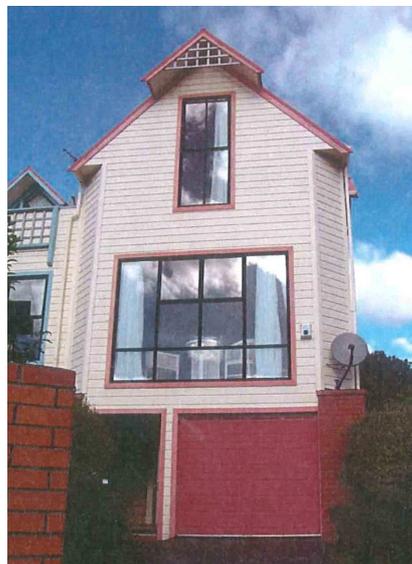




Determination 2010/115

Refusal to issue a code compliance certificate for one of a complex of six 15-year-old townhouses at 8 Moturoa Street, Thorndon, Wellington



1. The matters 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 are:

- M Fowler, the owner of a townhouse at 8E (“Unit 2”) Moturoa Street (“the applicant”)
- the Wellington City Council, carrying out its duties as a territorial authority or building consent authority (“the authority”)

I consider that the owners of the other five units in the development are persons with an interest in this determination.

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.

1.3 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for the 15-year-old townhouse because:

- it is not satisfied that the building work in the townhouse (Unit 2) complies with certain clauses² of the Building Code (First Schedule, Building Regulations 1992). The authority's primary concerns about the compliance of Unit 2 appear to relate to its age, internal moisture and the weathertightness of the cladding
- the six townhouses ("the units") at 8A to 8F Moturoa Street ("Unit 1 to Unit 6") in the development were constructed under a single building consent.

1.4 The matter to be determined³ is therefore whether the authority was correct to refuse to issue a code compliance certificate for Unit 2. In deciding this matter, I must consider:

1.4.1 Matter 1: The external envelope

Whether the external claddings to Unit 2 ("the claddings") comply with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The claddings include the components of the systems (such as the weatherboards and facings, the brick veneer, the windows, the deck, the roof claddings and the flashings), as well as the way the components have been installed and work together. (I consider this in paragraph 7)

1.4.2 Matter 2: Other clause requirements

Whether Unit 2 complies with the remaining relevant clauses of the Building Code, in particular with Clause E3 Internal Moisture. (I consider this in paragraph 8)

1.4.3 Matter 3: The durability considerations

Whether the building elements in Unit 2 comply with Clause B2 Durability of the Building Code, taking into account the age of the building work. (I consider this in paragraph 9)

1.4.4 Matter 4: Amending the building consent

Whether the authority, in response to an application from the owner, is required to amend the building consent for the development, which includes Unit 2, so that Unit 2 has its own separate building consent. That would make it possible for the authority to issue a code compliance certificate in respect of Unit 2. (I consider this in paragraph 10)

