

Thank you for the opportunity to contribute to the review of roles and responsibilities involved in developing and enforcing legal and best practice requirements for buildings in earthquake events. This submission is offered on behalf of International Accreditation New Zealand (IANZ).

IANZ is a Government owned, not-for profit organisation providing assurance of competence of testing and inspection services in support of international and domestic trade. IANZ is designated by MBIE as the Building Consent Authority Accreditation Body under the Building Act 2004. In this role IANZ has repeatedly visited and assessed in detail the operation of every BCA and has gained a practical understanding of how the building industry and the current building control regime works in small and large communities.

This submission does not cover all the questions posed in the discussion Paper. The specific issues on which comments are provided are identified as bullet points before each comment.

- **Section 3, Page 12, Question 1. Are there problems with the existing building regulatory framework, identified through the experience of the Canterbury earthquakes? If so, what is the effect of these problems and are they sufficiently significant to require regulatory action?**

Buildings that failed in the Canterbury earthquakes were not built under the current regulatory framework and therefore this question is misplaced. The failures in Canterbury were of buildings constructed under previous regulatory frameworks. Problems inherent in previous building control systems have been highlighted by the leaky building issue. The 2004 Building Act was a response to the weaknesses of the previous regime. Poor weather tightness is the most dramatic (costly) issue to have been identified to date in the building industry but it is by means the only issue to be nascent in New Zealand's building stock.

In a global report on deaths due to building collapse in earthquakes, some years ago, Oxford Economics concluded that "abundant motive and opportunity conspire with low detection and prosecution rates to make the construction industry the most corrupt segment of the global economy." The report further concluded that the only answer was strong, adequately funded government regulators.

New Zealand has an enviable reputation for low corruption rates, nevertheless the same factors apply in New Zealand as in the rest of the world. If profits in building are perceived to be low and the chances of detection and prosecution are also low then there exists a strong temptation to cut corners. Review of designs and inspection of building work during construction throughout the country provides compelling evidence that these temptations are operating in New Zealand. The current regulatory regime is the only active measure in place to mitigate the consequences.

- **Section 3, Page 12, Question 2 - What potential solutions might address the issues (e.g. a 'national policy statement') and how might these work in practice? What would the benefits be? What might the disadvantages be?**

A strong and effective regulatory regime is required to ensure that minimum standards of construction are met, to provide a level playing field for building companies and to prevent a price driven race to the bottom. It is often stated that the current regime is costly and inefficient however costs involved in complying with a strong regulatory regime are low compared to the price of failure of buildings. Compare current costs with the financial and social costs of the leaky building situation which were allowed to develop under a less stringent regime.

It is hard to see what effect a National Policy Statement would have. Before time and effort is put into development of such a statement the intended audience should be identified, the intended outcome should be defined and the question must be asked can the desired outcome be realised by other means.

As mentioned in the Discussion Paper, there is already confusion around the various standards, policies, codes and guidance documents. A National Policy Statement is likely to cause further confusion.

- **Section 3, Page 12, Question 3 - What are your views on the model proposed by IPENZ?**

The IPENZ proposed model for development and ownership of protocols would appear to be sensible and practicable.

- **Section 3, Page 12, Question 4 - Has the Building Amendment Act 2012 gone far enough? If not, what changes are still needed and why?**

The current regime has not been in place long enough to demonstrate effectiveness in improved building quality. Problems being created by the current regime will not emerge for many years.

Recent amendments to the 2004 Building Act and those proposed in Building Amendment Bill (No. 4) will weaken an as yet unproven regulatory regime. The main thrust of the amendments has been to reassign liability. Assigning liability is a good thing in principle but if not backed by a highly skilled workforce, quality assurance to ensure work is done properly first time, reliable record keeping by builders and financial resources (insurance) to cover failures this will not improve the quality of buildings or provide real consumer confidence in the short to medium term. Currently New Zealand has none of these pre-requisites.

Under the LBP scheme building owners will struggle to legally prove who caused any problem that emerges as buildings are so complex and each trade's work is dependent on others to make the whole building perform satisfactorily. In cases of failure the best outcome is likely to be a complaint against an LBP for unsatisfactory work resulting in revocation of a license. This will provide little satisfaction to the owner of a sub-standard building.

