

Spring 2021

Message from the CEO

Conference 2021 Wrap Up

Spotlight on a Member - Amie Burrows

Industry Highlights



All a start and



BOOST YOUR BOINZ MEMBERSHIP WITH BOOST & BOOST+

1=

⋔

B

vsletter

Get more out of your membership with the new BOINZ mobile app.

ACKLOIS"

BRONZE PARTNER

Stay up to date with easy access to our newsletters, Straight up, Jobs Board and BOINZ events calendar and access your favourite member discounts through the BOOST button on the homepage. It's free as part of your BOINZ membership.



BRONZE PARTNER

Resene h

BRANZ

BRONZE PARTNER

Construction Systems

BRONZE PARTNER

BRONZE PARTNER



Our contributors

•	•••••
Board President: Peter Laurenson	MBIE
Vice Pesident Wayne Goodfellow	Conf
Board Members Karel Boakes	Spot
Jeff Fahrensohn Cory Lang Phil Saunders	ACR
Daniel Scheibmair	Pryd
Administration: Chief Executive Nick Hill	GIB -
Finance Manager Deloitte Private	Allco
Events & Partnerships Manager Katie Page	Gran
Training Operations Manager Jacqui Neilson	
Membership & Communications Manager Dana Mackay	HER
National Accreditation Division Nicola Hakes	Home
HR Division Manager Michelle Te Ohaere	Proje
Executive Assistant Vivian Menard	Then
Advertising/Editorial Contractors Advertising/Editorial	Interr
Please contact the Building Offcials Institute's National Office via <u>office@boinz.org.nz</u>	Lega
Design & Print no9.co.nz	Opin
ISSN 1175-9739 (print) ISSN 2230-2654 (online)	 Covi
Building Officials Institute of New Zealand PO Box 11424 Manners Street, Wellington Level 12, Grand Annexe 84 Boulcott St, Wellington Phone (04) 473 6002	BOIN
FILLIE (U4) 413 0002	

IN THIS ISSUE

Message from the CEO	04
What's On at BOINZ	06
MBIE - Building Code Update	08
Conference Wrap Up & Photo Gallery	10
Spotlight on a Member - Amie Burrows	18
ACRS - Steel Buyers Beware	20
Pryda - New Zealand Compliance	22
GIB - Multi-Unit Residential Systems	23
Allco - Waterproofing	24
Grappler Balconies	27
HERA's Innovative Design Tool	28
Homestar Green Home Scheme	30
Project Management NZ	32
Thermakraft - Avoiding Condensation	34
International Food for Thought	35
Legal Case Study	36
Opinion Piece - Liability	38
Covid-19 - Air Quality Safety	40
BOINZ Word Find	42
	· · · · •



Karel Boakes





Peter Laurenson President

Wavne Goodfellow Vice President









Daniel Scheibmair

Nick Hill Chief Executive

The information contained within this publication is of a general nature only. Building Officials Institute of New Zealand does not accept any responsibility or liability for any direct, incidental, consequential, special, exemplary or punitive damage or for any loss of profit, income or any intangible losses, or any claims, costs expenses, or damage, whether in contract, tort (including negligence), equity or otherwise arising directly or indirectly from, or connected with, your use of this publication or your reliance on information contained within this publication. The Building Officials Institute of New Zealand reserves the right to reject or accept any article or advertisement submitted for publication.

Building A >



There is one thing we all enjoy and that is a good celebration. It could be a season, an event such as a birth, christening, birthday, wedding,

anniversary, or a recognition and reward occasion. Coming into Spring is a celebration for most of us – more sunlight,

longer days. Celebrations tend to bring out the best in us, we dress up, network, laugh, acknowledge, and occasionally cry. Depending on the celebration, this purpose is usually to praise, rejoice or remember.

Most celebrations are prepared well in advance, involving a good level of work and emotional input. But occasionally some celebrations are short notice.

The Institute celebrates its members and the work they do every year at our Annual Conference and Exposition. Our Gala Dinner and Awards evening is our big event, and the glitterati turn up to honour their peers dressed for the occasion. It is great to see our members taking pride in their profession when they come to this celebration to honour their peers.

We felt sure 2021 was going to be a great celebration year, following several failed conference attempts in 2020 due to COVID. And I am pleased to say it was.

MESSAGE FROM OUR CEO



Our conference kicked off with a bang with members at the door of Wellington's Sky Stadium before start time - ready to go. Within 10-20 minutes the exposition area was buzzing, and the networking and learning being undertaken at each stand was nothing short of hectic. Members and exhibitors alike were celebrating being able to learn and inform again in a face-to-face environment, something not done since 2019.

The fantastic opening address by MBIE BSP General Manager John Sneyd, was a celebration of enthusiasm and commitment not seen by the regulator for many years, ending in an encouraging message to members to take an opportunity to speak to the many key MBIE staff in their special MBIE Lounge over 2 days.

The buzz continued with each speaker and during each break, with a highlight being the Welcome function on the Monday evening, not only celebrating a great day of learning, but guessing who might be the BOINZ Awards winners for 2021.

In this edition of Straight Up you will see many pictures of this unique combined SBCO/Conference event. This 2021 event was a special celebration in many ways with members and exhibitors hyped that normality was returning. We were learning and sharing experiences again in the way we best receive information. The second day was more of the same, until rumour took hold about 2 pm that the Prime Minister was likely to make a special COVID announcement. We let attendees know shortly afterwards she would be making a COVID announcement at 6pm. Not to be deterred, most members left the stadium at the end of the last presentation to prepare and dress for the Gala Dinner and Awards evening. They were keen on celebrating despite the lingering cloud.

As a Board we had prepared for such an eventuality, but being BOINZ members, our glass was still half full, hoping and anticipating of a 'localised' lockdown and knowing we couldn't pre-empt any announcement by the Prime Minister. The expected revelry wasn't to be, and at 6:20pm the Prime Minister announced the country would go into Alert Level 4 at midnight. So close but so far.

Disappointment - yes, particularly for all who had put in the hard yards behind the scenes for our spectacularly scripted Awards evening. Making the call to cancel the event at Te Papa within 10-15 minutes of the doors opening was seriously tough, but a sensible one on many fronts, particularly health. Members dressed for the occasion in the hotel foyers were disappointed though many in true BOINZ form managed a quick celebration in their hotel's, knowing we all needed to prepare for lockdown which was under 6 hours away and that they would have 48 hours to travel home, under hastily re-arranged arrangements.

Not to let a celebration pass us by, our marketing department quickly regrouped and assessed if through existing technology could we recreate (to best endeavours) our Awards ceremony online. Our Master of Ceremonies, Greg Ward, was totally enthusiastic, as was our President, who chipped in with a little bit of historic homegrown video entertainment that he thought might create a bit of online atmosphere. He was deemed "right on the button" and it was included.

We ended up celebrating our fantastic 10 Award winners online a couple of weeks later to an online audience of over 400 members. What an achievement and what a celebration.

Who savs BOINZ members can't celebrate! With this under our belt, little did we know we would be celebrating in a different way not long after. Sadly, we were advised Phil Roberts, one of the Institute's staunchest supporters passed away on the 5th September. I doubt there would be too many members who haven't seen Phil in action as an MC, speaker, or guest panel convenor at one of our Conferences over the past 10 years. Phil was a passionate volunteer, in an environment, where volunteerism and the "giving back" ethos is now a diminishing domain in an increasingly hectic world. Phil loved celebrating BOINZ and what it could do for building surveying professionalism. He was a Branch Chair for Nelson Marlborough, a Board member over the years 2014 to 2018 and actively involved in branch committees in both Waikato Bay of Plenty and East Coast Phil's unexpected passing has branches. shocked our community but didn't stop us celebrating him as a person and a member, with a Zoom amongst those who worked closely with him. The yarn's, the stories and the pictures brought back fond memories and a commitment to celebrate Phil.

Life brings tears smiles and memories as we celebrate and we have had many great reasons to celebrate our members and what we do over the last twelve months, let alone the last couple of months. As professionals we are stoic and achievers and a good example of this is how we perform in lockdown – we just keep supporting the sector.

In closing I think it worthy we all celebrate our Auckland colleagues who have functioned through New Zealand's longest imposed lockdowns. They have endured.

Life is about celebrating – let's not forget this.

