



## Determination 2013/072

# Regarding the refusal to issue a code compliance certificate for building work including waterproofing to bathroom tiles at 61 Roberta Crescent, Orewa, Auckland

### 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, John Gardiner, Manager Determinations and Assurance, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.

1.2 The parties to the determination are

- the owner of the house, Mollzahn Family Trust (“the applicant”), acting through one of the Trustees who was also the installer of the subject waterproof membrane (“the builder”)
- Auckland 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 decision of the authority to refuse to issue a code compliance certificate. The authority’s concerns relate to the compliance of the membrane installed under the tiles in the ensuite bathroom with Clauses E3 and B2 of the Building Code (Schedule 1 of the Building Regulations 1992)<sup>2</sup>.

1.4 The matter to be determined<sup>3</sup> is therefore whether the authority correctly exercised its powers of decision when it refused to issue the code compliance certificate. In making this decision I must consider whether the membrane installed under the tiles in the ensuite bathroom complies with Clauses E3 – Internal Moisture and B2—Durability of the Building Code<sup>4</sup> (First Schedule, Building Regulations 1992).

1.5 In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Ministry to advise on this dispute (“the expert”), and the other evidence in this matter.

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<sup>1</sup> The Building Act, Building Code, Compliance documents, past determinations and guidance documents issued by the Ministry are all available at [www.dbh.govt.nz](http://www.dbh.govt.nz) or by contacting the Ministry on 0800 242 243.

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

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

<sup>4</sup> In this determination, unless otherwise stated, references are to sections of the Act and references to clauses are references to the Building Code

## **2. The building work**

- 2.1 The ensuite bathroom (which is the subject of this determination) and main bathroom floors are fully tiled, with the walls of both bathrooms mainly tiled. The builder has advised that the membrane has been applied to the entire floor and wall surfaces where tiles are in both bathrooms.
- 2.2 The waterproofing membrane installed beneath the bathroom tiles is described by the manufacturer as a membrane-forming liquid for use prior to fixing tiles. The proprietary system includes sealing tape for wall and floor junctions and gaskets for use where pipes and drains penetrate the coating.

## **2.3 The ensuite bathroom**

- 2.3.1 The ensuite bathroom contains an enclosed shower with an enamelled steel tray which is apparently constructed on a polystyrene base; the concrete floor is recessed below the shower tray with the height of the tray finishing slightly above the level of the adjacent floor. The walls above the shower tray are finished with full height ceramic tiles. Plasterboard linings used are a proprietary wet area lining as specified in the consent documents.
- 2.3.2 A bead of sealant is applied at the shower tray to tile junction and also at the internal corner junction. The builder advised that the junction between the shower and the wall lining was sealed using the shower tray manufacturer's proprietary sealing tape system.
- 2.3.3 The ensuite shower is located where the dwelling is stepped down the site, with a masonry wall to the lower 800mm of the shower wall and a bedroom adjacent on the higher level. The shower is enclosed with a glazed shower screen and a glazed self-closing door with a magnetic closing mechanism.

## **3. Background**

- 3.1 On 24 July 2011 the authority issued building consent No. ABA-1009836 under the Act for the 'split level two bedroom dwelling with attached garage'. The consent conditions stated the required inspections to be called for, including a 'membrane tanking' inspection.
- 3.2 Construction began in November 2011. The authority undertook inspections during construction and the final inspection was completed on 4 July 2013, however, no membrane tanking inspection had been carried out and one of the 'failed' items from the final inspection related to the requirement for a Producer Statement for the installation of the waterproofing membrane.
- 3.3 The builder completed a Producer Statement – Construction (PS3) and submitted it to the authority with an application for a code compliance certificate.
- 3.4 In an email to the builder on 7 August 2013, the authority refused to issue the code compliance certificate on the grounds that the authority could not be satisfied that the membrane installed under the tiles in the ensuite bathroom complies with Clauses B2 and E3 of the Building Code.
- 3.5 After the authority's refusal, a person acting on behalf of the builder emailed the authority to outline the builder's experience and requesting clarification on the

reasons for the authority's refusal. I have not seen a response from the authority to that correspondence.

3.6 On 26 August 2013 the Ministry received an application for determination.

#### **4. The submissions**

4.1 The applicant made no formal submission in support of the application but attached copies of

- the floor plan dated 13 May 2013
- correspondence between the parties
- the builder's qualifications and references
- the technical data sheet for the waterproofing membrane installed
- a photograph of the waterproofing membrane from its original installation (refer paragraph 5.2).

4.2 The authority did not make a submission in response.

4.3 In order to clarify construction details I sought more information from the builder, and I sought further information from the authority as to the reasons for its concerns regarding compliance of the waterproofing membrane.

