



## Determination 2011/100

### Regarding the refusal to issue a code compliance certificate in respect of building work at 72 Webb Street, Wellington



#### 1. The matter 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:

- Vey Group Ltd, the building owner (“the applicant”)
- Wellington City Council, carrying out its duties and functions as a territorial authority and a building consent authority (“the authority”).

1.3 The application for determination arises from a dispute between the parties regarding the authority’s decision to refuse to issue a code compliance certificate for a multi-storey building (“the building”). The authority’s decision was on the grounds that insufficient inspections had been carried out and as a consequence the authority could not be satisfied as to compliance of the building work with certain clauses of the Building Code (First Schedule, Building Regulations 1992)<sup>2</sup>.

<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.

<sup>2</sup> 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.

- 1.4 I take the view that the matter to be determined<sup>3</sup> is whether the authority correctly exercised its powers in refusing to issue a code compliance certificate for building work carried out under building consent 178711. In making my decision I have considered
- whether the work carried out under building consent No. 178711 complies with the building consent
  - whether the building work complies with the relevant clauses of the Building Code.
- 1.5 Further to paragraph 1.4, I note that the applicant's submission was limited to certain Building Code clauses (refer paragraph 4.1) and that the authority requested that all Building Code clauses be considered in this determination (refer paragraph 4.9). At a site meeting arranged by the expert, an officer of the authority listed additional clauses (refer paragraph 5.1.2) and I have included these in the matters to be determined. While the applicant has objected to this extended approach, I consider that, in light of the number of inspections missed, it is in the best interests of the parties that these additional building elements are considered. The likely result of an approach that did not cover the additional building elements would be the application for a further determination, which in itself would be time consuming and subject the parties to additional expense.
- 1.6 The applicant has asked me to rule on the validity, liability and responsibility of the authority in respect of its inspection procedures. However, these matters are outside the ambit of the determination process set out in the Act and therefore I am of the opinion that I cannot rule on these procedures.
- 1.7 In making my decision, I have considered the submissions of the parties, the report of an independent expert commissioned by the Department ("the expert") to advise on this dispute, and the other evidence in this matter. The relevant provisions of the Act and the Building Code are set out in Appendix A.

## **2. The building work**

- 2.1 The building work in question relates to a multi-storey building consisting of three levels plus a basement, which is situated on a sloping site in an assumed high wind zone in terms of NZS 3604<sup>4</sup>. The construction consists of concrete piles and basement slab, concrete block walls, structural steel framed and concrete floors at first and second floor levels, and timber-framed upper walls.
- 2.2 The external walls above the basement level are timber-framed and are lined over a cavity with a mix of fibre-cement sheets, rusticated timber weatherboards, and horizontally fixed coated corrugated steel. There are also small areas of vertical profile steel cladding and schist veneers. The flat roofs are clad with long-run trapezoidal profile pre-coated steel at a nominal pitch of 6 degrees. The small entry canopies are membrane lined. The expert has been unable to confirm that the external wall framing is treated.

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<sup>3</sup> In terms of sections 177(1)(b) and 177(2)(d) of the Act.

<sup>4</sup> New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 2.3 Enclosed balconies are situated outside the upper floor units and these are generally constructed over living spaces and are, in part, cantilevered. The balconies have either timber-framed or metal balustrades and have wet applied polyurethane membrane deck coverings.

### 3. Background

- 3.1 I note here that the building has been the subject of two previous determinations (2011/053 and 2011/054). Determination 2011/053 was in respect of the authority's refusal to accept a building consent application for the fit out of the ground floor and confirmed that the authority correctly exercised its powers. Determination 2011/054 was in respect of the issuing of various notices to fix; the decision reversed one notice to fix, and confirmed four and required they be modified to take into account the findings of the determination.
- 3.2 As this is the third determination for this building, in the following table I have only made brief reference to the background that has already been described in the previous two determinations. I have also listed those inspections for which records have been provided (shaded).

