspection records, as well as the time since the building work was completed. As the building work was completed, some of the building elements are now inaccessible. I therefore have considered whether I can rely on the inspections that were undertaken by the building certifier, particularly in regard to the inaccessible building components. I note that the building certifier was deemed to be competent to carry out inspection work at the time of construction. Accordingly, and in the absence of any evidence to the contrary, I take the view that I am entitled to rely on the inspection records. However, I also consider that the level of reliance is influenced by the information available to me and also by my evaluation of the building as outlined below.
- 5.4 I have evaluated the code compliance of this building by considering the following two broad categories of the building work:
- the weathertightness of the building (Clause E2) and its durability (Clause B2) insofar as it relates to weathertightness
 - the remaining relevant code requirements.

6. The expert's report

6.1 As mentioned in paragraph 1.6, 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 building on 20 July 2010 and provided a report dated 28 July 2010.

General

6.2 The expert noted that the building generally displayed a good quality of workmanship.

Weathertightness

6.3 The expert inspected the external envelope and the interior of the building and found no evidence of moisture ingress.

6.4 With respect to the durability of the external envelope, the expert noted that three exterior light fittings in the plywood cladding on the east elevation had a hole beside the fittings as if the hole for the lights' electrical cables had been drilled in the wrong places. Although no evidence of moisture ingress was observed, these holes could allow moisture to penetrate into the external wall framing.

Other code clauses

6.5 The expert inspected the foundations, external envelope, internal linings and fittings, internal wet areas, living room glass doors, ventilation, lighting provisions, plumbing and drainage, ceiling insulation, and the wood burner.

6.6 The expert was generally satisfied that the building work complied with the Building Code, however, noted:

- the ceiling insulation is not continuous and requires re-laying. (Clause H1)
- the TPS main power cable in the subfloor space had been laid directly on the ground and should be clipped to the underside of the timber floor (Clause G9)
- cabling in the ceiling space is untidy/not clipped (Clause G9)
- no electrical certificate of compliance was provided (Clause G9).

(I note a copy of the certificate, dated 29 June 2004 has since been supplied, and the main power cable has been clipped to the subfloor framing.)

6.7 The expert noted that the authority had concerns about the installation of the wood burner; however he observed that the wood burner and flue were installed in a professional manner with good quality workmanship, and in his opinion met the requirements of the Building Code.

6.8 A copy of the expert's report was provided to the parties on 29 July 2010. The applicant's response to the report is acknowledged in paragraph 4.3.

6.9 The authority responded to the expert's report in letter dated 10 August 2010 saying, in summary, that the report did not address the missing inspection reports. The authority also submitted that the report did not comment on the adequacy of the

foundations, the nailing and durability of the plywood bracing elements, the on-site disposal system, and whether the wall insulation has been installed.

- 6.10 In response I note that the expert had given his opinion as to the compliance of the building as a whole. While certain detailed matters were not able to be viewed, the expert was able to base his opinion, in part, of the lack of any evidence that suggested that the building was failing to meet the requirements of the Building Code after six years of use. The missing inspection records do not mean that the corresponding inspections were not completed.

Matter 1: The external envelope

7. Weathertightness

- 7.1 The building has been evaluated using the E2/AS1 risk matrix. The risk matrix allows the summing of a range of design and location factors applying to a specific building design. The resulting level of risk can range from “low” to “very high”. The risk level is applied to determine what cladding systems can be used on a building in order to comply with E2/AS1. Higher levels of risk will require more rigorous weatherproofing detailing; for example, a high risk level is likely to require a particular type of cladding to be installed over a drained cavity.

- 7.2 This building has the following environmental and design features which influence its weathertightness risk profile:

Decreasing risk

- the building is in a medium wind zone
- the building is single storey
- the building has fully protected roof to wall intersections
- the eaves are greater than 600mm
- the envelope is a simple shape with a single wall cladding type.

- 7.3 When evaluated using the E2/AS1 risk matrix, these features show that all elevations of the building demonstrate a low weathertightness rating. I note that a drained cavity is not required by E2/AS1 for this type of cladding at low risk levels.