Nick

Nick Hill Chief Executive







WHAT'S ON @ BOINZ

Training Academy Calendar

October - December 2021

October										
5 Oct - 6 Oct	TA009 NZS 4229 Concrete Masonry Building not Requiring Specific Engineering Design	Dunedin								
18 Oct - 19 Oct	TA013 E2 Weathertightness	Palmerston North								
28 Oct - 29 Oct	Dunedin									
November										
4 Nov - 5 Nov	TA014 B2 Durability	Queenstown								
22 Nov - 25 Nov	TA008 NZS 3604 Timber Framed Buildings	Palmerston North								

CHECK OUT 2022 COURSES HERE



UPCOMING BRANCH MEETINGS

Canterbury/Westland Branch 19th October

> Waikato/Bay of Plenty 26th November

> > Auckland Branch 20th October 17th November

> > Southern Branch 26th November

Nelson/Marlborough Branch 20th October 1st December

> Central Branch 3rd November

East Coast Branch 24th November

Wellington Branch 27th October

Check with your Branch Chair if your branch is not featured above.

*Subject to change; Branch meeting notices will be sent out closer to the time of the event with further details

To see more information on future Branch Meetings, please check the BOINZ website here

SAVE THE DATES!!

30 MAY - 1 JUNE 2022 ROTORUA BOINZ ANNUAL CONFERENCE & EXPO 2022



15 - 16 AUGUST 2022 QUEENSTOWN SBCO FORUM 2022





NEWS FROM MBIE

BUILDING CODE UPDATE PROGRAMME

The annual Building Code update is a maintenance programme created to ensure effective management of the Building Code and its documents, so that our buildings can continue to meet the changing needs of New Zealanders while ensuring that it keeps pace with modern construction methods and technologies. This can include updates to the Building Code regulations, acceptable solutions, and verification methods and published guidance information. To ensure the Building Code

system continues to set appropriate minimum standards for the performance of New Zealand's buildings, we need to ensure that it is up-to-date and fit for purpose.

This year, the Ministry of Business, Innovation and Employment (MBIE) Building Code consultation also included proposed Building Code Operating Protocols for standards cited by the Building Code. These are the first in a series of operating protocols in development to give transparency around the work MBIE does as the building regulator and support the health and maintenance of the Building Code.

How does it work?

Updates to the Building Code involve not only consultation and publication of documents, but each update also requires lengthy planning, development and implementation phases.

Planning

Recommended topics for each Building Code consultation are proposed by MBIE engineers, architects and other technical staff within MBIE's Building Performance and Engineering on Government team based priorities, emerging challenges and opportunities, feedback from past consultations, and available resources. Additional advice on these topics is also provided by the Code Advisory Panel, technical societies and key stakeholder groups.

Currently there are two key work programmes influencing topics in the update. The first, Higher Density 8 (HD8) addresses needs arising from increased demand for higher density housing and the need for better solutions to support associated challenges for building performance. The second is the longer term Building for Climate Change work programme which is setting future targets to reduce emissions from constructing, operating and deconstructing buildings, and to make sure our buildings are prepared for the future effects of climate change. Both programmes support better buildings for New Zealand, and are consistent with wider goals of making homes warmer and healthier, with less environmental impact.

Development

Technical experts within MBIE lead research and development

Key stages of the Building Code update process



of proposed changes to the Building Code. This phase takes several months or years to complete, depending on the complexity of the change. For instance, the revision of NZS 3604 "Timber-framed buildings" started in 2020 and is not expected to be cited in the Building Code acceptable solutions until 2024, due to the level of detailed research and engagement required.

The development process relies heavily on the involvement of a variety of stakeholders including building consent authorities, technical societies and research organisations.

Consultation and publishing

Once a year, MBIE consults on the proposed updates and provides an opportunity for the construction sector and wider public to make submissions on proposed changes. Once the consultation closes and submissions are analysed, the final updates to the selected acceptable solutions and verification methods are published. The process to analyse submissions and consider the feedback can be quite lengthy. In 2021, the Building Code consultation received more than 700 submissions totalling 3000 responses and more than 600 pages of feedback. This is more than the previous five years of Building Code consultation responses combined. All of this feedback needs to be considered before final decisions on the consultation can be made.

Implementation

Each change has a minimum transition period of 12 months, which allows existing projects to be completed and changes to be incorporated in new projects. The transition period can be longer depending on the impact of the change but, generally, follows 12 month intervals. MBIE monitors the impact of changes throughout the transition period so that any issues are responded to. Part of this engagement may include presentations and webinars to educate and build awareness of the changes, or proposals to address emerging issues in future Building Code updates.

Keep informed

Thank you to everyone who has provided feedback on the Building Code update so far, your contribution will help to ensure the Building Code and the operating protocols work in the best interest of New Zealanders. You can keep up with any consultations or amendments by signing up for our news and updates.

Article provided by the Building Performance team, MBIE

BUILDING PERFORMANCE



MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT HĪKINA WHAKATUTUKI



WWW.HEANEYPARTNERS.COM



Professional Development Workshop

The Training Academies Professional Development workshop ran on Monday the 16th of August at Conference, with attendees coming together to explore the behavioural influences of great leadership. This one-day workshop covered; Leading v Managing, Persuasion and Influence, Quality Conversations, Valuing Difference, Emotional Intelligence, the neuroscience of leadership and psychological safety. Attendees got an insight into some of the leadership theories and practice that are currently at the forefront of thinking in this area. A lot of ground covered in one day!

The result was personalised action plans for individuals to move forward with. There was some great discussion within the group around the challenges they face daily and strategies they can use to positively effect outcomes. If you're interested in running an inhouse Emerging Leaders workshop, tailored to the needs of your team, please contact

Goleman's Model of Emotional Intelligence:

Relationship Management

- **Proficiency in managing** relationships and building networks
- An ability to find in ground and build rapport

- Self-Management The ability to control direct disruptiv
- impulses and moods
- mity to end judgemen ink before acting



www.miteknz.co.nz

MBIE Building Performance Lounge Building Stronger Conversations

The Building Performance team at MBIE were one of the Premier Sponsors of this year's BOINZ Annual Conference and Expo.

Delegates were invited to join MBIE in the Building Performance lounge for a barista-made coffee where members of their team were ready to discuss key priorities including Building for Climate Change, the annual Building Code update and the building legislative reform.

Delegates were also able to visit MBIE's expo stand where they showed off some of their new tools which make the information they deliver more user-friendly and accessible, such as their tool to see if your building project needs a consent.











BUILDING STRONGER



2021 BOINZ Excellence Awards Winners

Contribution to Technical and Legislative Improvements Award Winner Christopher Randell

Emerging Leader Award Winner Daniel Harrison

Outstanding Commitment to Information, Skills Development and Education of Building Officials Award **Winner** Trent Fearnley

<u>The Young* Building Control Professional</u> of the Year Award **Winner** Angus McIntyre

<u>Training Commitment Award</u> **Winner** Palmerston North City Council

Building Control Innovator of the Year Award Winner Consentium

Organisational Commitment to Customer Service & Excellence Award Winner Southland District Council

Contribution to BOINZ Award **Winner** Jayson Ellis

Branch of the Year Award Winner Auckland Branch

Unsung Hero Award Winner Paul Guile

























OUR FABULOUS 2021 EXHIBITORS!

Future Skills

Future Skills

ACADEMY

13

FutureSkils

ACIFIC STEEL

ested, usted.

Tried,

Ø



ลเ

BR

PAF

Archite

PACI **Proven Form** s Manageme

PACIFIC STEEL





Q







Dan

en Foi

ONVERSAI



SPOTLIGHT ON A MEMBER

Amie Burrows

Amie Burrows is an Advanced Building Officer at the Manawatu District Council in Feilding. We interviewed Amie and she has provided us great insight into her career in Building Control and the region she works in. Here's what Amie had to say.

1. How long have you been working in Building Control? I began working in Building Control in May 2018 when I was employed as a Building Officer Cadet.

2. Tell us about your pathway into the industry? Where did you start your career and what got you into this role?

Growing up, I always wanted to be a high-school woodwork teacher. I began studying joinery and lecturing furniture. With the scarcity of joinery apprenticeships began studying available. L Quantity Surveying based on the advice of a lecturer. At this time, a Cadetship with the Palmerston North City Council became available, I applied and got the role. Over the following year, I soaked up as much information as I could and thoroughly enjoyed a career I previously didn't know even existed. I was then made responsible for the training of the next two Building Officer recruits and shortly after became a Building Officer myself. Nearing the end of my third year with Council, I was



Photo: Amie Burrows promoted to an Advanced/Senior Building Officer.

3. What has been the highlight of your career so far?

I have achieved so much and gotten to experience many different highs during my short time in Building Control so far, from being involved in some major projects to being responsible for the development of my team and contributing to our greater Council decisions and processes. I look forward to seeing where the future takes me.

