



Determination 2012/003

Refusal of a code compliance certificate for a 10-year-old house completed under the supervision of a building certifier at 723 Glenmark Drive, Waipara, Canterbury



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 applicant is the owner, G Herbert (“the applicant”), and the other party is the Hurunui District Council (“the authority”), carrying out its duties as a territorial authority and a building consent authority.
- 1.2 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for the 10-year-old house because it is not satisfied that the building work complies with the requirements of certain clauses of the Building Code² (First Schedule, Building Regulations 1992). The refusal arose because the building work had been undertaken under the supervision of a building certifier (“the first building certifier”). The drainage and effluent disposal work was supervised by a second building certifier, and the final inspection was carried out by a third building certifier. The certifiers were all registered as building certifiers under the

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.

Building Act 1991 but all ceased operating before a code compliance certificate had been issued for the work.

- 1.3 The matter to be determined³ is whether the authority was correct in its decision to refuse to issue the code compliance certificate. In deciding this I must consider:

1.3.1 Matter 1: The external envelope

Whether the external envelope of the building (“the external envelope”) complies with the Clauses E2 External Moisture and B2 Durability. The external envelope includes the cladding, its configuration and components, junctions with other building elements, formed openings and penetrations.

1.3.2 Matter 2: The durability considerations

Whether the elements that make up the building work comply with Clause B2, taking into account the age of the building work.

- 1.4 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 other evidence in this matter.

2. The building work

- 2.1 The building work consists of single storey house with an additional level incorporated into the roof space, and with an internal access garage under the main roof structure of the building. An internal stairwell on the west elevation has a flat roof and parapets lined with a butyl rubber membrane lining.
- 2.2 The building has a concrete slab foundation, and is located on a flat site in a rural location that is considered to be a high wind zone for the purposes of NZS 3604⁴. It is relatively simple in shape and form, and is of light timber-framed construction.
- 2.3 The monolithic cladding consists of plastered polystyrene (“EIFS”⁵) with face-fixed aluminium joinery throughout. There is no cavity behind the cladding system.
- 2.4 The main roof of the building is a simple hip-style roof clad in a pre-painted metal tile roofing system. Incorporated into the main roof of the building are two dormer windows (on the north and east elevations) with flat roofs and unidentified roofing material. Three skylights sit flush with the main roof on the south, east and west elevations of the building.
- 2.5 A 600-1200mm soffit has been provided on four elevations of the building. There are no eaves on the gable end to the north elevation of the building, on the stairwell on the west elevation, and on the two dormer windows.
- 2.6 The expert took a timber sample from beneath a sill/jamb junction and forwarded it to a testing laboratory for analysis. The results of this analysis confirm that the

³ Under sections 177(1)(b) and 177(2)(d) of the Act.

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings.

⁵ Exterior insulation and finish system

timber is Douglas Fir, and that the timber sample was untreated. I therefore consider that the wall framing is untreated. The roof framing was not identified.

2.7 The house has been assessed as having a medium weathertightness risk (refer paragraph 6.2.2).

3. Background

3.1 An application for a building consent for the building work was made by the first building certifier on behalf of the applicant on 4 July 2000.

3.2 On 6 July 2000, the authority wrote to the first building certifier to request that a detailed site plan and information about the provision of potable water be supplied in support of the application for a building consent.

3.3 In a facsimile dated 10 July 2000, the first building certifier responded to the authority's request for further supporting information, and included details regarding a potable water supply, site boundaries, and a site declaration form.

3.4 On 11 July 2000 the authority issued a project information memorandum (for building consent No. 000261) for the building under the Building Act 1991.

3.5 On 17 July 2000, a building consent (no. 000261) was issued by the authority for the building under the Building Act 1991, based on a building certificate (No. 00/136) issued by the first building certifier on 12 July 2000, and on a building certificate for drainage and effluent disposal (No. D00/136/45) issued on 12 July 2000 by a second building certifier ("the second building certifier").