Date	Event	Comment
8 September 2008	Building Consent 178711 issued	
10 February 2009	Inspection: building pre-clad	Unit 6 only
31 March 2009	Inspection: building weathertight	Amendment to plans required Further pre-wrap inspections required
6 April 2009	Notice to fix (NTF 1) issued including - requirement to stop work - identified inspections required	Issuance of NTF confirmed by Determination 2011/054 (modification required)
18 April 2009	Application for amendment made (AA1)	
22 April 2009	Inspection: building pre-line	Apartment 4, and bedroom 2 of apartment 3 not ready to line/required more time to dry
30 April 2009	Inspection: plumbing pre-line	Failed (6 items)
28 April 2009	Notice to fix (NTF 2) issued - requirement to stop work - identified inspections required	Issuance of NTF confirmed by Determination 2011/054 (modification required)
5 May 2009	Inspection: plumbing: pre-line	Passed
	Notice to fix (NTF 3) issued - requirement for amended plans - requirement for plans for decks	Reversed by Determination 2011/054
11 May 2009	Inspection: building weathertight (east elevation)	Further detailing/amendment to plans required
18 May 2009	Site visit Notice to fix (NTF 4) issued - requirement to stop work - work not in accordance with code or consent - requirement for amended plans - identified inspections required	Issuance of NTF confirmed by Determination 2011/054 (modification required)
17 June 2009	Application for amendment made (AA2)	Application later withdrawn by applicant's agent
13 July 2009	Application for amendment made (AA3)	
18 August 2009	Application for amendment made (AA4)	
31 August 2009	Site visit	

4 September 2009	Notice to fix (NTF 5) issued - identified inspections required	Issuance of NTF confirmed by Determination 2011/054 (modification required)
6 November 2009	Inspection: plumbing drainage	Failed – amended plan to be sighted and approved
12 November 2009	Notice to fix issued in respect of stormwater	
20 January 2010	Confirmation two amendments approved but not issued	Dispute between parties as to payment of fees
19 February 2010	Site visit	
31 March 2010	Inspection: plumbing drainage	Passed
23 April 2010	Application for building consent – fit out of new wet areas	Application not accepted by authority. Authority's decision confirmed in Determination 2011/053

- 3.3 In determination No 2011/053 I also suggested that the applicant apply for an amendment to consent No SR 178711 to cover the modification to the ground floor space from a crèche to apartments, once certain requirements were met.
- 3.4 According to the applicant's submission, on 8 June 2009 the authority began to refuse to carry out inspections until the outstanding notices to fix were complied with.
- 3.5 On 3 March 2010 the authority wrote to the applicant noting that it had not carried out further inspections 'due to the instruction to stop work and obtain an amendment to the plans for those changes to the Building Consent.' The authority went on to state that
- [the authority] has not inspected sufficient areas of the exterior and interior surfaces prior to the linings being installed. Given the lack of inspections the [authority] is not currently in a position to be satisfied on reasonable grounds that the building work to date complies with the Building Consent or the Building Code.
- The authority sought 'documented proof of evidence and certification from suitable qualified personal (sic) to consider an application for a code compliance certificate'.
- 3.6 On 14 April 2010 the authority wrote to the applicant noting that, given the lack of inspections to ascertain compliance with the Building Code, the authority would be unable to issue a code compliance certificate if one was requested.
- 3.7 On 30 April 2010 the authority issued a notice to fix noting the particulars of contravention or non-compliance as that the authority had not been invited to carry out inspections and as a result it could not be satisfied that the construction complies with Clauses B2 and E2. To remedy the contravention the notice required the applicant to
- Supply evidence of compliance of the completed work with the building consent and the building code. This may take the form of certification from a suitable independently (sic) qualified person that shows the exterior claddings, substrates, flashings and fixings are in accordance with the Building Code.
- 3.8 Following an application for a code compliance certificate for consent No. 178711, the authority wrote to the applicant on 8 October 2010 and 14 October 2010, stating that it was unable to issue the code compliance certificate as it had not carried out sufficient inspections to be satisfied on reasonable grounds that the completed work complied with the Building Code. The applicant had to satisfy the authority that the building work as completed complied with Clauses B1, B2, C4, and E2.

- 3.9 The application for a determination was received by the Department on 19 May 2011.
- 3.10 Determinations 2011/053 and 2011/054 were issued on 3 June 2011 (refer paragraph 3.1).
- 3.11 The authority issued a further notice to fix dated 15 July 2011 in relation to the fit out of the ground floor of the building as building work undertaken without consent. This work is not part of consent No. 178711 and is not considered further herein.

