



## Determination 2021/008

### Regarding the authority's decision to issue a code compliance certificate for a new dwelling at 19A Te Atatu Road, Auckland



#### Summary

This determination considers whether an authority was correct to issue a code compliance certificate for a new dwelling. The determination considers whether the building is compliant, and whether the authority would have been aware of any non-compliance when issuing the code compliance certificate.

## 1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004 (“the Act”) made under due authorisation by me, Katie Gordon, National Manager Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.<sup>1</sup>
- 1.2 The parties to the determination are:
  - the owners of the house, Waiatarua Trust (“the owner”), acting through a lawyer (“the agent”)
  - the licensed building practitioners concerned with the relevant building work, T Cathro (“the builder”) and T Callesen (“the blocklayer”)
  - Auckland Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.

<sup>1</sup> The Building Act and Building Code (Schedule 1 of the Building Regulations 1992) are available at [www.legislation.govt.nz](http://www.legislation.govt.nz). Information about the legislation, as well as past determinations, compliance documents and guidance issued by the Ministry, is available at [www.building.govt.nz](http://www.building.govt.nz).

- 1.3 This determination arises from the decision of the authority to issue a code compliance certificate in 2013 for the then newly constructed house. The owner is of the view there are a number of defects with the building and the code compliance certificate should not have been issued.
- 1.4 The matter to be determined<sup>2</sup> is therefore whether the authority was correct to issue a code compliance certificate for building work carried out under building consent no. ABA 2012-1351.
- 1.5 In making this determination, I must consider the building work as it was at the time the authority made that decision and whether that building work complied, and if it did not comply with the Building Code whether this would have been apparent to the authority. In considering whether the authority's decision should be confirmed, reversed or modified, I have also taken into account the evidence that is now available about the compliance of the building work.
- 1.6 The agent identified a number of issues with the building. However, the determination is limited to the following areas, being the work within the scope of the building consent for which the code compliance certificate was issued:
- Garage blockwork walls and plaster to the east elevation of the garage;
  - Building envelope (with regard to ground clearances);
  - Perimeter foundation;
  - Bathroom concrete floor slab;
  - Kitchen/living room area floor; and the
  - Shower installation.
- 1.7 The consented plans indicated a timber retaining wall to the south, but did not include any details for its construction beyond the notation '0.9 high timber retaining wall'. Nor did the plans show a timber retaining wall and path that has been constructed on the north side between the building and the driveway. I am of the view that this work is not within the scope of the building consent and I will not consider these two walls further.
- 1.8 Other issues raised by the agent are outside the scope of the determination because they are either workmanship disputes or work carried out after the code compliance certificate was issued, or otherwise outside the scope of the building consent for which the code compliance certificate was issued.

## 2. The building work

- 2.1 The building work consists of a detached split-level house that is two storeys high in part. It is unit 1 of a two-unit development, and is situated in a low wind zone<sup>3</sup> as set out in NZS 3604<sup>4</sup>. The drawings and the experts take the main entry as west-facing and this determination follows that convention.
- 2.2 The site slopes sharply down to the east, with a shared driveway providing access from Te Atatu Road to this house and unit 2 further down the slope. The 4-bedroom house is simple in plan and form and is assessed as having a low weathertightness

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<sup>2</sup> Under sections 177(1)(b) and 177(2)(d) of the current Act.

