

Determination 2011/087

Regarding the authority's proposed exercise of its powers to refuse to grant building consent for remedial work to a house at 150 Te Whau Drive, Waiheke

1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“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.
- 1.2 The parties to the determination are:
- the applicants, who are the owners of the house, Mr and Mrs Hart (“the applicants”) acting through the architect as an agent (“the architect”)
 - Auckland Council (“the authority”), carrying out its duties and functions as a territorial authority or building consent authority.
- 1.3 This determination arises from the authority's refusal to accept the proposed scope of works for remedial work to the house unless the existing joinery is removed, and either replaced or refurbished (refer paragraph 3.4).
- 1.4 The matter to be determined² is therefore whether the authority was correct in the proposed exercise of its powers to refuse to grant building consent with respect to the retention of the existing joinery.
- 1.5 In making my decision, I have considered the submissions of the parties, and the other evidence in this matter.

¹ The Building Act 2004, the Building Code, Compliance Documents, past determinations, and guidance documents issued by the Department are available from the Department's website at www.dbh.govt.nz or by contacting the Department on 0888 242 243.

² Under sections 177(1)(b) and 177(2)(a) of the Act

2. The building work

2.1 The original building

- 2.1.1 The house is a 2-storey detached house situated on a gently sloping and exposed site in a sea spray zone. The house is moderately complex in form and includes a significant amount of glazing to three of the four elevations.
- 2.1.2 The monolithic cladding is fibre-cement board fixed through building wrap to the framing. The applicants state that the external framing is Boric treated.
- 2.1.3 The existing joinery is powder-coated aluminium directly supported on the framing. There are substantial full height joinery units to all elevations.

2.2 The proposed building work

- 2.2.1 The proposed remedial building work consists of the addition of a new verandah and re-cladding the house in profiled metal cladding over a cavity with new verandah and roof eave flashings.
- 2.2.2 The proposal is to retain the existing joinery in situ, but provide new purpose-made aluminium flashings. I note that one elevation shown on the plans notes 'check all seals and test to ensure weathertightness'; however, it is not clear whether this applies to all the joinery or just that marked on the south elevation.

3. Background

- 3.1 The original building consent (No. B/1995/4110610) was granted in 1995 under the Building Act 1991. A code compliance certificate was not sought following completion of the consented work.
- 3.2 On 7 September 2010 the authority undertook an inspection in response to an application for a code compliance certificate. The authority subsequently issued a notice to fix (No. 3477) dated 11 October 2010, requiring the applicants bring the house into compliance with the Building Code. The contraventions listed in the notice to fix largely concerned the compliance of the external envelope with Clauses E2 and B2.
- 3.3 The applicants subsequently engaged the architect to prepare a proposal to address the matters in the notice to fix. Building consent was sought (BC/2011/2013) to re-clad the house, based on a scope of works prepared by the architect; and on 13 June 2011 the authority sought further information in respect of the proposal.
- 3.4 A pre-application meeting was held on 22 June 2011 with the authority and the architect. It appears from the minutes recorded at the meeting that the parties agreed to work through a number of details to progress the application. In respect of the existing joinery the minutes note the authority's view as:

Existing Joinery. Client does not want to remove, replace or refurbish existing joinery. Explained to [the architect] that [the authority] is not prepared to endorse this proposal based on the documentation provided, because of the high risk involved. Discussed how 'alternative' solutions need to be present to establish 'a path to compliance'. However stressed that it was still unlikely that [the authority] would accept this proposal. Option of seeking a Determination from [the Department].
- 3.5 The architect did not accept that the existing joinery should be removed, and Department received an application for a determination on 25 July 2011.

4. Submissions

4.1 General

- 4.1.1 The architect provided a covering letter with the application which included some information on the background to the matter in dispute. The application included copies of the plans and specifications for the proposed building work, a copy of the notice to fix and copies of relevant correspondence from the authority.
- 4.1.2 On 2 August 2011 the Department requested comment from the authority on why it had refused to accept the proposed scope of works in respect of the existing joinery and what its view of the proposed work was in terms of compliance.
- 4.1.3 The authority acknowledged the application for a determination on 17 August 2011 and provided a copy of the property file on CD Rom. The authority did not make a submission in response to the application and did not respond to the Department's request of 2 August 2011.

