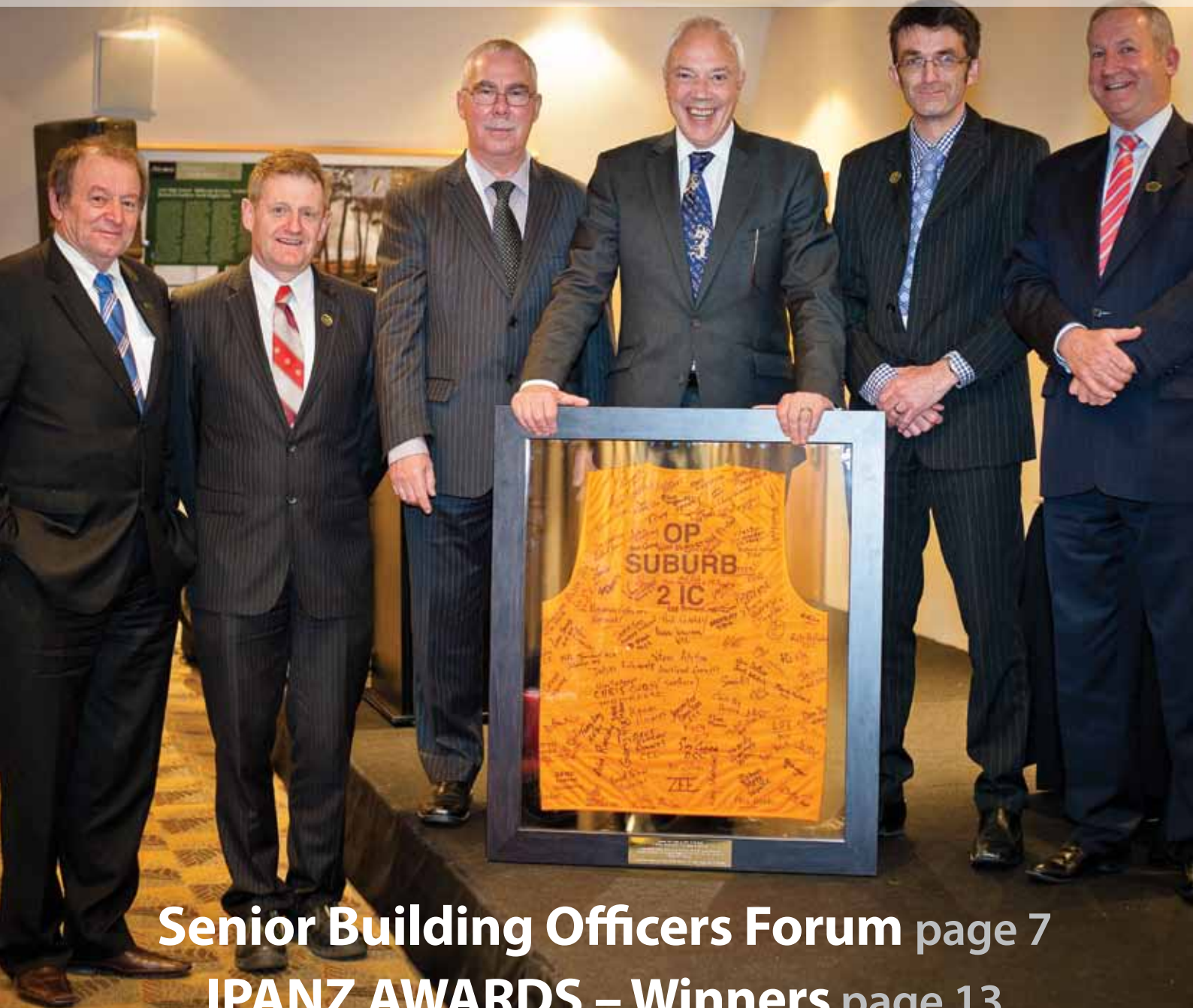


straight up

THE MAGAZINE OF THE BUILDING OFFICIALS' INSTITUTE OF NEW ZEALAND

SEPTEMBER/OCTOBER 2012



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**BUILDING OFFICIALS
INSTITUTE OF
NEW ZEALAND**

**2013
CONFERENCE**

**ROTORUA
ENERGY EVENTS CENTRE**

12TH – 15TH MAY

**“TECHNOLOGY & INNOVATION IN THE
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straight up

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From the Presidents Desk

“Big Steps towards Professionalism”

As we head towards the end of 2012 I feel a certain amount of pride, in both our members and the way the Institute is now projecting itself.

In talking with members, I perceive a huge change in attitude. There is a confidence and acceptance that we are a vitally important hub of the building and construction sector. More and more we accept that our role is to lead and guide. We are accepting of education and we have a quest for perfection.

I am not alone in noticing this change. In my role I am fortunate to meet many of our stakeholders, and they too have noticed a significant shift in the way our members not only perceive themselves, but how as a group we are lifting our game.

As they say “credit where credit is due” and I believe you should all give yourself a “pat on the back”.

However, there is still some way to go. At the Senior Building Control Officers' Forum, Peter Sparrow, Manager Consent Authorities, Capability and Performance Group from the Building and Housing Group, of MBIE announced the 8 appropriate qualifications to meet the requirements of Regulation 18 (see notification later in the magazine). This is the last hurdle to truly professionalising our vocation.

For many of you I know you can't wait to register for the APL Process that will give rise to achieving either or both the National Diploma in Building Control Surveying (small

buildings or medium to large buildings). Others of you may chose to undertake a degree or have your degree recognised as the appropriate qualification for a building official. Some members will need to confirm that their offshore qualifications are appropriate. Whatever pathway you take it will be highly significant in terms of changing the face of building controls in New Zealand, and by default the whole built environment.

Now I am not naïve enough to not recognise that some members, will not bond easily with the concept of needing a qualification, particularly those of you who have been in the role for many years. To those of you who are of this persuasion I would encourage some lateral thought as to the advantages of a qualification (and the Institute will be addressing this at Branch Meetings). I would also point out that you should back yourself and rise to the challenge.

The APL process for the Diploma qualification(s) is a no fuss approach that recognises current competence. You just need to fill in some knowledge and practical gaps and then collect a body of evidence to prove your ability.

The Institute will be putting some information into the market shortly that should grow your understanding of what is required to work through the Diploma APL process.

I encourage you to attend Branch meetings so you have the latest knowledge as how to work towards Regulation 18's requirements. So in conclusion, we have made a significant paradigm shift. Not only do we now have a recognised suite of qualifications, we have a simple and economic pathway to achieving this. I congratulate all those involved, our members for pursuing a need for a qualification, the Institute and Otago Polytech for working hard to bring about high quality course material and very affordable pricing options and MBIE for citing these qualifications. The next task is for BCA's to get their most qualified staff on the APL programme to start the ball rolling.

Phil Saunders, Building Officials Institute of New Zealand President 2012.



Australian Institute of Building Surveyors

AIBS CELEBRATE 50 GOLDEN YEARS IN 2012.

The AIBS 2012 International Conference is a don't miss opportunity to update your knowledge of Building Surveying on a local, national and global level, celebrate with your peers from around the country and the world and network with contacts from the Building Surveying and related industries.

The conference is being held at the stylish Crown Promenade Hotel in Melbourne, Victoria (the birthplace of the AIBS) from **Sunday 21 October to Wednesday 24 October 2012.**

Mark your diary and begin making travel plans now to come and join us in Melbourne in 2012. Bring your partners and turn the week into a

great getaway in cosmopolitan Melbourne. Don't forget your essential hat for the spring racing carnival season.

To find out more visit - <http://www.aibs.com.au/>

NEW ZEALAND CONFERENCES 2012 - 2013

New Zealand Concrete Industry Conference 2012

This forum has allowed us to come together as an industry across all sectors and discuss common issues, from the supply and placement of concrete at the building site through to the technical challenges of the design office and the requirements for code writing and University testing laboratories, and has allowed the NZ concrete industry to remain adaptable, motivated and responsive as an industry.



Metals New Zealand Industry Conference 2013

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Save the Date: 9th – 10th of May • **Location:** Classic Flyers Aircraft Museum in Tauranga

Metals New Zealand in conjunction with its industry association partners HERA, SCNZ, NZSSDA, NASH, CTNZ, GANZ and TIDA are pleased to announce our intention to hold the Metals New Zealand Industry Conference 2013 at the Classic Flyers Aircraft Museum in Tauranga from the 9th – 10th of May.

Registration for Conference can be done at www.metals.org.nz beginning mid-August with an attractive Early Bird fee available.

Contact : www.metals.org.nz



NEW ZEALAND CONFERENCES 2013

Building Officials Institute of New Zealand Annual Conference

12th – 15th May 2013 – Rotorua

New Zealand Institute of Quantity Surveyors

13-15 or 20-22 June 2013 – Queenstown

The Property Institute

July 10 - 12 2013 – Queenstown

New Zealand Contractors' Federation and Australian Civil Contractors Federation

July 30 – August 3 2013 – Queenstown

Senior Building Control Officers' Forum

23rd – 24th August 2013 – Wellington

SENIOR BUILDING CONTROL OFFICERS' FORUM, AUGUST 2012, CHRISTCHURCH

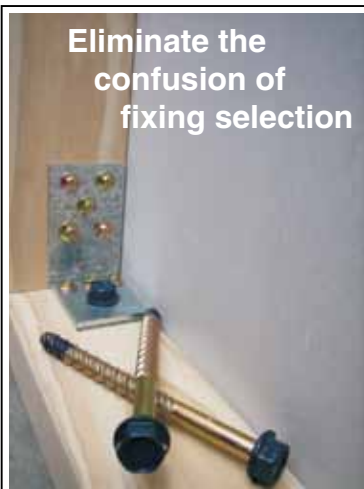
This year's Senior Building Control Officers' Forum was different for many reasons. First off, it was the first time we had ever taken it out of Wellington. Christchurch more than delivered as the perfect city to host this year's Forum, which set the scene for both the technical programme but also added that something special to the overall atmosphere of the forum itself.