3.6 The authority wrote to the first building certifier in a facsimile dated 26 July 2000 to request that the results of a 'proper water test' be provided to confirm that the building would in due course be connected to a potable water supply.

3.7 In a facsimile to the authority dated 31 July 2000, the first building certifier stated that potable water had been located at the property, and that the applicant would provide the authority with the results of laboratory tests on this water prior to the building being inhabited.

3.8 The authority's records show that the first building certifier carried out the following progress inspections for the building work:

- siting and foundation inspections on 24 July 2000 (both of which passed)
- floor slab inspection on 3 August 2000 (which passed, noting that 'mesh over entire floor area is well tied' and that 'there is no polystyrene sheeting in floor area as plan shows')
- plumbing and pre-lining inspections on 6 November 2000 (both of which passed, noting that '[j]oist hangers used were shown on plan', '40mm polystyrene and [EIFS] system on exterior cladding', and '[b]racing [and ... [a]]ll other beams as per plan')

- pre-stopping inspection on 14 November 2000 (which passed, noting that '[b]racing has been completed as per plan)
- drainage inspection on 12 January 2001(which passed).

3.9 In a letter to the applicant dated 29 July 2004, the authority noted that building consent No. BC/000261 was incomplete, and that

[t]o date a final code of compliance certificate has not been issued even though the building consent was granted 17/07/00. A code of compliance certificate must be obtained for all building works ...

Due to recent changes in the New Zealand Building Code, the Building Industry Authority informed Councils that Building Consents approved prior to 1 April 2004 must achieve full code compliance prior to 31st March 2005. The consequence of not obtaining a code of compliance certificate before this date could mean either serious rectification to bring the building works up to current building code regulations, or never being able to obtain the final code of compliance certificate as required under the Building Act 1991. The certificate also becomes particularly important when the building owner proposes to sell, as purchasers may use the lack of it as a means to negotiate a reduction in sale price.

3.10 The authority's records show that another building certifier ("the third building certifier") carried out a 'final' inspection of the building work on 11 August 2004. This building certifier noted that the inspection 'identified a number of finishing issues that require attention prior to issue of certificate'. The third building certifier stated that these issues were 'identified on attached sheet'; however I have not been provided with a copy of this information. In addition, the building certifier requested confirmation from the applicant

... once these matters have been attended to so that a further inspection can be arranged along with [the authority] to inspect the exterior cladding.

3.11 In a letter to the authority dated 17 December 2004, the third building certifier advised that it was placed into receivership on 16 November 2004.

3.12 In a letter dated 7 January 2005, the authority informed the applicant that, because the third building certifier had ceased to operate, the authority was now responsible for ensuring that the building consent process was completed. In addition, the authority stated that

[w]hen a building consent is returned from a Private Certifier the normal procedure would be for the Private Certifier to supply a certificate issued in accordance with section 56 of the Building Act 1991 to cover the work undertaken by the Private Certifier. Unfortunately, since [the building certifier group] no longer exists this documentation cannot be supplied.

... an inspection will need to be undertaken to establish what stage the consent is currently at. From this inspection a notice to rectify will be issued in accordance with section 42 of the Building Act 1991 for two reasons.

First the notice will clarify any issues that [the authority] may find to be non-compliant and secondly it will initiate a request for an inspection by a suitably qualified independent appraisal officer to verify existing works undertaken by the Private Certifier and supply a detailed report to [the authority].

When the report is supplied to [the authority] and providing it doesn't identify any issues, [the authority] can then be satisfied on reasonable grounds that the work on the building meets the requirements of the Building Code. Work may then

commence to the next required inspection stage or if all works are completed [the authority] will be in a position to issue a code compliance certificate.

