



## Determination 2012/044

# The issue of a notice to fix for seven semi-detached townhouses in a retirement village building at 61 Te Arawa Street, Orakei, 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, 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 owner of the retirement village Eastcliffe on Orakei (“the retirement village”) Orakei Care Ltd (“the applicant”), acting via a multi-disciplinary consultancy firm (“the consultants”)
- Auckland Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.

1.3 This determination arises from the following:

- the authority’s decision to issue a notice to fix for a building in the retirement village (“Block 3”) because it was not satisfied that the building work complied with certain clauses<sup>2</sup> of the Building Code (First Schedule, Building Regulations 1992)
- the authority’s refusal to accept the consultants’ proposals for remedial work to the decks to address the notice to fix
- the authority’s additional requirement that a building consent be sought for the proposed remedial work to the decks.

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<sup>1</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.

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

**Matter 1: The proposed work to the decks**

Whether the proposals will result in the decks complying with Clause E2 External Moisture and Clause B2 Durability of the Building Code. “The decks” include the components of the system as well as the way the components have been installed and work together. I consider this matter in paragraph 6.1.

**Matter 2: The requirement for a new building consent**

Whether the authority was correct in the exercise of its powers in requiring a separate building consent for remedial work to Block 3. I consider this matter in paragraph 6.2.

**1.5 Matters outside this determination**

1.5.1 Proposals to address other items identified in the notice to fix are in the process of being resolved between the parties and the matters considered in this determination are therefore limited to the decks as described in paragraph 1.4.

1.5.2 The notice to fix also stated that the owner may apply to the authority for a modification of durability requirements to allow durability periods to commence from the date of substantial completion in 1993. I therefore leave this matter to the parties to resolve once Block 3 has been made code-compliant.

1.6 In making my decision, I have considered:

- the consultants’ submissions on behalf of the applicant
- the consultants’ investigations and photographs of the decks
- the report of an expert commissioned by the Department to review the submissions and to advise on this dispute (“the expert”)
- the other evidence in this matter.

**2. The building work**

2.1 The building work considered in this determination is to a two-storey high building in a retirement village complex, “Block 3”, which accommodates seven semi-detached apartments with upper level decks as shown in Figure 1.

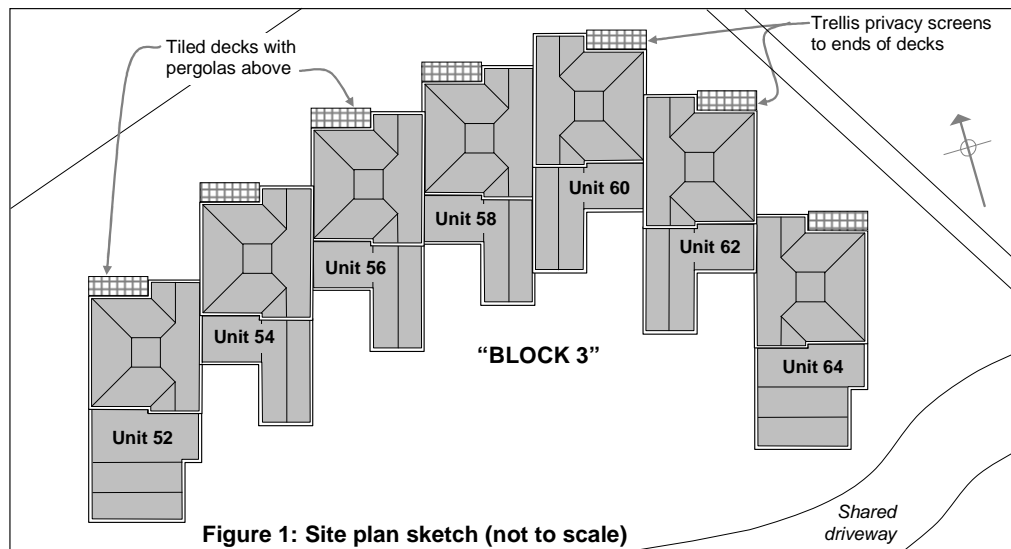
2.2 Construction is a mix of specifically engineered concrete ground floor slabs and concrete block foundations, party walls and retaining walls, with conventional light timber frame construction elsewhere. The building has monolithic wall claddings, aluminium windows, tiled membrane decks and concrete tile roofs.

2.3 The wall cladding is stucco over a solid backing of fibre-cement sheets, which are fixed through timber battens that form a cavity between the backing sheets and the building wrap. Plastered polystyrene bands are adhesive-fixed to backing sheets and form decorative windows/door facings and bands at parapets and mid floor level.