4.4 The builder responded by emails on 7, 8 and 9 October, providing a copy of the building consent and plans and providing information in regards the installation of the waterproofing membrane.

4.5 The authority responded by emails on 3 and 4 October 2013, noting that the 'membrane tanking' inspection had not been carried out. The authority submitted that it considered the waterproofing membrane installed under the shower had not been installed in accordance with Clause B2 and E3 based on the installer (the builder) not being an 'approved applicator'. The authority also considered insufficient evidence had been provided to show the builder had enough experience and knowledge to have applied the product in accordance with the manufacturer's specifications.

4.6 A draft was issued to the parties for comment on 5 November 2013. Both parties accepted the draft without further comment.

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

5.1 As described in paragraph 1.5, I engaged the services of an expert, who is a member of the New Zealand Institute of Building Surveyors, to assist me. The expert visited the site on 15 October 2013 and produced a report completed on 29 October 2013. Copies of this report were forwarded to the parties on 31 October 2013.

5.2 The report described the building's construction in general terms, and the bathrooms in more detail, and gave some of the background to the dispute. The expert commented that the standard of fixture and fitting to the bathrooms was of 'high quality' and the finish of the tiling is 'good'. The builder advised the expert that a 'certified' waterproofer had originally been engaged to install the waterproofing membrane, but that as the quality of workmanship was poor the builder opted to remove it and reinstall it himself.

- 5.3 The expert recorded the following variations in relation to the bathroom waterproofing:
- The consented plans state that both showers are to be ‘recess and tile’; however the ensuite bathroom has been installed with a shower tray.
  - The ‘wet area tile details’ in the plans have not been followed in regard to the construction of the tiled shower within the main bathroom. A waterproofing membrane has been applied beneath the floor tiles, which is not shown or referenced within the drawn detail.
- 5.4 The expert commented that the specification and plans did not specify a membrane system but stated that liquid waterproofing membranes were to comply with AS 3740<sup>5</sup>. AS 3740 says that membranes are to comply with AS/NZS 4858<sup>6</sup>: the literature for the waterproofing membrane installed states it complies with AS/NZS 4858.
- 5.5 The expert observed no visible signs of moisture ingress to the linings behind the ensuite shower. No elevated moisture readings were recorded and the expert noted the shower screens are well sealed to the tiled walls. The expert tested the shower screen junctions and found them to be performing. The expert also commented on the main bathroom but noted that the authority’s letter of 7 August 2013 only referred to the ensuite bathroom.
- 5.6 The expert noted that:
- the membrane used is on the authority’s list of ‘approved wet area membranes’
  - though the authority’s property file records the builder was not registered on the authority’s list of ‘approved applicators’ none of the technical literature for the membrane requires a licensed or certified installer nor that the installer needs any training by the manufacturer or distributor
  - the membrane requires a number of layers applied at required thicknesses and at specified intervals
  - the application of membrane to the walls and floors under the tiles was over and above that area set out in E3/AS1
  - the description of the installation process given by the builder was in accordance with the required procedure.
- 5.7 The expert concluded that based on the visual inspection, discussions with the builder and his experience and qualifications, and a review of the technical literature on the waterproofing membrane, he considered it reasonable to rely on the builder’s statement in respect of compliance.
- 5.8 The expert also considered that the risk of water damage via any failure in the waterproofing membrane to be low as the building is a standalone house and constructed over a concrete slab with recessed showers within the slab.

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<sup>5</sup> Australian Standard AS 3740: 2010 Waterproofing of domestic wet areas

<sup>6</sup> Australian/ New Zealand Standard AS/NZS 4858:2004 Wet area membranes

## **6. Discussion**

- 6.1 Taking into account the expert's report, I consider that the waterproofing membrane as installed to the ensuite bathroom complies with Clause E3 of the Building Code. I also accept that the expert's opinion that it is reasonable to accept that the statement provided by the builder that the membrane was correctly installed.
- 6.2 The building consent was issued under the Building Act 2004. Under section 94(1)(a) of the Act an authority must issue a code compliance certificate if it is satisfied on reasonable grounds that the building work complies with the building consent.
- 6.3 The expert has identified changes from the consent drawings and I consider that as-built drawings should be provided to the authority that records the building work as installed.

## **7. The Decision**

- 7.1 In accordance with section 188 of the Building Act 2004 I hereby determine that the waterproofing membrane applied to the ensuite bathroom complies with Clause E3 of the Building Code; accordingly I consider the authority incorrectly exercised its powers when it refused to issue the code compliance certificate for building consent ABA 1009836 and I reverse the authority's decision.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 21 November 2013.

John Gardiner  
**Manager Determinations and Assurance**