



Determination 2015/083

Regarding the refusal to issue a code compliance certificate for a 16-year-old house at 10A Coronation Road, Glenfield, Auckland



Summary

This determination considers the authority's decision to refuse to issue a code compliance certificate: the grounds for the refusal were the authority's concerns regarding the weather-tightness and durability of the exterior envelope, and the performance of a concrete floor slab and the subfloor space beneath with respect to structure and durability. The determination reviews the reasons given for the refusal and considers whether the items identified in the refusal comply with the Building Code.

1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ ("the current Act") made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment ("the Ministry"), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to the determination are
 - the owner of the house, T Imaoka ("the applicant"), acting through the construction company he has engaged as his agent ("the agent")
 - Auckland Council ("the authority"), carrying out its duties as a territorial authority or building consent authority.
- 1.3 This determination arises from the decision of the authority to refuse to issue a code compliance certificate for a 16-year-old house because it was not satisfied that the building work complied with certain clauses² of the Building Code (First Schedule, Building Regulations 1992).

¹ The Building Act, Building Code, Acceptable Solutions and Verification Methods, past determinations and guidance documents issued by the Ministry are all available at www.building.govt.nz or by contacting the Ministry on 0800 242 243.

² In this determination, unless otherwise stated, references to sections are to sections of the Building Act 2004 and references to clauses are to clauses of the Building Code.

- 1.4 The matter to be determined³ is therefore whether the authority was correct to refuse to issue the code compliance certificate for the reasons given in its letter dated 31 March 2015. In deciding this matter, I must consider:
- (a) whether the external building envelope of the house complies with Clause B2 Durability and Clause E2 External moisture of the Building Code that was in force at the time the consents were issued. The building envelope includes the components of the systems (such as the monolithic and brick veneer wall claddings, the deck, the windows and the roof cladding) as well as the way the components have been installed and work together
 - (b) whether other items identified by the authority comply with relevant Building Code clauses: namely Clause B1 Structure and E3 Internal Moisture.
- 1.5 In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Ministry to advise on this dispute (“the expert”) and the other evidence in this matter.

2. The building work

- 2.1 The applicant’s property is a sloping section in a residential area in Glenfield in Auckland. The section slopes approximately 3 metres across the footprint of the applicant’s house, and is in a low wind and medium exposure corrosion zone.
- 2.2 The applicant’s house, built on the property between late 1997 and early 1999, is two storeys in part, and is of a timber-framed construction, supported by piles and concrete masonry retaining walls on concrete foundations. Because of the slope of the section, the subfloor areas under the house and garage can be accessed via two doors set into the retaining wall blockwork.
- 2.3 A double garage is attached to the house on its south-eastern side. The garage has a composite floor (“the garage floor”) formed using a permanent tray deck, which serves as formwork and partial reinforcement for the concrete floor. The tray deck is supported by a timber bearer beam at its centre span, and at the edges.
- 2.4 The lower storey of the house and the attached garage are clad with a brick veneer cladding system installed over a cavity. The upper storey is clad with texture-coated flush-finished fibre cement sheets, which are attached directly to the external wall framing.
- 2.5 The roof is clad with metal tiles at a 15° pitch, and all of the house’s external joinery is aluminium.
- 2.6 The lower storey of the house has an open-slat timber deck leading off the family room and master bedroom on the house’s north-western side. The upper storey of the house has a smaller enclosed deck leading off the living area on the house’s north-eastern side. This upper deck’s surface is covered with a uPVC deck membrane and slopes to an internal gutter along the deck’s north-eastern side, which in turn drains via a scupper outlet to an external downpipe. The deck is enclosed by a solid balustrade, which like the rest of the upper storey, is timber framed, and clad with texture-coated flush-finished fibre cement sheets affixed directly to the framing. The top of the balustrade walls have been capped at some later date with a stainless steel capping.

