

straight up

THE MAGAZINE OF THE BUILDING OFFICIALS INSTITUTE OF NEW ZEALAND

SEPTEMBER 2018

In this month's issue:

New BOINZ Training Courses

Lifting the performance of the masonry sector

Guide to the 2018 National Construction Pipeline Report

More Than Just A Bent Bit Of Metal

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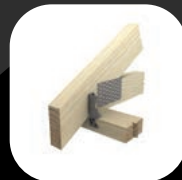
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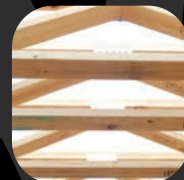
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Are we seeing Game Changes or tinkling on the edges?

As we head into the last quarter of 2018, I can certainly recount many conversations, whether it be at the board table, dinner table or networking with colleagues about progress or not in the building and construction sector.

Yes, our consents volumes are up, our industry looks secure in terms of forward work (National Construction Pipeline Report), and MBIE's Building System Performance Branch have come out with a much-awaited tableau of initiatives to weld together an industry desperately in need of pragmatic, long-term regulatory guidance for a sector that has been notoriously poor in terms of quality, productivity and accountability.

However, positive as we are about the future, just about every conversation reverts back to a much-needed appetite and ability to train and retrain, ensuring the right level of capacity and capability.

I was heartened at our recent highly successful SBCO Forum in Napier when Anna Butler, MBIE's BSP Branch General Manager announced her policy team's top priority was "skills". This has been an area of the Institute's priority focus since 2011. We welcome dialogue in this area with the new MBIE team, in respect of building surveying, particularly building control. While we can expect an immediate skills priority to focus on resourcing KiwiBuild and the wider housing shortage, one must not forget the importance of resourcing up to ensure BCA's can meet their regulatory obligations. Recognising this, the Institute has just produced its new career handbook "A Career in Building Surveying" to aid career uptake and recruitment in our sector.

As the construction gears up, it will require and increasing demand for leaders. To this end the Institute, following a successful pilot workshop, will shortly launch its leadership

programme to equip both emerging and existing leaders with the necessary skill sets to deliver on this core capability and take the building surveying and particularly building control on a journey to lift workplace performance and productivity. For too long we have looked at technical capability and overlooked leadership. That is about to change for the good.

For me the game changer is that our sector has had its biggest disruption in 100 years. We are in a boom environment, consents will soon exceed the peaks of the 1970's, industry under-investment in people capacity and capability needs a major correction, and the advent of the global economy has seen New Zealand and Australia exposed to unprecedented product assurance risks as a result of inadequate protections. To tinkle at the edges is not an option.

The establishment of the new Ministry of Housing and Urban Development (HUD) is directed at leadership in the housing and urban development space to drive New Zealand out of its national housing crisis. However, in parallel, the role of the central regulator (MBIE) in the building systems performance and market services space should become increasingly vital in respect of a realistic long-term corrections for the sector. I fully expect, as do most colleagues, that any new policy direction in its stated core areas of people, products, processes and performance is clear cut without uncertainty in terms of roles and accountabilities. As an Institute we look forward to aiding in these corrections as it is our members more than most who see the issues. The sector must improve, and those that rout the system need to be made accountable. The experiences associated with leaky buildings, earthquake repairs, and recent construction company collapses reflect poorly on the design and construction

community and hurt too many innocent people. Our regulatory systems currently under review need to tighten, be rigorous in guidance and devoid of ambiguity and most importantly have an improved ability investigate and prosecute.

As an Institute we do a lot with little to support our own sector and ultimately the wider community. If you have concerns or answers to issues affecting building outcomes we need to hear from you, so we can assist in improving build performance. In asking you to raise issues with National Office, I am reminded of Albert Einstein's famous quote "If I were to remain silent, I'd be guilty of complicity"

It's time to do more than tinkle at the edges for the sake of our nation, our people and our economy.

Kerry Walsh

President



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Advanced Fire Compliance

The Advanced Fire Compliance course provides a more advanced view of the NZBC C1-C6 Protection from Fire and the Verification Method C/VM2. The 2012 building code changes included quantified performance and fire engineering technical terminology to support C/VM2. The Advanced Fire Compliance course explains the requirements and mechanics of C/VM2, and provides an understanding of Fire Compliance beyond the TA020 course. The advanced course is suitable for anyone dealing with designs beyond the Acceptable Solutions or alterations to existing buildings who need to understand the Building Code for Protection from fire to help with ANARP or alternative solution decisions.

REGISTER NOW!

The course learning outcomes cover the following:

- *In-depth view of Building Code C1-C6 Performance Requirements*
- *Discussion on fire engineering terminology used in NZBC and C/VM2*
- *Overview of Verification Method C/VM2*
- *In depth review of the 10 Design Scenarios and related code clauses*
- *Fire engineering design methods for ASET/RSET analysis*

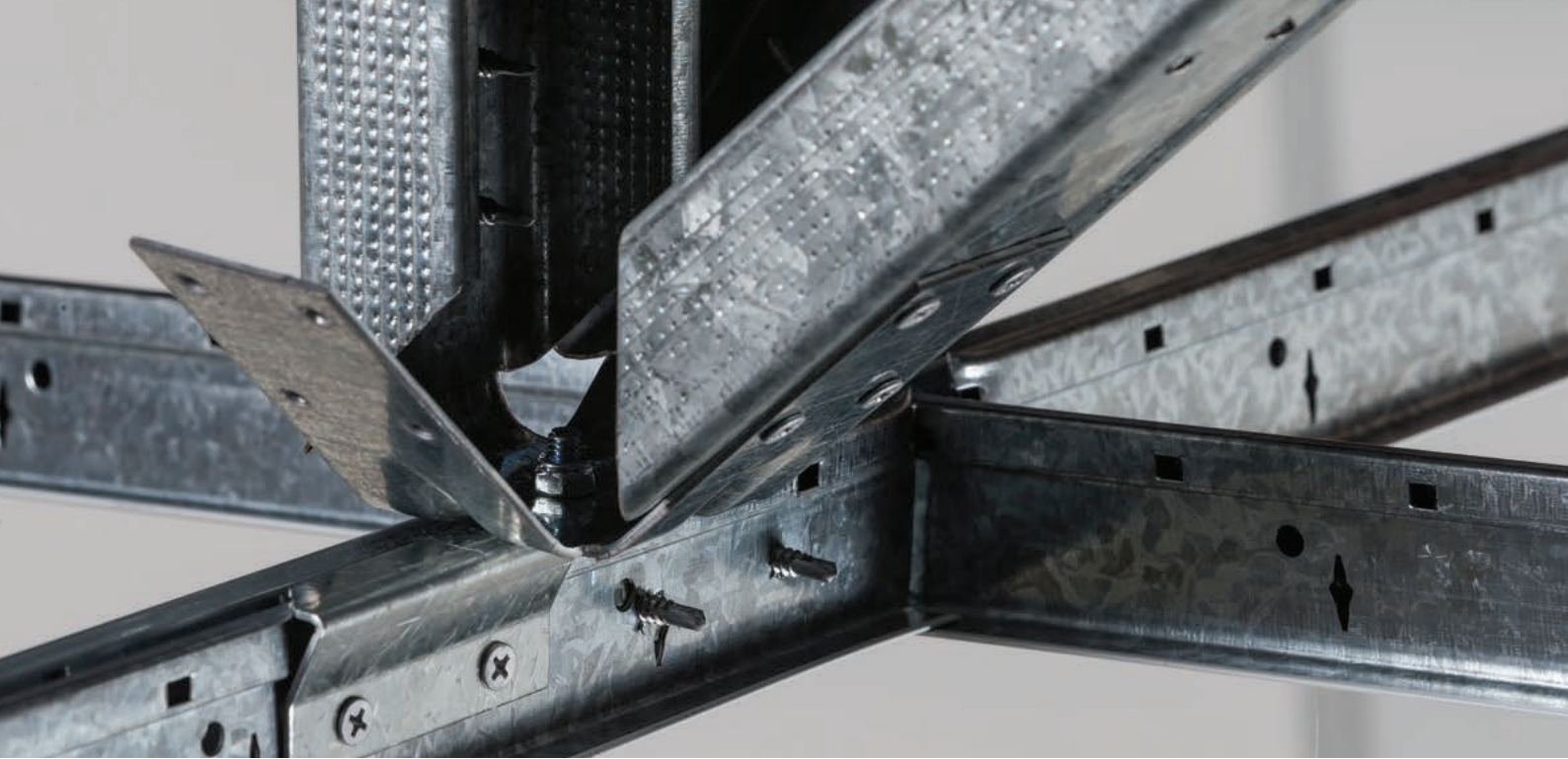
Earthquake Engineering

The Earthquake Engineering course has been developed to deliver a sound understanding of earthquakes and their impact on structural design. It focuses on the principles of building design that resist lateral and cyclical loads on built structures underpinned by providing an understanding of different material behaviours under earthquake loads and design and construction aspects relevant to the different materials. The achieve this background is provided on earthquake behaviour and how ground movement is transposed on and dissipated in structures.

REGISTER NOW!

