



The Journal

A guide to Technical Due Diligence

Despite the downturn in the property sector, commercial property transactions are still occurring all the time, ranging in scale, complexity and value.

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**Implementing
heritage principles in
practice**



A living hell



**Forging
New Zealand's
built identity**



**Farewell, snagging
lists. Hello, zero
defects.**



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FROM THE PRESIDENT



DARRYL AUGUST

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Changes aplenty, so too the opportunities

When Victoria sent me my writer's brief, she reminded me that this would be my last article as President and that I might need to get the Kleenex out in case I got weepy. It made me laugh by also realising that two years have flown by.

In September, at our 30th AGM, I will step down and pass the baton on to a safe pair of hands. It's been a fantastic honour and privilege to serve as President and to be honest, it is not a role I ever envisaged for myself back in 2013 when I became a registered member with NZIBS.

This year we say goodbye to Tony Davison (Membership Chair), Victoria Richardson (Marketing Chair) and Heather Crilly (Past President). I wanted to say a special thanks to Heather for her dedicated long service to the Executive.

Heather joined the Executive at the Queenstown AGM back in 2017 so she has given seven years to NZIBS. Those who have served on the Executive will understand what a huge commitment it is both from the individual and also their families and employers.

But without the commitment, NZIBS would not survive.

Heather was a great help to me when I became President, teaching me the roles and providing mentoring as I grew into the role. Tony and Vic have also committed a lot of time with Tony spending hours reviewing and approving membership applications while Vic single-handedly puts *The Journal* together as its Editor in Chief.

They leave big boots to fill.

This year I decided to take part in Dry July to raise money for cancer research. My driver for this was hearing the very sad news of Tracy Hickman's passing. Tracy worked for Baker Tilly Staples Rodway when they were one of our main sponsors and she spent a lot of time with our members at conferences at their trade stand.

I have also been affected by losing my brother to brain cancer 10 years ago, so this was something quite special and worthwhile for me. Heather has joined me in this challenge, and we formed an



NZIBS Dry July **team**. We have just reached halfway and raised just over \$390. We have a target of \$1,500.

With the new Government firmly in place, a few changes are heading our way with the most recent announcement being the Government's intention to have remote building inspections as the default. There has been a lot of chatter following this announcement from our members and the industry with some for and some strongly against.

Given that our members are the ones who deal with the fallout from the creation of defectives, you would have thought they might have tapped us on the shoulder for a chat first.

Last month, the NZIBS issued a press release in respect of our position, and I have already had one interview with RNZ. This is certainly a hot topic. Below is the statement we sent to the media.

The New Zealand Institute of Building Surveyors (NZIBS) is cautiously optimistic about the Government's new plans for remote virtual building consent inspections.

However, its success will depend entirely on nailing the finer details or New Zealand will likely face another crisis of leaky home proportions, they say.

NZIBS President Darryl August says a similar concept deployed during COVID-19 was useful for some building elements. However, there would still be a need for physical inspections of more complex building elements.

Even the Government's example of its effectiveness in the remote McKenzie District is impressive, he says.

But any enthusiasm for the concept is tempered by the Institute's uncertainty of the likely risk profile to building owners and occupants.

"Our members see first-hand the financial impact, stress, misery and illnesses caused by the construction of defective buildings," August says.

"So, we need to be especially sure of the risk profile for New Zealand building owners and occupants.

"The system may not be an appropriate 'size fits all' process and could have dire consequences for how cost, time, and quality are maintained to ensure successful projects are delivered.

"If the remote inspection process is flawed, we could see the result being the diminished value of our improving building stock – or another leaky homes' saga."

In preparation for the Government's discussion document later this year, NZIBS is establishing a policy working group comprising members, homeowner support groups, contractors and other professionals to provide robust feedback.

In other news, our conference is two months away now and, with it being 30 years since NZIBS was formed, it promises to be a great event. I look forward to seeing you all there. ■



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Building a better tomorrow

As we find ourselves in the midst of significant changes in the building industry, it's clear that the role of Building Surveyors has never been more crucial. Recent government announcements regarding insulation standards and remote inspections have underscored the importance of our profession.

Whilst change can be a force for good, it can also be detrimental if it isn't thought through correctly. You can read NZIBS's recent press releases on insulation standards and remote inspections in this issue, and we encourage our readership to share these and keep the conversation going.

In this issue, we also have some great articles from industry experts and information about NZIBS Training and Events. Dr Phillip Hartley returns with his series on Heritage, and we're delighted to have a former NZIBS President sharing his perspective on technical due diligence.

On a personal note, I want to let you all know that this will be my final editorial as the Editor of *The Journal*.

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It has been an immense privilege to serve in this capacity, and I am deeply grateful for the opportunity to have contributed to *The Journal* and NZIBS. I want to express my heartfelt thanks to our sponsors and everyone who has generously shared their time, knowledge, and expertise with *The Journal* during my tenure. Your contributions have been invaluable in making this publication a trusted resource.

I also want to give special thanks to James Paul at The PR Company for his unwavering support of not just me and *The Journal*, but NZIBS. We're very lucky to have such committed partners.

I'm pleased to announce that a new editor will be taking the helm for the next issue. I have every confidence that they will bring fresh perspectives and continue to uphold the high standards that you, our readers, have come to expect from *The Journal*. And, because I love being part of *The Journal*, I'll still be writing.

Looking ahead, I'm excited about the upcoming NZIBS annual conference in Wellington this September. This year's event is particularly special as we celebrate the Institute's 30th anniversary – a milestone that reflects three decades of growth, learning, and professional excellence. I hope to see many of you there as we come together to share knowledge, network, and look towards the future of our profession.

This anniversary is a testament to the collective efforts of all our members, past and present. Each of us has played a part in shaping the NZIBS into the respected organisation it is today. From its humble beginnings to its current status as a leading voice in the building industry, our Institute's journey is one we can all take pride in. This is indeed a cause for celebration, and I look forward to raising a toast with you all in Wellington.

Thank you for your support during my time as Editor. Here's to the next chapter of *The Journal* and the continued success of the NZIBS! ■



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Implementing heritage principles in practice

This article *Implementing Heritage Principles in Practice* is the second of three which consider the parameters that Building Surveyors should be taking into consideration when providing advice for heritage buildings.



Partial replacement of shingles to eliminate a roof leak, whilst keeping existing shingles that remain fit for purpose, and not artificially treating the new materials to mimic the old.

The first article *Understanding the Diversity of New Zealand's Built Heritage* was published in 2023, and a third article will address *The Role of Good Building Standards, Traditional Repairs and Maintenance*. A supplementary article will explain the function of heritage authorities in New Zealand.

Heritage values

The overall significance (i.e. the importance of a historic building) is determined by an assessment of different heritage values. For individual buildings, heritage values can be established through one or more of the following criteria – age, rarity, history, architectural, aesthetic, social, scientific, cultural

and archaeological. Heritage values are identified within district plan schedules and Heritage New Zealand (HNZ) list descriptions, so we have ready access to this information for scheduled and listed buildings. However, many historic buildings have not been assessed in terms of their overall significance based on heritage values, and for this reason, we must acknowledge key heritage principles in practice, to protect inherent quality and character.

Heritage principles

The characteristics of change in the materials and form of historic buildings through the action of light, temperature, wind and water over time depend upon their physical location, composition, and original construction. These conditions affect individual materials and elements in different ways, including changes in texture, colour, surface, profile, hardness and softness. Undertaking maintenance and repair can be guided by several key heritage principles that help distinguish between acceptable changes in character that are not detrimental to a building, and defects that need to be repaired. These principles include the following:

- The role of minimum intervention
- The concept of reversibility
- Honesty of work
- The use of like-for-like materials and compatibility
- Understanding past interventions

These principles provide a framework for intervention, enabling work to be undertaken whilst minimising the impact upon the qualities that contribute to heritage values. This is an important process because the maintenance and repair of heritage buildings – that are either listed with HNZ and/or scheduled by the local authority – does not necessarily require statutory permission (i.e. heritage approval) where the scope of work does not involve alterations



Fabricating and fitting a protective toughened glass screen over a stained glass window using bespoke brackets that can be easily removed for cleaning or in the event of damage to the glass.

to the building. Under these circumstances, the responsibility for the implementation of work and its impact will be the responsibility of the Building Surveyor involved.

