



## Determination 2012/039

# Regarding the compliance of proposed remedial work to chalets at Waiheke Resort, 4 Bay Road, Waiheke Island, Auckland (to be read in conjunction with Determination 2010/065)

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<b>Applicants:</b>	Kiwi Comfort Ltd (the owner of Unit 7) S and G Thomas (the owners of Unit 3)
<b>Applicant's Agent:</b>	The architect <sup>1</sup> for the remedial proposals
<b>Authority:</b>	Auckland Council
<b>Persons with an interest in this determination:</b>	The owners of Unit 2, Unit 5 and Unit 8

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### 1. The matters to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004<sup>2</sup> (“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 Notices to fix were issued to owners of five similar buildings, Unit 2, Unit 3, Unit 5, Unit 7 and Unit 8 (“Type A chalets”), and I therefore consider the owners of Unit 2, Unit 5 and Unit 8 to be persons with an interest in this matter.

#### 1.3 The reason for the application

1.3.1 I have previously described certain building matters in Determination 2010/065 issued on 19 July 2010 (“the first determination”), which considered five buildings, including four Type A chalets (see Figure 1).

1.3.2 This second determination arises because, in response to the first determination:

- the authority issued an amended notice to fix to the owners of five Type A chalets (Unit 2, Unit 3, Unit 5, Unit 7 and Unit 8) relating mainly to the weathertightness and durability of the exterior claddings.

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<sup>1</sup> The Registered Architect, under the Registered Architects Act 2005, is treated as being licensed in the building work licensing class Design 3 under the Building (Designation of Building Work Licensing Classes) Order 2010.

<sup>2</sup> The Building Act, Building Code, Compliance documents, past determinations and guidance documents issued by the Department are all available at [www.dbh.govt.nz](http://www.dbh.govt.nz) or by contacting the Department on 0800 242 243.

- the architect submitted proposals to address matters identified in the notice for Unit 7, with similar cladding repairs for Unit 3. The proposal used the same cladding and window details considered in Determination 2011/079 for remedial work to an adjacent building (Units 14,15,16).
- The authority refused to accept that the proposed repairs to Unit 7 and Unit 3 would result in those units complying with the Building Code.

1.4 The matters to be determined<sup>3</sup> are therefore:

- whether the proposed modifications and repairs to the external envelope of Unit 7 will result in the claddings complying with Clause E2 External Moisture and Clause B2 Durability of the Building Code<sup>4</sup>. 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.
- whether similar repairs are likely to result in the exterior building envelope of Unit 3 and the remaining Type A chalets complying with Clause E2 External Moisture and Clause B2 Durability of the Building Code.

1.5 I note that the architect's proposals are specifically prepared for Unit 7, with Unit 3 noted only as 'similar'. For Unit 3 and the remaining Type A chalets, I have therefore considered the appropriateness of adapting the architect's general details for those buildings.

1.6 In making my decision, I have considered the submissions of the parties, the relevant earlier determinations, the report of the expert commissioned by the Department to advise on this dispute ("the expert") and the other evidence in this matter.

## 2. The building work

2.1 The building work consists of repairs to free-standing chalets within a large unit-titled development. The Type A chalets were originally constructed as cabins in the early 1980's and are part of a larger group of chalets as shown in Figure 1.

