

Determination 2005/70

Refusal of a code compliance certificate for a building with a “monolithic” cladding system: House 60

1 THE DISPUTE TO BE DETERMINED

- 1.1 This is a determination of a dispute referred to the Chief Executive of the Department of Building and Housing (“the Chief Executive”) under section 17 of the Building Act 1991 (“the Act”) as amended by section 424 of the Building Act 2004. The applicant is the owner and the other party is the Auckland City Council (referred to throughout this determination as “the territorial authority”). The application arises from the refusal by the territorial authority to issue a code compliance certificate for a 6.5 -year old house unless changes are made to its monolithic cladding systems. A previous determination (No 2004/76) concerning the same building, the same parties, and the same broad issue was made on 29 November 2004, following consideration of written submissions by the parties, an independent expert’s report, and a hearing. That determination stated that a drained and ventilated cavity behind the wall cladding was not necessary in the case of this house, but that certain remedial work should be carried out before the territorial authority should issue a code compliance certificate. The territorial authority nonetheless subsequently issued a Notice to Rectify that required such a cavity.
- 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 the house (“the cladding”), complies with the building code (see sections 18 and 20 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 This determination is made under the Building Act 1991, subject to section 424 of the Building Act 2004. That section came into force (“commenced”) on 30 November 2004, and its relevant provisions are:

“. . . on and after the commencement of this section,—

- “(a) a reference to the Authority in the Building Act 1991 must be read as a reference to the chief executive; and
- “(b) the Building Act 1991 must be read with all necessary modifications to enable the chief executive to perform the functions and duties, and exercise the powers, of the Authority . . .”

It should be noted that the new legislation does not amend the determination process set out under the 1991 Act, other than to transfer the power to make a determination from the Building Industry Authority (“the Authority”) to the Chief Executive.

- 1.4 This determination refers to the former Authority:
 - (a) When quoting from documents received in the course of the determination, and
 - (b) When referring to determinations made by the Authority before section 424 came into force.
- 1.5 In making my decision, I have not considered any other aspects of the Act or the building code.

2 PROCEDURE

The building

- 2.1 The building is two-storey house that was described in the previous determination.
- 2.2 The external walls of the building are clad with what is described as monolithic cladding. In this instance it incorporates fibre-cement backing sheets fixed through the building wrap directly to the framing timbers and finished with a 25 mm thick stucco sand and cement plaster reinforced with chicken mesh. The plaster in turn is finished with an acrylic paint system.

Sequence of events

- 2.3 Following a hearing attended by the parties, the Authority issued a determination on 29 November 2004, which concluded that, as there was evidence of external water entering the building, the cladding system as installed did not comply with clause E2.3.2 of the building code. The Authority also determined that the territorial authority was to issue a new Notice to Rectify requiring the Owner to bring the building into compliance with the code, but without specifying the features required to be incorporated.
- 2.4 In a letter to the owner dated 24 January 2005, the territorial authority noted that the determination issued by the Authority found that the cladding did not comply with clause E2.3.2 of the building code. The territorial authority attached a redrafted Notice to Rectify dated 24 January 2005 to this letter. The “Particulars of Contravention” attached to the Notice to Rectify listed requirements under the following headings:

1. Items not installed per the manufacturer's specifications;
 2. Items not installed per the acceptable solutions of the building code, (no alternative solutions had been applied for);
 3. Items not installed per accepted trade practice; and
 4. Ventilated cavity system.
- 2.5 In a letter to the territorial authority dated 1 February 2005, the owner responded to the points raised in the Notice to Rectify, and provided detailed documentation that illustrated the work undertaken to rectify the areas of concern. The owner also requested an urgent meeting with the territorial authority to review the issues.
- 2.6 The territorial authority responded by letter on 4 February 2005, stating that the work proposed by the owner would not address all the areas of contravention detailed on the Notice to Rectify. The owner was advised to engage a suitably qualified person to investigate the issues and offer advice on the work required to rectify the faults. The territorial authority would issue a code compliance certificate if it were satisfied that the rectification work resulted in the cladding becoming code compliant. If the territorial authority did not agree with the scope of work, then the owner could apply to the Department for a determination.
- 2.7 The owner wrote to the territorial authority on 7 February 2005, noting that the territorial authority had been supplied with documentation outlining how the outstanding issues had been rectified, the errors in the Notice to Rectify, and the items that would create leaks if adopted. The owner also confirmed the details of a telephone conversation with an officer of the territorial authority in which, according to the owner, the officer declined to hold a meeting with the owner, or to make a further inspection, or to recommend a "suitably qualified person" to inspect the property. The owner also stated that the owner's response to the Notice to Rectify is the result of consulting and employing numerous qualified persons. The owner requested that the territorial authority respond within 48 hours of receiving the owner's letter if the owner's recollections were incorrect.
- 2.8 The owner applied for a determination on 14 February 2005.
- 2.9 The territorial authority wrote to the owner on 23 February 2005 acknowledging receipt of the letter of 7 February 2005 stating that as the Department had directed the owner what to do, the territorial authority declined to meet with the owner or undertake a further inspection. The territorial authority considered that due to the complexity of the house construction, this needed to be considered in its entirety by an expert. An inspection by the territorial authority at this time would be a piecemeal approach and did not represent good practice. The territorial authority also recommended that a member of a specified institute could be engaged as an expert.

3 THE SUBMISSIONS

3.1 The owner in a covering letter dated 15 February 2005, noted that numerous acknowledged experts had been engaged to advise the owner, and the owner had addressed all of the “key defects”. The owner had presented detailed documentation to the territorial authority and despite all attempts to have a meeting with the territorial authority to discuss the issues, this request had been denied. The owner then listed the sequence of events leading up to this determination.