[The authority] will require you to meet the cost of the above work

- 3.13 The authority carried out a final inspection of the house on 14 January 2005. The report covering this site inspection noted that various building elements required attention, that the applicant should attain an assessment of the EIFS system, and that a further inspection was required.
- 3.14 In an email to the applicant dated 29 September 2011, the authority informed the applicant that the authority considered the cladding to be a high weathertightness risk and that the authority required a full weathertightness report on the cladding.
- 3.15 In a second email to the applicant dated 29 September 2011 and with 'BC000261 – new Dwelling – direct fixed plaster cladding (different to approved plans)' in the subject line, the authority stated that as it is now five years since the final inspection of the building work was completed, it could not issue a code compliance certificate. The authority said that:

I have talked to your chosen weathertightness assessor ... and he has advised that any report that he would carry out would more than likely **not be a favourable one**. [Emphasis in original.] This in turn would not give confidence to us to even consider issuing a code compliance certificate.

The authority also stated in the email that

The [authority] at this time is not willing to consider issuing a code compliance certificate. [The authority suggests] that we carry out another on-site inspection before you [the applicant] apply for the determination so that we can confirm the problem areas that exist (now that 5 years have passed since last final inspection) after which a notice to fix may be required to be issued....

- 3.16 Following requests from the applicant, the authority carried out two 'repeat final' inspections on 3 October 2011 and on 7 October 2011, both of which failed. In the inspection report dated 7 October 2011, the authority noted that the following items still remained to be completed:
- Wall and ceiling insulation to be reinstalled and taped in place [this work subsequently completed]
 - Exposed ceiling pipework to be insulated [this work subsequently completed]
 - Inspection from [independent qualified person] for [external] cladding
 - Proof of a potable water supply
 - CCC application form [this was subsequently provided]
- 3.17 The applicant made an application to the authority for an amendment to the building consent on 10 October 2011. The amendment was 'to the effect that performance of clause B2.3.1 of the New Zealand Building Code will apply from 7 July 2001' instead of from the date of issue of the code compliance certificate.
- 3.18 In a letter to the applicant dated 10 October 2011, the authority noted that it had received a request for a code compliance certificate but was unable to issue it until the following was attended to:

1. Please supply an as laid drainage plan.

2. Plaster cladding certificate is required.
3. Electrical certificate is required.
4. A full weathertightness assessment of the building shall be obtained from a suitably qualified person ...Evidence is required that the weathertightness of the dwelling complies with the NZBC.

The authority also stated that once the above items had been attended to, approval of the applicant's application would again be considered.

3.19 The Department received an application for a determination on 13 October 2011.

4. The submissions

4.1 The applicant forwarded copies of:

- the consent documentation, with the exception of the drawings
- the correspondence between the parties
- other evidence pertaining to the matter.

4.2 The applicant provided additional information in support of his application in an email to the Department dated 1 December 2011.

4.3 A draft determination was issued to the parties for comment on 23 December 2011.

4.4 In a letter to the Department dated 15 January 2012, the applicant accepted the draft subject to some non-contentious amendments proposed suggestions for rectifying the issues raised by the expert.

4.5 In a letter to the Department dated 11 January 2012, the authority accepted the draft determination and provided further information and records of the authority's inspections. The authority also noted the applicant chose not to obtain a weathertightness assessment and as a consequence the authority did not consider it had reasonable grounds on which to issue a code compliance certificate in this instance.

4.6 I have carefully considered the submissions of the parties regarding the draft determination and I have amended the draft as I consider appropriate.

5. The expert's report

5.1 As mentioned in paragraph 1.4, 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 work on 16 November 2011, and provided a report which was completed on 28 November 2011.

5.2 The expert noted that the building is located in an area with low annual rainfall.

5.3 The expert further noted that although the building appears to have generally been constructed in accordance with the consented documentation, the following changes were observed:

- (a) vehicle entry garage door has been relocated from the north to the east elevation
- (b) consent drawings record the external cladding as [a different proprietary system than has ultimately been installed]
- (c) chimney deleted from the east elevation.

