

TREEMAP

ARBORICULTURE



Arboricultural Assessment & Report 7 Locher Avenue, Reservoir

August 2024

Prepared for:
Brent Tisdale

Treemap Arboriculture
PO Box 465, Heidelberg VIC 3084
ABN 20 325 463 261
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Darebin City Council Received 22/08/2024



1 Name and address of consultant

Dean Simonsen (AQF Lvl 7)
Treemap Arboriculture
PO Box 465, Heidelberg, Victoria 3084

2 Instructions

- 2.1 The instructions provided to Treemap Arboriculture on 25/07/24 by Brent Tisdale were to provide an Arboricultural assessment and report for trees located on or adjacent to the subject site, the subject site being 7 Locher Avenue, Reservoir.

3 Introduction

- 3.1 The owners of the subject site are undertaking investigations to develop the property. As part of the design and application process, the owners are undertaking a review of the vegetation located on or near the site. This report examines the arboricultural matters associated with this vegetation.
- 3.2 Under the guidelines of AS4970-2009 (Australian Standard – Protection of trees on development sites), the following report would be defined as an ‘Arboricultural impact assessment’. The standard indicates that “*The report will identify possible impacts on trees to be retained. The report will explain design and construction methods proposed to minimize impacts on retained trees where there is encroachment into the calculated TPZ.*”

4 Key Objectives

- 4.1 To undertake a general assessment of trees located on or near the subject site.
- 4.2 To provide an assessment of the subject trees with respect to their overall condition, structure, safety and suitability for protection.
- 4.3 To provide recommendations on the suitability of the trees for protection and provide general methods of tree protection.

5 Method

- 5.1 A site and tree inspection were conducted on Thursday 8th August, 2024.
- 5.2 The tree assessment consisted of a visual inspection, which was undertaken with regard to modern arboricultural principles and practices. The assessment did not involve a detailed examination of below ground or internal tree parts. The assessment was undertaken from the ground of the subject site to determine tree condition and species type. Measurements were taken to establish trunk and crown dimensions. No tree samples or site soil samples were taken unless specified. Trunk diameters for trees on adjoining properties may be estimated due to site access restrictions.
- 5.3 The trees have been allocated a retention value rating which combines tree condition factors with functional and aesthetic characteristics in the context of an urban landscape. The

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retention or preservation of trees may not depend solely on arboricultural considerations; therefore, the ratings may act as a guide to assist in decisions relating to tree management and retention.

- 5.4 A survey plan was provided by the client (Existing Site Plan prepared by A1 Drafting, Drawing Ref. no: A111-22, and dated 08/07/24). The assessed trees have been numbered on a section of this plan (Appendix 3).
- 5.5 A proposed ground floor plan was provided by the client for analysis (Proposed Site and Ground Floor Plan prepared by A1 Drafting, Drawing Ref. no: A111-22, and dated 08/07/24). The trees have been numbered on this plan and Tree Protection Zones are provided for specific trees (Appendix 3a).

6 Observations

- 6.1 The site under review presented as a single residential allotment with an existing dwelling and detached structures. The site adjoins residential properties to the east, west and north. Locher Avenue frontage is located to the south. The site contained shrubs and a weed.



- 6.2 Seven (7) trees were assessed in detail as part of the site review. This included 3 trees on the subject site, 2 neighbouring trees and 2 street trees. The detail of each individual tree assessment is provided in table format at Appendix 1. Tree numbers within the assessment table correspond to those provided on the site feature plan (Appendix 3).
- 6.3 The property is not influenced by any specific local vegetation controls under the City of Darebin Planning Scheme. This is based on a planning property report for the site being obtained from www.planning.vic.gov.au/ on 08/08/24.
- 6.4 Trees that are taller than 8m and have a trunk circumference of more than 100cm (31.84cm diameter) are protected under Darebin City Council Tree Protection on Private Property

Local Law NO. 01 of 2019. The tree protection law is essentially a blanket control that requires an application to prune, remove or carry out works near every private tree that measures greater than 31.84cm diameter (measured at 1.5m above ground) and is taller than 8m. The criteria provided for determining a tree that can be considered for removal under the local law is as follows;

- a) *written evidence of the owner's consent if the applicant is not the owner of the private land;*
- b) *whether the tree is a protected tree;*
- c) *the Council's current Management of Tree Protection on Private Property Policy 2019;*
- d) *information submitted by the applicant as to the condition and health of tree;*
- e) *information submitted by the applicant of damage or likely damage to property or infrastructure;*
- f) *the visual impact that the removal of the tree will have on the neighbourhood; and*
- g) *any other matter relevant to the circumstances of the application.*

- 6.5 No trees on the site meet the size criteria of the Darebin City Council Tree Protection on Private Property Local Law.
- 6.6 The proposed design indicates a 2 Unit development.

