



Determination 2012/054

Regarding the refusal to issue an amendment to a building consent for a 3-year-old conservatory addition to a house at 14 Byron Street, Rolleston



1. The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations, Ministry of Business, Innovation and Employment (“the Ministry”)², for and on behalf of the Chief Executive of the Ministry.

1.2 The parties to the determination are:

- the owner K Stephenson (“the applicant”), acting through the conservatory design and building company (“the conservatory company”)
- 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 an application for an amendment to the building consent for a 3-year-old conservatory addition (“the conservatory”). The refusal arose because the authority is not satisfied that the amendment complies with certain clauses³ of the Building Code (First Schedule, Building Regulations 1992) in regard to the weathertightness of certain junctions.

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

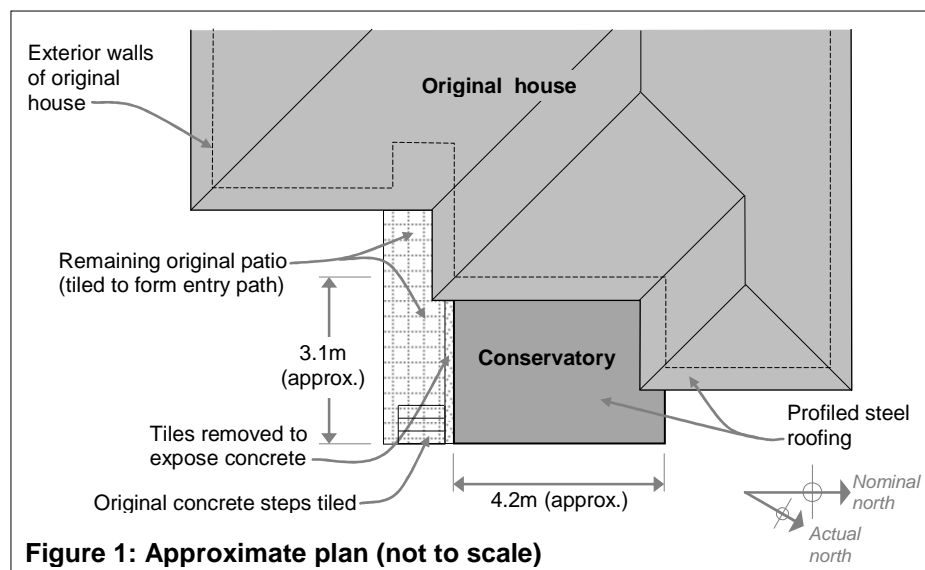
² After the application was made, and before the determination was completed, the Department of Building and Housing was transitioned into the Ministry of Business, Innovation and Employment. The term “the Ministry” is used for both.

³ In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

- 1.4 The matter to be determined⁴ is therefore whether the authority was correct to refuse to issue an amended building consent for the work. In deciding this, I must consider whether junctions of the conservatory walls with the original elements of the house comply with Clause B2 Durability and Clause E2 External Moisture of the Building Code. The subject junctions include the conservatory glazing and timber framing, the original walls and concrete patio, and the flashings and sealants.
- 1.5 Other elements of the conservatory, such as the roof, are not considered in this determination. In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Ministry to advise on this dispute (“the expert”) and the other evidence in this matter.
- 1.6 The relevant legislation is set out in Appendix A.

2. The building work

- 2.1 The building work consists of a conservatory added to a 1970’s single-storey house on a flat site in a high wind zone for the purposes of NZS 3604⁵. The expert takes the rear of the house as north-facing, and this determination follows that convention.
- 2.2 The conservatory has been constructed above part of an original raised concrete patio to the east of the house as shown in Figure 1:



2.3 The original house

- 2.3.1 Construction of the original house is conventional light timber frame, with a perimeter concrete foundation wall, suspended timber floor, aluminium windows, and split block veneer wall cladding. The original house is simple in plan and form, with a profiled metal hipped roof and eaves projections of about 600mm.

⁴ Under sections 177(1)(b) and 177(2)(a) of the Act.

⁵ New Zealand Standard NZS 3604:1999 Timber Framed Buildings

2.3.2 The original concrete patio occupied the southeast internal corner between the kitchen and lounge walls; and extended around the corner to the recessed front entry door. The patio had a suspended concrete floor and a concrete foundation wall faced with block veneer to match the house walls.