Where a historic building is listed and/or scheduled, and approval is required due to the scope of work that is proposed, there will be an expectation on behalf of heritage authorities that these principles can justify the nature and extent intended.

Minimum intervention (right)

The role of minimum intervention is to ensure that only essential work is undertaken, based on a little-and-often approach – the least amount of work necessary to prevent conditions from worsening to the point where replacement would be the only practicable option. For a minimum intervention to remain a workable principle, regular maintenance and repair is preferable, rather than irregular cycles of neglect and inadequate maintenance followed by major repairs resulting in more significant change. This long-established heritage principle of minimum intervention is the foundation of practical work for heritage building fabric.



Replacing a broken section of cast iron with lead sheet (to be painted to match), rather than removing and replacing any cast iron.

Reversibility (top pic)

The concept of reversibility is a more esoteric one, because why would you want to reverse work that is undertaken to care for a heritage building? However, the reversal of past interventions occurs more often than might be realised, and the incidence of inappropriate works of repair that need to be redone to a more suitable standard is not uncommon.

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Repairs undertaken in haste to temporarily solve urgent problems rarely allow time for consideration about the long-term impact or suitability of the work being undertaken, nor the procurement of special materials and trades. There will always be a need for reactive maintenance, but it should take into consideration the possibility of a different solution in the future, such that the work of today might end up being reversed. This is not necessarily achievable as a whole concept in practice but can be in part, whereby the practicability of reversing repairs could be achieved without consequential damage.

An example of reversing past repairs can be highlighted by the significant amount of structural strengthening that addressed seismic concerns during the past few decades, which is now subject to review in light of current standards and found to be inappropriate and/or deteriorating and causing damage to original materials. Rusting steel bars installed in soft masonry (historic brickwork and stonework) are regularly removed to be replaced with stainless steel or structural fibreglass reinforcement, the process of which can be damaging.

Honesty (see pic on page 4)

This guiding principle for good heritage practice does not support the artificial aging or disguising of repairs for concealment, accepting instead the need for carefully considered maintenance and repairs as honest change. This approach acknowledges the short-term change in appearance resulting from justified work, in the knowledge that time will diminish the initial impact through natural means, primarily through seasonal weather conditions. To achieve an appropriate outcome that is balanced rather than intrusive requires the informed selection and handling of materials for maintenance and repairs, accepting that new work will be initially recognisable. The intent is for maintenance and repair to be accepted as an intervention based on need.

Like-for-like materials and compatibility (right)

The use of materials that are compatible with the original heritage fabric is also a fundamental principle applied in practice and one that is relatively achievable in many situations. Whilst the availability of heritage materials for maintenance and repair is less commonplace in modern products, sourcing materials such as bricks, stone, cast iron, terracotta, copper and lead for example, is practicable with longer lead-in times and adequate preparation. This may require the importation of some materials where they cannot be sourced or economically fabricated within New Zealand. For example, cast iron for rainwater fittings, including gutter profiles, rectangular and circular downpipes and different patterns of rainheads, are available off-the-shelf from England and are cost-effective to import compared with bespoke fabrication. Whilst it is always preferable to source materials locally, this is not necessarily achievable for some heritage materials, especially those that were originally imported.

Past alterations

Acknowledging the contribution and value of past changes to heritage buildings is an important consideration, which avoids the tendency of dismissing changes simply because they are not original. Unless such changes detract significantly from the principal heritage values and are patently inappropriate, consideration needs to be given to their inclusion for maintenance and repair in a similar framework of approach as the original construction.

The older the building, the more likely changes will have been made, which are considered important contributions to the overall significance of heritage values. The principle of respecting changes of the past does not support the wholesale removal of



Repointing of deteriorated lime-based mortar to brickwork using new lime mortar, not cement-based mortar.

alterations for 'restoring' a building back to its original form unless a modern intervention can be shown to have diminished the heritage values of the whole.

Heritage maintenance and repair

The care of heritage buildings guided by these key principles does challenge the more commonplace replacement of materials (rather than repair), the use of readily available products (rather than like-for-like materials), and work by unskilled labour (rather than craft-based). However, without such an approach there is a disconnect between the heritage values that we are trying to protect and the need for essential work, which poses the risk of damage through ignorance, the lack of preparation or inadequate planning. Whilst certain maintenance and repair activities may seem at face value to be relatively innocuous, such as cleaning a building, there is a point where the removal of dirt and staining can impact the natural patina of material surfaces. Poorly informed interventions can result in disfigurement and damage that compounds the effects of defects or problems rather than remediating them.

Applying heritage principles before intervention involves more thought than a simple checklist, but neither should they be considered a burden – they are a toolkit with options for achieving the best outcome for our wide variety of built heritage in New Zealand. ■


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Staying safe around mobile network equipment

I've noticed a growing trend over the past few years: more and more of the buildings I inspect are sporting mobile network transmitters and antennas.

These technologies are crucial for keeping us all connected, but they've also introduced a new set of considerations for those of us in the building inspection game.

There is always warning signage when I go to these buildings, and it typically says things like "keep your distance". But why? What exactly are the hazards we're dealing with here? And how can we, as Building Surveyors, ensure we're doing our job safely and effectively?

Understanding the technology

First things first, let's talk about what these devices actually are. Mobile network transmitters and antennas are the backbone of our cellular networks. They send and receive radio frequency (RF) signals that allow our phones to connect to the network and communicate with each other. These signals are a form of non-ionising electromagnetic radiation (EMR).

Now, I know the word "radiation" might set off some alarm bells, but it's important to understand that not all radiation is created equal. The type emitted by mobile network equipment is different from the ionizing radiation you'd find in, say, X-rays. However, that doesn't mean we should take it lightly.



The Potential hazards

So, what are the actual risks associated with these transmitters and antennas? The main concern is exposure to high levels of RF radiation. While the jury is still out on some of the long-term effects, we do know that excessive exposure can cause tissue heating, which is the primary mechanism for potential harm.

The effects of RF exposure can vary depending on several factors:

1. The frequency and power of the signal

2. The duration of exposure

3. The distance from the source

4. Whether you're in the main beam of the antenna

It's worth noting that harmful effects typically only occur with prolonged, close-range exposure to high-power equipment. The average person walking by a cell tower isn't at risk. But as Building Surveyors, we often find ourselves in closer proximity to these devices for extended periods, which is why we need to be extra cautious.

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Safety standards and regulations

There are robust regulations in place to protect workers and the public from electromagnetic radiation exposure. Exposure limits are based on international guidelines, and network operators are required to comply with these standards.

The New Zealand Standard NZS 2772.1:1999 sets the maximum exposure levels for RF fields. These limits are designed to be well below the threshold where any known health effects occur. However, as responsible professionals, it's on us to take additional precautions to minimise our exposure when working near this type of equipment.

Practical precautions for Building Surveyors

So, how do we stay safe while still getting our job done? Here are some practical tips I've learned while working around mobile network equipment:

- 1. Respect the signage:** Those warning signs aren't just for show. If you see a sign indicating an RF hazard zone, take it seriously. Don't enter restricted areas without proper authorisation and training.
- 2. Keep your distance:** The intensity of RF radiation decreases rapidly with distance from the source. Whenever possible, maintain a safe distance from antennas and transmitters. If you're unsure about the safe distance, err on the side of caution and stay further away.
- 3. Be aware of the beam:** Many antennas emit a focused beam of RF energy. The area directly in front of the antenna, known as the "main beam," has the highest concentration of RF energy. Avoid standing directly in front of active antennas, especially at close range.
- 4. Time is a factor:** The potential for harm increases with the duration of exposure. Limit the time you spend in close

proximity to RF equipment. Plan your inspection route to minimize time spent near these devices.