7 Discussion

The Australian Standard (AS4970-2009) – 'Protection of trees on development sites' puts forward a process for undertaking tree inspections and reports on property where development is being considered. It recommends a preliminary assessment be undertaken to help guide planners and property owners with regard to the preservation of existing trees; that is trees that might contribute to the completed proposal. The standard points out that the preliminary report 'information is to be used by planners, architects and designers, in conjunction with any planning controls and other legislation, to develop the design layout in such a way that trees selected for retention are provided with enough space'.

These assessments typically reveal a range of trees with varying attributes for health, structure and overall value. Some trees may be considered insignificant for their size, age, species type or condition, but they might still be considered for retention because they are situated conveniently on the site. Conversely, some trees may be exceptional for various reasons but there may be no scope for their retention because of their location or other site constraints. An objective of the tree assessment is to determine the trees that may be preferable, in terms of preservation, and to identify poor or insignificant trees that might be easily replaced or replaced with better species.

The arborist must also exercise judgement and expertise with respect to the types of trees that are deemed suitable for retention, and they should also consider what stage the tree is at in its overall lifecycle.

The site contained shrubs and a weed. The retention value of the vegetation on the site was rated 'Low' or 'None'. The low quality of the site vegetation supports an approach whereby existing trees and shrubs should offer limited constraint to the proposed design. All of the vegetation on the site is recommended for removal (Trees 3, 4 & 7). A local law permit is not required to remove any trees.

A factor that may influence site changes will be the proposed design in the vicinity of the street trees and neighbouring trees. The Tree Protection Zones for trees on adjoining land are indicated on the plan at Appendix 3.

Street tree 1 - *Corymbia eximia* (Yellow Bloodwood) is distant from any site changes and no harm is predicted towards it.

Street tree 2 - *Eucalyptus* sp. (Gum Tree) is also distant from any site changes and no harm is predicted towards it.

Neighbouring tree 5 - *Fraxinus angustifolia* subsp. *angustifolia* (Desert Ash) would not be exposed to and Tree Protection Zone encroachment and no harm is predicted to this tree from the proposed design.

Neighbouring tree 6 - *Pittosporum undulatum* (Sweet Pittosporum) would be exposed to Tree Protection Zone encroachment of 2% from the built form of Dwelling 2. The Structural Root Zone is avoided. No harm is predicted to this weed from the proposed design.

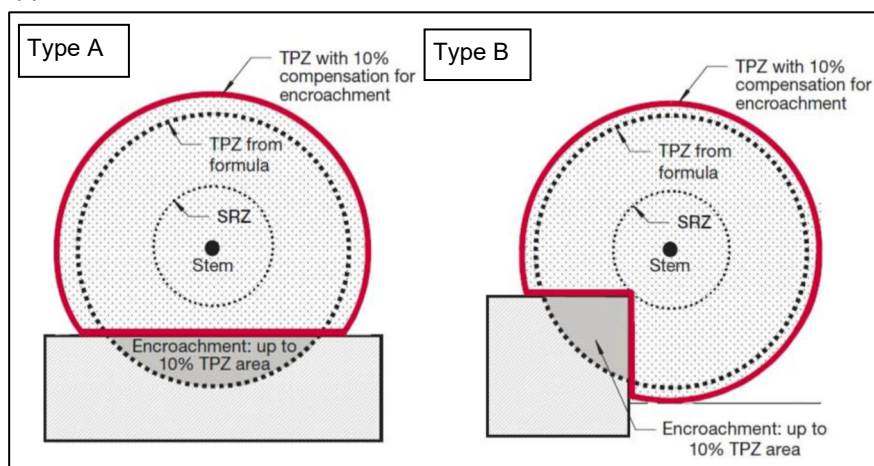
There are no other tree protection matters associated with trees or shrubs on adjoining land.

