



ENGINEERS
AUSTRALIA

NSW Building Bill 2024

Engineers Australia Submission

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NSW Building Bill 2024 - Engineers Australia Submission

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Engineers Australia
11 National Circuit, Barton ACT 2600
Tel: [+61 2 6270 6555](tel:+61262706555)
Email: policy@engineersaustralia.org.au

engineersaustralia.org.au

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Introduction

The building industry is an important part of the NSW economy, and its products are critical to the health, security and prosperity of NSW. Engineers Australia commends the NSW Government's efforts to consolidate and improve on the reforms raised in acts such as the *Design and Building Practitioners Act 2020* and the *Residential Apartment Building (Compliance and Enforcement) Act 2020* in the new Building Bill.

The Building Bill's remit extends beyond engineering work and Engineers Australia has only provided recommendations and feedback that relate to engineering. This feedback has been prepared in consultation with our members, and in the context of how registration of professional engineers is being implemented in other jurisdictions and with a view to supporting national consistency.

In 2019, Engineers Australia supported the objectives of new building legislation relating to engineering work which:

- establish a new registration scheme for Professional Engineers
- regulate the preparation and provision of key building designs,

Engineers Australia continues to support these aims, however, in July 2022, Engineers Australia raised serious concerns with the NSW Minister for Fair Trading about how the regulation of engineers under the *Design and Building Practitioners Act 2020* is being implemented.

Without action, the proposed NSW Building Bill will perpetuate and extend the design flaws that were present in the *Design and Building Practitioners Act 2020* and subsequent legislation, with the likely outcome that the reforms will not achieve the intended objectives.

This submission from Engineers Australia reinforces concerns raised about terms in the proposed Bill that:

1. undermine and limit national consistency of registration of engineers
2. put impractical and unreasonable obligations on individual engineers
3. do not accurately reflect the realities of doing engineering work, and
4. may prevent engineering businesses providing services in NSW.

Key Recommendations

1. Provide for nationally consistent registration of engineers.

Engineers Australia encourages NSW to draft the Building Bill in such a way that it can continue to allow for the registration of engineers working in the building industry for the moment but allows for more comprehensive registration of engineers to be implemented in future.

Moving forward, to be more aligned with the nationally consistent engineers registration model, it is strongly recommended that NSW:

- a) Establishes a stand-alone NSW professional engineers registration act.
- b) Ensures registration covers all areas of engineering.
- c) Adopts a nationally consistent set of registration standards, definitions of engineering work and assessment processes, including very importantly, competency assessment of engineers in addition to qualification, CPD and experience requirements.
- d) Facilitates Automatic Mutual Recognition for professional engineers.
- e) Adopts nationally consistent guidelines for professional associations that operate as assessment entities and validates the operational model and performance of entities.
- f) Creates a mechanism (e.g. professional engineers registration board) to provide independent advice to government on professional engineer registration matters.

2. Ensure the model for co-regulation of engineers is nationally consistent

Engineers Australia supports the NSW government's efforts to adopt co-regulation as part of its licensing schemes. However, some improvements to the proposed framework are required for the scheme to work efficiently and effectively for engineers.

- a. NSW Government should seek feedback from other jurisdictions such as QLD and Victoria on how their co-regulatory schemes work in respect to engineers.
- b. Assessment entities must be able to evaluate an engineer's competency against the [Minimum requirements for registration for independent practice as a professional engineer in Australia](#) which are aligned nationally and internationally
- c. Requirements for approval of recognised engineering bodies should be placed in the Regulations to highlight their significance. Specific requirements which are outside the area of expertise of recognised engineering bodies (such as the need to determine insurance coverage of an engineer) should be removed.
- d. NSW must continue to allow for assessment entities that do not operate a Professional Standards Scheme to participate in the co-regulatory scheme.

3. Ensure impractical and unreasonable obligations placed on individual engineers working on buildings are not carried over from the *Design and Building Practitioners Act 2020*.

- e. Section 48 - Insurance requirements to do engineering work (as a licence holder).
 - i. Engineering work is very diverse and is done in circumstances where insurance is not necessary or available, such as research and development, product development, in-house engineering work or private work. Where insurance is available, it is not limited to professional indemnity insurance and may include product liability, public liability or specialist cover.
 - ii. Insurance cover is usually taken out by the engineering business rather than the individual engineer. The Building Bill and subsequent regulations must account for the employment

and contractual landscape and allow for engineers to be covered by their employer or business rather than having to also take out individual insurance policies.

- iii. While professional indemnity insurance is relevant to consultant design services, it is not usually relevant to, or provides cover for, other types engineering work that may be covered by product or public liability insurance. The Building Bill and subsequent regulations must allow for these other forms of insurance for engineers.
 - iv. Insurance for engineers is based on multiple, and changing, business related factors that extend beyond individual professional engineers who are not trained in insurance risk assessment or interpretation of insurance policies. Guidance must be given to engineers to allow them to make assessments of adequacy.
- f. Section 232 - Statutory duty of care
- i. Ensure the burden of this statutory requirement does not fall excessively on individuals but also encapsulates the entities which are contracted to do the work.
 - ii. Ensure there are insurance products available for engineers and engineering companies which cover this duty of care liability.
- g. Section 131 - Intentional Phoenixing Activity
- i. Engineers Australia supports the principle that the whole industry should work together to disrupt companies that engage in intentional phoenix activity, however, it should not fall on building licensees to police the operation of these persons.
 - ii. Engineers Australia suggests that an anonymous tip-off facility would be a more practical solution to getting industry involved in identifying and disrupting those engaged in intentional phoenix activity.
4. Clearer definitions
- h. Adjust the definition of building elements to include footings rather than foundations.
 - i. Further clarity is needed on which licences would be required for design, or construction of subdivision works.
 - j. Provide for a definition of 'protection works' to be included and enforced through the Bill.
 - k. Work with regulators in other jurisdictions to create a clearer and consistent definition of what constitutes a prescriptive standard.
 - l. Work with regulators in other jurisdictions to create a clearer and consistent set of standards for remedial work done on existing buildings.
5. Engineers Australia supports the concept of stricter protocols surrounding both building approvals and staged building approvals. Engineers Australia looks forward to working with BCNSW further on these matters as details are developed in the regulations.
6. Engineers Australia has concerns about the ability for non-qualified, non-vetted persons to prepare fire engineering performance solutions of any kind. The way in which low risk buildings are defined in section 7.2 of the consultation paper is too broad.
7. Engineers Australia sees the introduction of Decennial Liability Insurance (DLI) proposed by the NSW Government as something that will greatly benefit consumers but will not change the uncertain regulatory and PII environment that engineers currently face.

