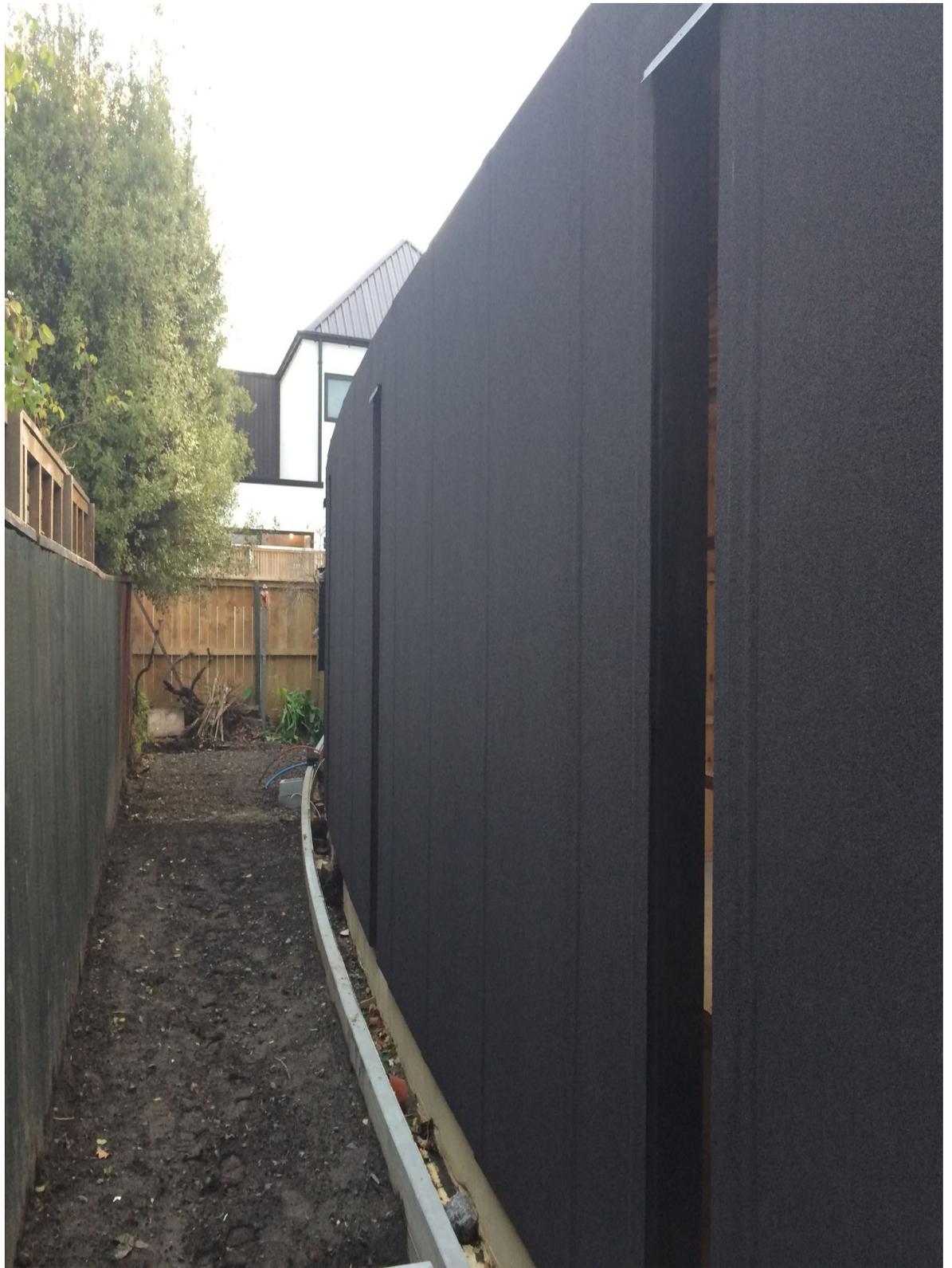


**WMAI**  
NEWSLETTER

**ISSUE**  
**#002**



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## PG. 2

Falls in substrate

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## PG.4

Personality: Rodney Knight

Aluminum Extrusion

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## PG.6

Minutes July minutes

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## PG. 7

Code Extract: IWAM

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# SUBSTRATE FALLS

## INTRODUCTION

Building Code Clauses and Council documents all have minimum fall requirements for roofs, decks and gutters.

The purpose of this is: Water shed off the roof 2°, Deck 1.5° or into a common gutter 0.5°.

How the writers of the Building Code or the various Councils have calculated these measurements is unknown. They do however take into account some variation such as building movement, deflection and building settlement.

