New Zealand Institute of BUILDING SURVEYORS

ISSUE 19 DECEMBER 2025

The Journal

Why choose an NZIBS member?

In an environment where legislation and building performance standards are continually evolving, the distinction between a generalist and a trained NZIBS professional is more important than ever.

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FROM THE PRESIDENT

DARRYL AUGUST
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Business as usual with a stronger focus on growth and engagement

As I enter my final year on the Executive and my third term as President, I've reflected on the challenges and changes of 2025. While many hoped this year would bring improvement, it has tested us in numerous ways. With interest rates and inflation now easing, there is reason for cautious optimism as we look ahead.

The Executive has been working diligently to prepare and finalise our new constitution ahead of next April's changes. Recently, we sought your input through a membership survey, and I'm grateful to those who shared thoughtful, constructive feedback. Your contributions help shape the future of our organisation. For those who haven't yet engaged, I encourage you to take part—your voice matters, and together we can build a stronger, more united NZIBS.

We recently hosted our first member engagement webinar, and the response was overwhelmingly positive. These sessions are designed to keep you connected—providing regular updates from the Executive and giving our valued sponsors a platform to share insights. I extend my sincere thanks to the Executive chairs for their contributions and to Mike Olds from Resene Construction, a gold sponsor, for his excellent presentation. Our next webinar is scheduled for 25 February 2026, featuring GIB as the presenting sponsor. Sponsorship is not just financial support—it's a partnership that helps NZIBS thrive and deliver greater value to our members.

One of the most significant developments since the introduction of the Building Act occurred on 18 August this year, when the government announced a

shift from joint & several liability to proportionate liability. NZIBS first engaged on this issue early in 2025 as part of a Ministry of Business, Innovation and Employment working group.

On 24 November, the Minister outlined the new liability framework, which includes the following key changes,

- Mandatory warranties for all building work over $100k,
- Mandatory Professional Indemnity Insurance for Professionals including Building Surveyors (no change for our members), and
- Greater penalties for LBPs.

In respect of warranties, what does this mean in reality? Currently there are three options in NZ being Master Build Guarantee, Halo by Certified Builders and Stamford Insurance (the only insurance backed policy). How do the three compare? Well simply put: they don't, with the exception of the two industry association warranties. Will the two industry association warranties, which will probably be the default for most residential builds, actually provide sufficient consumer protection? I'm planning to write a piece in the near future, time permitting, that will examine the three warranties in detail, with this piece becoming an important consumer advice tool produced by NZIBS.

Our Vice President and I recently attended a Construction Industry Council meeting where MBIE provided further details on the upcoming changes. I raised the issue that the $100k warranty threshold will likely apply to Granny Flats, which will become exempt works under schedule 1 from early 2026, given their estimated build cost of $2,000–$3,000 per sqm. When asked whether Halo would cover unconsented Granny Flats, Certified Builders' Malcolm Flemming confirmed this is not currently offered but will be in the future. He noted such builds would require certified builders with advanced qualifications and licensing, and he is advocating for MBIE to introduce higher licensing standards for certain LBPs who could potentially self-certify—a concept I find concerning.

I also highlighted that Stamford would only provide an insurance-backed warranty for unconsented buildings if fully inspected and signed off by a Registered Building Surveyor. While the initiative to allow Granny Flats up to 70 sqm without consent aims to reduce cost and save time, engaging a Building Surveyor may ultimately cost more than council consent processing and inspections. Nonetheless, I view the $100k threshold positively, as the warranty requirement should help prevent non-compliant construction.

Standards New Zealand has agreed to establish a review panel for NZS4306:2005 to update and modernise this 20-year-old standard. Last year, during an interview on the Mike Hosking breakfast show, I emphasised the need to update NZS4306:2005, following a newspaper article that highlighted differing perspectives across various qualification levels within the pre-purchase industry.

While NZIBS had been planning to form a voluntary policy group to advocate for this change, Bruce Symon of Realsure, representing BOINZ, had already secured agreement from Standards NZ through a formal submission. Revising a standard involves significant cost, and funding will be required before the process can proceed. Bruce has approached NZIBS for support, input, and financial contribution. The Executive considers this a worthwhile investment and has agreed to contribute, provided NZIBS has strong representation on the panel. We have proposed two NZIBS members: one Executive representative and Past President Darin Devaney. I extend my thanks to Darin for committing his time and expertise to this important initiative. We will keep members updated as the review progresses.

As noted at the AGM, Saskia Shelton has concluded her role as Executive Assistant. In the interim, Sarah Pugh, our Operations Manager, has stepped in to provide support until the Executive finalises decisions regarding future roles. I want to acknowledge Sarah's commitment during this period, as taking on these additional responsibilities has significantly increased her workload. Her efforts are greatly appreciated. We will provide an update in the new year regarding staffing requirements for the Operations team.

As always, please feel free to reach out with any queries or matters you wish to discuss directly. ■

SARAH HOHIA
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Navigating change in a shifting regulatory landscape

As we round out the year, this issue of *The Journal* reflects what many of us are feeling: a tension between momentum and complexity, reform and risk, tradition and change. The pieces we've gathered capture the way Building Surveyors sit at the intersection of all of it, navigating technical specifics while responding to a rapidly evolving regulatory landscape.

The biggest shift on the horizon is the Government's plan to introduce compulsory 10-year building warranties for most residential builds and major renovations from 2027. It's a significant move designed to support the transition to proportionate liability, reduce homeowner risk, and push for more consistent protections across the sector. And while the policy is a welcome step forward, it also raises questions: How will councils adapt their role? What happens to projects outside the scope, like multi-storey apartments? How will the PI insurance market respond? The industry will need to engage actively and constructively to make the transition work. Warranties might be mandatory, but meaningful consumer protection still depends on the quality of what lies behind them.

That theme, ensuring the systems behind the paperwork are fit for purpose, also comes through strongly in our article on the urgent need for standards system reform. As someone working day to day in a world governed by NZS 3604 and other critical documents, I felt a strong resonance with Malcolm Arnold's message. The system, as it stands, leans too heavily on volunteer labour, delays revisions for years, and puts key documents behind paywalls, barriers that undermine compliance, safety, and progress. If standards are meant to be the backbone of our built environment, they need to be accessible, current, and created with the people who use them in mind.

> **"The system as it stands leans too heavily on volunteer labour delays revisions for years and puts key documents behind paywalls barriers that undermine compliance safety and progress."**

That philosophy (building from the ground up with real-world expertise) is perhaps best embodied in Warren Nevill's final instalment on the evolution of NZIBS training. In his typical storytelling style, Warren walks us through the decades-long journey of shaping our educational offering into what it is today: a respected, independently delivered Level 6 Diploma with wide-reaching value across the sector. It's a testament to the passion and perseverance of so many who've contributed to the Institute's legacy of technical distinction. And, as Warren reminds us, our training isn't just for transitional members anymore, it's increasingly a home for experienced professionals who value lifelong learning.

Other stories in this issue carry forward that thread of depth and diligence, from the state of New Zealand's fire door industry, to a BRANZ update on thermal performance in timber framing, to reflections on what a Building Surveyor is, and why matching the right surveyor to the right job still matters more than ever.

As we close out 2025, thank you for your continued contribution to this profession. This issue is a reminder that technical excellence, strong ethics, and collective leadership remain the cornerstones of our work. Here's to carrying those values forward in the new year. ■

WARREN NEVILL
TRAINING OFFICER

So where are we now?

PART TWO OF A TWO-PART SERIES ON EDUCATION

Life went on, the occasional presenter threw their toys out of the cot.

And, we replaced our Building Act module, which wasn't providing the depth of knowledge that I saw desirable. Approaching William Hursthouse, I somehow managed to convince him, despite the page-and-a-half typed list of what I wanted to be included providing a formidable hurdle, to give up weeks of his life developing what is now our Building Legislation flagship module.

The only fly in the ointment being that, he wanted to discuss every aspect, connotation, and punctuation mark of both the content and multiple examination papers. So intense were some of these discussions, one occurring while I was driving north to Paraparaumu, that I travelled a further 18 km beyond where I needed to turn off before realising I had missed my exit; hands-free, of course.

Intertwined throughout all of this was the ruthless efficiency of Noeline Clarke: our Institute Secretary. Cross her at your peril. I was only ever late once with a PD record, candidate result or whatever. But, Noeline was the ever-ready to answer, go-to person for anything you could ever need to know; not just about education, but anything involving Institute business and, the answer

was at her fingertips. Talk about supportive. And she is still there, like a resource, reference library lingering forever faithful to the Institute in the background.