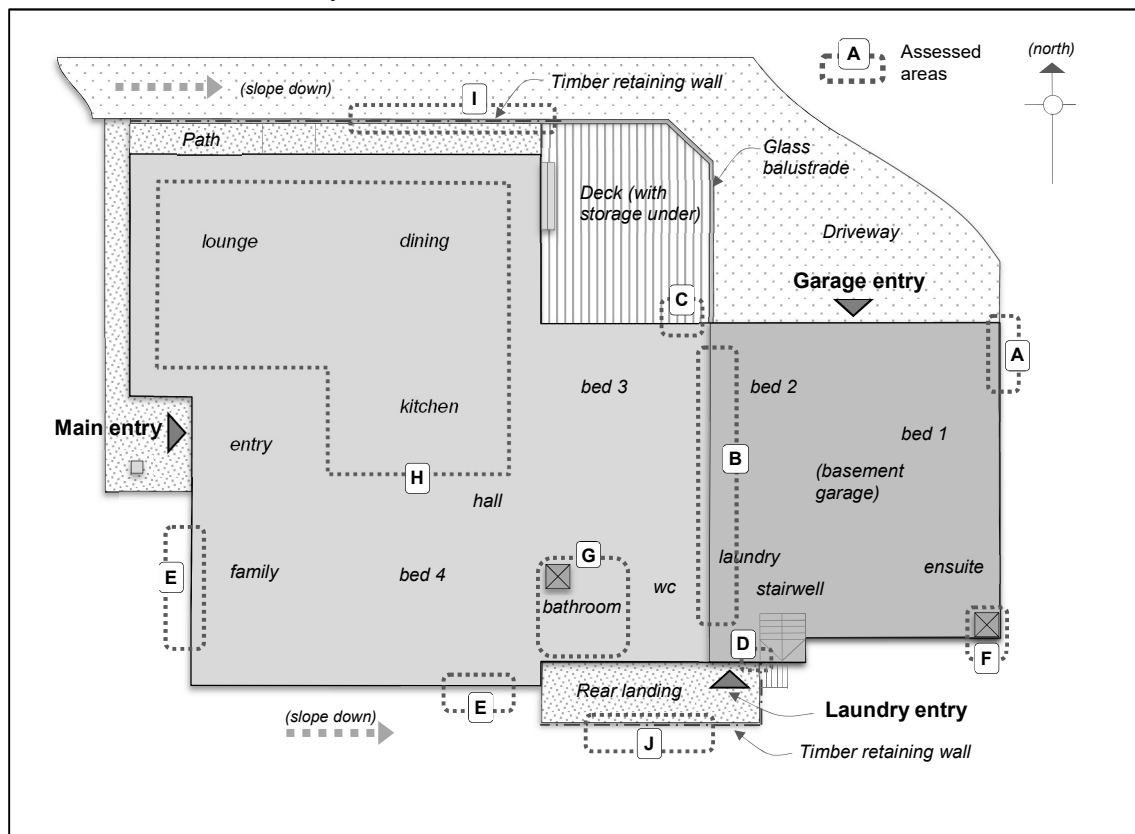
<sup>3</sup> Based on the consented engineering calculations

<sup>4</sup> New Zealand Standard NZS 3604:2011 Timber Framed Buildings

risk.

### 2.3 The house accommodates the following:

- In the upper split level:
  - the recessed main entry, open plan kitchen, dining and lounge (“the living area”) opening onto the north and east facing deck (“the deck”);
  - family room and bedroom 4; and
  - stairs leading down 800mm to the lower split level
- In the lower split level:
  - bedroom 1 and ensuite (“the ensuite”), and bedrooms 2 and 3;
  - bathroom (“the bathroom”) and separate toilet;
  - laundry opening onto the south landing (“the landing”); and
  - stairs (“the stairs”) leading down to the basement
- In the basement:
  - the double garage (“the garage”) opening onto the north elevation concrete driveway.



**Figure 1: Approximate site plan**

2.4 The floor construction is concrete slabs on all three levels supported on strip footings with reinforced concrete perimeter piles. The basement walls are reinforced concrete masonry retaining the ground on the west elevation and supporting a suspended concrete floor to the living area above. The upper split levels are conventional timber framing. Doors and windows are single glazed aluminium and walls are clad with brick veneer and bevel-back weatherboard panels to gables and above windows. The 15° pitch gabled roofs are trussed and clad in concrete tiles.

- 2.5 There is a timber retaining wall supporting a concrete path on the north elevation that leads to the timber framed deck with glass balustrades. There is another timber retaining wall supporting a concrete landing outside the laundry on the south elevation.
- 2.6 The drawings call for the framing timber to be KD H1.2 treated, which indicates the use of boron treated kiln dried framing. Given the common use of H1.2 framing when the house was constructed in 2013, I consider it highly likely that the wall framing is treated to resist fungal decay.