³ Under sections 177(1)(a), 177(1)(b) and 177(2)(d) of the current Act

3. Background

- 3.1 The authority issued a building consent for the construction of the applicant's house in October 1997. The consent was issued to a previous owner of the house. A further consent for alterations to the bathroom was issued in April 1998.
- 3.2 The authority carried out a final inspection of the building work in February 1999. The field memorandum for the inspection, dated 2 February 1999, notes several matters that still required to be attended to including 'Provide an amended garage slab detail with engineer's Producer Statement Construction Review.' From the documentation I have been supplied with, it is not clear what, if anything, was done in response to this final inspection and memorandum.
- 3.3 From the file, it appears that the previous owner of the house subsequently contacted the authority to arrange a further final inspection of the building work, namely the completed house and garage, with a view to obtaining a code compliance certificate for them. I do not know whether a code compliance certificate was actually applied for at this time.
- 3.4 The authority conducted a final inspection of the house and garage on 31 March 2015, and on the same date sent the previous owner a letter ("the section 95A letter") declining to issue a code compliance certificate for the building work, on the grounds that (emphasis is the authority's):

Following the site inspection and subsequent 'peer review' process, [the authority] could not be 'satisfied on reasonable grounds' that building works comply with the NZ Building Code, or that it is performing as intended.

To advance this process we recommend that you engage the services of a suitably qualified individual (Building Surveyor) who is qualified in Weather Tight assessment and Remedial Design.

This person must further investigate the performance of this building, also taking into account the items [listed in the latter] and provide a 'scope of works' and any recommendations to [the authority] for further review.

- 3.5 The authority's letter went on itemise some of the matters identified during the inspection that required further investigation, including:
- elevated moisture levels in the lower storey family room, above the aluminium ranch slider
 - elevated moisture levels in the lower storey storage area, 'between the subfloor space and the habitable space'
 - the deterioration of fixings, and the presence of fungal growth and decay in the subfloor area, possibly as a result of a 'lack of ventilation & or moisture ingress from above & beneath'
 - the recently installed subfloor vent holes and subfloor access, both of which have been installed through the 'bond beam steel'
 - the tray deck construction of the garage floor, which differs from the 'slab on grade' construction specified in the consented plans and shows signs of deterioration – 'An engineer will be required to review the structure & provide documentation relating to its current performance & future performance relating to [clauses] B1 & B2'
 - whether the timber used in the subfloor area is 'fit for purpose'

- incomplete noggin to the subfloor framing
 - the fixings between the deck bearers and the blockwork on the lower storey deck
 - some of the washers and nuts on the ‘M12 fixings’ on the external stairs and subfloor bearers (which the authority stated were non-compliant with NZS3604:1990)
 - the unsealed gas pipe penetrations for the kitchen
 - the cap flashing installed on the top of the upper storey deck balustrade, and its associated flashings.
- 3.6 I do not know what, if any work, was completed by the previous owner in response to this letter.
- 3.7 In June 2015, the applicant commissioned several reports about the property, including some of the matters raised by the authority. It would appear from the reports that they were commissioned because the applicant was considering buying the property, and was concerned to know the extent of the work required before a code compliance certificate could be issued.
- 3.8 The first of the commissioned reports, is undated and was completed by a ‘Moisture and Weathertightness Consultant’ following a site inspection on 11 June 2015 (“the first report”). The report states it is a ‘Weathertightness Inspection’, and was completed using non-invasive methods. The report recorded highly elevated moisture levels in three areas of the house (using ‘dielectric’ scans), and ‘abnormal surface temperature variations’ at one location (using infrared imagery). The report also recorded some minor issues with down pipes and flashings.
- 3.9 The second report, dated 19 June 2015, was completed by a registered building surveyor (“the second report”). This report referred to the authority’s section 95A letter and identified several issues, including moisture levels in the subfloor area; deterioration of the tray deck to the garage floor; the gutter system; and moisture readings below the upper storey deck. The report recommended that a moisture detection system should be installed at the property and monitored.
- 3.10 The registered building surveyor then provided a further report, dated 25 June 2015, to supplement his report of 19 June 2015 (“the third report”). This report contained information about the subfloor area and the moisture detection system, which had been installed at the property on the previous day. It raised concerns about the moisture levels in the under-stair storage area on the lower storey; whether or not a rebate had been used at the base of the brick veneer cladding system to divert moisture to the exterior; corrosion to the tray deck in the garage floor; the ground level at certain points around the exterior of the house; moisture levels in the lounge ceiling and the integrity of the upper-storey deck membrane immediately above it; the capping on the upper-storey deck balustrade; and the gutter system.
- 3.11 The fourth report was completed by another chartered building surveyor, is dated 20 June 2015, and is also called a ‘Weathertightness Report’ (“the fourth report”). The report concluded that ‘overall, the building envelope is a low to medium risk design in terms of weathertightness and appears free from widespread weathertightness defects or current repair works that need addressing urgently’. Internal moisture level readings taken using a ‘non-invasive scanning capacitance meter’ were all within acceptable levels and ‘No visible signs of leaking or moisture damage were identified internally’. The report recorded general concerns with the direct-fixed