4. What are the biggest changes you have seen in the industry throughout your career or what changes do you feel the industry would benefit from?

I believe the industry should be making large changes to promote and make a difference towards climate change and sustainable development. The proposal from MBIE is promising and I look forward to seeing the implementation of some solid plans and the difference they make to the built environment.

5. What is your favourite thing about your District/Region and what do you do outside of work?

My favourite thing about Palmerston North is how it has everything you need while only taking 20min to travel across town in rush hour and also how central it is to anything you could want to do. Only 30min from the Ruahine and Tararua ranges, it's an easy trip to head out for a hike overlooking both sides of the country. 30min to the coast, you can hit the beach for a swim or blat on the dirt bikes. It'll only take 2.5hr to drive to Mt Ruapehu and spend a day snowboarding the slopes. And being 2hr from Wellington, you can spend a weekend in the big smoke taking in the culture.

6. What advice would you give to someone just starting their career in Building Control?

Take hold of every opportunity to soak up knowledge from those around you. Everyone in your team has come from a different background and each person sees risk or gives precedence to different areas. Listen and consider others' views and then form an educated decision.

KNOW SOMEONE WHO DESERVES THE SPOTLIGHT?

If you're interested in talking to us for future issues or you know of someone who is doing great work within the industry and deserves to have the spotlight on them, please email marketing@boinz.org.nz

gib.co.nz Your information hub.

GIB

A comprehensive range of system manuals.











Supporting documents, best practice advice and archived literature.







Video tutorials and learning resources.











There is no question! We live in challenging times, with the COVID-19 lockdowns and movement restrictions giving rise to global logistics issues and subsequent challenges throughout the supply chain. At the same time governments around the world investing in infrastructure are at unprecedented levels with a subsequent rise in demand for materials. These rises in demand and challenges to source building materials is having a significant impact on product availability, quality and costs.

We all recognise that 'Time', 'Cost' and 'Quality' are the three key drivers that influence the final outcome of any construction project. Reducing the time or costs of a project typically negatively influence the Quality, and conversely an increase in time inherently increases the costs. With the backdrop of today's challenged supply chains. we builders/contractors are seeing endeavouring to mitigate these problems by moving beyond the tried and tested supply routes and using sources with the promise of meeting supplies quicker and/or at reduced costs.

In today's highly competitive global markets, where materials are being sourced from multiple locations around the world, all of which are being manufactured to an assortment of international standards, it is more important than ever before to ensure that steel coming into New Zealand and Australia meets the required standards for quality and for sustainability. From discussions in the industry and judging by the outcomes of recent litigation, there is no question that in the current market, there are numerous suppliers who are either deliberately unintentionally or supplying materials that do not meet the specified standards, with material purchasers appearing to ignore the risk in the interests of meeting time frames or to minimize costs.

So how can we achieve an appropriate level of confidence in the materials being supplied? Is buying local enough? Do buyers need to inspect materials to ensure compliance? Do buyers even have the required expertise on site to carry out the inspections? Do they have the resources or the time? And what are the risks of noncompliance?

Focusing on steel and particularly on reinforcing and structural steel products, our local production is already running at capacity, with our domestic manufactures having to supplement locally produced steel with imports to meet demand. So buying local may provide confidence but with mixed batches frequently being delivered, they may not necessarily be compliant. Looking at the experienced required to inspect materials, this is a challenging area as different standards require different parameters, and invariably the test certificates accompanying batches of steel are only for a single sample. These are generally provided by the manufacturer, not necessarily in English, and increasingly cannot be shown to apply to all the steel in any one batch, can they really be relied upon to demonstrate compliance. Is there another way to demonstrate conformity?

The Australasian Certification Authority for Reinforcing and Structural Steels (ACRS) has been addressing the challenges outlined above for 20 years. Providing an independent, expert, certification scheme for reinforcing and Structural Steels that is JAS-ANZ accredited. ACRS can provide confidence that the materials/products being supplied are compliant to the relevant New Zealand/Australian standards. By specifying and using ACRS steel you are effectively requesting a prequalified steel, being a steel product that has already been assessed and clearly demonstrates compliance with the relevant standards.

To obtain the ACRS Mark the manufacturer/ processor has demonstrated that they have been through, and committed to an ongoing rigorous audit process, carried out by independent experts with the regular submission and review of manufacturing and testing as required by the standard. Consequently, specifying the ACRS steel up front, you have clearly indicated your requirements for a product as outlined in the relevant standards. ACRS steel may be sourced from a local or an international manufacturer with both being held to the same standard.

With ACRS, checking for compliance with the relevant New Zealand and Australian Standards is easy and is just a matter of verifying the product markings and tags, against the ACRS certificate. In so doing, it means the users no-longer have to:

- check materials properties against technical specifications;
- check batch numbers against the test certificates,

So, to ensure confidence in your steel supply, and to avoid health and safety issues as well as costly litigation particularly in the current environment, specify ACRS steel and ensures the supply clearly shows the ACRS Mark thus providing a way to ensure the material conformity documentation is simple and effective to protect all in the chain, whether they be the procurer, the fabricator, the builder, any verifier and most importantly the customer.

For further information please email ACRS at: info@steelcertification.com or visit the website: www.steelcertification.com

Article provided by the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS).



SEISMIC BRACING FOR COMMERCIAL WALLS AND CEILINGS

TESTED AND TRUSTED



CODE COMPLIANT



PROTECTS BUSINESS





www.tracklok.com





NAVIGATING NEW ZEALAND'S CHANGING COMPLIANCE LANDSCAPE

The BOINZ Conference provided an opportunity for us to pause and spend some time taking a macro view of the industry, framing the years ahead through today's emerging compliance trends. To do this we need to start at the top. The overarching goal of MBIE as the regulator is "Grow New Zealand for all", under which sits the construction industry sub-goal of building safe, healthy, durable homes.

Zooming in more closely, there is one clearly stated objective driving much of the compliance-related activity to achieve these improved building outcomes – reform the building regulatory system and building & construction sector. Within this are three key strategies for building professionals to be aware of and staying in touch with:

- Modernise the building code
- Regulate building professionals
- Use research & technology to shape the future

I recommend taking the time to read MBIE's Building System Regulatory Strategy, as this contains the plans and metrics which will guide code changes over the next 10-15 years. To ensure your voice is heard in the consideration of these changes, subscribe for updates on the Building Performance website. This will inform you about any upcoming proposals and give you links to where you can make a submission.

Proud to support BOINZ and its members



SAFER, FASTER, SMARTER, EASIER. pryda.co.nz

Engineers are firmly in focus when it comes to the regulation of building professionals. While we may see some other longstanding schemes put under review, the current priority is an overhaul of engineering registration and licensing to address work in high-risk areas and enfold the tens of thousands of engineers (according to census data) who are not currently members of Engineering New Zealand and/or accredited chartered engineers.

On the research side, work continues on BRANZ's Warmer, Drier, Healthier Homes programme, with obvious links to the highlevel construction industry goals noted above. The outcomes of this research have and will likely continue to have impacts on the direction of the building code, so it is worth keeping tabs on via their website and BUILD magazine. Finally, in the technology space, I'm excited by the trials of the new Artisan app which digitises and streamlines the certification process, enabling building officials to do more work remotely while also gaining better insight into the construction processes and adherence compliance requirements on each site.

One thing I don't foresee is the pace of reform in the building industry slowing down. The resources and projects here are a great starting point for keeping pace with the changes to come.

Article provided by Adam Dawson Technical Manager Pryda ANZ







MULTI-UNIT RESIDENTIAL

INTER-TENANCY WALL AND FLOOR/CEILING SYSTEMS AND THEIR JUNCTIONS

The last few years has seen a rise in light timber and steel framed multiunit residential design and construction, and with it comes the challenge of satisfying inter-tenancy (IT) noise control, fire resistance and structural performance.

In a previous article^{*} we talked about central barrier systems and conventional double frame systems, their benefits and scope of application. The article pointed out that central barrier systems are ideally suited for terraced housing but might not be cost-effective for multi-level apartment construction. This current article concentrates on low-rise timber framed multi-level residential construction and associated wall-to-ceiling junctions.

*Read the full article, scan the QR code or go to: gib.co.nz/gib-news/articles/multi-unit-residential/







WATERPROOFING

GETTING YOUR TANKING WATERPROOFING RIGHT, THE FIRST TIME

When designing below-ground waterproofing (also referred to as tanking), a crucial but often forgotten consideration is the water control system after construction is complete. Depending on where the water table is located, hydrostatic condition may be present, and the conditions/pressure needs to be detailed with great attention to prevent future water ingress.

