



Determination 2011/079

The compliance of proposed remedial work to a building at 14/15/16 Waiheke Resort, 4 Bay Road, Waiheke Island, Auckland (to be read in conjunction with Determination 2010/070)

Applicant:	The owners, P and M Vukovic
Applicant's Agent:	The architect for the remediation work
Authority:	Auckland Council

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 I have previously described certain building matters regarding this building. Those matters are described in Determination 2010/070 issued on 2 August 2010 (“the first determination”). This second determination arises because, in response to the first determination:

- the authority issued an amended notice to fix relating to the weathertightness and durability of the exterior claddings and the architect submitted proposals to address the matters identified in the notice
- the authority refused to accept that the proposed repairs would result in the repaired building complying with certain clauses² of the Building Code.

1.3 The matter to be determined³ is therefore whether the proposed modifications and repairs to the external envelope of the building will result in the claddings complying with Clause E2 External Moisture and Clause B2 Durability of the Building Code. The claddings include the components of the exterior building envelope (such as the overlaid wall cladding, the windows, the roof cladding and the flashings) as well as the way the components have been installed and work together.

¹ The Building Act, Building Code, Compliance documents, past determinations and guidance documents issued by the Department are all available at www.dbh.govt.nz or by contacting the Department on 0800 242 243.

² In this determination, unless otherwise stated, references to sections are to sections of the Act, references to the code are to the Building Code and references to clauses are to clauses of the Building Code.

³ Under section 177(1)(a) of the Act

- 1.4 In making my decision, I have considered the submissions of the parties, the first determination, and the other evidence in the matter.

2. The building work

- 2.1 The building work consists of repairs to a converted building within a large unit-titled development. The building was originally constructed in the early 1980's and was converted into three motel-style units during the 1990's.
- 2.2 Construction is conventional light timber frame, with timber pile foundations, monolithic cladding, aluminium windows and profiled metal roofing. It has a rectangular plan and a 35° pitch double gable roof, with no eaves or verges and a low-pitched roof to the north (deck) end. A 3° pitch lean-to roof forms a covered walkway over the entry doors on the east elevation.
- 2.3 The monolithic wall cladding consists of 7.5mm fibre-cement sheets fixed through the original plywood cladding and building wrap to the framing, and finished with an applied textured coating system. The original windows are face-fixed over the plywood, with head flashings remaining in-situ and the fibre-cement sheets overlaid and sealed around jamb and sill flanges.

2.4 The proposed remedial work

- 2.4.1 Repairs and modifications proposed for the building include:
- for the leaking valley gutter:
 - replacement of gutter, rainwater head and downpipe
 - fibre-cement removal and framing repairs to walls at ends of valley gutter
 - plywood panels on battens, with timber facings and scribes at junctions
 - the existing east window moved down to below the verandah level
 - for other roofing:
 - new flashing at change in roof pitch
 - new verandah roofing and flashings at junctions with walls
 - general repairs and repainting
 - for existing windows:
 - cutting back fibre-cement by 6mm above existing head flashings
 - cutting back fibre-cement by 10mm below existing sill flanges, with the cut edge sloped at 25°
 - adding a 30mm wide aluminium facing strip over jamb flange junctions
 - for remaining existing fibre-cement cladding:
 - lowering of ground levels to the south end of the building
 - aluminium drip edge added to existing barge boards
 - repairs of cracks and new textured coating to some areas.

3. Background

- 3.1 The architect has prepared detailed drawings but has not yet applied for a building consent for the proposed remedial work.

3.2 The first determination

- 3.2.1 The first determination found that cladding alterations to the building were carried out without a building consent and also did not comply with the Building Code; and the authority's decision to issue notices to fix was confirmed after identifying certain defects and investigation required. However, the first determination required the notices to be modified to take account of 'the extent of the existing construction, the level of compliance required for alteration work'.
- 3.2.2 The first determination considered that the faults to the building were discrete and that their rectification would lead to the building becoming code-compliant. The first determination did not find that further investigative work was required in order to confirm code-compliance.
- 3.2.3 The authority subsequently issued a new notice to fix (No. 3462) dated 20 September 2010. Although I have not seen a copy of that notice, the content is reproduced in part in a subsequent letter from the authority (refer paragraph 3.3.2). The new notice appropriately included items identified in the first determination.