On a chilly night after a conference dinner in Rotorua, with Rory Crosbie as President, and hanging about at the bar too long was preferable to walking back in the cold; he and I and someone else eventually stumbled back in the early hours. – could've been Malcolm, maybe Tony, perhaps even someone else who doesn't remember either, doesn't really matter, see how easily it is to slip into that Oirish way of doin' tings, or not; only that Rory had ensured that he'd a witness.

During a pause in a conversation, no doubt, dominated by rugby, I announced I was resigning from active surveying. 'Dat's great,' came his leprechaunial – I'm allowed to make up words – response, 'you've just become the Institute Training Officer'. 'Foyne' is a hard word to slur, even if you are taking the piss out of the accent, but I think it came out that way.

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And that was that. Did it go to my head? Well, only you can decide that. But it did give me a degree of autonomy.

Despite that, a 'Diploma in Building Surveying' was scheduled amongst the qualifications listed as satisfying BCA upskilling criteria, one which I had claimed as ours: there being no other competition; we were receiving a bit of pushback against our level five Diploma –satisfying their education requirements. Careful reading of the (BCA Accreditation) Regulations revealed that a level six, construction related, qualification would do the job.

Coincidently at the same time, Rory decided that 10 modules weren't enough and that 14 would be better. Especially, with the inclusion of a couple relating to dilapidations and due-diligence of multi-storey buildings. Funny dat. Put all together, however, and we had the foundation for a level six qualification.

Well, all that was required was bringing 10 modules up a considerable notch or two, splitting one module into two, introducing two new modules, finding presenters, providing supporting documentation, rewriting 14 pairs of more exacting exams, instigating a 50-page regulation (14), and convincing Vertical Horizonz, (our certification body) to subject our presenters and procedures to an audit from hell each year.

Did you manage to read all that in one breath? Ever think of becoming a Presenter? Something else had made it all possible. Sally Dunbar –, who was also providing the backups at the module presentations – was moving on to higher things. Sally's position as Executive Officer had been redefined as 'Training Administration Coordinator,' and had been filled by this Welsh woman called Sarah, who, by the way I'm still trying to understand despite 50% of my heritage being from a similar valley.

I think it is fair to say that without Sarah's meticulous eye, her impeccable dotting and crossing, her abilities to organise, coordinate, find, hit on, stalk, hunt down, shoulder tap potential transitional members while somehow simultaneously mothering the younger course attendees, playing nurse, supporting the presenters, especially the older forgetful ones along with her incredible clucky bantam concern for the candidates, level six would have faltered.

The level 6 Diploma now has three subset Certificates, each independent. While the high-level threshold for Transitional Members remains, a lesser level of competency demonstration has been instituted.

Our diploma satisfaction of the BCA credit requirements has been endorsed by MBIE. Our modules are no longer attended solely by transitional members, receiving a wide and varied interest from those external to the Institute – the current range of Modules, having participants from 'Sister's Carpenters', BCA Building Surveyors, Pre-purchase inspectors, Earthquake and Insurance investigators to a specialist in Archaeological deconstructions. Existing members are also starting to turn up for "refresher" opportunities or to boost their PD points.

We hold ourselves up as an Independent Tertiary Education Provider, having developed a relevant and well-recognised qualification, one which has been established to place itself at the apex of the construction industry. We've survived external challenges and somehow managed to get through the Covid lockdowns without postponing a presentation. We are expanding the extent of our training and are on the lookout for the next tier of knowledgeable, inspirational presenters.

If you think you have that potential, put your hand up, you never know, you could end up with my role. Or if you're simply interested in what's going on, come along and find out.

So what's happened along the way. Recently we exchanged William for Ulricke as the Module 1 Presenter. Darin was to extend the Residential Pre-Purchase Inspection module to an advanced second day – graduation from which is likely to provide preferential insurance terms – however, the pending Standard revision was deemed sufficient cause to place a hold on this process. (Unfortunately the opposition hasn't taken a similar point of view on the need for such moratorium).

Greg, the seemingly staid scientist from BRANZ, who enlightened me as to, 'what does the fox say' (Google it) saw greener pastures and was replaced by John Burgess. Either there's something in the water at BRANZ or beneath the lab coats, normality reigns. Trevor Jones broke into the echelon of Executive obligations and gave up presenting. Either that or retirement beckoned, and Robin tested the old Nietzsche adage, 'What doesn't kill you …'

So, where to from here:

Well, that's for you to decide.

Personally I think it's long overdue that we re-focused on the proclaimed concept of being a Centre of Technical Distinction, rather than the current fixation on numbers.

I also need to figure a way of accommodating ESL module participants without compromising module competency expectations for Transitional Member students.

That, and about a million other things in between, seemingly, constantly extinguishing blazing oil rigs. ■

DUNCAN COLEBROOK
DIRECTOR, STAMFORD INSURANCE

Compulsory Building Warranties: What the Government's reforms mean for the building industry

The Government is introducing a major shift to the Building Act through the Building Amendment Bill, expected in early 2026: from 2027, all new residential builds up to three storeys, plus major renovations over $100,000 involving restricted building work, will require a compulsory 10-year building warranty. This reform is intended to enhance consumer protection, boost accountability, and support the shift from joint and several liability to proportionate liability.

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Stamford Insurance cautiously welcomes this change. As New Zealand's only insurance-backed building warranty provider—supported by Lloyd's of London with an A+ credit rating—we're ready to deliver robust, reliable cover for projects of any scale and value, reinforcing confidence across the sector.

Why the change matters

Under the current joint and several liability model, all parties in a build share accountability for defects. If one cannot pay, the burden often falls on others—including councils. Whilst this has resulted in significant improvement in performance across the industry, driven by a combination of rigorous Council inspections, training and product development, the move to proportionate liability means each party will be responsible only for their share.

For homeowners to pursue claims under a proportionate liability regime would be almost impossible - the complexities of investigating the cause of the defect, apportioning blame, and then pursuing several legal claims simultaneously against the various parties would be simply beyond the resources and capability of the average homeowner. Mandatory warranties are critical here. They give homeowners a clear pathway to remedy defects and ensure funds are available, even if a builder or professional cannot meet their obligations.

Benefits across the sector

Compulsory warranties offer multiple advantages:

- **Enhanced homeowner protection** – Every eligible build gains a defined process for defect resolution.
- **Boosted buyer confidence –** Developers can offer stronger assurances, aiding presales and reducing uncertainty.
- **Sector-wide consistency** – Currently only 46% of builds are covered by a warranty or guarantee, a universal approach delivers clarity.
- **Supports proportionate liability** – Warranties provide a financial backstop, potentially enabling the new framework to work effectively.

Key considerations for industry professionals

1. Financial strength is critical

For compulsory warranties, strong financial backing is crucial. Stamford's A+ rating through Lloyd's of London guarantees claims can be met, even for complex or high-value projects. Reliable warranties protect homeowners if any party falters.

2. Multi-unit and apartment buildings

Buildings over three storeys may fall outside the mandatory scheme, potentially exposing some apartment owners. Stamford insures projects of any size, underscoring the need for proactive planning, comprehensive insurance, and solid governance in larger developments.

3. Council oversight remains vital

Reduced council liability will not in principle lessen their regulatory role. Councils will continue to enforce Building Code compliance via the consenting and inspection process, sustaining standards and minimising long-term risks.

4. Professional Indemnity Insurance pressures

Architects, engineers, and others must hold professional indemnity (PI) insurance—most already do, but formalisation could strain the market. Robust PI ensures funds for claims where professional errors play a part.

Risks to consider

While compulsory warranties may signal progress, challenges and risks persist:

- Will Councils relax their consenting and inspection regime over time as they will in future bear less of the risk?
- Still no compulsory cover for multi-unit buildings above three storeys.
- PI limitations, where larger claims may outstrip available cover.

These highlight the value of diligent risk management. Stamford's operational expertise and financial strength mitigate them, instilling confidence for developers and homeowners alike.

Next steps

Warranty providers must register with MBIE, proving financial strength, operational capability, and 10-year claims-paying ability. Independent audits will ensure compliance. With a one-year transition post-legislation, Stamford is geared up to meet rising demand and support seamless rollout.

Stamford's position

We cautiously back the Government's reforms. Compulsory warranties, paired with proportionate liability and bolstered PI requirements, advance homeowner protection and industry accountability. Stamford remains committed to insurance-backed warranties with ironclad financial security, empowering homeowners, developers, and builders to thrive in this evolving regulatory landscape. ■

Sources

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Reforming New Zealand's standards model matters to Building Surveyors

New Zealand's construction standards system is under pressure, and the sector is calling for change. NZIBS Technical Chair Malcolm Arnold shares his perspective on why reform is overdue, and what it means for those working at the coalface.

For years, New Zealand's building and construction standards have relied on a model that depends heavily on industry funding, volunteer labour, and slow development cycles.

The consequences are now visible. Key documents such as NZS 3604 have experienced extended delays, with the current revision running years behind schedule.