### 3. Background

- 3.1 On 12 December 2012 the authority issued the building consent (ABA 2012-1351). The consent was for a two-level split dwelling with four bedrooms, double internal access garage in the basement, timber decks and block retaining wall. The authority's inspection summary indicates that the authority and/or the owner's engineer carried out various inspections during construction, including:
- Foundations, floor slab, concrete block and membrane tanking in January 2013;
  - Plumbing, drainage and floor slab in February 2013;
  - Framing, cavity wrap and cladding in March 2013;
  - Plumbing, pre-line and post-line in April 2013;
  - Membrane tanking in May 2013; and
  - Final in August 2013.
- 3.2 The authority issued a code compliance certificate for the building work carried out under the building consent on 18 October 2013.
- 3.3 The owner purchased the property in February 2014 and subsequently became aware of issues with the building, some of which were later remediated.
- 3.4 A structural review was undertaken in 2016 by a firm of consulting engineers, resulting in a report dated 24 May 2016 ("the structural condition report"). The report noted a number of "structural defects" that were observed during a walkover inspection (summarised below) and made a number of recommendations for remediation:
- The shallow foundation embedment of the perimeter foundation below the deck on the north elevation is allowing soil to spill out from below the foundation and slab, leaving the slab partially unsupported, noting that the foundation is piled.
  - The foundation along the southern wall also appears to be shallow and while also piled there is a risk of further deterioration of the surrounding soil and eventually undermining of the foundation and slab.
  - A 20mm gap has opened between the top of the senton piles of the retaining wall on the northern perimeter and the horizontal timber boards, and there are signs of movement/rotation of the timber posts.
  - The southern boundary retaining wall is lacking support to the horizontal timber boards on the southern side of the corner. Movement in the boards and separation between them is evident.

- In addition, non-structural items noted were: evidence of moisture ingress through the block wall at the back of the garage, with evidence of a paint on membrane repair in this area; a thin grout topping over the existing garage slab, with extensive cracking and delamination.

3.5 A firm of property and building consultants were engaged to provide a scope of remediation works, which was provided in a letter dated 23 March 2017. This included works to the south elevation foundations (below the deck) and repairs to the deck, the north/east elevation foundations, construction of new retaining walls, exposure and investigation of the garage block wall tanking membrane, lowering of ground levels, and other external and internal items. The consultants also provided their opinion on which of the items would or would not have been apparent when the owner took possession of the building.

3.6 The Ministry received an application for a determination on 13 March 2019.

## **4. The submissions**

4.1 The owner's submission dated 19 March 2019 included copies of:

- the record of title;
- the building consent;
- the authority's site instruction and inspection records;
- the owner's engineer's PS4 construction review;
- the authority's internal checklist, technical review and code compliance certificate;
- a report dated 19 March 2019 from the consulting engineer engaged by the owner, plus a schedule of the identified defects, building code breaches and recommendations (refer to Table 1); and
- a table of defects identified by the consulting engineer, and the firm of property and building consultants commissioned by the owner.

4.2 The builder made a submission on 9 May 2019 that included the following:

- a copy of a letter dated 22 June 2015, marked up with comments on progress remediating defects;
- recollection of events related to making good defects; and
- the following summarised comments on the defects alleged in the consulting engineer's report (limited to the areas identified in paragraph 1.6):
  - the control joint details are on the engineering plans (contradicting the assertion that the detail for the vertical control joints in the concrete blockwork was not detailed on the plans);
  - the mould observed on the garage north and east internal walls is likely internal moisture from condensation due to wet cars parking in the garage (Area A);
  - it is unlikely that water could create enough pressure to penetrate the concrete filled masonry walls sealed on the outside;
  - there was no evidence of water penetration on any of the garage walls;
  - the mould shown on the engineer's photos has been growing since 2015;

- the damage indicated on the stairwell photo (Area D) is condensation on the corner growing mould (contradicting the observations of leakage and efflorescence to the garage blockwork around the stairwell, and deterioration of timber framing in the stairwell due to water ingress);
- the excavation under the [west garage] foundation was not how it was left and not what the authority inspected (Area C);
- the timber exterior retaining walls, decking and exterior concrete may have moved due to wet and dry conditions and are just part of normal ageing (Areas I and J); and
- the house was in good structural condition when completed and inspected and there is no reason for the code compliance certificate to be changed.