- **Section 3, Page 12, Question 5 - What problems are there, if any, with the level of understanding of the building regulatory framework held by participants in the building sector?**

The level of understanding of the building regulatory framework by participants in the building sector is generally poor. This has been established by recent surveys and submissions to proposed amendments to the building control regime. In practice BCAs find that a high proportion of applications for building consents inadequately describe how the proposed building will comply with the building code. This is a practical indication of a poor understanding of the Building Act and the Building Code amongst design professionals. Observations on construction sites and discussions with builders also provide evidence of widespread misunderstandings or ignorance of the requirements of the Act and Code.

Currently BCA staff are the best informed link in the chain. Accreditation of BCAs has driven an improvement in the level of understanding of the Building Act and the Building Code. Other participants generally rely on BCA staff to identify non-compliance with the Act or Code in submitted plans and in construction work.

- **Section 3, Page 12, Question 6 - What would help improve understanding of the building regulatory framework (if needed), and how should this be done? How would any costs be funded?**

Training is the only answer to this issue. Architects, Engineers and LBPs should all have compulsory training in the regulatory aspects of the industry in which they intend to practice. Refresher training is also essential each time significant changes are made.

Accreditation required BCAs to assess the competence of their staff and to make good any shortfalls through targeted training or outsourcing. No equivalent discipline is required of other participants in the building industry.

- **Section 3, Page 12, Question 6 - Do the Building Act and the Resource Management Act work effectively together to ensure an efficient consenting process, while balancing any appropriate competing objectives? If not, how can this be improved?**

Members of the public and commercial builders, seeking building consents, do not generally differentiate between these two related functions. As accreditation of BCAs has measurably improved the performance of BCAs through systems, self-monitoring and external assessment it would be logical to extend the scope of accreditation to include the RMA process. This would provide improved efficiency by establishing a seamlessly integrated, planning and building consent process with regularly measured and independently verified performance. This is what applicants reasonably expect but generally do not receive currently.

- **Section 3, Page 13, Question 1 - What, if any, are the weaknesses, (e.g. omissions, failures, impediments) in the current building regulatory framework in relation to the process for developing requirements for design and performance of buildings for or in earthquakes?**

Any weaknesses in the current building regulatory framework in relation to the process for developing requirements for design and performance of buildings are not specific to earthquake performance of buildings.

The main weakness appears to be lack of coordination and communication between the stakeholders. Each type of document produced in this area appears to have a specific stakeholder perspective e.g. regulatory (legal, political, financial), builders (technical, prescriptive or performance criteria), commercial (specific product criteria, certification or appraisal report limitations), social expectations (local government requirements, special interest groups, consumer advocacy bodies) etc. As a result there are many documents which are not always mutually compatible leading to confusion.

- **Section 3, Page 13, Question 2 - What is the best way to provide compliance guidance (for example, should New Zealand Standards be the main or only method of compliance)? Why?**

Standards New Zealand is in the best position to coordinate and give consideration to all interests and to arrive at a consensus view. By using this approach, not only should a single document on a particular subject address issues and perspectives of all stakeholders, but documents on all related subjects should be compatible. Incorporation of consensus Standards into Building Regulations should provide a consistent and user-friendly body of requirements for all participants in the industry. To make this effective there would have to be better representation on Standards development committees and this has funding implications.

- **Section 4, Page 19, Question 1 - In the context of building performance in an earthquake, who should the key players in the development of the building regulatory framework be and why, and what should their roles and responsibilities be? What impediments currently exist to achieving this?**

Developing a regulatory framework at speed in response to a natural disaster is not ideal as experience suggests that such responses rarely adequately take into account all relevant points of view and generally result in unintended consequences at a later date. Accepting that something needs to be done in order to ensure that the re-build following the Canterbury Earthquakes is less vulnerable than the buildings before the quakes it should be Government (MBIE) that initiates and drives the process. In line with good regulatory practice MBIE should use existing organisations and expertise to deliver the required outcomes on-time and within budget.