3.2 The owner also forwarded copies of:

- The rectification documentation;
- The redrafted Notice to Rectify; and
- The correspondence with the territorial authority.

3.3 In a letter to the Department dated 3 March 2005, the territorial authority expressed concerns as to the need for this determination. The territorial authority maintained that the owner had not followed the Authority’s advice to engage the services of an expert to advise as to how the building could be made code compliant. The territorial authority recommended that the Department advise the owner to engage a building expert to prepare a proposal that could be provided to the territorial authority for consideration. If the territorial authority were not satisfied that the proposal was adequate, it could then refer it to the Department for a determination.

3.4 Copies of the submissions and other evidence were provided to each of the parties, and neither party made any further comments.

4 THE RELEVANT PROVISIONS OF THE BUILDING CODE

4.1 The dispute for determination is whether the territorial authority’s decision to refuse to issue a code compliance certificate because it was not satisfied that the cladding complied with clauses B2.3.1 and E2.3.2 of the building code (First Schedule, Building Regulations 1992) is correct.

4.2 There are no Acceptable Solutions that have been approved under section 49 of the Act that cover this cladding. The cladding is not accredited under section 59 of the Act. I am therefore of the opinion that the cladding system as installed must now be considered to be an alternative solution.

4.3 In several previous determinations, the Department has made the following general observations, which in my view remain valid in this case, about acceptable solutions and alternative solutions.

- Some acceptable solutions cover the worst case, so that in less extreme cases they may be modified 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 The Authority commissioned an independent expert ("the expert") to inspect and report on the remedial work carried out on the cladding. The expert visited the property on 7 April 2005, and issued a report dated 9 April 2005. The expert considered that the repair work had been completed to a high standard, with care and consideration given to the work. The house had also been painted in a lighter colour. The report noted that all the faults identified in paragraph 5.1 had been satisfactorily remedied, with the exception of some issues that were raised in the Notice to Rectify. These were:

- The minimal clearance obtained between the base of the cladding and the balcony decks or roofs. However, the expert noted that as there was an adequate membrane upstand at these locations, and the base of the cladding had a waterproofing system applied to it, these factors could be considered as an alternative solution; and.
- The head flashings over the external windows and doors are not installed in accordance with the manufacturer's recommendations. The expert agreed with the owner that to cut the cladding and remove the sealant at these locations would be detrimental to the cladding and any gathered moisture would drip from the flashing's birdsbeak onto the sill flashings.

5.2 The expert noted that the owner had installed 47 permanent probes throughout the building. The owner provided the expert with a copy of the results of tests carried out by means of these probes. A copy of the same results was also forwarded to the Department. The readings recorded ranged from 9.4% to 16.6%. Moisture levels above 18% recorded after cladding is in place generally indicate that external moisture is entering the structure.

6 DISCUSSION

General

6.1 I have considered the submissions of the parties, and the other evidence in this matter. 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 taken these comments into account in this determination.

Weathertightness risk

- 6.2 In relation to the weathertightness characteristics of the house, I accept that those that were listed in Determination 2004/76 are relevant to this determination. I also note that the probe readings now show that no moisture is entering the wall cavity at present. While I accept the likely accuracy of the probe readings at present I observe that the long-term reliability of the probe system is not yet proven. The installation of the probes should not be seen as a substitute for regular, and thorough, inspection and maintenance of the cladding system.

Weathertightness performance

- 6.3 I find the rectification work that has been carried out by the owner to be satisfactory. In addition, I also accept the opinion of the expert that the clearance between the base of the cladding and the balcony decks or roofs, and the head flashings as installed over the external windows and doors are acceptable alternatives. Taking these factors into consideration, and noting that there is no evidence of external moisture entering the house, I find that the monolithic cladding complies with clause E2 at this time. In addition, because the cladding is unlikely to allow the ingress of moisture in the future, the additions also comply with the durability requirements of clause B2.
- 6.4 In finding the house is code compliant; I do not accept that the lack of a drainage and ventilation cavity in itself prevents the apartment from complying with the weathertightness and durability provisions of the building code.
- 6.5 In answer to a direct question at the hearing held for Determination 2004/76, the territorial authority stated that it would give the owner a “fair hearing” when working through the remedial issues. This does not appear to have happened. I cannot accept the territorial authority’s contention that discussions on specific items of rectification do not represent “good practice”. Nor do I accept that the owner was given a “fair hearing” by the territorial authority in this case.

7 CONCLUSION

- 7.1 I consider that the expert’s report establishes there is no evidence of external moisture entering the additions, and that the monolithic cladding complies with clause E2 at this time. In addition, because the cladding is unlikely to allow the ingress of moisture in the future, the additions also comply with the durability requirements of clause B2.
- 7.2 I reiterate the Authority’s previous recommendation that effective maintenance of monolithic claddings is important to ensure ongoing compliance with clauses E2 and B2 of the building code. I also endorse the expert’s opinion that continual moisture monitoring of the building must be conducted in order to confirm the ongoing effectiveness of the maintenance programme carried out.

- 7.3 I emphasise that each determination is conducted on a case-by-case basis. The fact that a particular cladding system has been established as being code compliant in relation to a particular building does not necessarily mean that the same cladding system will be code compliant in another situation.
- 7.4 I decline to incorporate any waiver or modification of the building code in this determination.

8 THE DECISION

- 8.1 In accordance with section 20 of the Act, I determine that the house is weathertight now and the cladding complies with clauses B2 and E2. Accordingly, I reverse the territorial authority's decision to refuse to issue the code compliance certificate.
- 8.2 Finally, I consider that the cladding will require on-going maintenance to ensure its continuing code compliance.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 13 May 2005.

John Gardiner

Determinations Manager