fibre-cement cladding as representing a potential weathertightness risk. It also raised issues with external ground clearances at some locations around the garage; poorly formed roof to wall junctions above the garage; paint finishes to the fibre cement cladding; the absence of sill and jamb flashings around the windows; and deck to wall flashings on the upper storey deck.

- 3.12 The fifth report, dated 25 June 2015, was completed by a moisture monitoring company and reported on the results obtained from the moisture detection system installed in the house on 24 June 2015 (“the fifth report”). The report relied on a variety of evidence collection techniques, including visual assessments of samples taken from framing timbers, strength tests on the framing timbers, the results of timber moisture content readings taken from probes inserted into the framing timbers and surface readings. The report recorded elevated moisture levels at four locations on the lower storey (including at a ‘dangerous’ level at one location within the under-stair storage area), as well as signs of deterioration (visual and strength-based) in timber samples taken from six locations at this level. Visual indications of timber deterioration were found at three locations on the upper storey, but no elevated moisture readings were returned.
- 3.13 At some point following this, the applicant purchased the property. On 15 July 2015, the applicant’s agent emailed the authority attaching copies of the various reports and asking advice about what further steps the applicant should now take in order to be granted a code compliance certificate.
- 3.14 The authority responded in an email dated 27 July 2015. It commented initially on each of the reports provided and went on to say that:

In summary, the Section 95A [notice] issued 31/03/2015 does not appear to have been identified in any of the reports received 15/07/2015...

The Section 95A identifies that suitable qualified individual must further investigate the performance of the dwelling...and provide a ‘scope of works’ and any recommendations to [the authority] for further review. This request has not been completed in full.

In conclusion, the authority stated that if the applicant did not agree with its decision not to issue a code compliance certificate at this stage, he could seek a determination from the Ministry.

- 3.15 The applicant applied for a determination and this was received by the Ministry on 14 August 2015.

4. The submissions

- 4.1 With his application, the applicant made a submission, in which he outlined the background of the dispute between the parties and the reports that he had submitted to date. He stated that:

We have submitted these documents to [the authority] and seek instructions for the repair of the house in order to get CCC. However, [the authority] requests further reports regarding the durability issues from [the applicant] and refuses to advise the repair instructions and therefore issue CCC.

- 4.2 With his application, the applicant submitted copies of:
- the authority’s property file relating to his property
 - the authority’s section 95A letter
 - the five reports.

- 4.3 The draft determination was issued to the parties for comment on 19 November 2015. Both parties accept the draft without comment. The applicant responded on 11 December 2015; the authority on 18 December 2015.