Key Issues

Registration of engineers

Comprehensive statutory registration for engineers in all Australian states and territories has long been supported as a method of raising professional standards amongst engineers. In the absence of regulation of engineering work, anyone can purport to be an engineer and can do engineering work without appropriate qualifications, experience, or competencies and with disregard to professional standards and ethical conduct.

NSW enacted a form of engineering registration through the *Design and Building Practitioners Act 2020*. The Act is primarily concerned with the regulation of building design and building construction work, and the requirement for practitioners involved in this work to make declarations of compliance.

However, by embedding the registration of professional engineers within narrow, building sector-focussed legislation, NSW created a scheme which is inconsistent with other jurisdictions. Queensland, Victoria and the ACT have all enacted standalone professional engineering registration legislation which:

- covers engineering work beyond the building sector – safeguarding the community across a much broader range of industries and disciplines of engineering, and
- is better reflective of the range of individual engineers' models of employment and practice than the NSW model.

Whilst the established Professional Engineers Acts in Queensland, Victoria and the ACT have slight variations, they deliver a consistent national standard for registration of professional engineers in Australia. The move towards legislative national consistency is advancing. Other states, such as SA, are looking to adopt this nationally consistent model.

There are real public safety and economic disadvantages for NSW from not being part of a nationally consistent landscape of registration standards and processes which facilitate effective automatic mutual recognition (AMR). These disadvantages potentially make it unattractive for engineers to practice in NSW and are not in the best interests of the NSW community or professional engineers resident and working in the State. These include:

- Engineering work spans across multiple industries. Engineers Australia understands that the scope of Building Commission NSW is to only regulate the building industry, but the risks posed by unregulated engineers in buildings are duplicated across all other industries involving engineering if registration is not applied on a holistic level.
- Engineers who reside in NSW but are not registered, as they do work is outside the building industry, must be individually registered in each state or territory where they wish to work as they cannot be recognised under AMR. This imposes extra administrative costs on individuals and companies, particularly larger engineering companies.
- Under AMR, the engineer is only permitted to do the scope of work authorised in the home state. Registered NSW engineers who wish to do work interstate will have restrictions placed on the work they do. Currently they are limited to doing work only on class 2, 3 and 9c buildings. If they wish to do work outside this, they must register again in the state in which they intend to work, once again increasing administrative costs.
- To meet its housing targets, NSW will most likely need to rely on engineers who do not reside in NSW. These engineers may be discouraged from doing work in NSW as the regulatory systems which they work under in their home state do not align with NSW. NSW would benefit from aligning

its regulatory structure to the nationally consistent model. This would facilitate interstate engineers providing their services to NSW.

Engineers Australia understands that the intent of the Building Bill is to consolidate acts such as the *Design and Building Practitioners Act 2020* into one plain English act. Engineers Australia understands the priority given to engineering work in the building and apartment sectors but NSW must not be short sighted in its regulatory agenda.

Engineers Australia encourages NSW to draft the Building Bill in such a way that it can continue to allow for the registration of engineers working in the building industry for the moment but allows for more comprehensive registration of engineers to be implemented in future under a new Professional Engineers Registration Act.

Engineers Australia also understands concerns over the unique risks that are posed by not having specific requirements for engineers working on the specific classes of buildings covered by the Building Bill. These are buildings which people reside within, and their safety and peace of mind are paramount. If NSW believes greater scrutiny is required for these engineers, then it should consider a model similar to Victoria which requires engineers registered under *Professional Engineers Act 2019* to also undertake a Building industry endorsement to work in the building industry.

NSW can model their reforms from both Queensland and Victoria. All engineers would be regulated by a broad engineering registration body with engineers working within the building industry further regulated by BCNSW. NSW could consider establishing a Board of Professional Engineers, similar to that of Queensland, which can be responsible for the regulation of the engineering as a whole. This is similar to the model for Architects. See point f.

Moving towards national consistency

Engineers Australia recommends that the NSW government adopt the nationally consistent engineering registration model by:

a. Establishing a NSW Professional Engineers Registration Act

The best way for NSW to align with other jurisdictions is to develop a NSW Professional Engineer Registration Act based on the Queensland/Victorian model.

Queensland's *Professional Engineers Act 2002* has formed the basis for general registration of professional engineers in Australia. It provides for:

- Registration of professional engineers.
- A definition of professional engineering work or services.
- An offence of carrying out professional engineering work or services when not registered, or under the direct supervision of a registered professional engineer.
- Disciplinary provisions and the investigation of disciplinary offences.
- A co-regulatory scheme which allows for Assessment Entities to assess the qualifications, experience and competence to nationally and internationally aligned standards.

The Building Bill does support many of these provisions, however, it is too limited in its scope when considering the breadth of engineering and engineering services provided in NSW.

Engineers Australia has had extensive experience in supporting the establishment of this system within Victoria and the ACT and is keen to assist the NSW Government in establishing this model of engineering registration.

b. Ensuring registration covers all areas of engineering.