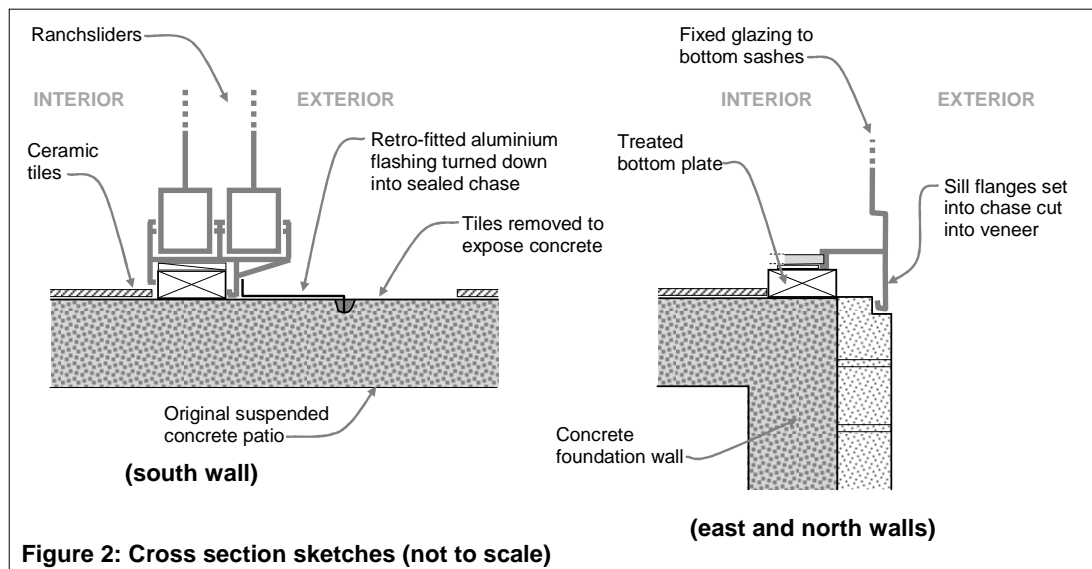
2.4 The conservatory

2.4.1 The conservatory has a low-pitched timber-framed skillion roof attached to the original roof and supported on timber posts bolted to the existing foundation walls. Timber bottom plates and trim studs form the rough openings for the full-height conventional aluminium joinery glazing; with ranchsliders in the south wall and pre-formed aluminium corner flashings installed over corner posts.

2.4.2 The original block veneer walls to the house are retained as interior walls, along with the original lounge ranchsliders. At the south junction with the conservatory, a small wing wall butts against the split block surface, with lining on the inside and painted fibre-cement sheet on the outside. At the north junction, joinery butts against the block veneer.

2.4.3 It appears that the original consent drawing showed the conservatory erected over a 65mm topping slab that was not installed (see paragraph 3.2.1). Construction photographs show bottom plates fixed directly over the original concrete with no sill flashing and tiles butted against conservatory walls. The row of exterior tiles against the ranchsliders has since been removed to allow a metal flashing to be installed.

2.4.4 As-built details at bottom plates appear to be similar to the sketches in Figure 2:



2.5 Given the age of the existing house, I consider the original framing will be borictreated. The conservatory drawings call for treated framing and, given the date of construction in 2009, I accept that the framing is likely to be treated.

3. Background

3.1 The authority issued a building consent (No. 081328) for the conservatory on 19 December 2008. I have not seen copies of the building consent or the original consent drawing(s) and specifications.

3.2 The construction inspections

3.2.1 A 'pre-wrap' inspection was carried out on 16 February 2009 and the authority's inspection record included:

Note – amended plan required for change to approved plans

1. No sill flashings.
2. 65 min slab, DPM and D10 starters deleted. Show alternative.
3. Exterior ground levels to rectify (concrete landing).

Above required prior to next inspection.

3.2.2 According to the authority, an application for an amendment was received on 17 March 2009 (No. 081328A). I have not seen that amendment, but it appears it was restricted to item 2 – the deletion of a topping slab to the patio area under the conservatory (see paragraph 3.2.4).

