Building Stronger Foundations: Discussion Paper

Submission by

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Executive Summary

This submission recommends that New South Wales register building practitioners in a way that preserves national consistency of registration of professional engineers.

National consistency of registration of professional engineers should be based on the existing Queensland *Professional Engineers Act 2002* and the Victorian Engineers Registration Bill 2019.

The qualifications and experience required for professional engineer registration should be consistent with the National Engineers Register maintained by Engineers Australia. These are adopted by the Queensland act and the Victorian bill.

The areas of practice that require separate registration for building engineers should align those in the National Engineers Register with those recommended by the ***Building Confidence*** report.

National consistency of engineer registration on these principles does not provide for a statutory duty of care or mandatory professional indemnity insurance for all professional engineers. These or similar requirements should not be applied through registration legislation.

The proposals in ***Building Stronger Foundations*** to include a statutory duty of care and mandatory professional indemnity insurance reflect old and increasingly unworkable paradigms in building production, quality control, regulation and consumer protection. Some details of the proposals should be reconsidered in the light of current and evolving practices in building production and changing expectations in consumer protection, insurance and dispute resolution. These include:

- Complex contractual and production arrangements and the use of building information modelling mean the building process can no longer be considered as a series of discrete stages with checking and approval at the end of each stage;
- The need to identify and hold to account a "dutyholder" for the key design and construction components of a building;
- Community and owner expectations that the principles of Australian Consumer Law apply to building contracts and the purchase of new buildings;
- The inability to rely on private sector insurance to fund breaches of contract, negligence and rectification of building defects.

Responses to the questions in the Building Stronger Foundations; Discussion Paper are given based on these principles.

Basis of Submission

I retired in 2018 as Deputy Director General, Industry Regulation in the Western Australian Department of Mines, Industry Regulation and Safety. The Industry Regulation Group included the Building Commission, Consumer Protection, Industrial Relations and Energy Safety.

Prior to this I led the development of comprehensive new building legislation that set up the current framework for building regulation in Western Australia and the establishment of the Building Commission in 2011. I served as Building Commissioner from 2011 to 2018. I was the Western Australian representative on the Australian Building Codes Board (ABCB) from 2003 to 2018 and attended all meetings of the Building Ministers Forum (BMF) during that period.

Previously I had twenty years' experience as a structural engineer in the design and site supervision of building structures and further experience in building contracts and dispute resolution. I currently chair the ABCB Board Steering Committee on the Increased and Competent Use of Performance and am a member of the Engineers Australia Professional Standards Committee.

Building Regulation Reform

Building regulation is in some turmoil in Australia in 2019. The Lacrosse and Grenfell fires have highlighted serious deficiencies in the way buildings are produced and regulated, leading to the BMF commissioning the BC Report. The Neo Apartments fire and the Opal and Mascot structural failures confirm that something needs to be done. The withdrawal of insurers from providing professional indemnity insurance to building surveyors and possibly other building professionals attacks the fundamental basis of practitioner registration and privatised building approvals. The earlier withdrawal of insurers from home warranty or home indemnity insurance has left governments underwriting the domestic construction sector while the buyers of multi-storey apartments are excluded from many protections by court decisions and limitations of cover.

People affected by these problems are not satisfied with traditional building regulation responses and dispute resolution processes. In particular, home buyers and apartment buyers expect the same protections they would get if buying a new car or seeking professional services.

Each jurisdiction has to deal with this turmoil within the context of its own legislative frameworks, political priorities and industry realities. A nationally uniform approach to these issues is not practicable because of the significant differences between jurisdictions. National consistency is practicable and has already been achieved in many areas of building regulation.

The main purpose of this submission is to urge the New South Wales Government (NSW) to maintain national consistency in the registration of building engineers, and to show how this might be done. A second purpose is to highlight changes in the paradigms of building processes and building regulation and to show how the need for better consumer protection that inspires ***Building Stronger Foundations*** can be addressed in a more robust way.

Nationally Consistent Registration of Engineers

National Consistency

The ***Building Confidence*** (BC Report) report recommends legislated registration of the following categories of building practitioners involved in the design, construction and maintenance of buildings:

- Builder
- Site or Project Manager
- Building Surveyor
- Building Inspector
- Architect
- Engineer
  — civil
  — structural
  — hydraulic
  — mechanical
  — geotechnical
  — fire safety engineers
  — fire protection system engineers
- Designer/Draftsperson
- Plumber
- Fire Safety Practitioner

The educational and professional qualifications required for registration and the areas of practice covered by each registration should be nationally consistent. Constitutionally each state and territory must enact its own registration legislation. The BMF should monitor and encourage consistency as jurisdictions implement responses to the ***BC Report***.

This submission advocates national consistency of registration for engineers in the building industry. International consistency of engineer competencies and education is managed through the Washington Accord to which Engineers Australia is the Australian signatory. Engineers Australia operates a National Engineers Register (NER) with registration standards that reflect the Washington Accord. Other engineering professional bodies maintain similar registration or membership requirements. These standards are already used as the basis for legislated registration in the Queensland *Professional Engineers Act 2002* and in building legislation in other jurisdictions.

To maintain this existing level of national consistency, any new legislation in New South Wales should align with NER or equivalent registration standards and the registration framework in the Queensland act. These do not impose a statutory duty of care on each registered engineer and do not require professional indemnity insurance as a condition of registration. For the reasons that follow, NSW should not include these in its building practitioner registration legislation.