Designing, planning and selecting the right membrane is key

It is important to consider if the walls are constructed of block, pre-cast panels, in-situ concrete or piles (secant or contiguous). Are any of the neighbouring walls in close proximity, e.g. 100mm? The best methodology and best-suited membrane can be decided by answering some of these questions.

The perimeter walls may differ in construction, with one close to the boundary of the neighbouring building, the next having good access and not totally below ground. These variations and transitions also require special attention when detailing to ensure compatibility of products. The answers to these questions may provoke additional ones.

Due to the many and varied complexities of design, it is extremely important to gain as much information prior to design completion. Combined meetings with architects, engineers, geotechnicians, contractors, and in the case of waterproofing; a good technical advisor, provides the knowledge to prevent excessive design alterations after construction has commenced and that's why Allco has a dedicated TA team (Technical Advisors) offering ongoing support throughout all the stages of the project.

Water control systems

If a good water control system is in place (for example waterproofed retained walls applied with drainage sheet, backed with a good healthy depth of drainage material falling to drain coils at the base of the walls), in conjunction with subfloor drains (where necessary) all feeding or pumped to stormwater, hvdrostatic conditions should no longer be a problem once the construction is completed. One important aspect to mention in this water control design is where the drain coil is located. If the drain coil sits too close to the internal finished floor level (FFL), then in one-off rain events, this location could experience temporary hydrostatic

conditions prior to draining away, causing water ingress. Locating the coils well below these finished floor level will allow these vulnerable areas sufficient time for drainage to occur (see sketch below).

Revisiting design and costing

Allco offers assistance with design, specification and compliance, reinforcing the important to revisit the design and costings of project particularly around below-ground waterproofing prior to build commencement.

From the initial build concept through to build commencement – including discussions with the client, architects, engineers and contractors – areas of the design sometimes are altered. Revisiting below-ground waterproofing at this stage can help ensure all parties are on the same page and avoid expensive and sometimes hard to remedy mistakes.

Article provided by Allco Waterproofing Solutions.





Your building could be put to the ultimate test.

So we do the same to our steel.

At Pacific Steel, we put all our products through a rigorous testing regime. Our dedicated laboratory has full IANZ certification and we're the only local manufacturer of reinforcing steel to have third party ACRS certification. So when we say our SEISMIC[®] reinforcing steel is tested to meet the AS/NZS 4671 standard, you can be sure it's been put to the ultimate test.







A steel bar about to be tested in one of five testing machines at our laboratory in Otahuhu.

Building A



Frank Risk Management Liability Insurance offer exclusively for BOINZ Members

The Frank Approach, fit for purpose without breaking the bank.

Frank Risk are New Zealand's first broking and risk management company to provide full income disclosure to all clients. We are disruptors in the insurance industry and aim to create a more transparent and fair insurance industry by disclosing our income. We do not operate on commission and are committed to providing our clients with top quality advice with no hidden fees.

That is why we have teamed up with one of Australia's largest construction specialist insurers to offer exclusive, comprehensive and fairer Professional Indemnity insurance premiums to BOINZ Members.

The policy includes cover for;

- Defence and settlement costs, in addition to the policy limit, if you are negligent or accused of being negligent in the course of your business.
- Cover is extended to cover your vicarious liability for subcontractors that you might engage.
- Court attendance costs if you have to attend a court hearing.
- Defence costs if you are called to respond to an inquiry or hearing.
- Defence costs if you are accused of misleading & deceptive conduct.
- Cover for asbestos and meth-testing you may undertake.
- Cover for weather tightness losses, \$250,000 standard limit with the ability to purchase higher cover if desired.
- Nil excess on defence costs, if the claim can be handled by their own in-house solicitors, claims managers or admin staff. In these circumstances, only when there is a settlement to a third party will your excess will be called upon.
- Competitive premiums and excess options.

In addition to the Professional Indemnity policy, we will also offer a standard Liability insurance package for Public and Statutory Liability exposures, or we can extend it to a complete Management program if required, incorporating Directors & Officers, Crime and Employment Disputes cover.

Insurance for business assets and commercial vehicles can also be arranged.

Copies of the proposal form can be found at frankrisk.co.nz/diy-online

Frank works with transparency and openness, putting our clients at the heart of every decision. We work for you, not the insurer.

Frank Risk Management | Ashley Mason - Senior BrokerE: professions@frankrisk.co.nz | P: 04 333 0432 | M: 027 282 5050 | frankrisk.co.nz

BALCONIES

GRAPPLER BALCONIES ARE ELEVATING NEW ZEALAND TO THE NEXT LEVEL

Typically when you're thinking about balconies, you're thinking about concrete. Not anymore, now there is a new kid on the block! Well maybe not that new, but they are changing the outlook for many New Zealanders.

Grappler (part of Belcanto Group) is an innovative, lightweight, unitised balcony system, offering enormous benefits over the existing balcony options. The aluminium balcony significantly reduces the weight or structural load without compromising style, sophistication and strength.

The product is precision-engineered, design and manufacture is carried out off-site to the customer's specifications; the soffits are powder-coated, creating a clean, good looking finish. Balustrades can be made of frameless glass, solid aluminium or perforated aluminium. The flooring is either non-combustible WPC decking or porcelain tiles. The options are endless.

The critical value is the balconies are delivered ready to install.



Installation takes a fraction of the time compared to traditional balconies. On average, 15 balconies can be installed in one day. There is no longer any need to wait for all the additional trades usually involved, such as waterproofing, fixing balustrades, flooring or tiling to complete the work.

Using this process means grappler balconies dramatically reduce the main contractors' building timelines and do away with significant material site storage requirements. The team are in the process of completing their first few projects in New Zealand. These projects will shine a light on the benefits of using the system.

Article provided by Grappler (Belcanto Group)





NEW SOFTWARE TOOL FOR BEST PRACTICE IN COMPOSITE DESIGN

The HERA innovative design tool delivers technical solutions to assist with aligning to New Zealand and Australia composite design best practice.

The AS/NZS 2327 standard (composite structures design standard - composite steel-concrete construction in buildings), first published in 2017 and amended in 2020, is the first joint New Zealand and Australian standard for composite steel-concrete construction in buildings. It establishes the minimum design, detailing, and construction criteria for composite steel-concrete framed structures, flooring systems, and members (beams, columns, slabs, and joints) in modern multi-storey buildings.

Composite construction is often advantageous because concrete is efficient in compression, while steel is good in tension and compression (depending on member slenderness) – meaning the two can be combined to produce a highly efficient and lightweight design, construction speed and cost advantages, and a lower environmental impact.

From 1977, the New Zealand standard NZS 3404 was the "bible" for steel design in New Zealand. (It differed from the similar Australian design standard AS 4100 in that it included guidelines for composite and seismic design.) There had been a call to review and modernise the standard and overcome issues such as:

• The rules being occasionally insufficient and/or their limitations unclear,

• Long-span cellular beams were not covered,

• Some parts of NZS 3404 were difficult to apply in design, and international standards had to be used, and

• Australian composite standard AS 2327.1:2003 was only applicable to composite beam design and

did not allow for trapezoidal decking widely used in current practice.

In order to ease NZS 3404's use and pave the way for successful use of AS/NZS 2327, HERA has been working in application software development for the past several years. HERA's latest solution is an innovative software tool for composite beam and slab design that assists engineers to design according to AS/NZS2327 for composite beams and slabs in both normal and fire conditions^{1.2.}

HERA's new software provides a time-efficient solution to design steel-concrete composite beams and slabs, which may help designers find ways to maximise space and minimise costs while meeting stringent building code and performance requirements^{1,2}.



Image: Standard experimental push test on a composite beam



Image: Steel-concrete composite flooring system in practice

The software means multiple slabs or beams can be designed at a time. It provides a comprehensive solution to either multiple components in a building, or a one-off element. It can be used for non-composite at the construction stage and the composite slab at the normal service stage¹. The user-selected member can be verified, or a member selected based on least weight (optimised), leading to a series of output options and the ability to customise a final comprehensive report of the designed solutions².

It also covers fire resistance design and serviceability limit state checks including deflection and vibration; noncomposite and composite design of floor beams using a combination of a hot-rolled or welded steel section along with a concrete flange; and beam design solutions including ultimate and serviceability limit state checks and the influence of partial shear connection on the beam capacity².

This means that the software can approximate the limiting temperature of the steel beam flanges and web as well as the shear studs to estimate if the composite beam will have sufficient flexural and shear capacity to meet the Fire Limit State demand. These limiting temperatures are quoted in the design report and the designer is able to estimate whether the actual steel temperatures for their specific fire design will be within these calculated limits².