5. The expert's report

5.1 General

- 5.1.1 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 Architects. He inspected the house on 16 September 2015, providing a report completed on 12 October 2015. The parties were provided with a copy of the report on 12 October 2015.
- 5.1.2 In his report, the expert noted the scope of the matters he was engaged to consider, namely those matters that the authority identified in its section 95A letter as being either non-compliant or requiring further investigation, and whether the building complied with clauses B1, B2, E2, and E3 of the Building Code.
- 5.1.3 The expert also noted that, because the external cladding on the house and garage is at least 16 years old, it has passed the 15-year durability period required by the Building Code. As such, the focus of the expert's investigation was on whether the cladding had performed adequately to protect the framing during that 15 year period, and its current performance.
- 5.1.4 The expert observed the following variations from the original consent drawings:
- the garage floor is a composite floor formed with permanent tray deck formwork, whereas the original drawings indicated the floor was to be a concrete slab on grade
 - the external cladding on the upper storey of the house is texture-coated flush-finished fibre cement sheet, whereas the drawings indicated fibre cement weatherboards were to be used
 - the upper storey deck has a uPVC deck membrane applied, whereas the drawings show a liquid applied membrane
 - the lower storey storage area has been extended into the area under the staircase to the upper storey.

Otherwise, the building had generally been constructed as drawn.

5.2 E2 External moisture

- 5.2.1 The expert visually inspected the internal linings of the external walls, and found them to be free of signs of water ingress.
- 5.2.2 The only exception was the storage cupboard under the stairs where there were water stains on the floor and skirting boards. Moisture level readings and laboratory analysis of the framing timber from the external wall bottom plate in this location confirmed that there had been water ingress 'over a prolonged period', including quite recently.

- 5.2.3 In the expert's opinion this was likely to be due to a combination of a lack of adequate tanking to the adjacent concrete masonry retaining wall (see paragraph 5.4.2), water outflow from an adjacent downpipe that is not connected to a drain, the lack of a rebate at the junction between the retaining wall and the brick veneer (see paragraph 5.3.2), and leaks from an unfinished cladding junction (see paragraph 5.3.4).
- 5.2.4 The expert concluded that:
- The damage to the internal linings due to moisture ingress indicates failure to comply with [Building Code] paras B2 and E2. The boron treatment of the framing has evidently prevented decay in the framing to date, but there is reasonable doubt as to whether it would survive the further 34 years necessary for compliance with B2.
- 5.2.5 The expert also took invasive moisture readings of the framing timbers at 36 locations on the external walls of the house and garage. This included all the locations where the fifth report commissioned by the applicant (see paragraph 3.12) had shown moisture levels of 18% or higher, as well as a sample of locations where lower readings had been returned.
- 5.2.6 These readings showed that moisture levels were low (less than 18%) in 30 of the locations tested. In the remaining locations they were between 10% and 34%, placing them in the medium and high moisture level brackets. These readings were:
- 19% in the bottom plate of the south-west house wall (between the walk-in wardrobe and shower in the en-suite bathroom off the master bedroom)
 - 20% in the bottom plate of the internal wall at the same location
 - 18% in the bottom plate of the north-west house wall (adjacent to the family room)
 - 20% in the bottom plate of the south-east house wall (adjacent to the storage cupboard under the internal house stairs: see paragraph 5.2.2)
 - 47% in the north-west balustrade wall of the upper storey deck (the expert noted the framing in this location was obviously rotten).
- 5.2.7 I note that readings over 18% generally indicate that moisture is entering the framing and further investigation is needed. The expert also noted that the readings were taken in spring, after periods of heavy rain, and could be expected to be lower in the summer.

5.3 B2 Durability

Framing timber

- 5.3.1 The expert took samples of wall framing timbers from three separate external walls, which were sent for analysis. This showed that the framing timbers were treated with boron preservative, to preservative level H1. All three samples were found to be free from decay, but had fungal growths.

External cladding

- 5.3.2 The expert investigated the external cladding on each wall to determine whether it had been constructed with a rebate, as this had been raised as a potential issue in the third report (see paragraph 3.10). A rebate was detected on all walls, except for on the south-west wall above the under-stair storage cupboard. The expert considered it likely that this was contributing to the elevated moisture readings and other evidence of water ingress at this location.