Scope of Registration

Occupational registration or licensing legislation usually identifies a field of practice, identifies people competent to practice through registration or licensing, and restricts practice to registered or licensed people. Natural persons hold the skills and experience. Most building practitioners exercise these skills and experience as employees of businesses. Businesses enter into contracts and maintain financial resources, including insurance. Registration legislation should clearly distinguish between identifying natural persons with relevant skills and experience and restricting the practise of those skills to registered individuals, and controlling consumer risk by imposing financial and organisational controls on businesses such as corporations, partnerships or sole traders.

The Queensland *Professional Engineers Act 2002* and the Victorian Engineers Registration Bill 2019 require all natural persons carrying out professional engineering work to be registered. They do not separately register businesses and do not require insurance as a condition of registration.

In ***Building Stronger Foundations*** NSW proposes that "*building designers" would have two new obligations:*

1. *Declaring that plans comply with the BCA and other relevant requirements; and*
2. *Explaining through documentation how any performance solutions used in the design and construction of the building comply with the BCA.*

To support these functions, it is proposed that builders will also have a new obligation:

3. *Declaring that buildings are constructed according to building plans that have been declared to be BCA compliant.*

'Building designers' who prepare plans could be required to sign off and statutorily declare the plans as compliant with the BCA before they are given to the certifier, or at another appropriate point in time. This could be achieved by prescribing this as a function of 'designing work' into supporting legislation.

These new obligations of proffering completed plans to an owner, builder or certifier are those of a business. To maintain national consistency of registration of engineers, there are two options:

1. Add business registration, including these two obligations, in the registration of engineers nationally. This would require Queensland to amend its *Professional Engineers Act 2002* and Victoria to amend its Engineers Registration Bill, and other jurisdictions to agree to include business registration; or
2. NSW not to apply these new obligations in its legislation to register building engineers.

NSW's aim in proposing these additional obligations is to improve consumers' ability to seek redress for faulty services and faulty buildings. The underlying assumptions in ***Building Stronger Foundations*** reflect old paradigms of the way buildings are produced and the ways consumers expect to be protected. How these paradigms have changed, and better ways meet consumer expectations are set out later in this paper. The best approach to national consistency of engineer registration is for NSW to adopt the second approach of consistency with Queensland and Victoria.

Registration of Building Engineers in New South Wales.

Building Stronger Foundations proposes to register building engineers as a subset of registration of building designers in NSW. This should be seen as a first stage towards the eventual registration of all engineers in NSW, based on the precedents in Queensland and Victoria.

The educational and experience requirements to be registered as a building engineer in NSW should be those required to be registered on the NER managed by Engineers Australia.

It is not critical to national consistency whether assessment against the educational and experience requirements is carried out solely by a statutory regulator or whether it is carried out by professional associations acting as assessment authorities. The process should recognise that organisations other than Engineers Australia do assess education and experience against standards that are effectively the same as those for the NER and that meet the requirements of the Washington Accord.

NSW legislation should require that defined engineering work must only be carried out by a registered building engineer. The definition should be consistent with the Queensland act and Victorian bill and cover the application of engineering principles and data to a design relating to engineering or to construction, production, operation or maintenance relating to engineering.

The categories of registration should be those agreed by the BMF as appropriate for consistent registration of building engineers in Australia. There some alignment between the categories recommended in the ***BC Report***, those in the NER and those used by Engineers Australia to grant Chartered Engineer status. The BMF, working with the relevant industry associations, could use this alignment to develop nationally consistent categories of registration for building engineers.

BC Report	**NER**	**EA Chartered**	**Possible Categories**
Civil	Civil	Civil	Civil
Structural	Structural	Structural	Structural
Hydraulic			Hydraulic
Mechanical	Mechanical	Building Services	Building Mechanical
Geotechnical		Subdivisional	Geotechnical
Fire Safety		Fire Safety	Fire Safety
Fire Protection			Fire Protection
			Building Electrical

The ***BC Report*** recommends that all practitioners undertake compulsory continuing professional development on the National Construction Code. Completion of such training could be a requirement of registration for building engineers, or an additional qualification required for dutyholders certifying compliance with building standards. It will take some time to develop the necessary training curriculum and roll out NCC training to all existing building practitioners, including those currently registered under state and territory legislation.

Paradigms

Production, Audit and Quality Control

Designing, constructing and commissioning a building is like making widgets in a factory. Machinery and workers produce widgets to meet the required standards. As with any process, the output will be variable. A quality control process tests the output to confirm that variation is within the target range. This can be random sampling, or testing of every widget produced. Narrower variation in outputs means greater cost of production. The only way of ensuring that every widget sold meets standards is to test all widgets made and reject those that fail. Auditing the production and production quality control processes helps to confirm that they are working as intended.

In building the production process is that of design, construction and commissioning. Production quality is influenced by the quality of the machinery (the architects, engineers, builders and subcontractors) and the quality of the materials. The production quality control process checks, the construction techniques and the building materials to ensure that the finished building meets the applicable standards: the quality standards set by the owner under the contracts and the performance standards set by government to safeguard the community.

It is essential to be clear whether the intentions behind ***Building Stronger Foundations*** are to improve the production process, the production quality control process, or the system audit process as well as to give consumers an avenue of redress for faulty work. Most current building legislation in all jurisdictions has evolved over time and is not so clearly differentiated. Nevertheless we can say in broad context that:

- Practitioner and contractor registration that restricts practice to competent people improves the production process. It reduces the risk to the owner that work will not meet the contract standards and to the regulator that it will not meet performance standards.
- Nominating "dutyholders" accountable for and competent to certify compliance with standards improves the production quality control process. The person certifying must carry out whatever checks are necessary to be satisfied of compliance. This can be self-certification or independent checking. Certification satisfies the owner that contract standards are met and the regulator that performance standards are met.
- A statutory building and occupancy approval for each building improves the production quality control system by a test of compliance with performance standards before a permit is issued. A statutory permit system is not intended to satisfy the owner that contract standards other than the performance standards have been met.
- Jurisdiction-wide regulatory roles such as that of a Building Commissioner or Building Authority form part of the audit process.
- Complaint resolution and redress schemes influence but are not part of production.