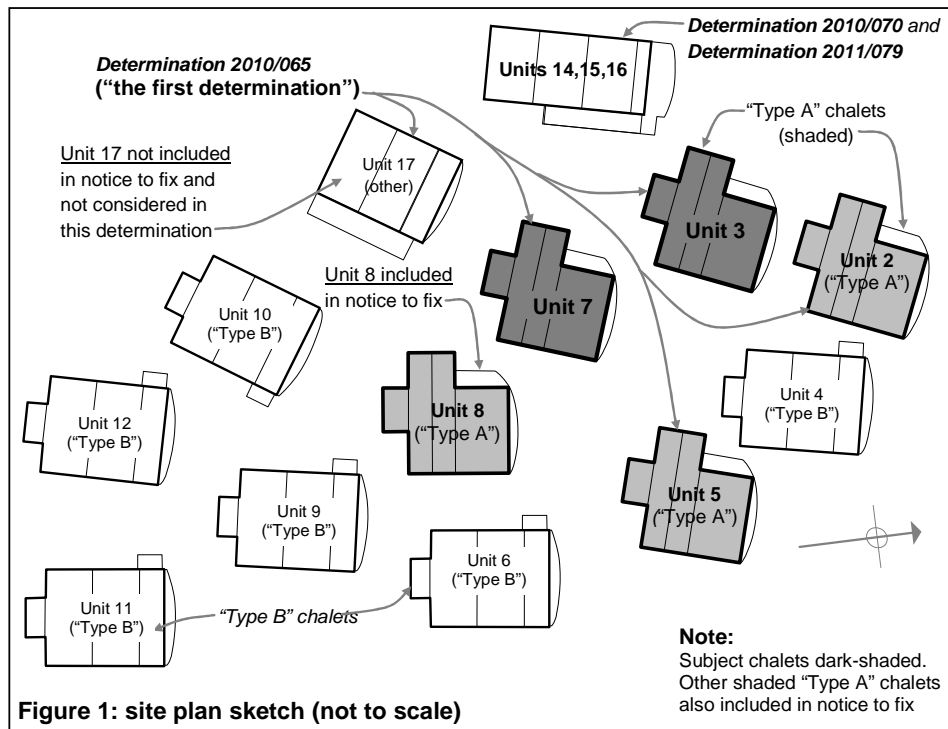
2.2 The Type A chalets (Units 2, 3, 5, 7 and 8) are similar in design and construction and were altered under the same building consent in 1999<sup>5</sup>. Construction is conventional light timber frame, with timber pile foundations, texture-coated fibre-cement cladding, aluminium windows and profiled metal roofing.

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 the original metal head flashings retained and the fibre-cement sheets overlaid and sealed around jamb and sill flanges.

<sup>3</sup> Under section 177(1)(a) of the Act.

<sup>4</sup> Unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

<sup>5</sup> Consent No. YC/99/05061 dated 29 June 1999 for 'alterations to accommodation units 2,3,5,7 & 8'.



## 2.4 The proposed remedial work

### 2.4.1 Repairs and modifications proposed for Unit 3 and Unit 7 include:

- 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 sealed and sloped at 25°
  - adding 30mm wide aluminium facing strip over jamb flange junctions
- for remaining existing fibre-cement cladding:
  - lowering ground levels to minimum 250mm below floor levels
  - adding aluminium strip as drip edge to existing barge boards
  - sealing penetrations through claddings
  - repair of cracks
  - new seal coating and repainting cladding
- for the roof cladding:
  - new flashings at change in roof pitch
  - adding of flashings and compressible foam strips at gutters
  - replacing roof fixings to suit wind zone
  - increasing number of downpipe fixings
- for the decks:
  - adding bolted strap connections to top of verandah posts
  - packing out deck stringers to provide drainage
  - new stainless steel joist hangers
  - cutting back decking to provide 15mm minimum clearance
- for the sub-floor:
  - adding ventilation grilles to cladding

- adding seismic restraints to existing hot water cylinders
- adding supports to sub-floor pipework
- inspecting sub-floor wiring, with support/encapsulation as required.

### **3. Background**

3.1 The architect has prepared detailed drawings for the proposed remedial work. I note that the drawings show Unit 7, with notes added stating 'Unit 3 similar'.

#### **3.2 The first determination**

3.2.1 The first determination found that various alterations to the chalets 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 for each chalet.

3.2.2 The first determination required the notices to fix to be modified to take account of 'the extent of the existing construction, the level of compliance required for alteration work' and the findings of that determination.

3.2.3 On 20 September 2010, the authority issued new individual notices to fix to owners of Type A chalets for 'Alterations to accommodation units 2, 3, 5, 7 and 8'. The notices (No. 3457 for Unit 3 and No. 3459 for Unit 7) included items identified in the first determination for each unit as requiring investigation or repair. The notices required the owner to submit a proposal outlining how each area of non-compliance was to be remediated, and that this 'may then form the basis for ... an application for a building consent ...'.

#### **3.3 The scope of work for Unit 7**

3.3.1 In a letter to the authority dated 1 December 2010, the architect provided to the authority an outline scope of work for Unit 7, requesting the authority's advise on any areas of disagreement, any outstanding items, and which items of work would require a building consent to be applied for. The architect also stated that the following additional investigations would be undertaken:

We will review the subfloor framing by checking bearer spans, fixings etc. Where inadequate or dangerous we will document recommended alterations. Additionally we will prepare a Sub Floor Bracing Calculation for the building. If we find that it does not meet current standards additional braces will be installed.

We will review the support of the hot water cylinder and will specify that complying restraining straps will be installed if not present.

