



Determination 2017/035

Regarding the refusal to issue a code compliance certificate for an 18-year-old house at 1135 Telegraph Road, Darfield



Summary

This determination is concerned with the compliance of an 18-year-old house. The determination considers the authority's reasons for refusing the code compliance certificate, and whether the house complies with the requirements of the Building Code, particularly with respect to weathertightness and durability.

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 former owner of the house, J Learned ("the applicant")
 - the current owner of the house, K Sorenson ("the owner")
 - Selwyn District 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 an 18-year-old house. The refusal arose because the authority is not satisfied that the building work complies with certain clauses² of the Building Code (First Schedule, Building Regulations 1992); in particular in regard to the weathertightness of the external building envelope, given the age of the house.

¹ The Building Act, Building Code, compliance documents, 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, references to sections are to sections of the current Act 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 a code compliance certificate for the reasons given in its letter dated 12 May 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 consent was issued. The building envelope includes the components of the systems (such as the wall claddings, the windows and the roof cladding) as well as the way the components have been installed and work together. This includes compliance with Clause B1 Structure as it applies to the weathertightness of the house. I consider this in paragraph 7.
 - (b) Whether other items identified by the authority comply with relevant Building Code clauses: namely B1 Structure, E1 Surface Water, E3 Internal moisture, F2 Hazardous Building Materials, F4 Safety from Falling, G9 Electricity and G11 Gas as an energy source. I consider these clauses in paragraph 8.
- 1.5 During its 2016 final inspection, the authority limited its concerns to items associated with the clauses outlined above (see paragraph 3.6.3). This determination does not address other clauses of the Building Code or any contractual arrangements between the applicant and the current owner (see paragraph 3.4.1).
- 1.6 I also note that the owner will be able to 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 February 1999. I leave this matter to the parties to resolve after other matters are satisfactorily resolved. I have taken the anticipated modification into account when considering the compliance of the house.
- 1.7 In making my decisions, I have considered:
- the submissions of the parties
 - the report of the consulting engineer engaged by the applicant to review the authority's requirements ("the consulting engineer")
 - the report of the property inspection company engaged by the applicant to review the weathertightness risks of the house ("the inspection company")
 - the report of the expert commissioned by the Ministry to advise on this dispute ("the expert")
 - the other evidence in this matter.

2. The building work

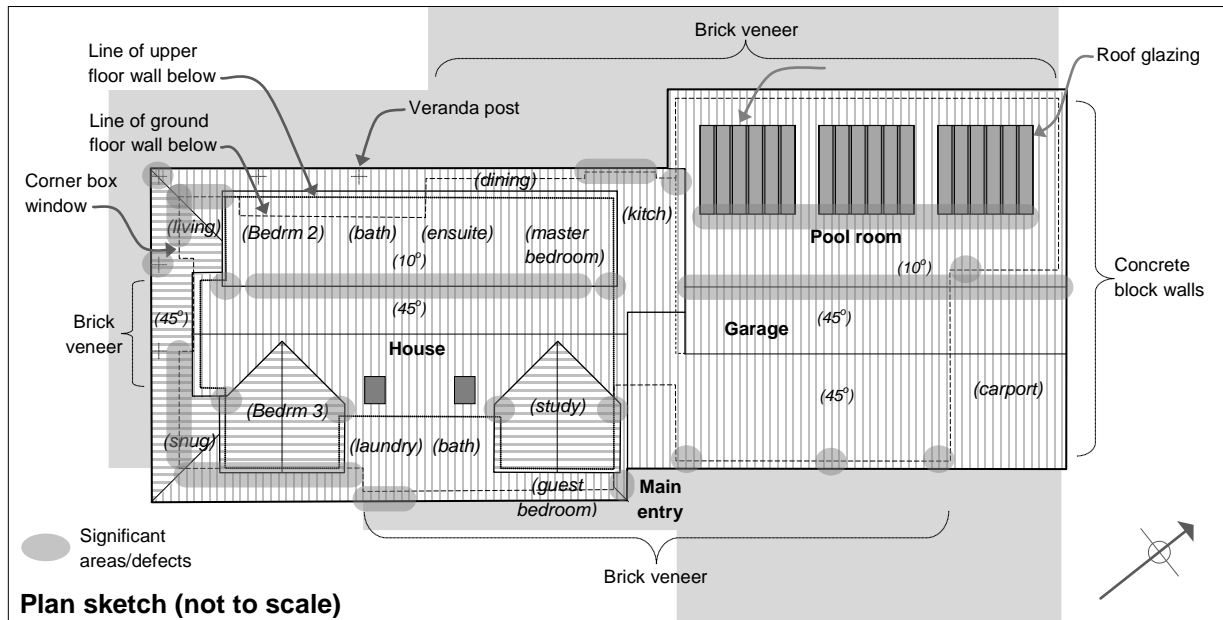
- 2.1 The building work consists of a two-storey four bedroom house with an attached single-storey garage/pool room as shown in Figure 1. The house is situated on a large level rural site in a high wind zone for the purposes of NZS 3604⁴ and is assessed as having a moderate to high weathertightness risk (see paragraph 7.2).
- 2.2 Construction is generally conventional light timber frame, with concrete foundations and floor slab, plastered brick veneer and concrete block wall cladding to parts of the lower level, timber weatherboards to the remaining walls, aluminium windows and profiled metal roofing.

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

⁴ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

- 2.3 The specification states that 'generally all wall framing and truss timber shall be 90 x 35 chemical free laserframe' but the expert noted that some roof framing was marked H1. Given the lack of evidence and the date of construction in 1999, I consider that external wall framing is unlikely to be treated to a level sufficient to provide long term resistance to timber decay.

Figure 1: Approximate plan



2.4 The roofs

- 2.4.1 As shown in Figure 1, roofs are a mix of gables, hipped lean-tos and monopitch sections. The 45° pitch main roof includes two gabled dormers to the southeast and a raised section of roof above the northwest bedrooms where the roof is a 10° monopitch. The northwest roof to the garage/pool room also changes from a steep pitch to a low pitch, with skylights installed within the 10° pitched roof above the pool room.
- 2.4.2 The main roof generally has eaves of about 400mm overall, while the northwest 10° monopitch roofs and the dormer roofs have no overhangs. On the lower level, the eaves increase to more than 1.1m deep at veranda areas beneath the lean-to roofs, with no verge overhang at the northeast end. The upper walls of the northeast elevation have no verge overhangs and the carport is recessed beneath the roof at the east corner.

2.5 The wall claddings

- 2.5.1 The brick veneer over cavity and reinforced concrete blockwork walls are shown in Figure 1. Exterior surfaces of the door-height brick veneer and the 2.4m high concrete block walls are plastered and painted. The concrete block walls are recessed at the east corner carport and extend to form the interior wall between the pool room and the garage.
- 2.5.2 The remaining ground floor walls and all upper level wall areas are clad in rusticated cedar weatherboards. The stain-finished boards are fixed horizontally over the building wrap directly to the framing.

