# **Determination 2008/80**

# Refusal to issue a code compliance certificate for a 10-year-old addition to a house at 11 Kea Street, Hamilton



#### 1. The matters to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004<sup>1</sup> ("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 of the property, C and M Sheehan ("the applicants") and the other party is the Hamilton City Council ("the authority") carrying out its duties and functions as a territorial authority or building consent authority.
- 1.2 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for a 10-year-old addition to an 80-year-old house ("the addition") because it was not satisfied that the building work complied with Clause B2 Durability and Clause E2 External Moisture of the Building Code<sup>2</sup> (First Schedule, Building Regulations 1992).

<sup>&</sup>lt;sup>1</sup> The Building Act 2004 is available from the Department's website at www.dbh.govt.nz.

<sup>&</sup>lt;sup>2</sup> The Building Code is available from the Department's website at www.dbh.govt.nz.

1.3 I therefore consider that the matters for determination are:

#### 1.3.1 Matter 1: The cladding

Whether the cladding as installed on the addition ("the cladding") complies with Clause B2 Durability and Clause E2 External Moisture of the Building Code. By "the cladding as installed" I mean the components of the system (such as the materials, the flashings, and/or the coatings) as well as the way the components have been installed and work together.

#### 1.3.2 Matter 2: The durability considerations

Whether the building elements in the addition comply with Clause B2 Durability of the Building Code, 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 the other evidence in this matter. I have evaluated the information on the cladding using a framework that I describe more fully in paragraph 6.1.
- 1.5 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.

# 2. The building work

- 2.1 The building work consists of a small lean-to addition, with associated alterations, to an existing detached house situated on a flat site which is in a low wind zone for the purposes of NZS 3604<sup>3</sup>. The original "railways" house was built during the 1920's, and is a single-storey building constructed in a manner traditional for bungalows of that period, with light timber framing, suspended timber-framed floors, bevel-backed weatherboard claddings, timber windows and 25° pitch corrugated steel hipped roof that extended down as a small lean-to on the north elevation.
- 2.2 The recent addition extends the original lean-to as a simple monopitch with a lower slope than the original roof slope, to provide a new kitchen, laundry and additional bathroom facilities. The roof has 600mm eaves projection to the north and no verge projections on the other two elevations.
- 2.3 The cladding, windows and roofing match the original materials, with timber facings used at corners and around windows and doors. The bevel-backed timber weatherboards are fixed through the building wrap directly to the framing timbers.
- 2.4 The expert noted that he was unable to inspect any of the concealed timber framing, and I note that the drawings describe the framing timber as "H1". However, given the date of construction of the addition and the lack of other evidence, I am unable to determine the particular level and type of treatment described as H1 at the time the timber was treated. I therefore consider that the wall framing is unlikely to be treated to a level that will provide resistance to fungal decay if the framing becomes wet and is unable to dry.

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<sup>&</sup>lt;sup>3</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

# 3. Background

3.1 The authority issued a building consent (No. 96/1383) for the addition on 3 September 1996.

- 3.2 The authority carried out various inspections of the construction, including foundations on 15 July 1998 and pre-line inspections on 29 July 1998. I have no records of any further inspections until the end of 2006, although it appears that the work was substantially completed during 1998.
- 3.3 The authority carried out a final inspection on 26 October 2006, which identified 8 items that needed to be completed. I note that tick marks appear to have been added to the inspection record at a later date, with an undated note stating "all work completed".
- I am not aware of any correspondence between the authority and the applicants, but it appears that a code compliance certificate was not issued due to the age of the building work.
- 3.5 The Department received an application for a determination on 14 May 2008.

#### 4. The submissions

- 4.1 Within the application form, the applicants noted that they had been:
  - ...refused code of compliance certificate because work (extension) was done more than 10 years ago.
- 4.2 The applicant forwarded copies of:
  - some drawings
  - the authority's final inspection record
  - the gasfitting certification certificate.
- 4.3 In a letter to the Department dated 26 May 2008, the authority noted that, if the outstanding items from the final inspection had been addressed, then the only concerns were in regard to Clauses B2 and E2 as:

Given the length of time that has elapsed since the construction of the building, we cannot be assured that the building would meet either of these provisions.

The authority also raised the following general matter, which I address in paragraph 9:

Given that this building addition is in excess of 10 years old we ask you to consider declining to determine this matter. If not we would like some clarification on what period of time must elapse before an application for a determination becomes ineligible for consideration.