Potentially significant health, safety and economic risks exist beyond the building sector if engineering work is conducted by unqualified or incompetent persons. At present there is a focus on engineering work in the building sector—and often apartment buildings as a sub-set of that industry. However, engineers provide critical services and products as solutions to many complex challenges across many industries, like public infrastructure, power generation, manufacturing, and mining.

Engineers Australia recommends that statutory registration of professional engineers should apply to professional engineers who do professional engineering work in any area of engineering in any industry. Not doing so could encourage those unsuitable to do engineering work to transfer into sectors in which engineering work is not subject to registration, thereby increasing risk in those sectors.

c. Adopting nationally consistent registration standards and assessment processes.

The Queensland and Victorian acts require practice standards and assessment processes to be consistent with national and international standards. These should be clearly linked to the International Engineering Alliance (IEA) *Graduate Attributes and Professional Competencies*. Engineers Australia is a member of the IEA and is recognised as the custodian of Australian competency standards by all other IEA members. NSW should adopt registration standards and assessment of competence processes consistent with these national and international standards.

d. Facilitating Automatic Mutual Recognition for a professional engineer registered in NSW.

The *Mutual Recognition Act 1992* entitles an engineer registered in one state to also be registered as an engineer in another with no further competency assessment. Automatic mutual recognition allows engineers to be registered in their home state and practice in other states as deemed registered without reassessment or additional registration fees. Mutual recognition draws a clear distinction between personal qualities needed for registration, which cannot be challenged by a second state, and specific practice requirements that can vary from state to state. Harmonisation of registration schemes across Australia, allowing for Automatic Mutual Recognition (AMR) and Automatic Deemed Registration (ADR) is a high priority for industry and professionals so that the unnecessary regulatory frictions and administrative burden associated with navigating different systems does not impact productivity.

e. Adopting nationally consistent guidelines for professional associations that operate as assessment entities and validates the operational model and performance of entities.

Under a co-regulatory model in nationally consistent professional engineers registration, regulators can rely on assessment entities to assess the qualifications, experience, and competencies of applicants. Engineers Australia commends the NSW Government's efforts to adopt this national process to approve appropriate professional associations as assessment entities. Importantly, it is necessary to validate their scheme's operation and its alignment to national and international standards. This gives confidence to regulators in other jurisdictions and facilitates mutual recognition and national consistency. Further details are contained within "Co-regulation of engineers".

f. Creates a mechanism (e.g. professional engineers registration board) to provide independent advice to the government on professional engineer registration matters.

Proper registration and regulation of engineers requires expert independent advice. A mechanism is required to provide this advice to the NSW Government.

An independent board, similar to the Architects Board, could be established to provide registration advice to the government as needed and would align with the governance structure in Queensland. Engineers Australia advocates for an independent board similar to the Board of Professional Engineers Queensland (BPEQ), which includes engineers, representatives from the law and academia and a representative from Engineers Australia.

Co-regulation of engineers

Engineers Australia supports the NSW Government's efforts to adopt co-regulation as part of its licensing schemes. However, some improvements to the proposed framework are required for the scheme to work efficiently and effectively for engineers.

Engineers Australia has already provided comment via submission on NSW's proposal for co-regulation in building and construction. This should be referred to for further information on Engineers Australia's views on operating as a co-regulator in NSW.

Oversight of assessment entities

Engineers Australia is an approved assessment entity in Queensland, Victoria, Western Australia and the Australian Capital Territory. It is consulting with South Australia in its early deliberations on registration of Professional Engineers, demonstrating its capability and capacity in navigating the complexities of a co-regulatory scheme. With a wealth of experience, Engineers Australia has partnered effectively with regulatory authorities in these regions to ensure that engineering professionals meet the requisite qualification, competency and experience requirements. This is fostering a regulatory environment that promotes excellence and compliance within the engineering profession.

Engineers Australia has the capability to be an effective co-regulator with the NSW Government and is happy to share our co-regulatory experience to improve the NSW model. **Engineers Australia recommends the NSW Government seeks feedback from other jurisdictions such as Queensland and Victoria on how their co-regulatory schemes for the registration of engineers have been implemented.**

National consistency with other jurisdictions is key to the effective and efficient operation of engineer registration schemes. The requirements for assessment entities should be nationally aligned to facilitate AMR and reduce costs and regulatory burdens for engineers, industry and regulators. Ideally the same assessment entities with the same assessment schemes should be approved in each state and territory. In relation to the New South Wales proposal:

- Engineers Australia supports the compliance and enforcement tools outlined in the consultation paper but would like further clarification on when each tool would be used.
- Standardised fees can offer consistency however there is risk relating to the potential impacts on the financial viability of smaller organisations and the quality of assessments they would conduct. Assessment entities should be allowed to set reasonable assessment charges which can be automatically adjusted for CPI. Additionally, assessments specific to some organisations (such as for the Engineers Australia Chartered credential) provide additional value over and above state registration eligibility and should be charged at an appropriate level which is able to be set by the assessment entity.
- Gazettal of approved assessment entities would provide certainty to industry and the public of those able to assess engineers.
- Engineers Australia would like further clarification on renewal requirements and information sharing agreements and what this would mean in practice for assessment entities – in particular, the proposal for a new competency assessment every 10 years. This proposal will add additional cost and administrative burden to engineers, industry, and the Regulator. **Engineers Australia would welcome further discussion and information on how this monitoring and auditing system would work in practice.**
- Engineers Australia conducts assessments for numerous purposes such as state registration eligibility, Chartered assessment, and the National Engineer Register. Individuals who do not pass a competency assessment can be given feedback on knowledge gaps but the level of detail provided in the feedback should be at the discretion of the assessment entity.

Requirements for assessment entities

Professional bodies such as Engineers Australia have deep technical expertise across the engineering profession and can assist regulators by conducting the assessments of qualifications, competence, and experience of individuals.

