

Determination 2006/09

Refusal of a code compliance certificate for one of two monolithic-clad units at 40A Ellis Avenue, Mount Roskill, Auckland

1 The dispute 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, for and on behalf of the Chief Executive of that Department. The applicant is the owner of Unit A, Mr Ashok Bhat (“the owner”), and the other party is the Auckland City Council (“the territorial authority”). Mr Verhoeff, the owner of Unit B is named as the owner of another property. The application arises from the territorial authority’s issuing of a notice to fix for a 3-year-old semi-detached Unit (Unit A) requiring changes to be made to its monolithic cladding system. This has occurred even though the territorial authority has already issued an interim code compliance certificate in respect of Unit A.
- 1.2 The question to be determined is whether on reasonable grounds the monolithic wall cladding as installed to the timber-framed external walls of Unit A (“the cladding”), complies with the Building Code (see sections 177 and 188 of the Act). By “the monolithic wall cladding as installed” I mean the components of the system (such as the backing sheets, the flashings, the joints and the plaster and/or the coatings) as well as the way the components have been installed and work together.
- 1.3 In making my decision, I have not considered any other aspects of the Act or the Building Code.

2. Procedure

2.1 The building

- 2.1.1 The building work consists of a single-storey split-level Unit, which is connected to an adjoining Unit (Unit B) by a party wall that is common to the garage of each Unit, and is situated on a sloping site that is in a medium wind zone in terms of NZS 3604: 1999 “Timber framed buildings”. The Unit is of a relatively simple shape on plan

with the pitched roofs at two levels having hip, valley, and wall-to-roof junctions. The eaves and verges generally have 300mm or 600mm wide projections over all the windows. The entrance and adjoining lounge wall area have larger roof projections over them. The Unit is of conventional light timber frame construction on a timber-framed pole-supported ground floor. All the external walls are sheathed with monolithic cladding. A small raised timber-framed open deck is constructed adjacent to the dining room, is supported on timber beams and posts, and has an open balustrade consisting of timber handrails and balusters. A set of steps with a similar balustrade leads up to the deck.

- 2.1.2 I have not received any evidence regarding the treatment, if any, of the external wall framing, nor does the specification make any specific reference to any such treatment. It is therefore likely that the external wall framing is not treated.
- 2.1.3 The timber-framed external walls of the Unit, that is the subject of this determination, is clad with a system described as monolithic cladding. In this instance it consists of 7.5mm “Harditex” fibre-cement backing sheets fixed directly to the framing over the building wrap, to which a Plaster Systems Ltd textured plaster systems is applied. The plaster is finished with an elastomeric textured paint system.

2.2 Sequence of events

- 2.2.1 The territorial authority issued a building consent on 8 February 2002. This consent covered both Unit A (territorial authority’s reference Unit 2) and Unit B (territorial authority’s reference Unit 1).
- 2.2.2 The territorial authority carried out various inspections during the construction of both Units and passed the cladding for both Unit A and Unit B on 14 October 2002. The territorial authority passed the final inspection for Unit A on 22 April 2003 and subsequently issued an interim code compliance certificate dated 29 April 2003 for that Unit only.
- 2.2.3 Following receipt of an application for a code compliance certificate from the owner of Unit B in September 2004, the territorial authority, of its own volition, carried out further final site inspections of Unit A on 11 May 2005. In a letter to the owner dated 16 May 2005, the territorial authority regretted that the Unit might not comply with the Building Code in a number of respects. The territorial authority attached a notice to fix also dated 16 May 2005 to this letter, together with a set of photographs illustrating items of non-compliance. The “Particulars of contravention or non-compliance” attached to the notice to fix listed requirements under the following headings:
- Work not undertaken in accordance with requirements of the building consent, the Building Code, and the Act
 - Items not installed per the manufacturer’s specifications
 - Items not installed per the relevant acceptable/ alternative solutions approved under the building consent

- Items not installed per accepted trade practice
- Changes to the work done from that described in the building consent
- Other building related issues, which included steel fixings and fastenings, the open stairway risers, and the glazing to the bathroom window.

