



## Determination 2014/020

### Regarding the refusal to issue a certificate of acceptance for the recladding of a 20-year-old house at 772 Remuera Road, Remuera, Auckland



#### 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, Tony Marshall, Manager Determinations and Assurance (Acting), Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to the determination are
- the owners of the house, R and Y Horsfall (“the applicants”), represented by an agent
  - Auckland Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.
- 1.3 This determination arises from the decision of the authority to refuse to issue a certificate of acceptance for recladding because the authority was not satisfied that the building work complied with certain clauses<sup>2</sup> of the Building Code (First Schedule, Building Regulations 1992).
- 1.4 The matter to be determined<sup>3</sup> is therefore whether the authority was correct in its decision to refuse to issue a certificate of acceptance for the recladding of the house.
- 1.5 In making my decision I have considered the submissions of the parties, the report of the expert commissioned by the Ministry to advise on this dispute (“the expert”) and the other evidence in this matter.

<sup>1</sup> The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at [www.dbh.govt.nz](http://www.dbh.govt.nz) or by contacting the Ministry on 0800 242 243.

<sup>2</sup> In this determination, unless otherwise stated, references to sections are to sections of the current Act and references to clauses are to clauses of the Building Code.

<sup>3</sup> Under sections 177(1)(b) and 177(3)(b) of the Act

## 2. The building work

### 2.1 The existing house

- 2.1.1 The building is a two storey detached house constructed on a sloping site in a medium wind zone for the purposes of NZS 3604<sup>4</sup>. The house is mainly timber framed, and constructed upon reinforced concrete foundations. The ground floor level is constructed with brick veneer over a cavity.
- 2.1.2 The recessed joinery is single glazed aluminium throughout. The roof is pitched and clad with concrete tiles, and the roof drains into a concealed metal spouting system. The building is simple in shape and form, and has as no 'at risk' weathertightness features.
- 2.1.3 The upper storey of the house was originally clad with a stucco plaster, assumed to be approximately 21mm thick, installed over 4.5mm fibre-cement backing boards directly fixed to the framing.
- 2.1.4 Given the date of construction the timber framing is most likely to be boron treated.

### 2.2 The recladding

- 2.2.1 The recladding work consisted of the installation of an autoclaved aerated concrete panel system ("the AAC panel system"), installed over a drained cavity formed with castellated polystyrene battens. The AAC panels have a fibreglass mesh reinforced plaster applied over with a paint finish. The AAC cladding is protected by 500mm wide eaves to all elevations.

## 3. Background

- 3.1 The house was originally constructed between 1993 and 1994. A code compliance certificate was issued for the original construction on 15 July 1994.
- 3.2 In mid-2011, the upper elevations that were clad with stucco plaster were replaced with the AAC panel system. In the application for determination the applicants noted that there were 'issues surrounding the cracking of the stucco' and the applicants were of the view that the original cladding 'did not meet the current Building Code requirements'. A building consent was not obtained for the recladding work.
- 3.3 On 11 October 2012 the applicants applied for a certificate of acceptance for the recladding work. The submission included with the application for determination states:

... the [authority advised that it] had a 'blanket policy' of not accepting [certificate of acceptance] applications for re-cladding works.

After discussions with the Ministry, this policy was challenged... it was highlighted that a territorial authority cannot refuse to accept a [certificate of acceptance] application as a blanket policy and that they must consider each application on its merits and that a decision to either issue or refuse to issue a [certificate of acceptance] should only be made on the facts of each application and whether the work concerned complies with the [Building] Code.

After these discussions, the [authority] agreed that the application would be accepted for processing...