3.3 The scope of work

- 3.3.1 On 20 October 2010 the architect submitted a 'Proposed scope of work to address Notice to Fix 3462' ("the scope of work") to the authority. The proposal referred to the items identified in paragraph 8.4.1 of the first determination and identified areas requiring further investigation and described work to remedy the described defects.
- 3.3.2 In its response dated 26 November 2010, the authority noted that the 'targeted repairs methodology' was acceptable in principle, but would be complex and required 'a thorough investigation of the property to be undertaken by a suitably qualified and experienced building consultant familiar with leaky building related issues.' This requirement is contrary to the findings of the first determination.
- 3.3.3 The authority then commented on the submitted scope of work in relation to each item in the notice to fix, accepting or agreeing to review some proposed measures, while not accepting others. Items that were accepted by the authority are not considered further.
- 3.3.4 The authority also stated that a new building consent was required and outlined a list of information required to be submitted as part of the building consent application, noting that it may request further information.

3.4 The developed proposals

- 3.4.1 The architect commenced detail drawings for the proposed work, providing some preliminary details to the Department for informal comment.
- 3.4.2 In an email to the authority dated 16 December 2010, the Department provided some general comment on the concept and the sketch details of windows, control joints, the change in roof pitch, the verandah roof junction and fascia drip edges, noting that these 'look basically satisfactory'.
- 3.4.3 In an email to the applicant on 21 January 2011 the authority confirmed it had reviewed the 'previously rejected scope of works' with the Department's subsequent comments, but its position had not changed. The authority noted that a further determination could be sought on the matter, otherwise it:
- ...will require you to present a revised 'scope of works' outlining how you intend to rectify the areas of non compliance identified in Notice to Fix number 3462.
- 3.4.4 The architect prepared final 'Building Consent Application' drawings dated 15 March 2011 for the proposed work, and sent these to the Department on 8 April 2010. Before accepting that a determination was still necessary, the Department sought confirmation of the authority's position with respect to the proposed work. The authority responded on 12 April 2011, stating that the compliance of the work was still disputed.
- 3.5 The Department received an application for a determination on 23 May 2011.

4. The submissions

- 4.1 The architect forwarded copies of:
- the first determination
 - the scope of work dated 20 October 2010
 - correspondence between the parties
 - some of the email correspondence between the Department and the parties
 - the 'Building Consent Application' drawings dated 15 March 2011.
- 4.2 The authority did not make any submission and I have therefore taken the authority's correspondence, outlined in paragraph 3.4.4, as its view of the matter.
- 4.3 A draft determination was issued to the parties for comment on 27 July 2011.
- 4.4 The architect accepted the draft determination on behalf of the applicant, noting that the head flashings had not been replaced but had remained in-situ (refer paragraph 2.3)
- 4.5 The authority accepted the draft determination without comment in a response received on 30 August 2011.