Complex Production Processes

When building control evolved into its current form in the second half of the last century, the most common production process was for the owner to commission a designer to produce construction drawings. The designer might commission experts to design and document specialist parts of the building, with the designer coordinating the overall product to meet the owner's requirements. The owner would then select a builder to construct the building to the design team's drawings.

The design team would regularly inspect the construction work to ensure that the construction process delivered the design intent. If the owner did not get what was paid for, the owner could litigate breach of contract or tort. This is a production quality control process.

To get approval to build and to occupy the owner would submit the construction drawings to a local government to check that the design met the legislated building standards and any other relevant approvals or standards. The local government would periodically inspect the construction work to check that what was built was what had been approved. If the building did not meet statutory requirements the local government could issue orders. This is a production quality control process.

Most current building legislation assumes this sequenced approach to construction. For buildings designed and constructed in stages, it assumes that each stage follows this sequence.

This paradigm has now changed. The building production process is much more complex and diverse. In domestic construction homebuyers contract with a builder to construct a design prepared by the builder. In apartment construction the ultimate owner does not contract with the builder at all. In commercial construction it is now common to include significant design-and-construct components and main contractor involvement during design, with Building Information Modelling (BIM) reducing the reliance on physical drawings. It is now difficult or impossible to break production down into discrete stages suitable for separate checking and approval.

The building approval process has also become more complex with, in most jurisdictions, private sector building surveyors acting as the building approval authority, each with its own systems. Some variation and complexity in the approval process can be reduced by electronic lodgement and approval systems, but these electronic systems must be able to cope with the growing diversity of procurement and production processes. Failings in the application of traditional paradigms to complex building procurement have been well described in ***Building a Safer Future***; the report of the inquiry into UK building regulation by Dame Judith Hackitt, and are reflected in Australia in the ***BC Report*** Leading practitioners in Australia share similar concerns.

Modern building regulation must reflect and facilitate these complex production processes and the growing use of BIM. Building production may involve design and component construction in other Australian jurisdictions or in other countries, so national and international consistency is important. Legislation must allow for building projects to evolve continuously where responsibility for design, fabrication and installation of essential systems and components is shared by many designers and suppliers. The old paradigm of design approval plus construction variations no longer applies to complex, high-risk buildings. The new paradigm must focus on the finished building.

The proposals in ***Building Stronger Foundations*** to bring building designers into NSW legislation reflect older, more simplistic views of the building production process. Individual designers do not work in isolation to prepare plans at consistent stages of work. Complex and high-risk building designs are the work of teams, the members of which are usually employees of a corporation that contracts its services. It is not realistic to expect every employee working within a team to declare independently that his or her plans, BIM models, BIM-derived files or other manifestations of the design intent meet the BCA standards. Nor is it realistic to expect users of the design, be they construction contractors or subsequent owners, to seek redress from each employee individually for an error or failure in design by giving each employee a statutory duty of care. A better approach to design and construction responsibility is the "dutyholder" proposed in UK reforms.

The Dutyholder

The UK Government's ***Proposals for reform of the building safety regulatory system*** in response to ***Building a Safer Future*** was released in June 2019. It recognises the growing complexity and fragmentation of modern building production systems outlined above. Its key proposal is to place responsibility on a clear set of "dutyholders" involved in the design, construction and ongoing management of these buildings. These "dutyholders" will have new, clear and robust requirements to ensure building safety through compliance with the building regulations and through planning, monitoring and managing building work. "Dutyholders" will also have to demonstrate how they are actively managing risks through the safety case approach at a series of new gateway points before they can proceed to the next stage of development.

The UK proposals are similar to the role of "Engineer of Record" in some US states and Canadian provinces. Identified registered engineers coordinate the work in each core discipline to ensure that the engineering systems in that discipline work effectively together, and with the systems in other disciplines. The "dutyholder" or "engineer of record" is a focus of responsibility and liability and can reflect business structures where the dutyholder is a partner or officer of a corporation.

The dutyholder and engineer of record concepts continuously align the production and production quality control processes with certification at key approval times or gateways. This is important in electronic lodgement and record-keeping systems where one or more individuals will have to declare or certify that a building proposal or a finished building meets the applicable standards and approval requirements. Legislation can require a dutyholder to load a BIM model. BIM-derived files or other plans into a depository and by doing so be deemed to declare or certify that the building or building component thus represented meets client requirements under the contract and statutory requirements such as building standards or development approvals.

A better approach for reform in NSW would be to separate general registration of building practitioners from the nomination of a dutyholder for the design and construction of the building and each of its critical parts and systems. Typically the dutyholder would be the principal of the relevant design or construction firm, or a senior team leader. The dutyholder would have legal liability, and be the focus for insurance cover and dispute resolution processes.

Insurance and Dispute Resolution

The common law holds a person who breaches a contract liable for the costs of the breach, and a person who is negligent to be liable for economic loss. The person who has suffered from the breach or negligence must ascertain the damages and mitigate losses by fixing the problem and recovering the losses from the defaulting or negligent party, usually by litigation or arbitration. A person exposed to such a claim may try to take out insurance to cover any likely payment. In some cases the person is obliged to take out the insurance under the contract, or under some statute.