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<sup>4</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 3.4 The authority carried out a site inspection and highlighted three issues requiring attention in an email dated 4 March 2013. The issues were an alarm fixture to an external wall, the lack of drain hole to the vermin strip above the brick line, and the lack of a spreader where the downpipe discharges on the lower roof.
- 3.5 Following the site inspection, there was correspondence between the applicants and the authority on the issues requiring attention and the process for approval. On 16 May 2013, a further inspection was carried out by the authority. Correspondence continued between the applicants, their agent, and the authority on 17 May 2013, with the authority indicating that a certificate of acceptance would be issued once the work to remediate the fixture of the alarm system to the wall was carried out.
- 3.6 From the submission accompanying the application it appears the agent contacted the authority on 11 July 2013 confirming the work to the alarm system fixture was completed. After following up with the authority, the agent was subsequently advised that the authority was refusing to issue a certificate of acceptance for the work. The applicants were formally advised in a letter from the authority dated 15 October 2013 which stated:

...under section 99A of the [Act] a [certificate of acceptance] cannot be issued.

Following the site inspection and subsequent 'peer review' process, [the authority] could not be 'satisfied on reasonable grounds' that building works comply with the [Building Code], or that it is performing as intended.

As indicated on several occasions, a territorial authority may issue a certificate of acceptance only if it is satisfied, to the best of its knowledge and belief and on reasonable grounds, that, insofar as it could ascertain, the building work complies with the [Building Code]. In this instance, a reclad took place to the entire first floor of the dwelling and [the authority] has not undertaken any inspections whatsoever.

- 3.7 An application for a determination was received on 22 October 2013.

## 4. The submissions

- 4.1 The agent outlined the background to the situation, noting that the determination has arisen from the authority's decision to refuse to issue a certificate of acceptance. The agent also noted:

The applicants believe that the processing of this application has been [substandard]. Two processing officers have assessed the application, inspected the works and provided remedial work requirements. The later assessment was peer reviewed and both processing officers advised that the [certificate of acceptance] would be granted.

The applicants understand that [the authority] has only undertaken visual inspections of the completed building work; however, [the applicants] believe that processing of the application should also consider the supporting documents that were provided in the initial application in order to establish compliance with the Building Code ...

- 4.2 The applicants forwarded copies of
- a submission setting out the background
  - the application for a certificate of acceptance
  - the building plans, specifications, photos, invoices, original building plans and associated documentation
  - correspondence with the authority.
- 4.3 The authority made no submission in response to the application for determination.

- 4.4 A draft determination was issued to the parties for comment on 28 January 2014.
- 4.5 In a response received on 3 March 2014, the applicants noted they did not accept the draft determination and forwarded letters from the manufacturer of the AAC panel system and the installer who undertook the re-clad. The letter from the installer noted the following:
- The house has a concrete roof with lead flashing with an internal metal gutter fascia; the water will not track back to the wall framing, however the transition tray can still be done.
  - Cavity battens around windows and the bottom plate are closer together and fixed at closer centres than shown by the manufacturer, to provide a better backing for the AAC panels. The installer's standard practice is to place battens 150-200mm with a space of approximately 40-50mm in between under windows and along the bottom plate.
  - Weep holes can be drilled to increase air flow in the cavity.
  - There are three similar but consented re-clad jobs with the joinery left in place where the same details have been used and were passed as acceptable.
- 4.6 The cladding manufacturer made a number of comments in relation to points raised in the expert's report (refer paragraphs 5.3 and 5.4) and noted that in the manufacturer's view the AAC panel system was well installed and finished. I have summarised the manufacturer's comments as follows:
- The existing framing cantilevered out to the outer edge of the brick on the lower level; there are only two short areas of less than 3m in total where the vents in the capping have been blocked, and this is easy to remedy.
  - The existing framing and floor has always interrupted the cavity between the two floors. The top venting of the brick cavity could be easily achieved by opening weep-holes at the top of the brick veneer.
  - The point at which the expert did his internal assessment was adjacent several windows and a control joint, meaning more cavity battens would be evident than normal.
  - The plasterer was experienced in using the cladding system. The producer statement from the installer certifies that the battens have been issued 'in keeping' with the BRANZ appraisal layout.
  - Though some battens may be 'closer together than [the manufacturer] would like to see them', the battens are castellated to allow air to move in the cavity and so do not pose any 'long term threat'.
  - Modified proprietary flashings were installed around all the upstairs windows. The rear leg on the jamb flashing was removed, but the proprietary fins on the flashings were still clipped behind the joinery. A bead of sealant is applied to the flashings prior to plastering and in this case another was applied subsequent to the plastering being completed to leave a tidy 'maintainable' seal around the outside of the joinery. In all cases the proprietary sill sections are sealed onto the lower edge of the joinery section.
  - 'In the event of a massive weather-tightness issue' the AAC panels would absorb liquid water which would then evaporate via the cavity or through the panel face.