Having served on the NZS 3604 revision committee for three years, Malcolm Arnold, NZIBS Technical Chair, acknowledges "it's a big commitment", citing the time involved and the challenge of limited resources.

Despite the delays, the committee has remained focused and dedicated to advancing industry standards.

Mr Arnold notes that the process demands countless meetings and considerable work to reach consensus, all undertaken by volunteers.

He adds that revisions are becoming increasingly complex to reflect the evolving needs of our built environment.

Whether in structural design, weathertightness, or product performance, the industry is grappling with documents that are essential to safety and durability, yet difficult to update under the current funding model.

In September, a coalition of engineering, construction, and manufacturing organisations issued a joint letter to the Minister of Commerce and Consumer Affairs, Hon Scott Simpson, calling for urgent reform to the standards system.

The message was clear: the current model is no longer fit for purpose.

The letter highlights several systemic problems:

- Industry funds the development of standards and volunteers its time, yet must still pay to access the finished documents.
- The cost of obtaining standards creates barriers to compliance, leading some practitioners to rely on outdated, free, or improvised alternatives.
- The volunteer burden is unsustainable, with some organisations estimating hundreds of thousands of dollars of in-kind contributions each year.
- New Zealand risks falling out of alignment with international best practice, particularly as Australian and joint standards evolve.

The signatories call for a publicly funded or levy-funded model, wider free access to essential standards, streamlined development pathways, and better support for technical volunteers.

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They also point to international examples, including Standards Australia's recent advocacy for removing paywalls, as evidence that system-wide change is both possible and timely.

For NZIBS, the issues raised in the joint letter resonate strongly. Mr Arnold notes that the Institute is itself preparing to contribute financially to the redevelopment of NZS 4306 (Residential Property Inspection), despite operating as a relatively small member organisation. "We're looking to stump up about $10,000 to be part of that," he says.

Participation is viewed as essential: it ensures building surveyors have a voice in the standards they use daily. But the financial burden is real.

"We're giving up our time to be part of these committees," Mr Arnold says.

Even so, Mr Arnold stresses that industry involvement is critical: "You'd rather have some input than be dictated to."

Ensuring that standards reflect practical realities on site, he says, is a fundamental responsibility of those who work in the built environment.

Another emerging issue is the Government's move to broaden acceptance of overseas standards as part of building product reforms.

Mr Arnold acknowledges the potential benefits (increased flexibility, more products, and better alignment with global markets) but warns that selective interpretation carries risks.

Professionals, he says, must understand international standards "and not just cherry-pick certain clauses that may suit a purpose without understanding the whole standard or the context in which it was written".

The risk is that, without expert guidance, imported standards could be used inconsistently, or in contexts they were never designed for.

This reinforces the need for organisations like NZIBS to help practitioners interpret, apply, and navigate the evolving regulatory landscape.

For building surveyors, standards are not abstract documents. They underpin everyday practice — from assessing cladding failures, to navigating product compliance, to providing expert opinion on durability or risk.

Key implications for NZIBS members include:

1. **Greater clarity and consistency in design and assessment**

   Delayed or outdated standards create uncertainty, particularly where practitioners must bridge gaps between code clauses, overseas guidance, and evolving industry expectations.

2. **Reduced cost barriers**

   Access fees for essential standards can be significant. Free or subsidised access would benefit smaller practices and support more consistent compliance.

3. **Stronger alignment with Government reform**

   With planning, infrastructure, and building law all shifting towards greater reliance on national standards, a modern system is essential for efficient implementation.

4. **Sustainability of volunteer expertise**

NZIBS relies on highly experienced members like Arnold to represent the profession. A reformed system could reduce volunteer fatigue and support broader participation.

Despite the challenges, Mr Arnold remains committed to ensuring NZIBS continues to contribute expertise where it matters most.

The Institute views participation in standards development not as optional, but as core to its technical leadership.

"It's about moving forward and getting things right," he says. Education, shared knowledge, and continuity of expertise remain central pillars of NZIBS' role in the sector.

As the Government considers the recommendations before it, one thing is clear: a modern, accessible, and sustainable standards system will be essential to improving the safety, quality, and resilience of New Zealand's built environment. ■

What is a Building Surveyor?

This chapter of the What Is a Building Surveyor? series traces Sarah Hohaia's path from hands-on beginnings to leading her own practice shaped by openness, integrity, and continual learning.

When Sarah Hohaia walked into a Miramar office more than a decade ago, she didn't know what a Building Surveyor was.

She had come seeking architectural drafting work (armed with a National Diploma in Architectural Technology and the determination of a young parent returning to study), yet her career was about to pivot in a direction she hadn't planned.

What she found was a profession rooted in curiosity, problem-solving, and hands-on learning, a place where her instinct to "be out and about, talking to people" made perfect sense.

Her path to that moment had never been linear.

Sarah left school at 16, not for lack of capability but because the classroom "was not made for me".

Work was more appealing – it was more practical, immediate, grounded. Motherhood arrived at 21, and within a year she realised that a stay-at-home role wasn't the right fit and she needed to get back to work.

Architecture felt like the right kind of direction, so she enrolled at WelTec and completed her diploma while her daughter was at daycare.

But graduating into a silent job market (just after the Global Financial Crisis) meant she needed to be resourceful.

She dropped CVs around Wellington offering to work for free during daycare hours. Unfortunately, no one took her up on it.

A tutor's connection with a local a building surveying firm changed everything. The company initially

considered her for CAD work but quickly saw she was better suited elsewhere.

After a short trial, she began shadowing project managers on weathertightness remediation work, large and small reclads across Wellington, and soon transitioned fully into investigative surveying.

She immersed herself in building investigations, defect analysis, and claims work that spanned tribunals and the High Court. She completed her NZIBS modules while working full-time and became registered in 2016.

"I pretty much learned everything on the job," Sarah says, describing the early years not as slow progression but rapid absorption.

Over a decade passed in that Wellington office, and during that time, Sarah discovered that investigative work suited her far more than the design world she originally pursued.

She thrived on variety, and the reality that no two buildings behave the same way, even when their problems look identical at first glance.

"Two projects can seem the same from the outset, but they can be completely different. It's the variety that keeps me engaged and interested."

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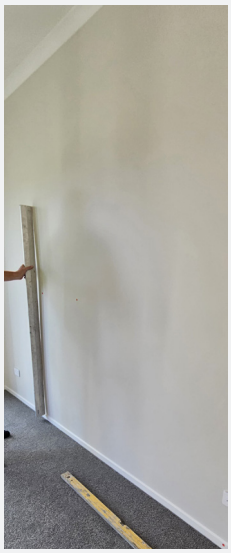

Her employer had been extremely supportive and family-friendly, but she was ready for something different: a new challenge.

The idea of starting a business was, at times, unsettling. “My biggest worry was, am I going to have enough work?” she recalls.

Yet the Wellington surveying community, small but tightly knit (and other colleagues in the industry further afield), stepped in with reassurance. Many were sole practitioners themselves and offered guidance freely.

Alongside the skills she had learnt with her previous employer, her partner, who is already a seasoned business owner, helped her navigate the logistics of setting up a company.

Three and a half years later, Sarah’s practice is thriving. She specialises in building investigations, defect analysis, condition reporting, scopes of work, expert witness roles, and a raft of other services.

She enjoys the autonomy, the flexibility, and the ability to structure her week around both life and workload, including the odd game of golf when possible.

Looking back, the industry she entered in the late 2000s feels markedly different from the one she sees today.

Site contractors occasionally explained basic construction terminology to her, assuming she didn’t know it. She understood their assumptions, didn’t particularly appreciate them at times, but used this to her advantage.

Over time, she watched the profession evolve, shaped by new pathways, new expectations, and a more diverse cohort of practitioners.

Younger surveyors, particularly women, are sometimes reluctant to ask questions publicly for fear of dismissive responses. However, change, she believes, is happening.

Yet being a woman in the industry has also had unexpected advantages. She often receives enquiries from female clients who want a surveyor they feel comfortable speaking with - someone may feel less intimidating when asking questions.

Sarah also sees clear differences in how men and women in the field often approach problems.

Sarah finds that women can bring a different approach to work including calm communication and different collaboration styles. That difference in tone, she believes, enriches the profession.

Asked what a Building Surveyor is, Sarah distils her answer into three traits: analysis, openness, and integrity. A good surveyor, she says, is someone who thinks deeply, someone who understands that two issues that look identical might have entirely different causes.

They must be open to multiple possibilities rather than locking into a narrow view and above all, they must operate with integrity.

“We’re relied on a lot for being independent and impartial.”

Her framing aligns with the themes emerging across this series: the Surveyor as investigator, translator, and problem-solver; someone who brings breadth of knowledge and the discipline of careful thinking.