3.2.3 The authority carried out a final inspection on 14 April 2009 and the record included the following outstanding items:

- Deck outside conservatory door is at present higher than the conservatory floor. Please fix so as E2AS1 requirements are met. Cross section of this detail was not supplied to council with consent documents. Details to be supplied.
- All flashings to be installed as per NZBC E2 requirements.

3.2.4 A re-inspection record dated 5 May 2009 included the following notes in regard to the above items:

2. This issue with the deck height outside [sliding] door has not been resolved. Details of how compliance is to be achieved to be supplied to SDC for processing. All required cross section details were not supplied to SDC at consent time and at time of amendment for deletion of topping slab was submitted.

3. Flashing detail at bottom of conservatory has not been followed.

3.2.5 The authority's file note dated 5 May 2009 is a cross section sketch through the entry path and the bottom of the conservatory walls, showing the surface of the tiled path at a higher level than the interior floor tiles. A photograph confirms that entry path tiles butted against ranchslider sills (see paragraph 2.4.3). Two further inspections on 6 and 24 September 2010 also note tile levels and lack of sill flashings.

3.3 The amended detail

3.3.1 In January 2011 a new detail for a 'proposed flashing' was prepared; showing a flashing extending from the ranchslider sill flange to a 20mm chase cut into the patio concrete, with a note stating 'detail is to all external sides of conservatory'. The row of tiles against the ranchslider sills was subsequently removed and a flashing was retrofitted at the junction (see Figure 2).

- 3.3.2 On 2 May 2011 a drawing ('BC 08132B – Proposed Flashing' dated January 2011) was submitted to the authority (application No. 081328B).
- 3.3.3 On 2 June 2011, the authority refused to issue an amendment because:
- The information provided in the drawings does not demonstrate compliance with the performance requirements of NZ Building Code – Clause E2 External Moisture and B2 Durability.
 - The drawing provided does not accurately reflect how the building has been constructed.
- 3.4 The conservatory company initially made an application for a determination on 26 October 2011. Following appointment of the company as an agent of the owner, the Ministry received a revised application on 30 January 2012.

4. The submissions

- 4.1 The conservatory company made no submission with the application but forwarded copies of:
- the drawing 'BC 08132B – Proposed Flashing' dated January 2011
 - some of the inspection records
 - the authority's letter to the conservatory company dated 2 June 2011
 - two construction photographs.
- 4.2 In a letter to the Ministry dated 31 October 2011, the authority stated its opinion remained as expressed in its letter to the conservatory company dated 2 June 2011 (see paragraph 3.3.3); noting also that no application for a code compliance certificate had yet been received. The authority outlined the background to the situation, including the following points (in summary):
- The issue with the floor levels was first identified at the pre-wrap inspection.
 - Four subsequent inspections also identified defects relating to floor levels and the lack of flashings at the ranchslider sills.
 - The conservatory company submitted a copy of a detail in Figure 17B of E2/AS1, which has no relevance 'as it does not reflect actual or proposed construction'.
 - The drawing provided for the proposed amendment also does not reflect actual construction.
- 4.3 The authority forwarded copies of:
- inspection records not included in the application
 - a file note sketch dated 5 May 2009.
- 4.4 A draft determination was issued to the parties for comment on 27 April 2012.
- 4.5 The authority accepted the draft determination subject to correction of the wind speed zone, which has subsequently been corrected.

- 4.6 No response was received from the agent in response to the draft, despite a number of requests from the Ministry. The Ministry then sought a response from the applicant but none was received.

5. The expert's report

- 5.1 As mentioned in paragraph 1.5, I engaged an independent expert to provide an assessment of the conservatory. The expert is a member of the New Zealand Institute of Building Surveyors. The expert inspected the conservatory on 23 February 2012 and provided a report dated 5 April 2012.

5.2 General

- 5.2.1 The expert inspected the interior and exterior of the conservatory and noted that the original block veneer and sliding doors to the living room had been retained, with some new framing added against the junctions.
- 5.2.2 The expert also noted that, although the conservatory was a separate space, it was likely to serve as an extension to the living room and could be carpeted in the future. He therefore considered that it should be assessed as a potential 'habitable space' (refer Appendix A).
- 5.2.3 The expert observed that the base flashing shown in the original consent drawing had not been installed. In his opinion, the general workmanship in the conservatory was below the standard expected from 'good trade practice'.