This process is well understood in the commercial construction industry and perhaps by builders and consultants in the domestic construction industry. It is not at all understood by "mum and dad" buyers of new homes or strata-titled apartments. The process is also subject to limitations, including the regime of proportionate liability for economic loss and the reality that insurers can quickly abandon a market if it is too risky or unprofitable. This happened with home warranty insurance in 2009-10 and is happening with professional indemnity insurance for building surveyors in 2019.

Governments have provided "mum and dad" buyers with simple dispute tribunals and mandatory insurance requirements under domestic construction contracts legislation, but these normally only apply to single-residential construction, with multi-unit, multi-storey apartment buildings being excluded. Buyers of apartments are also disadvantaged by the High Court decision in the *Brookfield* case that prevents negligence claims by strata companies and subsequent purchasers.

From a consumer point of view there are serious deficiencies in the legal and insurance regime for building defects in Australia. Normal house insurance covers damage from an "event" and excludes damage from building defects. Proportionate liability means the consumer must chase everyone who may have contributed to the damage (consultant, subconsultant, contractor, subcontractor, supplier) in order to recover the full costs. Simple tribunal processes and "builders warranty" are limited to the six years following construction. Professional indemnity insurance is on a "claims made" basis, so that designers must take out new insurance each year to cover claims made that year. If not renewed, say through death or insolvency, the consumer has no insurance to claim on.

"Mum and dad" buyers of houses or apartments expect a simple system that gets construction defects fixed at no cost to themselves with a knowledgable and impartial person to guide them through the process. Owners of apartments in Australia with combustible cladding or structural defects expect the government to step in and fix the problems and reject the view that the building owner is ultimately responsible and must do it. Victoria has announced a Cladding Taskforce and a $600 million fund. Other jurisdictions including NSW will be forced to follow suit.

The proposal in ***Building Stronger Foundations*** to impose a statutory duty of care on building designers seems intended to ensure that owners have someone to sue, and that by making professional indemnity insurance a condition of registration, there should be money to pay. While this does address the lack of proximity found in the *Brookfield* case, it does not address the complexity for consumers or the impacts of insurers leaving the market. "Mum and dad" building owners expect a new paradigm that extends consumer protection to building owners.

Building Owners and Consumer Protection

The old paradigm for building production is based on contracts with responsibilities shaped by the evolution of contract law. Ownership and control of buildings is based on property law. The owner is responsible for describing what is to be delivered through the contract, and for checking that it is delivered. The owner is responsible for the building and keeping it safe to occupy. These rules apply to the full range of building work, from minor home renovation and maintenance to the construction of office buildings or teaching hospitals. Not everyone is equally capable of playing by them.

An owner may be a "mum and dad" home owner or investor, or an experienced investor, property developer or business. Knowledge of, and competence in, dealing with contracts, construction and property management will vary greatly. With multi-storey apartment buildings now a significant part of residential construction, many "mum and dad" owners must deal with the complications of strata companies, strata managers and complex building systems. Cladding audits and the failures at Lacrosse, Neo, Opal and Mascot show that owners not only lack the skills and knowledge to deal with complex building problems, they see no reason why they should have to.

In the broader world of commerce, consumer protection and fair trading laws have constrained the doctrine of *caveat emptor*, imposed explicit warranties on the provision of consumer goods and services, and gives regulators (ASIC, Consumer Protection Commissioners) power to intervene on behalf of individual consumers as well as to audit the system as a whole.

Just as Australian Consumer Law has been extended to cover small business and unfair contracts, the public now expects similar safeguards and systems for buildings and for the building industry. People see buying a project home or a strata-titled apartment in the same light as buying a car or a television set. They expect statutory warranties, with any defects to be rectified without cost by the manufacturer or builder. They do not expect to have to engage experts to tell them what is wrong and lawyers to prosecute a claim through specialist tribunals or courts. They do not expect to pay for repairs and then recover the costs. They expect insurers to act promptly and fairly.

It is critical that modern building regulation reflects this expectation that consumers and small players in the industry will have the same types and levels of protection that they enjoy under Australian Consumer Law. The NSW Strata Building Bond is a first step towards consumer-oriented protection. The Victorian Cladding Taskforce is another. Filling in the hole left by the *Brookfield* case by giving building designers a statutory duty of care reflects the old paradigm of tortious liability and depends on professional indemnity insurance being available and being maintained. Expanding a deposit or levy scheme to cover dutyholders in the design stage, coupled with a simple claims process, is closer to what the community now expects.

The proposals in ***Building Stronger Foundations*** to register each individual building practitioner will improve the building production process by ensuring that people carrying out work are properly skilled and experienced. The proposals to require each individual practitioner to declare compliance with building standards and to carry professional indemnity insurance do not reflect modern production processes, do not deliver consumer protection in a way that the community expects and are totally reliant on the willingness of private insurers to provide cover.

Self-Certification and Independent Checking

A core concept underpinning the proposals in ***Building Stronger Foundations*** to provide a statutory duty of care of building designers and in the UK ***Proposals for Reform*** to identify dutyholders is to make liable the person who actually undertakes the work if that work is defective. These proposals require the relevant people to self-certify that their work complies with the relevant standards; be these the owner's standards imposed under contract or statutory standards.