- 5.3.3 The expert also measured the separation between the external cladding and the surrounding ground levels, and found that in all but two locations the separation exceeded that specified in acceptable solution E2/AS1, and hence could be considered adequate. The two locations where the base separation was less than that specified in E2/AS1 were:
- at the entrance to the house, however, low moisture readings and other construction details at this location meant that the separation was still adequate
 - on the southern end of the south-west wall, where the lack of separation created a risk of water ingress, and in the expert's opinion further investigation was required.
- 5.3.4 The expert considered the junctions between the brick veneer and fibre cement claddings adequate in most locations, except above the entranceway where the absence of a flashing meant there was a risk of water ingress. The expert considered it likely that this was contributing to the elevated moisture readings in the under-stair storage area.
- 5.3.5 The expert looked at the service penetrations through the cladding, and found these were generally adequate with the exception of one plumbing penetration on the south-west wall, which required sealing and created a risk of water ingress. The expert recommended further testing for the framing timbers at this location to see if they had been affected.
- 5.3.6 The expert also considered the joinery and roof flashing details and considered that these were adequate and constructed in accordance with Acceptable Solutions that applied at the time.

Upper storey deck

- 5.3.7 The expert noted that the membrane on the upper storey deck was now at the end of the 15 year durability period required by the Building Code, and appeared to have performed adequately.
- 5.3.8 He also noted that the stainless steel capping on the balustrade of the upper storey deck had been 'retro fitted some time after construction of the house'. High moisture level readings were taken from the deck framing timbers, and when the capping and cladding were removed in one location the top plate was 'obviously rotten'. The expert concluded that, 'The leaks which had led to the rot were almost certainly due to the use of horizontal fibre cement capping without a waterproof membrane...prior to the installation of the stainless steel capping.' The expert also found flaws in the current capping and recommended that the balustrade should be rebuilt with a new compliant capping.

Lower storey deck

- 5.3.9 The expert noted that new fixings had been installed on the stringers for the lower storey deck and that these were not in accordance with the fixings specified in NZS 3604: 1999. As a result, an engineer's opinion would be needed to determine if they were adequate.
- 5.3.10 In addition, the moisture readings and laboratory analysis of the framing timber from the bottom plate in the wall adjacent to the door on to this deck showed that there had been 'moisture ingress over a prolonged period'. Further investigation was necessary to determine the cause of the water ingress.

- 5.3.11 The expert further noted that the floor on the inside of the deck door was water stained. Although this may have been caused by the door being left open, it could also be caused by ‘wind driven rain between the deck membrane upstand and the door.’

5.4 B1 Structure

- 5.4.1 The expert noted the difference between the garage floor, as built, and as shown on the consented plans, and stated that the change had probably come about to ‘avoid the large volume of fill necessary’. He noted that although an engineer’s calculation had been provided (at the time) for the central supporting beam, there was not one for the floor itself. From this, he concluded that there was ‘a lack of evidence as to compliance with [Building Code] Clause B1 [and] doubt as to compliance with B2’. He recommended that ‘an engineer’s opinion should be obtained’.
- 5.4.2 In addition, the expert noted that there were several cracks in the garage floor, and that the edges of the steel tray deck are corroded where they are in contact with the timber beams. In the expert’s opinion, the causes of the corrosion were probably moisture left over from when the concrete floor was poured, a lack of separation between the steel fixings used between the tray deck and the beams, and lack of weatherproofing (tanking) for the unpainted masonry block subfloor walls. The expert concluded that:

Clearly this has caused a loss of thickness of steel, it is continuing and this leads to doubt as to the performance of the floor for the remaining 34 years of the durability period required for the floor....An engineer’s opinion will be required as to whether the flaking rust has or will cause sufficient loss of steel to result in failure, and if so, to provide a method of repair.

5.5 E3 Internal moisture

- 5.5.1 Moisture level readings and laboratory analysis of the bottom plate of the internal wall between the walk-in wardrobe and the shower in the en-suite off the master bedroom confirmed that there had been moisture ingress at this location over a prolonged period’. In the expert’s opinion there were no external risk factors to account for this ingress, and it was more likely that it was due to ‘a plumbing or shower leak concealed in the wall or floor. Further investigation will be necessary to confirm this.’