4.3 The authority made a submission on 29 May 2019 in response to the owner's schedule of defects, which are summarised in the following Table 1 (limited to the areas identified in paragraph 1.5):

**Table 1: Authority's response to the schedule of defects**

Area	Alleged defect (summarised)	The authority's response (in summary)
Garage plaster cracking (Area A)	Horizontal cracks in plaster coating on south, east and north garage elevations	<ul style="list-style-type: none"> <li>• no cracks observed or noted at final inspection</li> <li>• likely due to shrinkage</li> <li>• should not affect blockwork performance if well maintained</li> </ul>
Garage masonry construction (Area A)	Poor construction resulting in water ingress, mould, and efflorescence to exterior walls	<ul style="list-style-type: none"> <li>• no comment on non-retaining walls</li> <li>• further investigation required to determine cause</li> </ul>
Garage west masonry construction (Area B)	Western full height retaining wall lined post construction. Unable to verify presence of subsoil drain	<ul style="list-style-type: none"> <li>• tanking membrane inspection passed for retained ground sections, drain coil noted</li> <li>• reliance for back filling on contractor who provided PS3</li> </ul>
Perimeter foundation height (Area E)	Base of foundation constructed above current ground level. Could result in leakage of hardfill, which would damage slab floor	<ul style="list-style-type: none"> <li>• perimeter piles eliminate risk of foundation beam subsiding</li> <li>• ground levels have dropped due to weather &amp; erosion</li> <li>• property maintenance issue</li> </ul>
Perimeter foundation quality (Area E)	Large voids and poorly compacted concrete adversely affecting strength and durability of foundation	<ul style="list-style-type: none"> <li>• quality of concrete placing is outside authority's control</li> <li>• structure appears to be performing</li> </ul>
Ground clearances (Area E)	Inadequate ground clearances from the brick veneer cladding	<ul style="list-style-type: none"> <li>• at the time of final inspection, the ground clearances were checked and considered compliant</li> </ul>
Shower installation - ensuite (Area F)	Enclosure leaking at tile/wall/tray junction causing deterioration of wall finishes. Shower base not level and does not drain effectively	<ul style="list-style-type: none"> <li>• shower installation checked during final inspection including spray testing junctions to look for leaks, no issues found</li> <li>• sealants deteriorate over time and require maintenance to ensure ongoing compliance</li> </ul>
Shower installation - bathroom	Poor installation caused leaks resulting in deterioration of wall	<ul style="list-style-type: none"> <li>• visible signs of damage have not been</li> </ul>

Area	Alleged defect (summarised)	The authority's response (in summary)
(Area G)	linings and sticky substance on wall	addressed by owner
Bathroom floor (Area G)	There is a hollow in the bathroom floor slab	<ul style="list-style-type: none"> <li>• full dimensions of hollow not provided</li> <li>• acceptable tolerance is +/- 5mm over 3m distance or +/- 12mm over 6m (NZS 3109 Table 5.2)</li> </ul>
Living area floors (Area H)	Kitchen/living floor slopes and kitchen overlay flooring is loose and/or springy in sections	<ul style="list-style-type: none"> <li>• at the time of inspection all works complied</li> <li>• the overlay is not a compliance issue</li> </ul>