3.3.2 The architect was concurrently preparing remedial proposals for the neighbouring building (Units 14,15,16 – see Figure 1); and had sought comment and feedback from the Department on preliminary details for that building. Those sketch details included similar proposals for windows, control joints and fascia drip edges, which the Department considered to be 'basically satisfactory'.

3.3.3 The architect then prepared detailed drawings and specifications for both Unit 7 and Unit 14,15,16; using the same details for windows, control joints and fascia drip edges. On 20 March 2011 the architect submitted drawings and a developed 'Scope of work to address Notice to Fix 3459' for Unit 7 to the authority. At that stage, the

proposal addressed Unit 7 only; referring to items identified in notice to fix No. 3459 and describing work to remedy the defects.

- 3.3.4 In an email response dated 14 April 2011, the authority stated that it had reviewed the proposal for Unit 7, concluding:

...unfortunately [the authority] cannot accept your 'scope of works' as [the authority] cannot be satisfied it will achieve the minimum requirements of the New Zealand Building Code.

I note that the specification and drawings in the authority's property file were marked as 'rejected', stamped and signed on 14 April 2011, with no comments, annotations or record of any detailed review of the proposal.

### **3.4 The remedial proposal for Unit 14,15,16**

- 3.4.1 In the meantime the authority had refused to issue a building consent for Unit 14,15,16; and in May 2011 the owners of that building sought a determination on the matter. As significant details were the same for both proposals, the architect awaited the result of that determination before continuing on with the proposal for the Type A chalets.

- 3.4.2 Determination 2011/079 for Unit 14,15,16 was issued on 30 August 2011. This concluded in paragraph 5.7 that the proposed remedial work was likely 'to provide an adequate level of weathertightness and durability to the external envelope' of Unit 14,15,16 and accordingly determined in paragraph 7.1 that it would 'result in the claddings complying with Clause E2 and Clause B2 of the Building Code.'

- 3.4.3 On 21 September 2011, the architect met with the authority to discuss Unit 14,15,16 during which the remedial work to Unit 7 was also discussed. Although the architect maintained that Determination 2011/079 supported a similar approach for Unit 7, the meeting record notes that the authority view was that:

...at this time and in the case of this unit [the authority is] unable to agree in principle with a similar proposal to that currently being proposed for units 14-16.

- 3.5 It appears that Unit 3 was subsequently added to the remedial proposal, and the architect completed detailed drawings for remedial work. The Department received an application for a determination on 11 January 2012.

## **4. The submissions**

- 4.1 The architect forwarded copies of

- the two notices to fix dated 20 September 2010
- the scope of work dated 20 March 2011
- an outline specification for Unit 7 dated 18 March 2011
- the drawings dated 29 November 2011
- some correspondence with the authority.

- 4.2 The authority made no submission in response to the application to expand on its reasons for considering the proposed remedial work would not comply, but

forwarded a CD-Rom, entitled 'Property File', which contained several documents pertinent to this determination including:

- the email response dated 14 April 2011 to the scope of works
- the scope of works and specification stamped as rejected on 14 April 2011
- minutes of the site meeting on 21 September 2011.

4.3 A draft determination was issued to the parties for comment on 10 April 2012.

4.4 The authority made a submission to the draft in a letter dated 2 May 2012, stating that although it accepted the draft determination it did not accept a targeted repair approach was suitable given 'the standard of construction of these units [and] the history of unauthorised recladding work previously undertaken'. The authority noted that the 'obvious lack of maintenance ... is of concern, due to the marine environment' and that other units within the development are 'now subject to an application for a full reclad'. The authority also noted its 'desire for a Building Consent to be applied for prior to any remedial work being carried out'.

4.5 The architect initially responded in a letter dated 20 April 2012, accepting the draft with an amendment to correct the ownership details of Unit 3. In an email dated 4 May 2012, the architect responded to the authority's submission (refer paragraph 4.4) stating that the re-cladding of another unit noted by the authority was a personal choice of the owner of that unit, and not done because of matters related to compliance. The architect also stated that he did not consider a new building consent was required because 'the works proposed relate to a [notice to fix] issued [in respect of] an existing Building Consent.'

## **4.6 My response to the submissions**

4.6.1 In response to the architect's submission about the requirement for a new consent; I note that the proposed work is in response to a notice to fix issued in respect of an existing building consent. I note that for a code compliance certificate to be issued in respect of the existing consent, the work completed under a new consent will need to be excluded from the existing consent, with the existing consent modified accordingly.

