

CONSULTATION PAPER

COMPULSORY THIRD – PARTY REVIEW

Structural Design



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1. Purpose of Paper

In 2017, Building Ministers from all Australian jurisdictions commissioned experts to undertake an assessment of building and construction systems across Australia in response to public safety concerns relating to building standards. This resulted in the Building Confidence Report (BCR).

All states and territories have committed to implementing the recommendations of the BCR with the Australian Building Codes Board (ABCB) developing model responses in consultation with jurisdictions and peak industry groups for implementation nationally.

The Department of Infrastructure, Planning and Logistics (DIPL) has undertaken extensive local consultation on the BCR and its recommendations. In particular recommendation 17 that relates to independent third-party review for components of design.

Specifically, the BCR recommendation 17 states:

“That each jurisdiction requires genuine independent third-party review for specified components of designs and/or certain types of buildings.”

This paper describes the proposed implementation within the Northern Territory (NT) building regulatory framework of compulsory independent third-party review. The process is broadly consistent with the national model and will ensure design issues are identified and rectified earlier, resulting in improved regulatory compliance and enhanced public confidence in the building industry.

A risk-based approach will be used to ensure that the time, effort, and resources required are directed to building projects where they are most needed. In determining the risk associated with any proposed building, a building certifier will consider the attributes of the proposed building in line with the definition of building complexity being developed by the ABCB.

Any proposed building of medium building complexity or higher (e.g. a residential building of three or more storeys) will be required to have its structural design work reviewed by a qualified independent reviewer before a building permit can be issued by a building certifier.

Further categories of design work may be included in the future to more closely align with the national model. Government will continue to engage with industry to ensure local implementation meets the objectives of the BCR.

In the first stage of implementation, Building Advisory Services, DIPL will request conditions on relevant Development Permits which will require third-party review of structural design (in line with the framework for third-party review in this document) prior to a building permit being issued.

2. Building Confidence Report Implementation

2.1. ABCB draft model

The ABCB Implementation Team has developed a model (the ABCB Model) for independent third party review that is intended to represent best practice, and released a discussion paper ([Attachment A](#)) for national consultation.

The development of the ABCB Model has included detailed consultation with regulators in each jurisdiction and a national industry reference group. Consultation on the draft is ongoing and the model is not set to be finalised until later in 2021.

The ABCB Model comprises the following:

- the proposed approach and process
- the scope of review, including elements of the design that must be reviewed
- roles of the building certifier and independent reviewer, including competency and criteria of the independent reviewer
- inclusion of fire authorities for specific risk levels
- mechanisms to source the independent reviewer
- cost and dispute resolution
- the timing of the review and the extent of the design review process
- documentation associated with the review process.

The ABCB Model process includes the following key features:

- Risk based – the model incorporates a definition of building complexity which the ABCB intended to apply nationally and be included in the National Construction Code (NCC)
- Building certifier identifies components of the design to be reviewed (structural and fire engineering mandatory).
- Building certifier identifies independent reviewer.
- Fire authorities undertake reviews of fire safety designs and provide advice.
- Building certifier addresses disputes between the designer and independent reviewer. Building certifier makes the final decision and requests changes.
- Independent third-party review is an examination and assessment of a component of a building's design, reports and documents for compliance with the NCC, by an individual who is completely separate to the building designer.
- Independent third-party reviewer is an independent, registered and competent practitioner who is engaged to review and assess the design, reports and documents for compliance of a building with the NCC, prepared by an appropriately qualified and experienced professional in a relevant field. The reviewer will provide certificates of compliance to the building certifier when satisfied that the design complies with the NCC.
- The independent reviewer must not work for the same organisation as the designer that prepared the original design.
- A Declaration of Design Compliance is a written document provided by a responsible design practitioner stating that the design work complies with the requirements of the NCC and any additional requirements of the jurisdiction.
- A Certificate of Compliance is a certificate issued by a prescribed person for a prescribed components or element of design which, if accepted by the building certifier, may give the building certifier immunity in relation to the matters certified

Key areas for review include:

- Structural design
- Accessibility
- Façade/cladding
- Energy efficiency
- Fire safety
- Any design relating to Performance Solutions or Deemed To Satisfy interaction with Performance Solutions

2.2. Building Complexity – Definition

To provide for a risk-based approach, the ABCB Implementation Team developed the concept of building complexity and the following building complexity criteria for determining whether all or part of a building is **low, medium, high** or very **high building complexity**:

- A. Attributes – the building is designed or constructed with any of the following sub-criteria:
 - an effective height of more than 25 metres;
 - one or more Performance Solutions used to demonstrate compliance with Performance Requirements relating to material and systems for structural safety;
 - one or more Performance Solutions used to demonstrate compliance with Performance Requirements relating to material and systems for fire safety;
 - in an area prone to natural disaster or adverse environmental conditions;
- B. Class 2 – all or part of the building is *Class 2*¹ of three or more storeys;
- C. Occupant numbers – the building is to be occupied by more than 100 people determined in accordance with D1.13 (NCC Volume One);
- D. Occupant characteristics – the building is to be occupied by more than 10 people who will require assistance to evacuate the building in an emergency;
- E. Building Importance Level 4 – the building is determined to be Building Importance Level 4 under B1.2a (NCC Volume One)².