Attendees will benefit from the following learning outcomes:

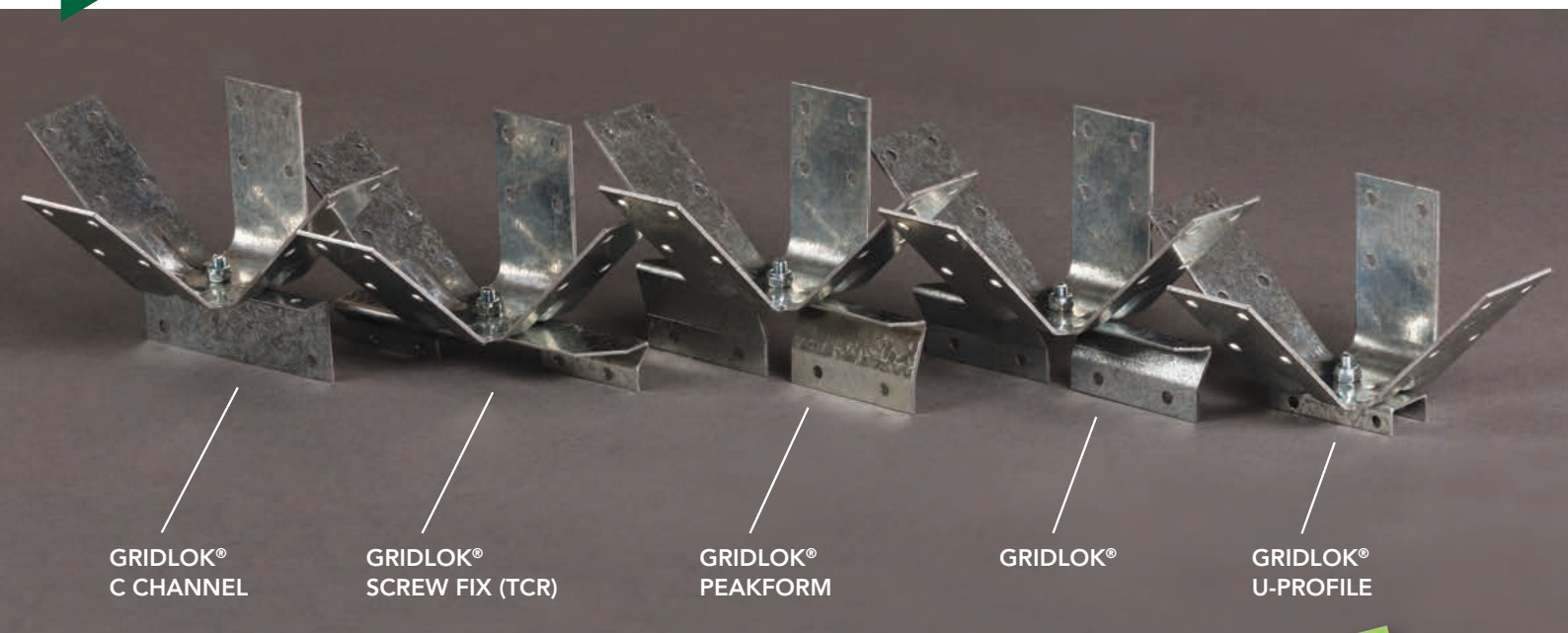
- *Different earthquake types and associated resulting ground movement*
- *How ground movement induces loads on structures*
- *Material specific behaviour under earthquake induced loads*
- *Design and construction considerations for different materials*
- *Consenting and Site inspection considerations related to earthquake design*



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Spotlight on a Member



Name: Jennifer Clarke
Official job title: Senior Building Consent Officer
Region: Christchurch City Council

Jennifer Clarke is originally from Ireland but now resides in Christchurch, New Zealand. In her spare time she loves to travel which is how she met her partner who is a dairy farm manager. They were backpacking in Hawaii and hitchhiked through Alaska together where they had several close encounters with the wildlife including bears! She also enjoys tramping, with highlights including Everest Base Camp, and Machu Picchu. Jennifer also plays the fiddle in an Irish tradition music group.

What was your first full-time job?

My first full time job was working as a student Architect in the Office of Public Works in Dublin. Mostly using the blue print machine in the basement but I also got to work on some very interesting new and existing civic buildings. At the time the old canals in Ireland were being regenerated and developed so you could take a boat across the width of Ireland, so most of my design work was for new lock keepers offices and the restoration of old canal buildings.

How did you get into the industry?

I studied Architecture at DIT in Dublin, with a year of study in Montpellier, France. I then worked as an Architect in Ireland, the UK and Australia before arriving in New Zealand, where I decided to do something a bit different! I knew nothing about the role of a Building Consent Officer, as that role does not exist in Ireland. However the law requires Designers in Ireland to be liable for Building Regulation compliance, and Ireland also has a performance based system similar to New Zealand's, so it wasn't too difficult to get up to speed. I started at CCC on Monday 30th August 2010 and on the following Saturday morning we experienced the first of many large earthquakes that was to change the City of Christchurch forever. I decided then that I was going to stay.

What do you think has changed about the industry since you first started working in it?

As I have worked in different countries it was interesting to see how things are done elsewhere. In Ireland and the UK traditionally the houses are built from concrete blocks, this however has started to change with the advancement of timber based building systems, the requirements for consistency and with a keener eye on cost and sustainable building methods. The other major change is with advancement of technology, particularly for larger commercial projects where Building Information Modelling systems (BIM) is industry standard for the coordination of disciplines leading to less clashes and ultimately less variations on site. It will be interesting to see how these tools are used in the future in the regulatory environment.

What does the future of building control look like to you?

With future innovations in prefabrication, pre-built, and assembly-line construction techniques building consenting and inspection processes will need to be agile and have the ability to develop with the industry. This can be achieved by a resilient, flexible building control regime supported by high quality consistent training and education. A change in liability may allow for Privatisation, which may include self-certifying, with the BCA providing

guidance, education and enforcement. I see designers becoming more responsible for not just their paper projects but the built building.

For this to happen the industry needs substantial changes in its culture and structure and improved management and supervisory skills in all levels, roles and stages of the building process, with a more robust Quality assurance system.

We all benefit from high quality compliant buildings that are constructed efficiently while striking the right balance between Innovation and reliable building materials and methods.

I see a building control system that focuses not only on prescriptive regulation changes but with one that is passionate about research and development and promoting education across all levels in the industry. Only then can real innovation happen and dramatic improvements in the built environment.

What is the most interesting part of your job?

In my previous roles as an Architect, working on large commercial projects, the number of projects that I was exposed to or working on at any one time was limited. In the UK and Ireland, it can take months or sometimes even years to get planning permission for a building. As a BCO I get to be involved with a number of different projects and the turnover on my desk is relatively swift!

Working in Christchurch has been particularly interesting, as I had the opportunity to work with customers on large projects over a number of years, such as The Town Hall and the Justice Precinct, along with many heritage buildings. Getting involved early with the projects and building a good relationship with the people involved has been invaluable to the delivery of these projects.

What do you consider to be the biggest challenge in your role?

Due to the demanding role of the CCC in the rebuild of Christchurch, the Building Consent Unit has expanded quickly resulting in each role being quite separate. For the most part BCOs do not go on site, Inspectors do not process and Code Compliance Auditors are introduced to the project for the first time when the building is built. To counteract this the

BCO role is now very admin heavy with the need to manually record all decisions and conversations. The challenge is to break down the barriers and provide continuity for the project and to the customer so that we can provide value and ensure that our buildings are safe and compliant.

What do you think is different about being in Building Control in Christchurch versus other regions?

The 2010/2011 Earthquake sequence! Of course Canterbury is not the only region to experience a natural disaster but this definitely ranks among one of the worst in modern history. As a Council employee and 'building person' I had first-hand experience on the effects of a natural disaster on a city, the process involved in demolishing a city and best of all... rebuilding it!

Spotlight on a Member

Could you be next?

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

Sarah Wood:
marketing@boinz.org.nz



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Do you want to write for us?

As a membership organisation we are always interested in receiving articles and updates from our members for our members.

If you would like to be featured in our next issue of Straight Up, get in touch today!

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PrefabNZ Top 5

1. PREFABNZ INNOVATION BITES WEBINAR SERIES – ILLUMINATING WHAT YOU WANT AS A FULL MEAL

Inspiration through conversation, that's what keeps pushing Innovation Bites forward in its continuing success - proudly brought to you by ARDEX. Every fortnight at lunch-time, Innovation Bites brings you an entree of condense rich information, from insurance and automation, to intellectual property and KiwiBuild in easy-to-digest 45-minute sessions. September is packed with some fabulous topic leaders; Melissa Clark-Reynolds, Anthony Pelosi, and Jo Duggins! To partake, you must be a PrefabNZ Member or a member of one of our Cluster whanau – ADNZ, NZIA, NZGBC, BOINZ, Engineering NZ, NZIQS. Members can register here: <http://www.prefabnz.com/Events>. CPD points available.

Replays of all of the Innovation Bites series can be watched from our YouTube channel, go to Youtube.com and search for PrefabNZ!



5. MATERIAL MATRIX

The Material Matrix is a guide on the different variations of prefabrication that are available in our industry. Acting as a beginning point for designers and interested parties to understand the different options available to them. Covering relevant building code clauses, different prefabrication categories and a brief industry snapshot. This helpful guide is free to download from PrefabNZ website here:

http://www.prefabnz.com/Resources?from_year=2018&to_year=2018&type%5B%5D=guide

2. SNUG

The SNUG is a complementary dwelling for your garden that is smaller than 65m2. The need for a range of SNUG solutions is backed up by a recent report which identifies the potential for 180,000 additional dwellings through partitioning existing homes and other Accessory Dwellings. After receiving a tremendous 86 entries for the SNUG competition, the end result will be a pattern-book (catalogue) of the 12 finalists, with 6 of those getting pre-presented approval on the structure by Auckland Council, significantly streamlining the consent process. Prospective homeowners can pick-and-choose the SNUG option that suits them and their garden. Keep your eyes peeled for the Defign magazine profile at the end of October 2018. Register to vote in the People's choice awards here: <http://www.prefabnz.com/Projects/Detail/snug-home-peoples-choice-award-vote-here->

3. A KIWIBUILD ITP, BUYING OFF THE PLANS' PHASE, WILL SEE PANELISED SOLUTIONS DEPLOYED

The first step: 'Buying off the Plans' is one of four channels for delivering KiwiBuild homes. This will see the New Zealand government underwriting or purchasing new affordable homes 'off the plans' from the private sector. This accelerates housing delivery as it targets developers with development-ready land. Only those who are willing to adapt their development to include affordable KiwiBuild dwellings can be part of the program. At PrefabNZ, we believe the answer to deliver KiwiBuild will likely be a handful of networked integrator enterprises. There remain challenges that need to be addressed to smooth the path for large-scale change for a longer-term vision of a networked integrated industry. PrefabNZ will keep industry posted on how we are working on incremental change for long-term gain.