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

<sup>3</sup> Under sections 177(1)(a), 177(1)(b) and 177(2)(a) of the Act



## 2.4 The decks

- 2.4.1 The timber-framed decks are covered with a membrane over a plywood substrate. The membrane was originally specified as a modified bitumen sheet, but the membrane installed has not been confirmed and directly adhered tiles prevent access to the membrane. The undersides of the decks are lined and the spaces beneath are fully open to the outside.
- 2.4.2 The decks are about 4 metres long and 1.5 metres deep, and are supported on timber posts that extend to support pergolas above. A small upstand is formed at the perimeter, with open metal balustrades fixed to the top of metal cappings over the upstand. The decorative mid-floor polystyrene band extends around the deck edges to form the fascia, with the metal capping turned out over the top edge.
- 2.4.3 The consultants' proposal is to remove the metal balustrades and reinstate them using side fixings into the outside edge of the decks, and to replace the existing capping. Other minor associated work includes alterations to fixings of the privacy trellis screens and the pergolas, and the installation of inspection hatches in soffits.

## 3. Background

- 3.1 The authority issued a building consent (No. B/2003/3600747) for Block 3 in 2003 under the Building Act 1991. The consultants had prepared the consent drawings, but were not engaged to oversee construction of the building.
- 3.2 I have not seen a copy of the building consent or any inspection records for construction of the building. The building was substantially completed by 2004, but a final inspection was not carried out until 2010.

### 3.3 The notice to fix

- 3.3.1 The authority carried out the final inspection on 28 April 2010 and issued a notice to fix dated 21 June 2010. The notice identified a number of Building Code clauses that the building work was in breach of and listed details of the contravention.

3.3.2 The authority identified areas of concern, which included a number of items relating to the decks, pergolas and trellis screen. Items in dispute include (items as noted in the notice to fix):

- Item 2.1 r) With reference to the balcony balustrades, it appears that the construction of the balustrades has completely changed ...
- Item 2.1 s) A minimum vertical separation of 35mm between the bottom edge of the external cladding system and adjacent flat surfaces (such as deck surfaces etc) is required. This has not been achieved.
- Item 2.1 t) With reference to the balcony waterproofing membranes, [the authority] could not determine the actual membrane installed. ...
- Item 2.1 u) With reference to the balcony soffit construction, it would appear that these differ to the approved details... In addition, [the authority] can confirm that moisture ingress is occurring within the balconies.

3.3.3 The notice to fix required the applicant to prepare a proposed scope of work by ‘a suitably qualified expert’ to address the areas of identified non-compliance, outlining ‘how each area of non-compliance is to be addressed and rectified’. The notice also stated that the applicant may apply to the authority for a modification to allow durability periods to commence from the date of substantial completion.

### 3.4 The initial scope of work

3.4.1 The applicant engaged the consultants to address matters identified in the notice to fix and a meeting was held on site with the authority, the applicant, and a builder.

3.4.2 The consultants reviewed the condition of the units and prepared a scope of works and forwarded it to the authority on 22 December 2010. The covering letter asked for confirmation ‘of agreement in principle’ and noted that

...if the original consented drawings had been followed by the previous builder, only very minor alterations would have been required to have been attended to.

3.4.3 In regard to the decks, responses to the notice to fix were as follows:

Notice to fix Section 2.1 - relevant items		Scope of work dated 22 December 2010
r)	Changes to balustrade construction	‘At all the deck perimeters the existing handrails are required to be removed and modified to allow for side fixing as was originally approved. This may require over-flashing the existing fixing points to maintain their weathertightness. Any rusting or deterioration is to be rectified prior to overflashing.’
s)	35mm min. cladding clearance to deck	‘Any cladding which is within 35mm of a deck surface shall have an anti-capillary flashing fixed to stop any wicking up into the cladding and associated framing.’
t)	Unknown membrane under tiles	<i>(no proposal to alter)</i>
u)	Moisture ingress to deck framing	‘From the deck soffits removed to undertake inspection, there was no damage or raised moisture levels recorded; therefore the remaining decks are expected to have the same levels of compliance with E2 “External Moisture” of the building code. Throughout the remedial works, the parties are to keep aware of any signs of moisture ingress, so that it can be investigated and corrected if required.’