#### **4. The submissions**

- 4.1 The applicant provided a submission with the application setting out the disputed matters and the background to the dispute. A list was also provided of the requests for inspections and the responses of the authority that the applicant considered had occurred. The applicant noted that the authority had ‘never been refused access to the building site’ and the applicant’s ‘obligations with respect to inspections was limited to the terms of section 90 and the conditions set out in the building consent’. The applicant’s submission was limited to the following Building Code clauses:
- B1 – Structure
  - B2 – Durability
  - C4 – Structural stability during fire
  - E2 – External Moisture.
- 4.2 The applicant also noted that:
- the structural engineer had provided a Producer Statement regarding the work covered by Clause B1
  - the fire engineer had provided a Producer Statement regarding the work covered by Clause C4
  - all materials relating to Clauses B2 and E2 had been installed in accordance with the manufacturers’ specifications and the building consent
  - all the site reports issued by the authority approved the work covered by the reports as being code-compliant and allowed the work to continue.
- 4.3 The applicant supplied copies of:
- the plans and specifications
  - some consent documentation
  - correspondence with the authority and associated memos
  - workmanship guarantees from the weatherproofing contractor
  - Producer Statements PS3 and PS4—Construction, produced by the project structural engineers
  - a set of photographs showing aspects of the construction
  - some manufacturers’ information

- a memorandum by the applicant dated 31 August 2009, noting that moisture tests carried out in the ground floor commercial area, in the stair well wall, and in Unit 5 all indicated that there were no moisture ingress problems at these locations.
- 4.4 In a letter to the Department dated 14 July 2011, the authority outlined its response to the determination application. In summary, the authority stated that it refused the applicant's request for a code compliance certificate because it did not have sufficient information to be satisfied on reasonable grounds that the completed building work complied with either the building consent or the Building Code.
- 4.5 The authority also noted that because the applicant proceeded with construction that deviated from the consented plans without authority approval and despite the issuing of several notices to fix, various inspections that were required were not carried out. Due to the lack of inspections and evidence of compliance, the authority required evidence from a suitably qualified independent person to show how the building work was code-compliant. The authority also listed the building and plumbing inspections that had been carried out by its officers and the documentation that it still required.
- 4.6 The authority considered that the submission forming part of the determination application (the memorandum dated 31 August 2009) was not independent and that it was 'prejudiced by a conflict of interest' as the author 'appears to be the owner/developer, project manager and builder'. Nor was there any evidence that the report's author had expertise in the fields of weathertightness or Building Code compliance in general. Also the structural engineers' Producer Statement did not include floor slabs, bracing elements, or an attached schedule as required for a PS4 document.
- 4.7 Finally, the authority noted that the applicant would be required to up-lift an amendment to the original building consent for the change from a crèche to apartments and also to apply for a certificate of acceptance for work carried out without a building consent (refer paragraph 3.11).
- 4.8 The authority attached copies of the following:
- the notice to fix dated 15 July 2011
  - some inspection documentation
  - some correspondence with the applicant
  - site photographs
  - a District Court judgement involving the applicant and the authority.
- 4.9 In a submission to the Department dated 14 July 2011, the authority's legal advisers responded to a request that I made as to the extent of the Building Code clauses to be covered in this determination. The legal advisers described the correspondence between the authority and the applicant that was considered relevant to this request. The conclusion reached in the submission was that, as the authority had complied with section 95A in accordance with its letters to the applicant dated 8 October 2010 and 14 October 2011, the scope of the determination should extend to all clauses of the Building Code.

- 4.10 The applicant wrote to the Department on 6 August 2011 commenting on the authority's submission. I have carefully considered and noted the content of this correspondence. The applicant's submission traversed much of the background to the previous two determinations relating to the same building and challenged the authority's comments regarding the code-compliance of certain elements of the building. The applicant also commented on the authority's inspection procedures and I have referred to these separately below.
- 4.11 As the inspections required and not carried out are central to matter to be considered in this determination, I have tabulated below the building inspections the authority has identified that relate to the building consent, together with the applicant's comments regarding these. The inspections that the authority considers to have been completed are shaded.