4. PREFABNZ MEMBER SGA - NZIA LOCAL AWARD WINNER – 2018 –

SMALL PROJECT For anyone who thinks prefabs PrefabNZ loves great design, and part of great design is a great story. SGA Dave Strachan is a founding and former board member of PrefabNZ, and due to SGA's experience in prefabrication (demanded for due to the remote location of this inspiring project), they were approached to design Motu Kaikoura. Located in the protected scenic reserve of Great Barrier Island - the building accommodates research workers, education initiatives, volunteers and public visitors. The project really required a clever modular system. The panelised building components were constructed offsite and then flat-packed and heli-lifted onto the foundations from a barge. Due to a major shortfall in funding, SGA's creative solution was to form a partnership with Architecture+Women NZ, to deliver the building contract as an educational programme in which 16 architects and graduates would gain invaluable hands-on experience. Read about this exceptional project here: www.sgald.co.nz/motu-kaikoura



Picture courtesy of SGA

Lifting the performance of the masonry sector.

The Brick and Blocklayers Federation (BBFNZ) was established in 1966 by a collection of regional brick and block trade associations with the purpose of having a national body to represent the interest of the brick and block trade. BBFNZ has expanded in recent years to include product manufacturers and distributors as well as tool and safety gear providers and has shifted its focus to concentrate on the quality of its building systems.

"If we concentrate on delivering quality building system and an industry that is easy to work with, then our industry and our members will prosper" states BBFNZ CEO Melanie McIver.

BBFNZ have introduced a number of initiatives to help protect its building systems including releasing a Best Practice Guide for Brick Veneer that is a collaboration between manufacturer instructions and good trade practice. The Best Practice Guide is available free for viewing at <http://www.bbfz.co.nz/building-with-brick/brick-veneer-best-practice-guide/>

Accompanying the Brick Veneer Best Practice Guide, BBFNZ have established a brick veneer assessor network and provided a standardised, checklist reporting template that measures a veneer against best practice. Assessors are required to send a copy of their reports to BBFNZ for monitoring.

BBFNZ has recently developed a single trade association for masonry businesses. This is now operating as its own standalone entity – The New Zealand Masonry Trades Association (NZMTA). It has been set up to provide business compliance support and resources for masonry businesses while acting as a direct feed of information and knowledge from the tradesperson to

BBFNZ. For \$500+GST a year a business can join NZMTA and receive the use of a raft of contracts, health and safety and employment resources. BBFNZ works with NZMTA to deliver six industry relevant information seminars each year.

Not convinced that the LBP scheme is lifting the skills of the brick and blocklaying industry, BBFNZ are in the process of reviving the registered masons scheme under the new brand 'Master Mason'. Melanie advises that while the licensing scheme is being run by government BBFNZ believes that there will always be a compromise between quality and quantity citing the current industry wide skills shortage as cause for concern.

The Master Mason scheme is intended to be extended to include business and health and safety skills as its strands. Right now, however Melanie advises that they are concentrating on creating robust technical skill assessment processes to expand the list of previously registered masons.

The final initiative being introduced to assist with building quality is industry monitoring. This includes looking at reports from assessors and determining whether there are common issues that need to be relayed to the industry, keeping an eye on and responding to labour demands and understanding what products are being used within the industry.

Melanie sees the next progression of BBFNZ as preparing the industry to respond better to sustainable urban designs (SUDs) which means encouraging the industry to produce three, four, or five storey systems that are more accessible to the public. This will however she acknowledges, need to go hand in hand with clarifying a few myths about the performance of

bricks in an earthquake and identifying what information the public and building consent authorities need.

Here's how you can help BBFNZ – familiarise yourself with their website (www.bbfz.co.nz), email info@bbfnz.co.nz if there is any information or training you believe would be useful for BBFNZ to provide.

ABS PROGRAMME

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BRICK & BLOCK LAYERS

- FEDERATION OF NEW ZEALAND -

First look at Onehunga KiwiBuild apartment plan

Tom Furley, Reporter



The government has launched the first KiwiBuild apartments under its pitch to private developers.

Auckland developer NZ Living will build 25 KiwiBuild apartments in a 42-unit development at 340 Onehunga Mall. KiwiBuild buyers will be eligible for six studio apartments priced from \$380,000, 12 one-bedroom apartments from \$490,000, and seven two-bedroom apartments at \$600,000.

In a statement, Housing and Urban Development Minister Phil Twyford said it offered an attractive opportunity for first home buyers.

"This is a unique opportunity for those who have been locked out of the property market to buy a modern, new home in an increasingly popular area

that might otherwise have been out of reach for first home buyers."

"The @340 Onehunga development is a six-minute walk from Onehunga train station and on a main bus route with connections to the CBD and Auckland Airport. It will also have light rail.

Buyers will be able to enter the ballot from next week.

The apartments are the first to be announced under the government's Buying off the Plans initiative which provides an incentive for developers by underwriting sales.

Construction begins today and the development is due to be finished by August 2019.

The KiwiBuild Unit has received 97 development proposals and signed four contracts so far. Another three are waiting for ministerial sign-off.

Details on exact locations are still to be released but the Unit has said they are in Auckland, Taranaki, Waikato and Queenstown-Lakes - the first KiwiBuild deal in the South Island.

A further 42 developments are in negotiation with KiwiBuild and 48 have been rejected for not fitting the criteria.

Under KiwiBuild, the government has set a target of 1000 homes to be built by the end of June 2019, ramping up to 5000 by June 2020 and 10,000 by June 2021.

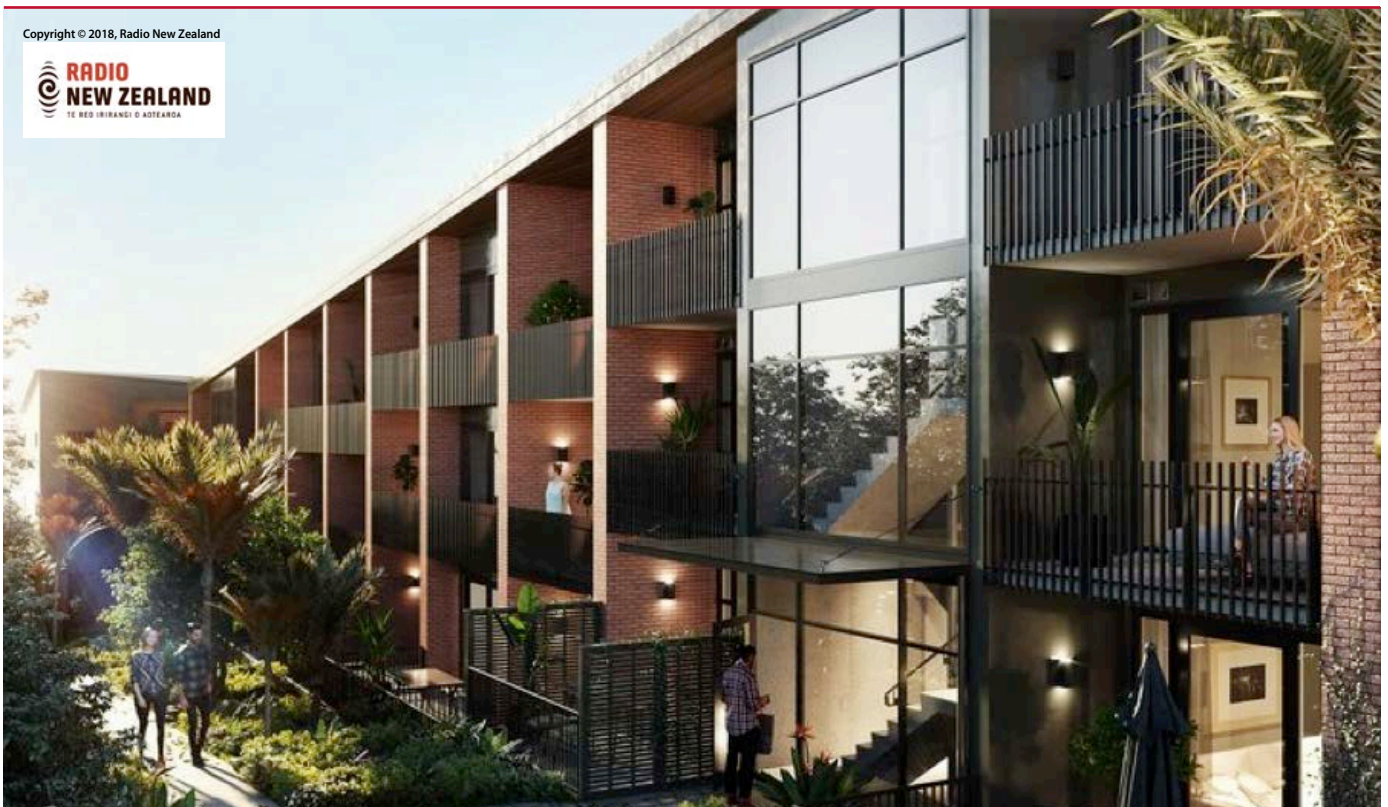
So far 18 homes have been completed as part of the McLennan development in Papakura and a further 12 are due to be finished at the site by the end of the year. Mr Twyford said he wasn't daunted by the target.

"We'll be announcing projects all around the country in the coming weeks through the Buying Off the Plans initiative working closely with private developers, but also more large scale developments that the government is initiating.

"And also the building of KiwiBuild homes in amongst the redevelopment of Housing New Zealand properties.

"We're pretty confident we're on track to deliver a thousand KiwiBuild homes in that first year from July 1."

