



## Determination 2019/033

# Regarding the refusal to issue a code compliance certificate for a 22-year old house at 664 Crawford Road, Wairoa, Tauranga



### Summary

This determination considers the authority's refusal to issue a code compliance certificate where the building work was carried out without required inspections. The determination considers the compliance of three areas identified by the authority in its refusal.

## 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, Katie Gordon, Manager Determinations, 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 building, Tamariki Trust, as the applicant ("the applicant"), acting through the builder as its agent ("the applicant's agent")
- Western Bay of Plenty District Council carrying out its duties and functions as a territorial authority or a building consent authority ("the authority").

1.3 This determination arises from the authority's decision to refuse to issue a code compliance certificate for building work completed in 1997. The authority considered that due to a lack of inspections it could not be satisfied on reasonable grounds that certain building work complied with relevant 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 Ministry are all available at [www.building.govt.nz](http://www.building.govt.nz) or by contacting the Ministry on 0800 242 243.

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

- 1.4 The matters to be determined<sup>3</sup> are therefore:
- whether the authority was correct to refuse to issue a code compliance certificate for the reasons given in its letter of 29 November 2018
  - whether the pergola structure complies with Clauses B1 Structure and B2 Durability of the Building Code that was in force at the time of the pergola's construction
  - whether the external envelope of the house complies with Clauses B2 Durability and E2 External moisture of the Building Code that was in force at the time the consent was issued, in particular at the junction between the pergola structure and the eaves of the house
  - whether the external envelope of the garage complies with Clauses B2 Durability and E2 External moisture of the Building Code that was in force at the time the consent was issued, in particular at the junction between the garage and the retaining wall.
- 1.5 In making my decision, I have considered the submissions of the parties, the report of the independent expert commissioned by the Ministry to advise on this dispute (“the expert”) and the other evidence in this matter. I have not considered any other aspects of the Act or Building Code, beyond those required to decide on the matters to be determined.
- 1.6 I note that the applicant may apply to the authority for a modification of durability provisions to allow the durability periods specified in Clause B2.3.1 to commence from the date of substantial completion in 1997. Although I leave this matter to the parties to resolve in due course, I have taken the age of the house into account when considering the performance of the claddings.
- 1.7 The relevant sections of the Act and Building Code referred to in this determination are set out in Appendix A.

## **2. The building work and background**

- 2.1 The applicant's property (Lot 1 DPS 53114) is a 3.8ha undulating site in a rural area west of Tauranga. The applicant purchased the property in 1995.
- 2.2 In 1996, the applicant applied for a building consent to extend and alter the existing house and detached garage on the property. The authority issued a building consent (No. 57372) for the work in November 1996 under the Building Act 1991 (“the former Act”). The consent included a list of seven inspections that would be required.
- 2.3 The building work was then carried out by the applicant's agent, and this was completed in 1997.
- 2.4 The completed house is single-storey with a light timber-framed construction and some engineered elements. The exterior wall cladding is fibre-cement weatherboard, which is direct-fixed over the framing. Its roof is double pitched, with the lower pitch being quite shallow, and the house includes extensive timber decks and verandas. The roof is clad in profiled metal tiles. On the east elevation adjacent the pergola, the bottom row of tiles has been replaced with a 250mm wide metal flashing, apparently installed to offset the shallow pitch of the roof as the tiles were proving too flat to