- **Section 4, Page 21, Question 1 - What examples or evidence are there of issues of competency within BCAs? What options are there to address these competency issues, if there are any? Give consideration to the different size and scope of territorial authorities across the country, and different mechanisms for acquiring expertise.**

Since the application of accreditation to BCAs all BCA staff must have their competence assessed and the results are generally summarised in a skills matrix. This matrix identifies any shortfalls of competence within the BCA. As the Building Act 2004 requires all BCAs that are TAs to have the capability to process any application for a building consent that could be presented to them all TA BCAs have arrangements with other BCAs or with private contractors such as professional Engineers to process any work that is beyond their in-house expertise.

Systems required by accreditation should ensure that BCAs always allocate work to persons with appropriate proven competencies. This was not always the case prior to accreditation as there was no explicit requirement that this should be the case.

The degree to which BCAs need to use external expertise depends on the extent of their in-house expertise but also on the technical complexity of applications submitted to them. Generally small rural BCAs deal with less complex buildings and therefore the need to use external resources is limited.

- **Section 4, Page 21, Question 2 - What skills are needed in the private building sector to ensure seismically resistant buildings?**

Skills required to ensure seismically resistant buildings include the ability of Architects and design Engineers to understand the implications of sub-surface Geological materials, configurations and risk factors.

In order to exercise these skills good quality Geological and Geotechnical information must be available before design work is started. The Building Act 2004 provides for land to be designated as subject to natural hazard. This provision of the Act is often not used when it should be. Geological surveys of the Christchurch area, before many of the buildings damaged by recent quakes were built, identified areas likely to suffer from liquefaction. If these areas of land had been designated as subject to this natural hazard, appropriate measures could have been taken during the design of buildings or in extreme cases approval should not have been granted to build in these areas.

Throughout New Zealand there are countless examples of buildings, large and small, suffering unnecessarily from ground movement. This indicates that many design professionals make unwarranted assumptions of “good ground” when planning building work. Most commonly these assumptions are made by designers not familiar with the local area where the building is to be built.

- **Section 4, Page 22, Question 1 - What should the role of Standards New Zealand be and how should it be funded?**

Standards New Zealand should, among other things:

1. Review international standards to identify standards that could be used unchanged in New Zealand
2. Participate in international standard writing and revision to ensure that these standards are suitable for New Zealand wherever possible
3. Adapt international standards, where applicable, to make them suitable for New Zealand
4. Draft standards for new zealand where no existing standards are suitable

Funding of standard is problematic in a small economy. Generally funding from the sale of published standards is impracticable because there is a limited market for any specific standard. Attempting to recover the full cost of a standard from sales of that standard would place the price so high that it would not be used.

Many standards have a large public good content, building standards are a case in point. In these cases at least partial Government funding would appear to be warranted. If there had been clear, mandated, standards for weather tightness of buildings the Government could have avoided multi-billion dollars' worth of claims. Government funding of Standards development should be based on the risk involved in not having appropriate standards.

- **Section 4, Page 22, Question 2 -What are the advantages, disadvantages and risks of relying on Standards for the majority of building and construction methodologies?**

The major advantage of relying on Standards for the majority of building and construction methodologies is that they will be aligned as closely as appropriate to international standards. This has advantages for importers and exporters of building materials, systems and expertise as well as for the built environment of New Zealand.

Standards New Zealand operates standards development processes proven internationally.

Disadvantages and risks of relying on Standards for the majority of building and construction methodologies are mainly around the perceived inability of Standards to deliver or sustain their services due to inadequate funding at present.

- **Section 4, Page 22, Question 3 - Should primary reliance continue to be made on volunteers.**

and

- **Section 4, Page 22, Question 4 - In the event that Standards New Zealand is unable to source volunteers, what other means of funding might be available?**

Voluntary contributors to standards development committees are very valuable; however these contributions inevitably come with agendas and specific perspectives on desirable outcomes. To fully realise the potential value of the standards development process there should be required representation from all significant stakeholder interests. In particular the public or users of the product of the standard should be represented. Regulators, technical, academic and commercial interests should also be represented as appropriate. If voluntary contributors cannot be found there should be some funding from Government to ensure appropriate representation. Ensuring that all voices are heard during the development of standards should reduce the number of documents required in the sector and thereby reduce the current confusion. It is vitally important that committee members are vetted to ensure they have appropriate expertise, self-selection by particular interest groups leads to biased standards.