The main goal of the Forum is to seek operational improvement, and increase understanding around the complexities that are dealt to our sector. The technical programme was designed to achieve just this.

John Hare's presentation on the myths and fallacies of earthquake prone buildings had us challenging our thinking, and set the programme for the rest of the forum. Roger Sutton brought an interesting perspective to his presentation, highlighting CERA's plans and ideas for Christchurch CBD development, while EQC's Reid Stiven emphasised the lack of positive media surrounding the rebuild. The content in general was well received, particularly around the central processing topics. Peter Wood, of the Ministry of Civil



"I thought the forum was excellent, they get better each year, and the location and new format were a real hit"
 – Leigh Sage,
 Palmerston North City Council



Eliminate the confusion of fixing selection

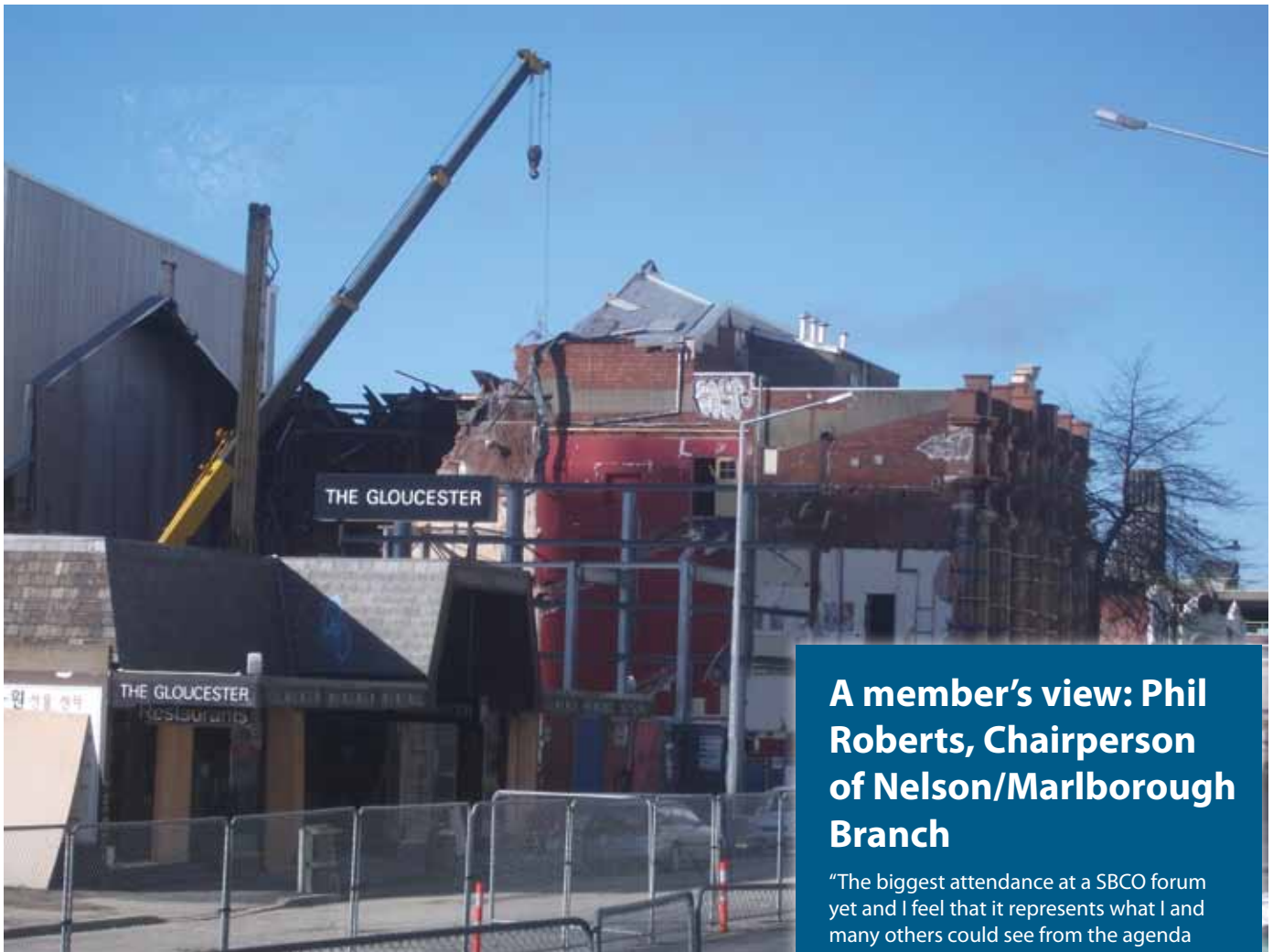
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A member's view: Phil Roberts, Chairperson of Nelson/Marlborough Branch

"The biggest attendance at a SBCO forum yet and I feel that it represents what I and many others could see from the agenda and presentations listed in the registration pack was going to be an outstanding forum. It certainly lived up to my expectations with very interesting speakers and great technical content arranged by our Technical committee. The Avonside residential area, the CBD Red Zone and HIVE bus trip on the Thursday afternoon was a real eye opener. I like many on this trip found myself lost in the current CBD Red Zone within 5 minutes as all the old landmark buildings I knew of were gone!

Fantastic comments were heard from members for the entire 2 days regarding the new technology involved in the electronic consenting and general learning's for all.

The dinner with Christchurch Mayor Bob Parker, as the guest speaker on Thursday was an excellent evening with great humour for all with calls for more jokes from our host!

I would strongly encourage everyone interested in the future of our industry to try and attend the SBCO Forum in Wellington next year and the annual conference and excellence awards gala dinner in Rotorua in May 2013.

You never know, you may have as fantastic an experience as I did at this forum with my congratulations to the entire team at BOINZ, who put together such an awesome forum for us all. Thank you"

Defence and Emergency Management summed up the entire forum as a "really good information sharing experience",

which perfectly describes the essence of the forum.

The bus tour, organised in coordination with CERA and Christchurch City Council brought a new element to the Forum, taking us out of our comfort zones and letting us observe Christchurch during its it's redevelopment. The tour took delegates through the CBD, and then out to the earthquake affected Eastern suburbs. This was perhaps an emotional time for some of our members, as for many of them this was the first time they have seen Christchurch up close since Operation Suburbs.

The tour also made a stop at HIVE (Home Innovation Village) which allowed delegates to see Prefab NZ's answer to creating well designed,



quick to build, strong and affordable houses, being not only an option following the devastating series of earthquakes, but allowing numerous other accommodation opportunities, including first home buyers and holiday houses. Many delegates made the observation that the tour was a real eye opener, in terms of both the city's devastation but more importantly

"The Forum dinner was a fantastic opportunity to bring together the Mayor and many of those involved with Operation Suburb for the first time since February 22nd 2011. It was a time for both remembrance, celebration and acknowledgment of the immense task ahead for Christchurch" – Nick Hill, CEO of Building Officials Institute of NZ

The bus tour was then followed by a fabulous dinner in which the Christchurch Mayor, his Worship Bob Parker and his wife Jo were special guests. The dinner was also a first for the Forum, providing attendees with a valuable networking opportunity to engage with people from all over the country.

The Mayor's speech was warmly appreciated by all, with more than a few chuckles and I think we were all left with an overwhelming sense of respect in regards to the huge task left ahead for Christchurch. The Mayor was presented with a framed vest signed by some 220 Building Officials throughout New Zealand who were involved in "Operation Suburb". This included the emergency assessment of 72, 879 homes over 11 days following the February 22nd 2011 earthquake.

This years' Forum was the highest attended by the senior members of our Institute, which reflects the importance of events such as this. We hope you all gained what you thought you would have, and took home with you new knowledge which will hopefully allow for operational improvement and understanding across the country. We look forward to seeing you all at our 2013 Conference in Rotorua, 12th – 15th May.

"I can say that this was the best (and I've attended 4) forum so far and has raised the bar for BOINZ and members" – Brain Johnson, Auckland Council



Phil Roberts, MC of the forum dinner and Ian Mayes, speaker at the technical forum

"Very good conference, especially the Central Processing topics, networking great also!" – Jeff Jamieson, Wanganui District Council





Senior Building Control Officers' Forum Sponsor Ecoglo Welcomes Sir Richard Hadlee as Brand Ambassador

Mike Dimond, Executive Director (left), Kathy Stubbs and Sir Richard Hadlee

Christchurch manufacturer Ecoglo played a significant role in the sponsorship of the recent Senior Building Control Officers' Forum in Christchurch last August. Ecoglo is a leading manufacturer of glow-in-the-dark signs, step nosings, handrail strips and edge strips that form part of the emergency lighting system for buildings, infrastructure and stadiums.