- 4.4 On 5 December 2019 I sought further information from the parties about whether all topsoil and bad ground was removed from the building platform and surrounding area, and whether the building consent was supported with a geotechnical report or one was produced at some other stage, either for this unit or the unit on the rear lot.
- 4.5 On 12 December 2019, the owner advised that there is no geotechnical report, and when areas at the front of the house were dug over extensive rubble was visible that was previously concealed with bark, sand and ready lawn.
- 4.6 The authority provided further comments and PS4 certificates from a geotechnical engineer on 18 December 2019. In summary, the inspector doing the concrete slab inspection relied on the geotechnical engineer to provide certification of the ground conditions.
- 4.7 A draft determination was issued to the parties for comment on 1 October 2020.
- 4.8 The owner responded on 29 October 2020, providing comment from the consulting engineer and a report dated 24 May 2016 from another firm of consulting engineers that had been engaged to provide a structural condition report (see paragraph 3.4) and a scope of works from a firm of property and building consultants (see paragraph 3.5). The owner also provided comments regarding the scope of the determination and additional background information regarding the building work.
- 4.9 The owner's consulting engineer was of the opinion that:
- The timber pole walls should have formed part of the building consent because, in the absence of sub-floor retaining walls on the north elevation, they are relied on to retain the sub-floor fill.
  - The timber pole walls have a significant slope surcharge and would have required a building consent.
  - The poor compaction of the concrete foundation beam, which has resulted in large voids forming in the concrete, will result in the concrete being highly porous in these locations. This will result in significantly reducing the effective concrete cover over the steel reinforcing, which will potentially affect durability and compliance with Clauses B2 and B1.
  - Compliance of the foundation design with Clause B1 appears not to have been verified during the consenting process: The placement of more than 0.6m of fill on the site required specific geotechnical appraisal regarding the settlement of the original ground, as well as consideration of the stability of the sloping ground under the weight of the fill. The site has also not been assessed for soil expansivity in accordance with NZS3604:2011.

- 4.10 On the same day the authority responded to the draft determination supporting the conclusion that it was originally correct to issue the code compliance certificate, and in its view had reasonable grounds to be satisfied the building work complied with the building consent based on its own observations and producer statements it received. The authority noted the reversal of the code compliance certificate does not achieve a practical result but it did not challenge that decision. The authority requested the determination clarify work that was carried out after the code compliance certificate was issued e.g. the wall installed in front of the garage east block wall, and the plastering on the inside of the exterior block wall.
- 4.11 The builder responded to the draft determination on 31 December 2020 that they did not agree with the decision to reverse the code compliance certificate, noting that they considered that decision to be out of proportion to the problems identified. The builder also noted that they had not seen any evidence of water penetration through the basement walls.
- 4.12 The blocklayer did not provide a response to the draft determination.

## **5. The experts' reports**

### **5.1 General**

- 5.1.1 I engaged independent technical experts to assist me: a Chartered Professional Engineer (“the structural expert”) and a qualified building surveyor (“the building surveyor”).
- 5.1.2 The building surveyor’s report was provided on 13 March 2020. The structural expert’s report was provided on 20 March 2020. Both reports were sent to the parties on 20 March 2020.

### **5.2 The structural expert’s report**

- 5.2.1 The structural expert provided opinions on the compliance of the foundations, floor slabs and retaining walls. The structural expert’s report included a written exchange with the geotechnical engineer who provided the PS4 certificate noted in paragraph 4.6. Relevant comments from that exchange include the following (in summary):
- the PS4 certificate was issued on the basis that the foundation piles and floor slab filling were in accordance with the consented approved foundation design;
  - the slab fill was compacted clay soils with a hardfill surface layer;
  - testing of the clay fill involved drilling several hand auger boreholes through the fill to ensure no topsoil was present, to test the fill strength and quality and to determine the subgrade soil conditions beneath the fill;
  - a visual assessment of the fill and subgrade soils within the cut face for the lower level garage retaining wall indicated the fill soils and natural subgrade soils were appropriate for slab on grade construction with all foundation loads being carried by the pile foundations;
  - the above confirmation of the ground and fill suitability reinforced the structural expert’s observations, but did not address concerns with respect to the effect of the weight of the fill; and



- NZS 3604 current at that time required geotechnical investigation where the depth of fill beneath the slab exceeds 600 mm.<sup>5</sup>