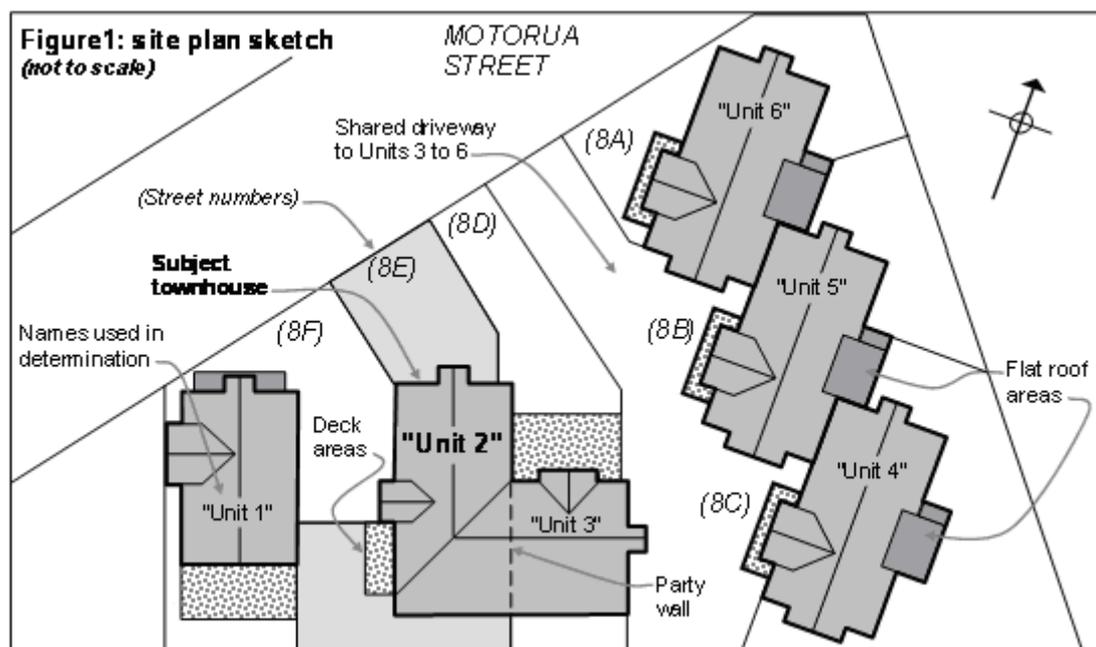
1.5 In making my decision, I have considered the parties submissions, the report of the expert commissioned by the Department to advise on this dispute ("the expert"), and other evidence in this matter.

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

³ Under section 177(b)(i) of the Act (prior to 7 July 2010)

2. The townhouse complex

- 2.1 The gently sloping site is in a very high wind zone in terms of NZS 3604⁴ and has been subdivided to provide six properties with separate titles. The units were constructed under one building consent and are similar in materials and design, with some variety in planning. The development consists of a free-standing unit (Unit 1) at the western end of the site, a group of three semi-detached units to the east (Units 4 to 6) and a two-unit building in the between (Units 2 and 3).
- 2.2 The units are three-storeys-high and provide one bedroom on the ground floors, living areas on the first floors and two bedrooms on the second floors. The units are grouped as shown in the site plan sketch in Figure 1:



- 2.3 Construction of all of the units is conventional light timber frame, with concrete slabs, weatherboard wall claddings, corrugated steel roof cladding and aluminium windows. The development is within a 'historic precinct' and cladding materials and details were therefore designed to accord with other buildings within the neighbourhood.

3. The building work

- 3.1 Unit 2 is part of a two-unit building and shares a party wall with Unit 3. The resulting building is fairly simple in plan and form, but incorporates some complex junctions. The steep-pitched corrugated steel gable and hipped roof has no eaves or verge projections, apart from some limited verge projections at gable ends. The building is assessed as having a high weathertightness risk.
- 3.2 Unit 2 has a driveway from the street to a single garage on the ground floor, which also accommodates a bedroom, bathroom and laundry cupboard under the stairs.

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

The first floor level provides the kitchen and a large open plan living/dining area. The third floor has two bedrooms and a second bathroom.

- 3.3 A small deck, supported on timber posts, extends from the dining area on the west elevation. The drawings show the floor as spaced timber decking, with open timber trellis balustrades clad on the inside with fibre-cement sheet that extends between the top and bottom rails.
- 3.4 The party wall between Unit 2 and Unit 3 is a fire-rated double timber-framed wall that extends up to the gable roof. At the second floor deck to Unit 3, the party wall becomes a weatherboard-clad exterior wall to Unit 2.
- 3.5 Apart from two small areas of brick veneer cladding to the angled ground floor walls on the north elevation, all exterior walls are clad in traditional rusticated timber weatherboards, with timber facings at corners and around windows and doors.
- 3.6 The specification calls for all framing timbers to be 'Rad P.B.T', but does not specify treatment levels. Given the date of construction in 1994, I accept that the external wall framing to Unit 2 is likely to be boron treated, but I have no evidence as to the level of treatment in the framing.