2.2.4 The Particulars of Contravention also described how the owner could remedy the items at issue.

2.2.5 The owner made an application for a determination on 23 May 2005.

3 The submissions

3.1 In a letter to the Department dated 23 May 2005, the owner noted that the owner of Unit B had already lodged a determination application in respect of that Unit. The owner described how the territorial authority had passed the final inspection of Unit A and had issued an interim code compliance certificate for it. However, the territorial authority had wrongly identified the property in its documentation. The owner was of the opinion that a final code compliance certificate should be issued for his Unit.

3.2 The owner forwarded copies of:

- the plans
- the interim code compliance certificate
- the notice to fix
- the correspondence with the territorial authority
- some inspection documentation.

3.3 In a covering letter to the Department dated 17 June 2005, the territorial authority described the Particulars of Contravention and the specific construction defects.

3.4 The territorial authority also forwarded copies of:

- the plans and specifications
- the building consent and inspection documentation
- the interim code compliance certificate
- the notice to fix
- the correspondence with the owner.

- 3.5 Copies of the submissions and other evidence were provided to each of the parties.
- 3.6 In a letter to the Department dated 18 October 2005, the territorial authority commented on aspects of the draft determination:
- “Over the last year the Department has issued a number of determinations relating to the code compliance of cladding as installed. In Council's experience, the matter in dispute has been inaccurately documented. In practice the matter in dispute is whether the scope of work necessary to achieve code compliance is that documented in Council's Notice to Fix or as identified by the department's assessor. Council's view is that to provide clarity and certainty for the applicant, the matter in dispute should be amended to reflect this. This change would need to be approved by the applicant as well as Council.”
- 3.7 In particular, the territorial authority is concerned that paragraphs 8.2 and 8.3 (of the first draft determination) indicate a scope of work required to make the house code compliant. The territorial authority claims that this is not part of the determination.
- 3.8 The territorial authority forwarded a second letter dated 9 January 2006, which repeated the content of its letter of 18 October 2005, with the exception of the paragraph references of 10.2 and 10.3 that are those of the second draft determination forwarded to the parties subsequent to the hearing.
- 3.9 The owner wrote to the Department on 24 October 2004, commenting on certain aspects of the draft determination. In particular, the owner objected to the:
- inclusion of the risk matrix
 - reference to a cavity behind the cladding
 - instruction to the territorial authority to withdraw the interim code compliance certificate
 - addressing of the territorial authority's concerns other than the cladding
 - extent of items that the territorial authority consider to be non-compliant in any notice to fix that it might issue
- 3.10 The owner also requested that the determination include the scope of work required to achieve code compliance so that a code compliance certificate could be issued. Alternatively, the Department should direct the territorial authority to issue a final code compliance certificate covering both of the Units once the items of rectification set out in paragraphs 5.1 and 5.3 have been attended to.
- 3.11 Subsequent to receiving the draft determination following the hearing, the owner wrote to the Department on 18 January 2006. The owner accepted the draft but subject to the reiterated comments set out in his letter of 24 October 2005, stating that these were also relevant to the revised draft. In addition, the owner submitted that the territorial authority was going beyond its scope in withdrawing the interim code compliance certificate. The territorial authority could not withdraw the certificate as reliance had been placed upon it. The owner also called on the

territorial authority to carry out an inspection of the house with a view to issue the code compliance certificate

4. The relevant provisions of the Building Code

- 4.1 The dispute for determination is whether the territorial authority's decision to issue a notice to fix for Unit A because it was not satisfied that the cladding complied with clauses B2 and E2 of the Building Code (First Schedule, Building Regulations 1992) is correct.
- 4.2 There are no Acceptable Solutions that have been approved under section 22 of the Act or section 49 of the Building Act 1991 that cover the monolithic cladding. The cladding is not currently certified under section 269 of the Act. I am, therefore of the opinion that the cladding system as installed must now be evaluated as an alternative solution.
- 4.3 In several previous determinations, the Department has made the following general observations, which remain valid in this case in my view, about Acceptable Solutions and alternative solutions.
- 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; and
 - 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.