### 3.5 The authority's responses to the initial scope of work

- 3.5.1 The authority responded to the initial scope of works on 1 February 2011, noting it was 'obvious that a thorough investigative building survey has not been undertaken' as 'reflected in the somewhat 'broad' proposals.' The authority required more specific proposals related to the notice to fix and stated that 'any proposals should be accompanied by an investigative report to substantiate what, if anything was found during such an investigative survey' and that the authority would not accept any further proposals without such a report.
- 3.5.2 While the authority accepted that 'most of the issues' could be remediated by way of targeted repairs, the authority stated it would 'accept this 'in principle', and only in the knowledge that 'the building', in particular the wall cladding was constructed over a 'vented cavity'.
- 3.5.3 With respect to the matters outlined in paragraph 1.4, the authority stated:
- ...as the remediation works are specifically centred around the weather-tightness of the building including the roof, walls, joinery units, penetrations, critical junctions, decks etc a new Building Consent will be required for the works.
- External Decks – [the authority] will not accept the current external deck construction for the buildings. Access to inspect and more importantly 'maintain' the waterproofing membrane is impossible. Code Compliance Certification will not be granted for the current Building Consent if the existing decks remain 'as is'.
- 3.6 Following further correspondence, the consultants inspected each unit. In a letter to the authority dated 24 June 2011, the consultants advised that two decks had been 'opened up' to investigate the condition of the framing and substrate (Units 52 and 58), and refers to attached photographs showing 'no indication of water ingress' with plywood around the outlets in good condition. The consultants describe moisture readings taken during the investigation as 17% and 18% 'in the plywood [as] indicating the preservative levels'. (I note here that I have not seen a copy of the photographs, nor there is an indication of where the moisture readings were taken from. Moisture readings provide information as to moisture levels in the timber and not levels, or types, of timber preservative.)
- 3.7 The consultants provided the authority with a more detailed scope of work, dated 11 May 2011, which listed the specific work proposed for each unit and was 'to be read in conjunction with the general Scope of Works'. The consultants concluded with the view that the proposed remedial works would bring the units into compliance with the Building Code.
- 3.8 In an email to the authority dated 8 August 2011, the consultants disputed the requirement to obtain a new building consent for the repairs as the original consent had yet to receive a code compliance certificate, the remedial works are 'all pretty basic', the townhouse units all have been built with a cavity, and there were no signs of raised moisture levels or decay during inspections.
- 3.9 Further correspondence followed with the authority maintaining its stance on the requirement:
- to fully investigate every deck prior to consent approval
  - to provide access to the deck membranes for inspection and maintenance

- to apply for a new building consent to ‘address every issue of the ‘Notice to Fix’ because:

[the authority has] accepted the ‘scope of works’ for this block ‘in principle’ only. As we believe the remedial work is targeting areas of the external envelope including the decks and some internal areas which in our view are non-compliant, all of this work will require a new Building Consent.

3.10 The Department received an application for a determination on 4 November 2011. The consultants initially submitted two separate applications; however I consider that both matters can be considered in one determination.

## **4. The submissions**

### **4.1 The consultants’ submissions**

4.1.1 In letters and statements accompanying the applications, the consultants outlined the background to the situation, noting that the authority wanted the decks to be removed and rebuilt ‘in compliance with current standards’. The submissions included the following points about the decks (in summary):

- Replacing deck membranes is not necessary as decks complied with the Building Code when constructed in 2003 and are still weathertight and durable.
- The complex is well maintained by full time maintenance staff, with maintenance regimes in place.
- Rebuilding decks could endanger the weathertightness of adjacent cladding.
- The step down to the decks allows ease of access for the elderly occupants.
- Some aspects of the decks have changed from the consent drawings and are not good building practice, so intended changes include:
  - altering and side-fixing metal balustrades
  - retro-fitting spacers to side-fixed deck trellis screens
  - altering pergola fixings into the cladding to provide drainage
  - installing removable inspection covers into deck soffits.

4.1.2 The consultants also noted the authority’s requirement for a new building consent for all work undertaken in response to the notice to fix, in lieu of amendments to the existing building consent. The consultants considered that there was no basis for the authority’s insistence on a new consent.