3. Background

3.1 The documentation submitted for the building consent included a producer statement from the design engineer dated 14 January 1998. The statement attached a schedule of three inspections to be undertaken (a pre-pour foundation inspection, a pre-line inspection and a pre-pour blockwork inspection) and stated that ‘a Producer Statement Construction Observation, could be issued once the above inspections have been completed’.

3.2 Construction

3.2.1 The authority issued a building consent (No. R418463) to the original owners on 1 May 1998 under the Building Act 1991 (“the former Act”). The building consent included the following condition:

The engineer and or Designer, or their representatives will provide a Producer Statement Construction review on completion of the Project as confirmed on 14th January 1998.

3.2.2 The authority carried out the following inspections during construction of the house:

- Foundations and floor slab in June and July 1998 (which passed).
- Half height brick veneer in August 1998 (which passed).
- Pre-line and post-line bracing in August 1998 (which passed)
- First final inspection on 23 February 1999 (which identified items to complete)
- Re-inspection on 27 October 1999 (which noted three items still to complete).

3.2.3 The authority’s property file holds no copy of the engineer’s producer statement, but I note that the February inspection recorded ‘producer statement required 4/3/99’ but the re-inspection at the owner’s request was noted as a ‘re-check of outstanding work to rectify’. The record did not repeat the requirement for the producer statement, so it is not clear whether this had been provided by that time.

3.3 The interim code compliance certificate

3.3.1 The authority issued an interim code compliance certificate to the original owner on 28 July 2000 under Section 43(3) of the Building Act 1991.

3.3.2 The certificate stated that it was issued ‘in respect of part only, as specified in the following particulars, of the building work’ under building consent R418463. I note that the only particulars are set out in the following paragraph, which states:

Further building work is required to be completed as detailed in the most recent building inspection site sheet. When all works are completed the building owner is required to notify [the authority] where a further inspection may be required to ensure compliance. When all building works approved under the above building consent comply, a full Code Compliance Certificate will be issued.

3.3.3 The applicant purchased the property in 2004. A swimming pool inspection in 2004 identified two minor items to be attended to, which the applicant apparently completed, but a code compliance certificate was not applied for at that time.

3.4 The second final inspection

3.4.1 The applicant did not request a final inspection until the house was sold in December 2014, with a condition of the sale and purchase agreement being the finalisation and provision of a code compliance certificate.

3.4.2 The authority carried out the second final inspection on 29 January 2015, and the 'inspection notice' lists 34 areas requiring attention, including (in summary, with the authority's reference numbers in brackets):

- B1 Structure (including B2):
 - repaired crack to carport wall (5)
 - lack of seismic restraint to hot water cylinder (7)
 - veranda H3 timber posts in concrete (12)
 - staircase treads deflecting (28)
- E1 Surface Water:
 - falls at main entry paving (3)
 - level of top of gully trap (9)
 - gutter discharge from dormers and upper roofs (22, 23)
 - gutter under valley to entry broken and blocked (24)
 - broken riser at garage entry (25)
- E2 External Moisture (including B2):
 - veneer vents blocked with plaster or stonework (1)
 - falls at main entry paving (3)
 - ground and cladding clearances (2,4)
 - cracked weatherboard above carport (6)
 - stains to carport soffit (8)
 - corroded roof cladding (10)
 - lack of fall at top of pool room skylights (16)
 - bottom of apron flashing (17)
 - barge/hip junction (18)
 - roof nails lifting (19)
 - deterioration of roofing surface (20)
 - flashing to roof slope changes (21)
 - gutter discharge from dormers and upper roofs (22, 23)
 - gutter/riser at entry broken and blocked (24, 25)
- E3 Internal Moisture:
 - lower bathroom extractor not functioning (27)
 - upper bathroom extract grille louvers not opening (31)
 - upper bathroom peeling ceiling paint indicates excessive moisture (32)
 - upper bathroom shower/wall junction leaking (33)
- F2 Hazardous building materials:
 - lack of safety glass to west box window (11)
- F4 Safety from falling:
 - upper level windows lack restrictors (30)
 - pool room door propped open⁵ (15)

⁵ This item was raised by the authority as non-compliant with Fencing of Swimming Pools Act 1987. Means of restricting access to residential pools now falls under Clause F9 of the Building Code.

- G4 Ventilation:
 - lower bathroom extractor not functioning (27)
 - upper bathroom extract grille louvers not opening (31)
- G8 Artificial Light and G9 Electricity:
 - Broken or missing light fittings (13, 26)
- G11 Gas as an Energy Source:
 - pipework from gas cylinder (14)
- G13 Foul Water:
 - effluent discharge system not sized for extra bedroom (29)
- H1 Energy Efficiency:
 - upper level wall insulation in ceiling space missing (34)
- Study is in use as a bedroom – effluent discharge system sized for 4 bedrooms only (29)⁶.

3.4.3 In a letter to the applicant dated 16 February 2015, the authority noted that the building consent had been issued in May 1998 but no application for a code compliance certificate had been made until December 2014. The authority refused to issue the code compliance certificate for the following reasons (in summary):

- the lack of compliance identified in the final inspection with Building Code clauses ‘B1 (Structure), B2 (Durability), E1 (Surface Water), E2 (External Moisture), E3 (Internal Moisture), F2 (Hazardous Building Materials), F4 (Safety from Falling), G4 (Ventilation), G9 (Electricity), G11 (Gas as an Energy Source), G12 (Water Supply) G13 Foul Water and H1 (Energy Efficiency)’
- the lack of an energy works certificate for the electrical work
- the lack of a producer statement for the engineer’s construction review
- due to the extended time elapsed between the date of the building consent and the final inspection the authority considered that it was ‘unable to meet its statutory obligation in terms of section 94’ of the Building Code.

3.5 The consulting engineer’s assessment

3.5.1 Following the above inspection, the applicant engaged a structural engineer (“the consulting engineer”) to assess the house. The engineer inspected the house and responded to some of the outstanding items identified by the authority. In a report to the authority dated 1 April 2015, the engineer explained his background and experience⁷ and explained that he had been asked to deal with specific items.

3.5.2 In regard to the lack of a producer statement for engineering review, the engineer acknowledged that he was not the design engineer but noted (in summary):

- the house was proof-tested with a 7.1 magnitude earthquake in close proximity
- the house had been constructed on good ground and there appeared to be no damage to foundations or floor slab

⁶ Resource Consent conditions

⁷ Including 13 years as the Senior technical officer for three local authorities and post-earthquake assessment, repair and consultancy in Canterbury since the 2010 earthquake

- one block wall had cracked vertically in the earthquake and had been made good by EQC⁸; and it was evident from inspection that repairs included raking out some of the plaster and mortar and injecting epoxy
- the framing and bracing had also ‘survived structurally intact’, with minor repairs under EQC supervision that included plasterboard re-fixing and replastering.

