AS 5100.2 Supp 1—2007

AS 5100.2 Supplement 1—2007

Bridge design—Design loads—Commentary (Supplement to AS 5100.2—2004)

STANDARDS Australia
AUSTRALASIAN RAILWAY ASSOCIATION INC
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- Australasian Railway Association
- AUSTROADS
- Bureau of Steel Manufacturers of Australia
- Cement Concrete & Aggregates Australia—Concrete
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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through public comment period.

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PREFACE

This Commentary was prepared by the Standards Australia Committee BD-090, Bridge Design to supersede HB 77.2 Supp 1, *Australian Bridge Design Code—Design loads—Commentary (Supplement to SAA HB 77.2—1996)*.

The objective of this Commentary is to provide users with background information and guidance to AS 5100.2—2004.

The Standard and Commentary are intended for use by bridge design professionals with demonstrated engineering competence in their field.

In this Commentary, AS 5100.2—2004 is referred to as 'the Standard'.

The clause numbers and titles used in this Commentary are the same as those in AS 5100.2, except that they are prefixed by the letter 'C'. To avoid possible confusion between the Commentary and the Standard, a Commentary clause is referred to as 'Clause C…..' in accordance with Standards Australia policy.

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C1 SCOPE AND GENERAL

C1.1 Scope

(No Commentary)

C1.2 General

Although details of loads commonly occurring on bridge structures are outlined in the Standard, the designer should consider the possibility of other unusual loads occurring. The general principles of AS 5100.1, *Bridge design—Scope and general principles*, should be observed when assessing unusual loads, and most importantly the designer should ensure that damage cannot occur which is out of all proportion to the original cause.

It is particularly important that the fundamental design information, including as-constructed data, be recorded on the front sheet of the bridge drawings.

The abbreviation of SM1600 is introduced to provide a single abbreviation to indicate that the bridge has been designed for the worst effects induced by each of the W80, A160, M1600 and S1600 road traffic design loads.

The abbreviation 300LA is introduced to provide a single abbreviation to indicate that the bridge has been designed for the worst effects induced by each of the 360 kN axle load, the 1560 kN simulated locomotive and the 1560 kN simulated locomotive coupled to any number of 1200 kN vehicles as specified in Clause 8 of the Standard.

C2 REFERENCED DOCUMENTS

The Standards listed in Clause 2 are subject to revision from time to time and the current edition should always be used. The currency of any Standard may be checked with Standards Australia.

C3 DEFINITIONS

Technical definitions are provided in the Clause. Some technical definitions that are applicable to only one Clause are given in the Clause in which they are relevant.

C4 NOTATION

The basis of the notation is generally in accordance with ISO 3898, *Bases for Design of Structures—Notations—General Symbols*. Standards Australia's policy is to use ISO recommendations on notation wherever practicable in structural design Standards such as AS/NZS 1170 series, AS 2327.1, *Composite structures—Simply supported beams*, AS 3600, *Concrete structures*, AS 4100, *Steel structures* and AS/NZS 4600, *Cold-formed steel structures*.