Looking ahead, she is excited by the diversity entering the field: younger practitioners, more women, and a broader range of life experiences feeding into the profession. She has enjoyed connecting with some or our younger and newer members of the institute at recent events.

She hopes to see continued shifts in mindset, with the industry moving away from entrenched habits and outdated assumptions. And she wants greater influence in preventing the problems Surveyors keep diagnosing.

“We’re still seeing some of the same issues, (or a variation of those issues) from 10 or 20 years ago,” she says. Her hope is that by being more present in regulatory and policy conversations, Surveyors can help effect meaningful change. ■

DR ANTHONY PARKES
BE (Civil), ME(Fire), PhD, PMSFPE, CPEng, IntPE

Behind closed doors: Challenges facing New Zealand's fire door industry

Fire doors are a cornerstone of passive fire protection systems, designed to contain fire and smoke, safeguard lives, and protect property. In New Zealand, the fire door industry has evolved significantly over the past decades, with more local manufacturers and increased testing. Yet, recent investigations reveal persistent challenges in compliance, transparency, and quality assurance.

The state of the industry

The industry has made progress, particularly with the rise of local manufacturing and more frequent testing. However, compliance remains complex and often opaque. It is often said by the manufacturers that a fire-rated door set is not a single product but a suite of approved solutions developed over decades. Manufacturers state that they hold hundreds of test reports and assessments, making it difficult for engineers and specifiers to verify compliance quickly. This lack of clarity creates risk for all stakeholders.

Key challenges

1. Testing gaps and failures

One alarming case involved a door rated for 60 minutes that failed in just six minutes when tested to AS 1530.4 and NZS 4520 standards. The failure occurred through the door and frame, igniting the unexposed face.

Missing intumescent seals and untested design changes were suspected to be the contributing factors. Even more concerning, some doors are tested in only one direction, despite AS 1530.4 requiring both sides to be assessed—or at least identifying the weaker side. This gap undermines confidence in the stated fire resistance ratings.

2. Opaque compliance information

Manufacturers rarely share detailed test reports, citing commercial sensitivity and long-standing industry norms. Instead, compliance is typically demonstrated through door tags and producer statements post-installation. While this may meet minimum code requirements, it does not satisfy engineers who need assurance that the product performs as specified. The lack of transparency leaves specifiers reliant on trust rather than evidence.

3. Reliance on assessments and opinions

Assessments and "Field of Application" reports often substitute for full-scale testing. These documents represent "opinions" only, but they are not legally binding, yet the industry has accepted these without full understanding. Acceptance of such assessments varies among Building Consent Authorities (BCAs), creating inconsistency and uncertainty. In some cases, assessments extend beyond the scope of actual testing, raising questions about liability and accuracy.

4. Quality management concerns

Many manufacturers lack robust Quality Management Systems (QMS) such as ISO 9001. Without QMS, there is no guarantee that doors are produced consistently or that constituent materials remain unchanged over decades.

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This opens the door to serious risks, including the inadvertent use of hazardous materials or substitution of components without proper validation. A reliable QMS is essential to ensure that doors manufactured today match the specifications of those originally tested.

5. Aging test data and manufacturing changes

Some fire doors rely on tests conducted decades ago. While historical data can provide a foundation, it raises questions: Are doors still manufactured the same way? Have constituent materials changed? Without updated testing and strict quality controls, relying on old data can lead to dangerous assumptions.

Implications for stakeholders

Architects, engineers, and BCAs face significant risks when specifying or approving fire doors without adequate evidence. Clients expect a 60-minute fire door—not one that fails in six minutes. The lack of transparency and reliance on outdated or incomplete information undermines trust and raises liability concerns. For engineers, due diligence is not optional; it is a professional obligation.

Best practices and recommendations

1. **Demand Documentation:** Request recent test reports and assessments before specifying a door. Do not rely solely on verbal assurances.
2. **Verify Testing:** Ensure doors have been tested in both directions and under current standards. Avoid products based on outdated tests unless manufacturing consistency can be proven.
3. **Scrutinize Assessments:** Confirm who prepared the assessment, their liability, and whether the BCA accepts it. Assessments should be no older than 5–10 years.
4. **Choose Manufacturers with QMS:** Select suppliers with ISO 9001 certification and a reliable door register system to track products throughout their lifecycle.
5. **Avoid Blind Trust:** If a manufacturer cannot provide evidence of compliance, do not select their product.
6. **Check for Recent Testing:** Ensure that any fire door specified has been tested in the actual construction proposed and not just assumed from historical data.

Conclusion

The fire door industry in New Zealand stands at a crossroads. While progress has been made, systemic issues in testing, compliance transparency, and quality control persist. Greater openness, rigorous testing, and robust manufacturing standards are essential to ensure that fire doors deliver the protection they promise. For engineers and specifiers, the message is clear: trust must be earned through evidence, not assumed through tradition. ■

BY ROBIN MILLER MNZIBS MRICS and
ALICIA TAYLOR of Origin Heritage

Understanding brick cavity wall tie deterioration in traditional buildings

Understanding traditional brick cavity wall tie deterioration – growing awareness for better building inspections and remediation in New Zealand.

I started work as a surveyor in an English seaside town in 1986. The town had substantially developed in the Victorian period and so the building stock comprised a large number of late 19th and early 20th century buildings; many of which were built of cavity brickwork and were up to four storeys tall. I had only been there a year or so before the Great Storm of 1987 hit the town. As well as the damage and deaths that it caused, it left me with images that I still see in my mind today; buildings with the gable ends sucked out and dozens of rusty bits of wall ties projecting in regular horizontal lines from the now exposed inner brick wythes. That was the start, for me, of several years of work in the identification and remediation of corroding brick cavity wall ties.

In recent years, here in New Zealand, I've been involved in a few projects for large cavity walled brick buildings. For this reason, I thought it might be useful to write about brick cavity wall tie corrosion in buildings of traditional construction and the importance of identifying their presence and condition, as well as the potential risks they can present, particularly in corrosive environments. One of the concerns I have when I see a building that has had new ties installed is what thought was given to the existing ties and to the condition of the cavity before their installation?

Although a few years ago now, the Building Research Establishment (BRE) in the UK prepared a number of technical documents on the subject and I would recommend the following as essential reading for surveyors inspecting traditional brick cavity buildings:

- BRE Digest 329
- BRE Digest 461
- BRE Good Repair Guide 4
- BRE Information Paper 13/90

Brick cavity construction

Cavity wall construction dates back hundreds of years but, in the United Kingdom, the growing use of brick in 19th-century vernacular architecture led to the widespread adoption of the technique.

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Valued for its improved fire resistance, insulation, and moisture protection, cavity walling had become standard practice in Britain by the early 20th century, although in my experience it was commonly used from about 1870.

In contrast, New Zealand's abundant timber resources and seismic vulnerability meant that masonry construction was comparatively less prevalent, particularly in domestic architecture. Nevertheless, cavity wall construction did appear locally, primarily between 1880 and 1935, and is estimated to feature in around 40 percent of the country's unreinforced masonry (URM) buildings.[1] This figure was cast in the light following the 2010-2011 Christchurch Earthquakes, which prompted nationwide surveys and revealed the true extent of cavity wall construction in New Zealand's masonry building stock.[2]

Given that, until recently, cavity wall construction was believed to be relatively rare in this context, it is unsurprising that a sound understanding of the faults associated with it remains, in my view, underdeveloped. Yet for those tasked with the appropriate repair and maintenance of these structures, developing this knowledge is critical. A key area of focus lies in the performance of cavity wall ties, as the essential connectors between the inner and outer wythes, or 'leaves', of a cavity wall. When these ties are incorrectly spaced, poorly installed, fabricated from unsuitable materials, or subjected to corrosive environments and high winds, there can be significant implications for the structural integrity of a building.

The following discussion outlines the principles of cavity wall construction and examines common tie-related faults and their symptoms. In a later article, I'll consider approaches for their identification and remediation.

Constructing cavity walls

Traditional cavity brick walls consist of two leaves of (often) unreinforced brickwork separated by a continuous air gap and connected by a system of wall ties. In some cases, the tie system was integrated into the brick bond by the bricklayer, as seen in Rat Trap Bond or Dearne's Bond, whereby elongated headers interconnect the walls.[3] However, these integrated 'masonry ties' had the potential to allow moisture to travel between the two leaves, reducing the wall's weather resistance. In the UK, I have seen several examples of ties such as these including cranked and glazed bricks that created solid masonry paths for moisture to travel between the outer and inner leaves of a building. To overcome this, purpose made metal ties became the preferred solution.

