

Supplement

**Masonry structures — Commentary
(Supplement 1 to AS 3700:2018)**

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Masonry structures — Commentary (Supplement 1 to AS 3700:2018)

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Preface

This Supplement was prepared by the Standards Australia Committee BD-004, Masonry Structures, to supersede AS 3700 Supp 1—2012, *Masonry structures—Commentary (Supplement 1 to AS 3700—2011)*.

The objective of this Supplement is to provide commentary to assist in the interpretation and correct application of the provisions of AS 3700:2018, *Masonry structures*, by outlining the background to various requirements of the Standard.

This Supplement does not aim to give a comprehensive textbook treatment of the requirements of the Standard. In particular, the commentary seeks to avoid repeating technical content that is already covered in detail in the following publications:

- (a) *“Australian Masonry Manual”* published in 1991 by a joint committee of the Public Works Department, NSW and the Association of Consulting Structural Engineers, NSW
- (b) Current technical literature produced by —
 - (i) Think Brick Australia; and
 - (ii) Concrete Masonry Association of Australia.

In this Supplement, AS 3700:2018 is referred to as “the Standard” or “the 2018 edition of the Standard” while this document is referred to as “this Supplement”. The numbers and titles of the sections and clauses in this Supplement align with those in AS 3700:2018 except that the numbers are prefixed by the letter “C”. The figures in this Supplement are numbered according to the clause in which they are referenced and also carry the “C” prefix. Therefore, references to sections, clauses, tables, figures, equations and appendices that are not identified by the prefix “C” refer to the Standard unless indicated otherwise.

Documents referenced in this Supplement are listed at the end of the applicable section or appendix. The referenced documents are numbered. Bibliographies listing documents recommended for additional information are included as the last item of the section or appendix to which they relate.

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Supplement

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Section C1 Scope and general

C1.1 Scope

The scope of the Standard is intended to cover all masonry structures, including masonry retaining walls, masonry water-retaining structures and masonry in bridge structures.

The clauses in the Standard are written with the expectation that their application is to masonry members in the form of walls, beam and piers whose bed joints are horizontal. Further, they have been written with the expectation that those applying and using the provisions of the Standard will be qualified and experienced in their areas of responsibility. It is expected that, in their hands, careful and experienced application of these provisions will result in safe, serviceable and economical masonry construction.

No specific guidance is given on autoclaved aerated concrete (AAC) laid in other than thin-bed mortar, prefabricated masonry or composite action of masonry with other materials. However, the Standard is not intended to prevent the use of these forms of construction.

C1.2 Normative references

All documents referenced within the Standard that form part of the requirements of the Standard are included in this list. Documents referenced in the Standard for informative purposes are listed in the Bibliography at the end of the Standard.

C1.3 Use of alternative materials or methods

The purpose of Clause 1.3 is to spell out that the Standard is not to be used to prevent innovation or the use of new design procedures or construction techniques; however, these would generally mean that the designer will have to find alternative means to demonstrate conformance to the relevant requirements. The soundness of any innovation, or of any departures from the requirements of the Standard, will have to be adequately demonstrated. It will be necessary to obtain the approval of the relevant authority for the use of alternative materials or methods.

Existing structures

Although Clause 1.3 provides guidance on the use of the Standard for the evaluation of strength or serviceability of existing structures, the determination of whether or not an existing structure is to be demolished is not covered by the Standard. Such a decision can only be made giving regard to the degree of deviation from the requirements of the Standard, the resulting level of safety, the consequence of failure in terms of injury and cost, and the cost of demolition and reconstruction.

C1.4 Information to be provided on documents

C1.4.1 General

It cannot be expected that satisfactory masonry will be built if those responsible for building it are not adequately informed on all of the relevant design requirements for that masonry. The Standard requires that this information be set out clearly on the documents, preferably the drawings that are used on site by those carrying out the construction.

It is not necessary for all items of information to be provided for every project; items are only required if they are necessary for construction of the particular project.

The list of information to be shown on the documents includes category, type and work sizes of masonry units. Refer to Clause 1.5, Definitions, for the meaning of these terms.