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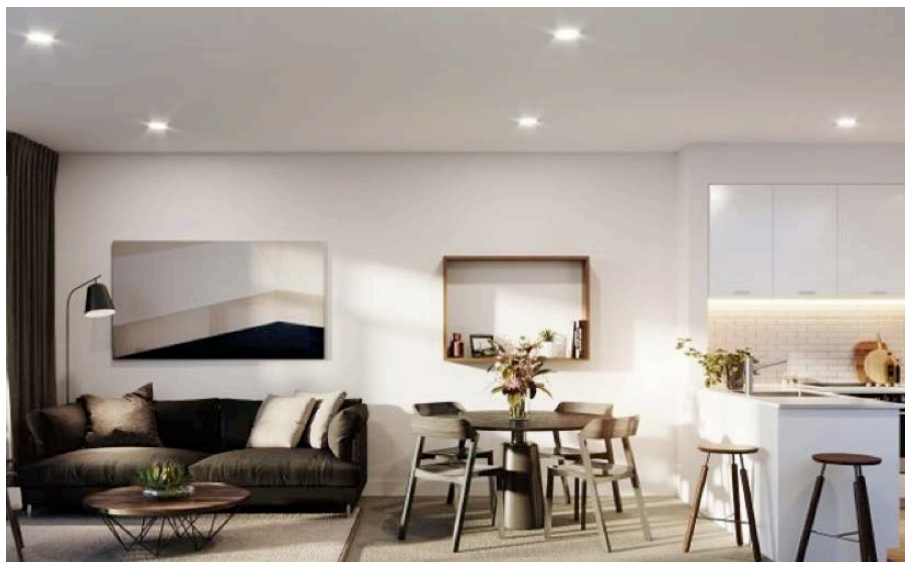
Artists' impression of the apartments in the Onehunga development Photo: Supplied



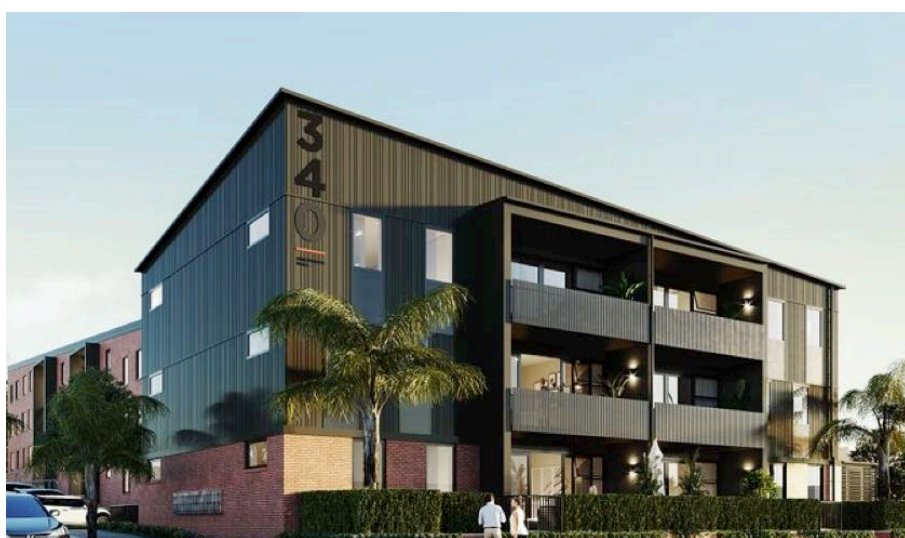
Demolition has started in Onehunga to make way for 42 apartments - 25 of which will be KiwiBuild.

KIWIBUILD DEVELOPMENTS MCLENNAN (88 HOMES)

- 18 homes finished with the ballot open until 5 October.
- 12 under construction for completion at the end of 2018
- 58 more to be finished down the line
- Unitec: 1200-1600 homes
- The government has bought the land and plans to build 3000-4000 homes of which 40 percent will be KiwiBuild
- timeline uncertain
- Onehunga Mall: 25 apartments
- 25 KiwiBuild apartments, a mix of studio, and one- and two-bedroom units
- Ballot opens week of 17 September
- Mangere redevelopment: up to 3500 homes
- Over a period of 10-15 years, 2700 worn-out state houses will be replaced by 10,000 new homes, 3500 of them KiwiBuild
- First stage will see at least 50 KiwiBuild homes completed by end of 2019/early 2020
- Northcote: up to 400 homes
- Led by HLC (Housing New Zealand owned subsidiary) and will have 1200 houses, a mix of state houses, KiwiBuild and market homes.
- First of the KiwiBuild homes to be finished 2019
- Mt Roskill: more than 2400 homes
- Replacing 3000 state houses with 10,000 new homes including 2400 KiwiBuild, 3000 market and 3000 state houses.
- 10-15 year time frame
- first KiwiBuild homes not expected to begin until mid-2019 when 90 state houses are replaced with 300 new homes of which 95 will be KiwiBuild.
- the Roskill South part of the redevelopment will be finished in 6 years and total 578 market and affordable homes



An artist's impression of inside the KiwiBuild apartment in Onehunga. Photo: Supplied



An artist's impression of outside the apartment building complex to be built in Onehunga. Photo: Supplied



Construction on the apartment begins today and the development is due to be finished by August 2019. Photo: Supplied

STRAIGHT UP ANSWERS

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Helen Rice, Managing Partner

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Q: Can the council issue a notice to fix to a subsequent owner?

A: If the council is satisfied on the basis of the complaint and/or following inspection that there are reasonable grounds to consider the Building Act or regulations have been contravened, itAs next step is to identify whether there is a "specified person" it can issue an NTF to. Specified person is defined in s 163 of the BA as:

- a. The owner of a building;
- b. The person carrying out or supervising the building work if the NTF relates to building work being carried out;
- c. A person referred to in s 162C(4) of the BA if the NTF relates to a residential pool.

MBIE considered whether subsequent owners could be issued NTFs in determination 2015/073 and concluded that only owners at the time of the contravention of the Building Act were included, not subsequent owners¹.

Our view is that this determination is problematic because it leaves councils in an impossible position whereby it knows of building work that does not comply with the Act or Regulations but has no power to do anything about it. We have had interest from a number of our council clients to challenge this principle and await an appropriate case to do so.

Please send your questions to helen@ricespeir.co.nz.

1. The determination states "...In my view a notice to fix can only be issued to an owner in respect of a contravention or failure to comply with the Act or Regulations. If the person who contravened the Act is no longer the owner of the building, a notice to fix cannot be issued to that former owner, as they are no longer the owner of the building, but nor can a notice to fix be issued to the new owner, as they have not contravened or failed to comply with the Act or Regulations."

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Interview with a BOINZ HR Division Candidate

Steven Spence worked with the Building Officials Institute of NZ's HR Division to find a building surveying role in New Zealand.

Originally from Newcastle in the United Kingdom, Steven had a range of experience in building surveying, and was able to utilise the HR Division's services to find a role that suited his level of experience but also fulfilled his family's requirements regarding location.

How did BOINZ's HR Division support you? Was this a positive experience?

In deciding to emigrate to New Zealand, I made contact with Michelle within the HR Division. She quickly appeased any concerns I had with regards prospects within the Building Control field here in New Zealand. A Skype meeting was setup between myself and Nick Hill, a very professional and positive experience. Throughout the process I was kept up to date and well informed.

Did using BOINZ's HR Division make the process of finding a role in New Zealand easier – how?

Using the HR Division most certainly made the whole process easier, seamless and stressless. Having an agent on the ground and in the same time zone was particularly helpful.

Would you recommend the use of HR Division to other councils who are looking

for candidates?

100%, as the BC fraternity becomes smaller, the likelihood of a council employing someone they already know is quite high, if in fact anyone applies.

As a Building Surveying Team Leader, now working in New Zealand, how do you think the industry should be dealing with skill shortages and recruitment issues?

There is a very apparent shortage of Building Control Officers in New Zealand with the small fraternity becoming smaller as the highly experienced and mature individuals retire with seemingly little infrastructure to support future generations of BCO's. There's a historic emphasis on BCO's being preferably deriving from a trade background. I do not necessarily agree with this methodology given I moved into BC at 16 years old. A cadet program would be beneficial to plug the gap of backfill into the industry but the risk in the short term is losing the historic knowledge as Senior individuals retire, this is where international recruitment would assist.

Do you think there is a need for a specialised recruitment service?

100%, Building Control is a highly specialist field and many agencies will try to slot this into a generalised surveying role when it is in fact so much specialised. I believe the use of a

reflective recruitment service would assist.

Do you think New Zealand should be looking at recruiting international candidates, if they are skilled and qualified?

Yes, with Canada and the UK being on a similar parity to NZ, they are the most adaptable. However, it should be stressed to candidates that there is a degree of retraining and whilst you may well be highly experienced, if you are going to process or inspect, you will have to start at the bottom. This would also be based upon which Councils are prepared to use BOINZ for their recruitment as when Michelle was setting up interviews, she did encounter a little resistance from certain Councils as to why they were essentially 'promoting' my services.

Going through the immigration process yourself – what was your experience with this?

I used an experienced New Zealand Immigration agent based in the UK which hugely assisted the process. I would highly recommend the use of agent as the process can be a minefield.

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Guide to the 2018 National Construction Pipeline Report

The National Construction Pipeline Report (6th edition) provides a projection of national building and construction activity for the next six years, ending 31 December 2023

The report includes national and regional breakdowns of actual and forecast residential building, non-residential building and infrastructure activity. It is based on building and construction forecasting by BRANZ, and Pacifecon NZ Ltd (Pacifecon) data on known non-residential building and infrastructure intentions.

The report provides awareness of the expected pipeline of building and construction work, to support:

- Planning by all sector participants
- Scheduling of investment in skills and capital to meet the future needs of the sector
- Coordination between construction procurers (particularly central and local government) that can lead to better scheduling of construction projects
- Smoothing the boom-bust cycles that have negative impacts on productivity, innovation, employment, skills levels and quality in the construction sector.

THE 2018 FORECAST INDICATES A SMOOTHING OF THE BOOM BUST CYCLE

The forecast is for strong long-term growth. For the first time in the history of this report the national forecast does not predict a construction peak during the forecast period. Instead the 2018 forecast is for consistent building and construction activity in the next few years with stronger growth expected toward the end of the forecast period.