4. Background

- 4.1 The authority issued a building consent to the developer for the townhouse complex (No. SR4060) on 18 March 1994, under the Building Act 1991 ("the former Act").
- 4.2 The construction of Units 1, 2 and 3 commenced in April 1994 and Units 4, 5 and 6 in May 1994. Two separate inspection summaries were maintained by the authority for each group, which are handwritten and confusing in parts. It appears that the initial inspection dates were crossed out and replaced with new dates when re-inspections were completed, with notes on individual units added below.
- 4.3 The authority's inspections that include Unit 2 include:
- Under-slab plumbing drainage and foulwater on 15 and 26 April 1994
 - Foundations/slab on 21 April 1994
 - Cladding/roofing on 23 May and 30 August 1994
 - Foul water and surface water drains on 9 and 10 June 1994
 - Waste and soil piping on 29 June 1994
 - Preline/insulation and linings/bracing on 22 June and 30 August 1994.
- 4.4 In a statement dated 5 September 1994, the structural engineer confirmed that:
- ...on 5 September 1994 we inspected the beams and other aspects structural parts [sic] which we designed and are satisfied that they are in accordance with our requirements. (No inspections of the bracing or foundations have been done by us for [Units 2 and 3]).
- 4.5 The subdivision was approved in August 1994 and the units were issued with individual certificates of title in November 1994. Progress on Unit 2 then apparently

slowed as the remaining units were completed. Units 1, 3, 5 and 6 passed final inspections during December 1994, with Unit 4 during March 1995. Interim code compliance certificates were then issued for:

- Unit 1, Unit 3 and Unit 6 on 15 December 1994
- Unit 5 on 21 December 1994
- Unit 4 on 2 March 1995.

4.6 The above units were then progressively sold, with the developer retaining ownership of Unit 2. It is likely there was an understanding that the developer would obtain a final code compliance certificate when all siteworks and landscaping under the building consent were completed and inspected.

4.7 No further inspection was recorded for Unit 2 until a final inspection was recorded on 4 October 1995, which noted 'clips on soil pipe at rear' (presumably referring to the completion of an outstanding item). The developer retained ownership of Unit 2 for the next 10 years, which is likely to explain the lack of an interim code compliance certificate for that unit.

4.8 The applicant purchased Unit 2 from the developer in September 2005 and decided to sell the unit earlier this year. However, a prospective purchaser was advised not to buy the property without a code compliance certificate and the applicant sought advice from the authority. He was informally advised that a determination might assist in gaining a separate code compliance certificate for Unit 2, despite the consent being issued for all six units.

4.9 The Department received an application for a determination on 21 June 2010.

5. The submissions

5.1 In a letter to the Department dated 14 June 2010, the applicant explained the background to the situation, noting that his experience made him aware of potential problems in houses and he had inspected Unit 2 'thoroughly' before purchasing it in 2005. The applicant explained that the unit had been tenanted for several years and condensation problems had resulted from lack of ventilation. He also felt that it would not be practical to attempt to get all of the townhouse owners to agree on a 'unified approach' to seek a code compliance certificate for the entire complex.

5.2 The applicant provided copies of:

- the site plan and elevations of the townhouses
- the information in the authority's Land Information Memorandum (LIM).

5.3 In a letter to the Department dated 20 July 2010, the authority stated that it had a procedure for building consents over five years old, which involved reviewing the building consent file and inspection records for:

- design, material and construction risk factors,
- current knowledge about construction practices and risk of failure
- likelihood of non-compliance

- when construction was carried out i.e. age of the building work.

The authority noted that it had informed the applicant of the review process. However that review had not been instigated prior to the application so the authority had ‘not visited the property or assessed the building consent in depth’ and believed:

...that the Determination should be on all Code Clauses with particular focus on B2, E2 and E3. We also note that the building consent is for six townhouses in total, but the application for determination is for one unit only.

