



Determination 2012/030

Refusal to issue a code compliance certificate and the issue of a notice to fix for a 9-year-old dwelling at 497 Whitmore Road, Matakana



1 The matter 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, Tony Marshall, Manager Determinations Acting), Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of the Department.
- 1.2 The parties to the determination are:
- the building owner, S Harrison (“the applicant”)
 - Auckland Council² carrying out its duties as a territorial authority or building consent authority (“the authority”).
- 1.3 This determination arises from the authority’s decisions to refuse to issue a code compliance certificate and to issue a notice to fix because it was not satisfied that the building complies with certain clauses of the Building Code³ (First Schedule, Building Regulations 1992). The authority’s concerns related primarily to the weathertightness of the exterior building envelope

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 The building consent was issued and inspections undertaken by Rodney District Council, which was transitioned into the Auckland Council. The term authority is used for both.

³ In this determination, unless otherwise stated, references are to sections of the Act and references to clauses are references to the Building Code

1.4 The matter to be determined⁴ is whether the authority was correct in its decisions to refuse to issue a code compliance certificate and to issue the notice to fix. In deciding this I need to consider whether the external cladding to the house (“the claddings”) comply with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The claddings include the components of the systems (such as the wall claddings, the windows, the roof claddings and the flashings), as well as the way the components have been installed and work together.

1.5 Matters outside this determination

1.5.1 The notice to fix states that the applicant may apply to the authority, for a modification of the durability requirements in order to allow the durability periods to commence from the date of substantial completion. I therefore leave this matter to the parties to resolve.

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 dwelling is a two storey residential home located on a flat, contoured rural allotment in a moderate to high wind zone in terms of NZS3604⁵. The house is complex in plan and form, with complex wall to roof junctions and a fragmented floor plan.

2.2 The lower level is constructed of plastered concrete block walls on a reinforced concrete slab and foundation, with internal timber-framed walls. The upper level is timber framed and sits on timber bearers and joists. The upper level is clad with direct-fixed fibre-cement sheets with a texture coating finish. There is a 6m² tiled butyl rubber deck with a solid balustrade to the upper level which is located under a flat roof.

2.3 Concrete tiles are used on the mains roofs (20° pitch), with verandahs and lean-to roofs (15° pitch). A 1.0mm butyl rubber membrane is used to limited areas of flat roofs to the upper level, and to the entrance porch (all at a 1° pitch). A timber-framed ‘feature’ chimney with a plaster finish penetrates the butyl rubber roof at the upper level. There are eaves or verandahs to most of the dwelling. Exterior doors and windows are powder-coated aluminium.

2.4 The building consent documentation specifies the timber wall and roof framing as either H1 treated timber or kiln dried timber for both.

3 Background

3.1 The authority issued building consent ABA 20936 on 22 May 2002, under the Building Act 1991. Construction commenced and the authority inspected the work between April 2002 to March 2003.

3.2 A final inspection was carried out on 23 May 2008. This inspection failed and a letter dated 4 June 2008 to the applicant noted outstanding items including:

- installation of spreaders to downpipes discharging over lower level roof

⁴ Under sections 177(1)(b), 177(2)(d) and 177(2)(f) of the Act

⁵ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- ‘remedial work’ required to deck outlet and butyl rubber membrane.
- 3.3 The applicant applied for a code compliance certificate on 27 July 2010.
- 3.4 In a letter to the applicant, dated 17 August 2010, following a further final inspection, the authority noted that the applicant was:
- advised that the method of fixing the cladding ... is no longer regarded as meeting the Building Code requirements.
- ... [the authority] will need to undertake a Specialist Inspection to determine ... how Building Code compliance can be achieved or verified. This Inspection will be undertaken by [the authority] or an expert ... engaged [by the authority] at the Owners expense.
- 3.5 The applicant subsequently engaged a building consultant (“the consultant”) to inspect the upper storey, being the timber framed part of the dwelling. The consultant undertook a visual inspection, and invasive and non-invasive moisture content testing, and provided a report dated 16 March 2011. The consultant noted hairline cracks in the plaster and that control joints had not been installed. No elevated moisture content readings were recorded and the consultant therefore concluded that at the time of the consultant’s inspection the cladding was meeting the requirements of the Building Code.
- 3.6 On 21 June 2011, the authority undertook another final inspection and issued a notice to fix with an attached photo file, dated 17 August 2011. The notice identified that the building work was in breach of clauses B1 structure, B2 Durability and E2 External moisture. The notice listed “details of the contravention”, which are summarised as:
- cracking to the plaster system to the upper level cladding (items 2.0(a), 2.1(c))
 - lack of kick-out or stop ends to roofs and gutters abutting wall cladding (item 2.1(a))
 - uncertainty that gutters, barges or fascias had been installed after the wall cladding and any protective coating had been applied (item 2.1(b))
 - unsealed penetrations (item 2.1(d))
 - inadequate opening to the scupper from the deck (item 2.1(e))
 - no ‘removable surfaces’ to enable access to the waterproof membrane to the upper level deck (item 2.1(f)).
- The notice made general reference to construction methods used that do not allow water that might penetrate the cladding to drain away and allow damp timber to dry out.
- 3.7 The Department received an application for a determination on 22 September 2011.

4 The submissions

- 4.1 The applicant provided:
- a copy of the notice to fix and photo file
 - a producer statement for the installation of the plaster system and protective coating

- a copy of the building consent drawings (unstamped), specifications and inspection records
- a copy of the consultant's report.