5 The expert's report

- 5.1 I appointed an expert to assist me in the assessment of code compliance for both Unit A and Unit B. The expert inspected the buildings on 26 April 2005 and 6 August 2005 respectively, and furnished a report that was completed in August 2005. The report considered that the texture coating system and paint finishes are inadequate and deficient. The expert also made the following comments regarding the cladding:
- There are rough, protruding, and expressed joints visible in the cladding, the corners are poorly formed, and there is inadequate texture cover at some locations.
 - The control joints that are recommended by the cladding supplier for walls over 5.4 metres in length have not been installed to the relevant walls. (I note here that notwithstanding the owners' explanation (see para 5.6) that the joints were installed but were concealed by flush stopping, the expert was unable to find them on a return visit to the site).

- The base of the cladding is too close to the paving, or the ground, or the decks at some locations
- The installation of the external joinery Units is sub-standard, there are no sill or jamb flashings installed, the perimeter sealing is uneven, there are gaps at the jambs, a loss of coating at the heads, and an uneven finish of the cladding onto the head flashing
- There are untidy gutter and wall terminations, with incompletely formed and loose kick outs, the fascias are in close contact with the roof, and the hip terminations are poorly formed
- The decks are connected to the main wall frames above the floor level at the floor set-downs and moisture transfer is occurring between the deck frame, the cladding and the external wall framing.

5.2 The expert took non-invasive readings at the interior linings of the exterior walls to the Unit and no abnormal or adverse readings were encountered.

5.3 The expert also noted that there is unsecured and displaced wall insulation to some of the internal walls. There is an open discharge of storm water under the floor of the Unit.

5.4 Copies of the expert's report were provided to each of the parties. The owners of both Units A and B wrote a joint letter dated 8 September 2005 in which they said they wished "to respond and summarise our position as the applicant". The owners made the following assertions:

- The determination process is subject to the 1991 Building Act.
- The actions of the territorial authority in issuing a notice to rectify against Unit A was "unreasonable" when earlier the territorial authority was satisfied the Unit complied with the Building Code and issued an interim code compliance certificate.

5.5 The owners of the two Units also made a number of submissions in response to the issues raised in both the territorial authority's submissions and in the expert's report.

5.6 With regard to the expert's report the owners said they were generally in agreement but made the following comments:

- The bathroom area referred to was the subject of an amendment to the building consent and the deck mentioned was not dimensioned on the consent drawings
- The finished exterior has now been in place since September 2002
- Jamb flashings are not indicated in Fig 115 of E2/AS1 and sill flashings were not mentioned in BIA publications
- The control joints were flush stopped over the silicone sealant and thus invisible

- Providing additional texture coating will not promote durability. The coating system used was not as textured as some and did not conceal visual imperfections so well.

6 The hearing

- 6.1 The owner requested a hearing. This was held on 19 December 2005 before a tribunal consisting of the Determinations Manager and one Referee acting for and on behalf of the Chief Executive by delegated authority under section 187(2) of the Building Act 2004. This hearing was a combined one that involved both the house in question and the adjoining connected Unit that is subject to a separate determination. At the hearing the owner, Mr Bhat, appeared on his own behalf and the owner of the adjoining Unit, Mr Verhoeff, also appeared. The territorial authority was represented by one of its officers. Three staff members of the Department were in attendance. The owner and the territorial authority spoke and called evidence at the hearing, and evidence from those present enabled me to amplify various matters of fact that were identified in the draft.
- 6.2 The owner noted that apart from a minor drainage issue, a final code compliance certificate covering both Units would have been issued. The owner questioned whether the territorial authority could now require a further inspection and why the Department had not stated how things are to be fixed. The owner was informed by the territorial authority that it could be 4 to 6 months before a new inspection can take place.
- 6.3 The territorial authority stated that the draft determination had shown that the building was not code compliant. However, the territorial authority would take into account what the Department had said relating to remedial work. The territorial authority noted that the last inspection of the property took place in 2004. Accordingly, as the territorial authority must be satisfied as to compliance at the time that a code compliance certificate is to be issued, a further inspection was required. The territorial authority's knowledge and understanding can change over time. The owner should obtain a scope of work that can be mutually agreed to. Once the agreed remedial work had been carried out, the territorial authority would inspect it and if satisfied would issue a code compliance schedule.
- 6.4 The Department put forward suggestions with regard to the rectification process. It also noted that as the territorial authority is the local regulator, it should issue a notice to fix. A further determination could be sought as regards items still in dispute at the rectification stage.