7.4 Weathertightness conclusion

- 7.4.1 I consider the expert’s report establishes that the current performance of the external envelope is adequate because it is preventing water penetration through the cladding. Consequently, I am satisfied that the building complies with Clause E2 of the Building Code.
- 7.4.2 However, the building elements are 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 building to remain weathertight. Because there are minor

faults in the cladding (the holes adjacent to the light fittings) that are likely to allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.

7.4.3 However, because the faults identified with the claddings occur in discrete areas, I am able to conclude that satisfactory rectification will result in the external envelope being brought into compliance with Clause B2 of the Building Code.

7.4.4 I acknowledge that remedial work has been undertaken in respect of the holes in the cladding adjacent to the light fittings on the east elevation (refer paragraph 6.4). I consider it prudent for the authority to inspect this work when the remaining items are verified as complete.

7.5 Maintenance

7.5.1 I note the expert's comments that the building has generally been well-maintained. 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).

7.5.2 In this instance I note that exterior plywood cladding is used as bracing to provide structural stability to the building. The correct maintenance of the finish to the cladding is therefore important to help ensure the ongoing structural performance of the building.

Matter 2: The remaining Building Code clauses

8. Discussion

8.1 In considering the compliance of this building with the remaining Building Code clauses, I have taken into account the inspection records, the expert's report, the authority's view, and other evidence in this matter.

8.2 I have concluded that there are reasonable grounds and sufficient evidence to conclude that the building elements that make up the building work comply with the Building Code clauses relevant to this building.

8.3 I note the TPS main power cable in the under floor area has been clipped to the underside of the timber framing above. However, the TPS cable should be clipped at between 200 to 250mm centres and battens provided to facilitate this. The cables in the roof space need to be protected and clipped within 2 metres of the access point to the ceiling. It is also noted that some TPS cabling is also run beside nail plates to the roof trusses. It is strongly suggested that any cabling is protected from the edges of the nailplates.

8.4 The authority has specifically questioned the Building Code compliance of the wood burner. I accept that expert's opinion that the wood burner and flue were installed in

a professional manner with good quality workmanship, and therefore meet the requirements of the Building Code.

- 8.5 I have concluded that the ceiling insulation complies with Clause H1. However, I note the insulation requires some re-laying and maintenance as the insulation is not continuous.

Matter 3: The durability considerations

9. Discussion

- 9.1 The authority has 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.
- 9.2 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).
- 9.3 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.
- 9.4 In this case the delay between the completion of the building work in 2004 and the applicant’s request for a code compliance certificate has raised concerns that various elements of the addition 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.
- 9.5 It is not disputed, and I am therefore satisfied, that all the building elements, apart from the matters that are to be rectified, complied with Clause B2 on 31 October 2004. This date has been agreed between the parties, refer paragraph 4.4.
- 9.6 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.

9.7 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 if this is requested by the owner.
- (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.

9.8 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.

10. What is to be done now?

10.1 A notice to fix should be issued that requires the owner to bring the addition into compliance with the Building Code, including the defects identified in paragraph 8.3, 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 addition brought to compliance with the Building Code. That is a matter for the owner to propose and for the authority to accept or reject.

10.2 I suggest that the parties adopt the following process to meet the requirements of paragraph 10.1. 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 investigation and 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.

10.3 Once the matters set out in paragraph 8.3 have been rectified to its satisfaction, including the inspection of remedial work already undertaken (refer paragraph 7.4.4) the authority shall issue a code compliance certificate in respect of the building consent amended as outlined in paragraph 10.2.

11. The decision

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

- the external envelope of the building does not comply with Building Code Clause B2 Durability, insofar as it relates to Clause E2 External Moisture
- the building does not comply with Building Code Clause G9 Electricity

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

11.2 I also determine that:

- (a) all the building elements installed in the building, apart from the items that are to be rectified, complied with Clause B2 on 31 October 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 31 October 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 Determination 2010/108.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 1 November 2010.

John Gardiner
Manager Determinations