5.2.2 The structural expert's opinions included the following (in summary, with Areas referenced as per Figure 1):

- The garage masonry walls:
  - the basement masonry walls (other than the west wall which was not visible) have been plastered on both faces, which is unusual;
  - some random minor cracking to the plaster is visible;
  - some of the exterior plastering has been taken too high, partially blocking the brick veneer bottom course weep holes and restricting drainage;
  - the weep holes were not installed at consistent centres; and
  - vertical cracks indicate plastered over "control joints" typically installed at 6m centres in non-critical locations that do not affect code compliance.
- At the garage west retaining wall (Area B):
  - the full height masonry retaining wall cannot be viewed, as a lined partition has been constructed in front of it;
  - it is understood the partition was installed since the code compliance certificate was issued, concealing tanking membrane remedial works;
  - the area partially excavated behind the garage masonry retaining wall (Area C) exposed under-slab hardfill comprised of broken concrete, bricks, and general rubble that would not necessarily compact readily and could result in slumping to the concrete slab, affecting compliance with Clause B1; and
  - this excavation is likely to have occurred since the issue of the code compliance certificate, to enable inspection of the tanking membrane on the back face of the masonry retaining wall
- At the perimeter foundations (Area E):
  - the lack of any visible cracking in the brick veneer and foundations indicates foundation settlement has not occurred;
  - exposed bottom edge plaster lines indicate settling of the ground outside the building footprint, which does not affect compliance with Clause B1;
  - inadequate concrete vibration observed in some areas appears to be cosmetic and assuming adequate steel reinforcing cover, does not affect compliance with Clauses B1 and B2;
  - if sub-floor material "leakage" at steps in the perimeter strip foundations continues, the concrete floor slab will be inadequately supported within 50 years, affecting compliance with Clauses B1 and B2; and
  - the exposed hardfill material around the perimeter foundations may not have been evident to the authority at the time of code compliance certificate inspection.

### 5.3 The building surveyor's report

5.3.1 The building surveyor provided opinions on the compliance of the garage and the ground clearances regarding external moisture, the shower installation, and whether the kitchen and living room floors were sloping (in summary as follows, with Areas as per Figure 1):

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<sup>5</sup> NZS3604:2011 clause 7.5.3.1.

- At the garage east masonry wall (Area A):
  - there is widespread mould growth and staining on the garage interior plaster, most intensely around the vertical control joints;
  - cracking to the exterior plaster is likely due to workmanship issues and exacerbated by water ingress getting behind the plaster (confirmed through dye testing); and
  - water ingress has likely occurred through cracks in the exterior plaster and from water ingress at the brick veneer drainage slots, finding the path of least resistance through the vertical control joints and spreading out from there, breaching Clause E2.
- At the garage west masonry retaining wall (Area B):
  - it was not possible to directly check the adequacy of waterproofing, drainage or fill; and
  - no direct drainage line was visible in the nearby cesspit.
- At the garage south stair masonry retaining wall (Area D):
  - water damage was visible to the stair timber and wall linings below a large gap at the junction between the rear landing and masonry wall
  - the rear landing has moved away from the building allowing water from a constantly dripping overflow and rain to discharge down the insufficiently waterproofed masonry wall.
- At the ground clearances (Area E):
  - soil levels have been built up against the cladding in some areas;
  - about one-third of clearance measurements were well below those set out in the building consent and the Acceptable Solution<sup>6</sup> E2/AS1 in effect in 2012;
  - the south elevation ground near the building appeared to have been washed away, exposing the foundation and slab edge; and
  - no water ingress was observed related to the ground clearance issues.
- At the ensuite bathroom shower (Area F):
  - the shower tray has been installed incorrectly out of plumb and without the required upstand to the wall lining, resulting in mould growth, significant water ingress and damage to timber framing and internal linings; and
  - the as-built upstand detail is reliant on sealant and is not in accordance with the consented drawings or the Acceptable Solution E3/AS1 current at the time.
- At the main bathroom shower (Area G):
  - the shower tray has been installed incorrectly without the required upstand to the wall lining, resulting in mould growth, water ingress, damage to wall linings and likely damage to timber framing, breaching the performance requirements of Clause E3;
  - the as-built upstand detail is reliant on sealant and is not in accordance with the consented drawings or the Acceptable Solution E3/AS1 current at the time; and
  - the installation of the timber trim between the shower glass and bathtub was not waterproofed and showed signs of deterioration.