As part of the last lunch of the Forum, Sir Richard Hadlee was a special guest in which all attendees were in for the chance to win officially signed Sir Richard Hadlee cricket bats. The winners of the bats were Kathy Stubbs, from Waimakariri District Council and Richard Knudsen, from Buller District Council.

Trevor Dimond, Executive Chairman of Ecoglo reinforced the importance of their products, commenting on how the "Christchurch earthquakes showed that our sustainable and non-powered emergency lighting has real advantages over electrical systems. Everyone in Christchurch can relate to dark stairwells with no lighting or signs".

On the final day of the Forum, Ecoglo introduced Sir Richard Hadlee as the company's Brand Ambassador.

In New Zealand Ecoglo can be seen in Eden Park, Canterbury University, Vector Arena, Downtown Carpark, Christchurch Hospital, St James Theatre, Re:Start mall as well as many other educational and public facility buildings.



Mike Dimond, Executive Director (left), Richard Knudsen and Sir Richard Hadlee

BOINZ Submission

to the Canterbury Earthquakes Royal Commission of Inquiry

The following words from the chairman of commissioners on the final day of public hearings held by the Royal Commission into the Canterbury Earthquakes will forever mean a lot to me :

"Thank you both - I must say that the Building Officials Institute seems to me to be a very worthwhile organization, and it's very heartwarming really to think of the initiatives for which you have been responsible, and from my limited recent involvement in the local government area - things have certainly changed - may I also thank you for the focus which you have brought to this which has been greatly appreciated" - **Hon Justice Mark Cooper 12 September 2012.**

To provide some context to those words, I will explain what was going on, and how as a professional institute we all came to be on the receiving end of those compliments. As you will no doubt realise, the Royal Commission has undertaken a number of inquiries on a variety of topics related to the earthquakes in Canterbury. The majority of these hearings have been retrospective in terms of looking for answers about what had happened in those events. The final 2-day hearing was forward looking at the "Roles and Responsibilities" for the building regulatory system for New Zealand. There was a discussion paper circulated in August covering a number of questions around how the system should work, such as: regulatory changes, relevance of compliance documents & access to standards, use of producer statements and peer reviews, standardisation of systems and potential consolidation of BCAs, etc.

Our CEO - Nick Hill, with the assistance of your board, put together a submission to answer these questions, and we were also involved with other stakeholders in the industry - particularly the Construction Industry Council of which we are an active member. I also personally put a submission together on behalf of our council (QLDC), which we duly sent through to the commission. Other councils also sent in submissions - the normal thought with

submissions is that once you send it in then that is the end of things (unless you ask to be heard), and you wait to read about the results. Well I'm sure you could have heard a pin drop in both Nick's office and my own, when we both received an email from the commission asking if we would be prepared to come and present to the commissioners in person and obviously answer any of their questions. BOINZ had been asked to make a ¾ hour submission in the morning, and additionally both Nick and I had been asked to join the panel for discussion of all the topics at the end of the 2 day hearing. That's when it really does dawn on you that this is the highest authority in the land, and having had a read of your submission they are asking you to come along and further explain your thoughts - quite daunting really - but at the same time a privilege and wonderful opportunity which could not be refused.

With very little time to prepare we held a teleconference between our board members, and we compiled some key points around the specific questions asked by the Commission in order to make a power point presentation which we felt would represent the views of the Institute well. I must say we are fortunate to have a CEO of Nick's caliber to be able to pull that together in a very short period of time into a meaningful and interesting presentation. It was decided



"Peter Laurensen and Nick Hill outside Canterbury Earthquake Royal Commission building in Riccarton Christchurch at the end of their presentation"

that both Nick and I would jointly make the presentation to the commissioners to enable us to cover a good range of high level perspectives and detailed technical responses as required.

Well that was some of the easy bits done - yeah right! Then we had to rearrange both of our diaries to be able to get to Christchurch. We both thought it was wise to get there for all of the 2 days worth of hearing so that we could be aware of, and understand all the presentations, especially for our involvement in the panel discussion on the second day. That would have been fine, except for a day of heavy snow in the deep south, which meant I was stuck in Queenstown airport all day trying to fly out. The marvels of modern technology though saved the day, as I was able to sit at the airport and watch all the presentations on my smartphone and an I-pad, because fortunately at the commission it was all being captured on video. It was coming up online about 2-3 hours behind when it was actually happening. By the end of the day I was able to have seen all the presentations, including watching the last couple of sessions after dinner.

So back to the main reason for writing this narrative and that is to give you a feel for what was discussed and the experience of making these presentations. I guess we have all seen the media coverage of the Royal Inquiry as it has been going along, and the legal nature of how it is undertaken. It really is quite impressive and run efficiently by the commission staff, and has an expected degree of formality with all people being sworn in to ensure their evidence was given fully and truthfully. I can only imagine for a number of other people whom had also given evidence to earlier parts of the inquiry, that they equally would have felt very nervous, especially given the very sensitive nature of some topics. I especially think it is important we recognise the contributions of our Canterbury building control colleagues involved in the hearings around building collapses and the emergency response, and how difficult it must have been for them to re-live all of those experiences again. I think

it is important as a whole NZ community that we acknowledge the real learning opportunity we have before us, and that we look forward positively and with a healthy degree of pragmatism about what we can achieve. There is already a sign of the unhelpful “blame game” showing its head, and whilst we all want a reasonable degree of responsibility to be acknowledged, it is the opportunity to be involved in further refining our approach to building construction methods and standards that we must embrace.

The presentation itself for a start was daunting as I have mentioned. I really won't go into too much of what we covered – because you should follow the link below on to the commission website to view some of the video - it shows the power point presentations on the screen and covers the questions the commissioners asked on the way through. You can rest assured that we supported the skills and professionalism of our members, and demonstrated the vital importance of working tirelessly to have Qualifications for our members supported and widely recognised. There was a lot of discussion around the importance and use of producer statements and peer reviews as tools to help demonstrate compliance. Suffice to say that we got some very good questions, which we answered from an Institute point of view, and I was also fortunate to be able to represent the BCA/TA perspective in some of those answers as well.

In terms of the other presentations made over the two days, there were some very interesting discussions. MBIE had a fair amount of time on the stand and again I recommend watching some of the videos to get a perspective of the thoughts from the central regulator – especially given the changes to create the new ministry. A lot of the discussion was around how the code, compliance documents, and various standards get used and understood across the industry. It's fair to say that there was quite a bit of questioning about whether there could be a more cohesive way of handling regulatory change and the updating and use of standards – particularly talking about the cost of producing and procuring the access to standards. The Institute firmly supports the maintenance of Standard NZ as an Independent body, but one that should be more appropriately funded to ensure timely quality of standards

and access at a reasonable rate.

A presentation from Geoff Hallum on behalf of IANZ was really worthwhile and supported the role which they have played to help out our profession over the last 5 years. There is no doubt that it has been a difficult road to work through the various levels of accreditation and has been a costly exercise for most, but I for one would not be comfortable if we had not gone through it. Yes there are frustrations with some of the aspects of the regulations (potentially set to change inside the next year), and yes there have been some instances of technical inconsistencies along the way, but we have to accept it is a complex profession which we are involved in, and there have been a lot of different ideas along the way about how our roles should be performed. The beauty is that we have all got it essentially documented now, and can demonstrate the decisions we make on a daily basis have been thought through and recorded appropriately. We just simply didn't have that scenario before. I think we need to do a better job of sharing best practice across the industry now – to make that next level leap in professionalism and service to our customers. (Our presentation reinforced the need for professionalism and the significant advantages Regulation 18 and the qualification requirement for BCO's would not only have on us as individuals, but the positive impact on BCA's and the Built environment overall).

We should never lose sight of the magnitude of these events, and by no means to denigrate the tragic loss of life in February 2011, but on balance our building stock performed marvelously well, and it is incumbent upon all of us to learn how to even improve on that base. The “Operation Suburb” response which our Institute was able to be strongly involved with after the February 2011 quake was a very rewarding experience for all involved. It gave an ability to help people in need of course, but more than that showed us how the buildings had performed from a safety perspective in the vast majority of cases. I remember vividly one of my colleagues while we were staying in the CBS arena, making the statement that it was the most rewarding period of his life in building controls to have been involved in that operation.

So what are my suggestions for the future after you have read this article?

1. Go onto the commission website and have a look at some of the videos that are on there - the site is www.canterbury.royalcommission.govt.nz then select the “latest updates” tab on the far right and you will see all the presentations there in small 15 minute slots. Definitely have a look at the sessions which Nick & I presented on your behalf. You can also get to the written submissions on the same sight (just a bit more tedious than watching the videos)
2. Make a point of watching out for the report from the commission which is due on the 12th November this year, and have a good look at the recommendations made.
3. Take the opportunity to make submissions on the outcome of those recommendations because I am sure a number of them will be picked up by MBIE to consult on the changes that should happen into our regulatory system.
4. Be encouraged to make submissions on any topics where you have a passion for effecting change. Even if you think someone else will comment on what you think about – it really is useful for the people making the decision to hear the feedback & gauge the level of support for particular ideas.
5. From a BOINZ perspective - please make your perspectives on issues known to your board members either personally or through your regular branch meetings, so that we can continue to represent your combined views appropriately.

This experience has reinforced for me that the role we undertake as Building Officials is important to the health & wellbeing of our community. Not all the things we do within regulations makes the best logical & efficient sense at times, so when we have the opportunity to put our views forward on matters for change - you should do so. I also feel that the combined voice of our Institute is respected and listened to - I refer you back to the words of Hon Justice Mark Cooper quoted at the top of this article.