4.1.3 The consultants forwarded copies of:

- the consent drawings
- the notice to fix dated 21 June 2010
- the initial scope of works dated 22 December 2010
- the detailed scope of works dated 11 May 2011
- photographs dated 5 October 2011 of deck cut-outs to all units
- photographs of deck construction details compared to consented details

- correspondence with the authority.
- 4.2 The authority made no submission in response to the applications, and I have taken its responses to the consultants' proposals to represent its views on these matters (see paragraphs 3.5 and 3.9).
- 4.3 A draft determination was issued to the parties for comment on 16 April 2012.
- 4.4 The authority responded to the draft determination in a letter dated 4 May 2012. The authority submitted that 'a consent or an amendment is the only way of facilitating an inspection regime in order to be satisfied on reasonable grounds' that the completed building work will be code compliant, and that 'this process leaves a clear trail for any future purchases'.
- 4.5 The consultants accepted the draft determination in a letter to the Department dated 18 May 2012. The consultants reiterated their view that the remedial work should be undertaken as an amendment to the existing building consent. The consultants proposed to remove the soffits to all decks to allow for the deck framing to be 'fully inspected, and any deficiencies ... observed', and that this would also enable accurate as-built drawings to be prepared.

## 5. The expert's report

5.1 As set out in paragraph 1.6, I engaged an independent expert, who is a member of the New Zealand Institute of Building Surveyors, to assist me. The expert reviewed the available evidence; providing a report dated 30 March 2012. The expert described the background to the dispute, noting that he had been requested to provide an opinion on whether:

- the remedial work proposed in response to notice to fix items 2.1(r) to (u) would be code-compliant, with other items not part of the determination
- the remedial work should be done under a new building consent.

### 5.2 General

5.2.1 The expert noted that consent drawings called for the decks to have:

- tiles adhered to screed laid to falls over membrane on plywood
- falls of 1.5° towards outlets draining into internal downpipes
- membrane upstands extended under door joinery with full width sill flashing
- perimeter fascias to be clad in solid plaster as per wall cladding
- metal balustrades to be side-fixed through fascias.

5.2.2 The expert reviewed the disputed items in the notice to fix along with subsequent correspondence. The expert noted that there was a lack of clarity from the authority in regard to:

- where moisture is entering the deck structure (item 2.1(u)) and whether this applies to all units

- why an application for a new building consent should be made when there already is an existing building consent (item 5.0) or whether this refers to an amendment to the existing consent to reflect the as-built changed details along with any required modifications; and the statement on 15 March 2011 that no remedial work is allowed to start without a building consent, when there already is an existing consent.
- the refusal to accept direct-fixed tiles in the letter of 1 February 2011; with the implication that the decks would therefore need to be re-built. The expert noted that the approved consent drawings clearly show direct-fixed tiles.

### 5.3 The available information

5.3.1 The expert identified changes in deck construction details, and sought clarification from the consultants on some areas. The consultants provided additional photographs dated 29 February 2012 and responded to the expert's questions as follows:

- Drawings are copies of original consent drawings not 'as-built' details
- Actual deck falls
  - generally, there is a 2° approximate deck fall
  - decks slope away from joinery to outlets in centres of decks
  - deck falls were digitally measured on 29 February 2012, with photos showing falls from 0.7° to 3.8°.
- Membrane type and installation
  - cannot confirm that specified membrane was used because original contractor and installer are no longer in business
  - removing tiles to confirm membrane installation and tile adhesive would cause damage and lead to membranes requiring unnecessary replacement.
- Deck fascia material
  - appears to be EIFS<sup>4</sup> as this has been installed as bands to joinery and at mid floor level
  - other wall cladding is stucco on a rigid backing.
- Remediating top-fixed balustrades
  - balustrades are top-fixed, not side-fixed as originally detailed
  - balustrades to be removed and reinstated as per original details
  - cap flashings replaced where damaged by balustrades fixings.
- Door sill flashings (called for in drawings)
  - detailed ranchslider sill flashings apparently not fitted
  - jamb flashings clearly visible at all ranchsliders; extending below level of adjacent cladding and obviating need for sill flashings.

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<sup>4</sup> I note decorative polystyrene mouldings are detailed on A602 and noted as 'all adhesive fixed to hardi-backer'



- Air seals to joinery (called for in drawings)
  - section of ranchslider architrave to Unit 60 removed, which showed 2mm to 3mm gap between framing and liners, with no visible air seal<sup>5</sup>
  - there was no evidence of damage to the exposed framing.
- Deck soffits
  - a further cut-out was made to a soffit below ranchslider sill and no evidence of moisture penetration was visible.
- Step down from inside to deck
  - measurements were taken for Unit 60, with photographs indicating that step down is calculated to be about 90mm from tile surface
  - a photograph of the neighbouring unit shows a similar step down.