3.5.3 The engineer also commented on items identified in the inspection notice, as follows (in summary with the authority’s reference numbers in brackets):

- some floor clearances are reduced, particularly along the northwest pool room, but the paving is well-drained, not prone to flooding and has falls away from the wall – and the house is unlikely to be subject to dampness as a result (item 2)
- a grate drain is recommended to be installed where the paving falls towards the wall at the main entry (item 3)
- the EQC repair work to the crack in the carport concrete block wall using injection epoxy mortar complies with B1 and B2 (item 5)
- the stained carport soffit is carbon staining resulting from a mowing tractor with a vertical exhaust pipe and is definitely not mould (item 8)
- the large box window has now been re-glazed with safety glass (item 11)
- the damage to the bottom of the veranda posts is the result of wear from a dog chain, and is not decay damage (item 12)
- there is some corrosion to the post fixings, but this is surface and to be expected after 16 years – some maintenance is recommended (item 12)
- the insufficient fall to skylight head above pool has not lead to leaking after 16 years and is also not above a habitable room (item 16)
- the applicant plans to get a plumber to attend to loose roof fixings and various flashings – colour coat deterioration is cosmetic only (item 20)
- the stair creaks but is structurally sound and does not excessively deflect – additional screws are recommended to prevent the creaks (item 28)
- there are currently three people in the house and the effluent discharge system was designed for six (item 29).

3.5.4 The consulting engineer concluded:

As a Chartered Professional Engineer, I am therefore satisfied, having reviewed the property, that structurally it is sound and compliant with the Building Act.

3.6 The third final inspection

3.6.1 Having obtained the engineer’s report and completed some of the outstanding items, the applicant applied for a code compliance certificate on 23 April 2015 and the authority re-inspected the house on 11 May 2015. The authority accepted the following:

⁸ The Earthquake Commission

- B1 Structure (including B2):
 - staircase treads remediated and deflection now within limits (28)
- E1 Surface Water:
 - top of gully trap now raised (9)
 - lack of spreaders from upper roofs (23)
 - gutter/riser at entry now repaired (24, 25)
- E2 External Moisture (including B2):
 - blocked veneer vents now installed to plaster and stonework (1)
 - cracked weatherboard above carport now repaired (6)
 - stains to carport soffit not result of moisture (8)
 - stop end now installed to apron flashing (17)
 - transition flashings installed to roof slope changes (21)
 - spreaders from upper roofs installed to all but one dropper (23)
- E3 Internal Moisture:
 - lower bathroom extractor now functioning (27)
 - upper bathroom extract grille louvers now opening but broken (31)
 - upper bathroom ceiling repainted (32)
- F2 Hazardous building materials:
 - safety glass to west box window now installed (11)
- G4 Ventilation:
 - lower bathroom extractor now functioning (27)
- G8 Artificial Light and G9 Electricity:
 - light fittings now functioning (13, 26)
- G13 Foul Water:
 - effluent discharge system not sized for extra bedroom (29)
 - upper bathroom extract grille louvers now opening (31)
- H1 Energy Efficiency:
 - upper level wall insulation reinstated (34)
- Pool room door no longer propped open (15)

3.6.2 In addition to items remaining from its previous inspection, the authority noted that the following were still not acceptable despite some work carried out:

- B1 Structure (including B2):
 - seismic restraint fitted to the hot water cylinder, but unable to verify strap fixing (7)
- E1 Surface Water:
 - spreaders from upper roofs installed but one dropper still missing (23)
- E2 External Moisture (including B2):
 - spreaders from upper roofs installed but one dropper still missing (23)
 - upper bathroom extract grille louvers now opening but broken (31)

- G11 Gas as an Energy Source:
 - pipework from gas cylinder repaired but deformed at bend (14)
 - pool room door no longer propped open with spare cylinder, but cylinder not properly stored (15).

3.6.3 In a letter to the applicant dated 12 May 2015, the authority attached the inspection notice and noted that its latest inspection had confirmed that the house still did not comply with the Building Code. The authority refused to issue the code compliance certificate for the same reasons as outlined in the letter dated 16 February 2015, with the non-compliant Code Clauses listed as being:

- the lack of compliance as identified in the latest inspection with Building Code clauses 'B1 (Structure), B2 (Durability), E1 (Surface Water), E2 (External Moisture), E3 (Internal Moisture), F2 (Hazardous Building Materials), F4 (Safety from Falling) and G11 (Gas as an Energy Source)'

3.7 The consulting engineer's producer statement

3.7.1 The applicant obtained a 'Producer Statement – PS4 – Construction Review' dated 26 January 2016 from the consulting engineer. The producer statement referred to his 'report dated 1 April 2015' (see paragraph 3.5) that was prepared in response to the issues noted by the authority in the refusal to issue code compliance certificate dated 16 February 2015.

3.7.2 The producer statement confirmed that the house complied with Clause B1 and B2 of the Building Code and concluded:

I am satisfied that all matters raised [during the authority's inspection] have now been satisfactorily addressed and I am satisfied from my own limited visual inspection of the property that it is compliant with the Building Act 2004.

3.8 Attempts at resolution

3.8.1 In an attempt to resolve the situation, the applicant met with the authority on 10 May 2016. In a letter dated 20 May 2016, the authority confirmed the discussions and explained its position. The authority pointed to 'a number of issues that makes it difficult' to issue a code compliance certificate, including (in summary):

- the age of the house and the 'maintenance issues that could potentially have undermined the integrity of the building' and caused hidden damage
- the engineer's report was not from the original engineer so cannot be treated as a producer statement that can be solely relied on without providing 'some level of assessment, audit or review of the work'
- the conservative approach for older building consents is because issuing a code compliance certificate is 'effectively saying that the previously consented building work complies with the building consent'
- in the past the authority has been drawn into 'expensive litigation for weathertightness issues' on older building consents and cannot obtain insurance for these, so 'is reluctant to issue a code compliance certificate if there is any potential whatsoever for a claim to be made'.

3.9 The weathertightness assessment

- 3.9.1 Following the meeting with the authority, the applicant engaged a property inspection company to assess the weathertightness of the house. A building surveyor visually inspected the house on 24 June 2016 and provided a report printed on 27 June 2016.
- 3.9.2 The surveyor took limited non-invasive moisture readings internally at areas considered at risk of moisture penetration and ‘no visual signs of leaks or damage were identified.’ The surveyor included the following comments (in summary):
- Windows within the direct fixed weatherboards lack ‘robust flashings’ and the exposed upper level windows should be remedied to lower the risk of moisture penetration, with framing exposed and assessed for damage.
 - There is earthquake damage where cracking and settlement of concrete paving is evident – with water ponding as a result.
 - Before undertaking any identified remedial work, discussions with the authority ‘are recommended to discuss any requirements or information’ needed for consideration of issuing a code compliance certificate.
- 3.10 Unable to resolve the situation, the applicant applied to the Ministry for a determination on 23 September 2016.