New South Wales should ensure its guidelines for assessment entity approval include nationally consistent, minimum requirements to enable consistent assessment outcomes and provide confidence that assessments are robust.

The International Engineering Alliance (IEA) 'establishes and enforces internationally benchmarked standards for engineering education and expected competence for engineering practice.' The Australian National Competency Standard for Engineers (NCSE) adopts the IEA Graduate Attributes and Competency (GAPC) standard and is accepted by the profession and other state regulators as the minimum requirement for assessment entities in a co-regulatory model of registration in Australia. It is critical that approved assessment entities in New South Wales understand the competency standards and how to assess against them.

As a minimum, assessment entity guidelines must ensure approved assessment schemes:

1. Assess applicants' qualifications and competency against the Australian NCSE.
2. Refer assessment of Washington Accord equivalence to the Australian signatory to the Washington Accord.
3. Require applicants to have at least 5 years' experience at the professional engineer level in the last 10 years.
4. Require applicants to comply with a code of ethics.
5. Describe how assessments are conducted and what forms of evidence must be provided by applicants.
6. Ensure assessments are conducted in an independent and professional manner.
7. Ensure assessors are adequately trained to conduct assessments.
8. Ensure no conflict of interest or bias when conducting assessments.
9. Have effective systems to ensure continuing professional development (CPD) of engineers is conducted and monitored.
10. Ensure applicants have access to an appeal process.
11. Have assessment fees which are commensurate with the assessment effort and are affordable to early career applicants.
12. Have operational capability to conduct assessments.
13. Have operational capacity to conduct assessments in a timely manner.
14. Make their requirements available to prospective applicants.
15. Verify the identity of applicants adequately.
16. Ensure copies of documents provided by applicants are appropriately translated if required and certified.
17. Maintain records of assessments.
18. Are monitored and improved.

19. Submit to regular audits.
20. Report scheme performance to the regulator.

Engineers Australia supports the various types of industry bodies that can participate in the co-regulatory scheme, however to be approved as an assessment entity for engineers, assessment entities must assess engineers to the [Minimum requirements for registration for independent practice as a professional engineer in Australia](#) which are aligned to national and international standards.

The following requirements are considered the minimum requirements for registration for independent practice as a professional engineer in Australia. **Assessment entities should be able to evaluate an engineer's competency against these five requirements.** The Engineers Australia voluntary National Engineering Register (NER) for all disciplines is consistent with these requirements. These requirements are:

1. An International Engineering Alliance (IEA) Washington Accord recognised qualification (or equivalent as assessed by Engineers Australia (Australia's signatory to the IEA)).
2. At least five years of relevant experience in the last ten years in the Area of Engineering being sought for registration.
3. Assessment against the following five of the sixteen National Competency Standards (NCS) independent practice competencies¹.
 - a. Deal with ethical issues
 - b. Practise competently
 - c. Develop safe and sustainable solutions
 - d. Identify, assess, and manage risks
 - e. Local engineering knowledge
4. A commitment to ethical practice (e.g. Engineers Australia's Code of Ethics and (if applicable) a jurisdiction's Code of Conduct).
5. A demonstrated commitment to undertaking Continuing Professional Development (CPD) while registered of at least 150 hours every three years.

Other requirements for a given jurisdiction (for example: for practice in the building sector, knowledge of the National Construction Code and relevant standards) may be applicable to some engineers, but these should be distinct from the core registration competencies applied to all engineers.

The competency, capability, capacity, and international recognition of recognised engineering bodies are critical to the performance of engineer registration schemes. There is a risk to the effectiveness of the schemes, mutual recognition, and national consistency if the requirements for approval of these bodies are not contained within the principal act and are within the areas of expertise of potential recognised engineering bodies.

Engineers Australia recommends the requirements for approval of recognised engineering bodies are defined in the Act and/or Regulations to highlight their significance and that specific requirements which are outside the area of expertise of recognised engineering bodies (such as the need to determine insurance coverage of an engineer) are removed from the guidelines.

¹ <https://www.engineersaustralia.org.au/publications/stage-2-competency-standard-professional-engineers>.

Professional Standards Schemes

Professional Standards Schemes (PSS) are principally designed to make professional indemnity insurance profitable for insurers to keep them in the market, with flow-on effects for professional consultants to protect their financial well-being and tertiary effects for consumers of consulting services who have greater certainty of being able to recover damages in the case of tort or contractual default. The Professional Standards Acts are based on the narrow assumptions that professionals act as sole traders or professional partnerships with the ability to trade determined by membership of a professional association. These assumptions do not apply to the vast majority of professional engineers doing professional engineering work in Australia.

Engineers Australia has done extensive research into the feasibility of re-establishing a Professional Standards Scheme (PSS). The research was primarily for the purposes of registration of professional engineers, but also addressed more broadly a PSS as a mechanism for addressing the issue of professionalism in the profession. The research found that a PSS would be difficult for Assessment Entities for the engineering profession to establish for a range of reasons. This is further discussed in Engineers Australia's submission on NSW's proposal for co-regulation in building and construction.

Engineers Australia notes that the requirements for a professional association to have a PSS approved are similar to the requirements to be approved as an assessment entity under nationally consistent professional engineers acts. An association with a PSS may be eligible to be approved as an assessment entity, but an association eligible to be approved as an assessment entity may not meet the assumptions in the Professional Standards Acts about membership or control. NSW must continue to approve assessment entities independently from their desire or ability to have a PSS.

Obligations placed on individual engineers

The *Design and Building Practitioners Act 2020* currently does not distinguish between individual employees or members of a design team and the employer or team leader responsible for the overall work. The Act requires declarations from each individual for their individual component of the design work but not from the employer or team leader who ensures the individual components work effectively together. This focus on the individual, which ignores the pivotal role of the businesses that actually undertake, contract for and take financial responsibility for work, is an over-simplified assumption that leads to overcomplicated processes for certification, rectification and redress.