Inspection	When due	Result – if carried out	Applicants comments
Site	Location of building on site	Confirmed under service request 173252	Does not apply to BC 178711
Foundation	Before placing any concrete for foundation walls or footings		Does not apply to BC 178711
Piles	Before placing any concrete for pile foundations Timber or concrete		Does not apply to BC 178711
Pre-slab	Before placing any concrete for floor slabs and any integral footings		
Retaining wall	Before back-filling against any wall or covering any tanking		Does not apply to BC 178711
Sub-floor	Before covering any sub-floor framing		There is no sub floor
Pre-wrap	Prior to fitting building wrap to framing	Pre wrap in part only/failed	Pre wrap and pre-clad inspections carried out at the same time
Pre-clad	Upon completion of the building wrap with flashings/tapes installed and before fitting any external cladding	Pre-clad/ in part only/failed	
Weathertight	Before applying any coatings to the external cladding system	Authority inspection of east face on 18 May 2009	Steel cladding is pre-finished and weather boards and fibre-cement linings are pre-primed and undercoated
Pre-line	Before fitting any internal fittings or installing wet area membranes, air-seals fitted internally around joinery, bracings complete		50 % inspected by the authority who refused to inspect the last three apartments
Pre line: acoustic	Before fitting internal fittings where specialist vibration isolated connections or in-frame insulation is specified		Authority stated that they would not inspect work subject to an engineer's PS4
Post-line: bracing	Post line bracing while fixings are still visible		
Post-line: fire	Where fire rated walls are included, certification from fire engineer (PS4) or sufficient inspections to verify correct installation of specific linings and protection of penetrations		
Post-line: wet area	Inspection of installed wet area membranes before installation of finish surfaces such as tiles		Does not apply to BC178711 as no tiled showers specified or used
Post-line: acoustic	Where sound rated walls are included, certification from an acoustic engineer (PS4) or sufficient inspections to verify correct installation of specified linings and attenuating of penetrations		
Final	Final inspection on completion of all building work following a formal application for a Code Compliance Certificate (form supplied with sufficient documentation)	The authority noted that it had not inspected the property due to the instructions to stop work and changes from the building consent	Two authority officers visited the site on 19 February 2010 and inspected the finished building. The officers claimed that it was not an official inspection.

4.12 Further to his comments above (paragraph 4.10), the applicant stated that:

- all inspections by the authority had been passed and no site reports requested the applicant to cease work or indicated non-compliance with the Building Code
- the authority inspected and approved the work carried out for the following:
  - Exterior north face of the building
  - Exterior east face of the building
  - Exterior west face of the building
  - 50% of the building work associated with building consent No 178711
- the authority did not inspect the south face of the building
- the authority carried out a further 10 building inspections after 6 April 2009
- the authority's plumbing inspector approved all the inspections that he carried out
- the applicant had employed 'independent registered building surveyors' to perform the inspections that the authority refused to carry out  
(I note that I have not been provided with any evidence of these inspections.)
- despite requests from the applicant, the applicant's expert on 8 July 2009, and the applicant's lawyer on 30 September 2009, the authority refused to inspect the building work.

## **5. The expert's report**

### **5.1 General**

5.1.1 As set out in paragraph 1.7, I engaged an independent expert, who is a Registered Architect<sup>5</sup>, to provide me with a report on the code-compliance of the building. The expert visited the site on 23 April 2011 and 24 June 2011, and also met with officers from the authority on 23 June 2011 to discuss the authority's code-compliance concerns.

5.1.2 In addition to providing detail regarding items of non-compliance with Clauses B1, E2 and B2, and C4, the authority also noted that its concerns were not limited to those clauses and raised other matters such as acoustic separation and fire alarms.

5.1.3 The expert provided me with a report dated 15 July 2011.

5.1.4 The expert described the construction of the building and the background to the dispute, and the results of his meeting with the authority's officers. As part of the site inspection, the expert undertook a series of non-invasive and invasive moisture readings. Of the sample invasive readings, sixteen were between 9% and 14% and one was 18%. The expert noted that the drillings into the framing timber showed the framing to be sound.

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<sup>5</sup> Registered Architects are under the Registered Architects Act 2005 are treated as if they were licensed in the building work licensing class Design 3 under the Building (Designation of Building Work Licensing Classes) Order 2010.



5.1.5 As a general comment, the expert considered that the quality of workmanship was variable and noted that some sections of the cladding, particularly the fibre-cement sheeting, were not aligned properly. In addition, the flashings in some locations were of poor quality, as were some of the paint and textured finishes. I summarise below the areas of concern that were addressed by the expert.

## **5.2 Comparison of the as-built construction with the building consent documents**

5.2.1 The expert noted that the amendments to the building consent are yet to be issued (refer table in paragraph 3.1, entry labelled '20 January 2010'); however the expert used the amendment drawings as a basis for comparison with the as-built construction on the assumption that the amendment would be issued at some time in the future.