5. Weathertightness of the proposed details

- 5.1 In assessing the likely weathertightness and durability of the proposed remedial work, I have taken the following into account the current weathertightness of the building envelope, including the windows and other junctions, as described in the first determination.
- 5.2 Invasive tests conducted by the expert for the first determination showed that, apart from at a cladding effect below the roof valley (the repair of which is included in the proposal), moisture levels taken at at-risk areas of the cladding were between 9% to 12%, and 17% and 15% in the bottom plate to the south west areas of the walls where ground clearances were limited.
- 5.3 The original building was built in or about 1982. The analysis conducted as part of the first determination confirmed that the plywood was CCA equivalent to H3.2, and that the exterior wall framing was considered to be boron-treated.
- 5.4 With the exception of the limited defects identified in the first determination, the cladding as installed on the building was found to be weathertight. The assessment of the proposed remedial work should therefore take account of:
- the age and durability of the as-built elements
 - the current performance of the external envelope against the requirements of the Building Code
 - the risks associated with disturbing, more than is necessary, features of the external envelope that are currently performing adequately
 - the provisions of section 112 that require any unaltered work to continue to comply with the code to 'at least the same extent as before the alteration'.
- 5.5 I acknowledge that the proposed details fall outside the Acceptable Solutions and the manufacturers requirements, and that the details may not necessarily be acceptable in respect of a new building. However this, of itself, does not prevent the details being assessed as alternative solutions for this particular building.
- 5.6 My comments on the disputed items in the notice to fix are as follows:

NTF item	Identified defects	Authority's comments on scope of work dated 20 October 2010	My conclusions on the submitted detailed drawings dated 15 March 2011
2.0			
a)	Exterior cladding changed without consent	Not accepted	No bearing on compliance.
b)	Cladding overlaid directly over original plywood.	Weathergrooves may not be present.	No bearing on compliance. The weathergrooves are not required to ensure the cladding is weathertight. The same cladding manufacturer produces plywood cladding with no weathergrooves.
c)	Overlaid cladding cut around windows	Cladding not installed to manufacturer's specifications or E2/AS1	Details are alternative solutions and should be assessed by the authority as such.

NTF item	Identified defects	Authority's comments on scope of work dated 20 October 2010	My conclusions on the submitted detailed drawings dated 15 March 2011
2.2			
b)	Lack of seals behind jamb flanges. Lack of drainage gap at sill	Not to manufacturer's specifications or E2/AS1	The windows are not currently allowing water ingress. The proposed work improves weathertightness and meets the requirements of the first determination. The details are considered acceptable.
c)	Sealed head flashings to exposed windows	Not to manufacturer's specifications or E2/AS1	(This defect concerned the lack of sealing to the ends of the exposed window flashings.) It is considered this will be adequately addressed as part of the remediation work to address item 2.2 b).
d)	Lack of vertical control joints to long east/west walls	To be reviewed on receipt of consent application	Remedial under valley gutter will allow provision for cladding movement. Inclusion of control joints as proposed appears adequate.
e)	Cracks and damage to cladding	Not accepted	These repairs were considered maintenance items in the first determination.
j)	Junction of walkway roof with wall	Not to manufacturer's specifications or E2/AS1	Considered adequate in the circumstances.

5.7 Taking account of the above, it is reasonable to conclude that the proposed remedial work, as detailed in the plans dated 15 March 2011, are likely to provide an adequate level of weathertightness and durability to the external envelope of this building. This is based on the reasonable expectation that an appropriate specification will accompany the plans as part of the application for a building consent.

5.8 The authority is to modify the notice to fix to take account of the findings of this determination.

6. The actions of the authority

6.1 The authority stated that some of the proposed work is not acceptable because it was 'not in accordance with the manufacturer's specifications or the acceptable solutions as outlined in NZBC E2/AS1'. I do not believe this is an acceptable reason for refusing to accept proposed details. The acceptable solution E2/AS1 is one way, but not the only way of demonstrating compliance with the performance requirements of Clause E2 of the Building Code.

6.2 By maintaining its original position as outlined on 26 November 2010 (refer paragraph 3.3), there is no evidence that the authority assessed the developed details subsequently prepared by the architect. Such details are well within the capabilities of the authority to appropriately assess as alternative solutions, without requiring the applicant to seek a determination on the matter.

- 6.3 If the authority has questions about any aspect of the proposal, it is entitled to seek further information in order to be satisfied on reasonable grounds that proposed alterations will comply with the weathertightness and durability provisions of the Building Code.

7. The decision

- 7.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the proposed remedial work will result in the claddings complying with Clause E2 and Clause B2 of the Building Code.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 30 August 2011.

John Gardiner
Manager Determinations