Many of these provisions have carried over to the proposed Building Bill.

Whilst every team member is responsible for identifying and communicating risk, successful risk management requires specific people within the business accepting responsibility for and working together to assess, manage and monitor risk. In a single director or sole practitioner business, a single person may be accountable for ensuring that risk is managed appropriately, along with all other management responsibilities. However, in a larger consultancy, there may be multiple personnel who have direct responsibility or oversight of activities to manage risks.

Engineers Australia acknowledges the intent of the legislation to provide consumer protection but is concerned that this approach is not in the best interests of NSW or professional engineers who live and work there. In consolidating and improving building regulations, NSW has an opportunity to rectify many of the issues affecting its current regulation scheme such as:

- Not identifying or allowing for engineering work done in circumstances other than consulting contracts.
- Not fully identifying the differences between consulting engineering businesses which enter into contracts and take out insurance and their employees who do not.

- Placing legal liability and insurance obligations on individual employees rather than the employing business, potentially making it more difficult and more expensive for consumers to get redress for faulty work.
- Limiting professional engineering work in NSW to only those forms of consulting work for which Professional Indemnity Insurance is available.

Section 48 (Building Bill) - Insurance to do engineering work

Section 48 of the proposed Building Bill states that each individual licence holder (which includes professional engineers) must ensure they are adequately insured before undertaking licensed work. If the licence holder cannot form an opinion that work to be done is covered by adequate insurance, then they must not do the work. This carries over the insurance obligations for engineers from the *Design and Building Practitioners Act 2020* and Regulations where insurance is limited to professional indemnity insurance or an approved equivalent.

The responsibility of insurance

For engineers working in engineering companies, insurance cover is usually taken out by businesses and not individual employees. It is a business capability rather than measure of competence of the individual engineer.

Engineers Australia does support the notion that competent and ethical engineers have an obligation to ensure that the work they do is covered by insurance because much engineering work is done in circumstances where insurance is not applicable or available. Where insurance is applicable or available, engineers working in large companies should be able to rely on their employer/insurance specialist that their company's insurance policy covers the work that they do.

Individual professional engineers are not trained in insurance risk assessment or interpretation of insurance policies and may struggle to make the assessments of adequacy of insurance required under Section 48 of the Building Bill. There are no uniform insurance policies provided by the insurance market for engineering work and a great deal of engineering work is covered by forms of insurance other than professional indemnity insurance. The underwriters each have their own policies with differences in cover and what is excluded. This is based on the underwriter's risk assessment of each insured business and actuarial assessment of the insurance scheme.

If unable to rely on their employer/insurance specialist for assessments of adequacy of insurance, engineers may decline to do building engineering work for their employer or move to employers who do not serve the building sector, in order to avoid the risk of prosecution for breach of their obligation to be adequately insured under these laws.

It is also inefficient and prone to conflicting interpretations to require each individual employee engineer to carry out and record the assessment of a single insurance policy taken out by the employing business. More centralised assessment of insurance adequacy by people trained in insurance risk assessment is more efficient and reliable.

Legislation should allocate each risk to the entity most capable of managing that risk. Engineers Australia strongly advocates that the Building Bill be amended to separate the roles and obligations of individual employees and the contracting business as appropriate. An example is the *Building Services (Registration) Act 2011* in Western Australia that provides separate registration for individuals as practitioners and sole-traders, partnerships and corporations as contractors.

Engineering work covered by insurance

In the current regulations, NSW has assumed that all professional engineering work can be covered by professional indemnity insurance. Engineers Australia's statistical overview shows that less than 30% of

professional engineers work in the area of professional or technical services.² Although this proportion is higher in building design, many professional engineers working on buildings in NSW do so as employees of technical businesses in supply chains and on-site construction.

While professional indemnity insurance is relevant to consultant design services, it is not usually relevant to, or provides cover for, other types engineering work that may be covered by product or public liability insurance or not be directly covered by insurance at all.

The *Design and Building Practitioners Act 2020* requires professional engineers to be indemnified in general terms, however the Regulations require professional indemnity insurance to cover all forms of engineering work. This makes it unlawful to do engineering work on Class 2, 3 and 9c buildings in NSW that is not covered by professional indemnity insurance. This suggests that any design, construction, operation or maintenance work not done under a consulting contract must be done in some other state or territory. NSW must not repeat this again with the drafting of the Building Bill and associated regulations.

Guidance on insurance

The NSW Government has given very limited guidance on what levels of cover, deductibles, exclusions or what policy wordings gives adequate protection to the individual engineer or consumers. Without adequate guidance, there is a risk that engineers may do work that is not covered by appropriate insurance or not do work that is.

The NSW guidance should include how engineers can:

- Identify when insurance is relevant to the work to be done, and whether the prescribed form of insurance is relevant and available.
- Identify and demonstrate the adequacy of insurance cover applicable to their work.
- Rely on an employer or insurance specialist to keep adequate written records specifying how they determined that a policy provides adequate levels of indemnity cover.

This guidance must be comprehensive and practical and accommodate all engineers from those working in large corporations to sole operators. Consideration must be given to the resources available to each of these different types of engineers and what is reasonably practical for them to do to determine the adequacy of their insurance. Preferably, this assessment would be undertaken by insurance experts.

The NSW Government must act urgently on these issues to ensure that competent and ethical engineers are not driven away from the building sector due to excessive, unreasonable, and burdensome insurance obligations.

Section 232 (Building Bill) – Extension of Duty of care

Section 232 of the Building Bill establishes a duty of care for all licensees to avoid economic loss caused by defects. For engineers this is carried over from Section 37 of the *Design and Building Practitioners Act 2020*. The duty is owed to each owner of the land on which building work is carried out, and to each subsequent owner of the land, regardless of whether that work was carried out under a contract with the owner or another person.