- 5. Use personal RF monitors:** If you frequently work around RF equipment, consider investing in a personal RF monitor. These devices can alert you if you're entering an area with high RF levels.
- 6. Wear appropriate PPE:** In some cases, you may need to use personal protective equipment (PPE) designed to shield against RF radiation. This might include protective clothing or RF-shielding glasses.
- 7. Stay informed:** RF technology is constantly evolving. Keep up to date with the latest research and guidelines. Attend training sessions or workshops on RF safety if they're available.
- 8. Communicate with site operators:** Before conducting an inspection, reach out to the site operator or property manager. They can provide information about the specific equipment on site and any special precautions you should take. On a recent project, we requested some of the equipment be turned off so we could work in front of it. The outage request was made to the equipment owner (network operator) and the process was pretty straightforward.
- 9. Know your limits:** If you're not trained or equipped to safely inspect areas with high RF levels, don't hesitate to call in a specialist. It's better to defer to an expert than to put yourself at risk.

Special considerations for people with medical implants

While the general risks of RF radiation from mobile network equipment are relatively low for most people when proper safety protocols are followed, individuals with metal implants may face some increased risks.

If you have any sort of medical implant or device, you should speak

with your doctor to understand if you may need to take additional precautions.

For companies with team members who have metal implants, you may wish to consider this in your health and safety policies. This could include additional training, providing specialised protective equipment, or adjusting work assignments to minimise risk.

Hazards are not new to us

I don't know anybody in our profession who does not face hazards in their work. Whether it is working at height, on construction sites, or in confined spaces, we're used to being hazard aware. Working around antenna and RF equipment is no different – we just need to take the right precautions.

By staying informed about the potential hazards and taking appropriate precautions, we can continue to do our jobs effectively while keeping ourselves and others safe. Remember, it's not about being afraid of the technology – it's about respecting it and understanding how to work around it safely.

It's also worth keeping in mind that network providers understand that we still need access to the buildings these pieces of equipment are mounted on. They have processes in place for planned and urgent outages, and from my experience, the procedures are not complicated, and the network teams I have dealt with have been very helpful. ■



Mobile network equipment is an essential part of our infrastructure these days. Whilst it presents some challenges for Building Surveyors, by respecting the guidelines, taking precautions and applying some common sense, we can navigate them safely.


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Leading via experience

Registered Membership via the direct route for the NZIBS is an excellent route for those who have been in the industry and have a wealth of knowledge.

It allows these high-level and knowledgeable members of the industry to obtain the prestigious designation reserved for practising Building Surveyors in New Zealand. This route to membership signifies the high level of expertise and professionalism that they bring to the construction industry.

We want to have applicants to have a proposer who is already a Registered Member of NZIBS. This endorsement from a current member adds credibility to the application process and demonstrates the support of a respected peer within the institute. In addition, this support helps the applicant to understand who we are, why we are important to the industry and the level that NZIBS Building Surveyors are expected to perform at in relation to technical knowledge, ethical behaviour and professionalism in the industry.

To qualify for the direct route, applicants must meet a series of specific criteria set by the NZIBS. The two key requirements are a minimum of 15 years of relevant experience, with at least 10 years of that experience gained in New Zealand. This extensive experience ensures that Direct Route applicants have a deep understanding of the local industry and regulations.

Successful completion of the RICS Professionalism (Ethics) module is another essential step in the application process. This module

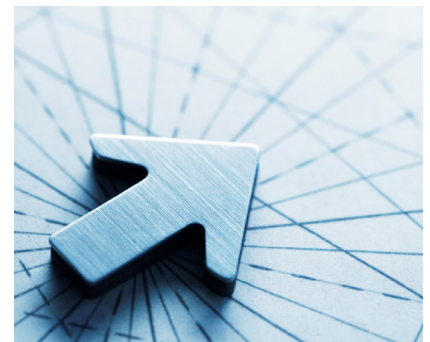
focuses on ethical practices within the field of Building Surveying, emphasising the importance of upholding professional standards and integrity.

Then the applicant will need to demonstrate the fullness of their career with a comprehensive resume detailing relevant work experience to aid in demonstrating the applicant's qualifications and knowledge base. They will also be required to demonstrate that they have undertaken Continuing Professional Development which showcases their commitment to ongoing learning and skill development in the field.

Once their application is lodged, it is assessed by the Membership Chair on the Executive and the applicant must also undergo an Assessment of Professional Competence interview conducted by the NZIBS Executive. This face-to-face interview covers various aspects of building surveying, allowing the Executive to assess the applicant's knowledge, skills, and experience in the field. In this interview, the applicants are required to present and discuss their two submitted reports, completed within the last 12 months.

These submissions serve as tangible evidence of the applicant's practical experience and capabilities as a Building Surveyor but also provide a really strong basis for having detailed discussions as part of the interview.

Upon successful completion of the application and interview process, direct route applicants are granted the right to use the designation "Registered Building Surveyor, MNZIBS" along with the NZIBS logo. This title signifies their full membership status recognises their time served in the industry and puts them on a path to fulfil their commitment to upholding the highest professional standards in Building Surveying that NZIBS promote.



In conclusion, Registered Membership in the NZIBS is a prestigious recognition of an individual's expertise and experience in the field of Building Surveying. By meeting the stringent requirements and undergoing a thorough assessment process, direct route Registered Members demonstrate their dedication to professionalism and excellence in the construction industry. ■

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Well advised: A guide to Technical Due Diligence

Despite the downturn in the property sector, commercial property transactions are still occurring all the time, ranging in scale, complexity and value. In most cases, a sale and purchase agreement drafted by legal experts, with input from the property agents, clearly outlines the terms between the purchaser and vendor.

In the current economic climate, where deals are very much focused on the real value of the asset, property agents and lawyers are increasingly keen that their clients employ a Registered or Chartered Building Surveyor to carry out Technical Due Diligence (TDD) on the property being purchased or sold.

What is TDD?

According to the RICS Professional Standard - Technical Due Diligence of Commercial Property - which Registered and Chartered Building Surveyors generally refer to, TDD involves *"the systematic review, analysis, discovering and gathering of information about the physical characteristics of a property"* so that the buyer (or seller) can *"make an informed assessment of the risks associated with the transaction, from a technical perspective"*.

As surveyors, we are fully aware that property acquisition is an expensive business, and our clients rely on us to deliver value through the professional advice we provide. The more TDD work we complete as surveyors, the

more aware we become of the risks associated with the various property types we survey.

It is our job to identify and understand the characteristics of a property and report on the extent of that risk so that our client and their advisors can make an informed decision on the risks attached to the transaction.

A balanced, impartial view

So, what do our clients look for when engaging us to carry out TDD? Once we understand their requirements, they want to know that we are acting as an independent expert and that we provide a value-for-money service, following international best practice standards.

Again, according to RICS: *"It's important to give clients a completely impartial, balanced, professional opinion of the condition of a property. Our inspection may establish defects or deficiencies in the property that could have an impact on the asset or the life safety of the occupants - whether in the short, medium or long term."*

As surveyors, we must get into the nuts and bolts. Our reports must be very clear on what the red flags are, detailing the key issues affecting any property we look at. The executive summary of a TDD report must be clear and concise, and alert your client to any potential deal-breakers, or equally any positive attributes of the property. While we need to check all the key attributes, we must take care in providing a balanced view.