Self-certification is part of the production quality control process as the person certifying should take whatever steps are necessary to be satisfied that the standards have in fact been met. This may include internal quality assurance and checking processes. Formal registration of building practitioners may include a requirement for a minimum standard of quality assurance that is checked or audited by the registration authority. Alternatively a requirement for mandatory insurance will imply that insurers assess quality assurance processes in order to provide cover.

Where the risks are high, because of the nature of the building or its use or because of components or materials used, the production quality control process may require independent checking (peer review). There is nothing to prevent a building designer or dutyholder from including independent checking into the production process. Building approval systems also require independent checking.

Australian building regulatory systems rely on a building surveyor to assess compliance of the whole of the building as a form of independent check. A building surveyor does not usually carry out any direct design or construction function and so an assessment by a building surveyor is inherently independent. This may be reinforced by legislation in some jurisdictions that prohibits the building surveyor from having any role in the design or construction process. Building surveyors are not expert in every aspect of building design and construction and often rely on certificates from design engineers and others. The building approval process thus inherently includes both self-certification and independent checking components.

The ***BC Report*** and other international reviews of building regulation have raised concerns about the independence of building surveyors who are financially dependent on owners or builders, and who rely on self-certification by the designers and builders. A reformed building approval process should identify when independent checking is required and who should be selected to do it. In principle, independent checking should be required for high-risk buildings and/or high-risk components of buildings. The checker should have high-level qualifications and experience in the work to be checked, and have the confidence of the regulator. This may require the regulator to choose, or at least approve, the buildings and components to be independently checked and the person who is to carry out the checking.

The proposals in ***Building Stronger Foundations*** are focussed on registered building practitioners self-certifying that their work complies with the relevant standards. NSW should also consider when independent checking is required, and who is qualified to undertake it. In a regime of proportionate liability for economic loss it is also important to set out the respective liabilities of the dutyholder (who should get it right in the first place) and the independent checker (who should find any errors made by dutyholders).

A Framework for Building Delivery and Approval

The proposals in ***Building Stronger Foundations*** are not described in the context of complex building production systems and electronic lodgement and approval processes. Recasting these approaches around new paradigms gives a more robust framework:

- Each building designer must be registered. Design work including the preparation of plans, BIM models and contract documentation must be done by a registered designer;
- Each critical building system must be assessed and certified by a dutyholder who carries legal liability for the system meeting the client requirements and the statutory requirements;
- High risk components of high-risk buildings must be independently checked and certified by an appropriately registered person;
- The building approval authority (building surveyor or local government) cannot issue a building approval until all of the dutyholders, and independent checkers where appropriate, have certified that the building and building systems meet the statutory requirements.

Registration standards for building designers should initially be those of the relevant professional bodies so that legislation can be implemented quickly. Additional competencies and completion of specified BCA training can be included as a second phase.

Building approval legislation should require certificates of compliance from dutyholders for specified buildings, building systems or components of buildings to be submitted to the building approval authority. The person signing these certificates must include evidence of registration and relevant insurance cover or coverage by a statutory disputes and funding scheme.

Building approval legislation should require certificates of compliance from independent experts for the high-risk components of high-risk buildings to be submitted to the building approval authority. The person signing these certificates must be selected by or approved by the relevant government regulator and must include evidence of registration and (if appropriate) relevant insurance cover.

Avoiding the need for each practitioner to have professional indemnity insurance will speed up introduction of registration where it is not already in place, maintain national consistency, and will avoid system failure if private sector insurers decline to provide the cover required for registration.

Specifying insurance cover or statutory deposit to be demonstrated at the time of statutory certification allows businesses, insurers and regulators to tailor cover more precisely. This reduces the risk of cover not being available, and provides a check that cover is in place and is appropriate for each building. Dutyholder and insurance or deposit details are kept in the building approval database, facilitating claims for defective work or services.

Requiring a government regulator to select or appoint the independent checker will avoid conflicts of interest and commercial capture of building practitioners in private practice.

These provisions will deliver the greater part of the recommendation in the ***BC Report***.

Introducing Building Designers into NSW Legislation

Questions for feedback:

1. What kinds of plans should be signed off and declared by a statutory declaration?

A completed building should meet both the client requirements and statutory requirements.

You should be clear whether certification of compliance is intended to provide the client with a clear avenue of redress if the proposal or building does not meet the client requirements (that is, it is part of the consumer protection framework), or whether certification of compliance is only intended to cover statutory requirements, such as BCA standards.

The plans, BIM models, BIM-derived files or other manifestations of the design intent to be certified are those that are necessary to demonstrate how a building proposal meets the relevant requirements, be they client requirements, statutory requirements or both.

A statutory declaration under the New South Wales *Oaths Act 1900* is subject to prosecution under that Act, which includes proof of wilful or corrupt intent. This is a clumsy way of providing owners and regulators with the basis for enforcement. It would be simpler to include in the relevant building legislation provisions that a person commits an offence by incorrectly certifying that plans, BIM models, BIM-derived files or other manifestations of the design intent meet the client requirements or the statutory requirements. The legislation should provide that the Building Commissioner can prosecute this offence and that a building owner can claim in tort for damages or engage a government-run redress scheme.

This introduces a regime of strict liability for certification of compliance.

2. Could plans be statutorily declared at the CC/CDC stages? If not, why not?

The plans, BIM models, BIM-derived files or other manifestations of the design intent should be certified when they are to be acted upon by the owner or approval authority. This accommodates modern building production processes which are not based on distinct stages.

If certification of compliance is limited to statutory requirements, then they will be acted upon when approval to commence construction or to vary construction is granted. Certification of a completed building should be that the building itself complies with the relevant standards.