5.4 The authority provided copies of:

- some of the building consent documentation
- the inspection summaries for Units 1, 2 and 3 and Units 4, 5 and 6
- the computer records for the consent
- the structural engineer’s inspection statement dated 5 September 1994
- various other statements and information.

5.5 The draft determination and submission received

5.5.1 The draft determination was issued to the parties for comment on 9 September 2010.

5.5.2 The authority responded to the draft determination in a submission dated 15 September 2010. The authority submitted that:

[It accepted] the general principal of amending a building consent to split an individual unit or group of units off where they are independent of the units remaining under the original building consent. [The authority] does not believe that it is possible to split unit 2 off from the original building consent on its own as it has a reliance on unit 3 for achieving and maintaining compliance with the Building Code.

... if the building consent is to be split both units 2 and 3 would need to be considered together.

If units 2 and 3 are to be split off from the original building consent ... the owner of unit 3 [would need] to be in full agreement [with] the determination process and ... a party to the determination ... [and] it will be necessary for an expert to provide a report on the level of building code compliance of unit 3.

5.5.3 The applicant responded to the draft determination in a letter to the Department dated 18 October 2010. The applicant did not accept the draft determination submitting that it was ‘legally questionable’ and referred to a decision of the Privy Council⁵.

5.5.4 The applicant noted that interim code compliance certificates had been issued for remaining units in the complex but questioned why this was not done for Unit 2. The applicant noted that all the units had been built to the same drawings and specification and if Unit 2 was found to be ‘faulty what is [the authority] going to do about the [other units]’; and that the lack of an interim code compliance certificate would penalise him. The applicant covered in detail the work proposed to address the defects noted in the draft determination.

⁵ *Invercargill City Council v Hamlin [1996] 1 NZLR 513*

5.6 The Department's response

- 5.6.1 In response to the submission from the authority I note the applicant has verbally advised that the owner of Unit 3 does not wish to be involved in the determination process. That being the case the applicant will be unduly penalised if the code compliance for Unit 2 is not able to be dealt with under a separate consent.
- 5.6.2 I acknowledge the authority's position but note that if the authority has reasonable grounds to believe that Unit 3 does not comply with the Building Code then it should issue a notice to fix to the owner of Unit 3 setting out those reasons. In addition, the investigation referred to in paragraphs 7.3.1 and 8.1 will also inform the authority as to the condition of Unit 2 and the impact, if any, on the code compliance of Unit 3. In this instance I consider that the building elements, and configuration of the junctions between the two units, do not present a high risk in terms of weathertightness. It is therefore appropriate to consider amending the consent to allow the issue of separate code compliance certificates.
- 5.6.3 In response to the submission from the applicant I note the following:
- The Privy Council decision dealt with an authority's liability and is not relevant to the matters I can determine under section 177 of the Act.
 - Under both the current and the former Acts the responsibility for seeking either an interim or final code compliance certificate rests with a building owner.
 - Given the actions of this and other authorities in similar situations, I do not believe a final code compliance certificate would have been issued by the authority on the evidence of an interim certificate issued when the work was completed. In this respect the applicant has not been penalised by not having an interim certificate.

6. The expert's report

- 6.1 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 building on 13 July 2010, providing a report dated 5 August 2010.
- 6.2 The expert noted that the overall construction quality appeared to be good, with the weatherboard junctions 'straight and tight'. However, the expert also noted that the unit was poorly maintained, was overdue for repainting and had vegetation in the gutters.
- 6.3 The expert noted that timber facing boards border the aluminium windows and doors, which have metal head and sill flashings. The timber facing boards butt against the edges of the window frame on all four sides. Timber plugs are used at the junction of the jamb facing with the weatherboards.

6.4 Moisture levels

- 6.4.1 The expert inspected the interior of Unit 2, noting signs of moisture penetration at:
- the swollen skirting beside the garage door, extending about two metres

- the reveal to the kitchen window sill
- damaged paintwork to the kitchen ceiling
- damaged architrave and reveal to the deck doors
- swelling of the wall behind the shower in the ground floor bathroom.