TDD is challenging work

Acting as a commercial Building Surveyor on TDD enquiries certainly keeps you on your toes. Your property expertise will be tested on most TDD jobs you are engaged in. You will be under time pressure to deliver within the contract for sale due diligence period. You may need to retain the services of other experts to work with you. Large amounts of information will be provided to you for review. And when you think you have an easy TDD, you will be sure to find something relating to the property which soon requires all your years of expertise to solve and report on in a balanced way.

Considering future performance

Buildings change over their life depending on the use they are put to, how they are maintained and the changes they undergo. These can include changes of use, or modifications to ensure they continue to realise a good economic return for their owners. They must also be safe and sanitary over their life and remain compliant with various building performance requirements.

A competent Building Surveyor will understand how buildings perform, how they wear depending on the use they are being put to, and how they age and degrade depending on the various levels of maintenance and repair they receive over their life. Environmental location factors and the design and choice of building systems also play a big part in how a building and its various components perform, which the skilled surveyor will be aware of.

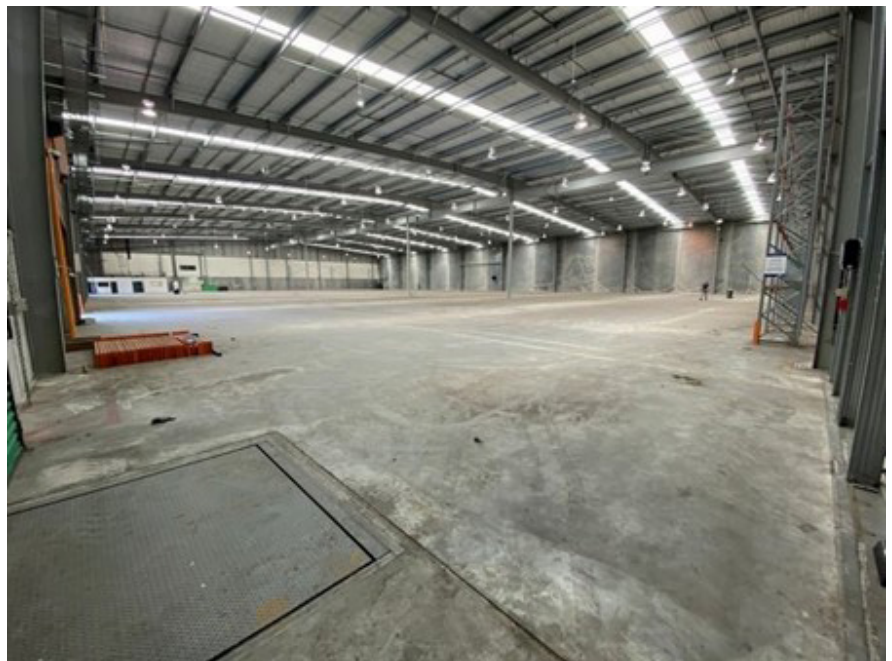
Compliance matters

Constructing a fully code compliant property requires great skill, care and attention to detail. Design teams usually comprise various experts in many different design disciplines, from structural, passive fire, services, mechanical, electrical and hydraulic. Acoustic performance can also be a big requirement to consider, for example in hotels.

All attributes compete, and the contractor tasked with pulling them all together to deliver a compliant, well-constructed building, on time, within budget and to the required quality must employ and coordinate many different trades. Councils are tasked with issuing building consent for the works and then a code compliance certificate on completion.

Once handed over and operational, the asset shall remain compliant over its life to various performance standards. This can be tricky where a building is altered/upgraded or where new works take place, sometimes without receiving

6 **A competent Building Surveyor will understand how buildings perform how they wear depending on the use they are being put to and how they age and degrade depending on the various levels of maintenance and repair they receive over their life.** 9



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correct building compliance advice. Given the multitude of stakeholders involved from concept to completion and operation, it is easy to see how trained surveyors completing TDD surveys with an independent eye, can sometimes identify issues previously gone unnoticed.

Understanding the compliance requirements a property must meet when in use is part and parcel of TDD reporting. All commercial properties will have specified systems that will require regular owner and IQP checks and fall under the annual BWoF requirements. Gaining an understanding of the performance and maintenance requirements of each specific system and checking on-site that each system meets the required standard can sometimes identify compliance gaps. These are usually expensive to address, particularly in an operational building.

Predicting ongoing costs

The cost of not only constructing but also maintaining property can be underestimated.

Each TDD instruction requires us to report on repair and maintenance and capital expenditure (CAPEX) requirements, usually for a 10-20-year investment plan. Where planned maintenance is ignored, the costs and disruption to tenants can be high, creating tension with the landlord.

Reporting on and estimating the cost of normal and regular maintenance expenditures are key parts of TDD reporting. Where an asset or its component parts might be near the end of life, offering a CAPEX estimate becomes more important.

Getting the balance of investment required for an asset right is key. It will affect whether the client continues with the purchase and the level of investment they should transact at. There is a fine balance between being overly cautious during your TDD, sufficient to frighten a client off a deal, to

being too casual about the risks observed, potentially leaving the client out of pocket down the track.

Prepare but don't pre-empt

I never have a preconceived idea of what I might find when I carry out site inspections. I review the property file before completing the inspection so that I understand the building systems and component parts. When I arrive at the premises, I take my time to get a general feel for the property's age, its use, how it has been maintained and any unusual features (there are always some). I record my inspection photographically so that my client has a visual record of the condition on the day of my inspection. I test, poke, open service void covers, organise safe access onto roofs for inspection where possible, and usually spend a day getting to know the property.

If other consultants are engaged, I talk to them throughout the day about their findings, usually sitting down with them for a coffee to share what we observed. I always tell myself I've missed something

near the end of my inspection. I do a final walk-through to confirm what I picked up during the day and to ensure I haven't missed a red flag. I come away feeling assured that I have diligently completed my inspection, sometimes with a list of further inspections required to address any questions I still might have.

Follow best practice

Registered and Chartered Building Surveyors should follow the current RICS Professional Standard, Technical Due Diligence of Commercial Property, Global, 1st edition, January 2020, effective from 1 April 2020. It provides clear guidelines on types of inspections, taking instructions, the inspection itself and also what the client wants in a TDD report. This professional standard should be considered adaptable for all types of commercial and industrial property, including hotels, retail, healthcare, education, residential apartment blocks, etc.

And of course, it should go without saying to always survey safely.

Rory Crosbie is a Director of Prendos New Zealand Limited, and a Chartered & Registered Building Surveyor. He delivers the Module 14 Technical Due Diligence for Commercial Properties lecture for NZIBS.





SASKIA SHELTON
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The idea that built the Institute

As NZIBS celebrates its 30th anniversary, it was only fitting to ask Don to share his earliest memories of the Institute.

Don joined NZIBS shortly after it was incorporated in 1994. Don had already been running his business, House Care Limited, for over 20 years at that time.

During his career, Don has had his fingers in many pies. Back in the 1970s, while working as a Senior Building Inspector with the Southland District Council, he became involved with BRANZ and developed what was then called the Elderly Pensioner Housing policy that was established in Lumsden, Wyndham, Edendale, and Balfour.

In 1983, BRANZ Foil and Moisture Scientist Harry Trethowen approached Don to assist with the development of the future insulation bylaw. This involved both roof space and subfloor moisture content inspections of ten houses every month from April to July.

Don says he's seen his fair share of toxic mould on the ground and under the floor. He remembers taking a photo of a 150mm long icicle hanging from underlay netting.

Don remembers attending BRANZ's annual get-togethers in the early 1990s, even pinpointing the street names of where these meetings were held. Vivian Street and then later Judgeford Street to be exact.

According to Don's recollections, it was at one of these meetings that the idea of forming NZIBS was

birthed. I can just imagine the light bulbs turning on in the heads of Roy Faris and Theo Marlow as they brainstormed the idea.

The incentive to form the professional group was driven by some significant changes within the construction industry. The first of those changes was the inclusion of Section 6 into the Auckland District Law Society standard sale and purchase agreement.