4.6.2 In regard to the authority's requirement that a building consent be sought for the remedial work; I consider that that decision should take into account the extent, significance, and impact of the proposed work on the existing buildings, and whether it is generally consistent with the consented work. This should be balanced against the reasons given for the need for a new consent.

4.6.3 The Type A chalets are small simple buildings for which a code compliance certificate is yet to be issued. The proposed work is in the nature of targeted repairs and alterations to existing building elements and features intended to make the existing buildings code compliant. The proposed work does not impact on the code compliance of other building elements beyond the Building Code Clauses E2 and B2.

4.6.4 The authority has provided no argument setting out its reasons for requiring a new consent. I am of the view that the proposed remedial work does not require a new

consent to be obtained, and that an amendment sought to the original consent for the proposed work is the appropriate regulatory mechanism in this case.

- 4.6.5 The materials and fastenings proposed are to be sufficiently durable to suit the buildings' locality. The maintenance of the buildings is the owners' responsibility. While I acknowledge the authority's comments with respect to maintenance, there is no regulatory mechanism available to it to ensure that proper maintenance is carried out.

## 5. The expert's report

- 5.1 As mentioned in paragraph 1.6, I engaged an independent expert to assist me. The expert had previously inspected Unit 7 and Unit 3 in March 2010 for the first determination. In view of the time elapsed since that inspection, I requested the expert to visually inspect the Type A chalets and to review the items in the notice to fix for Unit 7 against the architect's proposals. The expert visited the site on 5 March 2012 and provided a report dated 8 March 2012.
- 5.2 Following the report, the expert noted that no work had yet been carried out on Units 14,15,16. The expert also confirmed that that building and the chalets appeared to be 'in much the same condition' as described in his report of 12 April 2010 for the first determination, with no significant changes in condition observed.
- 5.3 The expert commented on the items in notice to fix No. 3459 for Unit 7 as follows:

NTF item	Identified defects	The architects proposal	The expert's comments
<b>2.1</b>	<b>Not per manufacturers specifications</b>		
a)	Head flashing sealed to upper cladding	6mm gap added above head flashing	Considered acceptable
b)	Overlaid cladding cut around windows	Aluminium bar added as facing over window flange/cladding junction	Considered acceptable – no signs of water ingress at existing junctions
c)	Unsealed cladding edges	All edges to be sealed	Correct trade practice
<b>2.2</b>	<b>Not per relevant acceptable solutions</b>		
a)	Inadequate roof fixings	Fixings to be replaced to suit wind zone	Considered acceptable
b)	Over-flashing to lean-to	New flashings at junction as per E2/AS1	Considered acceptable
c)	Insufficient downpipe fixings	Fixings at 1.2m centres to be added	Considered acceptable
d)	Fascia without drip edge installed prior to cladding	Aluminium bar added as drip edge to bottom of fascia	Acceptable solution – no signs of water ingress at existing fascias
e)	Areas of cladding incomplete/cracked	Any cracks to be repaired to manufacturers recommendations and cladding re-painted	Acceptable solution – no signs of water ingress as a result of any current cracks
f)	South cladding inaccessible for inspection/maintenance	Soil and vegetation to be removed and cladding repainted	Acceptable solution if 'diligently maintained' – no signs of water ingress
g)	Inadequate flashings	Refers to lack of head flashing to ranchslider	Ranchslider sheltered under deep verandah so very little risk – no signs of water ingress at existing junctions
h)	Lack of metal connections to porch area	New straps with bolted connections to be added	Considered acceptable

i)	Cladding overlaid on plywood with no grooves	First determinations found system acceptable	Given satisfactory rectification of other items, system considered to be compliant
j)	Minimum clearance from cladding to decking	Deck stringer to be packed out, with decking cut back to create gaps	Considered acceptable – no signs of water ingress at existing junctions
k)	Inadequate clearances	Soil to be removed to provide clearance	Considered acceptable
l)	Inadequate sub-floor ventilation	New vents to be added	Acceptable – given gap below sub-floor cladding, adequate air flow will be provided.
m)	Vent pipes terminations	No changes required	Heights of existing vent pipes satisfactory
n)	Cracked/loose tiles to bathroom	Maintenance to tiles specified	Considered acceptable
o)	Unsupported sub-floor pipework	Supports to pipe work to be added	Considered acceptable
p)	Changes in floor plan	As-built plans shown in drawings	Plans confirmed.

