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Do I really need to wash my house?

Maintain your home and it will look after you by maximising the lifespan of its individual components, Hose down your house regularly, for example, to reduce the need for major repairs to the cladding.

Everybody knows about building maintenance – and what everybody knows about building maintenance is that it is expensive, it can ruin a perfectly good Saturday afternoon and you are invariably not doing enough.

But what very few people know is why we are supposed to do house maintenance – 9 times out of 10 the answer to that question is durability.

Clause B2

Clause B2 *Durability* is the least-loved section of the New Zealand Building Code. Less sexy than C2 *Prevention of fire occurring* or B1 *Structure*, seemingly less important than G12 *Water supplies* or F2 *Hazardous building materials* and subject to fewer newspaper column inches than H1 *Energy efficiency* or E2 *External moisture*, B2 tends to get forgotten, but it is fundamental to the long-term enjoyment of any building.

B2.1 states, 'The objective of this provision is to ensure that a building will throughout its life continue to satisfy the other objectives of this code.' In this way, B2 underpins everything else in the Code. It's all well and good saying your building satisfies E2 on day one, but that won't be much comfort to the family living in it if the roof starts leaking in 6 months!

5, 15 or 50 years?

Once a building is complete, people expect to get use of it for many, many years. But exactly how many years should you expect from your building? Will the walls last as long as the roof? How about the windows?

B2 sets out the minimum durability requirements for every component in a building – either 5, 15 or 50 years. These minimum requirements are based around if the component is providing structural integrity to the building and how difficult the component is to replace.

B2.3.2 also takes into consideration building systems as a whole, which can result in specific components having higher

than expected durability requirements if they are part of a system that makes them difficult to access or replace.

Fixed for life

B2.3.1(a) describes the 50-year requirement. This includes any element that provides structural stability, elements that are difficult to replace or elements for which failure to comply would go undetected during normal use and maintenance.

We will circle back to that final section, but first let's focus on structural stability. Initially, it might seem obvious what is structurally integral and what is not. Timber frame – check, floor bracing diaphragm – check, roof trusses – check. But many people forget this also includes all the fixings holding your timbers together. Additionally, in New Zealand, it is common to find internal plasterboard, rigid air barriers and even cladding being used as a bracing element.

Then there are elements that are difficult to replace, so how about those fancy new underfloor heating pipes? If they are laid into a concrete slab, they must have a 50-year durability rating too. Even some hidden gutters and downpipes require a 50-year durability.

For a building designer, it is vital to consider these requirements during the building stage so everyone involved in the project knows what materials are required from the outset. And if you are buying a house with these features, ensure you check the building materials used are up to spec.

Just 15 years?

Many people are shocked to discover how many building elements are covered by B2.3.1(b), the 15-year requirement, including elements that seem they should last a lifetime such as non-structural roofing, cladding, windows and doors.

The Building Code expects us to be active participants in our buildings, not just passive users.

While 15 years might seem a very short lifetime for a roof, in reality, the 15-year requirement is a minimum based on how difficult an element would be to replace or how likely an occupant is to notice a failure. An occupier would expect to get a lot more than 15 years out of many of these basic elements, and this is where good maintenance comes in.

Failure detection

Both B2.3.1(a) and (b) have sections based on how easy it would be to detect failure of a building element. For the 50-year requirement, it is if failure would go undetected during both normal use and maintenance. For the 15-year requirement, it is during use only and where normal maintenance would detect the problem.

This means if we want to get the very best out of our buildings, the Building Code expects us to be active participants in our buildings, not just passive users. Exactly what and how much maintenance is required varies massively depending on the building's location, design, use, age and a multitude of other factors.

All the colours of the rainbow

Henry Ford, the man who invented the first production line, is famed for the phrase, 'Any colour the customer wants, as long as it's black'. Luckily, when it comes to housing in Aotearoa, this is not the case, and the exterior features and fittings of a house can be pretty much any colour you like, even black.

This can improve the aesthetic appeal of a building, help it fit in with its surrounds or make an important feature pop. What has this got to do with B2, I hear you ask? As well as improving the look of a building, these coatings are often vital to the durability of a product or material.

Fibre-cement weatherboards are a perfect example. Any BRANZ Appraisal for fibre-cement weatherboards will specify that the product must be finished with a paint system.

The presence of water long term inside a fibre-cement board may contribute to unwanted degradation.

By regularly washing a building and inspecting the weatherboards for cracks in the paint, an occupier can fix these small problems before they result in the requirement for major repairs.

A weekend house washing

This is just one small example of how regular maintenance can increase the lifespan and decrease the overall costs of owning and occupying a building. All this can be quite overwhelming for a building owner or occupier, but there are resources available online that can provide help and advice.

Any BRANZ Appraisal or manufacturer's instructions relating to a building will always provide a good starting point.

So while it may seem onerous and not like a particularly fun way to spend a weekend, good home maintenance is well worth it in the long run.