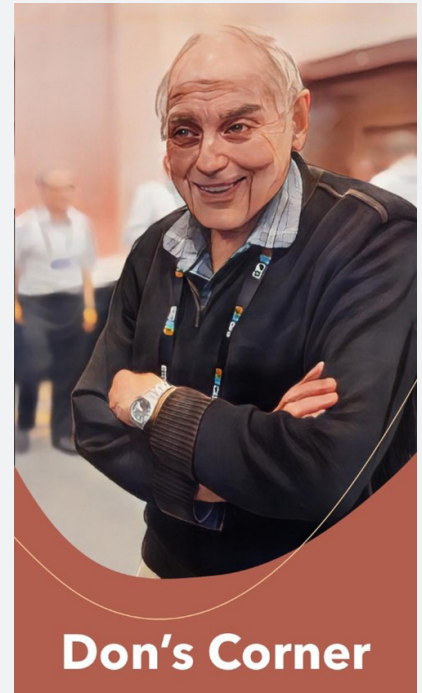
Section 6 required that survey inspections be undertaken as part of a sale and purchase transaction.

Roy saw an opportunity for professional Building Surveyors to become involved in the sale and purchase process by undertaking Section 6 compliance inspections and reporting as well as pre-purchase inspections.

Many of the pre-purchase inspections were being undertaken by builders and other industry individuals, and he saw a need for qualified building surveyors to professionally distance themselves from the other industry inspectors.

The next step was finding members who were actively engaged in the function of building surveying and had a vested interest in making the institute work.

Roy and Theo were joined by 14 other signatories, Howard Healey,



John Murie, Steve Flanders, Bevan Hussey, Bob Magnusson, Sandy Mackenzie, Fred Clarke, Graham Purdie, Maurice Hartley, John Balmer, Graeme Hill, Jack Whitehouse, Paul Barnett, and Greg O'Sullivan.

All of whom became the founding members of our incorporated society, the New Zealand Institute of Building Surveyors, established on 22 August 1994.

Along with having a great memory, Don is also very good at record-keeping. He still has the notes from this meeting.

Don's building surveying career started back in the 70s with BRANZ, however he is grateful for all the assistance from the NZIBS members over the years.

"I must extend thanks to many of these members who have helped me, along with others to achieve the high level of knowledge that assisted in our daily investigations.

"Time has slipped on and so have many of our members."

But the legacy of those members will live on, as our members continue standing on the shoulders of those who have gone before us, building on the strong foundations created, and their commitment to ensuring a better built environment for New Zealand. ■

**DARRYL AUGUST**

NZIBS PRESIDENT

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A living hell

As a follow-on from their 2011 documentary *A Rotten Shame*, HOBANZ took to the screens again to film a new documentary series called *A Living Hell* and I was pleased to be asked to be part of an expert panel.

The first episode focused on the Ridge Apartments in Auckland, which most of our members will be aware of or may have been involved in at some point. We are all exposed to buildings like this in our line of work but from my experience, this is by far the worst I have ever seen. I feel for the owners in this situation but also feel for our industry as a whole and the fact that we allow this type of thing to happen or should I say our successive governments allow this to continue. I recently talked with the NSW Commissioner for Construction (David Chandler) via email and then watched his video on LinkedIn when he visited the apartments.

I think I speak for all of us when I say, this is not the type of thing we want overseas experts to be commenting on, or do we? It's embarrassing, but maybe this type of exposure might make officials wake up. Have a listen to David and John Gray of HOBANZ on **RNZ** about how New Zealand has got it so wrong – if you haven't already. When will our government finally do something to stop it from happening? If we look at New South Wales, they saw the problem and created the Building Commission and gave the Commissioner extensive powers



where he can reverse occupation certificates, shut building sites down and much more. Maybe it's time for a commissioner like David in New Zealand.

If we look at other countries, Canada for example, a Homeowners Protection Act was introduced because of their leaky building crisis. As a result, the quality of construction increased to a level where defective buildings are pretty much a thing of the past. Bob Maling was instrumental in the development and implementation of the Homeowners Protection Act (later becoming the Homeowner

Protection Office's Chief Operating Officer/Registrar) and he was interviewed for the show explaining how they were able to turn things around and resolve the issues.

There were some knock-on effects, particularly when indemnity insurance immediately increased for contractors. However, from what I understand, the good quality contractors were able to use the situation to their advantage, restructure their businesses and turn larger profits. Some contractors started to offer initiatives such as including a five-year maintenance plan in the

build contract, meaning they would maintain the building for five years after completion and get paid for it.

We spent the good part of the morning filming the panel discussion part of the documentary. This translated into 15 minutes on screen – that's showbusiness, I guess. HOBANZ plans to use some of the unused footage to create podcasts for YouTube and LinkedIn. I asked why we are not able to build well in one of these unused segments, and I am hoping it goes on to be a discussion point in the podcasts. Personally, when I look back at when I started in construction (28 years ago) I think we took a lot more pride in our work. In discussions during filming, I noted that taking pride in your work can start with keeping your site clean. How many of you go to untidy building sites and see that mess turning into construction defects? Call me old-fashioned (my favourite drink, by the way), but a clean site is a productive site and a productive site normally produces a quality product. Pretty simple equation really.

In the first episode of the documentary, we also explored the reasons why owners end up in these situations. I was asked to comment on how it may be prevented, and my immediate thoughts were pre-purchase reporting. In New Zealand, purchasers spend more money on vehicle pre-purchase reporting (based on value) than on home pre-purchase reporting. Even when a pre-purchase report might highlight issues/defects, some purchasers have such an emotional attachment to the property that rational thought eludes them, and they purchase regardless.

In the third and final episode, we explored lessons learnt and my comments were, which all our members would agree with, there needs to be more involvement of Building Surveyors. We need to be there before and during construction, rather than post construction when the defects and damage start to appear.

Personally when I look back at when I started in construction (28 years ago) I think we took a lot more pride in our work. In discussions during filming I noted that taking pride in your work can start with keeping your site clean.

The *A Living Hell* documentary series has shed light on the dire state of some residential buildings in New Zealand, particularly exemplified by the Ridge Apartments in Auckland. This exposé serves as a wake-up call for our industry and government, highlighting the urgent need for systemic changes to prevent such situations from recurring. Drawing from international examples and expert insights, it's clear that New Zealand must take decisive action to improve building quality and protect homeowners.

Based on the issues we discussed, there are some clear ways forward:

- 1. Establish a Construction Commissioner:** Following NSW's model, New Zealand should consider appointing a commissioner with extensive powers to oversee the construction industry, including the ability to reverse occupation certificates and halt unsafe building practices.
- 2. Implement a Homeowners Protection Act:** Learn from Canada's experience and introduce legislation that safeguards homeowners and incentivises quality construction.
- 3. Enhance pre-purchase reporting:** Educate potential buyers on the importance of thorough pre-purchase inspections and reports, emphasising their value in making informed decisions.
- 4. Increase Building Surveyor involvement:** Integrate Building Surveyors more extensively in the pre-construction and construction phases to identify and address issues before they become major problems.
- 5. Promote a culture of pride in workmanship:** Encourage and reward contractors who maintain clean, organised work sites and demonstrate a commitment to quality craftsmanship.
- 6. Develop contractor accountability programs:** Encourage initiatives like built-in maintenance plans that extend contractor responsibility beyond the construction phase.
- 7. Continuous industry education:** Establish ongoing training programs for all stakeholders in the construction industry to keep them updated on best practices and emerging technologies.

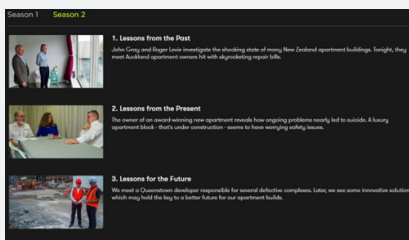
By implementing these recommendations and learning from both domestic experiences and international best practices, New Zealand can work towards resolving its building quality issues and restoring confidence in its construction industry. It's time for all stakeholders – from government officials to industry professionals and homeowners – to come together and take decisive action to ensure safe, quality housing for all New Zealanders.