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

- provide effective drainage. The flashing was originally fixed with 40mm galvanised clouts, but this proved ineffective, and roof screws with weather seals were subsequently added.
- 2.5 The pergola structure on the house's east side, measuring approximately 33m<sup>2</sup>, was not part of the building consent. It is constructed of supporting posts, with support beams spanning between the posts, and rafters running between the house and the support beams. The pergola was originally constructed with a roof, but this has since been removed.
- 2.6 It was noted during the authority's inspection on 24th October 2018 that the original 100mm x 100mm pergola support beam had bowed noticeably. The applicant's agent subsequently installed a 150mm x 50mm strongback beam<sup>4</sup> to support the undersized beam. The original beam was nail-plated to the top of the pergola posts, and the new strongback beam fixed to the original beam using countersunk screws. The 150mm x 50mm pergola rafters span 4.1m between the house and the support beam. At the house end, the rafters are connected to the fascia with joist hangers. The south end of the pergola beam is supported on a plate that is coach-screw-fixed to the house wall.
- 2.7 The garage is detached from the house and is timber-framed, with a concrete slab floor, and fibre-cement weatherboard cladding. It has a masonry retaining wall at the rear, which was added as part of the 1997 extension. The wall extends approximately halfway up the garage's back wall across its extent. The outside surface of the retaining wall has been sealed and a protective polystyrene sheet and drainage scoria installed between the wall and the ground beyond. A timber retaining wall abuts the masonry wall in the garage's north-east corner.
- 2.8 During the building work the authority carried out three inspections:
- a footing inspection on 20 November 1996
  - a block inspection on 13 December 1996
  - a pre-line inspection on 22 May 1997.
- 2.9 In September 2018 the applicant applied for a code compliance certificate and requested a final inspection for the building work.
- 2.10 The authority conducted an inspection on 24 October 2018. On 29 November 2018, the authority wrote to the applicant's agent declining to issue a code compliance certificate. The reasons given in the letter were that:
- because only limited inspections had been carried out, the authority could not be certain on reasonable grounds that the building work complies with the Building Code
  - there is potential water ingress in the corner of the garage at the end of the block retaining wall
  - the pergola was not included in consented plans and 'the beams are over span and have bowed noticeably'; as a result it does not comply with the Building Code
  - there had been an issue in the past with rainwater ingress to the eaves of the house at the point where the pergola abuts the house, and although measures had been taken to address this, 'further, permanent remediation will be necessary'.

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<sup>4</sup> A strongback is a beam or girder which acts as a secondary support member to the existing structure.

- 2.11 The authority suggested that the applicant needed to consider engaging a registered building surveyor to ‘carry out an in-depth investigation of the building work, including its weathertightness, structure and engineered elements, and provide a report’ and ‘robust proposal’ to the authority on how any defects could be remedied.
- 2.12 The applicant applied for a determination on 8 April 2019. The Ministry wrote to the parties seeking further information on 17 April 2019, and again on 3 May 2019 explaining the purpose and limitations of the determinations process, and confirming the matters that the determination would cover.

### **3. The submissions**

#### **3.1 The applicant’s submission**

3.1.1 The applicant provided a submission with its application for a determination, the main points of which are summarised as follows:

- The applicant’s agent has regularly maintained the house and garage to protect them from the elements and ensure their longevity.
- The water ingress behind the fascia board on the house’s east elevation happened during severe storms in 1997, and was fixed at that time by fitting a flashing over an exposed area of the fascia board, and adding an additional downpipe to increase drainage flow from the roof.
- There was no evidence of water seepage, water staining, dampness or any capillary action in the corner of the garage where the block retaining wall, timber retaining wall and external cladding adjoin each other.
- The original pergola beam has been reinforced with the additional 150mm x 50mm strong-back beam, and the pergola roof has now been removed.

3.1.2 With its submission the applicant provided copies of:

- the plans for the consented building work
- photos of various aspects of the building work, the house and garage
- documents relating to the building consent, including the authority’s undated letter confirming the consent’s issue, the list of inspections required, the engineer’s design certificate and specifications, and other building specifications
- the application for a code compliance certificate, and the authority’s letter declining to issue the certificate
- a record of building work form.

#### **3.2 The authority’s submission**

3.2.1 The authority acknowledged the application for a determination on 8 April 2019 but did not make a submission.

#### **3.3 The draft determination and submissions in response**

3.3.1 A draft determination was issued to the parties for comment on 19 June 2019.

3.3.2 The applicant accepted the draft on 20 June 2019 with no comment.

- 3.3.3 The authority responded on 27 June 2019 accepting the draft but requested clarification about the ongoing compliance of the junction between the roof cladding and the flashing.
- 3.3.4 The applicant made a further submission dated 8 July 2019 in response to the authority's submission noting that the junction between the roof cladding and the flashing has performed for 22 years.