7.1 Tree protection zones on development sites

The level of encroachment and the impact to specific trees can be estimated by comparing standard or modified tree protection clearances with those clearances provided to trees in the development design. The overall impact towards a specific tree will be based on the severity of encroachment into the respective tree protection zones. The degree of root activity in the tree protection zone can vary significantly, which can result in more or less severe impacts to trees. The most accurate means of determining root activity in these zones is to undertake subsurface root investigations. The alternative to undertaking root investigations is to assign appropriate tree protection zones.

This report adopts AS4970-2009, Australian Standard – Protection of trees on development sites as the preferred tree protection method. The method provides a tree protection zone and a tree protection fencing distance (radial measurement from trunk centre) by using the width of the trunk at 1.4m above ground multiplied by 12. The prescribed TPZ distances are provided for each tree at Appendix 1 and illustrated for specific trees at Appendix 3a.

There is scope to reduce the tree protection zone by an area of 10% without further investigations. The rationale for any reduced tree protection distance is detailed in AS4970-2009 (*Australian Standard – Protection of trees on development sites*). Under encroachment Type A, it is acceptable to reduce the Tree Protection Zone (TPZ) area by 10%. This translates to a reduction in radial clearance distance of approximately 33% on one side of the tree only. This can be applied if there is contiguous space around the tree for root development to occur. The following diagram, from AS4970-2009, is provided to illustrate the approach.



8 Recommendations

- 8.1 The retention value of the vegetation on the site was rated 'Low' or 'None'. The low quality of the site vegetation supports an approach whereby existing trees and shrubs should offer limited constraint to the proposed design. All of the vegetation on the site is recommended for removal (Trees 3, 4 & 7). A local law permit is not required to remove any trees.
- 8.2 Street tree 1 - *Corymbia eximia* (Yellow Bloodwood) is distant from any proposed site changes and no harm is predicted towards it.
- 8.3 Street tree 2 - *Eucalyptus* sp. (Gum Tree) is also distant from any proposed site changes and no harm is predicted towards it.
- 8.4 Neighbouring tree 5 - *Fraxinus angustifolia* subsp. *angustifolia* (Desert Ash) would not be exposed to and Tree Protection Zone encroachment and no harm is predicted to this tree from the proposed design.
- 8.5 Neighbouring tree 6 - *Pittosporum undulatum* (Sweet Pittosporum) would be exposed to Tree Protection Zone encroachment of 2% from the built form of Dwelling 2. The Structural Root Zone is avoided. No harm is predicted to this weed from the proposed design.
- 8.6 Any vegetation in the study area that was not assessed as part of this report was considered insignificant, generally undesirable or sufficiently clear of any expected works.
- 8.7 Any proposed development on the site should make provision for landscaping and the planting of new trees.



Dean Simonsen (BAppSc Melb.)
Consultant Arborist

9 References

Australian Standard AS 4970, 2009. *Protection of trees on development sites*. Standards Australia

10 Definitions

The TPZ and SRZ are defined in AS4970-2009, Australian Standard – Protection of trees on development sites as:

Tree protection zone (TPZ)

A specified area above and below ground and at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.

Structural root zone (SRZ)

The area around the base of a tree required for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres. This zone considers a tree's structural stability only, not the root zone required for a tree's vigour and long-term viability, which will usually be a much larger area.

11 Expertise of Arborist to prepare report

Qualifications and expertise of consultant

- Bachelor of Applied Science, Horticulture (Plant Production) – University of Melbourne, Burnley College.
- Diploma of Applied Science, Horticulture (Arboriculture) – University of Melbourne, Burnley College. Dux of Arboriculture.
- More than 25 years of experience in the arboriculture/horticulture industry (private and local government experience).
- Consultant Arborist and Director at Tree Logic Pty Ltd from June 1999 to September 2011.
- Manager of Arboriculture – Royal Botanic Gardens, Melbourne (27 Months 1997-1999).
- Secretary for the Victorian Tree Industry Organisation (VTIO) 2007-2012.
- Financial member of the International Society of Arboriculture (ISA).
- Presented paper at the International Society of Arboriculture Conference, 2011 at Parramatta, NSW.

Expertise to prepare report

- My qualifications and experience have primarily involved the management of tree issues in the urban landscape. Specifically, this has involved hazard, general or detailed assessment of tree condition on private and public land with recommendations made on preservation strategies or remedial works.
- Tree assessments to establish tree health, tree structure and arboricultural values are core components of Treemap Arboriculture's business activities.
- Prepared in excess of 4000 development reports.
- I have experience at Victorian Civil Administrative Tribunal and the magistrate's court as an expert witness on arboricultural matters.
- I have inspected and assessed well over one hundred thousand trees and managed assessment programs for at least ten times as many.