5.3.2 The expert noted some information on as-built details remained unknown, including:

- how deck perimeters are constructed
- how cavities (if any) behind deck fascias can be drained
- how existing balustrades are fixed and sealed, and whether there have been any leaks under these areas.

## 5.4 The expert's summary

5.4.1 The expert's opinion in regard to the decks was that the authority has not:

- made it sufficiently clear in writing which particular aspects of each of the balconies' as-built construction it requires further information about and why
- explained why it will not accept direct-fixed deck tiles, when consent was granted on that basis, or why the decks need a substantial re-build
- explained why a new building consent is required when there is already an existing consent that may be amended.

5.4.2 The expert also considered that the consultants:

- have not fully and clearly investigated the actual construction of each deck
- have therefore not identified all variations from the consent documents
- have not clearly identified how these unknown variations either comply with the building code as-built, or may be altered to comply.

## 5.5 The expert's conclusions

5.5.1 From the information available, the expert considered it likely that decks may only require limited remedial work rather than having to be substantially rebuilt. However, the expert concluded that the consultants had not provided sufficient information to the authority to confirm that assumption.

5.5.2 The expert was of the opinion that the authority did not have sufficient grounds to require a consent and noted that remedial work to the decks 'will be such as to make

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<sup>5</sup> I note that construction was prior to the general use of or requirements for air seals

the constructions conform with the original consent or could be dealt with by amendment to that consent’.

5.6 The expert’s report was forwarded to the parties on 30 March 2012.

## **6. Discussion**

### **6.1 Matter 1: Compliance of the proposed remedial work to the decks**

6.1.1 Item 2.1 (u) of the notice to fix dated 21 June 2010 states, ‘... In addition, [the authority] can confirm that moisture ingress is occurring within the balconies’ (refer paragraph 3.3.2). No information has been provided as to the evidence indicating such moisture ingress and I am therefore unable to establish on what basis that statement was made.

6.1.2 With regard to identification of the membrane to the decks (item 2.1 (t)); while identification of products used and therefore their known performance is one way of providing grounds to establish compliance, it is not the only way. I note also that it would be expected that substitution of products would be identified during inspections, and I have seen no inspection records relating to the construction of the deck.

6.1.3 As the building work was substantially completed in 2004 in-service performance can also be used to form a view as to compliance; with the products effectively half way through the period of durability required. The consultants have undertaken some investigation of the deck substrate to two units; however the details of that investigation are insufficient for me to form a view as to compliance.

6.1.4 I consider that the proposed balustrade alterations will remedy a vulnerable detail and the proposed installation of inspection hatches will provide access to the decks structure to allow ongoing inspection of weathertightness as part of normal maintenance. However, given the lack of certainty regarding the condition and performance of some elements of the decks structure and the lack of information of the as-built details, I am unable to conclude that the proposed remedial work will result in the decks complying with the Building Code.

### **6.2 Matter 2: The requirement for a new building consent**

6.2.1 I note the authority’s requirement that a building consent be sought for the remedial work applies to the notice to a fix as a whole. Such a decision should take into account the extent of the proposed work, and whether it is of a type generally consistent with the consented work.

6.2.2 I accept the expert’s opinion that it is unlikely these decks will need to be substantially rebuilt, but will only require limited remedial work. Providing remaining uncertainties are satisfactorily resolved, I do not consider that remedial work of necessity include removing the deck tiling, with the likelihood of consequential damage and replacement of the underlying membrane, including the possible consequential impact on adjacent elements.

- 6.2.3 I accept the expert's statement that the proposed remedial work 'will be such as to make the constructions conform to the original consent or could be dealt with by amendment to that consent'. I therefore conclude that the proposed remedial work is consistent with the consented building work.
- 6.2.4 Given the above, and that the original consent has yet to receive a code compliance certificate, I take the view that the proposed remedial work does not require consent and that an amendment to the original consent is the appropriate regulatory mechanism in this instance.
- 6.2.5 While this determination only considers the remedial work to the deck, I observe that the remaining items listed in the notice to fix appear similar in relation to the consented work, and I therefore consider the comments above are equally valid in respect of the other items listed.

## **7. The decision**

- 7.1 In accordance with section 188 of the Act, I hereby determine that there is insufficient evidence to establish on reasonable grounds whether the proposed remedial work will result in the decks to Block 3 complying with Clauses B2 and E2 of the Building Code.
- 7.2 I also determine that the authority did not correctly exercise its powers in requiring remedial work to the decks to Block 3 to be undertaken under a separate building consent.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 5 June 2012.

John Gardiner  
**Manager Determinations**