- Total construction is expected to grow steadily to a forecast high of \$41.4b in 2023.
- Residential building value is expected to hold steady in the next few years before increasing to a forecast high at \$26.6b in 2023.
- Dwelling consents are expected to increase year-on-year to a forecast high at 43,100 in 2023.
- Non-residential building value is expected to peak at \$8.4b in 2019.
- Infrastructure is forecast to remain relatively unchanged, increasing marginally to \$7.3b in 2023.
- The forecast indicates to the construction sector that it can have confidence in the expected demand for future building and construction work and can therefore invest effectively to scale up production (via

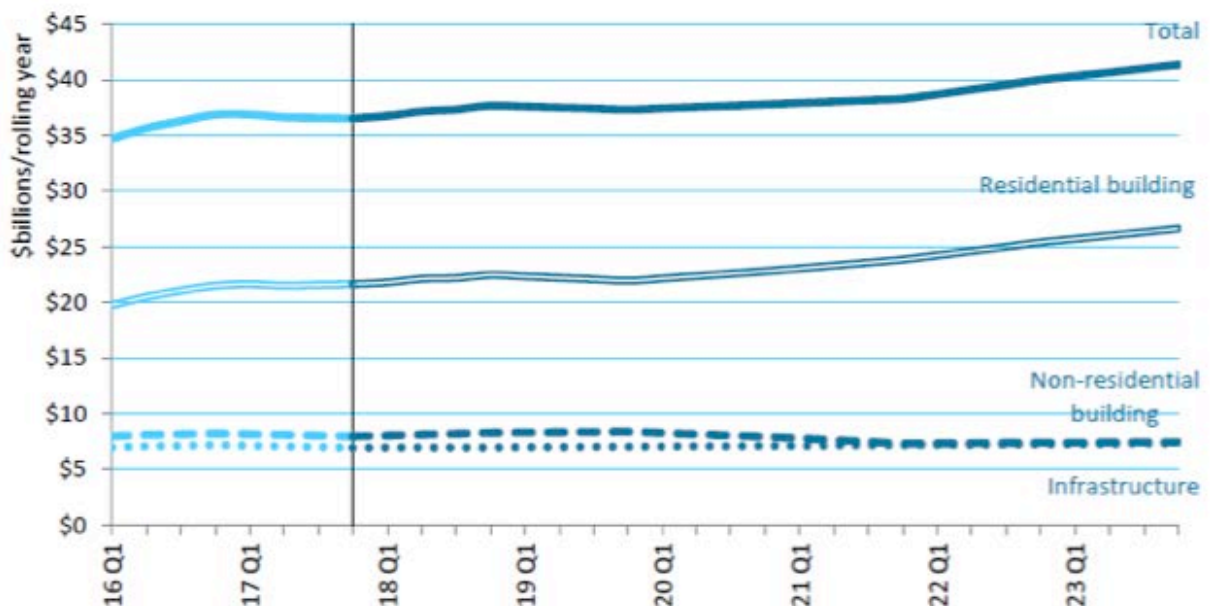
technological development, skills and training, new efficiencies) to produce at high volumes in the future, rather than relying on 'quick-fix' methods of increasing capacity (bringing in skills from overseas, utilising spare capacity, borrowing resources from construction-related industries) to meet a short-term construction boom.

- The six year forecast for the regions are positive. Auckland, Waikato/Bay of Plenty and Wellington are expected to experience considerable growth of over 20% in total construction values between 2018–2023.

Residential buildings/dwellings

- Residential building value is forecast to drive the construction market over the next few years. Four of the five regions considered in this report are forecast to grow by over 20% from 2018–2020.
- The construction sector intends to respond to the strong demand for dwellings with national consent volumes expected to reach record highs every year from 2020. Auckland is also forecast to hit record highs from 2019.
- Multi-unit dwellings are forecast to increase considerably – growth rates in multi-unit dwellings are higher than detached for all regions (except Rest of New Zealand group), with particularly

Figure 2018 All construction nationally, by activity type



Source: BRANZ/Pacifecon

strong growth in multi-unit dwellings in Auckland and Wellington. Multi-unit growth in Auckland is occurring across a range of multi-unit housing types (ie apartments, townhouses, retirement units).

- Wellington is forecast to experience strong growth in residential building value and detached and multi-unit dwelling consents.

Non-residential buildings

The non-residential building activity forecast over the next few years is positive, with national non-residential building value forecast to peak in 2019. Wellington and Rest of New Zealand group are forecast to peak in 2018, Auckland and New Zealand are expected to peak in 2019. Non-residential building activity in Auckland and the Waikato/Bay of Plenty are forecast to remain strong throughout the forecast period.

Pacifecon's research data indicates that there are strong sector intentions to initiate a high value of non-residential building work over the short-to-medium term. The sector is communicating there are plenty of known non-residential building intentions.

Infrastructure

- Infrastructure spending is forecast to maintain current levels, increasing marginally by 6% from 2018 to 2023.
- Pacifecon's research data indicates that there are strong sector intentions to initiate a high value of infrastructure construction over the six year forecast. The sector is communicating there are plenty of known infrastructure intentions.

THE 2018 REPORT NOTES FIVE KEY FINDINGS

Sustained growth is forecast for building and construction nationally - For the first time since the report was initiated in 2013 a peak in total construction value is not expected within the forecast period. Instead a more moderate sustained growth is forecast for the next six years.

National dwelling consents expected to exceed historic highs with 43,000 in 2023 - Over the next six years the number of dwelling units consented is forecast to increase by 39% to a forecast high of 43,000 dwelling units in 2023.

Multi-unit dwellings overtook detached house consents in Auckland in 2017 - In

2017 51% of dwellings consented in Auckland were multi-unit dwellings, the 2017 report did not expect more than 50% multi-unit consents to occur until 2022.

Non-residential building growth expected for Auckland, Waikato and Bay of Plenty - Non-residential building growth is expected in 2018 for Auckland and the Waikato/Bay of Plenty regions, with high activity levels expected to remain in these regions to 2023.

Wellington experienced the strongest total construction growth in 2017 - Other regions of New Zealand sustained or declined, but Wellington experienced strong construction value growth in 2017 (11%), formed by a combination of residential and non-residential building growth.

COMPARISON BETWEEN THE 2017 AND 2018 REPORTS

Overall - The New Zealand construction sector is possibly near capacity/currently restrained and needs time to gear up to deliver at higher volumes. Nationally total values are expected to be lower than previously forecast in the next few years and higher in the six year outlook. The higher and shorter peak that was forecast for 2020 will give way to more gradual sustained long term growth to 2023. In the next few years total construction values will be lower than forecast in 2017, however activity will surpass previously forecast levels near the end of the forecast period in 2023 and is expected to keep growing past the forecast period.

Residential value - The 2018 forecast growth in residential buildings will be more gradual than previously forecast in the next few years, but will increase strongly towards the end of the forecast period 2023. The 2017 forecasts had residential building activity peaking in 2020 and falling away after.

Residential Dwellings - Dwelling consent numbers are lower than initially forecast in the next two years, but will grow strongly from 2020, going past the 2017 report peak of 34,500 in 2020 and remaining well above this level to 2023.

Non-residential - A lower value peak than previously forecast is expected to occur in 2019. Non-residential in Auckland, Waikato

and the Bay of Plenty remain strong to 2023. Pacifecon's research data suggests that there is a high value of known non-residential building work scheduled to be initiated over the next six years.

Infrastructure - Infrastructure activity is lower than previously forecast. The 2017 report forecast strong national growth, while the 2018 report forecasts infrastructure to remain relatively constant (increasing slightly over time). Pacifecon's research data suggests that there is a high value of infrastructure construction scheduled to be initiated over the next six years.

UPCOMING BRANCH MEETINGS

Wellington

18th October

Hutt City Council

Conference Centre (TBC)

Nelson/Marlborough

23rd October

Venue: Marlborough District Council

Auckland

24th October

Venue: Alexandra Park

Canterbury/Westland

30th October

Venue: TBC



The new workplace hazard for public officials - online attacks

By Nathan Batts



The new workplace hazard for public officials - online attacks

For those in positions of official responsibility, and particularly those who are the community face of governmental regulation, the prospect of public frustration as a result of your decisions is ever-present. You may simply be doing your job and applying the black letter of the law, but for those individuals who face delay and expense because their projects fall short of the requirements, you can become the easy target of their frustration.

Traditionally, such frustration might have been expressed by way of disgruntled letters or perhaps an irate phone call to office administrative staff. However, in the digital age where the means of instant communication are vast and varied, and where many individuals and organisations have an "online presence" in the form of websites and social media profiles, the ability to rapidly and widely publicise criticism is substantially increased.

Furthermore, because such criticism can be sent from a mobile phone from the safety of a living room, the self-restraint that may have otherwise been present with more personal and direct forms of communication is absent.

Of course a certain level of criticism is to be expected as a public official. It comes with the territory. However, in such circumstances, the criticism should be focussed on the facts and not on the individual. A decision may be justifiably challenged and disputed, but a personal attack on the decision-maker does not follow.

An individual finding themselves in a situation where work-related online

criticism has taken an upsetting personal, public, and persistent turn need not simply grin and bear it. Affirmative legal action is possible to both prevent and, if necessary, remove unwarranted and harmful digital criticism.

THE LEGAL OPTIONS

Both the Harassment Act 1997 (HA) and the Harmful Digital Communications Act 2015 (HDCA) incorporate specific court applications targeted at stopping incidences of online harassment. Recent amendments have brought the older provisions of the HA up-to-date for a digital age, and the more recent HDCA was passed with the specific purpose of preventing harm to individuals caused by digital communications.

Both the HA and the HDCA recognise the importance of freedom of expression, whereby individuals should be able to express their views publicly, even if those views are negative, critical or would not be happily received by the subject of the criticism. However, where conduct amounts to harassment or harmful digital communication, there are procedures available under both acts which provide an effective means of preventing such conduct. Court orders can be obtained to prevent the conduct in question from continuing. Depending on the circumstances, in some cases an order can go even further and require removal of online material.

THE HARASSMENT ACT

In an online context, harassment under the HA might take the form of direct electronic contact (email or instant messaging, for example) with another person. For such direct contact to amount to harassment it needs to establish a pattern of behaviour, meaning that the contact must have occurred on at least two or more separate occasions within the period of a year.