4.2 The draft determination

- 4.2.1 A draft determination was sent to the parties for comment on 24 August 2011.
- 4.2.2 The architect accepted the draft, with comments, in a submission received on 31 August 2011. The architect noted that:
- the note referred to in paragraph 2.2.2 applied to all windows and this would be clarified on the plans
 - the plans would be amended to add the detail referred to in paragraph 5.2.3
 - the architect favoured seeking a new building consent for the recladding as discussed in paragraph 6.2.
- 4.2.3 The authority did not accept the draft for the reasons set out in a submission received on 7 September 2011. The authority outlined:
- known problems with the performance of monolithic claddings and aluminium joinery, the problems posed by junctions of windows and claddings as a source of water penetration, and the management of untreated timber framing when encountered onsite
 - the architect's application of the provisions of section 112 was not correct as the original building work did not have a code compliance certificate
 - background to the building in question, noting that the framing was likely to be untreated, and that the building was located on a 'very exposed site'
 - the construction practices in common use at the time the building was built.
- The authority provided a photo of framing below a window of a different house as an example of the consequences of leaks below a window, and topographical information about the site.
- 4.2.4 In relation to the matter in dispute the authority noted:
- it had carefully considered the application, in particular the window details shown in the plans
 - having the windows remain in place meant that:

- o returning the building wrap into the trimmed opening without removing the window was ‘impossible’
- o applying any timber preservative to the timber was difficult in a location that was considered most at risk
- o applying the air seal between the trimmed opening and window reveal was ‘impossible’
- the impact of wind on the building and the air pressure differentials likely to be experienced across through the cladding, and the importance of the air seal as:
 - the seal completes the pressure barrier created by the internal wall linings. ...
 - The seal MUST be installed at the interior of the window framed opening to create a complete seal between the framed opening and the window reveal.
- the need for effective seals in such locations is noted in the Department’s own published guidance information, E2/AS1, and similar.

4.2.5 In conclusion the submission said that the new works were reliant on the existing work to achieve compliance and it considered that:

the untreated timber framing ... will be exposed to moisture once the proposed works are complete.

With moisture getting to the timber framing, compliance with clauses B2 is not achievable. Therefore, not only is it not possible to issue a building consent based on the information provided, but it will also not be possible to issue a CCC for the 1995 building consent ...

4.2.6 The architect responded to the authority’s submission in a letter received on 19 September 2011. The letter was accompanied by a revised window detail showing the air seal located at the inside of the wall and technical information on the proposed site-applied timber treatment. The matters raised in the submission are summarised as follows:

- it acknowledged the generally matters raised by the authority including the site exposure but was of the view that the comments made could equally apply to other situations, and were not specific to this house
- the wall framing and window mitres would both be examined and tested as part of the proposed work and the application of the timber treatment was described: the application addressed these matters in detail
- the original building work was carried out as consented and was inspected by the authority which meant the windows ‘were presumably installed in accordance with the Building Consent, the Building Code at the time ...’
- air seals would be installed to the inside of the wall if installation from the outside proved difficult
- the owners believed the framing to be boric treated
- the proposed work ‘will increase the durability and weathertightness of the building’.

4.2.7 In a further letter, also received on 19 September 2011, the architect provided an email from the construction manager for the original house who advised that a ‘more robust [specification]’ was necessary due to the building’s exposed location. The construction manager also confirmed:

[the] use of tantalised framing timber

All internal and external corners were treated with double application of heavy duty building paper.

High quality aluminium joinery units were fitted with special attention to weather sealing.

4.2.8 The authority replied to these submissions in a letter to the Department dated 21 September 2011. The authority restated its previous position and, in addition noted, in summary that:

- the authority wanted more information on the testing of the window mitres proposed by the architect
- assumptions made about the original construction were noted but the authority considered further site investigation was required
- the proposed air seal, noted in paragraph 4.2.6, was acceptable 'in principle' but the authority wished to 'revisit this detail' once the as-built construction was known.