4. The submissions

4.1 The applicant’s submission

- 4.1.1 The applicant outlined the background to the situation, noting that when the house was purchased from the original owner in 2004 it had an interim code compliance certificate and the significance of obtaining a code compliance certificate was not understood.
- 4.1.2 When selling the property in 2014, the applicant’s attempts at obtaining a code compliance certificate had resulted in failure, despite having work done and engaging a structural engineer. A property inspection company had also checked the house and confirmed that there were no moisture problems.
- 4.1.3 The house had been built well by a reputable building company and had stood up to the Canterbury earthquakes with no damage. However the authority identified ‘all of the little maintenance issues’ with no apparent intention of ever issuing a code compliance certificate.
- 4.1.4 The applicant believed that the house ‘held no risk whatsoever’, and the authority was unreasonable to refuse to issue a code compliance certificate given that the authority had:
- ‘lost the house plans, both foundation and electrical’
 - ‘also lost the original interim [code compliance certificate]’, which was not in the property file even though the applicant had a copy
 - ‘encouraged [the applicant] to get in tradespeople to fix the issues and then failed me’

- ‘encouraged [the applicant] to get expertise’ from the engineer, but then stated that ‘everything [the engineer] said does not count because he was not the engineer who built the house’.

4.1.5 The applicant provided copies of:

- the interim code compliance certificate dated 28 July 2000
- the final inspection notices dated 29 January and 11 May 2015
- the authority’s first refusal to issue a code compliance certificate dated 16 February 2015
- the consulting engineer’s letter to the authority dated 1 April 2015
- the authority’s second refusal to issue a code compliance certificate dated 12 May 2015
- the consulting engineer’s Producer Statement – PS4 – Construction Review’ dated 26 January 2016
- other correspondence from the authority
- various photographs, statements and other information.

4.2 The authority’s submission

4.2.1 The authority made no submission but provided copies of documents relevant to this determination, including:

- the consent documentation
- the authority’s internal computer records of inspections and discussions
- various photographs, statements and other information.

4.3 The owner’s submission

4.3.1 The owner made a submission dated 26 September 2016, which explained that the code compliance certificate is a condition of the property purchase agreement and is needed to satisfy the owner’s insurer’s interest.

4.3.2 The owner believed that the authority had ‘predetermined the outcome before the inspection had taken place.’ That opinion had resulted from the following:

- During a meeting on 10 May 2016, the authority maintained that ‘the statutory limitation for a [code compliance certificate] was ten years’ and the house was too risky.
- It seems that the authority has ‘an internal policy or at least an agenda that is at odds with their statutory obligation’ and the house was not going to get a code compliance certificate.
- By suggesting a determination, the authority perceived the risk as lying with the Ministry.
- The site notice included items that had no bearing on compliance with the Building Code.
- The authority can continue to ‘make unsubstantiated claims that require continued time and expense on [the applicant’s] part to forestall granting of a compliance certificate.

- 4.3.3 The owner believed that the whole inspection notice was compromised by irrelevant items and unsubstantiated claims and stated that they did not believe they could get an unbiased assessment from the authority.

4.4 The draft determination and submissions in response

- 4.4.1 A draft determination was issued to the parties for comment on 14 March 2017.
- 4.4.2 Responses were received from the authority, the owner and the applicant on 24 March, 31 March, and 28 April 2017 respectively. The authority noted some minor amendments.

5. The expert's report

- 5.1 As mentioned in paragraph 1.7, I engaged an independent expert to assist me. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the house on 1 December 2016, providing a report dated 2 February 2017. The parties were provided with a copy of the report on 7 February 2017.

5.2 General

- 5.2.1 The expert noted that the scope of his inspection was to provide an assessment of the matters raised by the authority and to form a view as to compliance while taking into account the 'age, risk profile and performance in use since completion' of the house. The expert noted that the house form and plan generally appeared to conform to the consent drawings.

5.3 Construction quality

- 5.3.1 The expert considered the interior finish was generally acceptable although the clear finish to window reveals had deteriorated and needed maintenance to avoid condensation soaking into the timber and causing further damage.
- 5.3.2 The expert considered that roof flashings had 'been poorly detailed and poorly fitted in several places' and required attention.

5.4 Moisture investigations (Clauses B1, E2 and E3)

- 5.4.1 The expert took non-invasive readings of the skirtings, linings at 1m centres and all readings 'were well within an acceptable range of 10-12%'. He also drilled through the skirtings in four sample locations using long probes to take invasive readings within 20mm of the outer face and these readings were also 'well within an acceptable range of 11-13%'.
- 5.4.2 The expert inspected the interior and roof spaces and noted the following signs of past or current moisture penetration:
- below the south end of the barge flashing above bedroom 2, with advanced decay in purlins and decay in the truss top chord (see paragraph 5.11.1)
 - water stained underlay hanging down beneath the change in roof pitch above the bedrooms
 - minor water marks on the solar water heating pipe insulation
 - water marks on the garage ceiling and damaged underlay below a hole
 - decay at the bottom of the garage door reveal.

5.4.3 The expert also carried out the following destructive investigations:

- skirting and lining removed adjacent to upper bathroom shower, revealing light water staining to the lining and the back of the skirting but low moisture levels and no sign of moisture on the bottom plate
- ceiling inspection hatch removed below the shower, with no evidence of moisture or damage to the flooring or framing
- timber sample extracted from the bottom weatherboard beneath the west corner box window to the living room (sample 1)
- timber samples removed from the deteriorated base of two veranda posts (samples 2 and 3).

5.4.4 The expert forwarded the three samples for analysis and the laboratory report dated 7 December 2016 noted the following:

- samples 2 and 3 from the bottom of the radiata pine veranda posts (specified as H3) contained no detectable treatment, possibly due to boron that ‘had leached out of the surface layers’ and ‘further investigation of deeper samples is recommended’
- sample 1: cedar from the bottom of the weatherboard contained ‘pockets of advanced decay, probably brown rot’ and would probably need replacement
- samples 2 and 3: contained ‘fungal growths’ with traces of ‘soft rot’ in the corner post but ‘no structurally significant decay was detected’ – repair would depend on the result of further testing of deeper samples because
...such wood is typically found in moisture compromised locations and/or on the periphery of more seriously affected wood sometimes in need of replacement.