Appendix 1

Tree Assessment Table

No	Species	Common Name	DBH (cm)	TPZ AS4970 (m)	SRZ AS4970 (m)	HxW (m)	Age	Health	Structure	Form	Comment	Tree Type	Retention value	Recommend
1	<i>Corymbia eximia</i>	Yellow Bloodwood	10	2.00	1.50	2.5x2	Semi-mature	Fair	Fair to Poor	Minor asymmetry		Australian native	Low	Street tree
2	<i>Eucalyptus</i> sp.	Gum Tree	15,11 (18.6)	2.23	1.70	4.5x4	Semi-mature	Fair	Poor	Minor asymmetry	Bifurcated with included bark	Australian native	Low	Street tree
3	<i>Callistemon viminalis</i>	Weeping Bottlebrush	16,15 (21.9)	2.63	1.82	5x6	Semi-mature	Fair	Poor	Asymmetric		Australian native	Low	Remove
4	<i>Callistemon salignus</i>	Willow Bottlebrush	22	2.64	1.82	4x3	Semi-mature	Fair	Poor	Asymmetric		Australian native	Low	Remove
5	<i>Fraxinus angustifolia</i> subsp. <i>angustifolia</i>	Desert Ash	30,30 (42.4)	5.09	2.40	9x13	Semi-mature	Fair	Poor	Asymmetric	Woody weed	Exotic deciduous	None	Neighbour's tree
6	<i>Pittosporum undulatum</i>	Sweet Pittosporum	10	2.00	1.50	3.5x2	Semi-mature	Fair	Poor	Minor asymmetry	Woody weed	Victorian native	None	Neighbour's tree
7	<i>Fraxinus angustifolia</i> subsp. <i>angustifolia</i>	Desert Ash	10	2.00	1.50	5x4	Semi-mature	Fair	Poor	Minor asymmetry	Woody weed	Exotic deciduous	None	Remove

*Descriptors in Appendix 2
DBH = Diameter at Breast Height in centimetres (bracketed dimension = modified diameter according to AS4970)
HxW= Height and Width of crown, in metres.
TPZ – optimum radial clearance distance as per AS4970.
SRZ – radial clearance distance to maintain tree stability, as per AS4970.
Woody weeds determined from White, M., Cheal, D., Carr, G. W., Adair, R., Blood, K. and Meagher, D. (2018). Advisory list of environmental weeds in Victoria. Arthur Rylah Institute for Environmental Research Technical Report Series No. 287. Department of Environment, Land, Water and Planning, Heidelberg, Victoria

Appendix 2

Descriptors

Field name	Description
No.	Tree identification number. Unique numbers are assigned to each assessed individual tree or tree group.
Species	Identifies the tree using the international taxonomic classification system of binomial (or trinomial) nomenclature (genus, species, variety and cultivar).
Common Name	Provides the common name as occurs in current Australian horticultural literature. More than one common name can exist for a single tree species, or several species can share the same common name.
DBH (Diameter at breast height)	Indicates the trunk diameter (expressed in centimetres) of an individual tree usually measured at 1.4m above the existing ground level. Multiple stemmed trees are calculated using a formula to combine the stems into a single stem for tree protection zone calculations.
TPZ (Tree protection zone)	Tree protection zone expressed as a radial distance in metres, measured from trunk centre. Based on AS 4970
SRZ (Structural Root Zone)	Radial distance in metres measured from trunk centre to maintain tree stability - AS4970
HxW (Height x Width)	Indicates height and width of single tree and measurement generally expressed in whole metres

Age	Description
<i>Young</i>	Sapling tree and/or recently planted
<i>Semi-mature</i>	Tree rapidly increasing in size and yet to achieve expected size in situation
<i>Maturing</i>	Specimen approaching expected size in situation, with reduced incremental growth
<i>Over-mature</i>	Tree is senescent and in decline

Health	Term assigned that provides a broad description of the health and vigour of the tree.					
Ratings	<i>Good</i>	<i>Fair</i>	<i>Fair to Poor</i>	<i>Poor</i>	<i>Very poor</i>	<i>Dead</i>