5.2.2 As illustrated in the expert's report, there were major differences at the completed northeast, northwest, southeast and southwest elevations when compared with the plans. Accordingly, the detailed drawings on sheets 28 to 47 would require significant alteration or re-drawing to create an accurate record of construction.

## **5.3 Compliance with Clause E2 – External moisture**

5.3.1 The generally low moisture readings provided an indication that a systematic failure of the cladding systems was unlikely. However, the higher reading obtained at the southwest elevation indicated that there had been moisture ingress adjacent to the Unit 6 lower deck. This raised the issue that there might be other leaks found in a more comprehensive survey of all units.

## **5.4 Compliance with Clause B2 – Durability**

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

### **Timber Weatherboards**

- The constructed detail at the base of the timber weatherboard cladding was likely to lead to non-compliance with the Building Code.
- The poorly formed or lack of stop ends to some head flashings at the exterior joinery, together with the lack of a gap at the sill boards, lead to a risk of moisture reaching the wall cavity. However, if further evidence could be obtained, then it would be reasonable to conclude that the sealing around the exterior joinery is adequate.
- Evidence was required to show that there was a flashing installed behind the cover board at the junction of the cladding and the high-level eaves soffit and under the cappings of the deck balustrades that are clad with weatherboards.

### **Horizontal corrugated cladding**

- There was doubt that the constructed detail at the base of the corrugated cladding would achieve adequate durability.
- There are burred edges to the some ends of the corrugated sheets and these are showing indications of rust. These edges are at risk of premature deterioration of the coating and further rusting.

- Further investigation is required to establish the compliance performance of the control flashings, which do not close the cavity behind the corrugated cladding and the horizontal laps.
- The fixing of the sheets at the internal junction of the corrugated and fibre-cement claddings provides an overhang detail that cannot be considered to be adequate.
- The mossy growth on the facing at the top of the corrugated cladding to the Unit 6 balustrade that is joined to the parapet capping leads to concerns as to the durability of the facing.

### **Fibre-cement sheet cladding**

- As the fibre-cement was applied to a building higher than three storeys or 10 metres high, the expert considered that a review by a suitably qualified façade engineer of the details set out in the manufacturer's instructions, the Compliance Document E2/AS, and the independent testing authority was required. This would establish whether any enhancement of the cladding systems were necessary.
- It was the expert's opinion that the variability of the workmanship apparent in the installation of the fibre-cement cladding required further inspection to ensure that the cavity details were adequate.
- A section of cladding at the northeast elevation is not texture coated.
- There are some defects showing in the face of the cladding.
- The slab and nib detail at the base of the fibre-cement cladding is causing water to pond against the nib at some locations.
- Some of the cover boards at the jambs, sills, and heads of the windows are not adequately sealed or fitted.
- Evidence was required to show that there was a flashing installed behind the cover board at the junction of the cladding and the high-level eaves soffit.
- The following concerns were noted regarding the cladding system control joints:
  - The vertical timber cover battens lack weather grooves and they do not fit closely to the cladding.
  - A single vertical expressed socket joint at the west end of the northwest elevation does not have continuous foam strip gaskets and, as a consequence, is likely to leak.
  - The lower part of the horizontal two-piece flashing is not riveted to the upper section.
  - Part of the horizontal first floor level joint lacked a visible flashing and further investigation is required to confirm its adequacy.
  - Further investigation is also required to ensure the compliance of the sealed vertical joints.

- The horizontal T-joints generally do not comply with the manufacturer's detail and the T-joint at the first floor level of the northeast elevation is not a consistent close fit to the lower board.

#### **Other cladding systems**

- The sheet metal and plastic cladding to the basement storeroom, which were not shown on the consented drawings, are installed directly onto the framing without the provision of a cavity or a building wrap. The schist cladding at this location is unlikely to survive any earthquake movement. None of these cladding types appear to be adequate.

#### **Decks**

- The decks have a liquid-applied polyurethane membrane applied to them. Some decks lack sufficient falls and one is subject to ponding. The membrane appears to be thinner than recommended and is exposed at some edges, and the Unit 6 decks also lack gutters. The expert also raised concerns regarding the type and installation of the substrates.
- The expert was of the opinion that these anomalies, together with the leakage adjacent to the Unit 6 deck, lead to reasonable concerns that the weatherproofing of the enclosed decks is not adequate.