6.4.2 The expert confirmed the above signs of moisture by taking invasive moisture readings and also took readings at areas considered at risk, noting:

- 100% (indicating saturated timber) at the sides of the garage door
- 20% and 25% at the southwest corner of the ground floor bedroom
- 80% at the corner of the reveal to the kitchen window sill
- 35% at the internal door frame adjacent to the balustrade
- 100% (indicating saturated timber) at the skirting directly below where the balustrade is fixed.

6.5 Commenting specifically on the external envelope, the expert noted that:

- on the north, west and south elevations, the ground floor weatherboards either butt against the adjoining ground or paving, are buried under soil or have insufficient clearance
- the small areas of brick veneer to the north front elevation have no weep holes at the bottom and the bottom brick course starts at ground level
- the ribbon plate to the deck is fixed directly against the weatherboards, with no allowance for drainage
- the balustrade top rail is fixed directly to the weatherboards.

6.6 Commenting specifically on the flashings at the windows and doors, the expert noted:

- the junctions of the facings with the aluminium frames are unsealed
- there is deterioration of the paintwork and the boards around the jamb and sills.

6.7 Commenting on internal moisture (Clause E3), the expert noted that:

- excessive sealant and a leak at the base of the glass shower screen to the second floor bathroom
- degraded sealants to the bath shower in the ground floor bathroom where water is entering the wall behind the shower causing swelling of the wall and possible damage to the framing.

6.8 Commenting on the other relevant code clauses, the expert also noted that:

- the moisture penetration into timber-framing may have endangered the structural integrity of the framing in some areas (Clause B1)
- the laundry tub is not properly fixed to the wall (Clause E3)
- the earthquake restraint to the hot water cylinder is not fixed (Clause B1).

- 6.9 A copy of the expert's report was provided to the parties on 9 August 2010.
- 6.10 The authority responded to the expert's report on 19 August 2010, emphasising the high levels of apparently prolonged moisture penetration and the additional investigation needed in some areas. The authority considered that a modification of the durability provisions was not appropriate due to 'clear indications of failure'. I generally concur with the authority's views; and have addressed these concerns in various parts of this determination (for example, in paragraphs 9.4 and 11.2).

Matter 1: The cladding

7. Weathertightness

- 7.1 The evaluation of building work for compliance with the Building Code and the risk factors considered in regards to weathertightness have been described in numerous previous determinations (for example, Determination 2004/1).

7.2 Weathertightness risk

- 7.2.1 Unit 2 has the following environmental and design features which influence its weathertightness risk profile:

Increasing risk

- Unit 2 is three-storeys high and sited in a very high wind zone
- although fairly simple, the building includes complex junctions
- there are generally no eaves to shelter the cladding
- there is a timber-framed deck attached to the first floor level
- although external wall framing is likely to be treated, the treatment level may be insufficient to provide resistance to decay if the timber absorbs and retains moisture

Decreasing risk

- the plan and form of the building containing Unit 2 is fairly simple.

- 7.2.2 When evaluated using the E2/AS1 risk matrix, these features show that the elevations of the building demonstrate a high weathertightness risk rating. I note that, if the details shown in the current E2/AS1 were adopted to show code compliance, the horizontal rusticated weatherboards would require a drained cavity. However, this was not a requirement at the time of construction in 1994.

7.3 Weathertightness performance

- 7.3.1 Generally the claddings appear to have been installed in accordance with good trade practice at the time. However, taking account of the expert's comments and the evidence of moisture penetration, I conclude that further investigation and remedial work is necessary in respect of the following:

- investigation and remediation of the high moisture levels at:

- the sides of the garage door
- the reveal to the kitchen window sill
- the balustrade side of the joinery to the deck
- clearances from the bottom of the weatherboards to the ground or paving
- clearances and lack of weep holes in the bottom course of brickwork
- deteriorating paintwork and timber to some of the weatherboards and facings
- unsealed junctions of the jamb facings with the window frames
- lack of drainage between the deck ribbon plate and the weatherboards
- fixing of the balustrade top rail into the weatherboards.