The HERA composite beam and slab software is an innovative web-based design tool. Because of its flexibility, web-based software can offer many benefits to businesses, including more efficient maintenance and improved data security. Web-based applications give a far greater ability to users to integrate with other systems than desktop applications. You can access HERA's composite design tool at <u>www.hera.org.nz/consultancy/structural-tools/</u>, and if you're interested to know more about their activities in developing standards and electronic design tools so the steel sector remains competitive in the global market, contact our Manager of Structural Systems, Kaveh Andisheh.

Important notes:

¹ While this software does perform the composite slab design, we would recommend the deck manufacturer's design tools are used to ensure an optimised design.

² HERA, developers, and partners of this design the tool makes no warranty, guarantee, or representation in connection with this software and will not be held reliable or responsible in any way – and hereby disclaim any liability or responsibility for any loss or damage resulting from the use of this software. HERA neither recommends nor endorses any product referenced in this design tool. The designers must do their due diligence to ensure that they are satisfied with the software results, and fully understand the design before using them in any way. The designer must ensure the software results comply with building codes and design standards.

Third-party disclaimer:

This article has been prepared for the sole use of Straight Up magazine for the particular brief and on the terms and conditions agreed. It may not be used or relied on (in whole or part) by anyone else, or for any other purpose or in any other contexts, without our prior written agreement. This article may not be read or reproduced except in its entirety.



GREEN HOMES

THOUSANDS OF HOMES TO HAVE CARBON POLLUTION LEVELS SLASHED UNDER REVAMPED HOMESTAR GREEN HOME SCHEME

With the recent launch of Homestar, the green home certification scheme, thousands of new New Zealand homes could be built to be much more climate-friendly.

Under the new version of Homestar, all homes aiming for a green home rating will now have to prove they have lower carbon pollution compared to an average new home.

The average new house in New Zealand emits five times too much carbon pollution, and the newest version of Homestar has been created to play a key role in tackling this.

The new version of Homestar is being described as "the most ambitious ever", and comes after an extensive consultation involving hundreds of experts across Aotearoa.

All Homestar rated homes will now be able to demonstrate how they're using sustainable materials that don't pump out huge amounts of carbon pollution when created. This type of carbon pollution, which has been belched into the atmosphere during the production of building materials, is often called 'embodied carbon'. Homestar will also include an embodied carbon calculator, helping builders to work out the levels of carbon emitted in the manufacture of the building materials. And all new Homestar homes must use energy efficient appliances for everyday things like heating, hot water and lighting, meaning that both carbon emissions and household bills should be reduced. Carbon emissions created through using energy to power and run a home are referred to as 'operational carbon.'

Rated on a scale from 6 to 10, a 6 Homestar home will reduce carbon through mandatory energy and operational carbon targets, unlike homes built to the current Building Code. A 10 Homestar home will have to show predicted energy consumption and carbon emissions significantly lower than an average New Zealand home.

Leading international agencies, including the International Energy Agency and the OECD have criticised New Zealand's Building Code – the minimum legal standards to which buildings have to be constructed.

Andrew Eagles, chief executive of the Green Building Council, said: "Making New Zealand homes better will help us tackle climate change, and give families healthier, warmer, and drier homes.

"Far too many Kiwi homes are cold, damp, and unhealthy, pump out far too much carbon pollution in their construction and in the energy they use, and far too often saddle Kiwi families with high household power bills.

"That's why we've launched the new update of Homestar – the most ambitious ever version. We're hoping that Homestar will provide healthy, cosy homes for thousands and thousands of families, and play a much needed role in slashing climate change pollution."

Almost 5,000 new homes were registered and certified under Homestar in the last year.

Besides cutting carbon pollution, the revamped Homestar gives increased importance to a number of other key areas.

These include making it easier to keep a home warm in winter and cooler in summer, well ventilated with fresh air, and dry, keep household bills lower through energy and water efficiency, building with healthy, sustainable materials, and reducing the amount of waste getting dumped in landfill. Each of these areas must now hit a particular level to achieve a Homestar rating. The Green Building Council, the not-for-profit organisation behind Homestar, hope that this will give homeowners confidence that all Homestar homes rated under the improved scheme will be cosier, drier, healthier places than homes built to minimum Building Code levels.

The government is working to reduce the carbon emissions from homes and buildings, which are responsible for 20% of climate changing pollution in New Zealand. The new version of Homestar will align with this project, called the Building for Climate Change programme. This will allow builders using Homestar to develop the skills and knowledge needed for upcoming changes to the Building Code.

Article provided by the New Zealand Green Building Council (NZGBC).





Kingspan panels have been used around New Zealand on many building types since 2004.

When designed, installed and maintained in accordance with Kingspan standard details, Kingspan's KS1000 RW Trapezoidal Roof and Wall panel, KS600/900/1000 AWP Architectural Wall Panel and KS600/900/1000 EVO Evolution panel are compliant with the following clauses of the NZBC: B1 Structure - B1.3.1; B1.3.2; B1.3.3(a,f,g,h,j); B1.3.4

- B2 Durability B2.3.1(b)
- C3 Fire Affecting Areas Beyond the Fire Source — C3.4(a); C3.5; C3.7
- E2 External Moisture E2.3.2; E2.3.7
- E3 Internal Moisture E3.3.5
- F2 Hazardous Building Materials — F2.3.1
- H1 Energy Efficiency H1.3.1



T: 0800 12 12 80 info@kingspanpanels.co.nz kingspanpanels.co.nz

PROJECT MANAGEMENT

THE IDEAL PROJECT MANAGER IN THE CONSTRUCTION INDUSTRY

This article covers an ideal project management situation in an organisation with mature project management practice. It has been written to give readers context on proper project management practice. In reality, the project manager in the construction industry can be classified into three categories. The first category is the client project manager, the next category is the professional project manager and the third category, is the contractor project manager who can also be a site manager in large projects.

How a project is created

All established organisations have strategic business goals which are long term and aspirational. From these goals, measurable outcomes, called objectives are created. The objectives are then broken down into actionable outcomes, which in turn are initiated by a business case. The business case outlines the need for the activity or project, the indicative budget, the timeline for delivery, risks and benefits derived if the business case is actioned within the specified framework. Once the business case is approved, a project charter, which defines the project within the business case parameters, is created.

Ideally, there are five phases in the construction project. Initiation, planning, execution, closing and monitoring/ controlling. The ideal project management situation is when the project manager is involved from the start of the project to the end of the project. This means that they are appointed immediately after the business case is authorised and manage the project up to completion.

It has to be noted that the project phases are not entirely sequential and some activities in the next phase begin before the previous phase is complete.

Initiation

In this phase, the project manager is appointed and a project governance structure set up. The project governance structure depends on the size and complexity of the project and may comprise several steering committees. The elements of project governance will be covered in a subsequent article, suffice to say that key stakeholders for the project within the project governance structure is the project sponsor who is responsible for the project outcome and the project owner who is accountable for the project outcome. The project sponsor must be sufficiently senior enough to act as an enabler and escalation point for the project manager. The project manager, sponsor and owner, along with any other appointed members of the project governance team, work together to develop a project charter, which authorises the start of the project, officially appoints the project manager, outlines the overall budget, timeline and desired outcome at a high level. The project manager is also made aware of how the project fits into the business strategy including its relationship and impact on other initiatives. For instance, the project to build a stadium on the outskirts of a city would need concurrent development of support infrastructure like; access (roads, rail etc), public utilities (3 waters, gas, electricity, telecommunications etc). The appointed project manager then identifies key stakeholders and creates a stakeholder management plan which will be constantly updated as the project progresses. Stakeholders in a project include all those taking part in the project and all those that are affected one way or the other by the project. One of the most important stakeholders is the project subject matter expert (who can be the lead engineer/architect), who becomes the right-hand person for the project manager.



Figure 1-5 (Standard). Example of Process Group Interactions Within a Project or Phase A Guide to the Project Management Body of Knowledge (PMBOK*Guide) – Sixth Edition. ©2017 Project Management Institute, Inc. All rights reserved.

Planning

The project manager calls for a kick-off meeting, where representatives of all identified stakeholder groups are invited to be briefed on the nature of the project. The project manager then invites input from the stakeholders to ascertain the feasibility of delivering the project. The inputs include financial analysis, logistics challenges, legal aspects, engineering considerations, trades requirements, health and safety, resources management (human and material), risks and opportunities etc. The project manager in consultation with key stakeholders, creates the project management plan (PMP), which includes verifying project risks, budget, initial scope, timeline to delivery and all project deliverables, based on the information gathered in this meeting and the business case. The project scope is the project guiding document which outlines in sufficient detail what needs to be done for the project to be successful. It is also important to note what is out of scope to ensure that there are no unnecessary additions - called scope creep - which can affect the project budget and time to deliver among other things. The PMP also includes the project schedule, cost baseline, quality assurance, resource management plan, communications management plan, risk register, procurement plan, legal requirements and stakeholder management plan.