#### **Roofing**

- The coated metal roofing is subject to the following defects:
  - Fixings are missing at some locations.
  - The barge/roof junctions and the roof light flashings collect water.
  - An aerial support bracket is fixed onto a roofing trough.

5.4.2 The expert also noted that some of the structural steel elements at the ground floor level are inadequately protected from corrosion and rusting has occurred.

### **5.5 Compliance with Clause B1 – Structure**

5.5.1 The expert contacted the consulting engineers for the work who informed the expert that their site review was not confined to just an 'inspection of the foundations, structural steel work, black retaining walls', as indicated on their PS4 form. The site review also included the raised ground floor, the first floor slabs, the bracing, and the deck connections. These items were covered in the engineers' review, which the applicant states was forwarded to the authority.

5.5.2 The expert noted that there was no evidence of distress in the first floor concrete slab or the cladding above it, and concluded that the structural steel members were probably erected out of line. However, the expert noted that some steel members had not been adequately protected from corrosion (refer paragraph 5.4.2).

5.5.3 The consulting engineers were prepared to expand the description of the building work in an amended PS4 form. The expert considered that the revised form should also include the durability of the structural steel elements.

## **5.6 Compliance with Clause C4 – Structural stability during fire**

- 5.6.1 The expert noted that the fire-proofing of the structural steel elements was still ongoing at the time he inspected the building.
- 5.6.2 The expert also contacted the fire engineers for the project, who were aware of the concerns regarding Clause C4. As the fire engineers had not yet inspected all the fire-rated elements of the party walls between the properties they would consider how they would deal with the requirements of that clause.
- 5.6.3 Due to the incomplete state of the building, the expert was of the opinion that it was not currently compliant with Clause C4, and ultimately, the fire engineer should provide a report in due course.

## **5.7 Other Building Code clauses**

- 5.7.1 The expert was of the view that the building did not comply with the requirements of Clause E1.3.3, as two canopies lack gutters and downpipes, there are no gutters or rainwater outlets to two Southwest elevation decks, and the downpipe from the Unit 2 deck was not connected,.
- 5.7.2 The centre wall of the staircase which forms the single means of escape from the upper level apartments has a protruding stringer at the landing which creates a trip hazard. The access route does not comply with Clauses C2 – Means of escape from fire and D1 – Access routes.
- 5.7.3 Further inspections were required to ensure that the requirements of Clause G6 – Airborne and impact sound are met in respect of the unit party walls.

## **5.8 The applicant's response to the expert's report**

- 5.8.1 In a detailed submission received by the Department on 8 August 2011, the applicant responded to the expert's report. As I have carefully read and analysed the applicant's submission, I set out only a summary of the main comments as follows:
- Apart from the one higher reading obtained by the expert, all the invasive moisture inspection tests carried out on the building did not disclose any moisture ingress into the building. The leak adjacent to the Unit 6 deck was due to a defective drainage opening and this has been rectified.
  - The applicant did not accept that the flashings to the exterior joinery fixed in the timber weatherboard clad walls were defective.
  - Flashings had been installed to all eaves, including those with a negative slope and at the balustrades.
  - The bitumen paint applied at the base nib below the corrugated cladding was an added protection and can be maintained or replaced.
  - The inter-storey control joints of the corrugated steel cladding comply with the requirements of the Building Code.

- The applicant has added additional screw fixings to the internal corner of the corrugated steel about which the expert had concerns.
- The grinding of the steel cladding edges had no effect on the durability of the cladding or its code-compliance.
- It was considered that the fibre-cement cladding met the requirements of the Building Code and the cover battens form a protection from UV rays.
- The face of the building is being re-painted.
- The falls to the decks are adequate and comply with code requirements, and the deck membrane is not defective. There was no requirement to provide spouting to the decks to Unit 6.
- The painting of the steel beams is not part of building consent 178711 and is a maintenance item; and the fire protection to the basement beams is now complete.

5.8.2 The applicant also noted that some of the minor issues raised by the expert had been or were in the process of being rectified.

5.8.3 The applicant noted that the expert acknowledged that the building was outside the scope of NZS 3604 therefore 'details in BC178711 and associated amendments must be correct'.

## **5.9 The authority's response to the expert's report**

5.9.1 In a letter to the Department dated 27 July 2011, the authority acknowledged receipt of the expert's report. The authority noted that the report was primarily concerned with Clauses B1, B2, C4, and questioned whether a supplementary report would be produced regarding additional clauses.