Peter Laurenson, Building Officials Institute of New Zealand Board Member 2012.

NEW Ministry of Business Innovation and Employment (MBIE)

The new Ministry was formally launched on 1 July 2012.

For most of us on the outside looking in, it has been business as usual. We have worked with the same contacts, at the same email addresses and phone numbers.

MBIE comprises the functions of four former government departments in one:

- Department of Building and Housing
- Department of Labour
- Ministry of Economic Development
- Ministry of Science and Innovation.

MBIE (pronounced 'Embee'), has been created to drive the Government's economic growth agenda. The goal being to achieve clear, coordinated and focused policy leadership, and efficient and effective services for business.

Transition period

The Acting MBIE Chief Executive David Smol, who has now formally been appointed as Chief Executive started developing the vision and culture for the new Ministry and met with stakeholders and staff to involve them in shaping MBIE's future direction. Mr Smol was formally Chief Executive for the Ministry of Economic Development

The new Ministry began operating as a 'federation', with Acting Deputy Chief Executives for:

- Building and Housing
- Labour
- Economic Development
- Science and Innovation
- Corporate Services.

A detailed design for the new organisation was released at the end of September, 2012

Nigel Bickle is interim lead at Building and Housing

Nigel Bickle was appointed to Building and Housing Group as Acting Deputy Chief Executive, but is designated to return to the helm at Immigration. Nigel has a strong leadership background in the Department of Building and Housing and more recently in the Department of Labour. He is well placed to ensure that Building and Housing's functions and priorities are successfully integrated into the new Ministry.

It is expected that changes to the 3rd and 4th tier management levels should be finalised towards the end of October. It is expected there will be 90 or so fewer positions within the new Ministry compared to the combined staffing levels of the four former

MBIE's goals

Supporting the building and construction sector is paramount. Staff in the new Ministry will remain focused on the Canterbury rebuild, implementing the Building Act reforms, and continuing to deliver core business services.

The challenge ahead for the new MBIE team of about 3,500 staff is to create a single, dedicated business-facing Ministry to:

- Strengthen the Government's business-related policy
- Improve the regulatory environment for business and consumers, by focusing on economic impact
- Bring together business-facing service delivery functions
- Improve the Government's internal coordination, and
- Reduce duplication of effort.

Building and Housing play a critical role in the New Zealand economy, supporting the prosperity, productivity and well-being of all New Zealanders.

The Department's integration into one business-focused agency, aimed at improving economic growth, presents a significant opportunity for the building and construction industry. The Government will be seeking to provide better targeted and more efficient services which deliver measurable outcomes for New Zealand businesses.



Appropriate qualifications for building officials



Regulation 18 of the Building (Accreditation of Building Consent Authorities) Regulations 2006 requires building consent authorities (BCAs) to have a system for ensuring building officials have or are working towards an appropriate qualification. BCAs must meet this criteria by 1 December 2013.

- There are a number of benefits from requiring a qualification including:
- Establishing a benchmark for minimum standards of vocational knowledge
- Increasing over time the pool of qualified building officials
- Increasing technical competence, consistency, professionalism and performance
- Providing a more attractive career path
- Enhancing the credibility of building officials
- Attracting greater numbers of new building officials to replace those leaving the industry through natural attrition
- Increasing the confidence of the sector and of the public
- Better alignment with the requirement for LBP's to be qualified.

Appropriate Qualifications

The Ministry of Business, Innovation and Employment (the Ministry), with assistance from the Building Officials Institute of New Zealand (BOINZ), reviewed current qualifications within the industry and compared this with the level of technical capability required in the building control sector. The Ministry and BOINZ identified there are many qualifications that are appropriate, with many building officials already holding these qualifications.

Therefore instead of one generic qualification, the following eight New Zealand qualifications are appropriate to meet Regulation 18:

- Bachelor of Applied Technology - Building
- Bachelor of Architecture
- Bachelor of Architectural Studies
- Bachelor of Building Science
- Bachelor of Construction (Construction Management and Construction Economics)
- Bachelor of Engineering
- National Diploma in Building Control Surveying (Small Buildings)
- National Diploma in Building Control Surveying (Medium and Large Buildings).

Each of these qualifications covers much of the vocational knowledge required of today's building official. However a qualification in itself does not ensure competence. Ongoing training in new construction processes, changes to legislation and its interpretation will continue to be needed, with competency assessments still required.

BOINZ, with assistance from the Ministry, is developing a process for BCA managers to use when planning their building officials' pathways to gain a qualification. Once developed this process may be adopted as part of the system required under Regulation 18, particularly the part of the system that ensures building officials are working towards an appropriate qualification. This will assist BCA managers to plan for the cost and time required for staff to gain a qualification within a reasonable time.

Equivalent international qualifications can also be considered appropriate where those qualifications have been considered by the New Zealand Qualifications Authority through the International Qualifications Assessment they provide.

Work going forward.

The Ministry has restarted the development of proposals to simplify and streamline the BCA accreditation requirements. The purpose of this review is to ensure the criteria remain effective. The initial review commenced in late 2010, however the process was disrupted by the need for key staff to respond to the Canterbury earthquakes.

The work to be completed includes:

- Streamlining the BCA accreditation regulations, specifically looking at removing duplication and any regulations that don't add value
- Looking at a fairer system for the cost of accreditation assessments, rather than the schedule system that currently applies
- Aligning the accreditation regulations with today's legislation, with a view to future proofing.
- The review is expected to be completed over the next few months and will be followed by consultation with the sector and key stakeholders.



Charles Willmot - Manager of Investigations and Discipline

All the recent changes to the Building Act and the provisions for Licensed Building Practitioners have been put in place in order to making New Zealand a safer country to live and work in. It is all about excellence and making our building stock more resilient.

Part of that reflects on the way engineers interact with building officials in their capacity as regulators and part on the way building officials report on the performance of engineers.

For a number of years now The Institution of Professional Engineers (IPENZ) has been asking regulators and others in the profession to tell us about people who are not practicing at a satisfactory level. Regulators have on the whole, been reluctant to do so, but I have been asked to write this article partly to express the feeling that the tide is changing.

I am receiving an increasing number of calls and e-mails from building officials who are concerned by some of the designs that come across their desks. Sometimes those calls might be from the peer reviewer directly and sometimes from the Building Consent Authority.

Primarily they are seeking an opinion on the quality of an consent application but sometimes they call because it is glaringly obvious that the application is unsatisfactory. If the call relates to poor engineering then it is an issue for IPENZ - and if the engineer in question is a Chartered Professional Engineer (CPEng) then it is also a concern for the Registration Authority. In 1992, in a House of Lords debate,

Lord Benson said that there were 9 tests of a profession. That was 20 years ago, and Lord Benson was an accountant, but nevertheless his 'tests' remain pertinent to engineering. One of those nine tests requires that the profession is self regulating and that the governing body must set ethical rules and professional standards to be observed by the members.

These rules and standards, Lord Benson said, must be higher than those established by the general law. Furthermore, the governing body must take disciplinary action, including, if necessary, expulsion from the membership should the rules not be observed. This also applies where a member is found guilty of poor professional work. In New Zealand we are fortunate to have the CPEng Act to help enforce any disciplinary action required. An engineer can't avoid disciplinary action simply by resigning - disciplinary action is enforceable through the courts, even for former Chartered Professional Engineers.

Those of you who attended the BOINZ Conference this year would have heard me tell of a number of cases (names removed of course) that exemplified some of the difficulties our Members can get into. Most of these are in structural and geotechnical engineering but some concern the disposal of effluent to land. This is an area of engineering that is fraught with difficulty, mostly because the fees are low and the expectations are high. Often it is a forgotten aspect of house design that is considered at the end of the design process when the choices might be either a granite bench top or adequate effluent disposal. A difficult choice to make, I know, I traded the granite bench in our kitchen many times during my own house design.

As more and more marginal land is called into service the conditions for this sort of work become more and more difficult. Just now and again, the design requires significant understanding of the issues involved such that a soakage test and a call up of the standard

will not necessarily provide an adequate solution. The installation of proprietary products too requires just as much engineering skill to incorporate as any other solution. Such designs need to be carried out by a Chartered Professional Engineer.

In its submission to the Christchurch Royal Commission IPENZ argued that Building Consent Authorities should inform the Registration Authority when a practitioner consistently produces sub-standard consent applications which may reflect on competence. In its own submission the Department of Building and Housing strongly agreed.

As members of BOINZ you are best placed to help the industry to raise the bar in regard to engineering practices.

IPENZ needs to know if an engineer is not performing at an adequate level. As Lord Benson said, this may not just be at a "pass" level but should be higher than those established by the general law. For complaints to be robust, we need to receive them from the parties affected and the regulatory authorities who come across them.

But if you don't tell us who the poor performers are we are powerless to act.

It is only by working together, that we can make a difference. I look forward to your co-operation

Winners IPANZ Awards

Congratulations to all the winners, finalists and nominees for the 2012 IPANZ Gen-i Public Sector Excellence Awards.