5.3 The conservatory construction

- 5.3.1 At junctions with the original exterior wall, metal 'starter flashings' extend from chases cut into the block veneer. At the north junction, joinery jamb flanges butt against the veneer, with sealant applied against lower sash jambs only. At the south junction, the framing is covered with a fibre-cement facing strip.
- 5.3.2 At corner posts, jamb flanges overlap the folded corner flashings, with a sealant fillet at the junction. The expert pressed against the flashing, noting that sealant was not bonded to the metal. At the bottom of the north and east walls, sill flanges are set into a rebate cut into the block veneer, with a cover of about 20mm (see Figure 2).
- 5.3.3 The south wall sits on the original concrete surface and an aluminium flashing is retrofitted over the concrete at the sill, with a 12mm upstand and the outer edge turned down and sealed into a narrow chase. The exposed concrete is currently lower than the adjacent path tiles and veneer lip, with water able to pond in the recess. The intention is apparently to reinstate the tiles that were removed to install the flashing.
- 5.4 Commenting specifically on the conservatory, the expert noted that:

The south ranchslider wall

- the sill flashing will be buried beneath screed when path tiles are reinstated, leading to corrosion and deterioration of the coated aluminium

- the ends of the sill flashing rely on sealant only for weathertightness, so are unlikely to provide durable protection against moisture penetration
- the fibre-cement facing at the ranchslider jamb butts against patio concrete and the bottom will be buried when tiles are reinstated.
- the unsealed west end of the ranchslider head flashing does not project beyond the jamb and will allow moisture to penetrate behind the jambs

Other junctions

- corner flashings are not properly sealed at the junctions with window jambs
- at the north intersection with the original walls, sealant is applied to part of the junction only.

5.5 A copy of the expert's report was provided to the parties on 2 March 2012.

6. Discussion

6.1 Compliance with the consent

6.1.1 The expert's report and the other evidence has satisfied me that

- The bottom of the conservatory walls were not installed in accordance with the consent drawings.
- The retro-fitted aluminium flashing to the south wall was installed without an approved amendment to the consent and the subsequently submitted detail is inaccurately referenced.

6.1.2 I note that, if the owner is to seek a code compliance certificate, in terms of section 94(1)(a) of the Act the authority could only issue a code compliance certificate if it is satisfied, on reasonable grounds, that the building work complies with the building consent. In this case the consent documentation will require amendment to reflect the as-built construction including any further remedial work required.

6.2 Refusal to issue an amendment to the consent

6.2.1 Applications for building consent (including amendments under section 45(4)(b)) are to be considered under section 49(1) which states:

A building consent authority must grant a building consent if it is satisfied on reasonable grounds that the provisions of the building code would be met if the building work were properly completed in accordance with the plans and specifications that accompanied the application.

6.2.2 The authority has refused to issue an amendment to the consent, and maintains that the as-built details as shown in Figure 2 have the 'potential to trap moisture in aluminium frame and bottom plate' and the amended drawing does not accurately reflect actual construction.

6.2.3 The conservatory company has made no submission to explain why it believes that the conservatory as constructed complies with the weathertightness and durability provisions of the Building Code.

- 6.2.4 Taking into account the expert's report and the other evidence I am satisfied that:
- the original external walls, including the sliding doors, are undisturbed by the addition and retain their original weathertightness
 - the intention to reinstate the removed tiles will result in the aluminium flashing terminating below the tile surface and coming into contact with tile cement grout, with premature deterioration due to incompatibility⁶
 - the exposed recessed concrete impedes drainage and is currently ponding adjacent to the ranchslider flashing. Run-off from the grout to the exterior tiling will also lead to premature deterioration⁷.
 - the expert has also identified, and I accept the expert's findings, that various other items as outlined in paragraph 5.4 require attention in order to prevent moisture entering the structure.
- 6.2.5 In forming a view as to whether the conservatory complies with Clause E2 of the Building Code I must consider whether the ingress of water through identified defects is likely to cause undue dampness which will 'reduce amenity'.
- 6.2.6 The conservatory is separated from the original house and the treated timber framing and tiled floor are unlikely to be affected by moisture. Any moisture ingress will be limited to the conservatory, with no affect on the durability of the original house.
- 6.2.7 The plans note that the conservatory was to be a 'non-habitable space', and I note that it may not always follow that enclosing an existing patio creates a habitable space as defined in the Building Code. For example, I would not consider an enclosed small porch that provides a transitional space from the exterior to the entrance of the house and is used for the likes of removing shoes and storing coats to be a habitable space. However, in this case the conservatory is effectively an extension of the original living room, providing a space that can be, and at the time of the expert's inspection was, furnished. In this respect I consider the conservatory to be a habitable space as defined in the Building Code.
- 6.2.8 In light of the above, I am of the view that the conservatory as built does not comply with Clauses E2 and B2 of the Building Code, and as such the authority was correct in its decision to refuse to approve an amendment to the building consent.