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

- 4.1 As mentioned in paragraph 1.5, I engaged an independent expert, who is a registered building surveyor, to assist me. The expert carried out a site visit at the applicant's property on 14 May 2019. The expert provided a written report dated 21 May 2019, and a copy of the report was sent to the parties on the following day.
- 4.2 The scope of the expert's investigations and report was limited to the specific matters in dispute, namely the code-compliance of the pergola structure, and the two specific weathertightness issues identified in the authority's letter of 29 November 2018.
- 4.3 The expert noted that:
- the buildings are generally well presented and maintained to a reasonable standard
  - the building work had largely been carried out in accordance with the consented plans
  - both the house and the garage were reasonably simple in their plan and form, and presented a low-weathertightness risk, and there were no apparent issues with the external envelopes of the buildings generally
  - taking into account the period since construction, various elements are now outside their required durability periods.

#### **4.4 Weathertightness at the garage retaining wall juncture**

- 4.4.1 With respect to the area where the concrete retaining wall, timber retaining wall and cladding abut each other, the expert noted:
- there was a gap between the cladding and the retaining wall, where leaf debris had accumulated
  - the end of one of the timber retaining wall boards had decayed and was visibly damp
  - the protective polystyrene sheet and drainage scoria were well installed.
- 4.4.2 In the expert's opinion, the junction between the two retaining walls and the cladding was allowing dampness to migrate behind the weatherboards. Ideally the timber weatherboards should have been installed clear of the retaining wall, with a scribe to the masonry.
- 4.4.3 On the inside of the garage, the expert noted:
- no evidence of water ingress through the masonry retaining wall
  - the building paper behind the timber framing in the garage's north-east corner had deteriorated, probably due to the water migrating behind the cladding

- an accumulation of dust and debris behind the building paper, above the bottom plate, which had probably entered through the unsealed cladding junction at the top of the retaining wall
- a marginal moisture reading of 17% from the wall's bottom plate, and some signs of water staining
- brittleness to the timber at the end of the bottom plate.

4.4.4 The expert concluded that 'should moisture entry continue, the framing may not remain durable for the minimum period of 50 years required for building components that are difficult to replace'.

#### **4.5 Weathertightness of eaves flashing**

4.5.1 With respect to the roof and eaves on the house's east elevation, the expert noted that:

- a 30mm upstand had been used between the bottom row of roof tiles and the 250mm wide metal flashing that abutted the gutter, and that in two locations there was a small gap between the upstand and the tiles, making these areas 'vulnerable to wind-blown water entry'
- to provide more effective weathertightness, the upstand should have been profiled to match the shape of the roof tiles
- despite the vulnerable junction, the roof purlin appears in very good condition and there is no sign of any water staining
- there is some debris on the roof underlay, and the underlay doesn't lap into the valley or gutter, but despite this the underlay appears to be in very good condition and to be performing adequately
- an additional 110mm wide metal flashing with a 40mm downstand had been installed below the upper flashing, apparently to prevent water entering the roof space behind the upper flashing – this 40mm downstand would have been more effective on the upper flashing (which has a 13mm downstand)
- inside the house, there is little evidence of any water entry on adjacent ceiling linings, and the slight swelling of the pelmet linings accords with the applicant's account of a one-off water entry in 1997
- there was no evidence on the ceiling or soffit linings of recent water entry or elevated moisture levels.

4.5.2 The expert concluded that the roof cladding appeared to be performing adequately and has exceeded its 15 year minimum durability period since construction.

#### **4.6 The pergola structure**

4.6.1 With respect to the pergola structure, the expert noted:

- the reinforced support beams are now reasonably level
- there is no visible deflection of the fascia
- the structure generally appears to be sufficiently rigid and sturdy
- the bolted connections between the support beams and the top of the pergola posts are too close to the top of the posts in two locations.

- 4.6.2 The expert concluded that the two instances of the bolted connections being too close to the top of the post is ‘likely to affect the stability and therefore likely compliance of the structure’, and suggested that this could be addressed by angling the bolts downwards ‘to provide a reasonable connection without being compromised by the existing holes’.