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<sup>6</sup> Acceptable Solutions and Verification Methods are produced by the Ministry and, if complied with, must be accepted by a building consent authority as establishing compliance with the Building Code (refer section 19 of the Act).

- At the kitchen floor slab (Area H):
  - the kitchen overlay flooring showed some hollowing toward the edge and falls outside acceptable levels, both considered workmanship issues; and
  - settlement of the concrete slab was not observed.
- At the living room floor slab (Area H):
  - four indicative measurements over the carpeted area suggested levels outside or close to acceptable tolerances;
  - a single measurement on the tiled surface showed a measurement outside acceptable tolerances;
  - given the measurement inaccuracies and amenity assessment, the falls are assessed as subjectively ‘just acceptable’ and the result of workmanship issues; and
  - settlement of the concrete slab was not observed.

## 6. Discussion

### 6.1 General

- 6.1.1 The matter to be determined is whether the authority was correct in its decision to issue a code compliance certificate for the owner’s dwelling with respect to the items identified in paragraph 1.6 of this determination.
- 6.1.2 Previous determinations (see for example 2008/030<sup>7</sup> and 2019/003<sup>8</sup>) have established that considering an authority’s decision to issue a code compliance certificate and whether that decision should be confirmed or reversed by determination is a two-step process. Consideration should be given to whether the building work was completed in accordance with the building consent and whether any non-compliance with the Building Code was evident at the time of the authority’s decision. In making a decision under section 188 of the Act to confirm, reverse or modify the authority’s decision, I have also considered the evidence available now about the compliance of the building work.
- 6.1.3 The relevant clauses of the Building Code that were current at the time the building consent was issued are in Appendix A.

### 6.2 Compliance

- 6.2.1 I have considered the opinions of the structural expert and building surveyor and the submissions provided by the parties. I consider the experts have found sufficient evidence to show that a number of areas require significant attention. Taking account of the experts’ reports, I am satisfied that the following areas require further investigation and/or repair:
- garage west masonry retaining wall (Area B);
  - leakage at the steps of the perimeter foundation (Areas C and E);
  - ground clearances (Area E);
  - interior moisture damage at showers (Areas F and G);
  - investigation and repair regarding moisture penetration at:

<sup>7</sup> Determination 2008/30 The issuing of a code compliance certificate for a multi-storey apartment building (5 May 2008)

<sup>8</sup> Determination 2019/003 Regarding the ground preparation for a house’s foundations and its compliance with Clause B1 Structure (11 March 2019)

- garage east masonry walls (Area A); and
- garage south stair masonry retaining wall (Area D).

### **Compliance conclusion**

6.2.2 Taking into account the all of the information available to me, I conclude:

- the garage south stair masonry retaining wall does not comply with Clause E2.3.2, and further investigation would be required to establish the performance of other areas of the garage masonry retaining walls;
- the main bathroom shower and ensuite shower do not comply with Clause E3.3.6 with regard to the lack of wall upstand; and
- though the perimeter foundation currently complies with Clause B1, work is required to prevent “leakage” of the hardfill to maintain the structural performance of the perimeter foundation for the required durability period (Clause B2.3.1 as it applies to Clause B1).

6.2.3 There is no evidence to confirm that the concrete slab does not comply with Clause B1 or Clause B2 insofar as it applies to Clause B1.

6.2.4 I am of the view that the limited ground clearance from built-up soils and the partial excavation behind the garage masonry retaining wall (Area C) are matters of maintenance.

## **6.3 The code compliance certificate**

6.3.1 In order to determine whether the authority was correct in deciding to issue a code compliance certificate, I must consider whether at the time of the authority’s decision the non-compliances would have been, or should have been, apparent to the authority.