Embedded in the brickwork and spanning across the cavity, these ties ensured the outer leaf is restrained by the structural inner wall, allowing the two to act together to resist wind loads and moisture transfer. What can be staggering is the number of ties concealed within the wall construction of the building; just recently, I have seen ties spaced horizontally at 3 feet/900mm intervals, and vertically at every third to fifth course. However, the standard spacing and specific pattern of installation can vary from site-to-site, dependent on the bond, the period of construction, and the availability of the ties which can make identification complex.

Traditional metal ties were commonly made of cast iron or wrought iron, either untreated or dipped in tar and sand, and were produced in a range of shapes. Their dimensions varied, but typically I have seen them to be 8 to 12 inches in length, an inch wide and 3/16th inch thick (for some common examples see Fig. 1). Into the 20th century, double triangle or butterfly galvanised wire ties became more common, while large fishtail ties, which have a much more substantial cross-section, were generally employed in the late 19th century/Edwardian era. Regardless of form, each tie should include a small twist or bend, known as a 'drip', designed to divert any water running along the tie into the cavity rather than over to the inner leaf.

Common tie-related faults and their symptoms

Over time, durability has become the primary concern with all of these ties, as the ferrous metals are inherently susceptible to corrosion. This is particularly true in marine environments, where prolonged exposure to moisture and salts accelerate deterioration – not only can the ties rust through but their expansion, as they corrode, can significantly damage a wall. Other contributing factors affecting the service life of wall ties include the type of iron or steel alloy used, the quality of the protective coatings (if any), and the composition of the mortar in which they are embedded – traditional ties were laid in the mortar beds rather than installed through the bricks themselves as we see today.

As corrosion develops, ferrous ties expand, sometimes up to several times their original volume, placing upward (and outward) pressure on the surrounding masonry.[4] The original specification for the iron tie in Fig. 2 said it was to be a twist tie measuring 3/16 inch (approx.

[1] Report ER3 Seismic Improvement of Loadbearing Unreinforced Masonry Cavity Walls, Dmytro Dizhur and Jason Ingham, 2015. Pg.6

[2] Report ER3 Seismic Improvement of Loadbearing Unreinforced Masonry Cavity Walls, Dmytro Dizhur and Jason Ingham, 2015. Pg.1 This figure was cast into light following the 2010-2011 Christchurch Earthquakes, which prompted nationwide surveys and revealed the true extent of cavity wall construction in New Zealand's masonry building stock.

[3] Vernacular Architecture, R.W Brunskill. Pg. 51.

[4] IP13_90

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5mm) thick. Once removed from the wall (and probably having lost some of its rust during the process), I measured its expanded thickness at up to 12mm. By simple calculation, a two-storey wall could have 15 to 20 rows of ties and, if they all corrode and expand at the same rate, this could easily create 50mm+ of expansion pressure on the wall.

Typically, tie expansion will appear as horizontal and parallel cracking in mortar joints at regular intervals. This is often most visible near eaves level where the cumulated corroding tie expansion has the greatest effect on the wall. What I learnt from my early career is that the force of the expansion of the ties is at times somewhat unbelievable, constrained by the weight of the roof, the outer skin/ wythe may bow out over several stories and it may even lead to the ties jacking up the masonry of the inner skin and cracking masonry sills and lintels. The cracks in the mortar joints are likely then to allow further water ingress exacerbating the expansion. Widespread corrosion can also cause roof verges to lift with a resulting pagoda effect to a gable end.

Modern butterfly/wire ties present a further diagnostic challenge, as their slender profiles often prevent visible cracking, except in very hard mortars or thin joints. Something that I have also seen with galvanised wire ties is that they appear in reasonable condition when seen inside the cavity, but corrosion has occurred at the point where the tie bears into the mortar in the outer wythe of the wall. This can be difficult to spot without opening up the wall.

Identifying cavity wall tie deterioration

As is common for surveyors, you often have to give initial advice based on a very limited inspection and without the opportunity to open up the wall and even check if it has a vertical cavity, let alone whether that cavity has ties and their type, spacing and condition, etc.

“What I learnt from my early career is that the force of the expansion of the ties is at times somewhat unbelievable, constrained by the weight of the roof, the outer skin/ wythe may bow out over several stories and it may even lead to the ties jacking up the masonry of the inner skin and cracking masonry sills and lintels.”

So, what can you do to aid identification of a potential problem?

- Firstly, consider the age of the building – does it fit within the wide range of potential use of ferrous ties?
- Look at the brick bond of the wall (and do understand what the different bonds are and what they mean for the strength and quality of construction of a brick wall). Stretcher bond is an obvious indicator of a brick cavity wall but you should also consider whether the builder used ‘snapped’ headers for aesthetic purposes – I have seen this where Flemish bond has been chosen for the ‘look’ but there is still a cavity in the wall behind. Likewise, I have seen stretcher bonds without a cavity and just a simple butt joint which really should question what is holding the wall together!
- I would then measure the thickness of the wall as there are standard thicknesses for solid and cavity walls that you can apply to what you have seen.
- But don’t trust any of the above until you have done your best to look for a cavity – perhaps through an air vent or in the roof space. Could you try and poke a borescope or your phone in any such gaps and capture a photo of the cavity and any ties that exist?
- If you think there is a cavity and it has ties, are there symptoms of corrosion such as regular horizontal cracks in the mortar beds, bowing of the outer face of the wall (often particularly in brick panels between windows where you can also see into the cavity if there is a gap between the outer leaf and the window frame), or other inner skin or roof level signs of jacking up of the outer skin.
- Consider if the building is in a coastal environment with corrosive, salt-laden air.
- Look at the original bedding mortar and check whether it could contain an aggressive/acidic aggregate, such as clinker/furnace waste, which could exacerbate iron/steel corrosion.
- Carry out more invasive investigations, such as removing a brick(s) adjacent to one or more of the ties to get a good look at their type and condition (see Fig. 3).

In Part 2 of this article, I’ll be looking at possible remediation measures, other sources of iron/steel corrosion, and considering some of the other common problems found in masonry wall cavities. ■

Finding the right building surveyor for the right job

Whether you're buying a property, managing maintenance, or assessing weathertightness, the quality of your building survey can make a lasting difference.

A good surveyor doesn't just inspect a structure, they interpret its story, diagnose risks, and help clients make informed, compliant decisions.

Yet, with such a wide range of specialisations across the industry, finding the right surveyor for the right job can be a challenge.

That's where the New Zealand Institute of Building Surveyors (NZIBS) and its *Find a Surveyor* tool come in.

It can connect people with trusted, professionally recognised members who have the right expertise and are located where you need them.

From pre-purchase inspections to remedial design and expert witness reports, building surveying covers a wide spectrum of work. But not every building surveyor offers the same services.

For property owners and managers, this can be confusing. Some building surveyors specialise in weathertightness and defect diagnosis, others in maintenance planning, construction monitoring, or legal reporting.

Choosing someone without the relevant experience can lead to incomplete advice, increased risk, or compliance issues down the line.

In an environment where legislation and building performance standards are continually evolving, the distinction between a generalist and a trained NZIBS professional is more important than ever.

The online and searchable database of members is available at **buildingsurveyors.co.nz/find-a-surveyor**.

The tool allows users to filter by region and area of expertise, ensuring that clients can locate a professional who not only understands the local building context but also has proven competence in the specific type of work required.

For example, a property investor in Auckland can search for building surveyors specialising in pre-purchase inspections or moisture assessments.

A body corporate manager in Wellington can find experts in building condition assessments and maintenance planning, and a Christchurch law firm can identify members with expert witness and dispute resolution experience.

Each listed building surveyor is an NZIBS member, which means they have met the Institute's standards for training, ethics, and continuing professional development.

This assurance helps clients know they're working with someone accountable to a recognised professional body.

To support informed choices, NZIBS also provides an FAQ resource on its website to address many of the questions clients ask when engaging a building surveyor. A few highlights include:

What qualifications should a building surveyor have?

NZIBS members are typically qualified in building surveying or a related construction discipline and have undergone assessment to achieve membership status.

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They are required to maintain ongoing professional development to keep their skills current.

What types of jobs do building surveyors carry out?

Surveyors may conduct condition surveys, weathertightness investigations, maintenance planning, defect diagnosis, construction monitoring, and pre-purchase reports. Each requires distinct expertise, reinforcing the value of using the directory's filters to match skills to needs.

How much does a building surveyor charge?

Costs vary depending on the building type, size, location, and the complexity of the inspection. The FAQ section recommends contacting a few surveyors through the NZIBS tool to discuss scope and fees before commissioning work.

Why choose an NZIBS member?

Membership with NZIBS signals professionalism, technical competence, and a commitment to ethical standards. Members adhere to a Code of Conduct and must engage in regular training to stay up to date with legislation and best practice. This commitment gives clients confidence that their surveyor's advice is reliable, independent, and compliant.