5. Discussion

5.1 General

5.1.1 The authority's concerns are described in its response to the draft determination as noted in paragraphs 4.2.4 to 4.2.5. Hitherto these concerns had only been expressed in the recorded minutes of the pre-application meeting (refer paragraph 3.4).

5.1.2 The minutes of the pre-application meeting indicate that even if any concerns were dealt with by way of an alternative solution proposal the authority would 'still [be] unlikely' to accept the proposal. The authority did not provided any specific reasons for its position and referred the architect to the Department for a determination which in my view is not reasonable.

5.2 The establishment of compliance

5.2.1 It is important to note that the Building Code is performance-based and that compliance with an Acceptable Solution provides one way, but not the only way, of complying with the Building Code. If an Acceptable Solution is not to be used as the means of compliance, then the work is to be assessed against the performance requirements of the Building Code as an alternative solution proposal.

5.2.2 An applicant wishing to use a design solution, other than an Acceptable Solution, is required to demonstrate how that proposed alternative solution will achieve compliance. Equally, an authority is required to make its assessment on whether the proposed work will comply with the performance requirements of the Building Code. An authority is also entitled to seek further information in order to be satisfied on reasonable grounds, that the proposed work will comply with the Building Code.

5.2.3 The features of the design solutions offered in an Acceptable Solution may be used to assess an alternative solution proposal. With respect to the proposed work I note the following:

- The proposed profiled metal cladding is being run vertically. I note that while the proposed cladding is not included within the scope of E2/AS1, its profile must be considered as also providing a suitable drainage plane.

- E2/AS1 does not require a cavity for this orientation of profiled metal cladding, however, one is provided. The proposed proprietary plastic cavity batten allows for significantly better ventilation than the timber battens described in E2/AS1.
- The proposed head, sill and jamb details are comparable to those shown in E2/AS1. E2/AS1 does not require sill flashings for cavity construction to the same extent as situations where no cavity is provided.
- The drawings do not appear to detail the junction of the sill and jamb flashing which would seem necessary to show compliance. The drawings also do not state minimum cover dimensions to the flashings.

5.3 My response to the authority's submission

- 5.3.1 In my view the authority is overstating the possible technical issues associated with the proposed remedial work. The current performance of the windows will be readily apparent once the cladding has been removed: the remedial work required to the windows and the condition of the framing will be able to be assessed and completed.
- 5.3.2 I accept the authority's contention that the provision of an air seal is an important feature of the wall as proposed. However, I do not accept that the installation of such a seal can only follow the requirements of the Acceptable Solution E2/AS1 as is contended. The installation of the seal will require care, and in my view should be placed near the inside face of the reveal to avoid the likelihood of the seal providing a bridge across the cavity.
- 5.3.3 I accept that joints in aluminium joinery are susceptible to the effects of movement and aging, but I also consider the removal of all the windows may also serve to disturb such joints unnecessarily without any significant net benefit. As noted in paragraph 5.3.1, the performance of the windows will be able to be readily assessed after the removal of the cladding. Specific testing of the mitres in my view is unnecessary.
- 5.3.4 I accept that the performance of the new work is reliant on the existing structure. However, I do not accept the authority's argument that the framing timber will be 'exposed to moisture' once the proposed work is completed. The function of the cavity is to ensure that any moisture that may enter the cavity is able drain away without adversely affecting the timber structure.
- 5.3.5 The reference to s112, in the draft determination (now deleted), was in respect of any new consent that might be issued for the proposed remedial work as an alteration to the existing building for which a code compliance certificate had been issued.

6. What is to be done now?

- 6.1 The applicants, or the architect on their behalf, should resubmit the proposed scope of works with the amendments as agreed between the parties at the pre-application meeting and as submitted by the architect to the determination. The authority should then give due consideration to the compliance of the proposed building work, including the retention of the existing joinery if that is proposed, with the performance requirements of the Building Code.

6.2 I note that the proposed remedial work can either be done as an amendment of the original consent, or as a new building consent with the original building consent amended to exclude the proposed work.

7. Decision

7.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the authority was incorrect in the proposed exercise of its powers to refuse to grant a building consent with respect to the retention of the existing joinery.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 26 September 2011.

John Gardiner
Manager Determinations