

Australian Standard<sup>®</sup>

**Protection of trees on development sites**



This Australian Standard® was prepared by Committee EV-018 (formerly BD-068), Arboriculture. It was approved on behalf of the Council of Standards Australia on 31 July 2009.

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The following are represented on Committee EV-018 (formerly BD-068):

- Australian Council of National Trusts
- Australian Institute of Building Surveyors
- Australian Institute of Horticulture
- Australian Institute of Landscape Architects
- Australian Local Government Association
- Australian Pipeline Industry Association
- Australian Property Institute
- Energy Networks Association
- Institute of Australian Consulting Arboriculturists
- International Society of Arboriculture (Australia Chapter)
- Local Government Tree Resources Association
- National Arborists Association of Australia
- Nursery and Garden Industry Australia
- Parks and Leisure Australia
- TAFE NSW
- The University of Melbourne
- Water Services Association of Australia

Additional Interests:

- National Trusts of Australia NSW
  - Wollongong City Council
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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 the public comment period.

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## Protection of trees on development sites

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## PREFACE

This Standard was prepared by the Standards Australia Committee EV-018, Arboriculture.

*This Standard incorporates Amendment No. 1 (March 2010). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

This Standard provides guidance for arborists, architects, builders, engineers, land managers, landscape architects and contractors, planners, building surveyors, those concerned with the care and protection of trees, and all others interested in integration between trees and construction.

This document describes the best practices for the planning and protection of trees on development sites. The procedures described are based on plant biology and current best practices as covered in recently published literature.

The assistance obtained from the 1991 and 2005 editions of BS 5837, *Trees in relation to construction—Recommendation*, along with Matheny and Clark (1998)\* and Mattheck and Breloer (1994)\* is acknowledged.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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\* See bibliography in Appendix E for details.

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## FOREWORD

Landscape design is an important component of most development. Established trees of appropriate species and sound structure are beneficial components of the built environment and a potential asset to any development site. Trees may be retained because of their—

- (a) aesthetic qualities;
- (b) heritage values;
- (c) ecosystem benefits, including—
  - (i) stormwater management;
  - (ii) shade and heat reduction qualities;
  - (iii) wildlife habitat and biodiversity;
  - (iv) carbon dioxide absorption;
  - (v) particulate pollution capture;
  - (vi) salt wind protection; and
- (d) social and psychological values.

A living tree is a dynamic organism that needs specific environmental conditions to continue healthy, stable growth. It is rarely possible to repair stressed and injured trees, so substantial injury needs to be avoided during all stages of development and construction. For trees to be retained and their requirements met, procedures must be in place to protect trees at every stage of the development process. This should be taken into account at the earliest planning stage of any outdoor event or design of a development project where trees are involved.

Trees and their root systems may occupy a substantial part of any development site and because of their potential size, can have a major influence on planning the use of the site.

Existing trees of appropriate species and sound structure can significantly enhance new development by providing immediate benefits such as shade and stormwater reduction as well as complementing new development.

Most trees will take many years and possibly decades to establish but can be injured or killed in a very short time as their vulnerability is commonly not understood. This is especially so in relation to tree root systems which cannot usually be seen. Irreparable injury frequently occurs in the early stages of site occupation and remedial measures routinely fail.

Early identification and protection of important trees on development sites is essential from the outset and will minimize the problems of retaining inappropriate trees.

Successful long term retention of trees on development sites depends on an acceptance and acknowledgment of the constraints and benefits that existing trees generate. Protecting trees in accordance with this Standard may influence design and construction costs and this should be considered in project budgets and contracts. The gains and benefits of retaining trees will accrue if the measures detailed in this Standard are applied.

# STANDARDS AUSTRALIA

## Australian Standard Protection of trees on development sites

### SECTION 1 SCOPE AND GENERAL

#### 1.1 SCOPE

This Standard provides guidance on the principles for protecting trees on land subject to development. It follows, in sequence, the stages of development from planning to implementation.

This Standard aims to assist those concerned with trees in relation to development. Where development is to occur, the Standard provides guidance on how to decide which trees are appropriate for retention, and on the means of protecting those trees during construction work. It does not argue for or against development, or for the removal or retention of trees nor does it consider the monetary value of trees. The Standard does not apply to the establishment of new trees.

#### 1.2 APPLICATION

This Standard gives guidance to horticulturists, arborists, architects, builders, engineers, land managers, landscape architects, contractors, planners, determining authorities, building surveyors, certifiers, those concerned with the care and protection of trees, and all others involved in the management of trees and development.

#### 1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

- AS  
1319 Safety signs for the occupational environment  
4373 Pruning of amenity trees  
4454 Composts, soil conditioners and mulches  
4687 Temporary fencing and hoardings

#### 1.4 DEFINITIONS

For the purpose of this Standard, the following definitions apply:

##### 1.4.1 Determining authority

Those bodies responsible for issuing approvals.

##### 1.4.2 Development

Includes the following:

- (a) The use of land (e.g. festival events, use of park areas and other events) that requires approval.
- (b) The subdivision of land.
- (c) The erection of a building.
- (d) The carrying out of a work.

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