6.3.2 I am of the view that while the garage south stair masonry retaining wall and the main bathroom and ensuite showers do not currently comply with the Building Code, the cause of these non-compliances would not have been apparent at the time the authority made its decision to issue the code compliance certificate. It is unclear whether the authority’s inspection included the masonry walls that partially retained soil; the lack of wall upstand to the showers would not have been obvious during a final inspection because it would have been hidden behind the lower edge of the sheet lining and there is no requirement for a pre-lining inspection for impervious shower linings; nor would the issue of hardfill leakage at the perimeter foundation steps have been apparent.

6.3.3 I also consider, that at the time the authority made the decision to issue the code compliance certificate, compliance had been demonstrated in respect of the concrete slabs with regard to foundation support. In forming this view I have taken into account that there is no evidence to date to show the concrete slab has slumped and that the authority had other information in support of its compliance, including a producer statement and inspection records.

6.3.4 However, in light of the identified non-compliance and for those matters that I consider further evidence or information is required to establish compliance, I have reached the view that the authority’s decision to issue the code compliance certificate should be reversed. In making this decision, I have considered it is reasonable to conclude the non-compliances existed at the time the code compliance certificate was issued.

- 6.3.5 I have considered the builder's view that these non-compliances could be repaired without the authority's decision to issue the code compliance certificate being reversed. While this is correct, the authority will be unable to require these issues to be remedied if the CCC remains in place.
- 6.3.6 In addition, the non-compliances to the south stair retaining wall and the showers are of a significant nature that could have a health and safety impact on the building users. I have also taken into consideration that the relevant durability periods for the non-compliant elements have not yet passed, as the code compliance certificate was issued approximately seven and a half years ago.

## **7. The decision**

- 7.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the authority was correct to issue the code compliance certificate. However, based on the information now before me I have concluded that the building work does not comply with Clauses E2.3.2 and E3.3.6, and without remediation the perimeter foundation does not comply with Clause B2.3.1 insofar as it relates to Clause B1, and accordingly I reverse the authority's decision.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 30 April 2021.

Katie Gordon  
**National Manager, Determinations**

## Appendix A:

### Clauses of the Building Code considered in this determination current at the time the building consent was issued.

#### Clause B1 Structure

##### **Functional requirement**

**B1.2** *Buildings, building elements and sitework* shall withstand the combination of loads that they are likely to experience during *construction* or *alteration* and throughout their lives.

##### **Performance**

**B1.3.1** *Buildings, building elements and sitework* shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during *construction* or *alteration* and throughout their lives.

**B1.3.2** *Buildings, building elements and sitework* shall have a low probability of causing loss of *amenity* through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during *construction* or *alteration* when the building is in use.

**B1.3.3** Account shall be taken of all physical conditions likely to affect the stability of *buildings, building elements and sitework, ...*

#### B2 Durability

##### **Functional requirement**

**B2.2** *Building materials, components and construction methods* shall be sufficiently durable to ensure that the building, without reconstruction or major renovation, satisfies the other functional requirements of this code throughout the life of the *building*.

##### **Performance**

**B2.3.1** *Building elements* must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the *specified intended life of the building*, if stated, or:

- (a) the life of the building, being not less than 50 years, if:
  - (i) those building elements (including floors, walls, and fixings) provide structural stability to the building, or
  - (ii) those building elements are difficult to access or replace, or
  - (iii) failure of those building elements to comply with the building code would go undetected during both normal use and maintenance of the building.

#### Clause E2 External Moisture

##### **Functional requirement**

**E2.2** *Buildings* must be constructed to provide *adequate* resistance to penetration by, and the accumulation of, moisture from the outside.

##### **Performance**

**E2.3.2** Roofs and exterior walls must prevent the penetration of water that could cause undue dampness, damage to *building elements*, or both.

**Clause E3 Internal Moisture*****Functional requirement***

**E3.2** *Buildings* must be *constructed* to avoid the likelihood of—

- (a) fungal growth or the accumulation of *contaminants* on linings and other *building elements*; and
- (b) free water overflow penetrating to an adjoining *household unit*; and
- (c) damage to *building elements* caused by the presence of moisture

**E3.3.6** Surfaces of *building elements* likely to be splashed must be constructed in a way that prevents water splash from penetrating behind linings or into *concealed spaces*.