Execution

The next phase is project execution which follows the PMP. This is where the planned work gets done. The project manager's role is to direct and manage project work and knowledge. In other words, they manage quality, acquire resources, manage communications, implement risk responses as appropriate, conduct procurements and manage stakeholder engagement.

Monitoring and Controlling

The monitor and control phase sits across the other four phases. Any project exists in an ever-changing environment and needs to adapt to the changes in order to remain on track to deliver the desired outcomes. The monitoring and controlling phase has the following activities; validate and control scope, control schedule, costs and quality, control resources, monitor communications, monitor risks, control procurements, monitor stakeholder engagement and manage the change process.

Closing

Closing is the last phase, where the project activities are wound up and the project manager hands over the agreed project deliverables to the project owner who either accepts or rejects them in accordance with the set success criteria. The rejected deliverables are then corrected to conform to the required outcome. The activities in the closing phase include; project document updates, final product/service/result transition, final report, project cost, time and quality analysis and lessons learned. The lesson learned are gathered during a meeting with all stakeholder representatives and has open discussions on what went well, not so well, what could be done better and actions arising. The lessons leaned become part of organisational reference documents.

Conclusion

If the project management practice is applied professionally, the organisation would have up to date information on the project performance as it progresses and can make informed decisions on what changes to implement. In the next article, I will cover project management in the construction industry as it is currently practiced.

Article provided by Kosam Nyamdela, PMINZ





HOW TO AVOID CONDENSATION IN A LOW PITCH OR SKILLION ROOF TO KEEP YOUR HOME DRY AND HEALTHY

condensation Preventing and mould in a low pitched or skillion roof requires a higher level of ventilation and dood quality underlays, particularly in modern airtight buildings.

With a low pitch or skillion roof design, the air volume and its movement are much more restricted than in the cavity or attic space of a higher pitched roof. This creates a greater risk of condensation and harmful mould.

Depending on your roof design, potential options to improve ventilation in the roof space include using ventilation channels or battens, ventilation openings under the eaves, or a ventilating ridge.

Using a vapour permeable underlay in low pitch roof designs

Modern builds have much improved thermal performance, but lack drafty gaps that allow moisture to escape. Vapour created from showers, cooking, heating and breathing will enter the roof space through any gaps and permeable ceiling linings, such as wallboard and plywood. And warm air will escape through any gaps, which can be a problem in winter.

A premium vapour permeable underlay that meets NZBS requirements. will allow water vapour, but not air, to flow from the living the spaces into ceiling cavity. This helps to keep the living spaces drier, while providing an

COVERTEK COVERTER

air barrier to maintain thermal efficiency. High quality absorbent underlays, such as Covertek 405 or Covertek 407, will hold the moisture until it can be dissipated by air flow and an increase in temperature.

Thermakraft have a wide range of premium vapour permable roof and wall wraps, including Watergate Plus and the Covertek range. For a concise and handy guide to the differences between Thermakraft underlays, please request a free copy of our Quick Reference Guide.

Extreme conditions may require a vapour barrier rather than a permeable membrane

In some extreme conditions, high

levels of condensation can occur which may require a vapour barrier rather than a permeable membrane. Examples include a very cold roof space, such as in a ski lodge, or a very wet room, such as one with a spa bath. In this instance, Thermakraft recommends Vapour Shield, with lap joins taped with Premium Joining Tape, to mitigate the amount of moisture entering into the roof space from below.

For more information about managing condensation in low pitch roofs, visit our website.

Thermakraft Ltd 0800 806 595



INTERNATIONAL FOOD FOR THOUGHT

SIGNIFICANT CHANGES TO BOTTLE FILLING STATIONS IN THE 2021 INTERNATIONAL BUILDING CODE - IS THIS SOMETHING NEW ZEALAND SHOULD BE IMPLEMENTING?

2021 International Building Code

An addition to Section 1110.6 (Bottle Filling Stations) states that where provided, bottle filling stations must now be accessible.

Water bottle-filling stations are becoming a common feature in an effort to reduce the use of disposable bottles. While some of the bottle-filling stations are installed independently, the majority of them are typically located in conjunction with drinking fountains. It is important to note that this new requirement will not require the bottle filling stations to be installed but will ensure they are made accessible "where . . . provided."

Section 602.4 of the ICC A117.1 standard contains the technical requirements to make the bottle-filling stations accessible, addressing the need for a clear floor space for either a forward or side approach and controls that comply with the general operable parts requirements of ICC A117.1, Section 309.

Where bottle-filling stations are located over a drinking fountain, the accessible element will need to be located over the drinking fountain in a manner that meets the required reach ranges for persons using a wheelchair (A117.1, Section 602.2). Where bottle fillers are provided over both the high and the low drinking fountains, the bottle-filling station

over the drinking fountain installed for standing persons is not required to be accessible. Bottle fillers over both drinking fountains creates a redundant condition and therefore, it reasonably does not need to be made accessible.

Click here to read the full significant change.



Image: Bottle-filling stations at drinking fountains.

LEGAL

BYPASSING THE 10 YEAR LONG STOP IN THE BUILDING ACT 2004

Readers are likely to be familiar with s393 of the Building Act 2004 (Building Act). Section 393 imposes a 10 year long stop limitation period in respect of civil proceedings relating to building But does the longstop work. provision in the Building Act apply to contribution claims brought by a defendant against a third party, for example? There has been a long line of cases before the High Court that have addressed this issue. Recent decisions favoured the view that contribution claims by a defendant against a third party, if made in the context of a wider building defects claim, are subject to the longstop provision in the Building Act. In other words, no claim could be brought against any party outside the 10 year limitation period in s393 of the Building Act.

That was until a recent judgment of the High Court. Clark J's judgment in the BNZ v Wellington City Council is the latest in this line of cases but is certainly the most important with ramifications that will be felt on many building claims for many years to come.

The Facts

In 2006, CentrePort Limited entered

into an agreement with Bank of New Zealand (BNZ) to construct a building on land it owned at Waterloo Quay in Wellington. The building was designed to be BNZ's main Wellington office. Between 2006 and February 2011, the building was constructed. BNZ leased the premises from CentrePort from February 2011.

Throughout construction, Beca was engaged by CentrePort to provide structural engineering services for the design of the building. This included the provision of engineering designs which were submitted ultimatelv to the Wellington City Council for building Producer statements consent. (including PS1 and PS4 following onsite construction observation) were also provided. According to the judgment, Beca carried out construction monitoring through to the completion of construction in 2011.

The Council was also involved in discharging its regulatory functions under the Building Act including issuing building consents, undertaking inspections and issuing code compliance certificates. Following the Kaikoura earthquake in November 2016, the building was damaged beyond repair.

The Claim

In August 2019, BNZ filed a statement of claim seeking damages from the Council of approximately \$100,000,000 for negligently completing its statutory functions. On 26 September 2019, the Council issued contribution claims against third parties (including Beca). The Council alleged that if it is liable to BNZ, it is entitled to a contribution from Beca as a concurrent tortfeasor pursuant to s17(1)(c) of the Law Reform Act 1936 (LRA).

The Decision

Clark J determined that the principal legal question to be determined was "whether the 10 year longstop period in section 393(2) of the Building Act 2004 applies to claims for contribution under section 17 of the Law Reform Act 1936". It is worth noting that contribution claims have a standalone limitation period in s34 of the Limitation Act 2010 (being two years from the date of judgment, agreement or award).

It is settled law that any claim in relation to building work between a



Image: The BNZ Building referred to in the article.

plaintiff and a defendant is subject to the long stop provision in s393(2) of the Building Act. No claim can be brought more than 10 years after the relevant act or omission that is the subject of the claim. The law in relation to whether the longstop provision applies to contribution claims has been far from clear.

Since the early 2000s, many cases have addressed this issue with conflicting conclusions. However, the generally adopted position recently has been that contribution claims were subject to the longstop provision in the Building Act if the contribution claim related to building work. If that line of cases was adopted in this case, then the Council's contribution claim against Beca would most certainly have been struck out on the basis that it was time-barred.