Structure	Term assigned that provides a broad description of the structure and stability of the tree.					
Ratings	<i>Good</i>	<i>Fair</i>	<i>Fair to Poor</i>	<i>Poor</i>	<i>Very poor</i>	<i>Failed</i>

Form	Description
<i>Symmetric</i>	Evenly balanced crown
<i>Asymmetric</i>	Crown biased in one direction; can be minor or major
<i>Stump re-sprout</i>	Adventitious shoots originating from stump or trunk
<i>Manipulated</i>	Hedge, pollard, topiary, windrow; managed for specific landscape use or aesthetic outcome

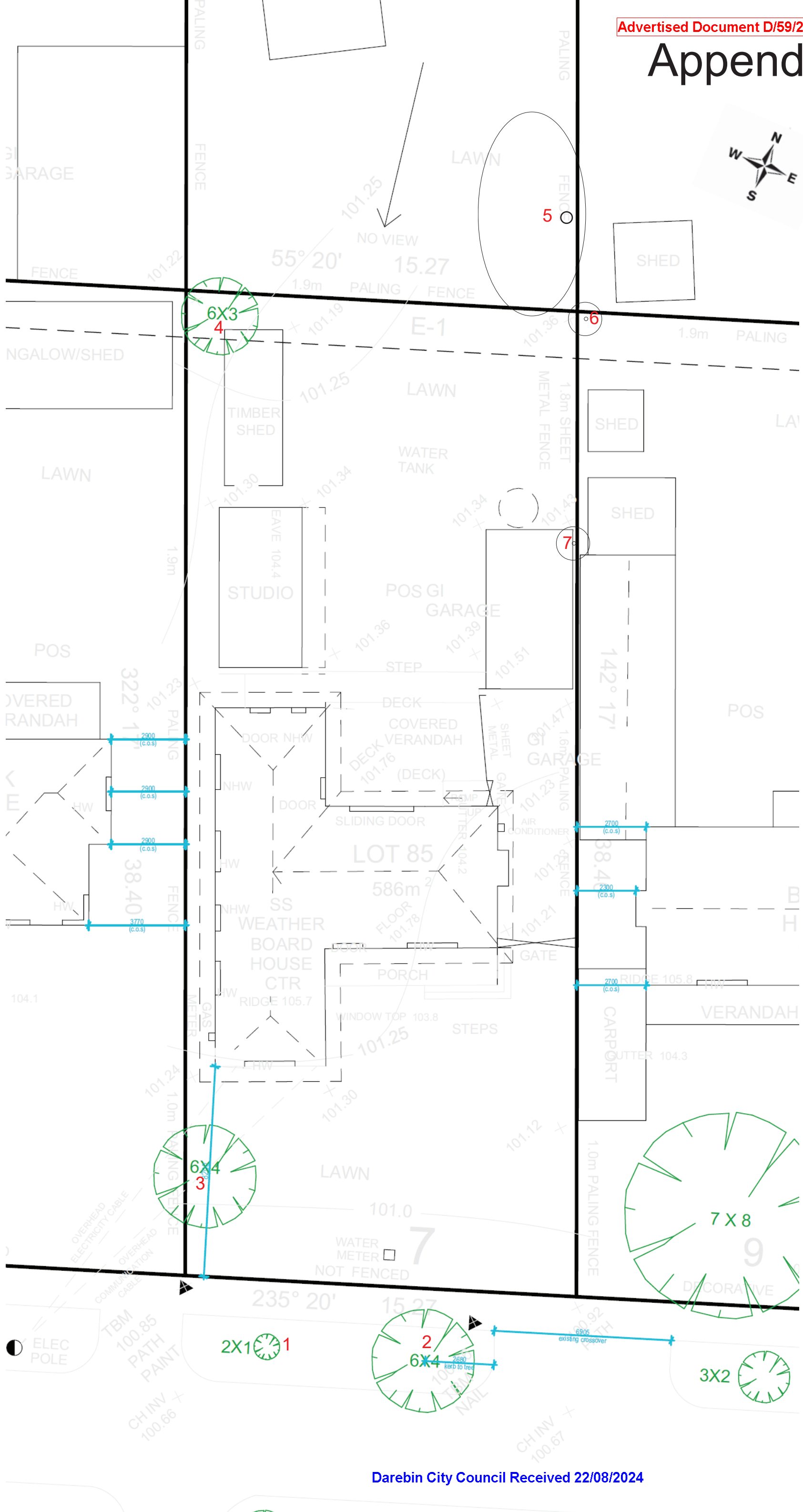
Comment	Additional comments that provide specific detail on the condition of the tree or management requirements
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Tree type	Description
<i>Indigenous</i>	Occurs naturally in the area or region of the subject site
<i>Victorian native</i>	Occurs naturally within some part of Victoria (not exclusively) but is not indigenous
<i>Australian native</i>	Occurs naturally within Australia but is not a Victorian native or indigenous
<i>Exotic deciduous</i>	Occurs outside of Australia and typically sheds its leaves during winter
<i>Exotic evergreen</i>	Occurs outside of Australia and typically holds its leaves all year round
<i>Exotic conifer</i>	Occurs outside of Australia and is classified as a gymnosperm
<i>Native conifer</i>	Occurs naturally within Australia and is classified as a gymnosperm
<i>Palm</i>	Woody monocotyledon
<i>Other</i>	Other descriptions as indicated