- **Section 4, Page 22, Question 5 - Should there be more use or less use of mechanisms other than Standards to develop and provide methodologies for compliance; why or why not? Who would or should do this work and how should it be funded?**

International or national Standards would be the preferred means of providing methodologies for compliance; however these need not necessarily be developed or adapted entirely by Standards New Zealand. There should be a mechanism whereby any organisation can develop a proposed 'standard' for submission to Standards New Zealand for adoption. Such documents should then be subject to review and if necessary revision by a group representing all significant parties who would be affected by the standard if it were adopted.

Funding of the drafting of proposed standards would be by the group proposing the document. It would be prudent to have a consultation with MBIE and Standards New Zealand before embarking on the drafting of any such document to check if something similar was already being worked on.

It would be inappropriate to have any interest groups producing 'standards' without independent control of content, format or style as this would lead to greater incompatibility and inconsistency than at present.

- **Section 4, Page 25, Question 1 - How well do you think the current consenting system works and why?**

The BCA process has measurably improved since accreditation. This has been confirmed by independent reviews. BCAs are mostly meeting their statutory timeframes and the quality of decisions and records have improved significantly as a result of the discipline of accreditation. In particular BCAs are now aware of the extent and limitations of competence of their staff and are managing work allocation to ensure that all building consent work is undertaken by competent persons. Applicants generally do not differentiate between building consents and resource consents. There are often disconnects between the building consent process and the resource consent processes. There would be obvious benefits in extending the accreditation requirements to include the entire process.

- **Section 4, Page 25, Question 3 - Do you consider the status quo (local control by BCAs), a national model as described above, or an alternative option, would provide the most effective and efficient consenting process for complex building work?**

This is a complex issue with many angles, including but not limited to the following:

1. There are a limited number of people in New Zealand with the required knowledge and skills to process the most complex building consent applications
2. A centralised unit would not have the advantage of local knowledge, vital to fully appreciate the issues with any building and particularly geological and climatic conditions
3. Separation of processing and inspection has proven to be a bad thing. Cooperative and free communication between processors and inspectors is a vital check on both activities. Separation leads to rivalry or even antipathy. This does not serve clients well
4. Having local processing can lead to national inconsistency.
5. Local processing makes it much easier for processors to physically meet developers at critical stages of the process.
6. By removing complex work from local authorities career progression is limited in that area
7. Individuals processing complex buildings in many BCAs also process simpler buildings. The more work that is taken from local BCAs the less sustainable BCAs become.
8. Setting up a centralised processing unit would take work away from local engineering practices who contract to BCAs

Overall local or regional processing would appear to be most practicable. To establish and maintain technical consistency a small central group could sample consents from all BCAs to identify issues and provide leadership and guidance for all processing units. IANZ has already started this process by identifying inconsistencies of interpretation during BCA assessments, seeking guidance from MBIE then disseminating the resulting consensus during future assessments and through publications.



- **Section 4, Page 27, Question 1 - Comment on the proposed model for regulatory approval by NZCIC – what aspects of this model should or should not be adopted and why?**

Section 46 is headed “Peer review, quality assurance, and the use of producer statements”

There is nothing in this section that refers to quality assurance in terms of assuring the quality of buildings. Peer review is not quality assurance; it is a prudent second look by a similarly qualified person to identify any serious errors in a design. Peer review will not necessarily improve the quality of submissions for building consent approval. Particularly as, in future, BCAs will be expected to accept a self-declaration by the designer of a complex building that the building will comply with the Building Code. As a business risk management tool it would be in the interests of building design and construction companies to look seriously at comprehensive quality assurance measures.

On the subject of the regulatory approval model proposed by NZCIC the following comments apply:

**First bullet point** is in line with the intent of the current system. Unfortunately a high proportion of documents currently supplied by design professionals do not provide sufficient information or detail to establish compliance with the Building Code. I recommend keeping this and encouraging standards of documentation to improve. In addition designers should specify points at which inspections by a nominated party should take place. Inspections, whether performed by BCA staff, the builder, the LBP performing the work or a Clerk of Works are vital evidence of compliance. Records should be kept and signed off at these points by a competent person.