However, the Council argued that the line of cases that preceded this case were wrongly decided. The Council argued that its right of contribution in the LRA was not "swept aside" by the introduction of s393 in the Building Act. The Council's focus was on the wording of the right to contribution in section 17(1)(c) of the Law Reform Act 1936 and the separate, but competing, limitation period for contribution claims in s34 of the Limitation Act 2010. Beca argued that the use of the words "civil proceeding" in s393(2) of the Building Act meant that it was intended to capture "every form of civil proceeding regardless of its source or makeup".

Clark J traversed the legislative history of contribution claims and why a separate limitation period for contribution claims was imposed in the Limitation Act. In undertaking this analysis, Clark J was persuaded that in passing the Limitation Act 2010, Parliament enshrined the right to contribution by enacting a separate two year limitation period that sits to the side of a primary limitation period for other claims. Clark J ultimately held that s17(1) (c) of the Law Reform Act, together with the provisions of the Limitation Act 2010, "create a code for the bringing of contribution claims" and "the right to contribution is untouched by section 393" of the Building Act 2004.

The Future?

In cases where defendants are sued close to the expiry of the 10 year longstop period in the Building Act, this case gives those defendants the ability to bring a contribution claim against a third party without fear of having the contribution claim struck out for being time-barred under the Building Act. It is possible contribution claims can be brought long after the longstop period in the Building Act has expired.

It would not be surprising if this matter receives attention from our appellate courts at some point in the future. But, for now, the decision is a helpful reminder that claims for contribution can bypass the longstop limitation period in the Building Act.

Heaney & Partners would be happy to answer any questions that may arise as a result of this decision.

Article provided by Kent Perry, Senior Associate at Heaney & Partners



HEANEY & PARTNERS

BARRISTERS & SOLICITORS



WHEN RESPONSIBILITY BECOMES LIABILITY

As a building control officer, I think a lot about liability.

And never more so than when I come across a wood burner. "If this thing here goes wrong, someone may die," I think to myself. Fires kill. From a young building official's perspective, there is no other work I view as critical as fire safety.

It's not to say that other parts of the building code aren't as important - they are. Accessibility of public spaces, for example, is essential; and so is residential construction full-stop. For most New Zealanders, a home will be the single biggest investment they will ever make, so getting a residential build wrong has the potential to bankrupt someone; sometimes for generations.

But fires kill. To check that a wood burner has been installed correctly is ever so important to get right because, in New Zealand, we allow anyone to install a wood burner. A person with no construction experience whatsoever can do it - if they want to. Sure, they'll need a building consent. They'll also need someone from their local council to come inspect the work - to make sure they've done it right.

But at the end of a day, anyone can do it.

The fact that I, a young building control officer, then inspect this work, leaves me with a sense of hefty responsibility on my shoulders. Because I know: if this thing here goes wrong, someone may die. And even though I did not design it, and I did not install it - the fact that I came to check it at the end, means that I, too, am responsible.

For the past few months I have also been wondering how to get a building consent for a wood burner I want to install in my own home, and have found it surprisingly challenging. The thing that makes it hard is that the type of wood burner I want to install is called a "masonry heater" - technology so unknown here that I am yet to meet a New Zealander who knows off-thebat what a masonry heater is without me telling them about it. Europeans know it, sure - a time-honored, proven, efficient way of heating that has been used throughout Northern Europe for centuries.

But New Zealanders don't know it, and the fact that my local council needs to give me permission in the form of a building consent first, has made it frustratingly taxing to get it.

I couldn't understand why it was so difficult at first. Australians have been installing masonry heaters for several years now. Surely, I thought, if something has already been proven to work in Australia, it should be reasonably straightforward to bring to the New Zealand market.

Except... it wasn't. I approached the Australian company importing masonry heaters from Europe and the guys there were taken aback by the amount of information I suddenly started requesting from them. Grams of suspended particulate emitted per kg of fuel? Thermal efficiency percentage? Full specifications and installation manuals in English? (Even that, believe it or not, proved surprisingly challenging to get, because with masonry heater components being manufactured in Poland and installed throughout Germany, Scandinavia and the Baltics, English-language instructions were, apparently, not yet available.) That I needed approval from both the regional council and my city council to even consider installing a masonry heater in New Zealand, Australians found really hard to get their heads around.

And that's how I finally realised where the problem lay: in areas of Australia where masonry heaters are common, home owners don't need a building permit for installing wood burners. THAT was the reason the Australians were so surprised to see my documentation requests - because they, themselves, had never needed to provide such detailed evidence to their councils. And their councils had never felt the need to get so involved. Australians were allowed to make a decision to install a proven, clean, energy-efficient product and move on with their lives.

Even more interestingly, I noticed, the way Australian rules were worded meant that only qualified, experienced tradespeople were allowed to install wood burners. I thought to myself: it's almost the exact opposite of what we are doing in New Zealand. Those Australians had decided that, instead of everyday people being allowed to install wood burners and the local council carrying the responsibility (liability?) of inspecting the work, Australians excluded everyday people from installing them, and the local councils from inspecting them. Therefore, I gathered, the liability must now need to rest with the installer, surely.

The answer to that I don't know. But it does make me wonder.

When government expanded the criteria for work done under Schedule 1 last year, as much as I shared - or at least understood - the concern around planning rule breaches and sub-standard structures built without oversight, I also knew that the policy was about (re) moving liability. The government didn't want the councils to be continued to be pushed to get involved

in small, everyday structures that carried relatively little risk - all whilst struggling to find qualified staff to inspect structures that critically mattered - because the councils were going to resist taking liability for things they weren't familiar with. And, what's worse, the councils' clients - designers and home owners - were going to continue getting frustrated each time they received an RFI for something that they, themselves, thought didn't really matter.

And therefore, by expanding the Schedule 1 - and allowing the councils to simply stay out of more building work built under Schedule 1 - the government allowed the councils to move away from more of the liability, and let home owners take it instead.

I don't yet know if I will be able to install a masonry heater in my home. I am waiting on English-language translations to be completed by the manufacturer, as I suspect my council will not be happy to receive something in Polish, German or Estonian language. But I do wonder if, as a young building control official, I would be more happy to reside in an Australian regulatory environment, as far as wood burners go.

Roofin

roof.co.

Time will tell. I have a lot to learn.

Article provided by Maria Grace **Building Control Officer** Invercargill City Council



SHOW US YOUR PITCH

Revolutionising how to specify and order roof ridge capping.





ENSURING ENCLOSURES ARE COVERED FOR COVID

Buildings and vehicles are enclosures. Virus transmission can be monitored and controlled providing safer environments for users. Reference material is largely pre-Delta.

How far can an infectious virus travel in an air-conditioned building? What are the key factors that allow a virus to remain viable? Which masks work best? How can COVID be removed?

Masks

The short answer is not all the answers are in and answers will change as research progresses. However, research has suggested that there are a number of measurable air variables that determine how long a virus such as COVID19 will remain viable after being expelled. Reportedly a cough can generate 3,000 droplets and travel at 80km/hr, while a sneeze can release 100.000 and travel at 160km/hr.

This begs the question, which masks work best then? One Australian study found that wearing a mask reduces the likelihood of catching viruses by about 80%. But which type works best? Without getting overly precise it's a little like below based on European standards , remembering the COVID virus is 0.1 microns but usually rides a droplet of water which is often in the 0.5-1.2-micron range: • Common blue surgical masks or cloth type: Better than nothing but not recommended.

• Valve masks arguably help the wearer breathe better, but obviously do little to stop an infected wearer being a spreader.

• FFP1: This mask is designed to catch coarse dust from cutting timber, bricks etc (0.3 microns 80% efficiency)

• FFP2/N95/KN95/P2: (0.3 microns 94% efficiency)

• FFP3/N99/EN149/P3: Highest protection for dollar and increasingly becoming mandatory by some airlines. (0.3 microns 99% efficiency)

From the above we can see that FFP2/FFP3 or equivalent masks offer a high level of protection.

Static Enclosures

This is complex but to put it simply, some air quality parameters directly impact the viability of an airborne virus while others can increase risk to humans because they predispose transmission by irritating airways. For these variables there is a preferred range which limits transmission:

• Temperature (190 - 24oC) Above and below this range transmission becomes less efficient or can even be restricted.

• Relative Humidity (40%-60%RH) Below 40%RH viruses shed moisture, become dry aerosols and remain suspended for longer.



Above 80% they are in a moist environment and can thrive.

• Particulate Matter (PM2.5) (less than 15 ug/m3) This is the smoke sized particle range. High PM2.5 levels are associated with lung irritation and function making transmission easier. The particulates act as "condensation nuclei" binding with moisture and again providing a vehicle for the virus to travel on.