After the leaky building crisis, Councils became very steadfast on these percentages. Using taxpayer's money to pay claims for building issue was not Government's and the Councils' idea of 'money well spent'. Changes were needed to lessen the risks.

For existing buildings to comply to the new Code requirements became very difficult. This could require structural beams to be changed, doors to be cut back and so on. Some major alterations were required when the existing falls were shedding water with no leaking issues.

To satisfy the various Authorities, membrane suppliers were required to demonstrate compliance. This often involved writing letters to Councils. These letters were to take the responsibility away from Council and place it on the membrane supplier.

Like all precedents, this then became a noose the architects also started to put on the suppliers.

More and more letters were required: The Councils started to push back on the Suppliers. Suppliers were required to supply more evidence to show compliance.

This then made some suppliers pursue Codemark Certificates and with these, the suppliers had a marketing tool to out sell other membrane suppliers. Ironically, the products with the Codemark Certificate were no different from all other suppliers' products.

For the members of the WMAI it has been a tough pill to swallow. It has also been a costly exercise. The WMAI members support the Building Code and the Councils for putting a line in the sand as can be seen from the extract from the revised Code of Practice quoted in this Newsletter., which should provide unequivocal clarity.

The Architects or designers of new buildings should be able to design buildings within the guidelines provided by the Building Code and Council rules.

Yes, there will still be times that existing falls may require a letter of compliance from the supplier when not all other options are feasible.



## RMBM falls extract

### 4.0.2 Finished Falls

For timber and light-steel frame construction up to 10m in height, compliant with NZS3604:2011, this Code requires the following minimum finished falls:

- The minimum fall for a roof is  $2^{\circ}$ , which is equivalent to 1:30
- The minimum fall for a deck is  $1.5^{\circ}$ , which is equivalent to 1:40
- The minimum fall for a gutter is  $0.5^{\circ}$ , which is equivalent to 1:100

For timber and light-steel frame construction above 10m in height, which are subject to specific design, this Code requires the following minimum finished falls:

- The minimum fall for a roof is  $1.0^{\circ}$ , which is equivalent to 1:60
- The minimum fall for a deck is  $1.5^{\circ}$ , which is equivalent to 1:40
- The minimum fall for a gutter is  $0.5^{\circ}$ , which is equivalent to 1:100

For concrete and structural steel construction above 10m in height, which are subject to specific design, this Code requires the following minimum finished falls:

- The minimum fall for a roof is  $0.7^{\circ}$ , which is equivalent to 1:80
- The minimum fall for a deck is  $1.0^{\circ}$ , which is equivalent to 1:60
- The minimum fall for a gutter is  $0.5^{\circ}$ , which is equivalent to 1:100

All projects must ensure adequate falls, taking into account factors such as:

- The span of the supporting structure.
- Creep or settlement of the supporting structure.

*RMBM systems are often considered the cure-all material where it is not possible to provide a fall or slope to a roof plane or deck. While an RMBM system will keep water out where there is minimal fall, it is well recognized that providing adequate fall to the roof area enhances the serviceable life of the membrane system, and minimizes ponding and the risk of moisture ingress into the building.*





# RODNEY KNIGHT

## DIRECTOR AQUAKNIGHT

### Rodney from Aquaknight

Both my father and grandfather were plumbers in an era when pipes were lagged with Asbestos, roofs were flashed in lead and spouting was soldered with a roaring soldering iron. I remember as a child holding the extension ladder for Dad as he was two stories up patching our spouting. There was no OSH back then.

My destiny was set, I left school at 16 to start a Toolmaking apprenticeship arranged by my father. Opened my own Toolmaking business at 28 and three years later invented the Easy Clean waste trap for showers. 23 years later we still sell this product. Being involved with bathroom wet areas, we soon began working with waterproofing manufacturers to deliver better solutions for the greywater and storm water sectors.

To me, roofing membranes are the un-sung heroes of a building. While every attention is given to the aesthetics such as the colour of paint and schist stone accents; a membrane roof or gutter that is unseen gets little or no thought and is largely undervalued. Yet a membranes purpose of keeping us dry is critical and effects the durability of the building and lives of all who use the building.

### Where we are now

We have recently achieved ISO9001 accreditation which has meant changes to how we operate and think. Each of our products are fully tested and come with a thorough flow-survey test report. We all remember the leaky building saga, and the financial and reputational risk that delivered. I don't want to see that happen to our industry. This has led me to develop a testing protocol to validate our products and help raise the standard of construction taking a certified system approach. I would like to see Councils and inspectors asking for a FlowLab certificate as reassurance that the drainage products being used are fit for purpose.

### What WMAI provides

I joined WMAI two years ago to gain a deeper understanding of waterproofing and to give back. My strengths lie in my knowledge of global drainage best practices and applications developing a "whole system" inclusive of membrane and drainage. I have recently taken over the role of technical writer/illustrator and look forward to working on the Below Grade Tanking code.