If certification of compliance includes client requirements (which should also include compliance with statutory requirements) then the client may require certification at any stage allowed for in the contract with the relevant dutyholder.

3. To what extent should changes to plans be submitted to the regulator?

If a person intends to change the way that an approved building complies with the statutory requirements, then the person should submit certified plans, BIM models, BIM-derived files or other manifestations of the new design intent to the regulator.

If the nature of the changes is such that approval is required, the regulator can assess the changes and give or refuse the necessary approval. If approval is not required, the regulator should store the certified plans, BIM models, BIM-derived files or other manifestations of the new design intent with the building records. This will be simplified by an electronic lodgement system.

4. Should a statutory declaration accompany all variations to plans or only major variations?

A statutory declaration under the *Oaths Act 1900* is a clumsy way to certify that plans, BIM models, BIM-derived files or other manifestations of the design intent comply with the relevant standards.

Building legislation may provide that a person commits an offence by incorrectly certifying that plans, BIM models, BIM-derived files or other manifestations of the design intent meet the client requirements or the statutory requirements. Building legislation may also provide that a person commits an offence by constructing a building that does not comply with approved plans, BIM models, BIM-derived files or other manifestations of the design intent. The Building Commissioner will determine whether prosecution of these offences is in the public interest and would not pursue minor offences. An owner will determine whether an incorrect certification of a failure to certify has caused a loss and whether to claim in tort for damages or engage a government-run redress scheme.

5. Are there any obstacles that would prevent a person from submitting a statutory declaration for variations? If so, what are those obstacles?

A statutory declaration under the *Oaths Act 1900* requires the declaration to be made in a prescribed form and witnessed by an authorised person. Anything that prevents a person complying with these requirements is an obstactle. There are no obstacles if the building legislation provides that a person commits an offence when incorrectly certifying that plans, BIM models, BIM-derived files or other manifestations of the design intent meet the client requirements or the statutory requirements.

6. What other options could be workable if there are variations to plans?

The first question is whether a specific variation to a building proposal (whether expressed as plans, BIM models, BIM-derived files or other manifestations of the design intent) requires formal approval under the building laws or it does not. If approval is required, the second question is whether approval is required before the variation is put into effect, or after the variation is put into effect but before the building is occupied.

The primary way to control risk from buildings is to prevent unsafe buildings from being occupied. This means testing the building at the end of the production process for compliance with the applicable standards. If the emphasis of building control is placed on occupancy rather than commencement of construction then modern complex design-and-construct methods as well as changes of mind during the construction period are much more readily accommodated.

7. How could the modifications process be made simpler and more robust?

Building production systems are readily able to adapt to modifications during the design and construction phases. The problems occur in the production quality control process if the standards (i.e. building approvals) to which the final product is to be tested have not been adjusted to match changes made during the production process. If we assume that all building production processes allow for continuous change during the production process then the production quality control process should allow for this continuous change.

The current paradigm is to approve construction commencement of a preliminary approximation of the finished building and then attempt to monitor and approve each variation to the preliminary approximation until the final form of the building is completed and is ready to occupy. A simpler and more robust process is for the production quality control process to focus on demonstrating that the completed building meets statutory requirements.

Such a regulatory system should still allow for a preliminary approval to commence construction, based on compliance with planning approvals and certification from appropriate dutyholders that the proposal (as conceived at the time of preliminary approval) is capable of meeting the statutory requirements. The system should require that each dutyholder maintain the necessary systems and records to demonstrate that the building, as it evolves through the production process, continues to meet the statutory requirements. At completion and prior to occupancy the dutyholders must certify to the owner and regulator that the completed building meets the statutory requirements.

The owner may impose under contract a duty that dutyholders must disclose to the owner all or any changes specified under the contract. The regulatory system may impose under statute a duty that dutyholders must disclose specified changes to the regulator.

In addition to dutyholders self-certifying that the building as it evolves through the production process continues to meet the statutory requirements, the system should require independent checking and inspections by qualified building professionals (who are not the dutyholders), approved or appointed by the regulator. This independent checking should be focussed on high-risk components of the building. It should be a statutory requirement for a dutyholder to disclose hanges to high-risk components so that the regulator can arrange additional independent checking.

8. How should plans be provided to, or accessed by, the Building Commissioner?

Note that “plans” under the emerging paradigm of building production means the plans, BIM models, BIM-derived files or other manifestations of the design intent. These will eventually be lodged and stored electronically through on-line building approval processes. Such on-line systems will include privacy and security settings so that records are only accessible by people with a clear right to see them. Once the plans, BIM models, BIM-derived files or other manifestations of the design intent are stored on a central on-line system it will be straightforward for a regulator such as the Building Commissioner to access these records as required.

In the meantime it should be sufficient to give the Building Commissioner power to inspect and copy records used in the production and production quality control processes (including records of registered building designers). The Western Australian Building Commissioner has powers to authorise a person to enter premises and take or copy records relating to “building services.”

9. What types of documents should ‘building designers’ provide to the Building Commissioner?

The Building Commissioner should be able to access records relating to any building production process or building production quality control process as required. In future the bulk of such records will be available in central on-line systems. In the meantime the Building Commissioner can access those records needed for audit or enforcement action without being flooded by copies of records held elsewhere. Building legislation should require building designers to keep specified records.

10. In what circumstances would it be difficult to document performance solutions and their compliance with the BCA?

A completed building is a performance solution. The real question is how should the way in which the completed building meets the performance requirements of the BCA be demonstrated and recorded. The ABCB is currently developing measurable performance standards and verification methods for all BCA performance standards. NSW legislation should align with these processes.