**Second bullet point** looks reasonable in principle. It is however in the nature of much building work that any non-compliance discovered in evidence reviewed at the end of the process can be very expensive and time consuming to correct. Under the 2012 revision of the Building Act, BCAs will no longer provide a Code Compliance Certificate; instead they will provide a Consent Completion Certificate. BCAs will no longer be liable for compliance with the Building Code this will be the responsibility of the owner through the services of LBPs. This does raise the question of who pays for remedial work if compliant work has to be removed and reworked due to non-compliance of an earlier stage that is only recognised at the end?

**Third bullet point.** For designs that are considered difficult to build inspection points are even more important. In these cases inspection points should be hold points beyond which construction cannot proceed until a responsible and competent person has signed to indicate compliance.

**Fifth bullet point.** A good idea, however there could be confidentiality issues here as the information suggested would be evaluative material on individuals. Regular feedback is essential to make this type of scheme work effectively. A previous submission to MBIE (DBH) suggested a scheme to be run by BCAs that would in effect provide feedback to individuals or organisations that would influence the frequency and rigour of BCA checks. This was a classic positive feedback loop to improve the quality of work by incentives. As this had financial implications it was designed to be self-regulating and had no privacy implications. No such provisions are currently included in the scheme except for the ability to complain about an LBP.

**Sixth bullet point** is a very good idea as most building owners are ignorant of these matters or the implications of decisions. These issues should be fully discussed and agreed in writing at the design stage as cheaper options in the early stages often lead to greater expense later. Designers should be encouraged, if not required, to provide both initial construction cost implications and cost of ownership implications when discussing design options.

**Seventh bullet point** – agree.

- **Section 4, Page 27, Question 2 - When might producer statements be used and why; what benefits do they provide? What, if any, standard should such statements be required to meet?**

Producer Statements have no legal status as they are not mentioned in the Building Act 2004. BCAs are not obliged to accept a producer statement from anyone; however they can be very valuable in establishing compliance with the Building Code. A producer statement may be used by a BCA as the sole evidence of compliance with one or more Building Code clauses. They may also be used as evidence to support, in part, a decision along with other evidence such as observations made during an inspection. Producer statements provide evidence of the exercise of expertise that the owner or a BCA may not have. Under the BCA Accreditation Regulations a BCA may accept information such as a Producer Statement and base a compliance decision on it provided the BCA has evidence that the author of the information or producer statement is competent to perform the work or to make the professional judgement included in the Producer Statement.

MBIE has already published a guide to the acceptance of producer statements and this document provides details of the minimum information that must be included in a producer statement.

- **Section 4, Page 27, Question 3 - What standing, if any, should producer statements have?**

What 'standing' a producer statement has depends on the use to which it is put. If a BCA relies on a producer as the sole evidence of compliance the producer statement has the same standing as a record of processing or record of inspection created by a BCA. In these cases the BCA has a duty to seek evidence that the author of the producer statement is competent to undertake the specific work described in the statement. If on the other hand a producer statement is used as additional evidence to verify or support a decision arrived at using other evidence then the producer statement has a lesser standing and the BCA does not have a duty to verify the competence of the author as this producer statement is not critical to a compliance decision. Under the 2012 amendments to the Building Act 2004 Certificates of Works (CoWs) or Records of Work (RoWs) will be required of professionals involved in restricted work. These will take the place of many producer statements.

- **Section 4, Page 27, Question 7 - Do peer reviews need to be audited and if so by whom?**

There should be no need for individual peer reviews to be audited. By its nature a peer review is a check or second opinion of another person's work, therefore auditing of peer reviews would represent overkill. The question should have been, 'should design professional including those used for peer review operate under a formal quality assurance regime?' A formal quality system would provide some assurance that records are kept etc. A higher level of assurance could be gained by accreditation that independently assesses the competence of an organisation to undertake specific technical inspection tasks including peer reviews. Currently the level of assurance of competence required of BCAs is higher than that expected of professional engineering practices. MBIE should carefully consider what is meant by 'quality systems' when developing regulations under the empowering clauses of the 2012 amendments to the Act.

Submission prepared by  
Geoff Hallam  
Technical Development and Regulatory Affairs Manager  
International Accreditation New Zealand