The winners are:

Prime Minister's Award for Public Sector Excellence – Supreme Award

Resolving historic claims of child abuse and neglect – Ministry of Social Development, Department of Internal Affairs, Ministry of Education

Excellence in Crown-Maori Relationships – joint winners

Te Upoko Taiao – a partnership for resource management in the Wellington Region – Greater Wellington Regional Council and Te Ara Tahī

Maori, Pacific and Ethnic Wardens – New Zealand Police

Improving Performance through Leadership Excellence

Leading from where you stand – Statistics New Zealand

Excellence in Improving Public Value through Business Transformation

Blood is a Gift – Auckland District Health Board

Excellence in Networked Government

Earthquake Employment Support – Ministry of Social Development

Excellence in Public Sector Communications

Smokefree Prisons – Department of Corrections

Excellence in Recognising Ethnic Diversity

Maori Pacific and Ethnic Services Cultural Response Team – New Zealand Police

Excellence in Working Together for Better Services

Resolving historic claims of child abuse and neglect – Ministry of Social Development, Department of Internal Affairs, Ministry of Education

New Professional of the Year

Geoff Cooper – Auckland Council

State Services Commissioner Award for Excellence in responding to the Canterbury Earthquake

Maori Pacific and Ethnic Services Cultural Response Team – New Zealand Police

Again, congratulations must be extended to the Department of Building and Housing Group and Christchurch City Council for their contributions to Operation Suburb and their recognition

as a finalist in the 2012 IPANZ Gen-i Public Sector Excellence Awards -

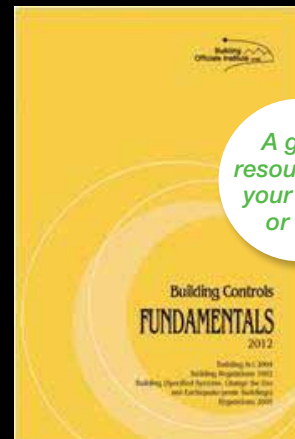
Society of Local Government Managers Award in Excellence for Working Together for Better Services

Operation Suburb - Department of Building and Housing and Christchurch City Council

- Deploying 220 teams to assess the safety of 73,000 homes and the welfare of their residents after the Canterbury earthquakes. After the February 2011 Canterbury earthquakes it was important to quickly assess the amount and nature of damage to people's homes and to make sound decisions as to whether there were any health and safety concerns for people if they stayed in their homes. There was also an urgent need to gauge the strain, stress, medical and welfare needs of residents and communities in suburban Christchurch. To do this work efficiently and effectively, one of the biggest challenges to overcome was the sheer number of suburban homes that needed to be checked by building control experts in a very short space of time (around 73,000 individual properties had to be inspected as soon as possible after the earthquake). A further challenge was that this work was not 'business as usual' for the organisations concerned. Many had very limited previous exposure to working in natural disaster emergency situations and, therefore, were largely operating out of their comfort zones.



Framed vest signed by some 220 Building Officials throughout New Zealand who were involved in Operation Suburb



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The Building Code – Schedule 1 of the Building Regulations 1992 consolidated with history notes). As at 14 April 2012.

Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005 – SR 2005/32 with history notes and consolidated amendments of the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Amendment Regulations 2005 – SR 2005/338. As at 14 April 2012.

Book Size:

A5 (approx.) Pages: 300 (approx.)

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Standards development committee members bring a wealth of experience and specialist knowledge to the Standards development process, ensuring a balanced representation of stakeholders is achieved.

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Contact your national association or industry body and let them know you're interested in becoming a committee member so they have your name on-hand when nominations are called.

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You can subscribe to the **Keep Me Up To Date** service at the same time you subscribe to **Touchstone**.
If you have any questions, please email enquiries@standards.co.nz or call 0800 782 632 during business hours.

Maximum Bracing Unit Ratings in NZS 3604:2011

NZS 3604:2011 - Timber-Framed Buildings has seen the introduction of maximum Bracing Unit (BU) ratings for bracing elements used on both timber and concrete slab floor construction. A bracing element used on a timber floor built in accordance with NZS 3604:2011 cannot be rated at more than 120 BUs per metre and a bracing element used on a concrete slab cannot be rated more than 150 BUs per metre. The reason for these limits comes from research, undertaken at BRANZ, on the strength of both timber and concrete floors built in accordance with NZS 3604:2011. It was found that connections to floor systems and strength of the floor itself, places an upper limit on the performance of bracing element.

When a bracing system is developed and tested, the performance calculated from the test results (BU/m) is often significantly higher than the 120 and 150 BUs/m NZS3604:2011 floor limits. This does not mean that these elements cannot be used. It simply means that their maximum rating must be reduced depending on the floor type. In other words, a bracing element with a tested bracing performance of 180 BU/m can be used on NZS3604:2011 timber floors and concrete slabs, but the maximum ratings must be reduced to 120 and 150 BU/m respectively.

It is important to recognise that these limits relate to the BU per metre rating and not the total bracing resistance achieved by the element.

A 600 mm long element with a 180 BU/m tested performance will achieve $0.6 \times 180 = 108$ BUs. This does not mean it can be used on NZS3604:2011 timber and concrete floors. For a timber floor the maximum permitted rating can not exceed 120 BU/m and the panel rating

must be reduced to $0.6 \times 120 = 72$ BUs. On a concrete slab the maximum panel rating is $0.6 \times 150 = 90$ BUs.

A 1500 mm long panel with a 120 BU/m tested performance will achieve $1.5 \times 120 = 180$ BUs and can be used on NZS3604:2011 timber and concrete floors because the BU/m rating does not exceed the permitted maximum values.

The GIB EzyBrace® 2011 software automatically adjusts the maximum BU/m rating when a timber subfloor is selected or for an upper storey in a two storey building.

BOINZ are proud to be resellers of NZ Standards



As a further membership benefit the Institute has negotiated with Standards New Zealand to become an official Reseller. What this means is that members now have access to a range of published standards and standards related products (Hand books, Codes of Practice etc).

Purchasing these vital products allows you to understand and comply with legislation more easily, and what's better is that they are available to you at a discounted rate off the RRP by purchasing through BOINZ.

It's easy —contact the National Office at office@boinz.org.nz attaching your order, along with your name, member number and postal address.

Take advantage of your Institute's ability to offer you discounted NZ Standards including:

- **NZS 3604:2011 Timber Framed Buildings**
- **NZS 4306:2005 Residential property inspection**

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Gypsum Plasterboard Lined Partitions in Commercial Construction Update

Gypsum plasterboard is a common internal sheet lining material for use in buildings. Taped and plaster-stopped gypsum plasterboard linings are very stiff and will be subjected to lateral forces when buildings are exposed to high winds and earthquakes. Like glass in a frame, gypsum plasterboard wall and ceiling linings will sustain damage when 'racked' and if not properly detailed. There are two effective ways to limit damage to gypsum plasterboard linings;

- Design linings to accept imposed wind and earthquake forces
- Separate linings from the main structure and provide movement freedom

In New Zealand the stiffness and strength of gypsum plasterboard linings is recognised and long established procedures exist (NZS 3604:2011), enabling gypsum plasterboard to provide bracing resistance in low-rise light steel or timber-framed residential construction. During the recent Canterbury earthquakes gypsum plasterboard bracing systems in houses performed well when design and construction methods were in accordance with recommended practice.

In commercial buildings, wind and earthquake forces are often much higher. The main structure, commonly concrete or steel, is designed to provide resistance. Gypsum plasterboard-lined partitions are non-structural and cannot resist forces associated with main structure deformations, such as expected 'inter-storey drifts' during design level earthquakes. To minimise the risk of damage, plasterboard-lined partitions must be separated from the main structure and be designed to accommodate anticipated structural movements.

SEISMIC RESPONSE CHARACTERISTICS AND COMMON DEFICIENCIES

Architectural preference, often guided by the building owner, is commonly for a flush monolithic interior finish and tight connections of partitions to the main structure. In the event of the building being subjected to ultimate limit state (ULS) or even serviceability limit state (SLS) design forces and movements, tight-fit plasterboard-lined partitions can interfere with the building's intended structural response and will be subjected to lateral forces they cannot resist.

The Canterbury earthquakes have resulted in significant damage to non-structural partitions in commercial buildings. Damage has been particularly pronounced where plasterboard-lined areas have been expansive and where linings have been continued past floor levels, such as in vertical shafts and stairwells in multi-level buildings. Common damage has included cracked sheet joints, crushed sheet edges, fastener 'pops' and in some cases substantial sheet fracture and sheets dislodging from frames.

Gypsum plasterboard non-structural elements often provide key building performance attributes such as noise control and fire resistance. Examples are fire separations between safe means of egress and other occupied spaces. Damage to gypsum plasterboard linings can seriously degrade post-earthquake passive fire protection and occupant safety.



Figure 1: Substantial damage to non-structural gypsum plasterboard partition

Merely re-fixing and conventionally plastering damaged gypsum plasterboard linings has resulted in repeat damage and the need for ongoing repairs following subsequent seismic events, as observed in a number of commercial buildings in and around Christchurch.

Damage to non-structural elements following earthquakes can often be more costly than damage to the structure itself and also causes significant business disruption

either directly or during the repair process. The New Zealand Building Code aims to protect health and life safety of occupants but does not specifically set out to limit material

losses. However, the market is increasingly demanding low-damage solutions as a result of tightening insurance policies and the increasing cost of premiums and excesses.

TESTING LOW DAMAGE SOLUTIONS

Testing at Canterbury University (Tasligedik et al, 2012) has shown that by simply incorporating regular relief joints, 'low' and even 'no damage' solutions for non-structural partitions can be designed successfully. 'Shadow lines' or 'negative details' at wall junctions and intersections with the main structure, and breaking up expansive areas with regular control joints, provides freedom for the non-structural elements to accommodate main structural movements.