This duty of care applies to every engineer, building designer and each member of their teams who prepares or supervises, or has prepared or supervised in the past, a design for building work in NSW.

² [Engineers Australia Statistical Overview 15th edition](#)

The provision for this duty of care was a major point of contention for engineers under the *Design and Building Practitioners Act 2020*. The Supreme Court in NSW has examined how the statutory duty of care provisions in the Act should apply in the recent decisions of:

- Goodwin Street Developments Pty Ltd atf Jesmond Unit Trust v DSD Builders Pty Ltd (in liq) [2022] NSWSC 624 (19 May 2022);
- Boulus Constructions Pty Ltd v Warrumbungle Shire Council (No 2) [2022] NSWSC 1368 (12 October 2022);
- The Owners of Strata Plan No 84674 v Pafburn Pty Ltd [2023] NSWSC 116 (23 February 2023)

The court's decisions established that:

1. The statutory duty of care applies to individuals, including employees, and not just the contracting party.
2. An award of damages can be made against the individual employee.
3. A defendant business is able to join its employees and subcontractors and thus increase the cost of making a claim while reducing its liability for the work of its employees.
4. The duty of care and liability for damages applies in respect of all buildings and not just the limited classes to which professional engineer registration currently applies.
5. The duty of care and liability for damages attaches to the employee for all work done for all previous employers, regardless of whether they are still in business or maintain insurance.

Engineers Australia understands the consumer protection aims behind these provisions, which are to provide a statutory duty of care in response to the High Court decision in *Brookfield Multiplex Ltd v Owners Corporation Strata Plan 61288*. Liability for breach of the duty is apportionable pursuant to Part 4 of the *Civil Liability Act 2002*. However, the consumer is only fully protected under the regime of proportionate liability if they can identify all the concurrent wrongdoers who have contributed to the loss, and each wrongdoer is in a position to pay for its share of the apportioned liability. For engineering design work on a building, the usual capacity to pay comes from insurance.

Goodwin confirms that an owner may need to treat each individual who worked on the design as a concurrent wrongdoer in addition to the business or corporation that contracted for or undertook the design work. This puts a major cost and investigation burden on any owner taking legal action.

Justice Stevenson commented in his Goodwin decision that interpretation of some parts of the Act is 'fiendishly difficult'.

Engineers Australia believes that this regulatory arrangement places too much onus on the individual engineer and relies on each individual engineer to be required to hold insurance should a claim be made against them personally. The decision in Goodwin may encourage individuals who may have this duty of care liability to divest themselves of assets to discourage or protect themselves against an award of damages. It also discourages engineers from doing future work in NSW that attracts this liability.

All of this undermines the ability of a consumer to recover damages.

The objective of the *Design and Building Practitioners Act 2020* is to establish a duty of care owed by persons who carry out construction work relating to certain buildings to take reasonable care to avoid economic loss caused by defects arising from the work.

Engineers Australia recommends that NSW ensure that the burden of this statutory requirement does not fall excessively on individuals but also encapsulates the entities which are contracted to do the

work. As mentioned above, the majority of the liability should fall on the contracted party rather than an individual engineer.

In addition to reducing the ability of the consumer to recover damages, the decision in Goodwin has the potential of significantly increasing vulnerability of engineers to claims that rely on the statutory duty, which will result in a commensurate rise in the cost of insurance, and a likely deleterious effect on the availability of insurance products for this. Our members have shown us examples of increases in premiums for professional indemnity insurance to cover this additional risk and where insurers have placed exclusions on cover to avoid liability.

As per section 48, if insurance is not available, professional engineers in NSW cannot do professional engineering work of any kind, even if it is internal development work and not work that will directly affect the public or consumers. This makes it less viable for individual professional engineers to work in NSW and for engineering businesses to be based there. NSW must also ensure that there are insurance products available for engineers and engineering companies which cover this duty of care liability.

Section 131 (Compliance and enforcement bill) - Phoenix activity

Intentional phoenix activity is damaging to the building and construction industry. Engineers Australia supports the principle that the whole industry should work together to disrupt companies that engage in intentional phoenix activity, however, it should not fall on building licensees to police the operation of these persons. Whilst an ethical practitioner should take steps to avoid involvement with these persons and report them to the appropriate authorities, the duty should fall the Department of Fair Trading, Building Commission NSW, ASIC and the ATO who are best placed to investigate these matters.

Individual professional engineers are not trained in business auditing or interpretation of financial statements and may struggle to make the assessments of what constitutes reasonable steps to avoid business association required under Section 131 of the Building Compliance and Enforcement Bill. This obligation will deter many from doing building engineering work for their employer or move to employers who do not serve the building sector, in order to avoid the risk of disciplinary action.

Guidance around how to identify those who have been involved in intentional phoenix activity would be welcomed by industry. However, depending on what is contained in this guidance, it may be outside the expertise or capacity of a building practitioner to determine if a company they are intending to work with complies. This guidance must be comprehensive and practical enough to accommodate all building practitioners, from those working in large corporations to sole operators. Consideration must be given to the resources available to each of these different types of building practitioners and what is reasonably practical for them to do to determine whether or not they are engaging with party that undertakes intentional phoenix activity.

As mentioned, most professional engineers work as employees of a business. Very few operate businesses as sole traders. An ethical practitioner may be placed in a position where they suspect their company is engaging with another company which is engaged in intentional phoenix activity but is unable to convince others within their company. The result being that this ethical practitioner is forced to decide whether they should remain in the company and risk disciplinary action or choose to leave the company – based on assessment which they are not trained to do.

Even for engineering businesses with in-house expertise in interpreting financial statements, making this assessment may still be difficult as there is no legal requirement for a party engaging in intentional phoenix activity to provide the pertinent information and documents to an ethical building practitioner. Due to the nature of building contracting, an ethical business may be forced to associate with a phoenixing offender through their contract with a developer or others. This ethical business may ask for this information to check whether their associates are engaged in intentional phoenix activity but not be provided this information as there is no legal compulsion to do so.