Harassment might also arise from a single act if that single act continues to have an effect over a protracted period. In terms of electronic communications, an example of this sort of conduct would be posting offensive material about another person on electronic media where that

person can see it. An example would be person A posting a statement directed at person B on a Facebook group page. It does not matter that the post was not communicated or sent directly to person B, so long as person A knows there is a likelihood that person B will see what was posted, or that it will be brought to the attention of person B.

Once harassment is established, a court can only make a restraining order if it is satisfied such an order is necessary to protect the applicant (here, person B) from further harassment. In addition, the court must be satisfied that the harassment complained of is causing (or threatening to cause) the applicant distress, and that a reasonable person in the same position would feel similarly. Finally, the degree of distress must be such that an order preventing the harassment is justified.

THE HARMFUL DIGITAL COMMUNICATIONS ACT

The "gate-keeper" for access to orders under the HDCA is different to the HA. The HDCA identifies a list of ten "communication principles" that apply to digital communications (digital communications are defined broadly as any form of electronic communication). These principles essentially dictate what a digital communication should not be, such as communications that disclose sensitive personal information, are threatening or indecent, are used to harass, or that make false allegations.

Where a digital communication breaches the communication principles (or one of them), it can be the subject of a court order. Before a court will make an order restraining an offending digital communication though, it must be satisfied that there has been a serious breach (or threatened breach) of one or more of the communication principles and that this breach has caused, or is likely to cause, harm to an individual. For the purposes of the HDCA, harm means serious emotional distress.

There is, however, one further hurdle to obtaining a court order under the HDCA – any complaint under the HDCA must first be referred to the government-approved agency for consideration. The current

approved agency is Netsafe. Netsafe must be given a reasonable opportunity to assess a complaint and decide what (if any) action to take before an application is made to any court. A referral to Netsafe can be made easily online through their website (<https://www.netsafe.org.nz>).

TAKE AWAY POINTS

Within the realm of digital communications, if conduct amounts to harassment under the HA it is likely to also be a harmful digital communication for the purposes of the HDCA.

Although the communication principles under the HDCA potentially cover a wider breadth of conduct, the level of harm that needs to be established before the provisions of the HDCA apply is arguably higher than under the HA (serious emotional distress as compared to whether the reasonable person would have been caused distress).

If the circumstances require an urgent response, proceeding under the HDCA may be ill-advised because of the initial delay associated with Netsafe assessing

a complaint before an application to the court can be made. It may be that the best way to ensure access to a court order is to proceed under both pieces of legislation – filing an application with the court under the HA while at the same time making a referral to Netsafe.

Finally, we can briefly return to our opening comments concerning the official personally attacked for simply doing his or her job. While reasonable expectation of (legitimate) public criticism might mean that an official may need to establish a higher level of distress than say a private individual in the same circumstances, that does not mean public figures should put up with behaviour that amounts to harassment or harmful digital communications as part of the job. This legislation provides quick and affordable ways to help people in New Zealand stop harmful online personal criticism and attack. Public officials should be as ready to rely on these two pieces of legislation to protect their reputation and well-being as any other member of the community.

CPD CHANGES

We have made some exciting changes to our Continuing Professional Development (CPD) Guidelines.

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Non-Conforming Building Products – Radical Innovation

- By Darryl O'Brien



INTRODUCTION

Non-Conforming Building Products (NCBPs) have created significant private (increased professional liability) and societal (erosion of public confidence) threats. The evolution of NCBP's is a result of two simultaneous radical innovations: globalisation and performance – based legislation. However, the proliferation and risks posed by NCBPs is a failure of organisational process to recognise and adapt to these radical innovations. Further, this failure that is exacerbated by the existence of a moral hazard problem.

This article will firstly describe how these factors have increased the risks of NCBPs and general non-compliance. Finally, this article will propose an organisational model to better manage these risks.

What is a Radical Innovation?

To better understand the factors that have led to the present situation we need to recognise that from the 1990's onward radical multivariate changes in governance and commerce occurred that directly affected the construction sector. Fundamentally, it was an inability to recognise these radical innovations and consequently adapt organisational culture that helped create an environment where the emergence of NCBPs was perhaps inevitable.

A radical innovation is one that initiates revolutionary shifts in technology or practice and thus requires fundamental changes in organisational process and culture for effective management. Radical innovation can be contrasted with traditional incremental change, where organisations are responding to minor improvements or simple adjustments to existing technology or practice, an environment requiring little or no change to the prevailing organisational culture.

The decade of 1990's onward saw the introduction of performance-based legislation and the acceleration of the global supply network. Referring to change - management literature, such changes meet the common definitions of radical innovations and both changes, as we will see, had unexpected consequences for the construction sector.

Performance Based Regulation - An Example of Radical Innovation

All building regulations are designed to improve the performance of buildings and reduce societal harms by a combination of improved performance, increased safety and reduced risk. Historically, regulators have prescribed a fixed range of actions

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to achieve these goals. This is a process known as prescriptive legislation.

A more recent approach is to incorporate societal goals and expectations into the codes and identify a minimum level of performance that is judged to have met these outcomes. This approach is known as performance based legislation and is the basis of the mandatory performance requirements of the New Zealand Building Code.

The prescriptive Acceptable Solutions represent to codification of practice that has proven to meet community health and safety standards over a historic time frame. Such a process is also referred to as sedimentisation - a process where this behaviour becomes established custom and practice and creates the precedent from which new incremental changes to practice evolve. Acceptable Solutions are characterised by low risk, a higher degree of certainty and immediate rewards. As a consequence the prescriptive Acceptable Solutions are generally favoured by industry. It is important to remember the not just designs, but also building materials, exist within the Acceptable Solutions domain.

Significantly, operating within the Acceptable Solution domain does not require practitioners to develop new skills or abilities. Due to the wide historic information base that underpins Acceptable Solutions, the processes required to design, construct and inspect such traditional solutions requires far less investment in developing new skills and abilities.

Alternatively, Alternative Solutions are examples of radical innovations. Unlike the prescriptive Acceptable Solutions, the ability to effectively manage Alternative Solutions may not be sedimentised within organisations, or the level of sedimentised knowledge may differ across the various parties involved in the construction of a single building. This is a critical point with respect to governance as each Alternative Solution is discretionary and often there is no broader bureaucracy accountable for the individual results. Alternative solutions serve to shift the burden of proof and increase the importance of the standard of proof in ways far more significant than those needed for acceptable solutions.

In hindsight it is perhaps fair to say that developing the skills to effectively manage one form of radical innovation would have been challenge enough.

However in seeking to understand the factors that led to the proliferation of NCBPs we need to consider a second form of radical innovation – global supply networks.

Global Supply Networks – A Second Simultaneous Radical Innovation

The move from domestic supply chains to global supply networks represent a second form of radical innovation and a causal factor in the rise of NCBPs. In relation to building materials, this period has seen significant increases in the importation of engineered wood products, structural and reinforcing steel, cement and windows to name but a few. Whilst the global supply and procurement network has undergone radical change during this period, domestic management of the process has retained essentially an incremental approach. This is despite the fact that the decade to 2000 was described as being the most intensive period of globalisation in history (Vale, 2000). Total world traffic in Twenty-foot Equivalent Unit (TEU) containers increased from 17 million TEU in 1975 to 147.3 million TEU in 1996 (Broeze, 2002, p168). Indeed, by the late 1990's approximately 150 million contains per annum were shipped from China alone. It is not coincidence that the rise in imported products has also seen a corresponding rise in NCBPs.

The Ministry of Business, Innovation and Employment has identified that there may be an emerging issue with NCBPs entering the NZ market, and has undertaken a Review of building product regulation and assurance systems. This is a timely initiative and one that should be supported by stakeholders. However if the Australian experience can be used as a guide, finding solutions to this problem in a global economy will be challenging. This is because recognising the role that radical innovations have played in creating an environment that allowed the proliferation of NCBP's is only one aspect of the issue. To fully appreciate the nature of this problem we need to consider the role of product attributes and moral hazard. To understand these concepts we need to consider behavioural economic theory, to which this paper will now turn.

Behavioural Economic Theory and Moral Hazard

At its heart the issue of NCBPs, and indeed all

issues of non-conformity, is simply about product quality - or fitness for purpose. But how and what is validated to ensure a products fitness for purpose. To understand this question we need to consider product attributes specifically, credence and Potemkin attributes.

Credence attributes are product characteristics that important to consumers, but cannot be experience either before or after consumption. It is credence attributes that are the focus of third party certification which acts as a compliance proxy for these hidden attributes and seeks to reduce the consumer's information asymmetry.

But the challenges created by global supply networks and NCBPs are particularly highlighted in relation to Potemkin, or hidden attributes. Potemkin attributes are 'characterised by the fact that neither the buyer nor external institutions are able to carry out controls through laboratory analyses at the end product level' (Jahn et al., 2005, p.55). This creates a situation where critical product attributes may be unknown to either consumers or third party certifiers.

It is within Potemkin attributes that the issue of moral hazard arises. Simply put, a moral hazard exists where manufacturers have an incentive (such as cost savings) to reduce essential product attributes (such as non-combustibility). Because this reduction in quality is hard to identify, the information asymmetry between manufacturers and consumers creates a moral hazard as manufacturers are incentivised to obtain a higher price without needing to increase quality and thus cost. The greater the information asymmetry – the greater risk for a moral hazard.

Whilst it is true that the potential for moral hazard exists with domestic supply chains, the global supply network has created an environment where increased information asymmetry with respect to product testing or certification makes reliance on quality statements problematic.

Moral Hazard, Information Asymmetry and Construction Materials – The Macro Problem

There is evidence emerging of the existence of moral hazard and NCBP's in the New Zealand market, as evidenced by the recent Commerce Commission v Timber King Limited and NZ Steel Distributor Limited case.

This case saw TKL import over 7000 sheets of steel reinforcing mesh into the NZ market. NZ standards require that the steel be a minimum 500E grade, with 'E' designating that the reinforcing steel contains specific earthquake ductility attributes. This represents a classic credence attribute i.e. one that is critical to consumer safety but one that the consumers cannot identify themselves, ultimately relying on third party testing or certification to warrant fitness for purpose. In this instance TLK provided certification in the form of a test certificate that stated the mesh complied with AS/NZ4671:2001. The certification provided was subsequently shown to be fraudulent. It was the Potemkin, or hidden attributes, that failed to meet the standard. The critical Potemkin attribute in this case was the steel elongation, with was required to average at least 10%. When independently tested, the TLK steel ranged between 2.04% and 8%. The tested samples also failed the weld shear test.