11. Would a performance solution report be valuable as part of this process? If not, why not?

A building approval authority must be satisfied that a completed building complies with the performance requirements of the BCA. The building approval authority may be satisfied because it has itself assessed the plans, BIM models, BIM-derived files or other manifestations of the design intent to approve construction commencement, and has itself assessed the completed building. Alternatively the building approval authority may be satisfied become someone it trusts has certified the building proposal or the completed building complies with the performance requirements of the BCA. In this latter case a performance solution report by the trusted person could be valuable.

12. Are there any other methods of documenting performance solutions and their compliance that should be considered?

In the recommended building production process and building production quality control process the relevant dutyholder for each building system or component, and the dutyholder for the building as a whole, must be satisfied that the building meets the relevant performance requirements of the BCA. Legislation should require each dutyholder to maintain records of the process which the dutyholder has used to be satisfied, and that where appropriate the verification methodology published by the ABCB should be used. Legislation should also require a person who is independently checking whether a building proposal or a completed building meets the performance requirements of the BCA to keep similar records.

Professional associations such as Engineers Australia are preparing guidelines for their members on how to verify and document compliance with the performance requirements. NSW should liaise with the ABCB and industry associations to align this work with NSW legislation.

13. What would the process for declaring that a building complies with its plans look like?

To be in a position to determine that a building complies with the plans, BIM models, BIM-derived files or other manifestations of the design intent a person must have sufficient knowledge of both the design intent and the completed building. The dutyholders responsible for constructing the building in accordance with the design intent are best placed to determine compliance. Chief among these must be the person named as builder on the building permit. Where independent checking of construction is required, the person responsible for carrying out the independent check must also be able to determine compliance of the building or building components required to be checked.

Building legislation may require that a relevant dutyholder must make a declaration of compliance as part of the formal process for notifying the building approval authority that the building is complete and for obtaining an occupancy permit. Such declarations can be collected as part of the permit application process without the need for separate statutory declarations.

14. What kind of role should builders play in declaring final building work?

As noted in question 13, the builder is the person best placed to declare that a completed building complies with the plans, BIM models, BIM-derived files or other manifestations of the design intent. Building legislation should give the builder a clear obligation to construct a building in accordance with the plans, BIM models, BIM-derived files or other manifestations of the design intent and a clear requirement to certify that this has been done.

High-risk buildings would be separately subject to independent checking and inspection.

15. Which builders involved in building work should be responsible for signing off on buildings?

The builder is a dutyholder in respect to the construction of a building in accordance with the plans, BIM models, BIM-derived files or other manifestations of the design intent. If the construction process is sufficiently complex that more than one builder–dutyholder is nominated then each of the builder–dutyholders should make the declaration described in questions 13 and 14.

16. Are there any circumstances which would make it difficult for builders to declare that buildings are constructed in accordance with their plans? If so, what are those circumstances?

If it is the duty of a builder to construct a building in accordance with the plans, BIM models, BIM-derived files or other manifestations of the design intent, and it is the duty of the builder to certify that the completed building does comply with the plans, BIM models, BIM-derived files or other manifestations of the design intent, then the builder must put in place such systems and records that are required to do so. In some circumstances this may be difficult and costly, but it still remains the duty of the builder. If the builder cannot, or is unwilling, to do the work then the builder should not embark upon it.

Registration of Building Designers

17. Are existing licensing regimes appropriate to be accepted as registration for some builders and building designers, such as architects, for the new scheme?

The existing registration scheme for engineers under the Queensland *Professional Engineers Act 2002* is the base level for legislated registration of engineers in Australia. This act, and the Victorian Engineers Registration Bill 2019 which is derived from it, reflects generic good practice for registration legislation for occupations such as engineering. The Queensland act and the Victorian bill also align the qualifications and experience for registration with the NER and comparable assessment regimes. Any NSW legislation for registration of building engineers should be consistent with these existing national precedents.

18. What occupations or specific activities are involved in 'building design' and should be in scope for the registration scheme?

NSW legislation for registration of building engineers should have the categories of registration that are approved by the BMF for consistent registration of engineers in Australia. It will take some time for the BMF to work with professional associations to describe the relevant categories. Until then, the NSW legislation should be the categories in the NER which are reflected in the Queensland act.

19. What should be the minimum requirements for a registration scheme?

The minimum requirements for registration as a building engineer in NSW should be the requirements to be registered in the relevant category on the NER, noting that these are the base requirements for registration under the Queensland act.

20. What form of insurance should be mandatory for 'building designers'? Why?

The Queensland *Professional Engineers Act 2002* and the Victorian Engineers Registration Bill do not require insurance as a condition of registration. For national consistency NSW legislation for registration of building engineers should not require insurance as a condition of registration.

Not requiring insurance as a condition of registration is appropriate when the legislation requires all engineers carrying out engineering work to be registered. Many engineers work as employees and requiring each employee to carry personal insurance in addition to the employers insurance is unreasonably onerous and expensive. As outlined above it is also inherently unstable to make insurance cover a condition of registration in circumstances where insurance may not be commercially available. Also as outlined above, the community now expects more direct protection that does not require people to chase tortfeasors or their insurers and is not vulnerable to whether a policy is in place or responds to the particular claim.

It is appropriate for building engineering businesses to carry relevant insurance, including public liability and professional indemnity, or to be covered by a statutory deposit scheme. If this is to be imposed through registration legislation then registration categories should distinguish between individuals as practitioners (as in the Queensland act and Victorian bill) and businesses (which may include sole traders) that contract out services.