Proposing that there should be disciplinary action on those who may be willing to report phoenixing offenders, but who may not have the expertise to detect these offenders, is likely to encourage good and ethical practitioners out of the industry. A failure to comply should certainly not be treated as an offence and Engineers Australia does not support any mandatory reporting requirement. It is too onerous on both individual practitioners and businesses to investigate details of something they weren't involved in, are not expert in assessing and then possibly managing ongoing correspondence with the Secretary.

Engineers Australia suggests that an anonymous tip-off facility would be a more practical solution to getting industry involved in identifying and disrupting those engaged in intentional phoenix activity.

Definitions

Building Elements

In the definitions under Section 9 (1) (c) the Building Element includes the foundations. Under Australian practice and the NCC the foundation is the soil and rock material below the building, whereas the footing is the constructed element. Therefore, it is important that foundation be removed from this area of the definition because there are large unintended consequences of including the word Foundations here. Engineers Australia notes in other countries, such as the UK, foundations are used to describe the footing, but it is not the case in Australia or in the NCC.

Subdivision work

The draft Building Bill currently encompasses "subdivision works" but does not consider the necessary distinctions and processes involved in the design, approval or construction of a subdivision, including roads, stormwater systems, fields, major bulk earthworks, and necessary water, electrical, telecommunications and sewerage systems necessary for those subdivisions. Importantly the National Construction Code provides the basis for all designs and approvals within the proposed Bill, however subdivision works do not easily fall into any of the various building classes within the NCC. Further clarity is needed for which licences would be required for design, or construction of subdivision works.

Protection works

Engineers Australia had hoped to see a definition of 'protection works' included in the Bill. In NSW, there is no right for a neighbour to be provided any information on an excavation next door, which can have a large impact on their property. An example definition is available in Victoria. Please see this [link](#) for more details.

Prescriptive standards

As per current definitions, a person who merely undertakes tasks set out in, or required by, a document which meets the definition of 'prescriptive standard', is providing services 'only in accordance with' a prescriptive standard. That person is therefore not providing 'professional engineering services' and does not need to be registered. Engineers Australia supports this position as work in accordance with this 'prescriptive standard' does not require the exercise of judgement and/or require advanced scientifically based calculations.

Any service which includes a professional judgment about which standards or criteria should be applied to a particular situation is likely to be a 'professional engineering service' and hence would require a registered professional engineer to undertake the work. This is irrespective of whether the standard is published by a body such as Standards Australia or is produced by an individual registered engineer for application in particular circumstances.

Engineers Australia would like to work with BCNSW and regulators in other jurisdictions to create a more concrete definition of what constitutes a prescriptive standard.

Remedial building work

The Building Bill has been drafted in consideration of the 'act' of building rather than for the asset class of a 'building'. Much of the regulation focuses on how a building is built rather than how that building is

maintained for its lifespan. Lacking other alternatives, legislation that is drafted to direct how the building was to be originally *designed and constructed* will most likely, as has happened in the past, be adopted as the de-facto legislation governing how the building should be *maintained*.

Every building currently under design or construction will become an 'existing building' once construction is complete and there are significantly more existing buildings than buildings under construction, yet the legislation only deals adequately with the latter.

Every existing building is unique. It has been built according to the codes and standards in force at the time of construction, taking into account the community expectations and design trends at that time.

This has created some extremely challenging consequences for buildings and their owners. Codes and standards naturally evolve with time and increasing knowledge, resulting in improved performance of assets. Not all existing infrastructure is compatible with the latest standards. However that does not mean that older assets cannot continue to perform to satisfactory levels simply because they cannot be upgraded to current standards.

The legislation places much of the responsibility on designers and builders to certify that certain building maintenance projects comply with the requirements of the NCC, while offering no guidance on how those NCC requirements and Australian Standards should be applied to buildings that were built decades ago to differing and incompatible standards.

As a result, designers are naturally adopting very conservative positions in their designs so that they can be certain of achieving NCC compliance. While this sounds like a desirable outcome, the result is replacement-based outcomes rather than maintenance-based outcomes. In effect, if there is any doubt that the performance requirements of the NCC will not be achieved, designers are opting to replace building elements at great cost, inconvenience and environmental impact.

The impact of this on owners is vastly increased and often needless costs, sometimes resulting in the work simply not happening, and building stock spiralling into increasingly poor condition.

Existing buildings should be subject to specific legislation that acknowledges that the future life of a building should be managed very differently to construction, and that allows current owners to make decisions that suit their current circumstances. Maintenance that is not fully compliant but that prevents decline is better than no maintenance at all. Engineers Australia would like to work with BCNSW and regulators in other jurisdictions to create a clearer set of standards for remedial work done on existing buildings.

Certification and approval processes

Engineers Australia supports the concept of stricter protocols surrounding both building approvals and staged building approvals. Engineers Australia looks forward to working with BCNSW further on these matters as details are developed in the regulations.

Engineers Australia recommends introducing the role of the Engineer of Record (EOR) for all engineering systems in buildings of sufficient complexity through the appropriate legislative instruments. These professional engineers should have at least fifteen years' experience and be registered in a relevant area of engineering as required by jurisdictional law.

The Engineer of Record for an engineering system is a senior professional engineer who is engaged by the owner to endorse drawings, reports, or documents for a project. Endorsement means review and assessment for compliance with the performance objectives and compatibility with the concept design.

