



ENGINEERS
AUSTRALIA

Developer Review Panel

Engineers Australia submission

January 2023



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1. Introduction

Engineers Australia (EA) is the peak member-based professional association for engineers. Our work is supported by around 115,000 members. Established in 1919, Engineers Australia is constituted by Royal Charter to advance the science and practice of engineering for the benefit of the community.

The term ‘community’ is used in its widest sense, and the issues raised in this submission seek to improve outcomes for everyone. Engineers Australia’s contribution is designed to help create a legislative framework to deliver a better-performing engineering sector with clearer accountability of those involved.

Engineers Australia maintains national professional standards, aligned with the International Engineering Alliance standards. As Australia’s signatory to the International Engineering Alliance, we have authority to accredit higher education engineering programs and credential experienced engineers against international independent practice standards. Engineers Australia also manages Australia’s largest voluntary register for engineers, the National Engineering Register (NER).

Engineers Australia supports the efforts of the Queensland Government to reform the building industry in Queensland and to implement the recommendations of the Building Confidence Report. For further discussion about this submission, please contact the Engineers Australia’s team at policy@engineersaustralia.org.au

2. General comments

Engineers Australia strongly supports the Developers Licence, along with all the other building and construction roles requiring a Licence to attempt to maintain a base line level of competence.

Engineers Australia supports Queensland’s proposal of education programs being developed for all industry participants, including head contractors and other contractors, to support awareness and understanding about:

- The essential aspects of construction contracting and effective business management including risk, risk amelioration, pricing and understanding the inherent trade-offs.
- Various business structures, their operations and any associated risks, which could include the need for appropriate security in contracting with third party entities that are not attached to any valuable assets (e.g. Land) as there are significant risks in the event of payment
- Existing rights, obligations and avenues (available to contractors) for redress in their dealings with developers.

Engineers Australia is keen to work with the Queensland Government, as we have with other jurisdictions¹, to develop these programs as part of Continuing Professional Development for engineers.

3. Tendering

Developers generally give Engineers a very small amount of time – generally 6 weeks to price and submit for a project. This is not sufficient to appropriately review the risks and opportunities of a project and provide a monetary commitment. Engineers Australia members support the introduction of minimum standard requirements for tendering. The time given in these standards needs to reflect the documentation and timely manner for responses, for the tender period.

Fair tendering and selection of engineer consultants and builder by the developer is essential to a successful project. A developer must be cognisant of the latest issues with respect to a particular development. It is imperative that developers do not select contractors on price alone. Developers must be abreast of the issues that are ahead of the current NCC. There are many areas of construction where there is no current NCC requirement (e.g., creating building issues in buildings over 40 stories) but the advice of engineers and associated pricing to address these issues needs to be acknowledged. A collaborative approach would be best achieved through means other than hard

¹ <https://www.engineersaustralia.org.au/news-and-media/2022/11/engineers-australia-and-office-nsw-building-commissioner-join-forces-upskill>

tendering. Engineers Australia supports the Queensland governments proposal to push for other alternatives to hard tendering.

Developers must ensure that their budgeting and program expectations for both engineers and builder is realistic for the actual 'design and building' market that the works will be carried out in. Developer's budgets are normally done at the beginning of the feasibility stage and often not updated. This may cause a Developer to target lower price rather than one which reflects the current economic environment (COVID-19, materials shortages, excessive inflation). Allowing for a cooling off period to allow both developers and contractors to re-evaluate their budgets is seen as a positive step to address this issue.

4. Contracting

As noted in the discussion paper, contracts are often drafted to shift risk downstream to head contractors or to avoid liability and create obligations for counter parties. Engineers Australia members are concerned that the extent of this practice has become unreasonable and that many terms included in contracts are 'unfair.'

The global insurance market is experiencing a 'hardened' cycle. For the engineering profession this is impacting the availability and affordability of PI insurance. The PII market for professionals in the building sector is volatile, with underwriters adding exclusions to policies to reduce exposure, raising premiums to maintain margins, refusing cover or leaving the market completely.

Engineering consulting businesses are moving out of the building sector because of increased statutory obligations, cost or unavailability of insurance, and lack of margins. This is viable for large firms able to compete in the general construction, infrastructure or resources sectors but is not viable for small and medium businesses focussed on the building sector.

In a recent Engineers Australia Survey 34% of respondents say that they tender for engineering work where the minimum level of PII is unrealistic for the size of the job. Almost half of the respondents indicated that there were no limitation of liability clauses in their contracts.

Queensland Government must work with the industry and insurance underwriters to ensure contracting terms are reasonable through the limitation of liability and identify suitable policies that meet the requirements at an affordable cost for engineers.

5. Construction

5.1 Defects

5.1.1 Chain of responsibility

Under the current building regulatory framework significant parts of the building product supply chain do not hold the same levels of accountability for their work as others. Engineers often rely on information or representations from suppliers, manufacturers or importers about the suitability of building products to ensure they are used for the intended purpose.

There are a few issues with Non-Conforming Building Products laws, Engineers Australia members have noted since the legislation has been put in place. The industry has not assisted and helped the supply chain with the implementation of this Act and the requirements of information under it. Engineers are reliant on the information from suppliers, however, to gain the information required under this Act is very difficult. Further assistance is required to ensure all members of the supply chain are meeting their obligations under the Act.

Engineers Australia supports the proposed persons (developers and certifiers) being included in the chain of responsibility but only to the extent that each person can reasonably influence the conformance of any particular product or the way that it will be incorporated into a building.