Testing has shown that incorporating such details can result in 'no damage' at SLS and even ULS inter-storey drifts. Gaps can be arranged by simple calculation and can easily be made aesthetically pleasing or hidden with sealants or trim finishes.

A shift in owner and architectural expectation is required to make these details work. The challenge to the architectural profession is to incorporate and 'celebrate' visible details if 'low' or 'no damage' solutions for non-structural gypsum plasterboard elements in commercial buildings are to be successful.



Figure 2: Non-structural partition being tested at Canterbury University

NEW CONSTRUCTION

In order to protect plasterboard-lined partitions from damage, connections must be minimised and separation from the main structure must be provided so that seismic movements can be accommodated. Figure 3 shows the principle of constructing partition framing. Metal top and bottom tracks are used with friction-fit metal or timber studs. A standard nominally 90 mm timber stud fits into a commonly available 92 mm metal track. Plasterboard linings are fixed to studs but not to the top and bottom tracks.

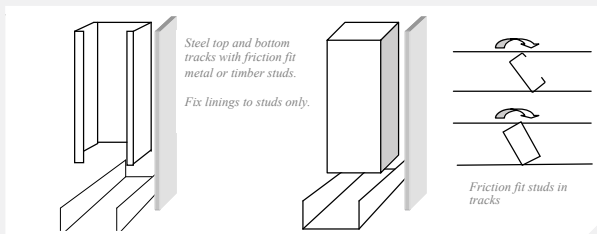


Figure 3: Framing details to minimise risk of post-earthquake damage

Figure 4 shows a number of already available details (Winstone Wallboards, 2006) that can eliminate or will significantly reduce earthquake damage to gypsum plasterboard lined partitions in commercial construction.

All details involve 'disconnection' from the main structural elements and a regular pattern of intermediate control joints. Gypsum plasterboard packing strips can be provided behind control joints to ensure on-going integrity of fire or noise control separations. Proprietary trims and finishes exist to create clean shadow lines which can be left, covered, or sealant filled depending on architectural preference.

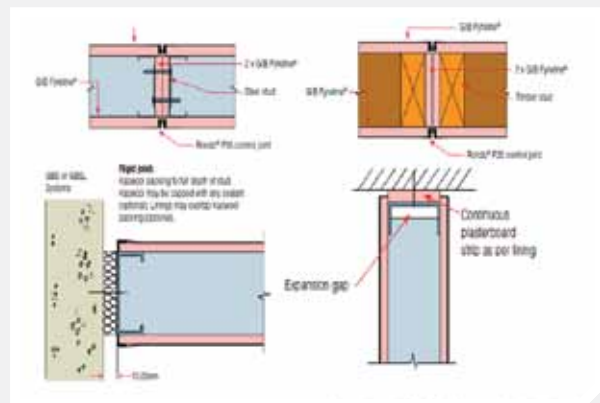


Figure 4: Simple plasterboard jointing details to minimise risk of post-earthquake damage

GIB Information Bulletin

Gypsum Plasterboard Lined Partitions in Commercial Construction Update
August 2012



REPAIR STRATEGIES

Repair techniques for gypsum plasterboard linings can be found by visiting www.gib.co.nz with specific reference to the current version of the GIB® Site Guide and the website section dedicated to the Canterbury earthquakes. Recommendations

include printed documentation and application software. Some of the more common repair methods for non-residential structures are discussed in the table below, with comments regarding their limitations.

FLOOR/CEILING SYSTEMS				
REPAIR TYPE	ADVANTAGES	DISADVANTAGES	SLS PERFORMANCE	ULS PERFORMANCE
Re-fix and where necessary replace damaged gypsum plasterboard sheets, re-stop to monolithic finish and paint as previous	Relatively simple to implement and relatively un-intrusive. May be carried out with conventional skill base and permits limited occupation.	Prone to repeat damage following further seismic activity with possible loss of other performance aspects such as fire resistance.	Likely re-occurrence of damage and need for on-going repairs.	Re-occurrence of damage.
Re-fix and where necessary replace damaged gypsum plasterboard sheets, remove stopping from joints and create perimeter relief, fill with suitable sealant. Overlay with minimum 10 mm standard grade gypsum plasterboard. Offset joints from layer below. Leave perimeter gaps and regular relief joints in overlay layer.	Provides relief and freedom for the main structure to 'drift' relative to the non-structural element. Full reinstatement of original finish is not required and overlay repair is often less time consuming, resulting in a better finish.	More material intensive. Final aesthetic appearance includes regular control joints and perimeter relief.	No damage expected	Low or no damage depending on relief provided by both the original infill and the overlay.
Remove partition and re-construct. Ensure friction fit timber or steel studs in metal C-section top and bottom tracks. Do not fix linings to top and bottom tracks. Incorporate relief at connections to the main structure and incorporate regular control joints (depending on expected drifts).	Provides relief and freedom for the main structure to 'drift' relative to the non-structural element. Future proofing.	Material and labour intensive. Final aesthetic appearance includes regular control joints and perimeter relief.		Low or no damage

ACKNOWLEDGEMENT

Gratitude is expressed to PhD candidate Sahin Tasligedik and academic supervisors Stefano Pampanin and Alessandro Palermo at the University of Canterbury for taking the research initiative and for testing low-damage solutions for gypsum plasterboard lined partitions in commercial construction.

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GIB Information Bulletin

Gypsum Plasterboard Lined Partitions in Commercial Construction Update
August 2012



A Piece Of Nz Institute Clerk Of Works History

To Be Part Of The Institute's Future

In June 2012 the Institute was generously entrusted with a piece of NZ Institute Clerk of Works history. This piece of history is the treasured Gavel and Block used by the NZ Institute Clerk of Works.

Gavel

A gavel is a small ceremonial mallet commonly made of hardwood, typically fashioned with a handle and often struck against a sound block to enhance its sounding qualities. It is a symbol of the authority and right to act officially in the capacity of a chair or presiding officer.[1] It is used to call for attention or to punctuate rulings and proclamations. It is customarily struck to indicate the opening (call to order), keep the meeting itself calm and orderly, and the closing (adjournment) of proceedings, giving rise to the phrase gavel-to-gavel to describe the entirety of a meeting or session. It is also used by judges in the courts of some countries and by auctioneers to signal a sale.

The gavel is used in courts of law in the United States and, by metonymy, is used there to represent the entire judiciary system, especially of judgship; to bring down the gavel means to enforce or compel with the power of a court.

It also represents the authority of presiding officers; thus the expression passing the gavel signifies an orderly succession from one chair to another.

The sound of the gavel strike, being abrupt to start and stop, and clearly audible by all present, serves to sharply define an action in time in a manner clearly perceivable by all, and to endow the action with practical as well as symbolic temporal finality (what was not before striking, is after it; or what was before striking, is no more after it).

History

There are references to the word in Medieval England in reference to a tribute or rent payment made with something other than cash. These agreements were set in English land-court with the sound of a "gavel".

Proper use

Robert's Rules of Order Newly Revised provides guidelines on the proper use of the gavel in deliberative assemblies. For instance, the chair is never to use the gavel in an attempt to drown out a disorderly member; rather, the chair should

give one vigorous tap at a time at intervals. The chair should not lean on the gavel, juggle or toy with it, or use it to challenge or threaten or to emphasize remarks. The prohibited practice of a chair cutting off members' right to debate or introduce secondary motions by quickly putting a question to vote before any member can get the floor is referred to as "gaveling through" a measure.

This piece of history will now proudly be part of the Institute's Annual General Meetings



Canterbury / Westland Branch

Denniston Experience Mine Tour

On Friday 10 August 2012, 14 Canterbury BOINZ members and their families travelled to Westport. The purpose of the weekend was to attend the annual meeting held with the Westland BOINZ members in Westport and to participate in a site visit to the Banbury Mine at Denniston.

Our tour consisted of a walk around the old site that housed the buildings for the mine and where the families and workers lived. Then a trip underground into the Banbury Mine, one of many located in Denniston. Denniston is located 18km NE of Westport, 600m above mean sea level, on a bluff plateau which experiences over 200 rain days a year.

134 years ago, a community of 1500 lived and worked in NZ's harshest coalmining site. Many of the workers were from England and China, lured to NZ with the prospect of making lots of money.

The Banbury Mine was a working mine until the 1960's. The 45° incline serviced a number of coal mines which ran a self-acting ropeway, where a full coal truck going down pulled an empty truck coming up. Until the road was completed in 1902, it was the only way of getting freight up and down the hill. It was also the only way people travelled up and down, so it was not unusual for women and children never to leave the mine site, once the initial trip up was taken.

The Banbury Mine had a very low roof height of just over a metre, and miners were bent over all day long. They started mining the Banbury in 1878 and then it became a

tunnel through to other mines and ran till 1904. Generally when you finish in the mine you collapse it behind you (called 'robbing' the mine of its last coal), but they left two pillars on either side of the rope road and that is why the experience of this tour is so unique. This is a real mine, not a replica. Because the original tunnel had only one metre roof height, it has taken a massive effort to regenerate, including the lowering of the floor by a metre, so there is now a two metre high pathway going in 300m and a huge rebuilding of the infrastructure, especially the rail/ropeway that runs from the old bins at the top of the incline to the actual mine site.