• Carbon Dioxide (CO2) (less than 800ppm) High CO2 is linked to poor ventilation or too many people and the resultant lung inflammation can impact immune function. Poor ventilation can also inhibit the extraction and/or dispersion of airborne Covid-19 from a room.

• Nitrogen Dioxide (less than 53ppb) This is an indicator of when the not-so-great outdoors has become the less than ideal indoors. It is linked to combustion (vehicles, gas stoves, combustion heaters) and the ERA has found short term exposure irritates airways with long-term exposure linked to chronic illness, increased asthma symptoms and respiratory infections such as those caused by various viruses.

The good news is that WIFI (commercial) or Bluetooth (domestic) static air quality monitors can measure all of the above, (plus PM1, PM4, PM10, VOCs, Formaldehyde etc.) in real time and provide alerts based on an algorithm that weights the above variables and provides a Virus Transmission Index. This Index value can provide building occupants with real time information as to a buildings air quality and whether it is at optimum ranges to reduce the possibility of catching airborne viruses. Units can be interfaced with aircondtioning

systems if required and alerts sent to mobile phones. Prime applications would include transportation hubs, air terminals, and other highoccupant congregation areas. Key uses include a) instant information to possible fluctuations in hazard levels, b) data to help improve conditions, c) demonstrating the facility operator cares for their occupant's health and safety, and, d) teaching users about airborne viral hazards. Rental /servicing/reporting costs are affordable and can be equivalent to a couple of flat white coffees per day.

How far can a virus travel in air? Common answers by research authorities suggest that in still air, a minimum of 2.0m and up to 8.0m but a gentle breeze of 4.0 km /hr will move droplets a further 6.0m . How long can it last in air, and on surfaces? In air 1-3 hours , on copper 4 hours, on cardboard 24 hours and on plastic or stainless steel 72 hours. Unfortunately, this information currently does not take into account any mutation variability, localized environmental variables and other factors.



PM2.5 air monitoring data from a oneweek period, with the dashed purple line time indicating when a HEPA air purifier began operating, showing a substantial, quick and ongoing reduction in PM2.5.

How long can it be viable on skin? While Influenza A can last 1.8hrs, COVID19 can survive 9 hours, but is completely inactivated within 15 seconds of applying ethanol sanitizer.

While UV-C irradiation is effective in inactivating COVID19 and various units can be sourced, the effect is dependent on a) dose level, b) distance, c) time. Limiting factors include humans' sensitivity to skin and eye damage.

Several good reasons for washing hands, using sanitizers and ensuring aircondtioning is functioning really well. For air-conditioned and non-air-conditioned buildings, in-wall / ceiling extract/supply systems, portable air purifiers, and dehumidifiers can contribute significantly to reducing viral airborne survival times, reduce

inflammatory predisposition to viral transmission and the infectious load of COVID19. Effectiveness is impacted by positioning, height above floor level, sizing, settings, hours of operation and servicing. The effectiveness of such solutions can be determined with handheld and static air quality monitors.

Because COVID is generated after cleaned air is supplied to rooms, portable air purifiers / dehumidifiers remain one of the few tools that can help limit spread if infected people are in non-air-conditioned buildings.

Future

Currently a number of air quality monitor manufacturers are working to develop an air-testing based COVID19 alert monitor. At the time of writing one unit is on the market, but takes 30 minutes for results to come through, while another manufacturer has promised a smoke alarm sized unit that can detect and report COVID19 in air within three minutes by "sniffing" skin. Watch this space.

For now

Wear a good mask, if you have the ability to control the environment of people do so, consider air quality monitoring, make indoor environments inhospitable to COVID19 by using air purifiers or other ventilation techniques, be kind, and stay safe.

Article provided by Paul Probett, Director of Incodo. Member IPENZ, Soc. Construction Law (NZ), BECNZ, RILEM (Intl), CIB (International Council for Building- Intl),



BOINZ WORD FIND



Are you up for a challenge? Grab a cuppa and pencil put your feet up and solve the BOINZ Word Find.

e	f	n	f	Ь	ь	n	h	i	s	w	Р	w	w	Р	а	r	d	n	х	g	w	w	х
d	Ь	u	i	ι	d	i	n	g	Р	e	r	f	0	r	m	a	n	с	e	f	P	t	n
g	s	r	0	ι	d	e	ι	e	g	a	t	e	i	g	e	i	Р	t	х	e	g	t	w
f	s	r	e	k	a	e	P	s	r	d	n	s	e	d	P	i	g	r	d	r	s	o	u
v	e	t	n	d	u	P	ť	e	m	m	a	r	g	0	r	p	m	i	v	f	d	d	e
0	c		m	n	e	×	h	i	ь	i	t	i	0	n	ı.	ç	n	e		k	t	i	c
č	à		<u> </u>		-	â	÷	÷	Š	÷	1	÷	č	÷	è			-		2	2	÷.	č
2	2	1	a -		å	-			-			ç	-	ĉ	-			a L	2	2	-		Б
D .	a	1		n	č	e	С	n	e	ŗ	e	T		0	С	х	к	n		P	0		P
t	e	с	h	n	1	с	а	L	с	t	0	g	ĸ	v	v	с	1	u	d	g	t	h	s
х	u	ь	u	ι	t	s	g	i	w	g	х	v	k	v	k	f	d	k	k	t	Ρ	m	f
х	Ρ	r	0	f	e	s	s	i	0	n	а	ι	d	e	v	e	ι	0	Р	m	e	n	t
h	Ь	f	e	r	t	r	i	v	m	Ρ	i	h	s	r	0	s	n	0	Р	s	k	Ь	0
i	w	e	ι	с	0	m	e	Ь	u	n	u	Ь	s	P	ι	s	f	с	f	u	k	f	v
r	d	t	n	ь	k	k	g	k	k	e	f	u	h	f	Р	r	w	Р	ι	t	х	m	s
g	h	с	d	g	x	n	g	v	m	r	h	0	r	s	m	e	d	h	ι	r	a	w	x
0	t	h	m	v	r	v	Р	h	u	p	v	s	s	a	o	n	x	t	f	0	f	f	a
P	n	f	a	s	g	0	r	ι	с	t	k	i	g	e	P	t	x	P	P	P	a	k	x
e	ь	n	g	f	h	d	d	w	v	u	m	ь	m	u	r	r	x	u	c	n	d	r	g
s	v	w	ď	s	0	m	x	k	e	r	u	D	ь	s	ι	а	x	w	r	ι	t	d	x
2	f		Ŀ	+	-	d		2		à	-		-	_			2	h		÷		_	k
1	÷.	Б	2		P			e	÷		Б	2	Б	-		2	e			Ĵ.		e	<u>_</u>
0	v	r	с	t	r	а	1	n	1	n	g			к	1	а	m	e	r	a	с	m	а
m	0	g	m	ĸ	n	n	e	t	w	0	r	k	1	n	g	v	t	t	1	d	d	1	r
w	t	Ρ	g	s	а	n	h	r	С	0	m	i	n	g	t	0	g	e	t	h	e	r	С
g	u	w	i	v	n	n	m	d	r	v	х	k	r	e	n	n	i	d	а	l	а	g	k

- Workshop Technical Programme Partners Exhibition Conference
- Welcome Sponsorship ProfessionalDevelopment Networking ExcellenceAwards ComingTogether
- Training Speakers Premier GalaDinner Delegate BuildingPerformance

Answers will be published in the October 6th Code Talk newsletter.





SOLID FUEL HEATING FOR BUILDING CONSENTING OFFICERS

This course provides an understanding of the Solid Fuel Heating Industry, the laws and the application of these laws regarding installation areas that are often seen by processors and inspectors. Upon completion of the course participants will be able to use their knowledge to identify what to look for during processing and inspections.

KEY CONTENT

- Laws and Regulations including acceptable and alternative solutions and verification methods.
- Identifying and understanding the requirements of the following:
 - Appliances
 - Flue Systems
 - Floor Protection
 - Heat Shielding
 - Guarding
 - Flashings
 - Bracing
 - Smoke alarms
 - Building considerations regarding structural elements
- Applying the knowledge of the above during processing and inspecting
- Understanding the relationship between NZHHA, BCAs & MBIE working together and contestable issues.

Course time: 9am - 3pm Public Course Cost: \$475.00 ex GST per person Member price organised in conjunction with BOINZ. Inhouse Course Group Cost: \$5,925 ex GST

Maximum of 15 people – catering and venue to be supplied by the Council.

For more information contact training@boinz.org.nz or call 04 473 6003

BE THE EXPERT SHARE YOUR INSIGHT



Contribute to Straight Up Send your opinion piece, technical article or ideas for content to marketing@boinz.org.nz