Are leaky buildings behind us?

The New Zealand building industry has come a long way since the leaky building issues of the 1990s and early 2000s. But was the situation as bad as we were led to believe, and what problems remain?

BY RORY CROSBIE, DIRECTOR, PRENDOS

BUILDING CONSULTANCY PRENDOS helped uncover New Zealand's leaky building problem in the mid-2000s - bringing the issue to the attention of councils and government. It quickly became obvious that the problem was prolific and widespread, and over the next decade, thousands of home and building owners faced huge expense and heartache as they attempted to remediate their damaged properties.

Risky designs and non-durable materials

A leaky building is one where moisture gets between the outside of the building (the cladding) and the inside walls. Buildings that have the highest risk of leaking were mostly constructed between the late 1980s and the mid-2000s.

Back then, understanding of how direct-fixed, plaster-style monolithic cladding systems performed was lacking. A perfect storm ensued where risky designs built

Weathertightness issues arose from risky designs built with unreliable systems and non-durable material in the 1990s and early 2000s.

with unreliable systems and non-durable materials appeared across New Zealand.

In 2002, former State Services Commissioner Don Hunn presented a report on the weathertightness of buildings to the Building Industry Authority. Known as the Hunn Report, it was a landmark document that officially confirmed New Zealand had a serious problem with its buildings.

Nine years after the Hunn Report, one of its authors, David Kernohan, wrote an article in the *New Zealand Herald* raising concerns that fundamental changes were still needed to avoid issues like leaky buildings in the future.

Remediation often included other defects

Jump another 10 years forward to 2021, and the question remains whether today's government has come to grips with the underlying drivers of the behaviours that caused such problems in the first place. Has the industry embraced a national home warranty scheme to relieve taxpayers of endless leaky claims, for example?

Over the past 20 years, construction specialists nationwide have assisted property owners with the identification of defective building works associated with weathertight-compromised buildings.

Defects typically led to failing buildings due to inadequate systems and non-durable materials creating structural and health issues. Often, during these weathertightness repairs, other construction issues such as structural and passive fire defects were found and addressed.

Expensive remediation work was required to return the affected properties to a Building Code-compliant state – sometimes running into tens of millions for larger properties such as apartment blocks. In many cases, the cost of this work was covered by the ratepayer.

As at 31 January 2021, the Ministry of Business, Innovation and Employment had received 7,385 claims lodged under the Weathertight Homes Resolution Service (WHRS) Act for 12,822 properties. The service has completed 8,772 property assessments, with some owners requesting more than one assessment.

Positive steps have reduced risk

Despite this, many positive steps have been made by the industry since the Hunn Report. We now have better cladding systems and materials. Councils have improved, but they are now pushing liability back to the industry.

National bodies of skilled professional building consultants, such as the New Zealand Institute of Building Surveyors, continue to train members to improve their knowledge on the science behind construction. Those who become registered building surveyors have played a very active part in the remediation of defective buildings, working closely with other skilled professionals in the design and construction of Building Code-compliant solutions.

Providers of building components such as cladding systems now also provide on-site technical assistance to their approved contractors and document installations to ensure their systems exceed Building Code requirements.

Taking such a proactive approach has greatly reduced the risk of system failure for both building owners and the suppliers themselves. It also creates a feedback system for suppliers that enables them to maintain their quality standards, increase their profits and support a sustainable business model. Quality through off-site construction is also a recently new initiative taking hold in the residential industry.

Large national owners of property, such as the Ministry of Education have also learned from their mistakes, implementing weathertightness design guidelines (see *Updated design requirements for new schools* on page 58). The Ministry has also implemented an independent design review and on-site monitoring regime to help reduce the risk of another costly leaky school bill.

More needed to protect consumers

With historically high industry activity in the residential sector and the value of non-residential building consents for November 2019 at a whopping $7.4 billion, how is the current system for residential construction coping? Is it avoiding the errors of the past and protecting the consumer? There is still more that could be done.

One issue is the failure to establish a national home warranty scheme to protect consumers. Such schemes are in place in other countries like Canada – a country that constructs in a similar style to New Zealand.

Currently in New Zealand, all residential building work, no matter how big or small, is covered by the implied warranties set out in the Building Act and the Consumer Guarantees Act. These warranties last for 10 years and apply whether they're in a contract or not. They also apply to work done by subcontractors employed by the main contractor. A contract can't state that they don't apply. This goes some way in protecting the consumer.

However, under the Master Build 10-Year Guarantee Scheme, in order to be covered for rot and fungal decay, the design, materials and construction of a property need to achieve a score of 12 or less in the building envelope risk matrix at the time building consent was issued.

Many homes throughout New Zealand – whether architecturally or house builder designed – will have a higher risk score, and consumers relying on this scheme may be unaware of this exclusion.

National home warranty scheme would help

A national home warranty scheme owned and run by the industry on a non-profit basis for the benefit of owners of new homes would offer greater protection and establish a centralised consenting, monitoring and educational platform for the industry.

A comparable scheme in Canada is self-funding – something that could easily be replicated here. In Canada, new homes are protected by 2-5-10 year home warranty insurance, as set out by the Homeowner Protection Act.

Licensed residential builders are regulated by Housing Licensing & Consumer Services. Mandatory warranty insurance includes:

- 2 years' coverage on labour and materials
- 12 months' coverage for defects in material and labour for a unit
- 24 months' coverage for defects in material and labour for major systems such as heating, electrical and plumbing
- 5 years' coverage on the building envelope – including coverage on unintended water penetration
- 10 years' coverage on major structural items.

This statutory protection is widely recognised as one of the strongest and most effective home warranty standards in Canada. Having such a body in New Zealand would provide timely advice, educate the industry and seek to avoid repeat failures.

A feedback-based system such as this would be the best way to deliver quality outcomes.

Building Code minimums behind international standards

The current system in New Zealand generally lacks a feedback-based system – feedback can be inhibited and even prevented by commercial and legal pressures. Warranty companies, to be successful, achieve this by identifying and managing risk at all levels of the industry and at all stages of the building process.

Weathertightness aside, the New Zealand Building Code performance requirements of a building's external fabric is still way below international standards.

The consumer's expectation is that buildings should not leak – and rightly so. They also assume that their new property will maintain a comfortable internal environment at an affordable cost.

However, the current minimum Building Code standards allow use of building elements not permitted in other parts of the developed world. For example, window frames that are not thermally broken can be used in new Code-compliant construction, increasing the risk of heat loss and possible condensation build-up on the internal face of the frame.

Thermal bridging has the potential to create new leaky buildings in parts of New Zealand with greater daily temperature variances.

Changes on the horizon

Thankfully, and largely resulting from the Climate Change Commission's drive for net-zero carbon construction, the industry has recently really stepped up the conversation on sustainable construction methods.

MBIE's Building System Regulatory Strategy *Building for the future* was launched in 2020, setting out a vision for the future of building regulation over the next 10 to 15 years and what MBIE needs to do to achieve that future. Let's see where that brings us.