5.5 Clauses B1 Structure and B2 Durability (items 5, 7 and 12)

5.5.1 The expert could see no cracks in the repairs to the rear block wall of the carport and no visible cracks to the other side, with no repaired stress cracks in the concrete floor. There was also no sign of damage to ceiling lining or roofing above the crack and the swimming pool is about 200mm beyond the wall so was not affected.

5.5.2 The expert was able to view the hot water cylinder seismic restraint fixed secure to the block wall, but noted that blocks were needed to prevent the cylinder rocking towards the wall and potentially breaking plumbing connections.

5.5.3 The veranda posts were embedded into the paving and laboratory testing had found traces of decay to the corner post. The expert noted that the bottom of the posts may be more decayed given that any boron treatment had leached out of the samples, and further investigation was needed.

5.6 Clause E1 Surface Water (Items 3, 9, 22, 24, 25)

5.6.1 The expert noted that the following items on the authority’s inspection list appeared to have been satisfactorily attended to:

- the concrete surround to the gully trap (Item 9)
- the broken and blocked gutter/riser at entry (Items 24 and 25).

- 5.6.2 The expert assessed the gutters to the dormer windows, noting no evidence of moisture within the roof space associated with the main roof end of the gutter where the authority had noted stains to the soffit lining. The expert considered that the soffits were ‘slightly dirty’ and had not been painted since construction – and the marks were not associated with ‘historic overflow’ (Item 22).
- 5.6.3 Although discharging dormer gutters onto the main roof is ‘not good practice’, the expert considered that junctions had met the performance requirements to date. However as a ‘maintenance precaution’, the expert recommended sealing gutter ends and fitting downpipes and spreaders to the dormer gutters to direct water away.

5.7 Clauses E2 Weathertightness and B2 Durability (Items 1 to 4, 6, 8, 10, 16 to 21, 23)

- 5.7.1 The expert inspected the external building envelope of the house, taking into account the age of the building work and the risks applying for particular junctions and intersections. (Refer to Figure 1 for locations of significant observations.)

The building envelope

- 5.7.2 The expert noted that the following items on the authority’s inspection list had been attended to and appeared to be performing satisfactorily:
- The cracked weatherboard above carport (Item 6).
 - Stains to carport soffit confirmed as tractor exhaust, with no evidence of moisture on the upper side of the lining (Item 8).
 - A small diverter had been fitted at the bottom of the southwest apron and while heavily reliant on sealant, is adequate for the sheltered location (Item 17).
 - All loose roof fixings appear to be now rectified (Item 19).
 - A flashing has been fitted to the change in roof slope above the pool room only (Item 21) but not to the junction above northwest bedrooms (see paragraph 5.11.1).
- 5.7.3 Commenting specifically on the external envelope in regard to the authority’s concerns, the expert noted:
- although vent holes had been installed, many are from 30mm to 50mm above the paving – resulting in lips that prevent complete drainage (Item 1 and part 2)
 - the bottom of the weatherboard at the west box window is buried in the paving and has decayed, with further decay likely in the framing behind (Item 2)
 - soil is above the bottom of weatherboards along southeast (Item 2)
 - the bottom of the garage door reveal contacts the paving, with obvious decay in the reveal closest to the carport (Item 4)
 - the ends of head flashings at the junction of the pool room skylights with the low pitched roof are poorly flashed and heavily reliant on sealants (Item 16)
 - the raised ‘step’ at the head of the skylight perimeter allows significant debris to accumulate against the head flashing – allowing water to overflow into the roof cavity, with visible damage to plasterboard linings below (Item 16).

5.7.4 The expert also commented as follows:

- Although the entry paving gently slopes toward the bedroom wall, invasive moisture readings into the bottom plate behind the stone veneer confirmed that no moisture had entered as a result (Item 3).
- Although heavily reliant on sealant, the small diverter now fitted at the bottom of the southwest apron above the pool room is sheltered under the 300mm eave overhang (Item 17).
- The barge/hip junction above the guest bedroom appears satisfactory; with the top of the hip flashing neatly capped and sealed, and the junction subject to very little water run-off from limited high-pitched roof areas (Item 18).
- The loss of the colour coating while necessary for the roofing has exceeded 15 years and will need to be maintained (Item 20).

5.7.5 Although the expert recommended some repairs as part of ongoing maintenance (see paragraph 5.11.2), he noted that the following areas appeared to have remained weathertight to date as there was no evidence of past or current moisture penetration into associated framing:

- Except for the west corner box window; although clearances are well under minimum recommendations, all moisture readings were within recommended levels with no evidence of moisture penetration as a result (Item 2).
- There is a small area of corrosion at the end of apron flashings, which have already met their 15-year durability requirement (Item 10).
- Although the southwest downpipe to bedroom 3 dormer lacks a spreader, the associated roof catchment is limited and there is no evidence of associated moisture penetration as a result (Item 23).
- Although part of plastic grille to the upper bathroom extract has broken, the outlet is directly below the 300mm roof overhang and unlikely to allow moisture entry (Item 31).

5.7.6 The expert also identified the following defects not recorded by the authority:

- The incorrect lap at the south end of the barge flashing above bedroom 2, with split sealant and gaps that allow moisture to penetrate into and damage areas of the underlying roof framing (see paragraph 5.4.2).
- The incorrect lap at the east end of the barge flashing above the master bedroom – although that sealant has remained intact to date and there is no sign of moisture penetration into the roof space to date.
- No flashing to the change in roof pitch above bedrooms (see paragraph 5.4.2).

5.8 **Clause E3 Internal moisture (Items 27, 31 to 33)**

5.8.1 The expert noted that the following items on the authority's inspection list had been attended to and appeared to be extracting internal moisture satisfactorily:

- The lower bathroom extractor now functions (Item 27).
- The upper bathroom extract grille louvers now open (Item 31).
- The bathroom ceiling has been repainted (Item 32).

5.8.2 The expert investigated the wall adjacent to the upper ensuite (see paragraph 5.4.3) and found light water staining to the back of the lining and skirting but low moisture levels and no sign of moisture on the bottom plate. The ceiling inspection hatch was also removed below the shower and the expert observed no evidence of moisture or damage to flooring or framing (Item 33).

5.9 G11 Gas as an energy source (Items 14, 15)

5.9.1 In regard to the gas cylinder (Item 14), the expert noted that NZS 5261⁹ states ‘every bend and offset in a pipe shall be free from any buckle, crack or other evidence of physical damage to the pipe or its protective coating.’ The expert inspected the pipe from the gas cylinder and considered it adequate, noting that:

- the pipe does not need and does not have ‘protective coating’
- the pipe is copper and is painted to match the wall
- the pipe has no visible buckles or cracks.

5.9.2 The expert also noted that information in Appendix G¹⁰ is noted as ‘informative’ only. The LPG cylinder does not follow the following recommendations:

- Cylinder should not be located within 1m from any door opening.
- Cylinder regulators should be protected from rainwater.