<b>2.3</b>	<b>Not per relevant accepted trade practice</b>		
a)	Unsealed penetrations	Penetrations to be sealed	Add reference to flanges
<b>3.0</b>	<b>Other related issues</b>		
a)	Lack of smoke detectors	No change required	Smoke detectors installed
b)	Unsupported sub-floor wiring	Supports to be added, with inspection and certification by electrician	Considered acceptable
c)	Lack of back flow preventer to shower	Back flow preventer provided for	Considered acceptable
<b>4.0</b>	<b>Required documentation</b>		
a)	Application for CCC	Not applicable until remedial work complete	
b)	Durability waiver	Application already made	Acknowledged
c)	Electrical certificate of compliance	Certification called for	Acknowledged
d)	As-built drawings	As-built plans shown in drawings	Plans confirmed

5.4 The expert concluded that, in his opinion:

...on completion of the works contained in the submission documents provided by [the architect] in support of the response to address all the issues contained in the Notice to Fix will result in the dwelling becoming Code Compliant.

5.5 A copy of the expert's report was provided to the parties on 26 March 2012.

## 6. Weathertightness of the proposed details

### 6.1 Discussion

6.1.1 In assessing the likely weathertightness and durability of the proposed remedial work for Unit 7, I have taken the following into account:

- Likely risks associated with disturbing (any more than necessary) the existing wall cladding features that are currently performing adequately.



- The low weathertightness risk of the simple chalets, with 1980's framing likely to be boron-treated and the underlying plywood cladding CCA-treated to H3.2.
- The nature of the overlaid cladding and its proposed repairs as alterations, and the requirement under section 112 of the Act for claddings to continue to comply with the code to 'at least the same extent as before the alteration'.
- The expectation that appropriate specifications will accompany the drawings as part of an application for a building consent.
- The expert's observations on the current performance of the external building envelope, with no evidence of any moisture penetration to date; and his conclusions on the adequacy of the proposed remedial work.

6.1.2 I consider that the above circumstances provide reasonable grounds to conclude that the majority of the proposed repairs detailed in the drawings dated 29 November 2011 are likely provide an adequate level of weathertightness and durability to Unit 7's claddings.

6.1.3 However, notwithstanding the decision reached in Determination 2011/079 and the opinion of the expert in paragraphs 5.3 and 5.4, the continued weathertightness of the proposed sill detail is susceptible to differential movement between the plywood and the fibre-cement claddings, and is reliant on effective maintenance. In my opinion the junction should be protected by a purpose-made mechanical flashing (e.g. a 'z' flashing, or similar, lapped under the aluminium sill section and over the cladding junction).

6.1.4 I am also able to conclude that the architect's general approach and cladding details for Unit 7 may be adapted to suit the specific circumstances of the remaining Type A chalets; and will provide an adequate level of weathertightness and durability to the claddings of Units 2, 3, 5 and 8.

6.1.5 While the architect has agreed to install a device to the shower to protect the potable water supply to meet Clause G12.3.2, I do not consider the low risk associated with use of a flexible shower hose over a shower cubicle warrants the need for measures to protect the water supply.

## **7. The authority's response to the proposal**

7.1 The authority stated that the architect's scope of work was not acceptable because it could not 'be satisfied it will achieve the minimum requirements of the New Zealand Building Code'. The authority provided no reasons for that conclusion; and, as far as I am aware, has not re-inspected these chalets (see paragraph 3.3.4).

7.2 Following the issue of Determination 2011/079 for Unit 14, 15, 16 on 30 August 2011, which concluded that the proposed remedial work for those units would result in the claddings complying, the authority maintained its position despite the same repair details being proposed for Unit 7 (see paragraph 3.4.3).

- 7.3 The authority's submission to the draft determination has not provided me with any evidence of why it considers the proposed remedial work will not comply with the Building Code beyond a general statement on the standard of construction, and unauthorised building work having been carried out.
- 7.4 If the authority has questions about any aspects 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.

## **8. The decision**

- 8.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the proposed remedial work, with the exception of the proposed sill detail, will result in the repaired Unit 7 complying with Clause E2 and Clause B2 of the Building Code.
- 8.2 Given the provision of specific documentation for Units 2, 3, 5 and 8, I also determine that the adaption of the cladding and window repair details included in the proposal, with the exception of the proposed sill detail, will also result in those other chalets 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 22 May 2012.

John Gardiner  
**Manager Determinations**