Why professional standards matter

NZIBS membership is not just a credential, it's a quality benchmark. Members are required to:

- Demonstrate a proven record of technical competence.
- Undertake continuing professional development (CPD) each year.
- Comply with a Code of Ethics designed to uphold integrity and client trust.

“Membership with NZIBS signals professionalism technical competence and a commitment to ethical standards. Members adhere to a Code of Conduct and must engage in regular training to stay up to date with legislation and best practice. This commitment gives clients confidence that their surveyor's advice is reliable independent and compliant.”

For clients, this means confidence that their surveyor operates with independence and accountability. For the wider industry, it ensures that building surveying in New Zealand remains a profession grounded in technical excellence and public confidence.

Choosing the right surveyor is about more than convenience — it's about trust, expertise, and peace of mind. By using *NZIBS' Find a Surveyor* tool, clients can quickly identify qualified professionals with the skills their project demands, in the region where they need them.

Whether it's a first home, a commercial complex, or a major remedial project, working with an NZIBS member helps ensure every inspection, report, and recommendation is backed by experience, compliance, and care. ■

To find the right building surveyor for your next project, visit **www.buildingsurveyors.co.nz/find-a-surveyor**

Timber framing and thermal performance

Update on best practice

In recent years, BRANZ and other industry bodies have put a lot of work into finding practical ways to build warmer homes. Excess framing is common in New Zealand homes, creating additional thermal bridging and providing less space for insulation – leading to higher power bills and colder homes. But there are some solutions to this and other problems that will give better performance:

- BRANZ recommends designing with fewer dwangs (no more than required) and optimal stud spacing. This can reduce timber costs and improve insulation performance, all while meeting Building Code requirements.
- Make use of tools and calculators such as the *BRANZ House insulation guide* (updated just a few months ago) and services such as the PlaceMakers framing report (rebuilt with BRANZ expertise).
- Ideally, use the modelling method for demonstrating compliance with Building Code clause H1. This is the only compliance method that provides insight into how a building will perform in practice and gives additional flexibility to support design decisions, allowing users to look into issues such as overheating. By engaging with modelling early in the design process, users are able to avoid costly details due to poor design choices, reducing upfront costs. BRANZ is working with MBIE to make modelling more accessible.
- Introducing more standardised building designs will help eliminate excess framing through better window and door placement. There are several initiatives under way.
- BRANZ is researching ways to separate insulation and framing layers, where each layer can do its own job. These methods and materials such as external insulation or secondary layers of insulation are common overseas and are growing in popularity in new homes in this country.
- We can adapt proven solutions from Europe and North America to suit New Zealand. BRANZ's testing of warm roofs – a construction method where the insulation is outside the trusses or rafters (Figure 5) – shows they work well here. Cost is a barrier because few warm roofs are installed. However, BRANZ is working on other ways the methodology can be used, providing the industry the support and evidence needed to make them more accessible. ■

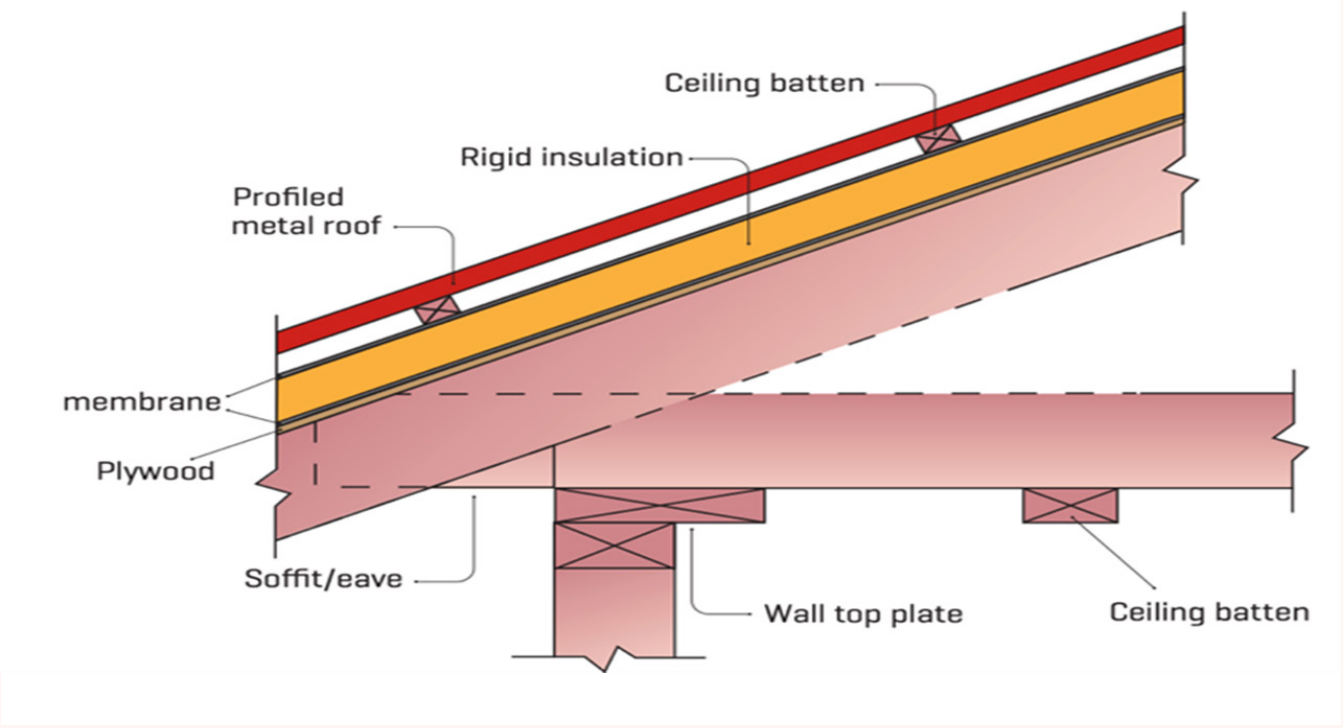
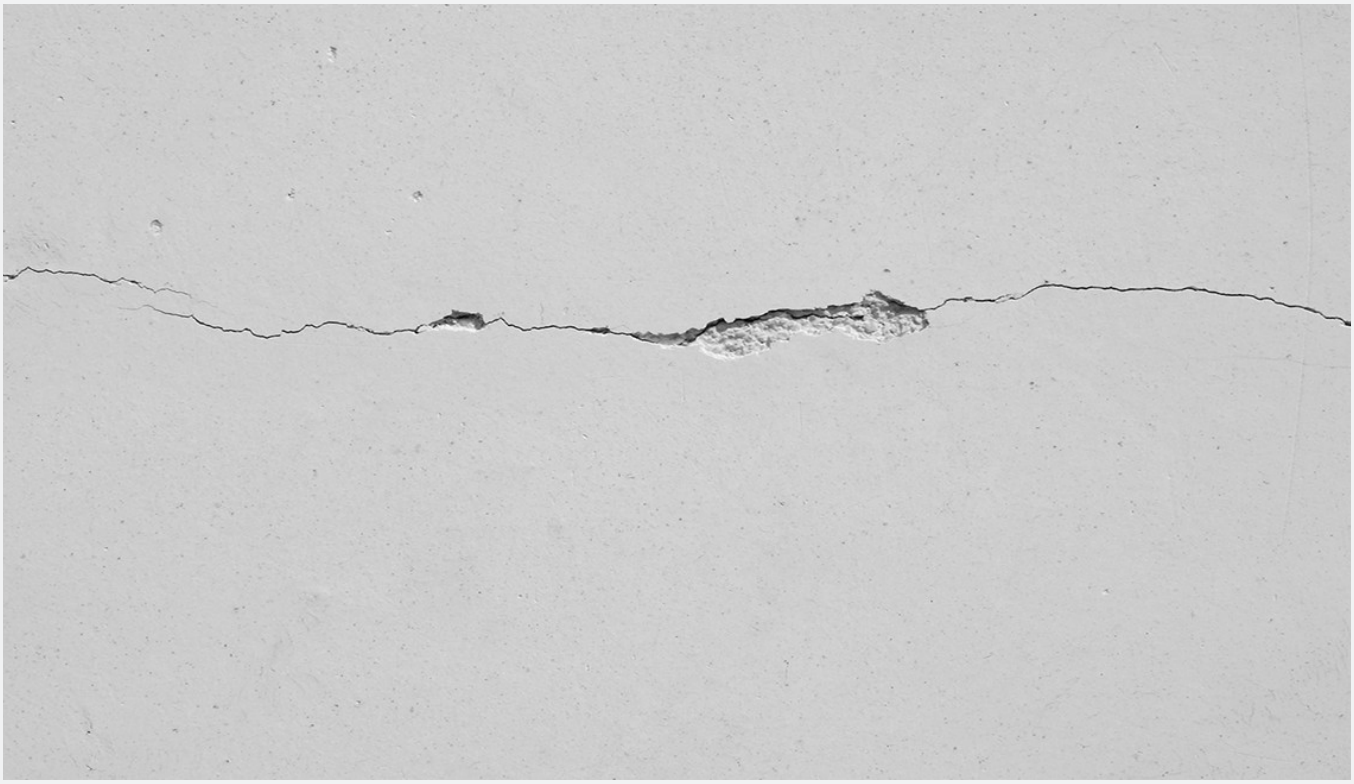


Figure 5. *A schematic drawing of a warm roof as retrofitted to a house on the BRANZ campus.*



The importance of completing repairs after a natural disaster

Not fixing flood or earthquake damage can make problems worse

The item "We've got you covered … or maybe not" in last month's *Guideline* explained how there are many circumstances where homeowners may be out of pocket when a natural hazard damages their home or property. In some cases, homeowners may choose not to repair a property even when they have received a payout from an insurer and/or the Natural Hazards Commission (NHC). A lack of action can bring them problems they need to be aware of.