5.9.3 The expert also noted that the spare gas cylinder no longer props open the pool room door and was not stored above the heat pump (Item 15).

5.10 The remaining clauses identified by the authority

5.10.1 The expert noted that the following items on the authority’s inspection list had been attended to and appeared to be satisfactory (with relevant clauses shown in brackets):

- Item 11: safety glass has been installed to box windows (Clause F2)
- Item 30: all upper level windows with sill heights below 760mm have been fitted with restrictors (Clause F4)
- Items 13 and 26: light fittings repaired or replaced (Clauses G8 and G9)
- Item 34: upper level wall insulation in ceiling space refitted (Clause H1).

5.11 The expert’s conclusion

5.11.1 The expert concluded that the following areas do not comply with the Building Code that was in force at the time the consent was issued (with relevant clauses shown in brackets):

- Damaged timber roof framing below the south end of the barge flashing above bedroom 2 (B1, B2).
- The change in roof pitch above the bedrooms (E2, B2).
- The upper end of the pool room skylights (E2, B2).
- The lack of effective drainage from the brick veneer cavities (E2, B2).
- The lack of ground and paving clearances to many areas (E2, B2).

⁹ NZS 5261:2003 Gas installation Paragraph 2.4.1.9

¹⁰ NZS 5261:2003 Gas installation Appendix G: LPG Locations (informative)

- Decay (B2) to:
 - the weatherboards under the box window
 - the bottom of the veranda posts
 - the garage door reveal.

5.11.2 Based on his investigations and taking into account the age and performance of the construction to date, the expert recommended that the following should be attended to as part of ongoing maintenance of the house (in summary):

- Blocks to the hot water cylinder straps.
- Sealing ends of dormer gutters and installation of downpipes and spreaders to all dormers to direct water away from junctions with main roof.
- The fall to the entry paving.
- The flashing at the east end of the barge flashing above the master bedroom.
- The solar water pipe penetrations through the roof.
- Damaged roof underlay in a number of areas.
- Various small holes in the roof.
- Cleaning and repainting the roof.
- Sealants to the bathroom shower junctions.
- The broken grille to the upper bathroom extract.
- Protection from rainwater of the gas cylinder regulator.

6. Compliance of the house

- 6.1 The building consent considered in this determination was 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 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'.
- 6.2 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 house complies with the provisions of the Building Code that applied when the consent was issued.
- 6.3 An application can be made to the authority for a modification of durability requirements to allow durability periods to commence from the date of substantial completion in February 1999. Although that matter is not part of this determination (see paragraph 1.6), I have taken the anticipated modification into account when considering the compliance of the house.

7. Discussion: the external envelope

7.1 The evaluation of building work for compliance with the Building Code and the risk factors considered in regards to weathertightness have been described in numerous previous determinations (for example, Determination 2004/1¹¹).

7.2 Weathertightness risk

7.2.1 This house has the following environmental and design features, which influence its weathertightness risk profile:

Increasing risk

- the house is two storeys high in part and is in a high wind zone
- the roof includes complex junctions and intersections
- upper floors include dormer windows located within the lower floor perimeter
- some walls have weatherboard cladding fixed directly to the framing
- external wall framing is not treated to provide resistance to decay if it absorbs and retains moisture.

Decreasing risk

- the house has no attached decks
- most of the lower walls are brick veneer or concrete block
- there are roof overhangs to shelter most of the wall claddings.

7.2.2 Using the E2/AS1 risk matrix to evaluate these features, the elevations are assessed as having a medium to high weathertightness risk rating.

7.3 Weathertightness conclusion

7.3.1 Inspection records indicate that the first final inspection was carried out in February 1999 (see paragraph 3.2.2) and I have taken that into account when considering the weathertightness performance of the external envelope as most of the wall claddings appear to have continued to perform for more than the minimum 15 years required by Clause B2 of the Building Code.

7.3.2 The expert's report establishes that the current performance of the building envelope is not adequate because there is evidence of moisture penetration, with decay to untreated timber in a number of areas. The significant decay obvious to one area of the roof framing indicates that moisture has been penetrating the roofing for some time; I am therefore satisfied that the house did not and does not comply with Clause E2 of the Building Code.

7.3.3 The house is also required to comply with the durability requirements of Clause B2, which requires a building to satisfy all the objectives of the Building Code throughout its effective life. The durability requirements of Clause B2 include a requirement for wall claddings to remain weathertight for a minimum of 15 years and for timber framing to remain structurally adequate for a minimum of 50 years.

7.3.4 The timber damage to some of the roof framing, the bottom of the veranda posts the garage door reveals and the bottom of weatherboards beneath the box window, together with the likelihood of further hidden damage to underlying untreated

¹¹ Determination 2007/01 *Refusal of a code compliance certificate for a building with a "monolithic" cladding system: House 1* (Building Industry Authority) 11 March 2004

framing behind linings, also satisfy me that some of the timber framing may not comply with Clause B1 and also with Clause B2 insofar as it applies to Clause B1.

7.3.5 Although roof and wall claddings are now 18 years old, the expert's investigations revealed evidence of moisture ingress over an extended period. Because of the decay damage revealed and the likelihood of further undiscovered damage, I am therefore satisfied that the timber framing has not complied with Clause B2 insofar as it applies to Clauses B1. The evidence also satisfies me that the both the wall and roof claddings have not complied with Clause B2 insofar as it applies to E2.

7.3.6 In regard to the wall and roof areas, the identified moisture penetration and wall cladding faults occur in more discrete areas and I am therefore able to conclude that satisfactory investigation and rectification of areas outlined in paragraph 5.11.1 will result in the wall and roof areas being brought into compliance with Clauses B1, B2 and E2 of the Building Code.

8. The authority's remaining concerns

8.1 Clause B1 Structure

8.1.1 I concluded, in paragraph 7.3.4, that some of the timber framing may not comply with Clause B1 and also with Clause B2 insofar as it applies to Clause B1.

8.1.2 I also note the expert's comments on the earthquake repairs carried out to the rear block wall of the carport and, taking the engineer's report into account (see paragraph 3.5.3), I am satisfied that the repair complies with Clauses B1 and B2 of the Building Code.

8.1.3 In regard to the authority's demand for a producer statement for construction review by the original design engineer, I make the following comments:

- One of the conditions attached to the building consent for this house was that a producer statement for construction review was required to cover three inspections to be undertaken by the engineer.
- The early inspection records I have seen include very few notes, with the last mention of the producer statement made in the initial final inspection in February 1999.
- From the lack of further comment in the final inspection in October 1999 and also within the interim code compliance certificate dated 28 July 2000, it seems likely that the original design engineer provided oversight.
- Although I acknowledge that an engineer's producer statement for construction review was a condition of the building consent, there is no basis in the current Act for an authority to demand this as a condition for establishing the code compliance of completed building work.
- Producer statements are not a requirement of the Building Code, nor are they the only way of establishing code compliance. To deny a code compliance certificate due to the lack of a producer statement for work carried out more than 18 years ago is unreasonable.
- A producer statement can provide evidence to assist an authority in deciding the adequacy of various components or systems, but a statement should not be relied on these to the exclusion of other evidence of compliance.