- There is little risk of thermal expansion affecting the joinery and the house has reasonably large eaves which provide weather protection to the joinery, particularly at the level of the head flashing.
- 4.7 The cladding manufacturer acknowledged that there were areas that needed to be addressed, namely brick weep holes and where punching of the base bead is not visible, and that due to the 'non-standard' nature of the installation additional maintenance inspections may be warranted.
- 4.8 The authority responded to the draft determination on 7 March 2014, stating that it remained of the view that a certificate of acceptance could not be issued for the following reasons:
1. The extent of the rot damage to the framing cannot be adequately assessed;
  2. The application of the building wrap and flashings cannot be adequately assessed;
  3. The installation of the cladding cannot be adequately assessed.

## 5. The expert's report

- 5.1 As mentioned in paragraph 1.5, I engaged an independent expert to assist me. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the house on 27 and 28 November 2013, providing a report dated 10 December 2013, which was provided to the parties on 16 December 2013.
- 5.2 The expert carried out limited invasive moisture content readings through internal linings and an endoscope was used to observe the construction and condition of the cavity. The investigation identified no confirmed areas of moisture ingress.
- 5.3 The expert noted that a number of variations were observed between the as-built situation and the manufacturer's technical literature, which have changed the appraised system. The following issues were identified:
1. Window joinery left in-situ during the remedial works:
    - resulting in the joinery being insufficiently spaced away from the framing
    - proprietary flashings not installed in accordance with the manufacturer's details
    - a lack of flashing tapes, air seals and/or sloped sill trimmer.
  2. A roof-to-wall junction installed contrary to the manufacturer's detail, with the AAC panels not plastered at the junction and the gutter not stopped short of the panel. However, the expert noted the junction occurred at the base of the cladding and that water was unlikely to migrate to the wall framing.
  3. Horizontal battens running the full width of the cavity at the base of the cladding and below window openings. The manufacture's details show sections of sloped horizontal battens 100mm long (max) centrally located between any vertical battens.
  4. A lack of a 20mm cavity where the AAC panel system extends over the top of the brick veneer cladding
  5. The AAC panel system, and underlying building wrap blocks the ventilation to the top of the brick veneer cladding, which will restrict the drying ability of the

brick cavity and provide the potential for moist laden air to dispel into the wall and floor cavities behind the panel system.

5.4 The expert also noted that the as-built plans and specifications, submitted as a part of the application for a certificate of acceptance, do not reflect the as-built situation. There are a number of variations to the following items:

1. The window perimeters.
2. The garage door head detail.
3. The alarm box detail.
4. The junction between the brick veneer cladding and the AAC panel system.
5. The finishing of the AAC panel system at the roof kick out flashing.
6. The layout of the battens installed to the cavity.

## **6. Discussion**

### **6.1 The refusal to issue a certificate of acceptance**

- 6.1.1 At the time the recladding work was undertaken, the applicants were of the view that the work was considered 'like for like' and therefore would not require a building consent. This appears to be on the basis of advice provided to the applicants.
- 6.1.2 Schedule 1 of the Act sets out building work for which consent is not required. Paragraph 1(a) of Schedule 1 that was current at the time the building work was carried out described repairs or maintenance exempt from the requirement to obtain consent. Paragraph 1(a) did not include as exempt the repair or replacement of 'any component or assembly that has failed to satisfy the provisions of the Building Code for durability, for example, through failure to comply with the external moisture requirements of the Building Code...'. The applicants' house had issues with cracking of the stucco cladding; accordingly the recladding work was not exempt building work under Schedule 1. This is not disputed by the applicants.
- 6.1.3 Section 96 of the Act makes provision for the issue of a certificate of acceptance in certain circumstances; one of these is where 'a building consent was required but not obtained' (section 96(1)(a)(ii)). In these circumstances an authority may on application issue a certificate of acceptance, but only if it is satisfied 'to the best of its knowledge and belief' that the building work complies with the Building Code.
- 6.1.4 The authority refused to issue a certificate of acceptance for the recladding work as it could not be satisfied on reasonable grounds that the building work complies with the Building Code or that it is performing as intended.
- 6.1.5 In the authority's submission dated 7 March 2014, the authority noted that 'the extent of rot damage to the framing cannot be adequately assessed'. In response to this I note that the building work for which the certificate of acceptance is being sought is the recladding; the framing was part of the original construction which has been issued with a code compliance certificate. However, to ensure that the scope and application of the certificate of acceptance is as clear as possible, the authority may wish to note on the certificate that it only applies to the building work that has been undertaken without building consent, and does not apply to any existing structure.

