# **Determination 2008/17**

# Refusal of a code compliance certificate for alterations to a building with a monolithic cladding system at 37 Bennett Street, Paeroa (to be read in conjunction with Determination 2005/100)

Owner: Mrs G Small ("the applicant")

**Agent:** Mr E Furze ("the agent")

**Territorial authority:** Hauraki District Council ("the territorial authority")

**Site Address:** 37 Bennett Street, Paeroa

### The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004 ("the Act") made under due authorisation by me, John Gardiner, Determinations Manager, Department of Building and Housing ("the Department"), for and on behalf of the Chief Executive of that Department. The application for determination arises because the territorial authority is not satisfied that the remedial work to the house alterations complies with the requirements set out in an earlier determination.
- 1.2 I have previously described certain building matters regarding the cladding system to these house alterations. Those matters are described in Determination 2005/100 ("the first determination") issued on 30 June 2005. The matter now to be determined is whether the remedial work undertaken following the first determination complies with the building code.
- 1.3 In making my decision, I have considered the submissions of the parties, the report of the independent expert ("the expert") commissioned by the Department to advise on this dispute, and the other evidence in this matter.
- 1.4 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. Background

2.1 The first determination found that the building alterations did not comply with Clauses B2 and E2, and therefore confirmed the territorial authority's refusal to issue a code compliance certificate after identifying certain faults in the cladding system. These faults were set out in paragraph 6.3 of the first determination as being:

- the lack of a flashing to the horizontal control joint, and the covering band not being meshed into the cladding
- the vertical control joint to the north elevation not extending through the bottom sheet of the cladding, and the hairline crack at this location
- the lack of vertical control joints in the cladding to the interior of the lower roof parapet walls, and the vertical cracks evident along the south elevation
- the unsatisfactory joints and weather protection of the cladding to the interior of the upper roof parapet at some locations
- the cut short head flashings of the external windows and doors, the inadequately finished cladding junctions, and the excessive gap between the flashing and the cladding at some locations
- the lack of sill flashings and inseal strip between the jamb overlap and the cladding to the external windows and doors, and no bead of silicone being applied before installing the units
- the lack of a "kick out" extension to the end of the apron flashing to the north elevation
- the flat and inadequately jointed metal capping to the parapet walls, and the lack of saddle flashings at the junction of the parapets and the main wall cladding
- the lack of appropriate flashings to the balcony wall balustrades
- the deck ribbon plate being hard up against the cladding
- the unprotected cladding below the dining room door and the deck structure.
- 2.2 Paragraph 8.2 of the first determination found that rectification of the identified faults as outlined above:
  - ... to the approval of the territorial authority, along with any other faults that may become apparent in the course of that work, will consequently result in the house being weathertight and in compliance with clauses B2 and E2, notwithstanding the lack of a drainage cavity.
- 2.3 Paragraph 8.3 required the territorial authority to issue a notice to fix requiring the owner to bring the cladding into compliance with the building code without dictating how the defects would be remedied, stating:

It is not for me to dictate how the defects . . . are to be remedied. That is for the owner to propose and for the territorial authority to accept or reject . . .

2.4 The territorial authority subsequently issued a notice to fix dated 10 November 2005, which referred to the first determination, and required the applicant to:

Carry out remediation building work to bring the cladding of the dwelling situated at 37 Bennett Street, Paeroa into compliance with the New Zealand Building Code.

I note that the notice to fix made no reference to any requirement for the applicant to propose how the identified faults would be remedied, or to any inspections required by the territorial authority during the course of the remedial work. The notice to fix instead stated:

You must contact the territorial authority for the district within which the building is situated on completion of the required building work.