- The receipt of a producer statement by an authority does not lessen its liability in establishing compliance. An authority accepts a producer statement at its discretion in the belief that the author of the producer statement is creditable.

8.1.4 Except for defects associated with moisture penetration, the following evidence satisfies me that the house complies with Clause B1 and Clause B2 of the Building Code that applied at the time the building consent was issued in 1998:

- The lack of significant damage during the 2010 Canterbury earthquake sequence, and the EQC supervised repairs following the earthquakes.
- The consulting engineer's background and experience in assessing and repairing earthquake damage, which demonstrates his credibility in assessing the structural adequacy of the house.
- The consulting engineer's report on structural performance since 1999 (see paragraph 3.5.2) which concluded that the house was structurally sound.
- The expert's inspection, which identified some structural concerns relating to moisture penetration, but noted no significant evidence of other structural non-compliance.

8.2 Clause G9 Electricity

8.2.1 In regard to the lack of an energy works certificate for the electrical work, I have taken into account the following circumstances:

- The early inspection records are sparse and do not note an outstanding energy works certificate.
- The lack of comment in the final inspection in October 1999 and also in the interim code compliance certificate dated 28 July 2000 indicates that a certificate may have been provided 18 years ago.

8.2.2 While failure to provide an outstanding energy works certificate is 'sufficient reason'¹², to refuse to issue a code compliance certificate, the absence of one does not prevent a code compliance certificate from being issued. I have addressed this issue in previous determinations¹³ and I remain of the view that this provision allows the authority to apply this requirement as it considers appropriate.

8.2.3 This house is now 18 years old and the provision of an energy works certificate at this time would seem to be of limited value. Given the lack of evidence of any significant electrical problems, I am satisfied that the house is likely to comply with Clause G9 of the Building Code, despite the lack of an energy works certificate.

8.3 The remaining clauses

8.3.1 Taking account of the expert's report, I am satisfied that the house as constructed complies with the remaining clauses identified by the authority and considered by the expert during his inspection: namely E1 Surface Water, E3 Internal moisture, F2 Hazardous Building Materials, F4 Safety from Falling, G11 Gas as an energy source and H1 Energy Efficiency.

¹² Section 94(3) of the current Act

¹³ For example Determination 2013/035 *Regarding the refusal to issue a code compliance certificate for a 14-year-old house and a 15-year-old quarantine building at 591 Ridgens Road, Darfield* (Ministry of Business, Innovation and Employment) 27 June 2013

9. Conclusion

9.1 Taking account of the expert's report, Table 1 summarises my conclusions on the authority's concerns identified for this house.

Table 1

Areas of concern (in summary using item numbers)		Comments	Conclusion	
			Compliance (7.3.6 and 8)	Maintenance (9.2.3)
B1 Structure				
5	Repaired crack to carport wall	<ul style="list-style-type: none"> No cracks to repairs or to floor No damage to lining/roofing above No affect on swimming pool Confirmed by consulting engineer Accepted by authority 	Compliant	
7	Lack of HWC seismic restraint	<ul style="list-style-type: none"> Seismic straps fixed securely Blocks missing to prevent rocking 		Blocks required
12	Veranda H3 timber posts in concrete	<ul style="list-style-type: none"> Posts embedded in concrete Lab tests found traces of decay Treatment leached from bottom 	Not compliant	
28	Staircase treads deflecting	<ul style="list-style-type: none"> Screws added to stop squeak Consulting engineer confirmed Accepted by authority 	Compliant	
E1 Surface Water				
3	Falls at main entry paving	<ul style="list-style-type: none"> Gentle fall towards wall No associated moisture entry 	Compliant	Maintenance recommended
9	Level of top of gully trap	<ul style="list-style-type: none"> Surround installed Accepted by authority 	Compliant	
22	Gutter discharge from dormers	<ul style="list-style-type: none"> Not good practice No associated moisture entry Have met performance requirements 	Compliant	Modification recommended for longer term durability
23	Lack of spreaders from upper roofs	<ul style="list-style-type: none"> One spreader still missing Small catchment areas No associated moisture entry 	Compliant	Additional spreader advised
24	Broken gutter above entry	<ul style="list-style-type: none"> Repair confirmed Accepted by authority 	Compliant	
25	Broken riser at garage entry	<ul style="list-style-type: none"> Repair confirmed Accepted by authority 	Compliant	
E2 External Moisture				
1	Veneer vents blocked	<ul style="list-style-type: none"> Accepted by authority Some are 30-50mm above paving Bottom of cavities cannot drain 	Requires repair	

Areas of concern (in summary using item numbers)		Comments	Conclusion	
			Compliance (7.3.6 and 8)	Maintenance (9.2.3)
2	Ground and cladding clearances	<ul style="list-style-type: none"> Box window weatherboard decayed Likely to be underlying damage Soil above SE weatherboard No associated moisture entry 	Investigation and repair required	
3	Falls at main entry paving	<ul style="list-style-type: none"> Gentle fall towards wall No associated moisture entry 	Compliant	Maintenance recommended
4	Garage door reveals	<ul style="list-style-type: none"> Reveals decayed where in contact with paving Condition of underlying framing unknown 	Investigation and repair required	
6	Cracked weatherboard above carport	<ul style="list-style-type: none"> Repair confirmed Accepted by authority 		
8	Stains to carport soffit	<ul style="list-style-type: none"> No sign of moisture above ceiling Stains confirmed as exhaust marks Accepted by authority 		
10	Corroded roof cladding	<ul style="list-style-type: none"> Small area of corrosion to apron flashing under spreader Has met performance requirements 	Met performance requirements	Maintenance recommended
16	Lack of fall at top of pool room skylights	<ul style="list-style-type: none"> Low-pitched roof Upstand allows debris to built up Water has overflowed past flashing underlap Damage visible to linings below 	Investigation and repair required	
17	Bottom of apron flashing	<ul style="list-style-type: none"> Diverter retrofitted Adequate for sheltered location Accepted by authority 	Compliant	
18	Barge/hip junction	<ul style="list-style-type: none"> Cap flashing losing colour coating Fitted neatly Run-off very limited Very low risk of leaking 	Compliant	
19	Roof nails lifting	<ul style="list-style-type: none"> New fixings observed Accepted by authority 	Compliant	
20	Deterioration of roofing surface	<ul style="list-style-type: none"> Underlying zinc coating remains in good condition Coating deterioration cosmetic only 	Compliant	
21	Flashing to roof slope change over pool room	<ul style="list-style-type: none"> New flashing fitted over pool room Accepted by authority Repair caused damage to underlay 	Flashing compliant	Repair to underlay required