7.3.2 Notwithstanding the fact that the weatherboards are fixed directly to the framing, thus inhibiting free drainage and ventilation behind the cladding, I have noted that the weatherboards and windows are generally installed according to good trade practice, in accordance with traditional practices common at the time of construction. This assists the performance of the cladding in this particular case and can help the building to comply with the weathertightness and durability provisions of the Building Code.

7.4 Weathertightness conclusion

7.4.1 I consider the expert's report establishes that the current performance of the external envelope is not adequate because there is evidence of extensive moisture penetration and decay in the timber framing. Consequently, I am satisfied that Unit 2 does not comply with Clause E2 of the Building Code.

7.4.2 In addition, the building envelope is also required to comply with the durability requirements of Clause B2. Clause B2 requires that a building continues to satisfy all the objectives of the Building Code throughout its effective life, and that includes the requirement for the building work to remain weathertight.

7.4.3 I note that the cladding materials in Unit 2 are already more than 15-years-old, which is beyond the minimum effective life required for these elements. In the case of the roofing, I am satisfied that the cladding has remained weathertight for that period and has therefore complied with the durability requirements of Clause B2.

7.4.4 However, in the case of the wall claddings, it is apparent that the cladding faults on the building have been allowing moisture into the framing over a prolonged period of time, and are likely to continue to allow the ingress of moisture in the future. I am therefore satisfied that the wall claddings, including the windows, do not comply with the durability requirements of Clause B2.

7.4.5 Because the faults identified with the claddings occur in discrete areas, I am able to conclude that satisfactory investigation and rectification of the items outlined in paragraph 7.3.1 will result in the external envelope being brought into compliance with Clauses B2 and E2 of the Building Code.

7.4.6 I note the expert's comments on the lack of maintenance to the weatherboards and facings to Unit 2, which is likely to have contributed to some of the moisture

penetration. Effective maintenance of claddings is important to ensure ongoing compliance with Clauses B2 and E2 of the Building Code and is the responsibility of the building owner. The Department has previously described these maintenance requirements, including examples where the external wall framing of the building may not be treated to a level that will resist the onset of decay if it gets wet (for example, Determination 2007/60).

Matter 2: Other clause requirements

8. Discussion

- 8.1 Taking account of the expert's report and the evidence of moisture penetration, I conclude that further investigation and remedial work is necessary in respect of the following (relevant code clauses are shown in brackets):
- investigation of moisture levels and the condition of the timber framing (Clause B2 insofar as it relates to Clause B1)
 - the inadequate earthquake restraint to the hot water cylinder (Clause G12)
 - in regard to internal moisture (Clause E3):
 - the leak at the shower base in the second floor bathroom
 - the leak at the tile to bath junction in the ground floor bathroom
 - the fixing of the laundry tub.
- 8.2 I note that, while timber framing in Unit 2 is likely to be boron-treated, continuing moisture penetration into some areas is expected to have leached some of the boron out of the timber, thus reducing its resistance to decay. As moisture penetration appears to have been occurring over a prolonged period, there may be limited treatment remaining in some areas and the timber may therefore be damaged.
- 8.3 Taking account of the expert's report, the authority's inspections during construction and the engineer's statements, I have reasonable grounds to conclude that Unit 2 complies with the remaining relevant clauses of the Building Code.

Matter 3: The durability considerations

9. Discussion

- 9.1 The authority has concerns about the durability, and hence the compliance with the Building Code, of certain elements of the building taking into consideration the completion of Unit 2 during 1995.
- 9.2 The relevant provision of Clause B2 of the Building Code requires that building elements must, with only normal maintenance, continue to satisfy the performance requirements of the Building Code for certain periods ("durability periods") "from the time of issue of the applicable code compliance certificate" (Clause B2.3.1).
- 9.3 In previous determinations (for example Determination 2006/85) I have taken the view that a modification of this requirement can be granted if I can be satisfied that

the building complied with the durability requirements at a date earlier than the date of issue of the code compliance certificate, that is agreed to by the parties and that, if there are matters that are required to be fixed, they are discrete in nature.