For damage covered by the NHC scheme, the Commission can cancel building cover or land cover for a property or limit its future liability if a homeowner has not begun making repairs to a substantially damaged property within a reasonable timeframe or has not taken reasonable steps to mitigate the risk of future damage. It has these powers under sections 49 and 50 of the Natural Hazards Insurance Act 2023. The NHC decision will be recorded on the property's record of title, which can make it difficult to sell the property or could reduce its resale value.

Insurance companies may opt not to cover a property where repairs have not been carried out. In an August mainstream news story, an insurance company chief executive said: "There are very, very few homes that are uninsurable in New Zealand, and that is normally because they are very, very high risk, or there has been unrepaired damage, or there's been remedial work from an earthquake that hasn't been completed yet." It can be much more difficult to sell an uninsured property because potential buyers will not be able to get a mortgage from a mainstream lender – commercial lenders typically require that properties be insured.

To avoid making a problem even worse, wherever possible, repairs following a natural disaster should be carried out in a reasonable timeframe. ■

DR TROY COYLE
She brings more than 20 years' experience in innovation management across a range of industries including materials science, medical radiation physics, biotechnology, sustainable building products, renewable energy, and steel. Dr Coyle is a scientist with a PhD (University of NSW) and CEO of HERA

Enhanced steel frame design for seismic resilience

New Zealand's seismic risk profile is among the highest in the world. As events like the Canterbury and Kaikōura earthquakes have demonstrated, moment-resisting frames play a critical role in resisting seismic loads and maintaining building stability during seismic events

In a nation shaped by seismic activity, ensuring the integrity of our built environment is not just good practice — it is a matter of public safety and building resilience.

With this imperative in mind, the Heavy Engineering Research Association (HERA) released in March an update to its seismic steel design guidance, refining the design of moment-resisting steel frames for enhanced performance in earthquakes.

The revised HERA report R4-156, *Seismic Design of Moment-Resisting Steel Frames* represents a crucial advancement in structural engineering practice in New Zealand.

The update integrates the latest international research and detailing practices, offering practical insights and worked examples for engineers navigating the complexities of seismic design.

In doing so, it underscores HERA's commitment to providing the country's construction sector and engineering industry with tools that are evidence-based and tailored to local needs.

‘In a nation shaped by seismic activity ensuring the integrity of our built environment is not just good practice — it is a matter of public safety and building resilience.’

Why it matters now

The updated R4-156 design guide comes at a time when demand is growing for greater resilience in our infrastructure, and when design professionals are grappling with increasingly complex regulatory and performance requirements.

It also coincides with the Government's renewed focus on improving the seismic resilience of public buildings and critical infrastructure, reflected in initiatives such as the National Seismic Hazard Model update and proposed changes to the Building Code.

These structures are often used in low- to mid-rise commercial and institutional buildings and must meet stringent performance standards to ensure both life safety and asset protection.

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The guide bridges the gap between theory and implementation, helping engineers apply seismic design principles more effectively in real-world scenarios while supporting national goals to future-proof infrastructure and reduce risk exposure.

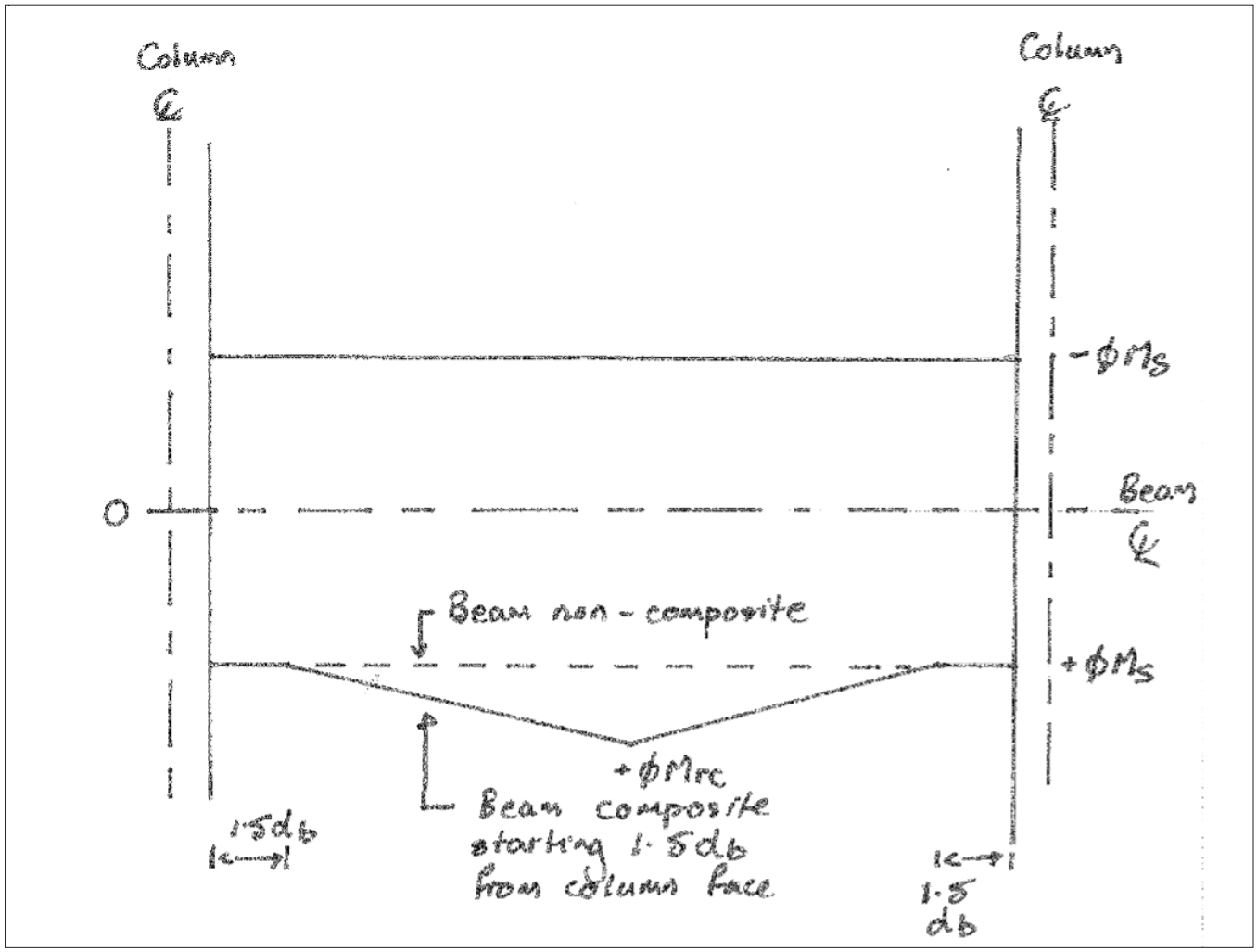


Figure 5.1: *Moment capacity of beam ln frame when made composite over positive midspan region*

Key improvements

The 2025 edition of R4-156 is a complete rework of the 1999 version. It includes:

- revised guidance for seismic loading and design philosophies — aligned with NZS 1170.5 and considering lessons learned from recent international seismic events
- improved connection detailing examples — detailed worked examples demonstrate how to design and detail moment connections to achieve ductility, energy dissipation and robustness
- clarified technical commentary: enhanced explanatory text provides clearer context for key design decisions, making the guide more accessible to both junior and experienced engineers
- updated international research integration: incorporates examples of global best practices, including developments from the US, Japan and Europe, adapted for local relevance.

These changes enhance the document's usability, making it a go-to resource for engineering practitioners engaged in seismic design.