- 2.5 It appears that the builder subsequently commenced the remedial work, with the territorial authority having no involvement in approving any proposals or inspecting the work while it was being carried out.
- 2.6 Compliance with the notice to fix was required by 10 February 2006, and on that date the builder notified the territorial authority of the work completed to date. The territorial authority responded in a letter dated 13 February 2006 asking the builder to "advise when the work is completed".
- 2.7 The builder subsequently notified the territorial authority by telephone that the rectification work had been completed. In a letter to the builder dated 3 July 2006, the territorial authority stated that verification and documentation was required, in order to be satisfied that the outstanding items listed in its letter of 8 September 2004 (refer paragraph 2.12 of the first determination) and the faults set out in paragraph 6.3 of the first determination had been completed. A final inspection could then be arranged. The territorial authority stated:

Once everything is together, I will then submit a report to Council for a final decision as to the issuing of the Code Compliance Certificate.

2.8 In a letter to the territorial authority dated 2 August 2006, the builder attached statements from the plasterer and the plumber describing the remedial work undertaken, advised that a final inspection would be requested and stated:

To the best of my knowledge all items outlined in both letters have been completed.

2.9 The territorial authority carried out a final inspection of the building on 10 November 2006, and the inspection record states:

I recommend HDC not issue a CCC until a producer statement is received from the cladding manufacturer confirming the installation of the cladding and coating.

- 2.10 In a letter to the builder dated 23 November 2006, the territorial authority noted that, as the final inspection had revealed problems evident with some of the cladding control joints, it could not be satisfied that the building work complied with the requirements set out in the first determination and was therefore not prepared to issue a code compliance certificate.
- 2.11 It appears that further remedial work was carried out following an inspection of the cladding by a representative of the cladding manufacturer (refer paragraph 3.1).

2.12 I am not aware of any further correspondence, and an application for this determination was received from the applicant by the Department on 6 September 2007. The Department sought further information, which was received by 28 September 2007.

### 3. The submissions

- 3.1 In the statement that accompanied the application the applicant stated that all required work had been carried out, a Harditex representative had inspected the work, and the plasterer had guaranteed the work. The applicant appointed the builder to act on her behalf in this matter.
- 3.2 The applicant forwarded copies of:
  - the territorial authority's letter to the builder dated 23 November 2006
  - the plasterer's guarantee for the cladding coating, dated 12 July 2004.
- 3.3 The territorial authority made no submission, but forwarded copies of:
  - the notice to fix dated 10 November 2005
  - the correspondence with the builder
  - the final inspection record dated 10 November 2006
  - statements by the plasterer and the plumber.
- 3.4 Copies of the submissions and other evidence were provided to each of the parties. Neither party made any further submissions in response to the submission of the other party.
- 3.5 The draft determination was send to the parties for comment on 6 November 2007. Both parties accepted the draft without comment, the applicant's response was not received until early February 2008.

# 4. The expert's report

- 4.1 As discussed in paragraph 1.3, 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, and had undertaken an earlier assessment of the cladding, which provided evidence for the preparation of the first determination.
- 4.2 The expert revisited the house to inspect the cladding remediation work on 9 October 2007, and furnished a report that was completed on 17 October 2007. The expert inspected the areas identified in the first determination (refer paragraph 2.1), and commented specifically on the remedial work carried out to these areas. The expert also removed a small section of cladding coating at the jamb to sill junction of a window to inspect the window installation.

4.3 The expert's specific comments on those areas identified in the first determination (refer paragraph 2.1) are summarised as follows:

| Bullet pt no. | Outline description of defect identified in the first determination                                | Expert's outline comments on remedial work  |
|---------------|--|---|
| 1             | Horizontal control joint unflashed<br>Cover band/wall junction<br>unmeshed                         | No remedial work carried out.   |
| 2             | North vertical joint not extended to lower cladding sheet – hairline crack at backing sheet joint. | Remedial work satisfactory – no cracks evident.   |
| 3<br>&<br>4   | No vertical control joints to inner parapet cladding, with cracks evident along south parapet.     | Control joints installed as recommended by cladding manufacturer. Some hairline cracks still evident along south parapet. |
|               | Areas of inadequate joints and coating to inner parapet cladding                                   | Cladding completely repainted (in a light colour).  |
| 5             | Inadequate projections of head flashings beyond jambs  | Some head flashings still do not extend sufficiently beyond the window frames.  |
|               | Poor sealing and gaps at some areas.   | Sealing of gaps carried out.  |
| 6             | Lack of sill flashings, and inadequate seals behind window jamb flanges.                           | Windows have not been removed to install flashings and seals in accordance with cladding manufacturer's recommendations.  |
| 7             | Lack of kick-out to bottom of apron flashing on north elevation.                                   | Kick-out has been installed, but the added flashing is inadequate as it is not properly fitted.                           |
| 8             | Lack of slope and inadequate joints to parapet cappings.   | New parapet cappings with adequate slopes fitted.   |
|               | No saddle flashings at junctions with walls.   | New saddle flashings butt against the cladding, and rely on sealant at the joint for weatherproofing.                     |
| 9             | Lack of adequate flashings to balcony wall balustrades.  | Flashings fitted (although these are reliant on sealant for weathertightness).  |
| 10            | Lack of drainage gap between deck ribbon plate and cladding.                                       | No remedial work undertaken – deck still butts against cladding, with no allowance for drainage.                          |
| 11            | Unsealed fibre-cement below dining door and beneath the deck.                                      | Cladding completely repainted – now satisfactory.   |

- 4.4 The expert also took invasive moisture readings through the cladding at 6 at risk locations. The lowest reading was recorded at 12% (which I consider to approximate the equilibrium moisture content of the framing), and elevated readings were recorded in the following areas:
  - 17% below the north bathroom window
  - 21% below the north kitchen window
  - More than 40% below the south dining room window
  - 22% in the bottom plate of the west kitchen/dining area

• 30% in the bottom plate of the south living room area.

Moisture levels that vary significantly after cladding is in place generally indicate that external moisture is entering the structure.

- 4.5 The expert concluded that the inspection had revealed that not all of the cladding faults identified in the first determination have been satisfactorily rectified and moisture is evident in a number of locations.
- 4.6 A copy of the expert's report was provided to each of the parties on 30 October 2007.

### 5. Discussion

- 5.1 I consider the expert's report establishes that the requirements of the first determination have only been partially complied with, and further remedial work required in respect of:
  - the lack of a flashing to the horizontal control joint, and the covering band not being meshed into the cladding
  - the hairline cracks along the interior side of the south parapet wall
  - the inadequate head flashing projections beyond some window and door frames
  - the lack of adequate sealing between the back of jamb flanges and the cladding
  - the inadequately installed kick-out to the end of the north apron flashing
  - the inadequate saddle flashings at the junction of the parapets with the cladding
  - the lack of drainage gaps between the deck and the cladding.
- I draw to the attention of the parties the importance of carefully wording any notice to fix (refer paragraph 6.2) to ensure that remedial proposals are submitted to the territorial authority for approval before being executed. As described in paragraphs 2.3, 2.4 and 2.5, that process was not followed subsequent to the first determination.

### 6. The decision

- 6.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the cladding does not comply with Clauses B2 and E2 of the Building Code and that the items listed in paragraph 5.1 have not been adequately remedied and are therefore not code-compliant. Accordingly, I confirm the territorial authority's decision to refuse to issue a code compliance certificate.
- 6.2 The territorial authority should now issue a notice to fix that requires the owners to bring the building alterations into compliance with the Building Code, incorporating the defects listed in paragraph 5.1 and referring to any further defects that might be discovered in the course of rectification. The notice to fix should not specify how those defects are to be fixed. That is a matter for the owner to propose and for the territorial authority to accept or reject (refer paragraph 5.2 above).

I suggest that the parties adopt the following process to meet the requirements of paragraph 6.2. Initially, the territorial authority should issue the notice to fix. The owner 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 rectification or otherwise of the specified issues. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding determination.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 26 March 2008.

John Gardiner Manager Determinations