- 9.4 Because of the scope of further investigation required into the extent of moisture penetration, the condition of the timber framing that forms part of the building's structure, and the potential impact of such an investigation on the external envelope, I am not satisfied that there is sufficient information on which to make a decision about this matter at this time.

Matter 4: Amending the building consent

10. Discussion

- 10.1 Unit 2 is part of a larger complex of six residential units made up of three free-standing buildings comprising a single detached townhouse, two semi-detached townhouses and three semi-detached townhouses. One building consent was issued to cover all three buildings, which means that only a single code compliance certificate can be issued for all six units unless the building consent is amended.
- 10.2 The owner of Unit 2, one of the two semi-detached townhouses, has sought this determination so that a code compliance certificate can be issued for his particular unit. In order for that to happen, the existing building consent would need to be amended, so that the code compliance of Unit 2 can be dealt with separately from the code compliance of the remaining unit in the duplex and also the other four units.
- 10.3 In previous determinations (for example Determination 2009/56) I have taken the view that the authority has the power under the Act to deal with an administrative issue such as amending a consent that deals with two or more buildings, where an owner requests the consent be 'split' to deal with one or more buildings separately.
- 10.4 During the building process there will often be changes in circumstance produced by design changes, changes to the scope of work proposed, the number of buildings proposed or the timing of completion. Such changes may require alterations to the scope of a building consent and the number of buildings covered by a consent. A building consent authority has the power under the Act to deal with such changes in circumstances by way of amendment to a consent to split-off particular buildings.
- 10.5 I consider the basis for the decision reached in Determination 2009/56 also applies in this instance, and that the authority can amend the building consent to create a separate building consent for Unit 2, in response to a request to do so by the owner. The amendment of the original consent will enable the owner to apply for a code compliance certificate for Unit 2 without requiring the cooperation of the owners of the remaining five units within the development (refer also to paragraph 5.6.2).

11. What is to be done now?

- 11.1 A notice to fix should be issued that requires the applicant to bring Unit 2 into compliance with the Building Code, including the investigations and defects identified in paragraph 7.3.1 and paragraph 8.1, but not specifying how those defects

are to be fixed. It is not for the notice to fix to specify how the defects are to be remedied and the building brought to compliance with the Building Code. That is a matter for the owner to propose and for the authority to accept or reject.

- 11.2 In addition, the notice to fix should include the requirement for a full investigation into the extent and causes of moisture penetration and the condition of all associated timber framing; referring also to the need for cladding removal, invasive moisture testing and laboratory testing of framing samples to confirm treatment levels, and to establish the full extent, levels and structural significance of any decay to the timber framing.
- 11.3 I suggest that the parties adopt the following process to meet the requirements of paragraph 11.1. Initially, the authority should issue the notice to fix. The applicant should then produce a response to this in the form of a detailed proposal as to the rectification or otherwise of the specified issues. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding determination.
- 11.4 Once the matters set out in paragraph 7.3.1 and paragraph 8.1 have been rectified to its satisfaction, the authority may issue a code compliance certificate in respect of the building consent amended as outlined in paragraph 10.

12. The decision

- 12.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:
- the external building envelope does not comply with Clauses E2 and B2 (insofar as it relates to E2) of the Building Code
 - the timber framing does not comply Clause B2 (insofar as it applies to B1) of the Building Code
 - certain elements do not comply with Clause E3 and G12 of the Building Code,
- and accordingly I confirm the decision of the authority not to issue a code compliance certificate.
- 12.2 I also determine that, if so requested by the owner of Unit 2 (at 8E Moturoa Street), the authority is to amend the original consent to create a separate building consent as required and as detailed in paragraph 10 above.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 26 November 2010.

John Gardiner
Manager Determinations