5.4 In addition, the expert observed evidence that remedial work had been carried out on the roof/wall junctions on the west elevation of the building.

5.5 The expert noted that, in general, the quality of the workmanship on the building varies 'from average to poor'. Commenting specifically on the exterior cladding of the building, the expert noted it was:

Generally of a good standard, lines true and straight surfaces uniform and consistent in texture.

5.6 Commenting specifically on the remedial work carried out on the roof/wall junctions on the west elevation of the building, the expert noted that this work 'has been carried out poorly'.

5.7 The expert provided with his report a copy of the biodeterioration consultant's timber analysis report.

5.8 Moisture levels

5.8.1 The expert inspected the interior of the building and noted that 'no significant defects were observed around window junctions that would indicate damage as a result of moisture ingress'.

5.8.2 The expert also noted that 'plaster board wall lining has been removed (by others) from the wall separating the cupboard (under the stairs) from the bathroom ...'. Commenting specifically on his observations of the building work at this location, the expert commented that:

Black mould could be seen on the rear face of the bathroom plaster board wall lining

Building paper installed to the external wall show [sic] evidence of moisture damage

Bottom plate appeared to show signs of decay. Timber sample removed for analysis confirms timber decay, traces of toxic mould and the need for timber replacement.

5.8.3 The expert took seven invasive moisture readings in the exterior wall on the exposed west elevation of the building, and noted readings that ranged from 11% to 15%, with one elevated reading of 18% in the bottom plate below the stairwell window.

I note that moisture readings above 18%, or which vary significantly, generally indicate that moisture is entering the structure and further investigation is needed.

5.9 Observations

5.9.1 Commenting specifically on the weathertightness of the external envelope, the expert noted:

- There are no drip edges formed in the cladding above the tops of window/door openings.
- A poorly detailed water diverter has been installed to wall/roof junctions on the west elevation.
- Apron flashings do not extend over metal roof tiles and have turn-ups that are unlikely to extend more than 15-25mm. Sealants have been applied to apron flashings and tile junctions.
- Fixings penetrate the top of the parapet flashings situated at the gable end on the north elevation and to the flat roof sections on the north, east and west elevations. The cappings are not fully extended over the roofing.
- The metal TV aerial brackets are incompatible with pre-painted metal roofing material.
- The head of door opening is not formed at right angles and water is allowed to migrate to head of door frame.

5.9.2 The expert removed a section of exterior cladding at the windowsill/jamb junction on the west elevation in order to observe whether moisture was penetrating the building work. The expert noted that the sill and jamb mould junctions at this location, which is not protected by any overhanging eaves, had not been sealed. The expert noted that there was visual evidence of moisture ingress in the framing at this location, although there was no visual evidence of mould or fungal growth.

5.9.3 The expert also observed:

- clearance between the external cladding and the ground is minimal in some places. In some locations the paving has been installed at a higher level than the bottom of the adjacent cladding. Most paved areas are protected by a 600mm to 1200mm eaves overhang.
- no visible mechanical head flashings installed above the windows and doors of the building.

5.10 A copy of the expert's report was provided to the parties on 28 November 2011.

5.11 The applicant provided an undated response to the expert's report, and stated that he had seen no evidence of decay in the building. In addition, the applicant stated that the house was extensively flooded as the result of an internal pipe leak near the stairwell about five years ago, and again in July 2011, which could have resulted in the elevated moisture reading noted by the expert. The applicant also made further comments about various aspects of the building work in response to the expert's report.

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 regard to weathertightness have been described in numerous previous determinations (for example, Determination 2004/1).