7 Discussion

7.1 General

- 7.1.1 I have considered the submissions of the parties, the expert's report and the other evidence in this matter, including that submitted at the hearing. The approach in

determining whether building work complies with clauses B2 and E2 is to examine 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 Authority and the Department have described the weathertightness risk factors in previous determinations (refer to Determination 2004/01 *et al*) relating to monolithic cladding, and I have considered these comments in this determination.

7.2 Weathertightness risk

7.2.1 In relation to the weathertightness characteristics, I find that Unit A:

- is in a low wind zone
- has 300mm or 600 mm wide eaves and verge projections to most locations, which together with the additional roof overhangs at and adjacent to the entries, help to protect the cladding
- is single-storey
- is of a fairly simple shape on plan, with roofs having hip, valley, and roof-to-wall junctions
- has a small suspended deck attached to the building
- has external wall framing that is unlikely to be treated to a level that would help to prevent decay if it absorbs and retains moisture.

7.3 Weathertightness performance

7.3.1 I find that the monolithic cladding to the Unit in general does not appear to have been installed according to good trade practice or in accordance with the manufacturer's instructions. I am of this opinion despite the fact that the territorial authority has issued an interim code compliance certificate for the Unit. As a result, there are a number of identified defects, set out in paragraphs 5.1 and 5.3, and in the expert's report, which I consider will contribute to future moisture penetration of the Unit.

7.3.2 I am concerned that the clerical errors on the documentation issued by the territorial authority with regard to the identification of this specific property have occurred. This has proved disconcerting to the owner, who claims that these anomalies have not yet been rectified. Even more of a concern is that the territorial authority has issued an interim code compliance certificate for a building that, based on its own later inspection, is far from meeting the requirements of the Building Code.

7.3.3 I note that three elevations of the Unit demonstrate a low weathertightness risk rating and one demonstrates a moderate risk rating using the E2/AS1 risk matrix. The matrix is an assessment tool that is intended to be used at the time of application for consent, before the building work has begun and, consequently, before any assessment of the quality of the building work can be made. Poorly executed building work introduces a risk that cannot be taken into account in the consent

stage, but must be taken into account when the building as constructed is assessed for the purposes of issuing a code compliance certificate.

8 My response to the parties' submissions on the draft determination

8.1 The territorial authority's submissions

8.1.1 In response to the territorial authority's letters to the Department of 18 October 2005 and 9 January 2006, I consider that I am entitled to determine whether proposed building work complies with the Building Code, and in fact I have done so in this case. However, as noted in paragraph 8.2.4, my concern in this case is also that the work described in paragraph 5.1 may not turn out to be sufficient to achieve compliance, and in any event whether the work has been properly completed and is code compliant is a matter that can only be determined after careful inspection. I note that the territorial authority's inspection described in a "Final Checklist" dated 3 April 2003 passed the following items in respect of the exterior of the building:

- floor clearance from ground level
- cladding clearance from ground level
- secondary flow path
- cladding painted
- flashings.

8.1.2 The notice to fix issued on 16 May 2005 listed issues related to cladding that included:

- floor clearances
- ground clearances
- flashings.

8.1.3 It can be seen that the expert's report provides the comprehensive description of the building's outstanding shortcomings that should have been detected during the territorial authority's original inspection process.