Areas of concern (in summary using item numbers)		Comments	Conclusion	
			Compliance (7.3.6 and 8)	Maintenance (9.2.3)
	Flashing to roof slope change over bedrooms	<ul style="list-style-type: none"> Change in roof slope incorrectly lapped and reliant on sealant Barge ends not weathertight South corner has leaked and caused decay in roof framing 	Not compliant Repairs required	
22	Gutter discharge from dormers	See comments under E1above		
23	Lack of spreaders from upper roofs			
24	Broken gutter above entry			
25	Broken riser at garage entry	See comments under E1above		
31	Upper bathroom extract grille	<ul style="list-style-type: none"> Extract now working but grille is damaged Grille sheltered by soffit Low risk of water penetration 	Compliant	Grille replacement recommended
E3 Internal Moisture				
27	Lower bathroom extractor	<ul style="list-style-type: none"> Checked and confirmed Accepted by authority 	Compliant	
31	Upper bathroom extract	<ul style="list-style-type: none"> Louvers now opening Accepted by authority 	Compliant	Grille replacement recommended
32	Upper bathroom peeling ceiling paint	<ul style="list-style-type: none"> Ceiling repainted Accepted by authority 	Compliant	
33	Upper bathroom shower/wall junction leaking	<ul style="list-style-type: none"> Skirting and lining removed No sign of damage to framing Moisture levels low 	Compliant	Replacement of sealants needed
F2 Hazardous Building Materials				
11	Lack of safety glass to west box window	<ul style="list-style-type: none"> Safety glass now installed Accepted by authority 	Compliant	
F4 Safety from Falling				
30	Upper level windows lack restrictors	<ul style="list-style-type: none"> All upper level windows with sill heights below 760mm now have restrictors 	Compliant	
G8 Artificial Light, G9 Electricity				
13	Missing soffit light	<ul style="list-style-type: none"> Light reinstated Accepted by authority 	Compliant	
26	Light fittings not functioning	<ul style="list-style-type: none"> Not rechecked Accepted by authority 	Compliant	
	Lack of energy certificate	<ul style="list-style-type: none"> House now 18 years old Certificate now of limited value No evidence of problems 	Compliant	
G11 Gas as an Energy Source				

Areas of concern (in summary using item numbers)		Comments	Conclusion	
			Compliance (7.3.6 and 8)	Maintenance (9.2.3)
14	Pipework from gas cylinder	<ul style="list-style-type: none"> • Pipe is copper and is painted to match the wall • Pipe does not have and does not need 'protective coating' • Pipe has no visible buckles or cracks 	Compliant	Recommend protection to regulator
15	Spare cylinder not properly stored	<ul style="list-style-type: none"> • Spare cylinder not sighted 		
G13 Foul Water				
29	Effluent discharge system not sized for extra bedroom	<ul style="list-style-type: none"> • Condition of the <u>resource consent</u> not of the building consent - related to the number of 'bedrooms' • Effluent system designed to cater for 4 bedrooms, equating to 6 occupants • Number of occupants below maximum capacity of effluent system • No evidence of past problems • In-service adequacy over 18 years meets G13 3.4 performance requirement 	Compliant with Building Code	
H1 Energy Efficiency				
34	Upper level wall insulation in ceiling space missing	<ul style="list-style-type: none"> • Accepted by authority • Some insulation 'poorly placed' 	Compliant	Attention needed

9.2 Maintenance

- 9.2.1 Although a modification of durability provisions will mean that most components and elements have already exceeded the minimum life required by the Building Code, the expected life of the building as a whole is considerably longer. Careful maintenance is therefore needed to ensure that elements such as wall claddings, windows, flashings, roofing and gutter systems continue to protect the underlying structure for its minimum required life of 50 years.
- 9.2.2 I note that many items identified in the authority's inspection photographs indicate insufficient maintenance over the 16 years prior to those inspections, which had exacerbated pre-existing defects and resulted in moisture penetration in some areas. Although some items have recently been rectified, I have noted some other areas where maintenance is needed (see Table 1) to ensure that the claddings continue to protect the framing.
- 9.2.3 I also note the expert's additional recommendations outlined in paragraph 5.11.2 as to measures considered prudent in the circumstances. While I accept that these areas do not affect my conclusions on the minimum compliance requirements, I strongly urge the owners to consider their implementation as part of repair work or otherwise as on-going maintenance of the house. The reduction of future risks will improve longer-term durability and assist the claddings in protecting the underlying structure.

- 9.2.4 Effective maintenance of the house is important to ensure ongoing compliance with the Building Code and is the responsibility of the building owner. The Ministry has previously described maintenance requirements associated with the external building envelope, including examples where the external wall framing of the building may not be treated to a level that will resist the onset of decay if it gets wet (for example, Determination 2007/60¹⁴).

10. The durability modification

- 10.1 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).
- 10.2 In this case the 18-year delay since the substantial completion of the house in 1999 raises concerns that many elements of the building are now beyond their required durability periods, and would consequently no longer comply with Clause B2 if a code compliance certificate were to be issued effective from today’s date.
- 10.3 I have considered this issue in many previous determinations and I maintain the view that:
- (a) the authority has the power to grant an appropriate modification of Clause B2 in respect of all the building elements, if requested by an owner
 - (b) it is reasonable to grant such a modification, with appropriate notification, as in practical terms the building is no different from what it would have been if a code compliance certificate for the building work had been issued at the time of substantial completion in February 1999.

I therefore leave the matter of amending the building consent to modify Clause B2.3.1 to the parties once the matters addressed in this determination are resolved.

11. What happens next?

- 11.1 If the applicant still wishes to seek a code compliance certificate for the house, a detailed proposal should be developed and submitted to the authority for its approval. The proposal should be produced in conjunction with a suitably qualified person experienced in weathertightness remediation and should address the defects identified in paragraph 5.11.1; including appropriate investigation and timber sample testing to determine the extent and significance of any hidden damage to the timber framing. The proposal should be submitted to the authority for its consideration and approval.
- 11.2 A code compliance certificate will be able to be issued once these matters have been rectified and the durability modification is resolved.

¹⁴ *Determination 2007/660 Regarding a code compliance certificate for a house with monolithic and weatherboard wall cladding systems at 11A Blease Street, New Lynn, Auckland* (Department of Building and Housing) 11 June 2007

12. The decision

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

- some timber framing does not comply with Clauses B1 and B2
- the exterior building envelope does not comply with Clauses E2 and Clause B2 of the Building Code that was current at the time the building consent was issued; accordingly,

I confirm the authority's decision to refuse to issue a code compliance certificate for the house.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 29 May 2017.

John Gardiner
Manager Determinations and Assurance