6.2 Weathertightness risk

6.2.1 The building has the following environmental and design features which influences its weathertightness risk profile:

Increasing risk

- high wind zone
- one-and-a-half storey building
- lack of eaves on some elevations
- some roof/wall intersections lack adequate protection

Decreasing risk

- most elevations are protected by eaves of 600mm to 1200mm in width
- most roof/wall intersections are fully protected
- relatively simple envelope complexity with a single cladding type

6.2.2 When evaluated using the E2/AS1 risk matrix, these features show that the house has a medium risk rating. I note that if the details shown in the current E2/AS1 were adopted to show code compliance, the EIFS cladding would require a drained cavity.

6.3 Weathertightness performance

6.3.1 The applicant has informed me that the damage in the stairwell area was the result of an internal leak and I am prepared to accept this statement. However, I also accept the expert's opinion, which is supported by the biodeterioration consultant's report that the bottom plate has suffered from decay and should be replaced.

6.3.2 I consider remedial work is required where paving has been installed at a higher level than the bottom of the cladding. I note that many joinery heads are protected by generous eaves and verge overhangs and I consider the protection of the joinery units in these situations to be adequate. However, remedial work is required to joinery units and openings that do not have this level of protection.

6.3.3 Taking into account the expert's report, I conclude that remedial work is necessary in respect of those matters described in paragraphs, 5.9.1, 5.9.2, and 6.3.2. In addition, referring to the expert's findings in paragraph 5.8.2 and the results of the laboratory analysis, I consider that the bottom plate shows signs of decay and needs replacement.

6.4 Weathertightness conclusion

- 6.4.1 I consider that the expert's report establishes that the current performance of the external envelope of the building is not adequate. While the invasive moisture readings obtained by the expert were within acceptable limits, there was moisture observed by the expert behind the jambs of one of the exposed windows (refer paragraph 5.9.2). Consequently, I am satisfied that the external envelope does not comply with Clause E2 of the Building Code.
- 6.4.2 The external envelope of the building 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 faults in the building are likely to allow ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.
- 6.4.3 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 6.3.3 will result in the building work being brought into compliance with Clauses B2 and E2 of the Building Code.

Matter 2: The durability considerations

7. Discussion

- 7.1 There are concerns about the durability and hence the compliance with the Building Code, of certain elements of the building taking into consideration the completion of the building work in 2001.
- 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 10-year delay between the completion of the building work in 2001 and the applicant's request for a code compliance certificate in 2011 has raised concerns that various elements of the building are now well through 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.

7.5 The applicant applied for an amendment to the building consent on 10 October 2011. This requested that the relevant building elements installed in the house be considered to have complied with the durability requirements from 7 July 2001. I have since been informed by the applicant that the parties now agree that 15 December 2001 is the relevant date. Accordingly, I am satisfied that all the building elements in the house, with the exception of the items that are to be rectified, complied with Clause B2 at this date. I am therefore satisfied, that all the building elements, excluding those items that are to be rectified, complied with Clause B2 on 15 December 2001.

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 of the elements of the building if requested by the owner
- (b) it is reasonable to grant such a modification, with appropriate notification, because in practical terms the building is no different from what it would have been if a code compliance certificate had been issued in 2001.

7.8 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 happens next?

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

8.2 In response to the notice to fix, the owner should produce a detailed proposal describing how the defects are to be remedied. 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 I also note that the expert has identified some changes from the consent drawings, and I leave these to the parties to resolve once the appropriate remedial work is satisfactorily completed.

8.4 Once the matters set out in paragraph 6.3.3 have been rectified to its satisfaction and the consent amended to reflect the as built work, the authority shall 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 1991, I hereby determine that the external envelope of the building does not comply with Clauses B2 and E2 of the Building Code, 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 this determination, complied with Clause B2 on 15 December 2001.
- b) the building consent is hereby modified as follows:

The building consent is subject to a modification to the Building Code to the effect that, clause B2.3.1 applies from 15 December 2001 instead of from the time of issue of the code compliance certificate, except for the items to be rectified as set out in paragraph 6.3.3 of Determination 2012/003.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 25 January 2012.

John Gardiner
Manager Determinations