## 5. Discussion

- 5.1 The matters for determination are the authority’s decision to refuse to issue the code compliance certificate, and the code-compliance of the pergola structure and specific areas of the external envelopes of the garage and house.
- 5.2 The building consent considered in this determination was issued under the former Act, and accordingly the transitional provisions of the Act apply when considering the issue of a code compliance certificate for building work completed under this consent. 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’.
- 5.3 One of the primary reasons that the authority gave that it cannot be satisfied is that insufficient inspections have been carried out. As a result, it does not have the evidence of compliance that it requires. Responsibility for providing this evidence rests with the applicant, and the authority has indicated a means of providing this evidence that it would consider acceptable – as I have already advised the parties, it is not the function of the determination process to relieve the parties’ of their responsibilities, including gathering evidence to demonstrate compliance or inspecting building work as part of the compliance process. Until such evidence is provided, I consider the authority is correctly exercising its powers in continuing to refuse to issue a code compliance certificate.

### 5.4 Compliance with Clause E2: the external envelope

- 5.4.1 Turning now to the question of the weathertightness of the external envelopes of the house and garage, Clause E2.3.2 of the Building Code that was in force at the time the consent was issued required:
- E2.3.2 Roofs and exterior walls shall prevent the penetration of water that could cause undue dampness, or damage to building elements.
- 5.4.2 I note that the two buildings have been constructed generally in accordance with the consented plans; the expert has assessed them as presenting a low weathertightness risk, and there is nothing in the expert’s report to suggest that there is any widespread or generic issue with the buildings’ external envelopes that would affect their performance. Instead the authority’s concerns are limited to two specific areas.
- 5.4.3 The authority is concerned about the weathertightness of the eaves on the east side of the house. I understand these concerns are based on a report made by the applicant to the authority about an incidence of water ingress at this point in the past. The authority is concerned that although remedial measures had been taken, these may not be sufficient.
- 5.4.4 However, I accept the expert’s assessment that the roof cladding, eaves and associated elements are continuing to perform adequately to keep rainwater and other moisture out of the roof space and house. There is no evidence of water ingress or

staining on either the internal linings or within the roof space, where the roof underlay and purlins are in good condition.

- 5.4.5 Accordingly, I conclude that the external envelope of the applicant's house, at the junction between the eaves and the pergola on the east side has complied with Clause E2 of the Building Code for the required 15 year durability period, taking into account the anticipated modification of Clause B2.3.1 (refer paragraph 1.6).
- 5.4.6 I draw the applicant's attention to the expert's comment in his report about the desirability of attending to the junction between the roof cladding and flashing, and suggest that this occurs to ensure the external envelope continues to protect the underlying structure as required by Clause B2.3.1(a)(i).
- 5.4.7 With respect to the garage, the area of concern is in the north-east corner of the garage, where the two retaining walls and the external cladding of the garage meet. The authority identified this as an area of concern in its site inspection of 24 October 2018, and compliance issues have been confirmed by the expert in his report. It would appear that the junction between the external cladding and the masonry retaining wall is allowing moisture to penetrate the external walls and affect the framing timber.
- 5.4.8 The applicant had previously been unaware of an issue in this area, and there is no information available as to when the ingress first occurred and in what circumstances. As a result, it is not possible to say at what point the external cladding failed to comply with Clause E2. However, it would seem apparent from the dampness, decay and elevated moisture readings noted in the expert's report that this is an ongoing issue that is already beginning to affect the underlying structure of the garage, and if left unchecked may cause it to fail.
- 5.4.9 The garage is also required to comply with the durability requirements of Clause B2, which require a building to satisfy all the objectives of the Building Code throughout its effective life. The durability requirements of Clause B2 (in 1997 and currently) requires the building envelope, which in this case is the wall cladding, with only normal maintenance, to continue to satisfy the performance requirements of the Building Code including Clause E2.
- 5.4.10 Given the evidence of moisture ingress is causing damage and dampness to the bottom plate, I conclude the building envelope has not complied with Clause E2. Should moisture entry continue and immediate steps are not taken to rectify this issue, the garage's structure may not remain durable for the minimum period of 50 years, resulting in non-compliance with Clause B1.