## **6. The draft determination**

6.1 Copies of a draft determination were forwarded to the parties on 28 September 2011.

6.2 In a letter to the Department dated 7 October 2011, the authority stated that it accepted the determination, but requested guidance on what should happen subsequent to the determination being made. The authority's suggestion consisted of two paragraphs along the lines of similar statements made in previous determinations issued by the Department.

6.3 In an email to the Department sent on 3 October 2011, the applicant referred to advice in the draft determination that stated the applicant should 'seek an amendment of the original consent in accordance with the completed work'. The applicant was of the opinion that rather than an amendment, this should be a new consent application. The applicant also noted that the fire engineer had provided a PS4. This, together with other documentation, would enable the applicant to apply for a 'CCA'.

- 6.4 In a letter to the Department dated 14 October 2011, the applicant further commented on the draft determination and I summarise these comments as:
- The expert should not consider construction methods that were approved in the building consent.
  - The applicant requested a “ruling” as to the inspections carried out by the authority and the responsibilities and liabilities of the authority in this respect. The applicant also commented on the inspections that had been carried out by the authority and wished the Department to rule that the reports and inspections undertaken by the authority be taken as evidence that the areas covered by these are code-compliant.
  - With regard to the requirements of Clause G6, the applicant described the construction of the fire rated walls and was of the opinion that, as constructed, they exceeded the requirements of the Building Code. In addition, the authority had approved some 50% of the linings in a pre-lining inspection.
  - The structural engineer had expanded his PS4 to include the bracing and decks and this will be forwarded to the authority.
  - The fire engineer had supplied a PS4, confirming that the building was code-compliant.
  - The applicant did not believe that there are defects in the exterior envelope of the building, nor have any such defects been identified by the expert or the authority.
- 6.5 The applicant noted that as regards Clause E1, the spouting to the deck of Unit 6 and the down pipes had been completed, and as to Clause D1, the stair horn had been removed.
- 6.6 The applicant also attached a letter dated 12 October 2011 from a firm specialising in membrane applications. The firm was of the opinion that the waterproofing on the deck surfaces and upstands had been correctly carried out, and was in accordance with Clause E2. Accordingly, a 15-year warranty had been provided.
- 6.7 The applicant accepted that proof of compliance was still required for:
- Clause B2, as regards the exterior cladding
  - Clauses B1, C2, and C4, where PS4 certificates are required
  - Clause G6, where site testing is required.
- 6.8 The applicant also submitted that the steel beams that require painting were not covered by the building consent and should not be considered as being relevant to the determination. I note here that consents for the project were issued for the construction of a four storey building by the authority in stages as follows:
- Building consent SR 173252 issued on 19 February 2008 for Stage 1 of the project described as ‘Stage 1: commercial/residential – excavation, demolition, repiling, retaining walls and slab only’.
  - Building consent SR 178711 issued on 8 September 2008 for Stage 2 of the project, described as ‘4 storey building – basement with stairs, parking area;

ground floor – 2 commercial areas, residential lockup apartment entry. 1st floor – 6 apartments, bedrooms, bathrooms and ensuites; 2nd floor kitchen, living/study areas’.

I therefore consider that the steel beams form part of the building work covered by consent 178711.

6.9 I have carefully considered the comments received from the parties as to the draft determination and have made amendments that I consider to be appropriate.

## **7. Discussion**

### **7.1 The refusal to issue a code compliance certificate**

7.1.1 It is apparent from the documents provided by the parties that insufficient inspections have been carried out by the authority during construction for it to be satisfied on reasonable grounds that the building complies with the Building Code. In addition, I accept the view of the expert that some elements require more intensive investigation.

7.1.2 It is also evident that at the time of the expert’s inspection there was building work yet to be completed. It appears that, in terms of section 92 of the Act, the applicant has pre-empted the completion of the work in applying for a code compliance certificate. An authority would usually undertake a final inspection prior to issuing a code compliance certificate.