4.4 Copies of the submissions and other evidence were provided to each of the parties.

4.5 A draft determination was issued to the parties on 7 July 2008. The draft was issued for comment and for the parties to agree a date when all the building elements in the addition complied with Building Code Clause B2 "Durability".

4.6 The parties have agreed that the addition was completed sometime in 1998 but did not nominate a specific date. In the absence of any better information from the parties I have taken 31 December 1998 as the date when the building elements in the addition complied with Clause B2.

# 5. The expert's report

- As discussed in paragraph 1.4, I engaged an independent expert to provide an assessment of the condition of those building elements subject to the determination. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the addition on 10 June 2008 and furnished a report that was completed on 27 June 2008.
- 5.2 The expert obtained records from the authority, and provided copies of:
  - the consent drawings
  - the building consent
  - the authority's inspection summary
  - the record of the final inspection on 26 October 2006.
- 5.3 The expert noted the following changes from the consent drawing:
  - A door on the east elevation has replaced the kitchen window.
  - The kitchen layout has changed.
- The expert reviewed the items listed as outstanding in the final inspection record, and noted that these appeared to have been satisfactorily completed.
- 5.5 The expert noted that the standard of workmanship was generally satisfactory and the visible flashings "should prevent direct and unplanned water ingress into the concealed fabric" of the addition. The expert also noted that the roof had been painted and appeared to be in satisfactory condition.
- 5.6 The windows and doors are installed in a traditional manner, with timber facings, scribers and full-depth timber sills. The expert noted that the installation appeared satisfactory, with metal head flashings extending over the top facing boards.
- 5.7 The expert inspected the interior of the addition and no evidence of moisture was observed. The expert took non-invasive moisture readings through claddings and no elevated readings were noted. Because of the lack of any obviously leak-prone features, the type of construction, and the absence of elevated moisture readings, the expert did not consider it necessary to carry out invasive moisture testing.
- 5.8 The expert noted that the wall penetrations for the exterior water tap and the waste pipes on the north wall were unsealed.

A copy of the expert's report was provided to each of the parties on 2 July 2008.

## 6. Evaluation for code compliance

#### 6.1 Evaluation framework

- 6.1.1 In evaluating the design of a building and its construction, it is useful to make some comparisons with the relevant Acceptable Solutions<sup>4</sup>, which will assist in determining whether the features of this house are code compliant. However, in making this comparison, the following general observations are valid:
  - Some Acceptable Solutions cover the worst case, so that they may be modified in less extreme cases and the resulting alternative solution will still comply with the Building Code.
  - Usually, when there is non-compliance with one provision of an Acceptable Solution, it will be necessary to add some other provision to compensate for that in order to comply with the Building Code.
- 6.1.2 The approach in determining whether building work is weathertight and durable and is likely to remain so, is to apply the principles of weathertightness. This involves the examination of the design of the building, the surrounding environment, the design features that are intended to prevent the penetration of water, the cladding system, its installation, and the moisture tolerance of the external framing. The Department and its antecedent, the Building Industry Authority, have also described weathertightness risk factors in previous determinations (for example, Determination 2004/1) relating to cladding and these factors are also used in the evaluation process.
- 6.1.3 The consequences of a building demonstrating a high weathertightness risk is that building solutions that comply with the Building Code will need to be more robust. Conversely, where there is a low weathertightness risk, the solutions may be less robust. In any event, there is a need for both the design of the cladding system and its installation to be carefully carried out.

### 6.2 Weathertightness risk

- 6.2.1 In relation to these characteristics I find that this addition:
  - is built in a low wind zone
  - is a simple, one-storey-high monopitched lean-to
  - has a 600mm eaves projection and no verge projections
  - has weatherboards fixed directly to the framing
  - has external wall framing that may not be treated to a level that provides resistance to the onset of decay if the framing absorbs and retains moisture.

<sup>&</sup>lt;sup>4</sup> An Acceptable Solution is a prescriptive design solution approved by the Department that provides one way (but not the only way) of complying with the Building Code. The Acceptable Solutions are available from The Department's Website at www.dbh.govt.nz.

<sup>&</sup>lt;sup>5</sup> Copies of all determinations issued by the Department can be obtained from the Department's website.

6.2.2 The addition 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 claddings can be used on a building in order to comply with E2/AS1. Higher levels of risk will require more rigorous weatherproof detailing; for example, a high risk level is likely to require a particular type of cladding to be installed over a drained cavity.

