



ENGINEERS
AUSTRALIA

Building Manuals and Mandatory Inspections

Engineers Australia welcomes the opportunity to provide feedback to the Victorian Department of Transport and Planning's Regulatory Impact Statement (RIS) for the proposed Building Amendment (Building Manuals and Mandatory Inspections) Regulations 2025.

As Australia's national body for engineering, we are the voice and champion of our 135,000-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.

Engineers Australia has consistently supported the objectives of new building legislation and comprehensive building reform across Australia, aligning with the recommendations from the Building Confidence Report (BCR). We specifically support the intent of the proposed regulations to establish a building manual and introduce additional mandatory inspections for prescribed buildings in Victoria, which directly address key areas highlighted in the BCR Recommendations 18 and 20.

Mandating additional inspections and comprehensive building manuals are critical steps towards improving building quality outcomes, ensuring transparency and accountability throughout the construction lifecycle, and providing vital information for the safe and efficient operation and maintenance of buildings. These reforms are integral to ensuring the safety, quality, and compliance of engineering systems and overall building performance.

This submission provides detailed feedback based on Engineers Australia's deep technical expertise and extensive consultation with our members and industry stakeholders. We aim to contribute constructively to the finalisation and implementation of these important regulations, ensuring they are practical, effective, and aligned with broader efforts towards national consistency in building regulation.

Victoria has the chance to lead the way in many of these reforms. Engineers Australia looks forward to further engagement with the Department of Transport and Planning as these crucial reforms are progressed.

Building Manuals

Engineers Australia supports Recommendation 20 of the BCR for comprehensive building manuals for commercial buildings and recommends standardising key documents in the construction process, especially those which are contained in Building Manuals, to facilitate transparency and accountability.

In many jurisdictions, the content, responsibility to prepare, and responsibility to approve the information within building manuals is not defined. Building manuals can be frequently done as a last-minute task, which can compromise their quality and clarity, having detrimental effects on the operation, maintenance, and occupation of a building.

The RIS evaluates different options for implementing the requirement for building manuals. Option Three, as identified in the RIS, is Engineers Australia's preferred option which prescribes requirements for new Class 1b, Class 2, and Class 3 buildings.

A lack of records and baseline data (which a good manual would provide) can have significant consequences for building owners after occupation, particularly for re-testing safety elements or integrating additional works.

Maintaining and updating building records, which feed into the manual, requires effort throughout the building lifecycle.

The introduction of mandatory building manuals is expected to incur only minimal additional costs for engineers, as much of the required documentation is already being prepared as part of standard professional practice. Engineers routinely develop detailed plans, specifications, and technical reports that form the foundation of construction projects and regulatory approvals. The building manual simply formalises and consolidates this existing information into a structured format for future reference. As a result, any extra effort required to assemble the manual will be marginal and can often be integrated into existing workflows without significant impact on time or cost.

As stated in the RIS, the primary cost is the additional time and effort required for builders (or project managers) to collate and prepare the draft building manual. While most documentation is already generated, organising it into a manual is an extra administrative burden. In addition, building owners and owners corporations face ongoing costs for storing and annually updating the approved building manual throughout the building's lifespan. This requires time and effort to record any work done or new documents created and to provide updates to the Victorian Building Authority/Building and Plumbing Commission.

Despite an increase in cost, mandating the building manual has the following benefits:

- **Addressing Asymmetric Information and Increasing Transparency:** Developers generally do not maintain ongoing ownership and may pass limited design documentation onto owners. A manual provides owners and owners corporations with essential knowledge about the building's systems, components, and infrastructure. This increased transparency can also incentivise building practitioners to improve the accuracy and quality of documentation if they know it will be accessed and assessed by other parties.
- **Assisting with Maintenance and Operation:** The manual provides end users with sufficient information on how to operate and occupy a building safely and efficiently. Knowledge from the manual enables informed decisions related to maintenance, repairs, and upgrades which often involve engineers.
- **Assisting with decommissioning of buildings:** Having an up-to-date information on a building's as-built construction, materials and utilities allows for the proper disposal or recycling of building components during the decommissioning process.

- **Supporting Timely Identification and Rectification of Defects:** By providing easy access to information like building materials, warranty periods, performance solutions, and maintenance schedules, owners can better foresee issues and address potential problems proactively. Without clear knowledge, owners may not foresee issues until they arise, potentially increasing repair costs.
- **Improving System Efficiency:** Centralising information into a comprehensive manual enhances the efficiency of the building system. It provides owners with easier access to information about design, construction, and maintenance, reducing time spent searching for fragmented documentation. Standardisation of the manual's format also enhances navigation and retrieval for all users, including owners, practitioners, building surveyors, and regulators. For owners corporations, it can save time searching for documents, following up with practitioners, reading/interpreting plans, and handing over documents to new owners. It also supports owners in meeting statutory obligations related to maintenance plans.
- **Facilitating Regulatory Oversight:** Requiring a copy of the approved building manual to be provided to the VBA would improve their regulatory functions, assisting with auditing, compliance matters, building data collection, and enhancing regulatory oversight. This also facilitates traceability of materials and allows the regulator to trace non-compliant materials back through the supply chain.

In addition to mandating building manuals, the Victorian government should also standardise the documents within the building manual and the format in which they are presented to facilitate further efficiencies. Standardisation of documentation is essential in the building industry as it promotes clarity, consistency, and efficiency across projects. By having uniform documents, all stakeholders— including clients, contractors, subcontractors, engineers, architects, and project managers —can more easily understand, interpret, and adhere to project requirements and regulations.