There are many engineering systems in a building project. For each engineering system the Engineer of Record should:

- plan, monitor and coordinate professional engineering service delivery to ensure that the documentation of their engineering systems meet the contractual and regulatory requirements.
- be satisfied that the professional engineers engaged on the engineering system are aware of the National Construction Code (NCC) and have the required competency and capacity to deliver the required services.
- help determine when independent checking or enhanced verification is justified.
- liaise with the builder concerning planning, management and monitoring of the construction phase especially concerning design changes initiated during construction.
- coordinate regulatory certification of the engineering system and advise on the inspection of engineering systems and implementation of building safety during the construction phase.
- interact with the responsible building surveyor over concerns about non-compliant construction work.
- advise the building owner on meeting statutory approval requirements.

Fire Safety

Engineers Australia has concerns about the ability for non-qualified, non-vetted persons to prepare fire engineering performance solutions of any kind and believes that the way in which low risk buildings are defined in section 7.2 of the consultation paper is too broad.

The current proposal would allow for a three storey Class 6 shopping centre with a floor area of 5,997 m² (i.e. each storey with a floor area of 1,999 m²) to be designed from fully exposed mass timber with a Performance Solution (addressing C1P1 and C1P2) from a non-qualified person. Governments must balance market flexibility with competency of those responsible for delivering fire safety to the community (e.g. fire engineers). Engineers Australia believes that this proposal goes too far in allowing non-qualified people to perform work that should be done by a competent and registered fire safety engineer.

Engineers Australia also has concerns over BCNSW's views that *"the project certifier will have a broad knowledge of the BCA sufficient to assess fire safety PSRs in lower risk buildings, and their assessment will be informed by detailed design documents and detailed staged building schedules (where applicable) to give a holistic view of the work intended to be carried out as part of the CC or CDC"*. Fire safety is a specialised area of knowledge, and certifiers will not necessarily have the expertise to make judgement calls in these areas. For example, the use of combustible cladding in Victoria was often done with poorly justified or no performance solution and was approved by certifiers at the time as legislative frameworks allowed for it. Further consideration should be given to including fire safety engineers in this decision-making process, even on lower risk buildings

Decennial Liability insurance

Engineers Australia sees the introduction of Decennial Liability Insurance (DLI) proposed by NSW Government as something that will greatly benefit consumers but as currently proposed will not change the uncertain regulatory and PII environment that engineers currently face.

Under Decennial Liability Insurance, an apartment owner or the strata company notifies the insurer of a defect, and the insurer is obliged to fix it. Engineers Australia supports this as a useful protection for apartment owners that avoids them having to fund rectification and take legal action to recover economic loss. This is the type of statutory response anticipated by the High Court when limiting the common-law duty of care. The insurer is entitled to pursue rectification costs from any person liable for

the defect, including engineering businesses and individual engineers, but this should only be to the extent provided for under the common law.

As mentioned above in “Extension of Duty of Care” the provisions in the Design and Building Practitioners Act and carried over into the Building Bill have liability and insurance requirements that go beyond the common law and put unreasonable burdens on individual engineers making it more likely that insurers may pursue them in attempts to subrogate the claims. The statutory duty of care provisions should not apply where DLI applies.

These duties and statutory requirements applied in addition to DLI are a form of “double dipping” and will add to the cost of recovery and will increase DLI premiums making entering the market less attractive to insurers. It also makes it less attractive for individual engineers to work in the building sector in NSW.

While supporting the overall thrust of introducing DLI for apartment buildings in NSW, Engineers Australia has some concerns with the details of the proposal and is happy to work with the NSW Government to address them. These include:

- The complex liability arrangements for engineers duplicate protections for consumers and could complicate the task of insurers acting in subrogation to owners and cause the cost of DLI policies to be higher than they need be.
- Competent and ethical engineers may be driven away from the building sector due to excessive, unreasonable, and burdensome insurance obligations.
- It is unclear what happens if an individual DLI insurer, or the DLI market, collapses. Relying on a commercial product without some safety valve to prevent the process or industry stopping dead if the market fails, is misguided. How the mechanism would react in such a situation is critical to the ongoing sustainability and reputation of the scheme and the trust placed in it by consumers.
- It is not clear how an interim Occupancy Certificate (OC) may affect the commencement of a DLI policy, as the final OC may be issued much later after the first interim OC.
- DLI should only be mandatory if the market is mature otherwise in order to maintain profits developers may be inclined to squeeze contractors (engineers) to perform for lower fees.

Conclusion

Engineers Australia supports NSW Government’s efforts to conglomerate and improve on the reforms raised in acts such as the *Design and Building Practitioners Act 2020* and the *Residential Apartment Building (Compliance and Enforcement) Act 2020* in the new Building Bill. Engineers Australia is keen to continue working with the NSW Government to ensure that the Act and subsequent regulations promote safety, innovation and best practice in the NSW building industry, particularly for engineers.

To achieve this vision, NSW must not perpetuate and extend the design flaws that were present in the *Design and Building Practitioners Act 2020* and subsequent legislation. If these flaws are allowed to maintain, the likely outcome is that the reforms will not achieve the intended objectives.

About Engineers Australia

Engineering is the essential link between thinking and doing. Between idea, and implementation. It’s our means for positive, sustainable change, with an influence on every aspect of modern society. Engineers are the enablers of productivity because they convert smart ideas into new products, processes, and services.

As Australia's national body for engineering, we are the voice and champion of our 120,000-plus members. We provide them with the resources, connections, and growth they need to do ethical, competent, and high-value work in our communities.

A mission-based, not-for-profit professional association, Engineers Australia is constituted by Royal Charter to advance the science and practice of engineering for the benefit of the community. We back today's problem-solvers, so they can shape a better tomorrow.

As Australia's signatory to the International Engineering Alliance, Engineers Australia maintains national professional standards, benchmarked against international norms. Under the Migration Regulations 1994, Engineers Australia is the designated assessing authority to perform assessment of potential migrant engineering professionals' skills, qualifications, and/or work experience to ensure they meet the occupational standards needed for employment in Australia.