Our tour guide provides you with a jacket, hard hat and light where you begin with a walk around the old mine relics and building sites. There are many photos of the town which boasted many drinking establishments. We then assembled at the mine entrance, where we all collected our compulsory Union Card and were assigned our miners job for the day. This could be shot-firing, hewing coal or being a clipper, just to name a few. We boarded an open train and ventured approximately 120m into the mine. We then made our way further into the mine on foot. Along the way, our guide explained different jobs that were carried out and as 'union members', we took it in our stride and completed these same tasks. Our tour guides had previously been coal miners (one worked at Denniston) and were able to relate many tales that brought to life the

actual stories and photos on display.

This was a Mine Tour Experience like no other, well worth taking the time to visit if you are visiting the Westcoast.

There are two novels available in bookshops, "Denniston Rose" and Heart of Coal" that give an emotional understanding to these harsh times.

'Brenda McIndoe, Canterbury Westland Branch Secretary'



Another successful training partnership Boinz and NZHHA

Solid Fuel Heating

The training partnership between the Building Officials Institute and New Zealand Home Heating Association resulted in eight Solid Fuel Home Heating courses being supplied nationwide over a 3 month period from June to August this year.

The course is specifically designed to deliver knowledge on the latest product and technical developments, including the all important installation requirements and common areas of installation non compliance.

Trainers Dave Pullen, Gavin Edwards and Bruce Perkins of NZHHA covered key areas including:

- Fire risks
- National Environmental Standards
- Freestanding Fires
- Heat Shielding
- Flue systems
- Flashings & Weathertightness
- Industry Standards
- Installation Technicians

Feedback received from those that attended was highly positive reinforcing the importance of learning material that can be used in your day to day job.

Jacobus Fourie of Christchurch City Council noted that he will now be able to “inspect Solid Fuel Heating more thoroughly” while Garry Edlin of Wanganui District Council concluded that the “course content will make me more observant when undertaking inspections”.

The success of the NZHHA Solid Fuel courses has provided a path for BCAs to continue on their way through their continuous professional development courses.

“I found it to be a very rewarding course for those that attended by the response I received. Since the course, there has been a difference when meeting Building Inspectors on site” – Bruce Perkins, NZHHA



“The greatest advantage of the training sessions that I ran was gaining from the building inspectors their understanding about how much work the NZHHA has put into the industry and being able to discuss collectively, future problems” – Dave Pullen, NZHHA

NEW - FIRE DOCUMENTS:

CODE CLAUSE C PROTECTION FROM FIRE (SMALL BUILDINGS) C/AS1 – C/AS7 COURSE

The Institute is pleased to bring to our members and clients our new two day

FIRE DOCUMENTS: CODE CLAUSE C PROTECTION FROM FIRE (SMALL BUILDINGS) C/AS1 – C/AS7 Course.

This high quality, Diploma recognised course will bring those with a desire and need for exposure in this area up to speed rapidly.

The Institute’s drive to bring consistency to our members is mirrored by Alan Moule, through his time spent assisting with the development of the materials for the CODE CLAUSE C PROTECTION FROM FIRE UPDATE TRAINING and the Institute’s FIRE DOCUMENTS: CODE CLAUSE C PROTECTION FROM FIRE (SMALL BUILDINGS) C/AS1 – C/AS7 Course. These courses have been designed to develop a consistent knowledge base in regards to the Fire Documents, with training coming from the most knowledgeable in the industry.

This is further highlighted by his commitment to contract to IPENZ to deliver this consistency.

Alan’s qualifications, as a chartered Professional Fire Engineer ensures any questions directed to him during any training session are answered competently, clearly and in a manner which ensures a strong understanding of the subject material.

NEXT COURSE: WELLINGTON, 27th - 28th NOVEMBER - For more details and to register please visit www.trainingacademy.org.nz or email events@boinz.org.nz

Product assurance update Assessment



by **John Gardiner, Manager Determinations, Building and Housing Group,**

Ministry of Business, Innovation and Employment

Box-loads of marketing material, confused product descriptions and outdated test results: building officials have unfortunately seen it all.

What is Building Product 101 for most of you can be poorly understood, even by experienced manufacturers and suppliers. As we've all seen, they often struggle with how our performance-based Building Code applies to building products or systems, making your job unnecessarily difficult.

Ultimately, it's the responsibility of manufacturers and suppliers to supply and support good technical information based around scope of use, testing, installation and maintenance. Many of them still produce a pile of overseas test results and expect a BCA to consider these, but haven't looked at some of New Zealand's unique testing requirements; for example relating to UV light or weathertightness.

As a Department (now Ministry) and working in consultation with BCAs, BRANZ and industry representatives, we developed the product assurance framework as a guide to help manufacturers and suppliers understand the best, most cost-effective options for demonstrating Code compliance. We published a product assurance guide a couple of years ago and have since been running industry workshops and seminars as well as providing individual case management.

We have now put additional support and explanation on our website (see links below) along with a business decision tool. This can be a useful resource for you to direct people to, rather than having to repeatedly explain the basics.

The debate earlier this year at the Canterbury Royal Commission hearings on new building technologies highlighted the need for us all to remove perceived obstacles to innovation. We believe that better understanding around compliance pathways – the product assurance framework – should assist and enable this.

However, we must obviously still assess new building products or systems robustly before they are widely adopted.

Product technical statements

As part of our work on product assurance, one of our initiatives has been to promote much better technical information and to encourage the use of the product technical statement, or PTS. This is simply a way for manufacturers and suppliers to summarise need-to-know product and Code compliance information in a digestible format.

BRANZ has now adopted a PTS format for its appraisals, and some other companies are following suit. This should make life easier for those specifying and installing building products and systems, not to mention BCAs trying to assess Code compliance.

CodeMark: one form of product assurance

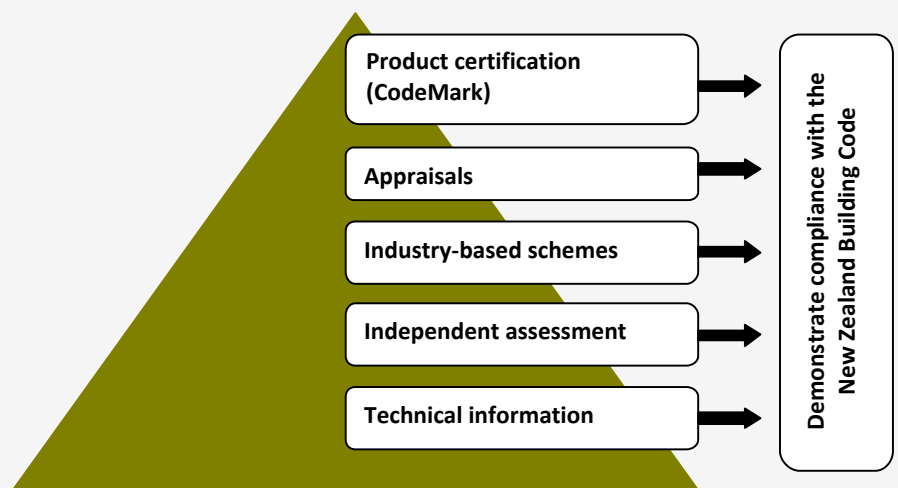
We are also involved in educating the industry about CodeMark, a voluntary product certification scheme established under the Building Act. Building products or methods with CodeMark must be accepted by BCAs as code-compliant when used as specified.

While initial take-up has been slow with just five certificates to date (although covering a range of products), there are at least 15 more companies with applications in the pipeline. Those that do have CodeMark certification are already appreciating its value. We'll be formally reviewing the CodeMark scheme over the next few months to make sure there are no unnecessary barriers to its take-up, so will be talking to a number of industry players in the course of this.

What is product assurance?

Product assurance is about providing robust and relevant evidence that assures potential users – whether they're trade merchants, designers, consumers, builders or BCAs – that a building product or system complies with the Building Code. It gives more certainty about how our performance-based legislation applies to building products and systems, and aims to minimise compliance costs without discouraging innovation.

There are five main ways to do this, as shown in the diagram. For most products, one or more options near the base of the diagram should be sufficient as they have either been used here for some time, achieved Code compliance before or have low consequences of failure. Options higher up the diagram are generally more costly but give more certainty for those specifying or approving the product. These may be necessary for newer and more innovative products, those with high consequences if things go wrong, or those facing difficulties gaining Code compliance.



For more information:

Go to www.dbh.govt.nz/product-assurance for more about product assurance, including links to the published guide and a new business decision tool.

Go to www.dbh.govt.nz/blc-product-certification for more about CodeMark, including a register of current product certificates.

Air Movements in Buildings

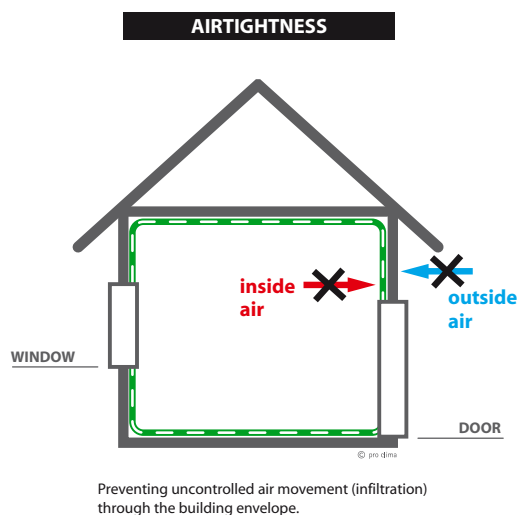
Thomas van Raamsdonk, General Manager of Pro Clima NZ Ltd, is presenting this year to all regional BOINZ branches. Many members and associates may already have heard Thomas speak.