### My happy place!

I am very proud of my family - 3 adult children, four grandchildren, a manic Jack Russell Terrier and a wife that still lets me go riding. Trail & Adventure riding is my passion. Each year a group of us travel to the iconic Dusty Butt event in the Fairlie-Alexandra area that involves ten



days of off-road mountain riding nirvana. Every other weekend I ride Woodhill Forrest Bike Park, or one of the North Island community trail rides.



My happy place...top of the Kurow Saddle crossing. The annual trek to the imaginatively named 'Hutt Creek Hut'

#### **Top Tip**

You are all familiar with our Clamped Membrane outlets. We get calls from installers asking for more screw packs. Also, sometimes sawdust or bitumen gets into the screw holes and can block them up. To stop this happening, place the screws in by hand before installing. This stops debris like saw dust entering the holes (and means you won't lose the screws).



# ALUMINUM EXTRUSION

## WHATS UP NEXT

An item that has always had room for improvement is the drip edge detail. Often a 3mm angle installed under or routed into the substrate.

The WMAI has come up with a better aluminum extrusion. This will be sold through you membrane supplier.

This will allow a 45-Degree bevel on the roof substrate edge while installation will be easier. Watch this space



# IN THE FUTURE

## WMAI FORWARD PLANNING

Our forward focus has now switched to the BGT (Below Ground Tanking) Code of practice. This document has been on going but left due to other priorities. A timeframe for the release has not been worked out. It is hoped the document will give the building regulators some guidance in an area that has long been left alone and become very ambiguous.





# H&S CODE SNIPPET

THIS SNIPPET IS FROM THE IWAM (INTERNAL WET AREA MEMBRANES) CODE. THE FULL DOCUMENT IS AVAILABLE FROM THE WEB SITE.

## 3. WATERPROOF MEMBRANE SYSTEM SELECTION

This section describes how to select an appropriate waterproof membrane system for a specific application.

*This section is written for the Designer and will also assist the Building Consent Authority.*

### 3.0 General

The purpose of this section is to provide information to select a membrane for a given situation.

The waterproof membrane systems must be selected with in accordance with the following items, and the requirements of Table 3 (p22):

- The intensity of use of the space
- Compatibility with the intended types of horizontal and vertical substrates, including the anticipated movement in the substrates
- Compatibility with any overlay, tile adhesives or other components of over-surface finishes. Refer Section 4.7 (p60)
- Construction constraints, such as difficult access, poor ventilation, or complexity of detailing in the design
- Programme constraints
- Compatibility with heating and sound insulation layers. Refer Section 7, Specialist Systems (p74)



# ALL COMPONENTS IN A WET-AREA WATERPROOF MEMBRANE SYSTEM MUST COME FROM THE SAME SUPPLIER

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The following sections outline factors that must be considered when selecting a waterproof membrane system

*Wet-area waterproof membrane systems are composed of highly developed and tested chemical compounds. If there are multiple components to a system they will have been tested to ensure compatibility and there must be no substitutions.*

*For products that are used in conjunction with but are not waterproof membrane systems, refer Sections 4.1 (p36) and 4.6 (p59).*

## JULY MINUTES

AS TAKEN BY WAMI SECRETARY MARK RAYNER

### Guest Speaker

Brendon explained that although TANZ has only been operating for a relatively short period of time they have written over 200 reports on tiled bathrooms with leakage.

There is a huge area for improvement in the area of waterproofing under tiles. Training is very important and although some companies offer, training it is usually specific to a new tiling adhesive and not tiling practice in its own right.

There was plenty of discussion amongst those present about how our two groups could move forward. One suggestion was to discount both annual fees to allow the member of both associations at a greatly reduced fee. This would add members to both organizations and make the annual fees attractive to prospective members.

### General Business

A. Accurate Waterproofing now accepted and invoiced. Invoice current till Sept 2021.

B. Newsletter. The 2<sup>nd</sup> draft prepared by Gerry has been tabled. Glen has been asked to submit a bio for the first print. Gerry and 2<sup>nd</sup> by Mark moved the acceptance of this newsletter format. The vote was unanimous to proceed.

C. The Auckland complaint received through our website continues to be of concern to the builder/architect. Jaydex laid the torch-on membrane. A letter has been written to the complainant by Jim explaining the all parties should meeting on site to discuss any shortfall in the projects substrate.

D. The revised Torch-On code of practice RMBM is all but finished. A finished draft should be done by the 10<sup>th</sup> of August. It should be signed off by the 13<sup>th</sup> of August and ready to pass to MBIE by the 26<sup>th</sup> of August.



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