This example illustrates the critical importance

of an effective testing and certification scheme and why education is of critical importance. In the TLK case only 1 customer asked for evidence of compliance to be provided, and this was when the non-compliance was identified. Had no one asked for evidence of certification, would the regulators have identified this example of non-compliance? Ultimately, with 32 domestic dwellings using the non-compliant steel this case shows how NCBP's can reduce confidence in the construction sector and why vigilance is required. Creating Capacity to Manage Radical Innovations and Reduce Risk

As this article has argued, the organisational skills needed to operate in a traditional environment are fundamentally different to those needed to work within one characterised by radical change. These radical innovations are in the form of Performance Based Legislation and the global supply network which have exposed the community to heightened risks characterised by NCBPs and other forms of non-conformance. These risks are further exacerbated by information asymmetry and moral hazard. This final part of the paper will outline an intra-organisational model to minimise these risks. Organisational gaps must be identified and strategies put in place to build flexible capability. Skills necessary to manage radical innovation include an ability to move beyond traditional core competencies and the capacity to adapt processes to manage new systems or materials. It is the development of flexible capability that distinguishes the management of radical innovation (Alternative Solutions, global supply networks) from traditional incremental (Acceptable Solutions, domestic supply chains) processes. What attributes would this model need? The first step would be to identify significant hazard points on the project. This could be where an Alternative Solutions is being proposed or the potential for a NCBP to be used exists. Adopting such a process allows the relative project risks to be triaged; greater resources can be devoted to ensuring that these high risk aspects are effectively managed. The identification and management of significant hazard points will reduce information asymmetry and thus the moral hazard problem.

To be effective, a plan to develop the capability to manage NCBPs must be consistent across all parties and continue through the planning, construction and handover stages. Identifying hazard points in collaboration all parties will ensure that all relevant information is available and decisions are made with comprehensive knowledge of the potential risks. Thus the best solution is selected for each notification point. It should be emphasised that such a model is situational in design and not general. The form and design of the model will necessarily reflect the facts and circumstances of each project.

This process may require additional time and increased compliance costs, but to this point I'm reminded of a quote from Derek Bok, former president of Harvard University who said if you think education is expensive, try ignorance. We can't afford not to improve processes – the community expects it. Conclusion

Organisations that fail to recognise change and adapt become ossified, although the surrounding environment continues to evolve. Whilst there have been some positive regulatory initiatives and a much greater awareness of the NCBP issue, there remains an urgent need for all parties, including

regulators, to review existing organisational practice, develop capability (such as using the resources provided by organisations such as BOINZ who develop information programmes such as this and deliver education and training programmes through their training academy) and minimise the moral hazard problem so as to better manage NCBPs and more general non-conformance issues. This need is highlighted by the present lack of capacity to manage radical innovations that are simultaneously a) Alternative Solutions and b) sourced from a global supply network. I fear that failure to develop this capability across all organisations involved in the construction process will continue to see examples of poor construction practice and NCBPs manifesting across the built environment.

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Steel compliance tools for Building Officials – a personal view



Philip Sanders Executive Director, ACRS

Steel compliance has, rightly, become a major issue in New Zealand (e.g. E-Class mesh, structural hollow sections, to name two). As a result, various tools for steel selection have been created to attempt to ensure compliance of as-delivered steel (e.g. certification systems, selection flowcharts). Some of these are workable, providing clarity and confidence. Some are not, or not so much. So how do you choose which one, or ones to pick to reasonably manage your risk of accepting non-conforming steels onto your project?

Auckland Council's recently released decision tree is one of the best tools we have seen to date. It provides a clear flow chart, and does show the need for both the steel mill and any subsequent fabricator or processor of that steel to be validated. However, it does provide many options that could give rise to confusion and possible inadvertent, or otherwise, avoidance of the document's clear intent.

The bottom line with any selection tool and with any certification system you choose is that you need to know what steel you are getting at what point in the supply chain. An unclear decision path, especially coupled with a limited or low-rigour certification system can easily lull the unwary steel purchaser, or consent authority, into thinking the steel is verified as conforming when in fact it is not. Some examples are:

Not all certification systems are the same. Firstly, there are different certification types; quality, testing, inspection, product). Secondly, not all schemes within a certification type are the same. You need to know what type and what level you want as not all do the same thing, in the same way, on the same repeat schedule and with the same rigour – even if JAS-ANZ accredited. This can leave the gate open for...

Test certificates supplied with the steel claiming to show compliance of all supply. Global experience shows test certificates may not be compliant, may not be accurate, or may be fraudulent. Other test certificates attempt to set limits on their use as a valid tool, such as stating validity only in country of manufacture, not New Zealand or Australia, or the end-use of the steel. Also, how easily can you match the test certificate to each piece of steel? Which comes from...

Poor traceability. Materials' traceability is essential if you are to avoid substitution in whole or part of materials of unknown conformity (even if you can identify the manufacturer) for the specified materials. The decision tree referred to above whilst calling up ACRS as one option for steel mills does not unfortunately provide for the second of ACRS two major scheme benefits - traceability. In particular, traceability between steel mill and welded sections manufacture is especially important to avoid mixed supply, and poor welded section manufacture (see ACRS flowchart). Which stems from...

Unverified Factory Production Control ("FPC"). Factory Production Control is what processes and controls are in place, including testing of the materials to validate conformity, both at the steel mill and, subsequently, at the fabricator. But what controls? By whom? (Independent of the supplier, or by the supplier itself? If independently, by a materials expert scheme or a process generalist?). To what level? (all levels can be accredited (quite appropriately) by JAS-ANZ, as appropriate. It's left to the user to choose what certifier scheme they accept. And lastly, how often? (If too infrequent, experience suggests that production usually reverts to the local "norm", and that may not be NZ

standards. Which leads to...

Product Certification. So, you demand (rightly) "3rd-party certification" independent of the supplier. But not all independent, third-party certification is product certification. It could be FPC certification, or test certification. That's good but just not enough. So, what does a product certification body do?

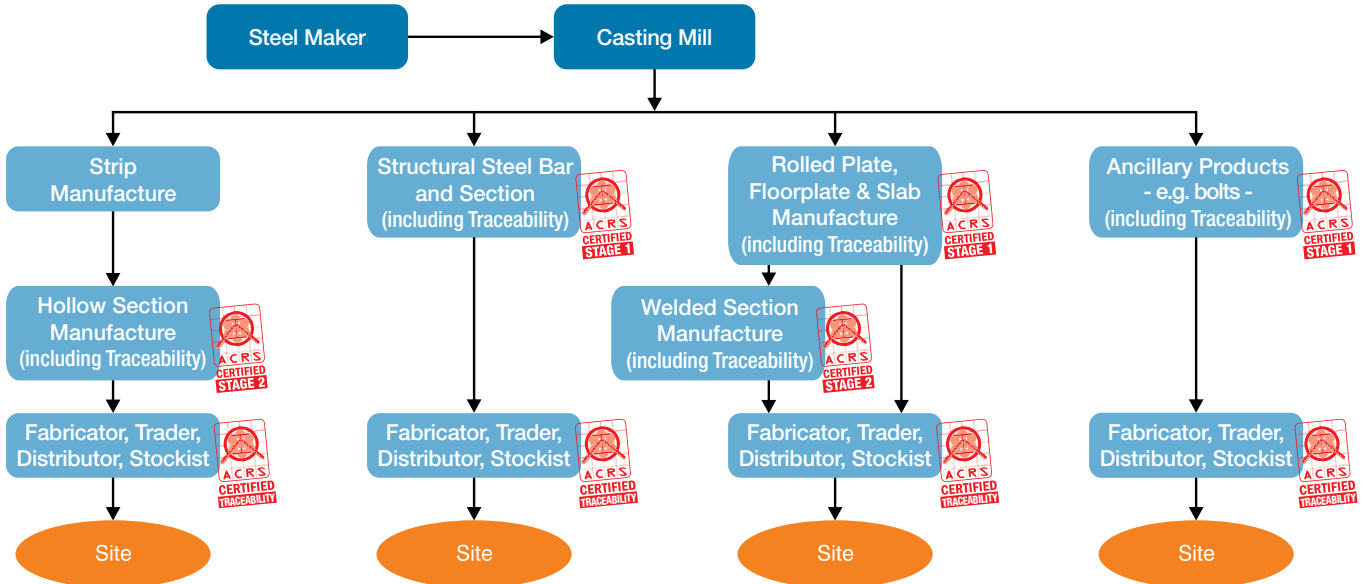
Broadly speaking, there are 4 basic variables for auditing construction materials: Firstly, 1) Samples selection from manufacture, or 2) Samples selection from market. And then, 3) Periodic assessment of the production process, or 4) Audit of the management system. The extent to which these four variables are undertaken, on what schedule, and with what rigour are up to individual scheme as accredited by JAS-ANZ, or similar international body (For instance, some product certifiers may only do two of the four variables, one for testing and one for quality). This is why different product certification schemes should not be automatically assumed to be equivalent, and may not be equally acceptable for the supply of high-risk materials, like steel (For the record, ACRS does all four, every year, for every production site, using only ACRS own qualified metallurgists with direct expertise in the steels assessed). Which leaves you open to...

Steel supplied "to an equivalent standard" when it is not. ACRS has many examples of ACRS certified steel ordered, but the steel delivered was termed "equivalent". Such materials are sometimes supplied by a stockist from available materials made to another national standard not meeting NZ requirements. So, this is not the manufacturer's fault: They didn't sell the steel as "equivalent", the steel supplier did. So, how do you know what you are getting? Welded sections producers should always be ACRS certified in addition to the steel mill (just as the reinforcing bar processor should always be ACRS certified, not just the bar mill).