Retention value	Qualitative rating provided on tree based on assessment factors. Provided as a guide for management decisions.			
Ratings	<i>High</i>	<i>Moderate</i>	<i>Low</i>	<i>None</i>

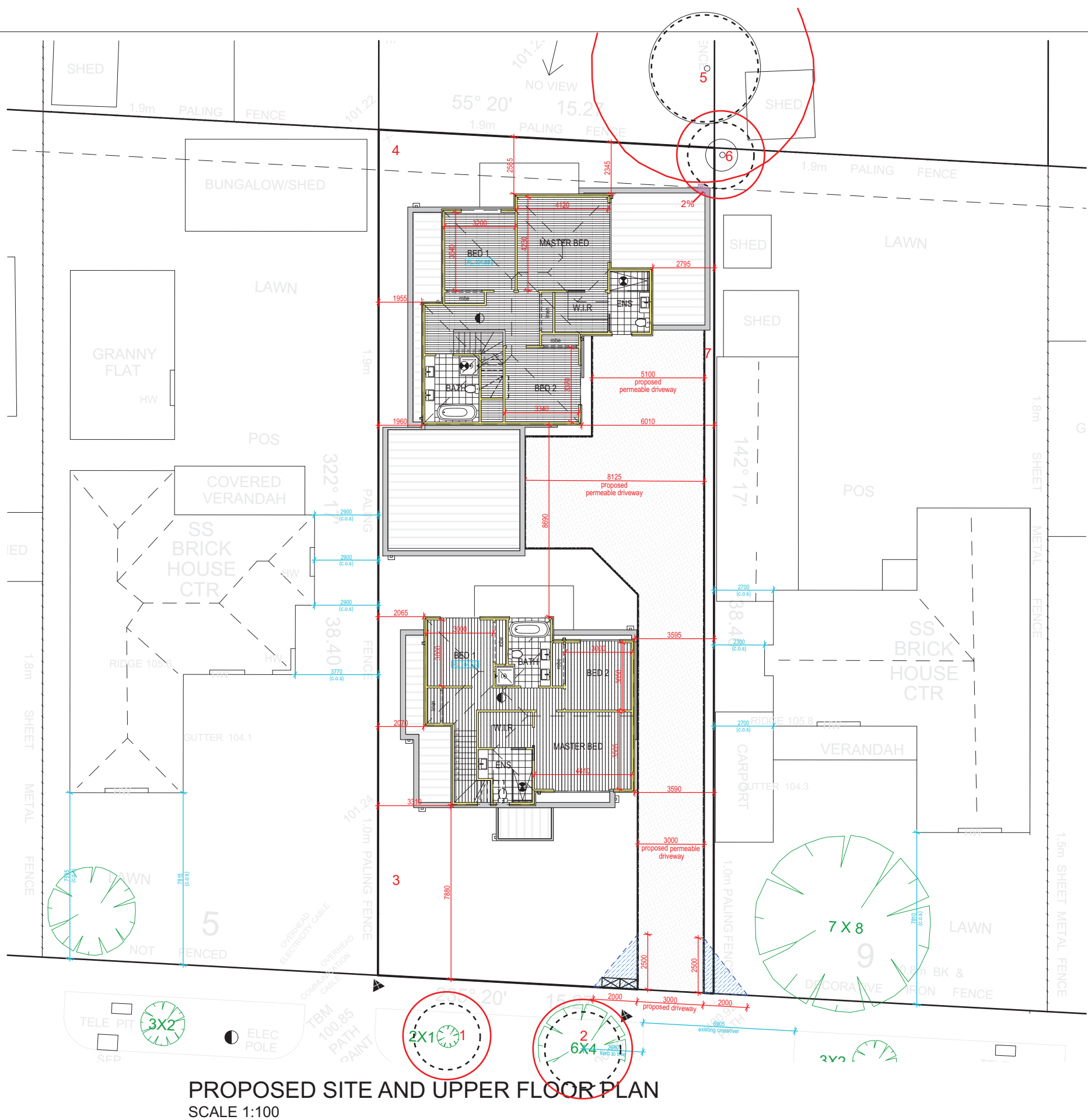
Recommend	Recommended action based on condition of the tree with reference to proposed site changes							
Responses	<i>Retain</i>	<i>Could be retained</i>	<i>Consider removal</i>	<i>Remove</i>	<i>Street tree</i>	<i>Neighbour's Tree</i>	<i>Already removed</i>	<i>Transplant</i>