The pro clima specialised airtightness and weathertightness building system, combined with effective insulation and ventilation, creates an energy efficient, healthy and comfortable home or place of business. The system of humidity-variable moisture control layers, wall wraps and fixings also ensures protection of the insulation and the building envelope by protecting it from moisture damage from the outside and inside of the building.

Established in Germany in the 1980s, and used extensively in Europe and other parts of the world, the system has been more recently introduced to New Zealand.

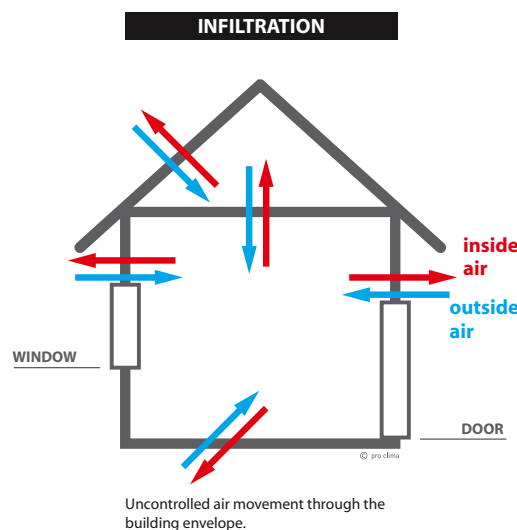
An important part of Thomas' presentation was to clarify the various definitions behind air movement in and out of buildings, and he conveyed these with a simple series of diagrams that are demonstrated below. The text expands on

Why we need Airtightness



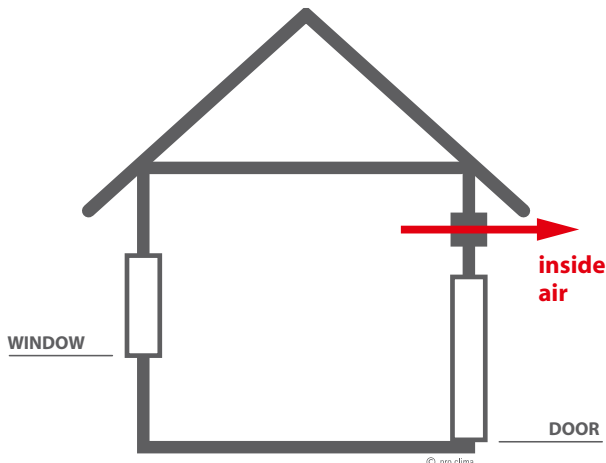
- Airtightness prevents uncontrolled air movement (infiltration) through the building envelope driven by wind pressure and the stack effect.
- Airtightness prevents warm inside air, with high moisture content, flowing towards the outside (convection) resulting in condensation in the outer layer of the insulation.
- Airtightness is needed for energy efficiency to ensure insulation performs to specified R-value. (Principle of insulation. It is the trapped, still air between the material that creates the insulation performance.)

What is infiltration?



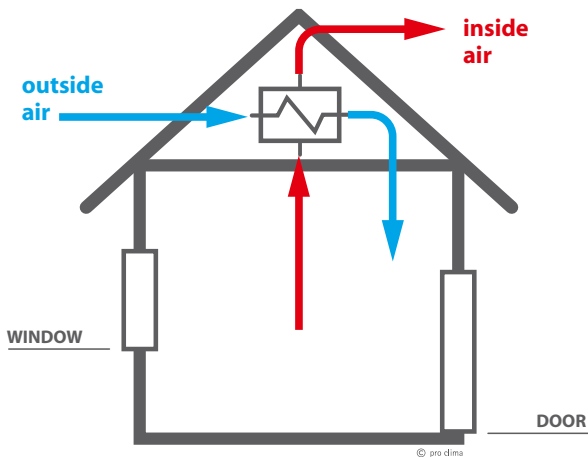
- Infiltration is uncontrolled air movement from the outside of the building to the inside (infiltrated air moves through the building envelope passing chemically treated timber, dust, dirt).
- The level of infiltration is determined by variable conditions (wind pressure and the stack effect).
- Infiltration is random and therefore not suitable for controlling indoor air quality (moisture).
- Infiltration levels can be measured by conducting a Blower Door Test (result as n50-value).
- Infiltration reduces insulation performance.

EXFILTRATION



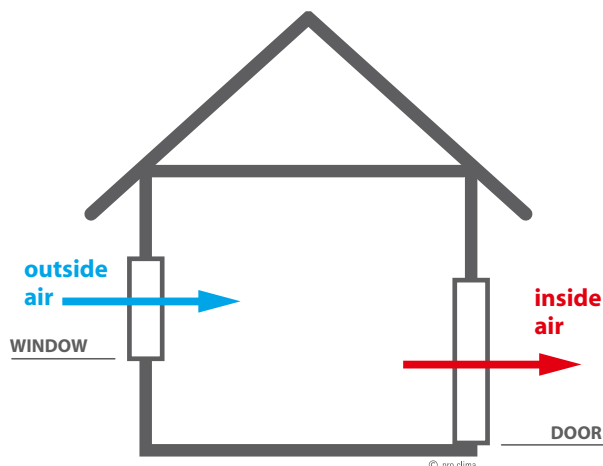
Forced air movement from the inside towards the outside through extraction fans, range hoods, etc.

VENTILATION (mechanical)



Replacing stale air on the inside with outside air through a balanced mechanical ventilation system with heat recovery to retain the energy on the inside of the building.

VENTILATION (manual)



Replacing stale air on the inside with outside air through windows and doors.

What is exfiltration?

- Exfiltration is the forced air movement from the inside of the building to the outside (extraction fans, range hoods, etc).
- The effectiveness of the exfiltration depends on the efficiency of the airtightness; otherwise the air is drawn through the building envelope.
- Ventilation is replacement of inside air directly with outside air (NZBC Clause G4).

What is ventilation?

- Ventilation is an active, continuous process.
- Ventilation can be manual (windows and doors) or mechanical (a balanced system with heat recovery to retain the energy on the inside of the building).
- Balanced mechanical ventilation system (heat recovery) increases energy efficiency of the building.
- Ventilation is needed to guarantee healthy indoor air quality. World Health Organisation (WHO) recommends 0.3 ACH. This ventilation figure is not related to a Blower Door Test result (n50). It describes the need to replace the entire inner volume with direct outside air every three hours.

TRAINING ACADEMY EVENT CALENDAR 2012

SEPTEMBER

17 - 19	Building Controls	Whangarei
20 - 21	Plan Processing	Whangarei

OCTOBER

1 - 2	E2 Weathertightness	Christchurch
3 - 4	Building Controls	Christchurch
1 - 2	Effective Leadership	Wellington
8 - 12	Plumbing Inspection (Confirmed to run)	Wellington

NOVEMBER

12 - 13	Site Inspection	Auckland
14 - 15	E2 Weathertightness	Christchurch
19 - 21	Building Controls (Confirmed to run)	Wellington
22 - 23	Plan Processing	Wellington
26-28	Complex Plumbing Inspection	Christchurch
27-28	Fire Docs: Code Clause C Protection From Fire (Small Buildings) C/AS1 - C/AS7	Wellington

Visit : <http://www.boinz.org.nz/training-academy/calendar.php>
to view our training calendar

BARRIER FREE TRUST TRAINING DATES:

Half-Day Seminar for Architects and Designers
9 November Auckland

NEW Designing Accessible Buildings Seminar: Achieving Quality Compliance with the Building Act 2004
19 November Wellington

IPENZ TRAINING:
www.ipenz.org.nz/ipenz
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cpd@ipenz.org.nz

PREFABNZ'S TOP 5:

Check Out These Web-Links For A Taste Of Innovation, Inspiration And Intrigue... From Prefabnz Ceo Pamela Bell

It's impressive what can be done with retired packaging. Take a look at these five inspirational shipping container homes.

http://www.dwell.com/articles/Five-Inspirational-Shipping-Container-Homes.html?utm_source=thisweekfromdwell&utm_content=72712&utm_campaign=newsletter&utm_medium=email

Watch this clip about Israeli designer Izhar Gafni and his home made (functional) cardboard bike.

<http://www.idealogue.co.nz/blog/2012/08/incredible-durable-cardboard-bike>

A DIY lab is travelling the US to let kids test cutting edge tools and expand their creative horizons. Anyone want to do the same for NZ? Take a look at the lab.

The German-designed SolarKiosk aims to be a source of electricity for those living in off-grid communities. The first booth was launched in Ethiopia. Read more about the kiosks.

http://www.springwise.com/eco_sustainability/solar-powered-kiosks-africa-offer-groceries-light-electricity/

Watch this interesting video of Behrokh Khoshnevis discussing the next step for the construction industry: Contour crafting. Khoshnevis suggests a total overhaul for the way buildings are

constructed involving automated construction. He talks about what he says are necessary steps forward and what it would mean for trades people. Professor Behrokh Khoshnevis teaches Engineering at the University of Southern California. Watch the video here.

http://www.youtube.com/watch?v=JdbJP8Gxqog&feature=player_embedded

PrefabNZ is the hub for prebuilt construction - more info about PrefabNZ is at www.prefabnz.com or contact info@prefabnz.com





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