Low building complexity is where a building meets one only of building complexity criteria A (Attributes), B (Class 2), C (Occupant numbers), or D (Occupant characteristics).

Medium building complexity is where a building meets two of building complexity criteria A (Attributes), B (Class 2), C (Occupant numbers), or D (Occupant characteristics).

High building complexity is where a building meets three of building complexity criteria A (Attributes), B (Class 2), C (Occupant numbers), or D (Occupant characteristics).

Very high building complexity is where a building meets:

- all of building complexity criteria A (Attributes), B (Class 2), C (Occupant numbers), and D (Occupant characteristics); or
- b) building complexity criteria E (Building Importance Level 4).

¹ Class 2 buildings are apartment buildings. They are typically multi-unit residential buildings where people live above and below each other. Class 2 buildings may also be single storey attached dwellings where there is a common space below. For example, two dwellings above a common basement or carpark.

² Importance Level 4 buildings are buildings or structures that are essential to post-disaster recovery or associated with hazardous facilities.

2.3. Considerations for implementing the ABCB Model in the NT

The ABCB Model foresees the need to independently review elements of building design for which the NT does not currently require practitioners to be registered.

The ABCB Model also recommends that certain performance solutions require third party review. In the NT, performance solutions related to anything other than structural, mechanical, or hydraulic engineering are entirely the responsibility of the building certifier. Building certifiers in the NT are not liable for anything done or omitted to be done in good faith.

A staged approach to implementation will most quickly provide for third-party review of some key elements.

3. Proposed NT Implementation – Compulsory Third-Party Review – Structural Design

3.1. What is reviewed?

A head of power will be created in the legislation to provide for risk-based compulsory third-party review. At this stage, compulsory review will be required for structural elements only.

The legislation will provide for the definition of building complexity developed by the ABCB (see section 2.2) to be given force either by regulation or by Ministerial Determination.

In the first instance, compulsory third-party review provisions will be applied either by regulation or Ministerial Determination to structural engineering designs associated with buildings of medium building complexity or higher.

The scope of the review will be:

- Check of suitability of adopted design loads
- Confirmation of appropriate load paths through building
- Check of primary / critical structural elements including:
 - Primary / critical footings
 - Primary / critical columns
 - Primary / critical load-bearing walls
 - Transfer slabs
 - Typical suspended slabs
 - Primary / critical shear walls and other bracing elements
 - Primary / critical roof and floor beams
 - Other primary and / or critical structural elements
- General overall review of drawings for obvious errors and omissions

3.2. Who conducts the review?

The review must be conducted by an independent engineer with relevant expertise who is currently registered on the National Engineering Register. The reviewing engineer cannot work for the same company or firm as the designing engineer.

3.3. How is an independent reviewer identified?

The legislation will provide for the relevant building certifier to approve the appointment of a reviewer.

The Building Practitioners Board will maintain a record of qualified registered structural engineers that are prepared to undertake statutory third-party reviews.

3.4. When is the review conducted?

It is intended that the building certifier is required to have evidence of the review before issuing a building permit.

Third-party reviews of amendments during construction will be at the discretion of the building certifier at this stage. In consideration of the findings of the BCR, it is expected that compulsory third-party review of amendments related to fire safety performance solutions will be required at another stage.

3.5. How are disputes resolved between the various practitioners?

Applicants will need to demonstrate that an independent reviewer has endorsed the structural design.

There will not be a limitation on the number of reviewers that can be engaged to review a design, however any subsequent reviewer must be informed of any disputes between the designer and any other reviewer.

Applicants will also be able to apply (for a fee) to the Director of Building Control to determine disputes about structural design compliance.

3.6. Who bears the cost of the review process?

The applicant for the building permit bears the cost of the review process. The fee for independent review would be market driven.

3.7. What documentation/record keeping is required?

The compulsory third-party review will need to be documented on an approved form that will provide for:

- details about the date of review and who conducted the review
- scope of the review with details of any specific inclusions and exclusions
- compliance assessment process including details of all issues identified by the reviewer, and calculations or verification work undertaken to assess compliance
- outcome(s) of the review, including decisions and any amendments that were made to the design as a result.

4. Feedback

Please provide detailed feedback to bas.policy@nt.gov.au about the proposed framework for compulsory third-party review outlined in this paper to be implemented in the NT.