6. Discussion

6.1 General

- 6.1.1 I note that the building consents considered in this determination were issued under the former Act, and accordingly the transitional provisions of the current Act apply when considering the issue of a code compliance certificate for work completed under these consents. Section 436(3)(b)(i) of the transitional provisions of the current Act requires the authority to issue a code compliance certificate only if it ‘is satisfied that the building work concerned complies with the building code that applied at the time the building consent was granted’.
- 6.1.2 In order to determine whether the authority correctly exercised its power in refusing to issue a code compliance certificate for this house, I must therefore consider whether the matters raised in the authority’s section 95A letter dated 31 March 2015, comply with the relevant clauses of the Building Code.

6.2 The authority's concerns

6.2.1 Table 1 summarises the authority's concerns, together with the expert's responses. I have added my comments in brackets where I consider appropriate.

Table 1

| Areas of concern as set out in section 95A letter | | Comment | Relevant paragraphs in this determination |
|---|--|---|---|
| 1 | Moisture levels in the lower storey family room | Joinery flashings are adequate. Evidence of water ingress at base plate, adjacent to door. (Further investigation needed.) | 5.3.6, 5.3.10, 5.3.11 |
| 5 | Moisture levels in the lower storey storage area | Evidence of water ingress. Various factors were likely to be contributing. Does not comply with Clauses B2 and E2. (Further investigation needed.) | 5.2.2, 5.3.3, 5.3.5, 5.4.2 |
| 6 | Deteriorated fixings, and fungal growth and decay in the subfloor area | Agreed. | 5.4.2 |
| 7 | Subfloor vent holes and access installed through the 'bond beam steel' | Vents and polythene membrane laid over the subsoil 'are likely adequate'. Agreed re cutting through of bond beam. (Engineer's opinion required.) | |
| 8 | Tray deck construction of the garage floor – difference from construction specified in the consented plans | Inadequate evidence of structural performance of tray deck floor. (Engineer's opinion required.) | 5.4.1 |
| 9 | Tray deck construction of the garage floor – signs of deterioration | Agreed. (Engineer's opinion required.) | 5.4.2 |
| 10 | Timber in subfloor area | Vents and polythene membrane laid over the subsoil 'are likely adequate'. | |
| 11 | Nogging in subfloor area is incomplete | Not specifically considered | - |
| 12 | Fixings on lower storey deck | Agreed. (Engineer's opinion required.) | 5.3.9 |
| 13 | Fixings on external stairs and subfloor bearers | Agreed. | 5.4.2 |
| 14 | Unsealed gas pipe penetrations | Service penetrations were generally acceptable with the exception of the unsealed penetration to the drain serving the WC. (Further investigation needed.) | 5.3.5 |
| 15 | Cap flashings on upper storey deck | Top plate was 'obviously rotten'. Original capping was non-compliant, and current capping had inadequate flashings. Recommended rebuilt. | 5.3.8 |