7.1.3 It is my view that at the time the application for a code compliance certificate was made the building did not comply with the requirements of the following Building Code:

- Clause B2 insofar as it relates to Clause B1; in respect of the protection of structural steel elements at the ground floor level (refer paragraph 5.4.2)
- Clause B2 insofar as it relates to Clause E2; in respect of the items outlined in paragraph 5.4.1
- Clauses C2 and D1; in respect of the protruding stringer (refer paragraph 5.7.2)
- Clause E1; in respect of the lack of gutters, downpipes, and rainwater outlets as described in paragraph 5.7.1

In addition I consider there was insufficient evidence to establish that the building complied with the following:

- Clause B1 (subject to a PS4)
- Clause C4 (subject to a PS4)
- Clause G6 (subject to on-site testing)

7.1.4 To overcome the lack of inspections it is now for the applicant to provide appropriate evidence as to the compliance of the completed building work for the authority to be satisfied on reasonable grounds, and for the authority to carry out such inspections as it considers necessary. While the expert’s report may assist in this task, it has also identified a requirement for further invasive inspections to take place.

- 7.1.5 I note the authority may wish to accept a revised PS4 documentation from the structural and fire engineers in order to justify acceptance of the elements that will be covered by these.
- 7.1.6 I also note that the expert has identified changes from the original documentation that are apparent in the constructed building work. The applicant should take the necessary steps to seek amendments to the original building consent documentation in accordance with the completed work. I also note that the plans are untitled with no client or owner recorded, no site address, and except for one site plan, no author. These matters should be corrected along with the other amendments noted.
- 7.1.7 In conclusion, I am of the opinion that the authority was correct in its decision to refuse to issue the code compliance certificate.

## **7.2 The code-compliance of the building**

- 7.2.1 I note that the applicant has indicated that work has proceeded to complete the building and that some of the defects identified by the expert have been attended to. However, taking this advice into account, and based on the expert's report set out in paragraph 5, I am of the opinion that there remain elements of the building that do not comply with the Building Code.
- 7.2.2 The structural engineers for the building have indicated that they will be extending the scope of the PS4 document that they had previously issued. This should indicate whether compliance with Clause B1 has been met as far as the structure of the building is concerned. In my view the PS4 should also consider compliance with Clause B2. Accordingly, I am unable to determine at this stage whether the building complies in this respect.
- 7.2.3 The same applies to the compliance of Clause C4, where the fire engineers have indicated that a more comprehensive PS4 document in respect of this clause will be produced.
- 7.2.4 As indicated by the expert, further inspections are required to confirm compliance with Clause G6.

## **8. What is to be done now?**

- 8.1 I consider the application for a code compliance certificate and the determination pre-empted the completion of the building work. On completion of the building work, including but not limited to the rectification of items as described in paragraph 7.1.3, the applicant should notify the authority and request a final inspection.
- 8.2 The authority should undertake a final inspection, and taking into account the further information and documentation provided by the applicant, form a view as to whether the completed building work complies with the Building Code.
- 8.3 Once the authority is satisfied on reasonable grounds that the building work complies with the Building Code the authority may issue a code compliance certificate in respect of building consent 178711.



## **9. The decision**

- 9.1 In accordance with section 188 of the Building Act 2004, I determine that building does not comply with Building Consent No 178711, nor does the work comply with the Building Code; and accordingly I confirm the authority's exercise of its powers in refusing to issue a code compliance certificate.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 29 November 2011.

John Gardiner  
**Manager Determinations**

## Appendix A: The relevant legislation

A.1 The relevant sections of the Building Act are:

**92 Application for code compliance certificate**

- (1) An owner must apply to a building consent authority for a code compliance certificate after all building work to be carried out under a building consent granted to that owner is completed.
- (2) The application must be made—
  - (a) as soon as practicable after the building work is completed; and
  - (b) ...

**94 Matters for consideration by building consent authority in deciding issue of code compliance certificate**

- (1) A building consent authority must issue a code compliance certificate if it is satisfied, on reasonable grounds,—
  - (a) that the building work complies with the building consent; and
  - (b) ...

A.2 The provisions of Schedule 1 of the Building Regulations (the Building Code) referred to in this determination are:

**Clause B2 – Durability**

(insofar as it relates to Clauses B1 – Structure and E2 – External Moisture)

**Clause C2 – Means of escape**

C2.3.3 Escape routes shall be:

- (g) easy and safe to use as required by Clause D1.3.3 “Access Routes”.

**Clause C4 – Structural stability during fire**

**Clause D1 – Access routes**

D1.3.3 Access routes shall

- (b) be free from dangerous obstructions and from any projections likely to cause an obstruction

**Clause E1 – Surface water**

E1.3.3. Drainage systems for the disposal of surface water shall be constructed to:

- (a) Convey surface water to an appropriate outfall using gravity flow where possible,

**Clause G6 – Airborne and impact sound**