Please see ACRS Structural Steel Chain of Certification on the next page

Philip Sanders is Executive Director of ACRS. Formed in 2000 by peak industry bodies including Austroads, building surveyors, engineers, builders, and steel institutes, ACRS is a not for profit, specialist steel certifier operating on the European model for certification of construction materials deemed high risk. ACRS is independent of the interests of steel manufacturers and suppliers, and provides specifiers, engineers, building officials, government, and the public with the highest available level of assurance of ongoing steel compliance through the supply chain (not just at the steel mill). ACRS's 2-stage process of steel compliance at the steel mill and (where this might impact steel compliance) at the producer provides solid assurance to end users, dovetailing with, without overlapping, the NZ SFC scheme, and providing with the SFC scheme a clear "end-to-end" certification pathway for the construction industry and building consent authorities.

ACRS Structural Steel Chain of Certification

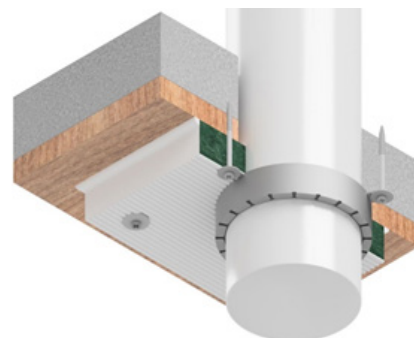


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ACENZ (The Association of Consulting Engineers New Zealand) announces first female President



ACENZ has appointed Ida Dowling as its first female President at its Annual General Meeting in Hamilton on Friday, 3rd August.

Ms Dowling replaces outgoing President Mike Kerr.

ACENZ Chief Executive, Kieran Shaw comments on President Ida Dowling, "Ida was soon recognised for introducing an enthusiastic commitment and fresh new ideas when appointed ACENZ Regional

Chair for central Auckland in 2013. She quickly brought a new vitality to our strategic focus upon more engagement with membership young professionals, whilst also encouraging a broad spread of diversity into our member firms.

Ida brought the same enthusiasm and all-encompassing values to the ACENZ Board when she later moved up into the Association governance body. We are now very pleased that in becoming the first female President of ACENZ she has proved the merit of those values that she has promoted so well."

About Ida

Ida is a Senior Transportation Consultant with Commute Transportation Specialists in Auckland. Graduating from Auckland University with a B.E. (Hons) in Civil Engineering, she has built a career spanning almost 20 years within the transport sector. Ida is a Member of Engineering New Zealand and also holds a CPEng qualification.

About ACENZ

ACENZ is a company-based membership Association that represents consulting and engineering professionals throughout New Zealand in the built and natural environment. ACENZ provides business leadership in matters relating to the construction, engineering, and the professional services industry. ACENZ exists to raise the profile and expand the influence of the industry and to assist members to improve their business performance and the quality of service.

With over 195 Member firms, representing collectively more than 12,500 individual staff, ACENZ acts as "the Trusted Advisor" to Members and industry bodies, local and national government agencies, and others within the construction, engineering and consulting industries.

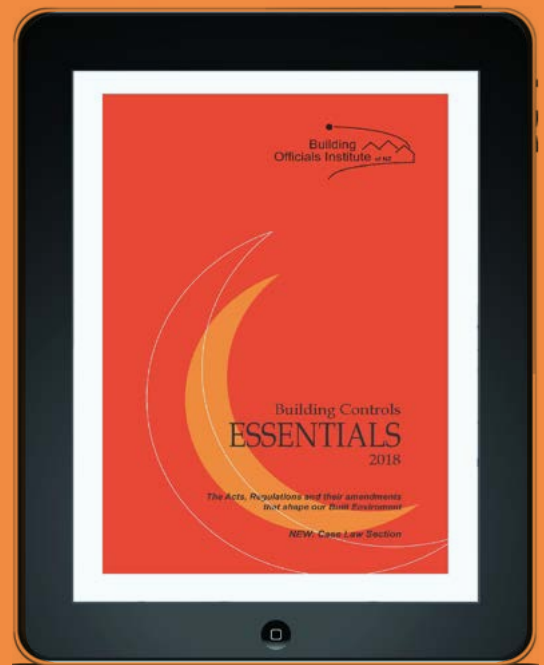
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What job did you have before starting your Cadetship at Hamilton City Council?

Hamilton City Council's Building Control Unit run a Building Officer Cadet Programme, BOINZ interviewed 2 members; Anthony Morris and Scott Tulloch who have both been through this programme and still currently work for Hamilton City Council.

Anthony Morris

What job did you have before starting your Cadetship at Hamilton City Council? Prior to starting at Hamilton City Council as a cadet I was a builder in Hamilton where I was mainly building residential and light commercial buildings.

I was in the construction industry for 6 years and obtained a national certificate in carpentry prior to joining council.

How did you hear about the Cadet Programme?

After 6 years of building I was getting to the point where I wanted to do something different and more challenging. I had a lot of interaction onsite with inspectors and council staff and discussed career opportunities with them.

What are the top three highlights for you in taking part in the Cadet Programme?

The first one that comes to mind is having the ability to work through all facets of the



BCA and TA functions which gave me a good understanding of the processes. The ability to work through the different areas of the building unit gave me the ability to foster good relationships with my colleagues.

Lastly the cadetship gave me the opportunity to spend time in all areas of the business and have the time to ensure that I was learning what was required and I was retaining that information prior to starting in other parts of the business.

What is the best thing about your job?

The best part about my job is the diversity in work it offers, no two days are the same. Sure, the task at hand may be the same but the work in which you are inspecting or reviewing changes day to day and having the knowledge from the cadetship programme to assess each situation and confidently make decisions is of great benefit.

If you were to give one piece of advice to someone who might be looking at a Cadet Programme?

Don't overthink it – If you have a passion for building and an appetite to get things right then this may be just the job for you.

What do you think is the biggest challenge in your role?

The biggest challenge in my current role is the ability to stay in front of the building trend, being able to have the resource that is required to ensure that we deliver a good service can be challenging. This is why the cadetship is so important for the future of the building controls industry, having the progression of new staff is invaluable.

What sets Hamilton as a region apart from other regions in the country?

Hamilton is a growing city with an appetite for innovation and lateral thinking with a diverse range of construction. With this innovation it gives people the opportunity to challenge the status quo and look at the way we do things to streamline processes and make it easier on ourselves and clients. This growth and diverse workload is



exciting and allows people to challenge themselves and their knowledge. Outside work Hamilton offer a great range of facilities for no matter what you are into.

What role do you have now? How did you get there?

I am now the Building Inspection Team Leader. I got to this role by having a passion for the building industry and a drive to be in leadership. With the cadetship providing a good basis of knowledge to succeed in my current role.

Where do you see yourself in 5 years' time?

In 5 years' time I see myself still playing an active role in the building control industry, I would like to be more heavily involved in the training and education of building control officials. This would include increasing exposure of building control as a career opportunity as opposed to a job opportunity.

Scott Tulloch

What job did you have before starting your Cadetship at Hamilton City Council?

I was working for Place Makers as a kitchen designer

How did you hear about the Cadet Programme?

It was advertised on the Seek website. I had to do a bit of background research to see what it was about and discovered the potential for career growth was well worth pursuing.

What are the top three highlights for you in taking part in the Cadet Programme?

The cadetship provided me access into a field of work that would otherwise require years of self-funded study or specific industry experience to enter.

The variety of experiences included in the cadetship have allowed me to see innovative designs or construction techniques from their conception through the construction phase to the finished product.

The people are what make this industry, and the cadetship really does offer great opportunities to network and learn from the best in the business.

What is the best thing about your job?

I get to be part of a team that is making sure the buildings we live and work in are safe and fit for use. Seeing Hamilton develop into a city that is enjoyed and knowing I had a part to play in it is very rewarding.

If you were to give one piece of advice to someone who might be looking at a Cadet Programme?

Play the long game. The cadetship is a career decision and requires looking down the line a few years to see where it can take you.

What do you think is the biggest challenge in your role?

It is battling with expectations. We have regulations to adhere to and also customer service levels that we strive for and these don't always align.

What sets Hamilton as a region apart from other regions in the country?



Hamilton is growing fast and is evolving into a very innovative place to work and live. It is part of the golden triangle so access to places like Auckland and Tauranga provide plenty of options for work/ life balance.

What role do you have now? How did you get there?

I am currently the Building Review team leader. I started off in the Building Support admin team as part of my cadetship and worked through the different roles within our unit until I settled in a Building Review Officer role. After a few years I had a brief season of being the Senior Residential Building Review Officer before landing at my current role.

Where do you see yourself in 5 years time? As far as I can see, I will always be in this industry that is supporting Hamilton and its growth. I am really enjoying the role I have now and am appreciating the opportunities that it is providing.



UPCOMING COURSES

OCTOBER 2018

TA014 B2 Durability Dunedin

11 October - 12 October
9:00 am - 5:00 pm

TA004 Accreditation Marlborough Region

25 October
8:30 am - 3:00 pm

TA019 Plumbing and Drainage Compliance Queenstown

30 October - 1 November
20 - 21 November
9:00 am - 5:00 pm

NOVEMBER 2018

TA002 Building Controls Wellington

5 November - 7 November
8:30 am - 4:30 pm

TA013 E2 Weathertightness Northland Region

7 November - 8 November
9:00 am - 5:00 pm

TA002 Building Controls Ashburton

13 November - 15 November
8:30 am - 4:30 pm

TA020 Fire Documents Palmerston North

20 November - 21 November
9:00 am - 5:00 pm

For more information, visit:
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***Please be aware that for various reasons, these course dates and locations are not final and are subject to change.*

2019 CALL FOR PAPERS

The Building Officials Institute of New Zealand is excited to announce that the Call for Papers for the 2019 BOINZ Annual Conference & Expo is now open! We are looking to build a technical programme across the building surveying spectrum that encompasses a range of relevant industry issues, experiences, solutions and innovations that will give delegates, including our stakeholder colleagues, an opportunity to gain further insight, knowledge and expertise with the goal to develop their skills as professionals in their fields.

If you have a topic, presentation or research which would be a great fit in our technical programme, we want to hear from you.

Contact Sarah on 04 4736005 or events@boinz.org.nz



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