8.2 The owner's submissions

8.2.1 I consider that the risk matrix is an important reference in the overall assessment of the Unit in question. In my opinion, the clause is appropriately worded to put the reference in the context of the completed building.

8.2.2 As the cladding is directly fixed to the framing, I consider that the reference to there being no cavity behind the cladding is a matter of fact and appropriate.

- 8.2.3 I have noted the concerns of the owner regarding the reliance on the code compliance certificate issued by the territorial authority, However, I am of the opinion that, as the building has been shown to be non-compliant I have no option but to request that the territorial authority withdraw the code compliance certificates that it has issued.
- 8.2.4 The owner has requested that the Department defines the extent of work required to address the defects listed in the expert's report and in the territorial authority's notice to fix. The territorial authority has also raised this issue. I note that the Building Industry Authority in Determination 1997/4 took the view that it was not for it to decide how a building was to be brought into compliance with the Building Code. I concur with that view if only for the reasons set out in paragraph 8.1.1 above, and this is reflected in my decision. I also urge the territorial authority to inspect the house as requested by the owner in his letter of 18 January 2006.

9 Conclusion

- 9.1 I consider that the expert's report establishes that there is no evidence of external moisture entering the Unit, and that the cladding currently complies with clause E2 of the Building Code.
- 9.2 In addition, 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 Unit to remain weathertight. I am satisfied that the cladding has not been installed according to good trade practice and will almost certainly allow water penetration into the walls in the future. In particular it demonstrates the key defects listed in paragraph 5.1. Because the cladding faults in this building are liable to allow the ingress of moisture in the future, and there is no effective cavity behind the cladding, the Unit does not comply with the durability requirements of clause B2.
- 9.3 I find that, because the faults in the cladding of this building are discrete and readily identifiable, I am able to conclude, with the information available to me, that remediation of the identified faults will result in compliance with clause B2.
- 9.4 I note that, once the building has been made compliant with the Building Code, effective maintenance of monolithic claddings is important to ensure ongoing compliance with clause B2 of the Building Code. That maintenance is the responsibility of the building owner. The Building Code assumes that the normal maintenance necessary to ensure the durability of the cladding is carried out. For that reason clause B2.3.1 of the Building Code requires that the cladding be subject to "normal maintenance". That term is not defined, and I take the view that it must be given its ordinary and natural meaning in context. In other words, normal maintenance of the cladding means inspections and activities such as regular cleaning, repainting, replacing sealants, and so on. As it is likely that the external wall framing is not treated, periodic checking of its moisture content should be carried out as part of normal maintenance.
- 9.5 In the circumstances, I decline to incorporate any waiver or modification of the Building Code in this determination.

10 The decision

- 10.1 In accordance with section 20 of the Building Act 1991, I hereby determine that the monolithic cladding system as installed to the Unit does not comply with clause B2 of the Building Code, and accordingly instruct the territorial authority to withdraw the interim code compliance certificate that it has issued for the Unit.
- 10.2 I note that the territorial authority has issued a notice to fix. Under the Act, a notice to fix can require the owner to bring the Unit into compliance with the Building Code. The Building Industry Authority had already found in a previous determination (2000/1) that a Notice to Rectify cannot specify how that compliance can be achieved. I concur with that view. A new notice to fix should be issued that requires the owner to bring the cladding into compliance with the Building Code, without specifying the features that are required to be incorporated. It is not for me to dictate how the defects described in paragraph 5.1 is to be remedied. That is for the owner to propose and the territorial authority to accept or reject. In addition the notice should also address the territorial authority's concerns regarding the steel fixings and fastenings, the open stairway risers, the glazing to the bathroom window, and the matters identified in paragraph 5.3.
- 10.3 I would suggest that the parties adopt the following process to meet the requirements of paragraph 10.2. Initially, the territorial authority should issue the notice to fix, listing all the items that the territorial authority considers non-compliant. The owner should then produce a response to this in the form of a technically robust 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.
- 10.4 Finally, I consider that the cladding will require ongoing maintenance to ensure its continuing code compliance.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 14 February 2006.

John Gardiner
Determinations Manager