## **6.2 The compliance of the recladding work**

- 6.2.1 The expert identified some items that he does not consider compliant, and I have received a detailed response to these items from the manufacturer and the installer. The expert found no indication of water ingress but he considered the cladding would not satisfy Clause B2 with respect to Clause E2.
- 6.2.2 Clause E2.3.5 requires that ‘concealed spaces and cavities in buildings must be constructed in a way that prevents external moisture being accumulated or transferred and causing condensation, fungal growth, or the degradation of building elements’.
- 6.2.3 Given the age of building I accept the timber framing is likely to be Boron treated. I also note the AAC cladding is protected by 500mm wide eaves to all elevations, the building is in a medium wind zone, and is simple in shape and form, and has no ‘at risk’ weathertightness features. I accept that the AAC panels will absorb liquid water to a greater degree than would be the case with clay brick, and the absorbed water will then be able to dissipate as water vapour into the cavity. However, as noted by the expert, the ventilation of the ACC panels is limited in some areas.
- 6.2.4 The limited ventilation provided where the AAC panel system extends over the top of the brick veneer cladding system is not satisfactory and it adversely effects the ventilation of the cavity to the top of the brick veneer below. I acknowledge the manufacturer’s comment that this situation is only limited in extent. The installation of horizontal battens to the full width of the cavity at the base of the AAC panel system also restricts ventilation, but it is accepted these battens are castellated and will allow drainage and limited ventilation.
- 6.2.5 The windows are existing building elements (item 1, paragraph 5.3) and their removal to allow the installation of building wrap, air seals, etc, and to locate the windows in relation to the AAC panel system was not undertaken as part of the recladding work. While these variations mean the cladding as installed does not fully accord with the manufacturer’s installation instructions, in my view this does not mean that these details are unable to satisfy the requirements of the Building Code.
- 6.2.6 With respect to the roof-to-wall junction installed contrary to the manufacturer’s details (item 2, paragraph 5.3), I accept the expert’s view that this junction is likely to be adequate.

## **6.3 Conclusions**

- 6.3.1 I consider the recladding will satisfy the requirements of the Building Code provided remedial work is undertaken to provide ventilation to the top of the brick veneer, and to areas at the base of the AAC panels where ventilation is currently limited.
- 6.3.2 I accept the expert’s opinion that the documentation provided to support the application for a certificate of acceptance does not accurately portray the work carried out.
- 6.3.3 I am of the view that the authority will be in a position to issue the certificate of acceptance once the matters noted above have been addressed.

## **7. What happens next?**

- 7.1 The authority has already issued under section 99A of the Act, and this determination identifies, in paragraph 6.3.1, those areas requiring remediation to bring the cladding into compliance with the Building Code. It is now for the applicant to produce a proposal as to the remediation of the areas identified in paragraph 6.3.1.
- 7.2 The documentation provided to support the application for a certificate of acceptance should be amended to accurately reflect the building work carried out.

## **8. The decision**

- 8.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the recladding work does not comply with the Building Code and the documentation provided to support the application for a certificate of acceptance does not reflect the building work carried out; accordingly I confirm the decision of the authority to decline to issue the certificate of acceptance.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 22 April 2014.

Tony Marshall  
**Manager Determinations and Assurance (Acting)**