Descriptors reviewed annually and subject to change



Appendix 3a

- TPZ - AS4970
- SRZ - AS4970



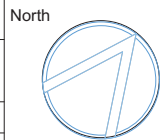
PROPOSED SITE AND UPPER FLOOR PLAN
SCALE 1:100

A1 DRAFTING
REAR 37 MACEDON ROAD, TEMPLESTOWE LOWER
PO BOX 2010, TEMPLESTOWE HEIGHTS 3107
www.a1drafting.com.au | info@a1drafting.com.au | 03 98503212

TOWN PLANNING
PROPOSED MULTI UNIT DEVELOPMENT
AT 7 LOCHER AVENUE, RESERVOIR
FOR BRENT TISDALE

NOTE: Contractors are to verify all dimensions on site before commencing any work. Any discrepancies to be referred to A1 Drafting for rectification. Do not scale. © COPYRIGHT A1. NO PART OF THIS DRAWING MAY BE REPRODUCED OR MODIFIED WITHOUT WRITTEN AUTHORISATION FROM A1 DRAFTING.			
DRAFTING AMENDMENTS	Checked	Date	Survey Details
			Engineering Details

Building Practitioner No:		
Designed	PD	Drg.No A111-22
Drawn	PD	
Checked	TW	Date 8/07/2024
Scale	1:100	Sheet 5 of 11



Assumptions and limiting conditions of arboricultural consultancy report

1. Any legal description provided to Treemap Arboriculture is assumed to be correct. Any titles and ownerships to any property are assumed to be correct. No responsibility is assumed for matters outside the consultant's control.
2. Treemap Arboriculture assumes that any property or project is not in violation of any applicable codes, ordinances, statutes or other local, state or federal government regulations.
3. Treemap Arboriculture has taken care to obtain all information from reliable sources. All data has been verified insofar as possible; however Treemap Arboriculture can neither guarantee nor be responsible for the accuracy of the information provided by others not directly under Treemap Arboriculture control.
4. No Treemap Arboriculture employee shall be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.
5. Loss of this report or alteration of any part of this report not undertaken by Treemap Arboriculture invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone but the client or their directed representatives, without the prior consent of the Treemap Arboriculture.
7. This report and any values expressed herein represent the opinion of the Treemap Arboriculture consultant and the Treemap Arboriculture fee is in no way conditional upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
8. Sketches, diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural drawings, reports or surveys.
9. Unless expressed otherwise: 1) Information contained in this report covers only those items that were covered in the project brief or that were examined during the assessment and reflect the condition of those items at the time of inspection; and 2) The inspection is limited to visual examination of accessible components without dissection, excavation or probing unless otherwise stipulated.
10. There is no warranty or guarantee, expressed or implied by Treemap Arboriculture, that the problems or deficiencies of the plants or site in question may not arise in the future.
11. All instructions (verbal or written) that define the scope of the report have been included in the report and all documents and other materials that the Treemap Arboriculture consultant has been instructed to consider or to take into account in preparing this report have been included or listed within the report.
12. To the writer's knowledge all facts, matter and all assumptions upon which the report proceeds have been stated within the body of the report and all opinion contained within the report have been fully researched and referenced and any such opinion not duly researched is based upon the writers experience and observations.