6.3 The external building envelope

- 6.3.1 I note that an application can be made to the authority for a modification of durability periods in Clause B2.3.1 to allow the durability periods to commence from the dates of substantial completion in 1999. Although that matter is not part of this determination, I have taken the age of the building work into account when considering the performance of the exterior building envelope.
- 6.3.2 It is clear from the expert's report that, in some respects, the external envelope of the house is not currently complying with Clause E2, in that it is not preventing the ingress of moisture, or is absorbing or transmitting moisture 'in quantities that could cause undue dampness'.
- 6.3.3 In my opinion, these instances of non-compliance are due to specific and localised failures of the external envelope, as described herein, and are not indicative of a systematic failure of the building envelope. In most respects, it would appear that the elements and systems that make up the external envelope have performed satisfactorily throughout their 15 year durability period.
- 6.3.4 However, there has been some moisture penetration leading to a failure of Clause E2 and in my opinion the authority was correct to refuse to issue a code compliance certificate for the building work until such time as this is addressed.
- 6.3.5 In addition, although the durability requirements of Clause B2 for wall claddings require them to remain weathertight for a minimum of 15 years, the expected life of the underlying structure is considerably longer at 50 years. Careful maintenance is therefore needed to ensure that claddings continue to protect the underlying framing for its minimum required life of 50 years for the structure.
- 6.3.6 As I have stated in paragraph 6.3.3, the current failure of the external envelope to comply is due to isolated defects, and once the cause of these defects have been properly investigated and remedied, it should be possible to render the current envelope compliant. However, final decisions on whether code compliance can be achieved by remediation or re-cladding, or a combination of both, can only be made after a more thorough investigation of the external envelope and of the condition of the underlying timber framing. This requires a careful analysis by an appropriately qualified expert, with the chosen remedial option submitted to the authority for its approval.
- 6.3.7 I note that the Ministry has produced various guidance documents⁴ on weathertightness remediation which will assist the applicant in understanding the issues and processes involved in remediation work to the cladding, and in exploring various options that may be available when considering the upcoming work required.
- 6.3.8 I note also that, although the direct fixed fibre cement cladding system currently used on the upper storey of the house appears to have performed satisfactorily to date, since it was installed it has come to be considered a weathertightness risk, and may require replacing in the longer term. This issue was raised in the several of the reports commissioned by the applicant before he purchased the property and as a result is likely to be a requirement that he is already aware of it.

⁴ Weathertightness guidance documents are available through the Ministry's website at <http://www.building.govt.nz/weathertightness-guides>

6.4 Clause B1 structure

- 6.4.1 The authority has raised concerns about whether the garage floor, as constructed, complies with Clause B1 of the Building Code, and the expert has supported these concerns.
- 6.4.2 I concur with the expert's opinion in this regard that there is insufficient evidence available to determine whether the floor complies with Clause B1 and B2, and that further information from a suitably qualified person is needed. The expert's assessment should take into account both the construction of the floor and the impact that the subsequent deterioration of its components is having on its ongoing ability to comply.

6.5 Other matters

- 6.5.1 In his report, the expert raised several other matters (including the internal leak to the shower, and the adequacy of the various fixings used) and I concur with his opinion that these matters will need to be investigated and addressed before the building work can be considered code compliant.
- 6.5.2 In his submission, the applicant expressed his concern that the authority had refused to tell him what repairs were required. However, the responsibility for making a building code compliant rests with the owner, and that the authority is correct when it states that the applicant needs to go to it with a proposal for how he intends to achieve this, which the authority will then consider.

6.6 Conclusion

- 6.6.1 For the reasons discussed above, I conclude that the building work does not currently comply with Clauses B2, E2 and E3 of the Building Code, and as a result, the authority was correct in its decision to decline the code compliance certificate. There is presently insufficient evidence to establish whether the work complies with Clause B1 Structure.

7. What happens next?

- 7.1 The applicant should develop and submit a detailed proposal to the authority to address the matters of non-compliance and requiring further investigation, as detailed in this determination. This should be produced in conjunction with suitably qualified people who are experienced in weathertightness remediation and structural engineering matters, and submitted to the authority for its consideration and approval. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding determination.
- 7.2 As stated in paragraph 6.3.1, it is open for the applicant, once the necessary remedial works have been agreed and satisfactorily completed, to apply to the authority for a modification of durability requirements, to allow the durability periods to commence from the dates of the building work's substantial completion in 1999.

8. The decision

8.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:

- the external envelope of the house does not comply with Clauses B2 and E2 of the Building Code, and other aspects of the building work do not comply with Clauses B2 and E3
- as a result, I confirm the decision of the authority to refuse to grant a code compliance certificate for the building work.

8.2 I consider there is insufficient evidence to establish whether the work complies with Clause B1 Structure.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 23 December 2015.

John Gardiner
Manager Determinations and Assurance