Local application and industry impact

The guide is especially relevant for engineers working on buildings in high seismic risk zones such as Wellington, Christchurch, and the East Cape.

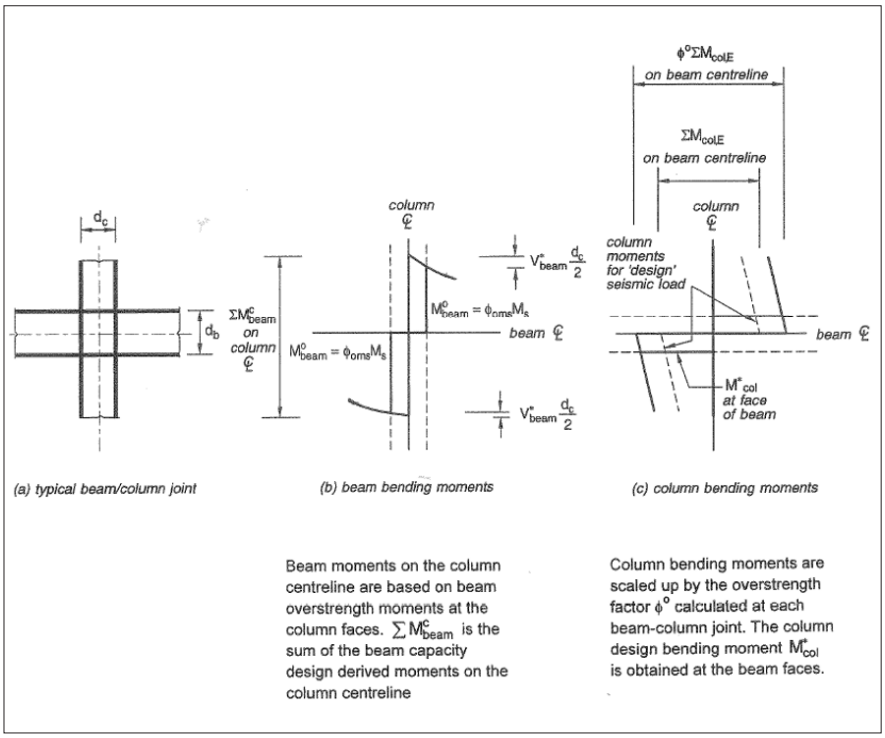
Its publication has already triggered interest among consulting engineers, contractors, and developers seeking to future-proof their projects.

"This update reflects our ongoing investment in the seismic resilience of New Zealand's infrastructure," says HERA chief executive Dr Troy Coyle.

"It's also part of a wider strategic focus on building capability in steel design and encouraging uptake of best-practice engineering."

For firms involved in structural design, the guide offers practical clarity in an area where misunderstanding or misapplication can have serious consequences.

For those newer to the field, it provides a reliable educational reference, while more seasoned engineers will find it a valuable check against evolving best practices.



Building performance, Safety & sustainability

The revised guide also contributes to wider conversations about the sustainability and longevity of New Zealand's built environment.

By improving the seismic performance of steel frame systems, buildings can better withstand seismic events without needing major repairs or demolition; a key principle of sustainable design.

Steel's inherent recyclability and durability make it a strong candidate for sustainable construction when combined with thoughtful seismic detailing. R4-156, therefore, complements other emerging efforts to reduce whole-of-life carbon impacts and improve the circularity of building materials.

As governments around the world explore new pathways to reduce carbon emissions and climate risks through construction reform, tools like R4-156 help ensure resilience and sustainability are addressed in tandem.

Cross-sector collaboration

HERA is actively encouraging feedback and case study input from engineers, contractors, and regulators applying the guide in real-world projects. This participatory approach will help ensure future iterations remain dynamic and responsive to industry needs.

Collaboration is particularly important as New Zealand works to modernise its building code and align more closely with performance-based approaches seen in international jurisdictions.

A shared understanding of how moment-resisting frames perform, and how to design them well, will help regulators, clients and designers deliver safer and more efficient buildings.

The updated guide can also assist local and central government agencies in implementing resilience-focused procurement strategies and achieving consistency across regulatory systems.

Looking ahead

While the seismic risks facing New Zealand will never fully disappear, the tools to mitigate them are becoming more sophisticated. The 2025 revision of HERA R4-156 is a timely and valuable addition to the engineering toolkit, equipping professionals with clearer, more actionable guidance for designing resilient steel structures.

It also reaffirms HERA's role as a thought leader in advancing structural design practices that protect lives, support sustainable development, and drive innovation across the sector.

As the country continues to rebuild and expand, particularly in urban centres with high seismic risk, the need for informed and thoughtful seismic design remains paramount.

This updated guide will help ensure that the buildings we inhabit tomorrow are stronger, safer, and more future-ready than ever before. For more information or to access the updated R4-156 guide, visit **www.hera.org.nz**.

This piece was first published in PROPERT&BUILD in July, and is reprinted with permission

A preview of the March Education Day

When NZIBS members gather in Auckland March 2026, they will do so under a theme that reflects the moment facing the profession: New Horizons.

The title speaks to a sector navigating regulatory change, emerging technologies, and growing expectations around accountability, safety, and performance.

The day opens with Peter Wolfkamp before moving quickly into a keynote from David Hall, General Manager of Building System Performance at MBIE.

Mr Hall's session offers a high-level view of current work programmes shaping New Zealand's building regulatory system.

For Building Surveyors working daily at the interface of policy and practice, his perspective provides important context on where regulation is heading and how system stewardship is evolving.

From there, attention turns to one of the profession's most pressing issues: proportionate liability. Duncan Colebrook and Kim Ludgrove approach the topic from different vantage points, reflecting the complexity of risk, responsibility, and trust across the construction sector.

As recent discussions in The Journal have shown, liability reform is not abstract; it directly affects how Building Surveyors advise clients, manage exposure, and engage with insurers and owners.

Mid-morning, forensic engineer Andrew McGregor shifts the conversation away from linear fault-finding toward systems thinking.

Using an aviation case study, he introduces a CAST-based investigative approach that examines failures as the outcome of interconnected organisational, technical, and human factors.

After lunch, the programme widens again. Sam Stubbs brings a financial and investment lens to the discussion, exploring long-term resilience, risk, and sustainability at a time when the construction market remains uneven

Peter Stephens follows with a return to complex failure investigations, reinforcing the importance of evidence-based analysis and professional judgement.

The day concludes with a forward-looking session from Anubhav Verma, founder of CheckMyBuilder and Checkbase, examining how AI-driven tools and real-time data may change how credibility, due diligence, and risk are assessed across the sector.

For more information, visit **https://buildingsurveyors.co.nz/g/event-manager/ViewEvent/477**

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NZIBS Core Modules 2026

NO	MODULE	AUCKLAND	CHRISTCHURCH	WELLINGTON
1	INTRODUCTION TO BUILDING LAW & RELATED REGULATIONS	Wed 4 Mar 2026	Wed 22 Jul 2026	2027
2	PROPERTIES OF MOISTURE	Thur 5 Mar 2026	Thur 23 Jul 2026	2027
3	THE BUILDING ENVELOPE & CLADDING SYSTEMS	Tue 14 – Wed 15 Apr 2026	Wed 26 – Thur 27 Aug 2026	2027
4	CONDITION & COMPLIANCE REPORTING	Wed 20 May 2026	Wed 30 Sep 2026	2027
5	RESIDENTIAL PROPERTY INSPECTIONS	Thur 21 May 2026	Thur 1 Oct 2026	2027
6	FORENSIC BUILDING SURVEYING	Wed 24 – Thur 25 Jun 2026	2027	Tue 24 – Wed 25 Mar 2026
7	TECHNICAL REPORT WRITING FOR EXPERT WITNESSES	Fri 26 Jun 2026	2027	Thur 26 Mar 2026
8	DECAY FUNGI & MOULDS	Wed 5 Aug 2026 (am)	2027	Wed 6 May 2026 (am)
9	DURABILITY & MATERIAL PERFORMANCE	Wed 5 Aug 2026 (pm)	2027	Wed 6 May 2026 (pm)
10	BUILDING REMEDIATION	Thur 6 Aug 2026	2027	Thur 7 May 2026
11	CONTRACT ADMINISTRATION	Tue 8 Sep 2026	2027	Wed 10 Jun 2026
12	ASSET MANAGEMENT & MAINTENANCE PLANNING	Wed 9 Sep 2026	2027	Thur 11 Jun 2026
13	LEASE REINSTATEMENT (DILAPIDATIONS)	Wed 14 Oct 2026	2027	Wed 15 Jul 2026
14	TECHNICAL DUE DILIGENCE FOR COMMERCIAL PROPERTIES	Thur 15 Oct 2026	2027	Thur 16 Jul 2026

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