6.3 Conclusion

- 6.3.1 I am of the view that the authority was correct to refuse to approve the amendment to the building consent, as the submitted drawing does not reflect the as-built situation and does not clearly show how compliance with the Building Code would be achieved in regard to the bottom of the conservatory walls.
- 6.3.2 I am also of the view that the conservatory as constructed does not comply with the building consent or the Building Code. Although the authority raised the issue of the bottom of the walls at the 'pre-wrap inspection', I note that construction was completed without resolution and also that a notice to fix was not issued.

⁶ Table 21 Acceptable Solution E2/AS1

⁷ Table 22 Acceptable Solution E2/AS1

- 6.3.3 I am satisfied that the authority made an appropriate decision to refuse to approve an amendment to the building consent for the retrofitted flashing, and remediation work is now required to bring the conservatory into compliance with the Building Code.
- 6.3.4 I accept that making the conservatory walls code-compliant at this stage is difficult. However, the fact that the conservatory has been completed, cannot, of itself, change my view as to its compliance. Given its completion and taking into account that any consequences of future failures will be limited to the conservatory area, I am of the opinion that, in this particular instance, satisfactory repair and/or replacement of the items outlined in paragraph 5.4 will bring the conservatory into compliance with Clauses E2 and B2 the Building Code to the extent required.

7. What is to be done now?

- 7.1 The authority should inspect the conservatory and issue a notice to fix that also takes account the findings of this determination, identifying the areas listed in paragraph 5.4 but not specifying how the defects are to be fixed. That is a matter for the owner to propose, as an amendment to the building consent, and for the authority to accept or reject.
- 7.2 I suggest that the parties adopt the following process to meet the requirements of paragraph 7.1. The applicant should respond to the notice to fix with a detailed proposal, produced in conjunction with a competent and suitably qualified person, as to the rectification or otherwise of the specified matters. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding determination.

8. The decision

- 8.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the conservatory does not comply with the building consent and Building Code Clauses B2 and E2, and accordingly I confirm the authority's decision to refuse to issue an amendment to the building consent.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 6 August 2012.

John Gardiner
Manager Determinations

Appendix A: The legislation

A.1 With regard to the unauthorised changes, relevant section of the Act is:

40 Buildings not to be constructed, altered...

- (1) A person must not carry out any building work except in accordance with a building consent.

44 When to apply for building consent

- (1) An owner intending to carry out building work must, before the building work begins, apply for a building consent to a building consent authority that is authorised, within the scope of its accreditation, to grant a building consent for the proposed building work

45 How to apply for building consent

...

- (4) An application for an amendment to a building consent must,—
- (a) ...
- (b) in all other cases, be made as if it were an application for a building consent, and this section, and sections 48 to 51 apply with any necessary modifications

49 Grant of building consent

- (1) A building consent authority must grant a building consent if it is satisfied on reasonable grounds that the provisions of the building code would be met if the building work were properly completed in accordance with the plans and specifications that accompanied the application.

A.2 Habitable space is defined in Building Code Clause A2 - Interpretation as:

habitable space a space used for activities normally associated with domestic living, but excludes any bathroom, laundry, water-closet, pantry, walk-in wardrobe, corridor, hallway, lobby, clothes-drying room, or other space of a specialised nature occupied neither frequently nor for extended periods.

A.3 Clause E2 of the Building Code states:

E2 External moisture

Functional requirement

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

Limits on application

Requirement E2.2 does not apply to buildings... if moisture from the outside penetrating them, or accumulating within them, or both, is unlikely to impair significantly all or any of their amenity, durability, and stability.

Performance

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

E2.3.7 Building elements must be constructed in a way that makes due allowance for the following:

- (a) the consequences of failure...