It is appropriate that dutyholders be held liable for their certifications of compliance. Building legislation that sets up the role of dutyholder may require the dutyholder to be covered by relevant insurance or a statutory deposit scheme.

21. What kinds of minimum requirements should be prescribed for the insurance policy (for example, value, length of cover, etc.)?

As noted in question 20, minimum insurance requirements must match the market for insurance cover or they are counterproductive.

22. What skills should be mandatory for 'building designers'?

The skills for registration as a building engineer should be those for registration on the NER.

23. Should specific qualification(s) be required?

The qualifications for registration as a building engineer should be those for registration on the NER.

24. Should there be other pre-requisites for registration?

The pre-requisites for registration should be those set out in the Queensland *Professional Engineers Act 2002*.

25. What powers should be provided to the regulator to support and enforce compliance by registered 'building designers'?

Compliance in this question means compliance with the obligations of a registered practitioner under registration legislation, and not compliance with relevant building standards or building approval processes.

The regulator powers should be consistent with those set out in the Queensland *Professional Engineers Act 2002*. It should be noted that occupational registration legislation is broadly consistent across occupations and across jurisdictions. NSW should adopt any proposals for national consistency of registration developed by the BMF.

Duty of Care of Building Practitioners

26. Which categories of building practitioners should owe a duty of care?

The courts already recognise that building practitioners have a duty of care to people who may be affected by their work. Courts, including the High Court in the *Brookfield* case have been very careful not to expand the duty of care or "proximity" to an unrealistic or unworkable extent.

The proposals in Building Stronger Foundations to apply to every registered building practitioner a statutory duty of care to building owners and others, including subsequent owners, is a substantial move into the unknown. It preserves the old paradigm of forcing consumers to fight their own cases through the courts. Proportionate liability for economic loss would require the owner to identify and include in the action every registered building practitioners that worked on the project. This is very onerous and is far removed from current community expectations of building consumer protection.

Insurance companies offering professional indemnity insurance to building practitioners are very sensitive to increased risk that may come from expanded duty of care. It is illusory to try to protect consumers by a statutory expansion of the common-law duty of care if there is no money to pay for damages from breach of duty of care. A statutory duty of care can only work if their is a statutory deposit scheme to fund awards of damages. As noted above, the whole basis of consumer protection for building defects must be reconsidered along the lines of Australian Consumer Law.

If NSW adopts the "dutyholder" concept for self-certification of compliance with client and statutory requirements, then it is appropriate to hold the dutyholder responsible for damages or defects caused by deficiencies in the work certified by the dutyholder. Dutyholders clearly owe a duty of care. Whether this duty should be defined or expanded by statute depends on how NSW responds to public expectations for better consumer protection for building defects.

27. What should be the scope of the duty of care? Should it apply to all or certain types of work? If so, which work?

A duty of care is inherently a duty not to make silly mistakes. Building defects can occur without a breach of duty of care. Proportionate liability for economic loss means that an owner may have to sue many different practitioners to recover for each and every breach of duty of care. Insurance may not be available to cover economic loss, unless the government underwrites the risk through a statutory deposit scheme or similar.

Statutory protections for consumers of building services should not rely on tortious liability. The principles of Australian Consumer Law should apply so that consumers, small business, and others are also protected from building contractual defaults and building defects. The focus of protection should not be the class of building or the type of work, but should be the type of consumer who is vulnerable to loss.

28. How will the duty of care operate across the contract chain?

Liability under contract and liability under tort are different causes of action and should not be confused. Statutory protections for consumers of building services should not rely on privity of contract or tortious liability.

Consumers expect a statutory right to claim directly for a building defect regardless of who is at fault or whether it is a design defect or a construction defect. This may be a complaint to the Building Commissioner, a building disputes tribunal or a statutory insurer.

If the key building practitioners are registered, then the relevant legislation can impose a statutory liability for defects, regardless of contract status. If registration is linked to a statutory insurance or deposit scheme then the fund can rectify the consumer complaint first and find which practitioner or practitioners are at fault later. This is the approach taken by Victoria with its Cladding Taskforce.

29. What types of consumers should be owed a duty of care?

Current public expectations are that the Australian Consumer Law should apply to building defects. Even if a different statutory regime is developed for building defects, the people covered by it should align with the people covered by Australian Consumer Law.

30. On what basis should a particular consumer be afforded the protection? What should be the scope of the duty of care? Should it apply to all or certain types of work? If so, which work?

Current public expectations are that Australian Consumer Law should apply to building defects. A consumer thus defined should have a statutory right to have a building defect remedied, regardless of the cause of the defect. The cost to a consumer of making a claim should be nominal, and a regulator such as the Building Commissioner should enforce the obligation to remedy a defect.

There are many ways of meeting public expectations. In principle these should include:

- The existing common-law rights to claim for damages arising from breach of contract or in tort should be retained, and be available to all classes of owner for all classes of building should they wish to pursue legal remedies.
- Registered building practitioners should have a statutory liability for failure to carry out a building service properly. This should be focussed on the dutyholder.
- A consumer as defined under Australian Consumer Law should have a statutory right to claim against a registered building practitioner for any defective building service.
- A regulator should enforce the statutory liability of building practitioners to remedy a failure to carry out a building service properly. This includes a consumer complaint or claims process when a registered building practitioner fails to remedy a defective building service.
- A statutory insurance or statutory deposit scheme should be available to fund the cost of remedying a defective building service if the registered building practitioner fails to do so.