6.2.3 When evaluated using the E2/AS1 risk matrix, the weathertightness features outlined in paragraph 6.2.1 show that all elevations of the addition demonstrate a low weathertightness risk rating. I note that, if the details shown in E2/AS1 were adopted to show code compliance, the weatherboard claddings to the addition would not require a drained cavity.

## 6.3 Weathertightness performance: exterior claddings

6.3.1 Taking account of the expert's report, I conclude that remedial work is necessary only in respect of the sealing of the pipe penetrations in the north wall.

## Matter 1: The cladding

## 7. Discussion

- 7.1 I consider the expert's report establishes that the current performance of the cladding is adequate because it is preventing water penetration into the addition at present. Consequently, I am satisfied that the building work complies with Clause E2 of the Building Code.
- 7.2 In addition, the building work 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 additions to remain weathertight. Because the fault on the addition is likely to allow the ingress of moisture in the future, the building work does not comply with the durability requirements of Clause B2.
- 7.3 Because the fault identified with the cladding occurs in a discrete area, I am able to conclude that satisfactory rectification of the lack of sealing to the pipe penetrations will result in the building work being brought into compliance with Clauses B2 and E2.
- 7.4 Effective maintenance of claddings is important to ensure ongoing compliance with Clauses B2 and E2 of the Building Code and is the responsibility of the building owner. The Department has previously described these maintenance requirements, including examples where the external wall framing of the building may not be treated to a level that will resist the onset of decay if it gets wet (for example, Determination 2007/60).

## **Matter 2: The durability considerations**

## 8. Discussion

8.1 The authority has concerns about the durability, and hence the compliance with the building code, of the addition taking into consideration the completion of the building work in 1998.

- 8.2 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).
- 8.3 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.
- 8.4 The 10-year delay between the substantial completion of the building work and the applicants' request for a code compliance certificate raises the matter of when all the elements of the addition complied with Clause B2.
- 8.5 The parties have agreed that the building elements in the addition complied with Clause B2 sometime in 1998, refer paragraph 4.6. I have therefore taken 31 December 1998 as the date when the building elements in the addition complied with Clause B2.
- 8.6 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.
- 8.7 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, because 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 1998.

8.8 I strongly recommend 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.

#### 9. Limits on time

- 9.1 As noted in paragraph 4.3, the authority also questioned whether there was a limit on what period of time must elapse before an application for a determination becomes ineligible for consideration.
- 9.2 The relevant section of the Act states:

#### 393 Limitation defences

- (1) The provisions of the Limitation Act 1950 apply to civil proceedings against any person if those proceedings arise from -
  - (a) building work associated with the design, construction, alteration, demolition, or removal of any building; or
  - (b) the performance of a function under this Act, or a previous enactment relating to the construction, alteration, demolition, or removal of the building.
- (2) However, civil proceedings relating to building work may not be brought against a person after 10 years or more from the date of the act or omission on which the proceedings are based.
- 9.3 Section 393 of the Act refers to limitation defences in relation to "civil proceedings", which raises the issue of whether a determination made by the Department falls within the context of a "civil proceeding". In order to address this issue when it was raised in connection with a different matter in a previous determination, I sought and received clarification of general legal advice on the matter.
- 9.4 That legal opinion took the view that the term "civil proceedings" in section 393 does not include determinations. Rather, "civil proceedings" are confined to proceedings to which the Limitation Act applies (i.e. "any proceeding in a Court of law other than a criminal proceeding"). Paragraphs 9.6 to 9.9 of Determination 2007/74 provide clarification and the legal framework for forming the view that the term "civil proceedings" in section 393 does not include determinations.
- 9.5 I continue to concur with that view, and therefore consider that there is no limit on what period of time must elapse before an application for a determination becomes ineligible for consideration.

#### 10. What is to be done?

10.1 The authority should issue a notice to fix that requires the owners to bring the addition into compliance with the Building Code, identifying the defect outlined in paragraph 5.8.

#### 11. The decision

In accordance with section 188 of the Building Act 2004, I hereby determine that while the building work complies with Clause E2 it does not comply with Clause B2, 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 addition complied with Clause B2 on 31 December 1998.
- (b) the building consent for the addition 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 December 1998, instead of from the time of issue of the code compliance certificate, for all building elements as described in Determination 2008/80.

(c) the authority is to issue a code compliance certificate in respect of the building consent as amended once the matter set out in paragraph 5.8 has been fixed to its satisfaction.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 27 August 2008.

John Gardiner

**Manager Determinations**