## **5.5 Compliance with Clauses B1 and B2: the pergola**

- 5.5.1 Turning now to the pergola, the authority raised concerns about the structural integrity of the pergola, due in particular, to the distortion of the supporting beams. This has subsequently been rectified, and I accept the expert's assessment that the measures the applicant has taken have been successful, and that the pergola generally is sufficiently rigid and sturdy. However, I also note the expert's opinion that in two places the bolts connecting the supporting beams to the pergola post are too close to the top of the post to be effective.
- 5.5.2 I am of the view that the inadequate fixing of the supporting beams to the pergola post does not comply with Clause B1.3.3 with regard to the physical conditions likely to affect the stability of the structure. For this reason, I conclude that the pergola does not comply with Clause B1 of the Building Code.

- 5.5.3 The relevant provision of Clause B2 of the Building Code requires that building elements must, with only normal maintenance, continue to satisfy the performance requirements of the Building Code for certain periods (“durability periods”) “from the time of issue of the applicable code compliance certificate” (Clause B2.3.1). Given the inadequate fixing, I consider the probability of the pergola becoming unstable cannot be said to be low, and therefore I conclude the pergola is unlikely to meet the performance criteria set out in Clause B1.3.1 for the required durability period.
- 5.5.4 The expert has suggested a relatively simple method of rectifying this issue, and I note that this would appear sufficient to ensure the beams are securely attached to the posts.
- 5.5.5 As mentioned in paragraph 2.5 the pergola structure was not part of the building consent and I note that an amendment of the building consent cannot now be sought to include the pergola. From the information provided to me I am unable to ascertain when the pergola was constructed and therefore whether it was exempt from the requirement to obtain building consent by way of Schedule 1 of the Act in force at that time. However, under section 17 of the Act, all building work must comply with the Building Code regardless of whether or not building consent is required and as noted above, the construction does not currently comply with Clause B1 or with Clause B2 insofar as it relates to Clause B1.

## 6. What happens next?

- 6.1 The authority should issue a notice to fix in respect of the non-compliant aspects of the building work, as identified in this determination.
- 6.2 The applicant should then take steps to rectify the non-compliance and provide evidence to the authority that this has been done. The applicant may find the suggestions in the expert’s report useful in this regard.
- 6.3 In order to issue a code compliance certificate, the authority will need to be satisfied on reasonable grounds that the building work as a whole complies with the Building Code that was in force when the consent was issued. To be so satisfied, the authority will require broader evidence as to other aspects of the building work’s compliance, and as discussed in paragraph 5.3, this is a matter for the parties to resolve between themselves.
- 6.4 A code compliance certificate will be able to be issued once these matters have been rectified to the authority’s satisfaction and the durability modification is resolved.

## 7. The decision

- 7.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:
- the authority correctly exercised its powers of decision-making in refusing to issue a code compliance certificate in respect of Building Consent No. 57372, and I hereby confirm that decision
  - the external envelope of the applicant’s house complies with clause B2 Durability and E2 External moisture of the Building Code, in relation to the junction between the pergola structure and the eaves of the house

- the external envelope of the garage does not comply with clause B2 Durability and E2 External moisture of the Building Code, in relation to the junction between the garage and the retaining wall
- the pergola structure does not comply with Clauses B1 Structure and B2 Durability of the Building Code.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 22 July 2019.

Katie Gordon

**Manager Determinations**

## Appendix A

### A.1 The Building Act 2004

#### **17 All building work must comply with building code**

All building work must comply with the building code to the extent required by this Act, whether or not a building consent is required in respect of that building work.

#### **95A Refusal to issue code compliance certificate**

If a building consent authority refuses to issue a code compliance certificate, the building consent authority must give the applicant written notice of—

- (a) the refusal; and
- (b) the reasons for the refusal.

#### **436 Transitional provision for code compliance certificates in respect of building work carried out under building consent granted under former Act**

(3) For the purposes of subsection (2), section 43 of the former Act—

- (b) must be read as if—
  - (i) a code compliance certificate may be issued only if the territorial authority is satisfied that the building work concerned complies with the building code that applied at the time the building consent was granted; and

### A.2 The Building Code (Schedule 1 of the Building Regulations 1992)

#### **Clause B1—Structure**

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.

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

- (a) Self-weight,
- (b) Imposed gravity loads arising from use,
- (f) Earthquake,
- (h) Wind,
- (j) Impact,

#### **Clause B2—Durability**

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...

#### **Clause E2—External Moisture**

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