4.2 In the letter supporting the application, the applicant noted that in order to address the hairline cracks, the entire dwelling had been repainted. The applicant noted that the upper level deck is well sheltered and that

The cladding in question relates only to the walls on the first level. Moisture content investigations by [the consultant] and by [the authority's] inspections indicatedno sign of water ingress.

4.3 The authority made no submission but provided all documentation associated with the building consent on a CD ROM.

4.4 A draft determination was issued to the parties for comment on 2 March 2012.

4.5 The applicant accepted the draft without further comment in a response received on 16 March 2012.

4.6 In an email to the Department on 27 April 2012, the authority accepted the draft without further comment.

5 The expert's report

5.1 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. He visited the house on 21 October 2011 and 7 November 2011, and furnished a report on 30 November 2011.

5.2 The expert noted that the dwelling was constructed generally in accordance with the consent drawings and specifications. From his visual inspection the expert concluded that the external cladding was finished straight and fair and was consistently textured. The flashings were tidy and effective and the expert considered the quality of workmanship, materials and finish to be of a high level. The expert noted that the dwelling was well maintained.

5.3 The expert undertook non-invasive moisture readings in a number of high risk areas and those areas identified in the notice to fix. The expert found no evidence of elevated moisture readings at the deck or the terminations of fascias and gutters.

5.4 In respect of the notice to fix the expert concluded the following:

Item	Issue	Expert's comment
2.0(a), 2.1(c)	Cracks in plaster	No evidence of cracks
2.1(a)	Kick out flashings and stop ends	All were well constructed in permanent materials. No evidence of staining or damage to adjacent surfaces.
2.1(b)	Gutters, barges and fascia to be installed after application of plaster coating	No evidence of embedment.
2.1(d)	Inadequately sealed penetrations	No evidence of unsealed penetrations.
2.1(e)	Scupper opening to be a minimum of 200mm wide by 75 mm high	The deck is walled and sheltered, it has falls and cross falls. No evidence of ponding.

2.1(f)	Access to membrane on deck to for maintenance	The deck is as per the consent drawings. The deck is fully covered by a roof. There was no evidence of membrane failure.
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5.5 A copy of the expert's report was provided to the parties on 12 December 2011.

6 Discussion

6.1 The establishment of compliance

- 6.1.1 In regard to this house, the evidence as to compliance is able to be gathered from inspection records, the performance of the exterior envelope over the past nine years, the building consultant's report (including moisture testing results), and a visual assessment of remaining building elements.
- 6.1.2 The authority has undertaken a visual inspection of the building and issued a notice to fix listing a number of building elements concerning weathertightness of the building envelope (refer paragraph 3.6).
- 6.1.3 In respect of items 2.0 a) and 2.1 a) to d) listed on the notice to fix: I have not been advised that any remedial work has been carried out since the authority's last inspection in June 2011, however, it appears from the expert's report that these items have since been corrected.
- 6.1.4 In respect of item 2.1 f) requiring 'access to the underlying surface' of the deck to be provided for cleaning and maintenance, I note the following:
- The completed deck was inspected by the authority during construction.
 - The deck is sheltered: it is fully cover by a roof and is fully enclosed on three sides. The deck is limited in size and has a simple regular shape.
 - Access to such membranes is not required to ensure ongoing compliance with Clause B2 as discussed in previous determinations; e.g. Determination 2012/007⁶.
- 6.1.5 In respect of item 2.1 e) requiring a scupper opening of a particular minimum size: the authority appears to have applied a non-mandatory solution from E2/AS1 rather than consider the features of this particular deck. For the reasons given in paragraph 6.1.4 I consider the existing outlet from the deck is adequate.
- 6.1.6 The notice to fix listed 'Drainage and Ventilation' under the details of contravention (item 2.2), noting that the 'construction methods used in this building do not allow the water to drain away' and 'there is only limited ability for air circulation in the wall framing to ensure that damp timber can dry out.' The cladding to the upper level did not require a cavity at the time the work was consented, either in terms of the Building Code or the Acceptable Solution that was in force at the time. I have seen no evidence of undue moisture or damage caused as a result of moisture ingress.

⁶ Determination 2012/007: The compliance of tiled decks to three proposed buildings in a retirement village at 550 Albany Highway, Albany, Auckland

6.2 Conclusion

- 6.2.1 I consider that the expert's report, and other evidence submitted, establishes that the current performance of the building envelope is adequate because it is preventing water penetration through the claddings at present. Consequently I am satisfied that the dwelling complies with E2 of the Building Code.
- 6.2.2 In considering whether the dwelling complies with B2 Durability insofar as it relates to Clause E2, I have considered its performance to date as well as any aspects of the cladding that might give rise to future failure. The dwelling was substantially completed nine years ago, and based on the expert's report I conclude that it has performed adequately for that period of time. I consider that there are no cladding faults that are likely to cause moisture ingress for the remainder of the durability period. I note that the building has been built to a high standard and has been well maintained. I am therefore satisfied that the dwelling complies with B2 of the Building Code with respect to Clause E2.
- 6.2.3 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 The decision

- 7.1 In accordance with section 188 of the Act, I hereby determine that the external cladding complies with Clauses E2 and B2 of the Building Code, and accordingly I reverse the authority's decision to refuse to issue a code compliance certificate, and reverse the authority's decision to issue the notice to fix.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 30 April 2012.

Tony Marshall
Manager Determinations (Acting)