Roger Levie (left), John Gray, Kelvin Davidson, Darryl August, Tim Jones. Picture: *A Living Hell* (2021). Neon. Retrieved 7 August 2024 from www.neontv.co.nz/series/a-living-hell-apartment-disasters. Screenshot by author.



View inside Ridge Apartments, Auckland. Picture: *A Living Hell* (2021). Neon. Retrieved 7 August 2024 from www.neontv.co.nz/series/a-living-hell-apartment-disasters. Screenshot by author.



A Living Hell (2021). Neon. Retrieved 7 August 2024 from www.neontv.co.nz/series/a-living-hell-apartment-disasters. Screenshot by author.

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It's time for all stakeholders – from government officials to industry professionals and homeowners – to come together and take decisive action to ensure safe quality housing for all New Zealanders. 9



APC candidate guide

The New Zealand Institute of Building Surveyors (NZIBS) is pleased to announce that an updated Assessment of Professional Competence (APC) Candidate Guide will be published shortly.

This comprehensive guide provides essential information for Transitional Members working towards becoming Registered Building Surveyors.

The new guide covers all aspects of the APC process, including:

- An overview of the pathway to Registered Membership;
- Detailed requirements for core module training, insurance, and ethics;
- Information on the structured training period and mentorship;
- Guidance on record keeping and demonstrating competencies;
- Continuous Professional Development requirements; and
- Instructions for the final assessment submission and interview.

Key sections include a breakdown of core and developed core roles for Building Surveyors, achievement level descriptions, and helpful tips for preparing the case study and presentation.

The guide also provides templates and resources to support candidates throughout their APC journey.

This updated document reflects the Institute's commitment to maintaining high professional standards while supporting the development of the next generation of Registered Building Surveyors.

All Transitional Members are encouraged to review the new guide when it becomes available to ensure they are fully informed about the requirements and expectations of the APC process.

The full guide will be accessible on the NZIBS website in the coming weeks. For any questions about the APC process, please contact Saskia Shelton at office@buildingsurveyors.co.nz.



Residential building contracts

This bulletin provides comprehensive guidance on residential building contracts. Key points include:

1. Written contracts are mandatory for residential building work valued at \$30,000 or more (including GST).
2. The bulletin outlines essential elements that should be included in a construction contract between homeowners and main contractors.
3. It discusses different types of contracts, including comprehensive contracts, labour-only contracts, and cost reimbursement contracts.
4. The document explains important legal protections for consumers, including implied warranties under the Building Act 2004 and rights under the Fair Trading Act 1986 and Consumer Guarantees Act 1993.
5. It highlights the importance of clearly defining the scope of work and managing variations to avoid disputes.
6. The bulletin also touches on dispute resolution processes and the Construction Contracts Act 2002.

This guide is an invaluable resource for both homeowners and contractors involved in residential construction projects, offering crucial information to ensure fair and legally compliant agreements.

LINK HERE





Forging New Zealand's built identity

Join us as we celebrate our 30th Anniversary Annual Conference. 19 - 21 September 2024, Harbourside Function Venue, Wellington.

Our theme *Tradition, Transformation & Transcendence* takes us on a journey through the years, looking at how the building industry has changed and what the future may hold for New Zealand's built environment.

We will be hearing from presenters on topics such as 3D printing, emergency management, local architects and building professionals. We are also very excited to have Kieran Read join us this year, so make sure you register early to ensure your spot at our 30th Anniversary Annual Conference.

Register today!



2024 TRAINING MODULE DATES

You can view all of the module dates and book your place on the website:

<https://buildingsurveyors.co.nz/training-and-events/>

Event name	Date
MODULE 1: Introduction to Building Law & Related Regulations (Christchurch)	3 September
MODULE 2: Properties of Moisture (Christchurch)	4 September
MODULE 11: Contract Administration (Auckland)	24 September
MODULE 12: Asset Management & Maintenance Planning (Auckland)	25 September
MODULE 3: The Building Envelope and Cladding Systems (Christchurch)	15 October
MODULE 13: Lease Reinstatement - Dilapidations (Auckland)	5 November
MODULE 14: Technical Due Diligence for Commercial Properties (Auckland)	6 November
MODULE 4: Condition & Compliance Reporting (Christchurch)	26 November
MODULE 5: Residential Property Inspections (Christchurch)	27 November



SARAH PUGH, MBA
 OPERATIONS OFFICER/TRAINING ADMINISTRATOR
operations@buildingsurveyors.co.nz

NZIBS training packages

What are the different training bundles/packages?

In 2020, the NZIBS Training Committee reviewed and restructured the core module training programme, the aim being to increase exposure by offering the modules to the wider construction industry. The outcome was to extend the range of certificates which, when combined, make up the classroom-based learning content for the NZIBS Diploma in Building Surveying.

The three certificates can be achieved independently or as part of the pathway towards full diploma recognition.

Certificate in Residential Property Inspections

This certificate is a vital component of the Diploma in Building Surveying and provides a solid foundation of knowledge for our Transitional Members to progress through the training programme. The clustering of these modules together has been designed to provide opportunities for Property Inspectors who are looking to upskill to work towards a professional qualification.

Consideration is currently underway seeking a pathway to offer an advanced component of Module 5: Residential Property Inspections. This would stand external to the existing Diploma pathway, providing interested members and those undertaking pre-purchase work in the wider community the guarantee of



robust terms of engagement and inspection templates. Frequent court decisions illustrate considerable limitations in these areas. It is also hoped that having achieved our Certificate in Residential Property Inspections and having successfully passed the additional module examination, insurance firms, particularly those offering professional indemnity for this aspect of our work, maybe more eager to come on board.

Certificate in Forensic Building Surveying provides an in-depth learning opportunity for those wishing to become involved in the analytical investigation of building defects and subsequent demands of technical report writing and expert witness situations. The certificate commences with the

two-day forensic investigation module which includes a site visit, followed by exploring the expert witness role kindly co-presented by well-known Barrister and Solicitor Tim Rainey. The certificate concludes with an in-depth understanding of timber decay, durability studies and building remediation.

Certificate in Asset Management and Maintenance Planning completes the Diploma package delving into the more specialised aspects involved with the commercial property sector, covering aspects of commercial contracts, asset management/ maintenance planning, dilapidations and technical due diligence.

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Completion of all the certificates provides our Transitional Members and non-members with a comprehensive insight into the general core competencies of a Building Surveyor as part of the pathway to accomplishing the Diploma in Building Surveying.

What are the benefits and training outcomes?

One of the Institute's objectives is "to provide outstanding technical educational training not only to both new and existing NZIBS Members but also to those who wish to gain advanced levels of knowledge and experience in construction and building related matters".

Our training programme is sector-leading, and there is no doubt that everyone who attends our modules gain a further comprehensive understanding and enhance their knowledge in the subject area. One of our aims is to give attendees the knowledge, confidence and insight into other disciplines that they wouldn't necessarily cover in day-to-day work. The range of modules offered gives attendees a greater understanding of the broader spectrum of the Building Surveying profession.

The quality and content of our modules are audited regularly by our certification Authority (Vertical Horizonz NZ). Feedback from a recent audit stated: "there are no other construction courses being presented like this in the country", a fitting endorsement of the calibre of both our presenters and the quality of our modules' content.

We also receive and value the frequent feedback from our participants, some of whom have attended other organisational training and generally feel that our modules far surpass that encountered elsewhere, in addition to exceeding their expectations. Our training programme is structured and run

at a high level, ensuring that all attendees feel inclusive and gain from the learning experience.