It is noted that most consulting engineers are engineers who are trained in a specific field, such as structural engineering. For example, in façade engineering, the engineer's expertise is in structural and weatherproofing design of wall and floor systems. They have no training or experience in any other aspect of façade design (i.e., life safety issues such as combustibility) that are traditionally the expertise of others (i.e., Fire Engineers and BCA Consultants). It is important that the responsibility of designers is appropriately attributed to the correct designer.

Ultimately a designer or builder should be able to rely on the representations made by material designers and suppliers with respect to the compliance and suitability of a product or material being supplied by them.

Additions to the chain of responsibility

Engineers Australia believes that the following parties should be added to the chain of responsibility:

- The consumer.

Misuse of a product by a consumer should not be the responsibility of the supply chain, as long as the consumer was supplied with adequate information to explain what was supplied and how they should use it.

The addition of whistle-blower protections for the reporting of non-conforming and non-compliant work would also be welcomed by Engineers Australia members.

5.2 Consultants and other professionals

5.2.1 Documentation of amendments

The discussion paper does not adequately define a variation or varied regulated design. Without a very clear definition, there could be many minor or immaterial variations lodged which could result in extra project costs with no real benefits, and discrepancies in the types of variations that are lodged by different practitioners. Conversely, without a clear definition some practitioners may choose to only declare very significant variations to the extent that the intent of the Regulation is not fulfilled.

Engineers Australia members are concerned that the volumes of possible variations involved simply makes this impractical, and in many cases would be unnecessary. The result would be a huge burden of work, slowing down an already stretched industry. Support for this requirement is conditional providing the requirement is narrowed only to matters that are relevant or of specific concern.

5.2.2 Mandatory inspections

It is common for design engineers to be engaged during the construction stage to provide additional services. One of the most important tasks is to perform inspections and provide engineering reports on the construction progress and any problems to be fixed.

The level of service that design engineers provide to their clients during the construction stage is driven by commercial terms, which lead to varying quality in the level of detail of work performed and thus quality of engineering inspections reports. Engineers normally provide a fee proposal with a predetermined number of inspections, and carry out further works on hourly rates. It must be made clear that, largely, are not required by legislation to provide any mandatory inspection services. In QLD, the Building Regulation sets the minimum requirements for mandatory inspections to be conducted by the principal certifiers and, again, engineers are largely not required to be involved in the inspections. This presents several serious problems.

Firstly, the minimum legislated inspection requirements do not appear to be sufficient, and hence the project inspection scheme needs to be developed on a case-by-case basis. Some certifiers who are attending the mandatory inspections may not have all the knowledge on the project to develop a thorough inspection plan, nor be fully capable to perform the inspections on key engineering elements.

Secondly, engineers, even when engaged to provide some inspection services, do not have the same statutory power as principal certifiers to issue stop work orders and have limited ability to prevent construction works from occurring even when they have serious concerns. Similarly, engineers' instructions are unlikely to be as effective as a Written Directions Notice (WDN) by principal certifiers.

Thirdly, design engineers' involvement during the construction stage has been reducing over the years. Clients frequently decline engineers' proposals to provide full inspection services, and some builders' practices may result in issues being concealed before any planned inspections to site. It is important for developers and builders to realise the value of engineering inspections and provide the necessary access for engineers to conduct the inspections in a transparent and collaborative manner. It should be noted that given the very limited time that engineers are usually contracted to spend on site for inspections, it is almost impossible for engineers to certify the construction is performed in accordance with their design so pressure that is sometimes applied on engineers to produce such certificates is not realistic. The expectation needs to be reasonable with regards to the level of inspections engineers provide.

Engineers Australia emphasises that there is an urgent need for revisions to the relevant legislation regarding risk-based mandatory inspections, as well as the need to review the qualifications of those who should carry out the work.

The Government is encouraged to utilise the ABCB's model guidance to introduce new rules for mandatory inspections in QLD.

6. Completion

6.1 Decennial Liability Insurance

In summary, Engineers Australia supports the establishment of Decennial Liability Insurance (DLI) with respect to the QLD building sector and believes engineers will play a critical role in the implementation of the policy. Engineers Australia is open to facilitate further conversations between insurers and our members to determine the scope of engagement for engineers by insurers. Engineers Australia notes the following:

- As insurers only need to compensate 'serious defects', proper dispute resolution mechanisms should be established to help owners negotiate with insurers.
- It is recommended that prescribed mandatory policy templates be used for DLI, similar to Compulsory Third Party insurance.
- It is not clear what happens if a DLI insurer collapses. How the mechanism would react in such situation is critical to the ongoing sustainability and reputation of the scheme and the trust placed in it by consumers.
- It is worth developing a few real-life case studies to demonstrate the process and benefits of DLI, preferably based on real past scenarios in which buildings have incurred problems for owners and that the DLI would be able to address. These will highlight the benefits of DLI and facilitate further discussion.
- When the same engineer/builder is engaged for remediation works by the insurer, a conflict of interest may emerge when the parties want to limit the scope of remediation and/or conceal potential faults
- It is not clear how an interim Certificate of Occupancy may affect the commencement of a DLI policy, as the final Certificate of Occupancy may be issued much later after the first interim Certificate of Occupancy
- In a worst-case scenario, it is not clear how an insurer could take charge of remediation works should both the builder and developer have been liquidated or otherwise abandoned to avoid paying outstanding debts.
- It is suggested that compensation payment timeframes, especially for carrying out emergency maintenance works, be prescribed.



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