By adhering to standardised record-keeping practices, enabled by digital, all parties involved in construction can ensure that critical information, such as design specifications and technical documentation, is consistently organized and easily accessible. This promotes a shared understanding among team members, reducing the likelihood of misunderstandings and errors that may arise from inconsistent or fragmented data.

Some jurisdictions have already begun the standardisation process by implementing standards on design documentation that must be lodged with local regulators to ensure compliance. Victoria has the chance to lead the way in standardising the documentation contained within the building manual. Engineers Australia supports all efforts to standardise procurement and handover documentation and ensure consistency between jurisdictions.

Recommendations

- Engineers Australia supports Option 3, the mandating of Building Manuals for new Class 1b, Class 2, and Class 3 buildings.
- The Victorian government should create a standard that Building Manual documents must match in order to achieve compliance and ensure consistency.

Mandatory Inspections

Engineers Australia supports the implementation of Recommendation 18 of the Building Confidence Report (BCR), which relates to mandatory inspections. On-site inspections are considered integral to ensuring the compliance of engineering systems within buildings. They allow for the real-time verification of construction practices, materials, and adherence to design specifications.

Conducting inspections at critical stages can help identify and address issues early, preventing costly rework and delays. This process helps ensure that all engineering systems meet both industry standards and regulatory requirements, thereby safeguarding the safety, functionality, and longevity of the building.

Regular onsite inspections also reinforce accountability among builders, encouraging them to follow best practices and maintain high standards.

The RIS evaluates different options for implementing the requirement for mandatory inspections. Option Three, as identified in the RIS, is Engineers Australia's preferred option which prescribes two additional mandatory notification stages for inspections prior to covering framework (pre-lining inspection), as well as during work related to waterproofing (waterproofing inspection) for Class 2, 3 and 4 buildings.

There are significant differences across jurisdictions in the number of inspections required and the notification stages. This ranges from no mandatory inspections to very few inspections for domestic buildings, and many jurisdictions rely on the statutory building surveyor to determine which inspections are appropriate for commercial buildings. This makes it difficult for regulators and other stakeholders to know what level of oversight is occurring, whether it is adequate and if National Construction Code (NCC) compliance is being achieved.

In accordance with the ABCB model guidance¹, inspections should be governed in line with the following principles:

1. Minimum mandatory inspections to be informed by risk.
2. Minimum mandatory inspections are regulated for all buildings to ensure construction compliance.
3. The building approval authority is responsible for mandatory inspections.
4. Mandatory inspections to be conducted at key notification stages.
5. Minimum percentage of building work must be inspected for each mandatory inspection.
6. Mandatory inspections should be conducted personally on site. Virtual inspections are not to be encouraged unless there are critical reasons for them.
7. Compulsory documentation for all mandatory inspections.
8. Controls for non-compliance or unsatisfactory inspections.

In line with point 3 above, Engineers Australia agrees that the building approval authority should be responsible for mandatory inspections. The building surveyor should be required to engage engineers to conduct inspections on areas where the building surveyor does not have the necessary expertise.

Engineers, through inspections, can help identify causes of existing and reported defects, as well as patterns and warning signs that could indicate possible undetected or future defects. Engineers, with their specialised technical knowledge, are often better suited to identify defects within their particular engineering system within a building. However, currently in Victoria, engineers may not be mandated as the party to attend any of the mandatory inspections. While design engineers commonly include fees for inspections in their proposals, clients may decline these contractual proposals. Clients often see inspections by an engineer as an additional cost and will only engage the engineer to perform these inspections if the certifier requires it.

Engineers Australia considers that all jurisdictions should issue consistent guidance as to what inspections of engineering systems a qualified/registered engineer must undertake to aid statutory building inspectors in determining when to engage an engineer's services. This guidance should be formed with input from industry to ensure best practice. Engineers Australia is willing to work with regulators and other industry bodies to develop this guidance.

¹ <https://www.abcb.gov.au/sites/default/files/resources/2022/BCR-rec18-Mandatory-inspections.pdf>

To assist building surveyors in determining the suitability of a building to be occupied, Engineers Australia recommends introducing the role of the Engineer of Record (EOR) for all engineering systems in buildings of sufficient complexity through appropriate legislative instruments. 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 such as the fire safety system and Heating, Ventilation and Air Conditioning systems. 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.
- Ensure all specified materials meet evidence of suitability requirements in the NCC.
- Be satisfied that the professional engineers engaged on the engineering system are aware of the 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. Engineer of record should ensure adequate inspections are performed throughout construction to support and justify final certification.
- Interact with the responsible building surveyor, builder and owner over concerns about non-compliant construction work.
- Advise the building owner on meeting statutory approval requirements.

The EOR should have a level of experience commensurate with the complexity and risk profile of the engineering system for which they are taking accountability. As a minimum, they must be registered in a relevant area of engineering as required by Victorian law.

Recommendations

- Engineers Australia supports Option 3 as outlined in the RIS which inserts two additional mandatory notification stages for inspections for pre-lining inspection and waterproofing inspection.
- The Victorian government should develop and issue guidance as to what inspections of engineering systems a qualified/registered engineer must undertake to aid statutory building inspectors in determining when to engage an engineer's services.
- The Victorian government should establish the role of the Engineer of Record (EOR) for all engineering systems in buildings of sufficient complexity through appropriate legislative instruments.