



# INFORMATION FOR PLANNERS, DEVELOPERS, SERVICE PROVIDERS AND CONTRACTORS

The protection of trees is vital to retaining our city's character and environment. Trees grow in delicate balance with their environment and any changes must be minimised if the tree is to remain healthy and fulfil its potential. It is rarely possible to repair stressed and injured trees, so damage needs to be avoided during all stages of development and construction.

This document provides guidance for work around trees to ensure their long-term protection, integrity and vitality. This document applies to all trees in the municipality that are owned or managed by the City of Ballarat.

In all cases, the City of Ballarat's arborists will, within the parameters of best practice and meeting the community's expectations, have the discretion to modify or add to any condition, practice or standard outlined within the policy. All construction and development works near public trees must abide by the protection and retention requirements outlined in this document.

## TREE PROTECTION REQUIREMENTS

The most important consideration for the successful retention of trees is to allow appropriate above and below ground space for the trees to continue to grow. This requires the allocation of Tree Protection Zones for retained trees. A protection zone should be established for the duration of the project. Care must be taken to ensure that no damage is caused to City of Ballarat tree trunks, roots, canopy or branches during construction.

To ensure that public trees in the municipality are fully protected at all times, the following requirements must be complied with:

## TREE PROTECTION ZONES

- 1. A Tree Protection Zone (TPZ) will be established for the duration of any works near a tree.
- 2. The tree protection distance method outlined in the current Australian Standard (AS 4970-2009) will be used for the allocation of tree protection zones. The TPZ for individual trees is calculated based on trunk (stem) diameter (DBH), measured at 1.4 metres up from ground level. The radius of the TPZ is calculated by multiplying the tree's DBH by 12.

For example: a tree with 40cm DBH requires a TPZ of 4.8 metres. The method provides a TPZ that addresses both tree stability and growth requirements. TPZ distances are measured as a radius from the center of the trunk at ground level.

3. The City of Ballarat's arborist must approve any modification to a tree protection zone.

| Trunk Diameter<br>(DBH) | Tree Protection Zone<br>(TPZ) |
|-------------------------|-------------------------------|
| 10cm                    | 1.2m                          |
| 20cm                    | 2.4m                          |
| 40cm                    | 4.8m                          |
| 75cm                    | 9m                            |
| 100cm                   | 12m                           |

Table 1: Example Tree Protection Zone

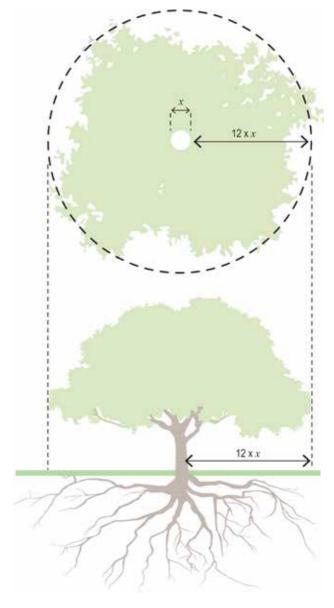
#### The following are not permitted within a Tree Protection Zone:

- 1. Mechanical excavation on the road, footpath or any public space.
- 2. Stockpiling of building materials, debris or soil.
- 3. Vehicular traffic except on existing paved surfaces.
- 4. Installation of service pits or hatches.
- 5. Vehicular crossings.
- 6. Severing of tree roots with a diameter greater than 30mm.
- 7. Alteration of soil levels and structure.

#### **BORING**

- 1. Installation of underground services are to be bored.
- 2. Entry and exit pits will be positioned outside the designated TPZ of each tree. This requirement should apply unless root sympathetic exploratory investigations have been undertaken and it has been determined that access within the TPZ will not significantly affect the tree.
- 3. The extent or length of boring in the vicinity of trees will be determined by the TPZ.

- 4. The depth of the boring will depend on the size of the tree. Table 2 indicates the recommended boring depths for trees based on their trunk diameter.
- 5. Where boring is unavailable, excavation shall be by hand or non-destructive digging.





| Trunk diameter | Minimum Depth<br>to TOP |
|----------------|-------------------------|
| <100cm         | 800mm                   |
| 100-150cm      | 950mm                   |
| >150cm         | 1100mm                  |
| 75cm           | 1.2m                    |
| 100cm          | 12m                     |

Table 2: Depth of boring

### **PRUNING**

- No City of Ballarat tree may be pruned or branches removed by anyone other than those authorised by City of Ballarat.
- 2. Pruning of roots and branches will be in accordance with AS 4373, Pruning of Amenity Trees or any more recent relevant Standard.



#### REMOVAL

- 1. Removal of trees will not occur unless approved by City of Ballarat.
- No City of Ballarat tree may be removed by anyone other than those authorised by the City of Ballarat.
- Where a public tree removal is approved by the City of Ballarat's arborist in relation to a development, the associated cost of the tree and its removal shall be paid by the property owner or a representative prior to the removal.

## TREE PROTECTION MANAGEMENT PLANS

- 1. Permission from City of Ballarat's arborist is required for activities that do not comply with the above measures.
- 2. A Tree Protection Management Plan endorsed by City of Ballarat's arborist will be prepared prior to the commencement of the works.
- 3. A Tree Protection Management Plan is developed in accordance with the Australian Standard AS 4970-2009 Protection of Trees on Development Sites or any more recent standard. It is prepared by a certified arborist to assess impacts to public trees, provide recommendations to reduce impacts on public trees and identify construction guidelines to be followed through all phases of construction.

For further information, contact the City of Ballarat on 5320 5500 or email ballcity@ballarat.vic.gov.au

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