Before attending each module, course information along with pre-course study material is provided to all registered attendees and is essential reading for those aiming for a successful outcome. Several of the modules now include pre-course tests, ensuring that our candidates are well-prepared for the ensuing day's content. A variety of learning techniques are used such as group discussions, role-play scenarios and individual presentations related to the module.

All our presenters are experts in their respective fields and attendees get the opportunity to learn not only about the subject but also listen to real-life experiences which provide valuable insights into the profession. Course content and learning materials are constantly updated to accommodate the changes in legislation, social expectations and climatic change.

As an Institute, we feel that everyone who attends our training programme benefits significantly from meeting others working in similar roles. By attending our modules, they build a network of like-minded acquaintances and gain an appreciation of other disciplines in the Building Surveying profession.

We find those attendees who register for one of the packages, having enjoyed the learning experience and networking, frequently decide to undertake the full range of modules to complete the Diploma. Many then come on board, initially as Transitional and then ultimately becoming full members of the Institute.

Those who have completed the Diploma acknowledge that it is a well-recognised professional qualification carrying sufficient authority for the recipient to be involved in litigious situations up to and including the New Zealand court system.

Who are they aimed at?

The NZIBS modular training programme is open to anyone in the building industry, particularly those currently practising as Residential Property Inspectors, Licensed Building Practitioners, Building Control Surveyors, Designers, Architects, Engineers, Project, Property and Asset Managers, and anyone looking to upskill or gain an understanding of the sector.

Primarily, the diploma modules provide the essential pathway for our Transitional Members' journey to becoming Registered Building Surveyors. Non-member attendees benefit from receiving tailored learning opportunities relevant to their profession from presenters who are experts in their field.

How can people find out more?

Information about our training programme can be found on the NZIBS website: <https://buildingsurveyors.co.nz/training-and-events/training-and-qualifications-we-offer/>.

If you are unsure if our training programme is the pathway for you or would like further information, please phone Sarah Pugh on 021 989 499 for an informal chat to discuss.

For those who are interested in joining the Institute as a Transitional Member, and wish to begin the pathway to becoming a Registered Building Surveyor, applications can be made online: <https://buildingsurveyors.co.nz/membership/>.

**VICTORIA RICHARDSON**

EDITOR

Executive Committee - Marketing Chair
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Farewell, snagging lists. Hello, zero defects.

Persistent defects in construction and maintenance work continue to plague our industry, leading to increased costs, extended timelines, and diminished confidence in our built environment.

I have no objection to snagging lists, but I do resent having to prepare them when the items I am adding to the list could have been easily identified and fixed before I arrived on site. When I find myself in these situations, it would be easy to just point the finger at the contractor, but that would be unfair. We all have a part to play in project delivery, and that extends to quality of work as well.

I was recently discussing this issue with a facilities manager, and he told me about a project he had been involved in where there was a *Zero Defects* policy. Whilst it didn't quite achieve zero defects on his project, it certainly improved the quality of work. After some of my own research, I have come to the conclusion that this type of policy could have a positive impact on the type of projects I work on. So, let's take a deep dive into what I have learned so far.

The true cost of defects

Before exploring solutions, it's crucial to understand the multifaceted impact of defects on our projects and the broader industry:



After some of my own research I have come to the conclusion that this type of policy could have a positive impact on the type of projects I work on.

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1. Financial implications

Defects lead to rework, additional materials, extended labour hours, and prolonged site visits, all contributing to budget overruns. In New Zealand, where construction costs are already among the highest globally, these additional expenses can significantly impact project viability and overall industry sustainability.

2. Programme delays

Defects disrupt carefully planned project timelines, causing delays in subsequent tasks and potentially pushing out project completion dates. This can incur additional costs through extended site presence and potential contractual penalties.

3. Moral and reputational impact

Constant rework can demoralise contractors, leading to decreased job satisfaction and higher staff turnover. For clients, recurring defects erode trust in the construction process and the professionals involved. As Building Surveyors, our reputation for ensuring quality is at stake with each defect that slips through.

4. Confidence in the built environment

Persistent defects can shake public confidence in the entire construction industry. In New Zealand, where resilience against natural disasters is paramount, any perception of subpar construction quality can have far-reaching consequences for public trust and infrastructure investment.

5. Safety concerns

While many defects may be cosmetic, others can pose serious safety risks. In the context of seismic activity, even minor construction defects could potentially compromise a building's structural integrity in an earthquake.

6. Environmental impact

Rework necessitated by defects often requires additional materials and energy, contributing to increased carbon emissions and waste. This runs counter to New Zealand's commitment to sustainability and its goal of carbon neutrality by 2050.

7. Insurance and liability issues

Defects can lead to increased insurance premiums for contractors and potentially expose them to liability claims. In New Zealand's robust legal environment, the costs associated with defect-related litigation can be substantial.

The zero defects solution

Given the negative impact of defects, a paradigm shift is needed in our approach to quality control. The *Zero Defects* approach, originating from manufacturing industries, is gaining traction in construction sectors worldwide.

A *Zero Defects* policy is a quality management approach that aims to reduce and eliminate defects through prevention rather than through inspection and rework. It emphasises getting things right the first time, every time.

Key components of a Zero Defects policy:

1. Clear quality standards

Establish unambiguous, measurable quality standards for each type of work, exceeding the New Zealand Building Code where appropriate.

2. Proactive quality control

Emphasise ongoing quality checks throughout the construction or maintenance process, using tools like regular toolbox talks and real-time digital reporting.

3. Continuous improvement

Implement mechanisms for ongoing learning and process refinement, such as project reviews and industry-wide knowledge-sharing platforms.

4. Accountability at all levels

Ensure everyone involved in a project has clearly defined responsibilities for maintaining quality.

5. Comprehensive training

Invest in training programmes to ensure all workers understand quality expectations in their specific roles.

6. Open communication channels

Foster a no-blame culture for reporting potential issues, encouraging early intervention.

7. Technology integration

Leverage technologies like BIM, augmented reality, and IoT sensors to enhance quality control processes.

8. Supply chain management

Extend the zero defects philosophy to suppliers and subcontractors through collaborative workshops and preferential selection.

9. Client engagement

Involve clients in the quality process through regular walk-throughs and feedback sessions.

10. Performance metrics and analytics

Establish clear metrics for measuring quality performance and use data analytics to identify trends.

Incentivising zero defects

Getting a *Zero Defects* policy off the ground requires buy-in from all stakeholders. Options to consider include:

1. Performance-based pricing

Implement a tiered pricing structure with bonuses for achieving quality targets. Example:

Tier 1: Base contract price for meeting minimum quality standards

Tier 2: 2% bonus for achieving less than 5 defects per 1,000 m² of work

Tier 3: 5% bonus for achieving zero defects

Tier 4: 7% bonus for exceeding quality standards and introducing innovations

2. Shared cost savings

Establish mechanisms to share cost savings from reduced rework between clients and contractors. Example:

- 50/50 split of savings from reduced rework between client and contractor
- Establish a baseline rework cost based on industry averages
- Any savings below this baseline are calculated and divided equally
- Implement a tracking system to accurately measure rework costs

3. Future work opportunities

Use quality performance as a key criterion in awarding future contracts. Example:

- Develop a contractor rating system (e.g., 1-5 stars) based on quality performance
- Require a minimum 4-star rating for eligibility on high-value projects
- Offer right of first refusal on similar future projects to contractors achieving 5-star ratings
- Include quality performance as 30% of the weighting in tender evaluations

4. Recognition programs

Implement a process for public recognition for projects and teams achieving Zero Defects. This could be through press releases or other promotional methods. Example:

- Quarterly press releases highlighting top-performing projects and teams



- Feature successful *Zero Defects* projects in industry publications
- Create a "Zero Defects Certified" logo for use in company marketing materials

5. Insurance incentives

Work with insurers to offer reduced premiums for contractors consistently achieving high quality standards. Example:

