AS 2159—1995

Australian Standard®

Piling—Design and installation

This Australian Standard was prepared by Committee CE/18, Piling. It was approved on behalf of the Council of Standards Australia on 31 May 1995 and published on 5 August 1995.

The following interests are represented on Committee CE/18:

Australian Building Codes Board

Australian Construction Services, Department of Administrative Services

Australian Geomechanics Society

AUSTROADS

Institution of Engineers, Australia

Maritime Services Board of New South Wales

Monash University

Railways of Australia

The Association of Consulting Engineers, Australia

Timber Preservers Association of Australia

University of Sydney

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PREFACE

This Standard has been produced by the Standards Australia Committee CE/18 on Piling, and supersedes AS 2159—1978, *Rules for the design and installation of piling (known as the SAA Piling Code)*.

This Standard has been prepared because of a growing perception within the user community that the earlier document was becoming outdated and also that, in common with other modern structural codes, the Piling Code should appear in limit state format.

It was also considered that the material should be in two parts, viz. a Code of Practice which presents mandatory rules for the design, installation and testing of piled footings and guidelines which provide additional information and recommendations in relation to the Code of Practice.

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Originated as AS 2159—1978.
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Incorporating:
Amdt 1—1996

FOREWORD

Since piling is a field in which design formulae, rules of thumb, the lessons of experience, and the accumulated records of a large number of applications of proprietary systems, both successful and otherwise, can influence decision-making, there is a great need for flexibility, wide experience and commonsense in designing and constructing a piled footing system. In a real sense, these requirements are in conflict with the need to make unqualified mandatory statements and, as a result, many of the stipulations of this Standard will be seen to be short and simple when, in other cases, extensive arrays of multiple choices will be required. Where applicable, explanatory notes are added to some clauses in this Standard.

STANDARDS AUSTRALIA

Australian Standard

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard sets out minimum requirements for the design, construction and testing of piled footings for civil engineering and building structures on land or immediate inshore locations. It does not extend to offshore (deepwater) construction, or to detached Class 1 building as defined in the Building Code of Australia.

NOTES:

1 AUSTROADS Bridge Design Code should be considered for the design of footings for road bridges.

2 The date of application of the Standard on a mandatory basis is matter for the relevant authority. AS 2159—1978 will be withdrawn following substantial regulatory implementation of this edition, or within two years of publication of this edition, whichever is the earlier.

1.2 APPLICATION The Standard is intended for use by designers, constructors and regulatory bodies in executing their responsibilities in relation to piling in civil engineering and building.

1.3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1012 Methods of testing concrete (all Parts)

1163 Structural steel hollow sections

1170 Minimum design loads on structures (known as the SAA Loading Code)

1170.1 Part 1: Dead and live loads and load combinations

1170.2 Part 2: Wind loads

1170.3 Part 3: Snow loads

1170.4 Part 4: Earthquake loads

1302 Steel reinforcing bars for concrete

1379 The specification and manufacture of concrete

1450 Steel tubes for mechanical purposes

1554 Structural steel welding (known as the SAA Structural Steel Welding Code)

1579 Arc welded steel pipes and fittings for water and waste water

1604 Timber—Preservative-treated—Sawn and round

1720 Timber structures (known as the SAA Timber Structures Code)

1720.1 Part 1: Design methods

1726 Geotechnical site investigations

2209 Timber—Poles for overhead lines

2701 Methods of sampling and testing mortar for masonry constructions

2701.2 Method 2: Methods of sampling

2832 Guide to the cathodic protection of metals

2832.2 Part 2: Compact buried structures

2832.3 Part 3: Fixed immersed structures