- 10% reduction in professional indemnity insurance premiums for contractors maintaining zero defects status for 2+ years
- Reduced excess (deductible) for claims on projects that achieved *Zero Defects* status
- Offer extended coverage periods at standard rates for *Zero Defects* projects
- Create a special *Zero Defects* Insurance product with comprehensive coverage at competitive rates

6. Penalty clauses

Balance incentives with appropriate penalties for quality failures. Example:

- 1% contract value penalty for exceeding 10 defects per 1,000 m² of work
- 2% penalty for exceeding 20 defects per 1,000 m²
- Requirement to fix all defects at the contractor's cost within 14 days of identification
- Escalating daily penalties for delays in addressing identified defects

7. Performance bonds

Require contractors to provide performance bonds partially releasable based on quality achievements. Example:

- Require a 5% performance bond at contract commencement
- Release 1% upon achieving 25% project completion with zero defects
- Release another 2% upon 75% completion with zero defects
- Final 2% released upon project completion and zero defects at final inspection

8. Milestone-based incentives

Offer smaller incentives at key project milestones to maintain motivation throughout the project. Example:

- 0.5% bonus at 25% project completion if zero defects is achieved
- 1% bonus at 50% completion with zero defects
- 1.5% bonus at 75% completion with zero defects

- 2% bonus at project completion with zero defects throughout
- Additional 1% bonus for early completion with zero defects

These examples can be adjusted based on project size, complexity, and specific project goals. The key is to create a balanced system that rewards quality performance while discouraging poor workmanship, ultimately aligning the interests of all parties towards achieving zero defects.

Addressing the 'race to the bottom' in pricing

A critical issue in our construction industry is the focus on 'cheap' work rather than quality. This 'race to the bottom' in pricing often leads to compromised quality, creating a false economy where apparent short-term savings result in higher long-term costs.

To address this issue, we need to look at some key areas:

1. Educate clients

Raise awareness about the long-term benefits of investing in quality upfront. Showcase case studies demonstrating how higher initial investment in quality leads to significant lifecycle savings.

2. Value-based procurement

Encourage a shift from lowest-price tendering to value-based procurement, prioritising quality and whole-life cost considerations.

3. Industry Standards:

Promote industry-wide standards emphasising quality to level the playing field and ensure quality-focused contractors aren't disadvantaged in the bidding process.

4. Government leadership

Encourage government bodies to lead by example, implementing *Zero Defects* policies in public projects and prioritising quality in procurement decisions.

5. Skills development:

Invest in upskilling the workforce to deliver high-quality work efficiently, bridging the perceived gap between quality and cost-effectiveness.

6. Whole-life cost analysis

Promote the use of whole-life cost analysis in project planning and procurement to demonstrate the long-term value of quality construction.

7. Change the conversation:

Shift industry dialogue from "How cheap can we do this?" to "How can we deliver the best value over the life of this asset?"



By addressing the 'race to the bottom' mentality, the construction industry can position itself as a leader in quality and innovation, rather than competing solely on price. This approach aligns perfectly with the zero defects philosophy and could be a powerful driver for positive change in the industry.

Challenges and considerations

Implementing a zero defects approach comes with challenges. Notable challenges include:

1. Initial cost increase

There may be upfront costs for system implementation and training, which should be viewed as an investment.

2. Resistance to change:

Some stakeholders may resist increased scrutiny and accountability, necessitating effective change management.

3. Skill gaps:

Achieving zero defects may require upskilling in an industry that is facing skills shortages.

4. Unrealistic expectations:

While striving for zero defects, it's important to focus on continuous improvement rather than punitive measures.

5. Balancing speed and quality

Clear communication about the long-term benefits of quality work is essential in a fast-paced construction environment.

Adopting *Zero Defects* policies represents a significant opportunity for the building industry to raise standards, improve efficiency, and boost confidence in our built environment. As Building Surveyors, we are uniquely positioned to champion this approach, working collaboratively with all stakeholders to drive meaningful change.

By addressing the root causes of defects and moving away from the 'race to the bottom' pricing mentality, we can create a more resilient, sustainable, and trustworthy building sector. The journey towards zero defects is challenging, but the potential rewards – in terms of cost savings, improved safety, enhanced reputation, and environmental benefits – make it worthwhile.

It's an approach that I'll certainly be advocating for in future projects

If you have a zero defects case study you would be interested in sharing, please contact us: marketing@buildingsurveyors.co.nz



Prioritise builders' insulation knowledge over rolling back regulations

Enhancing builders' education and training on current minimum insulation standards will provide much greater scales of efficiency than rolling back regulations combating New Zealand's unhealthy home habits.

So says the NZ Institute of Building Surveyors (NZIBS), who is urging Minister for Building and Construction Chris Penk to reconsider reviewing the H1 Building Code clause.

The Government's rationale includes concerns over increased building costs and the complexity of current regulations, which typically occurs to any regulation that is amended significantly.

However, NZIBS spokesperson and Director of Resolution Building Consultants James Biscaldi argues that a rollback would undermine efforts to improve energy efficiency.

"Improved insulation is a cornerstone of modern building practices, reducing energy consumption and providing healthier living environments.

"The benefits of adhering to the updated insulation standards far outweigh the costs associated with their implementation.

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And we're at a critical juncture where the quality of our homes directly impacts the health and well-being of our citizens.

"Rolling back insulation standards is not the solution; instead, we need to focus on educating our builders and industry professionals to ensure compliance and efficiency."

Many of the perceived difficulties and costs associated with the new standards stem from a lack of understanding and proper training, Biscaldi says.

By providing comprehensive training and resources, the Government can ensure that the industry is well-equipped to meet these standards without significant additional costs.

In the past, the industry faced similar challenges with weathertightness and fire safety regulations which were successfully overcome through targeted education and industry collaboration.

Biscaldi says manufacturers of enhanced and more robust building products have upskilled both their workforce and plants, at considerable time and cost, in preparation to provide the construction industry with superior products.

A rollback would create future uncertainties and dire financial consequences for these manufacturers, who may have to spend just as much time and money to retool their plant and remove regulatory compliant inventory.

Removing minimum insulation standards could lead to the rolling back of other building codes, something NZIBS is has serious concerns about.

The NZIBS calls on the Government to engage with industry stakeholders and prioritise educational initiatives over regulatory rollbacks.

By investing in education and training, Biscaldi says New Zealand can build a more knowledgeable workforce capable of constructing homes that meet modern standards of comfort, efficiency, and sustainability.

"We urge the Government to reconsider its proposal and instead focus on upskilling our builders. This approach will not only help in meeting insulation standards but also ensure that we are building homes that are fit for the future."



Nail the remote building inspections' details or face another 'leaky home' crisis

The New Zealand Institute of Building Surveyors (NZIBS) is cautiously optimistic about the Government's new plans for remote virtual building consent inspections.

However, its success will depend entirely on nailing the finer details or New Zealand will likely face another crisis of leaky home proportions, they say.

NZIBS President Darryl August says a similar concept deployed during COVID-19 was useful for some building elements. However, there would still be a need for physical inspections of more complex building elements.

Even the Government's example of its effectiveness in the remote McKenzie District is impressive, he says.

But any enthusiasm for the concept is tempered by the Institute's uncertainty of the likely risk profile to building owners and occupants.

"Our members see first-hand the financial impact, stress, misery and illnesses caused by the construction of defective buildings," August says.

"So, we need to be especially sure of the risk profile for New Zealand building owners and occupants.

"The system may not be an appropriate 'size fits all' process and could have dire consequences for how cost, time, and quality are maintained to ensure successful projects are delivered.

"If the remote inspection process is flawed, we could see the result being the diminished value of our improving building stock – or another leaky homes' saga."

In preparation for the Government's discussion document later this year, NZIBS is establishing a policy working group comprising members, homeowner support groups, contractors and other professionals to provide robust feedback.



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